



Sumner Strait

- (1) This chapter describes Iphigenia Bay; Sumner Strait, and the many bays bordering it; the south part of Keku Strait including Rocky Pass, Duncan Canal, Wrangell Narrows, Dry Strait, Stikine River; and the city and harbor of Petersburg.

(2)

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- (3) **Sumner Strait** is one of the great inlets into southeastern Alaska from the sea. The strait has three entrances. The main entrance from the sea, between Coronation Island and Warren Island, is about 5.8 miles wide. Warren Channel, the entrance east of Warren Island, between it and Cape Pole, is about 1.2 miles wide and is used by vessels bound to and from Davidson Inlet and Bucareli Bay. Decision Passage, the entrance between Cape Decision and the Spanish Islands, is about 1 mile wide and is used by vessels bound to and from Chatham Strait. These entrances are described under separate headings.

- (4) The usual route of vessels bound north from Clarence Strait is by way of Snow Passage or Stikine Strait to Sumner Strait, and thence to Wrangell Narrows. Vessels too large to make the passage through Wrangell Narrows with safety continue west through Sumner Strait, round Cape Decision, and go north through Chatham Strait or west to sea by way of Cape Ommaney. In fog or thick weather, vessels bound around Cape Decision, instead of using the channel north of Spanish Islands, can continue south and round Helm Point, entering Chatham Strait between Hazy Islands and Coronation Island, or pass to sea south of Hazy Islands. Almost all of Sumner Strait has been examined, and the dangers are shown on the chart.

- (5) **Voluntary vessel traffic procedures** have been adopted for gillnet vessels and deep-draft vessels transiting the north section of Clarence Strait, Snow Passage and Sumner Strait in the vicinity of Point Baker. Traffic lanes, about 0.2 mile wide, have been established for these areas as follows:

- (6) **328°** from a point in Clarence Strait abeam of Point Stanhope in about 55°59.4'N., 132°39.8'W. to about 56°09.3'N., 132°50.8'W., thence;
- (7) **333°** to a point about 56°15.9'N., 132°57.0'W., thence around the east side of Bushy Island to about 56°17.2'N., 132°58.0'W., thence;
- (8) **299°** to a point about 56°18.6'N., 133°04.9'W., thence;

- (9) **315°** to a point about 56°21.0'N., 133°09.5'W., thence;

- (10) **277°** to a point about 56°23.0'N., 133°38.7'W., thence around Point Baker, about midway between Helm Rock and Mariposa Reef to a point about 56°22.5'N., 133°39.9'W., thence;

- (11) **204°** to a point abeam of Calder Rocks in about 56°15.1'N., 133°45.7'W.

- (12) Cruise ships, ferry vessels and other deep-draft vessels are requested to observe the following practices:

- (13) 1. Announce your presence 30–45 minutes prior to entering the areas and at regular intervals while transiting through the area.

- (14) 2. Avoid meeting and do not overtake vessels in Snow Passage.

- (15) 3. Travel along indicated tracklines as much as possible and maintain a safe speed.

- (16) Gillnet vessels should:

- (17) 1. Adequately mark the net end with lights and radar reflectors.

- (18) 2. Monitor VHF-FM channels 13 and 16 and listen for broadcasts by deep draft vessels in the area.

- (19) 3. Provide for two-way traffic of large vessels along the designated tracklines.

- (20) 4. Warn other gillnetters if they appear to be in the lane when there is commercial vessel traffic approaching.

- (21) 5. Do not place sleep sets within or adjacent to the shipping lane.

(22)

Currents

- (23) From the south entrance to Sumner Strait in Iphigenia Bay, the current floods north to the vicinity of Point Baker, where it turns east with an estimated velocity of 2 knots. West of Zarembo Island the current divides. One branch passes through Snow and Kashevarof Passages and meets the flood current from Clarence Strait near Key Reef. The second branch sets north and east of the island until it meets and is overcome by the current from the Stikine River. The ebb sets in generally the opposite direction with considerably greater velocity. The edge of the current from the Stikine River is well defined by its muddy white appearance. Near the end of the ebb, it is sometimes noticed to be west of Vank Island and south in Chichagof Pass and Stikine Strait. Between Point Baker and Strait Island, the irregularities of the bottom produce heavy swirls and surface disturbances.

- (24) The ebb current flows from the vicinity of Wrangell through Sumner Strait and through Stikine Strait and Chichagof Pass to Clarence Strait.

(25) It is reported that strong currents and heavy tide rips occur off Cape Decision, Fairway Island, Point St. Albans and the small islands to the north.

(26) (See the Tidal Current Tables for daily predictions.)

(27)

Weather

(28) The south part of Sumner Strait is most susceptible to strong winds with a south component, whereas the north part is vulnerable to easterlies. These winds blow year round but are strongest from October through February when gales in the nearby open sea occur about 10 percent of the time and wave heights of 10 feet or more are encountered about 15 to 20 percent of the time; many of these open-ocean waves arrive from southeast through southwest. Reduced visibility is a problem from June through September. Visibilities of less than 2 miles are encountered 10 to 15 percent of the time, most often in the north part of the Strait.

(29)

Iphigenia Bay

(30) **Iphigenia Bay** extends between the Maurelle Islands on the east and Coronation Island on the west and is the approach from the sea to Sumner Strait, Warren Channel, Davidson Inlet, Bocas de Finas, Sonora and Arriaga Passages. The depths are generally good, but the bottom is very irregular, and there are several dangers. On the east side of the bay, deep water prevails until within 1.5 miles of a line passing from the northwest end of St. Joseph Island to Timbered Islet to Losa Islet, where the depths become irregular.

(31) Vessels bound from the south for Davidson Inlet and Warren Channel should give Timbered Islet a berth of 1 to 1.5 miles; those bound for Sumner Strait should favor the Coronation Island side of the entrance. Those bound for Cape Ommaney can pass between Hazy Islands and Coronation Island on a midchannel course or pass outside of the Hazy Islands, giving them a berth of at least 1 mile.

(32)

Warren Island to Decision Passage

(33) **Warren Island** is almost rectangular in shape, with numerous peaks. **Warren Peak**, near the north end of the island, is snow covered from November to May. From north it shows prominently as a sharp, almost conical peak. From west, the skyline appears as a series of jagged summits; near the south end of the island it appears lower and rounding. From the south, the skyline appears ragged and irregular. The land rises abruptly from the shore and is heavily timbered; the peaks are generally bare.

(34) With the exception of small stretches of sand beach in Warren Cove, False Cove and the two small coves in the north coast, the shoreline is a rocky shelf. Off-lying rocks that bare at different stages of the tide are from 50 to 600 yards off the west coast and about 175 yards off the south coast.

(35) Off the south end of Warren Island are three groups of dangerous, rocky, unmarked shoals. The outermost group, about 2.8 miles south of **Boot Point**, does not show but breaks occasionally with a long heavy break at low water. Another group, about 2.7 miles southwest of Boot Point, has two rocks awash, one of which uncovers 8 feet. The third group, about 1.5 miles southwest of the point, has a rocky islet 15 feet high. **Alice Rocks**, with a least depth of 1¼ fathoms, are about 0.3 mile northwest of the islet. Between the islet and Boot Point heavy tide rips were observed when the wind was against the current. Broken ground and shoals with a least depth of 2 fathoms were found in this area, and it should be avoided.

(36) **Point Borlase** is an indefinite point at the northwest end of Warren Island. **Borlase Rock**, with two rocky heads that uncover 3 feet and generally show as a breaker, is 0.7 mile west of Point Borlase. A group of rocks with a least depth of 2 fathoms is from 1.3 to 1.6 miles south of Borlase Rock and about 0.5 mile offshore. A 6½-fathom spot is about 0.4 mile northeast of the north end of Warren Island. A large kelp patch with a depth of 3¾ fathoms is 500 yards off the northwest shore of the island about 1.4 miles northeast of Point Borlase.

(37) The two small coves in the northwest coast of the island close east of Point Borlase offer protection for small craft in southeast weather. Anchorage may be had in 4 fathoms, mud bottom.

(38) **Warren Cove** is on the east shore of Warren Island, about 2 miles from the south end. In entering, favor the south shore and give it a berth of at least 300 yards until inside the entrance, thereby avoiding a shoal covered 1½ fathoms that extends about 250 yards north from the south point at the entrance. A rock awash is 250 yards south of the north point at the entrance. Between this rock and the shore is a bare rock. This area is usually kelp marked. At low water a sand beach extends a considerable distance from the head of the cove. There is a small gravel beach just inside the entrance on the south side of the cove; the light color of it may often be distinguished at night.

(39) Anchorage may be had in 7 fathoms, sand bottom, in the center of Warren Cove. A heavy swell enters the cove during southeast weather. At night, in the approach to the cove from the south, the entrance is not readily picked up, because the headland to the north shows prominently, while that to the south does not, and the entrance to False Cove is easily mistaken for that to Warren Cove.

(40) **False Cove**, the small bight 1.5 miles north of Warren Cove, affords anchorage in depths of 4 to 5 fathoms, sand bottom, behind the kelp-marked rocks awash that extend across the north half of the entrance.

(41)

Local magnetic disturbance

(42) Differences of as much as 4° from normal variation have been observed in False Cove.

(43) **Warren Channel** leads between Warren Island and **Kosciusko Island** to the east. No outlying dangers were found in the channel proper, which has depths

of 17 to more than 100 fathoms. Numerous islets and rocks above water extend about 2.8 miles south from the southwest point of Kosciusko Island; **Black Rock**, the southernmost, is 50 feet high and pointed on top. **Cape Pole** is the west point of Kosciusko Island. In 1975, a rock awash was reported south of Black Rock in about 55°52'00"N., 133°45'41"W.

- (44) The tidal currents set north on the flood and south on the ebb. The currents have a velocity of 1.4 knots on the flood and 2.4 knots on the ebb. Heavy tide rips form northwest of the entrance to Pole Anchorage.

- (45) **Halibut Harbor**, on the south side of Kosciusko Island, east of its southwest point, is protected by numerous islands and affords anchorage for small vessels in 16 fathoms. The entrance is foul, and only those with local knowledge should attempt to enter.

- (46) **Coronation Island**, west of Warren Island, is triangular in shape, divided into three peninsulas by Windy Bay on the west side and Aats Bay on the north side, the heads of which are separated by a range 1 mile in the center of the island. From offshore, the northeast peninsula shows heavily wooded ridges of moderate slopes but without characteristics of interest to the navigator. The west and north sides of the island are described with Chatham Strait.

- (47) The south end of Coronation Island appears from offshore to the west as timbered ridges with gentle slopes from **Needle Peak**, in the center of the island, to Helm Point, where they terminate in yellow and reddish cliffs. The summit of Needle Peak is not very definite and appears flat with a series of sharp knobs of a grayish color.

- (48) **Windy Peak**, on the northwest side of Windy Bay, is prominent. From the west and southwest it shows as a cone marked by a large landslide. From the northwest and south it shows as a flat-topped mountain with a small knob on the west end.

- (49) **Pin Peak**, on the northwest end of the island, is easily recognized as a long ridge covered with trees and shrubs. Near the south part of the ridge is a conspicuous knob or point. The ridge for several hundred feet below the summit is loose rock, without vegetation, and shows as light yellow from a west direction. The peak is not conspicuous from a north direction, because it shows against higher peaks to the south. From the summit the ridge has a rounding slope to the depression between it and Windy Peak. To the north the slope is gradual and drops in a long hollow or concave shoulder to a height of 900 feet, where there is an abrupt and noticeable change to a steep slope that ends at the shoreline.

- (50) **Helm Point**, perhaps the most conspicuous and prominent headland in southeastern Alaska, is the south extremity of Coronation Island. Differing from most of the capes and points in this section, which have moderate slopes, it rises vertically in sheer weather-beaten cliffs to a height of 1,085 feet and ends abruptly in what appears to be flat tableland. The point is cut by numerous crevices and caves, one of which shows prominently from the south. Devoid of vegetation, of a light yellow

to reddish color, barren and bleak, it is the nesting place of thousands of sea birds. Local conditions are such that it is generally visible in moderately thick weather when other sections are not visible. In approaching Helm Point in thick weather, the soundings give very little indication of shoaling or the existence of rocks. Two rocks, awash at half tide, and a reported 5-fathom shoal, are 1.4 miles 240°, and 0.4 mile southeast, respectively, from Helm Point Light.

- (51) **Helm Point Light** (55°49'35"N., 134°16'11"W.), 140 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the south extremity of a point about 0.4 mile east-northeast of Helm Point. This point has the appearance of a dome-shaped grassy islet that is prominent from northeast and southwest. The light marks the west side of the entrance to Sumner Strait.

- (52) **China Cove**, just north of Helm Point Light, is an open bight into which a heavy swell enters in southeast weather. The sandy bottom slopes gently, and anchorage may be had in 5 to 10 fathoms.

- (53) From Helm Point to Cora Point, the coastline is marked by ledges and cliffs. Rocks extend about 600 yards offshore.

- (54) **Cora Point** is the extremity of a projecting ledge at the northeast end of Coronation Island. **Cora Island**, a small wooded islet about 0.7 mile south of Cora Point, is about 170 feet high and has a cluster of rocks close-to. A clump of trees on the island shows prominently from the direction of Helm Point. Small craft may find protected anchorage in southeast weather behind the island, in 6 fathoms, mud, sand and gravel bottom.

- (55) The **Spanish Islands** are a chain of wooded islands and rocks that extend north from the northeast extremity of Coronation Island in the direction of Cape Decision. At its northeast end, the south large island has a wooded summit that shows prominently from the west. A small rocky islet with a scrub growth is 0.3 mile off the west shore.

- (56) A submerged rock is about 1.6 miles west-northwest of the northwest end of the southernmost of the Spanish Islands. During severe weather the seas pile up heavily. Rocks awash and submerged rocks extend up to 0.2 mile off the east side of the north island.

- (57) A narrow 20-fathom channel separates Coronation Island and the south Spanish Island. The chart shows the dangers, and courses can be laid out as desired. Tide rips are usually very heavy in this channel.

- (58) **Spanish Islands Light** (55°59'13"N., 134°06'17"W.), 38 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the north extremity of the northernmost of the Spanish Islands. The light marks the southeast side of Decision Passage.

- (59) **Cape Decision**, the south extremity of Kuuiu Island, is a low, bare, rocky point, from which the land rises gradually to an irregular, timbered ridge. It stands out well when approached from a direction to pass through

the passage between it and the Spanish Islands. Avoid the large kelp patches 1.5 and 2 miles northwest from the cape and about 0.8 mile off the Kuiu Island shore.

- (60) **Cape Decision Light** (56°00'05"N., 134°08'09"W.), 60 feet above the water, is shown from a white square tower on a white square building at the south end of the cape.

- (61) **Decision Passage**, 1 mile wide between Cape Decision and the Spanish Islands, is used by large vessels bound from Sumner Strait to Chatham Strait or Cape Ommaney. The passage is clear; however, the cape and the islands should be given a berth of not less than 0.2 mile. Vessels rounding the cape are cautioned to give this area sufficient berth.

- (62) The large body of water to the west of the Spanish Islands and to the north of Coronation Island has been closely surveyed, and all dangers found are shown on the chart. After prolonged severe gales, very heavy breakers have been seen on spots where the shoalest water was found.

(63)

Keku Strait to Mariposa Reef

- (64) This section covers the west side of Sumner Strait from Cape Decision to the south entrance to **Keku Strait**. From Iphigenia Bay to Strait Island, Sumner Strait follows a north direction, and at Strait Island it turns east to its junction with Stikine Strait near the town of Wrangell.

- (65) The west side of Sumner Strait between Cape Decision and Keku Strait is indented with many inlets and bays and has many islets, rocks and reefs that extend from 1 to 2 miles off the main shore into the strait. Lighted buoys mark the outermost dangers.

- (66) **Fairway Island** (56°02.4'N., 134°03.1'W.), small and wooded, is on the west side of the south end of Sumner Strait about 3.6 miles northeast of Cape Decision Light. It is surrounded by kelp, rocks and reefs, bare at various stages of tide. Two rocks with 6- and 7-foot heights are 0.5 mile south of the island and nearby is another rock that uncovers 10 feet.

- (67) **Port McArthur** is about 4.5 miles north of Cape Decision. It is protected at the entrance by a group of islands and reefs, and it affords anchorage that is not secure because large swells run to the head of the bay. For small craft the most secure anchorage is in 4 fathoms behind South Island. In bad weather the landing can be made behind the island, from where an emergency trail leads to Cape Decision Light. In 1968, this trail was reported poorly maintained and difficult to follow. The entrance to Port McArthur leads north and west of North Island and has a clear width of 300 yards between the kelp patches. Fresh water can be had from small streams at the head of the harbor.

- (68) **North Island** and **South Island**, at the entrance to Port McArthur, are low and wooded, with surrounding ledges; they are about 0.5 mile apart north and south. Between them are a rocky islet and numerous rocks

awash and ledges surrounded by kelp. The passages south of South Island, and between South and North Islands, are shoal and rocky and should not be attempted without local knowledge.

- (69) Two large kelp patches are about 0.4 mile and 0.5 mile east and east-southeast, respectively, from North Island. The south patch has a least depth of 1½ fathoms, and the north patch has a least depth of 3 fathoms.

- (70) Kelp patches and an area of foul ground extend to the west and north of North Island for a distance of 0.3 mile. When entering Port McArthur, give this area a good berth.

- (71) **Lemon Point**, on the opposite side of the entrance channel, is low and has several bare rocks off it. On the southeast and south sides kelp extends a short distance out, and the point should be given a berth of 400 yards in rounding into the port. A reef, covered at half tide, 0.4 mile east-northeast of the outer bare rock off Lemon Point, is marked by **Lemon Point Rock Light** (56°04'22"N., 134°06'42"W.), 26 feet above the water with a red and white diamond-shaped daymark on a skeleton tower. The reef is surrounded by kelp and is the only serious danger on the west side of the channel.

- (72) To enter Port McArthur, pass north and west of North Island and southeast of Lemon Point Rock Light. When the outer rock off Lemon Point is abeam, round the point and keep in midchannel to the anchorage.

- (73) The shores of Port McArthur are steep-to; the 5-fathom curve is less than 200 yards off the high water line except at the head of the bay. Anchorage depths are about 16 fathoms with the exception of south of Lemon Point where there is a depth of 12 fathoms.

- (74) **Affleck Canal**, the entrance to which is west of Point St. Albans and northwest of Fairway Island, is 14 miles long in a north direction. The depths in general are great but very irregular, especially near the shores and at the head of the canal.

- (75) **Marble Islet**, named from its formation, marks the west point of the entrance to Affleck Canal. Near it are several rocks awash.

- (76) **Bush Islets**, on the south side of the entrance to Kell Bay, are three in number and from 10 to 12 feet high. The two north islets are sparsely wooded. The area to the west is foul and covered with thick kelp during the summer.

- (77) A dangerous rock, covered 1 fathom, is in Affleck Canal, 1,300 yards 151° from the center of Bush Islets. From this rock a kelp patch extends in a northwest direction for about 250 yards.

- (78) **Kell Bay** is about 7 miles north of Fairway Island on the west side of Affleck Canal. One mile inside the entrance and about 500 yards off the south shore is a wooded islet 10 feet high; deep water exists between this islet and the south shore of the bay. An area of foul water, marked by thick kelp in the summer, extends for a distance of about 0.4 mile northwest from the north end of the islet. Within this area are several rocks and islets, bare from 3 to 15 feet at high water, and, in addition, there are rocks with 2 to 9 feet over them at low water.

The north shore of the bay is very broken, with numerous indentations, wooded islets and rocks.

- (79) At the head of the bay are two arms that extend in a northwest and southwest direction. The northwest arm is about 1.5 miles long. Two wooded islands and numerous rocks mark the south side of the entrance. Vessels entering this arm should proceed with caution, favoring the north shore until abreast the largest wooded islet, and then favor the south shore in order to avoid the rocks awash and bare 8 feet at low water, near the north shore. The entrance to the extreme head of the arm is blocked by obstructions that do not permit entry of even small vessels at low tides.

- (80) The southwest arm is separated from the main body of Kell Bay by three wooded islands. To enter, pass midchannel between the islands and the southwest shore, follow the southwest shore at a distance of 150 yards until the south point of the west island has passed abeam. Then stand in midchannel, taking care to round the south side of the island at a distance of 200 yards so as to avoid the ledge that extends about 150 yards offshore. Anchorage may be had in 9 to 12 fathoms, soft bottom.

- (81) The basin at the head of the southwest arm affords excellent anchorage for small craft in depths of 4 to 5 fathoms, soft bottom. The entrance is constricted, being only 30 to 35 yards wide, and vessels entering are advised to proceed with caution keeping close to the west shore, which is abrupt and steep-to.

- (82) Affleck Canal is clear east of the small wooded islet, about 10 feet in elevation, about 1 mile north of Kell Bay. There are several rocks in the immediate vicinity of this islet. A lagoon, connected with Affleck Canal at high water, is on the west shore about 2 miles north of Kell Bay.

- (83) **Bear Harbor** is on the west side of Affleck Canal, about 4 miles north of Kell Bay. From the entrance to its head, it is about 2 miles long in a northwest direction. The harbor has three arms; the east is deep and open to the south; the middle and west arms are sheltered and afford suitable anchorage for small vessels. The approach to these two arms is south of the island at the entrance. The deepest part of the channel, about $5\frac{1}{4}$ fathoms, is 100 yards off the shore of the island. Favor the shore of this island in entering and navigate with caution. After the east tip of the island is passed abeam by 100 yards, a midchannel course will lead over a $\frac{1}{2}$ -fathom spot marked by kelp. This spot is the end of a reef making out from the south shore.

- (84) After the entrance is passed, midchannel courses lead into the west arm that is deep except along the south shore near the head.

- (85) A midchannel course is followed in the middle arm until about 1 mile from the entrance when the east shore is followed at a distance of about 200 yards. This arm is deep to within 0.5 mile of its head where it shoals gradually to the tidal flats off the mouth of the principal streams that empty into Bear Harbor.

- (86) On the west shore of Affleck Canal, about 3 miles north of Bear Harbor, is a grass-topped islet, about 5 feet

high. A depth of about 10 fathoms can be carried to about 1 mile south of the head of the canal by favoring the west shore at all times in order to avoid the extensive kelp patches and shoals in the east side. About 1 mile south of the head of the canal, the east shore is foul and studded with rocks; the foul area extends from 300 to 400 yards offshore.

- (87) The two main inlets on the east side of Affleck Canal are not recommended as shelter; the heavy ground swell runs into both, well toward their heads. The entrances of both are free of obstructions. The south inlet, which is about 500 yards long, is about 5.5 miles north of the east entrance point of Affleck Canal. Inside are depths of 5 to 7 fathoms, soft bottom. A group of rocks that bare 7 feet and are surrounded by kelp are about 0.7 mile 232° from the south entrance point of this inlet.

- (88) The north inlet about 1 mile further north has an entrance about 350 yards in width and extends east for about 0.8 mile. Its center has depths of 9 to 12 fathoms. Vessels desiring to enter this inlet should favor the north shore, as a rock that bares 6 feet is about 340 yards inside the entrance and about 70 yards off the south shore.

- (89) **Point St. Albans** is about 7.5 miles northeast of Cape Decision. Rocks and heavy kelp extend 1.1 miles south, and a 3-fathom spot is 1.8 miles south of the point; heavy tide rips and swirls may be experienced off this extensive kelp patch. Off-lying rocks and reefs extend to a distance of 0.3 mile offshore along the east shore of Affleck Canal to the point opposite Marble Islet.

- (90) **Point St. Albans Reef** is an extensive foul area, about 1.6 miles east-northeast of Point St. Albans. The highest part of this area is a rock awash at high water, in the northwest part of the kelp patch. Numerous other rocks bare at various stages of the tide. A lighted whistle buoy, off the east end of the reef, also marks a $6\frac{3}{4}$ -fathom shoal. Vessels should pass to the east of the buoy.

- (91) From Point St. Albans to **Point Amelius**, about 7.5 miles to the north, islands and reefs extend offshore to a distance of 1.5 miles. This section of the coast is foul and marked by kelp. A rock awash at low water is in the kelp patch about 2.8 miles northeast of Point St. Albans. There are passages between and inside the group of islets located 4 miles north of Point St. Albans. This area is foul, with numerous rocks and kelp patches, and only those with local knowledge should enter. Small vessels may find shelter in the two small bays 3 miles and 4.5 miles north of Point St. Albans. The bays are exposed to the east, and there are shoals off the approaches.

- (92) **Amelius Island Shoal**, a rocky shoal with a least depth of $4\frac{1}{4}$ fathoms, is about 1.8 miles east-southeast of **Amelius Island**, the outermost islet off Point Amelius. A lighted buoy is on the east side of the shoal. Deep-draft vessels should avoid passing close to the buoy.

- (93) The bight west of Point Amelius is exposed to the southeast and is used only as a temporary anchorage. **Louise Cove**, on its west side near the head, affords anchorage for small vessels in $3\frac{1}{2}$ fathoms.

- (94) An isolated 3¼-fathom shoal is about 2.5 miles north of Amelius Island and about 0.3 mile offshore.
- (95) **Port Beauclerc** is a large arm on the west side of Sumner Strait, the entrance to which is about 11 miles north of Point St. Albans and 10 miles west-southwest of Point Baker. **Beauclerc Island**, small and wooded, is off the middle of the entrance, with a wooded islet close north of it.
- (96) **Beauclerc Island Light** (56°15'27"N., 133°51'16"W.), 30 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on a rock on the east side of the island. A reef extends 300 yards east from the small wooded islet.
- (97) The narrow passage south of **Edwards Island** is clear and deep in midchannel. The east shore of the cove, northwest of Edwards Island, is formed by a small island with a very small islet off its north end. The entrance to the cove is north of the islet.
- (98) There is anchorage, exposed to the south, in the bight on the east shore, 3 miles from the entrance to Port Beauclerc.
- (99) Anchorage in Port Beauclerc may be had north of the small island that is about 1.4 miles north of Edwards Island, but the anchorage is obstructed by a large kelp patch, with a depth of 3 fathoms and possibly less, which is 0.7 mile north from the small island. Good anchorage may be found south of Edwards Island in 20 fathoms, sand bottom; enter from the east in midchannel on a course of 278°. Small-boat anchorage is available in the small cove west of the charted rock awash on the south side of this island, or in the cove on the Kuiu Island side south of the east end of Edwards Island.
- (100) Anchorage may also be had in the south arm in 4 or 6 fathoms, mud bottom. Enter by the narrow passage south of Edwards Island and slightly favor the east shore of the arm to avoid a sunken rock, marked by kelp, 1 mile west of the west end of the narrow passage south of Edwards Island. On the east shore of the arm, 1 mile southeast from the narrow passage, is a point close to a 3½-fathom spot.
- (101) **Caution**
- (102) Where local knowledge is lacking, caution is advised in entering Port Beauclerc.
- (103) **Boulder Point**, about 4 miles north from Beauclerc Island, is a bold rounding point with numerous rocks close-to.
- (104) **Reid Bay** is on the west side of Sumner Strait, 3 miles north of Boulder Point. It has two islets and several outlying rocks along its northwest shore and rocks awash south of the islets in midchannel. Small craft may anchor in the cove on the west side of the peninsula point at the south side of the entrance to the bay in 5 to 6 fathoms, mud bottom. There are dangers off the points at the entrance to this cove, and it should be entered with caution. A kelp-marked reef with rocks awash is 1.8 miles west-southwest from the south end of Sumner Island.
- (105) **Sumner Island** is 4.3 miles north-northeast of Boulder Point. It has steep, rocky shores and is surrounded by small rocky islets that extend northwest to Kuiu Island and southeast from the southeast point of the island for about 0.5 mile. Several reefs extend a short distance off the northeast shore of the island and should be approached with caution.
- (106) **Alvin Bay**, northwest of Sumner Island, is clear of dangers except for a depth of 1¾ fathoms in the center near where it starts to narrow. At this point a small islet is on the south side of the bay with a rock between it and the south shore; there are also rocks north of the islet.
- (107) To enter, pass north of the islet leaving the detached rocks on the starboard side. Good anchorage may be had inside in 4¼ fathoms, mud bottom. With caution, this entrance can be made easily. The bay is used extensively for anchorage during the fishing season.
- (108) **Strait Island** is in the middle of Sumner Strait 3 miles northwest of Point Baker. It is divided into two parts at high water and is low and wooded. **Mariposa Reef**, which partly bares, extends about 0.8 mile south from the island. A lighted bell buoy is about 250 yards off the south end of the reef.
- (109) A rock that uncovers at low water is 0.3 mile west-northwest of the northwest tip of Strait Island; it is not marked by kelp, and there are strong currents around it. A shoal covered 2¼ fathoms is 0.35 mile south of this rock, and another shoal area, covered 2¾ fathoms, is about 0.2 mile west-southwest of the rock.
- (110) **Western Channel to Point Hardscrabble**
- (111) **Warren Channel to Point Baker** covers the east shore of Sumner Strait below Strait Island. Shipley Bay, Shakan Bay, Shakan Strait and Port Protection are the important harbors in this section. The coast is bold and rugged with many off-lying rocks and islets. Calder Rocks and Helm Rock are the principal offshore dangers.
- (112) **Voluntary vessel traffic procedures** have been established for gillnet vessels and deep-draft vessels transiting **Sumner Strait** in the vicinity of Point Baker. See the description of Sumner Strait at the beginning of this chapter for designated tracklines and procedures.
- (113) **Pole Anchorage**, on the east side of the south end of Sumner Strait, affords an anchorage for small vessels, protected from northeast and southeast winds; it is exposed to west winds and swells. The southwest point of the entrance is a large mass of grassy-topped rocks, about 10 feet high, that extend about 0.6 mile north of **Cape Pole**; the passage between them and the cape has many bare rocks and almost dries. There is considerable kelp for some distance north of the grassy-topped rocks. The north point at the entrance is a wooded islet close to shore; kelp extends some distance northwest of it, also about 100 yards west.
- (114) Anchorage can be had in 10 to 11 fathoms, mud bottom, with the north end of Warren Island showing

about midway between Cape Pole and the grassy-topped rocks. Small fishing vessels may find suitable anchorage southeast of Cape Pole, east of a large kelp patch, in any desired depth.

- (115) **Fishermans Harbor**, a bight northeast of Pole Anchorage, is used extensively by small fishing craft. **Cape Pole** is a settlement at the east side of the harbor. A 60-foot small-craft and seaplane float is operated by a logging camp on the east side of the harbor. In 1976, the reported depth alongside was 18 feet. A T-shaped wharf is on the southwest side of the harbor opposite the small-craft and seaplane float. In 1983, the T-shaped wharf was reported not in use. South of the small-craft and seaplane float are groups of piling used for log storage. Gasoline, water, limited provisions and a small machine shop are available in an emergency only. A freight boat from Ketchikan visits weekly, and radiotelephone communications are maintained.

- (116) **Fishermans Harbor Light** (55°58'02"N., 133°47'43"W.), 17 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the edge of a reef on the southeast side of the harbor. A daybeacon is on a reef on the east side of the entrance to the harbor.

- (117) To enter Fishermans Harbor at the south end, **steer 149°** heading for Fishermans Harbor Light, being careful to avoid the reefs and a submerged pile on the northeast side of the channel in about 55°58'21"N., 133°47'54"W., then haul gradually south, heading for the west side of the float on the east side of the harbor. When abreast of the float, anchor in any desired depth. The channel has a controlling depth of 2½ fathoms about 0.3 mile northwest of the light but deepens gradually when approaching the float.

- (118) **Point Hardscabble**, about 2.2 miles northeast of Cape Pole, is not very prominent. Two small islets are about 600 yards west of the point. There are depths of from 4½ to 11 fathoms between the extensive kelp patches that are between the islets and the point. A small cove, 5.5 miles north-northeast of Cape Pole, affords protection from south weather for small vessels but is open to north.

(119)

Ruins Point to Calder Rocks

- (120) **Ruins Point** (56°04.0'N., 133°42.0'W.), 8 miles north-northeast of Cape Pole, is on the south side of the entrance to Shipley Bay. The point is poorly defined and has no prominent features. **Finger Shoal** and other foul ground extend about 0.5 mile from the shore in the vicinity.

- (121) **Shipley Bay**, entered about 2 miles northeast of Ruins Point, has good anchorage available at the head. **Bluff Island**, 200 feet high and wooded, is in the middle of the entrance. The vertical east face is a rookery for sea birds; the west side has gradual slopes. Islets and

rocks extend about 0.4 mile from the west extremity of the island.

- (122) The south approach to Shipley Bay extends between the south tip of Bluff Island and a tiny islet 0.5 mile north of the south shore. The area between the islet and the south shore is mostly foul, and passage should not be attempted except by small craft with local knowledge. A rock awash at minus tides is 1 mile southeast of the south tip of Bluff Island; navigable water extends on all sides of this rock that is surrounded by thick kelp and is easily distinguishable at all stages of tide during summer. From a small wooded islet on the north side of the entrance, foul ground extends for about 0.7 mile southeast. This constricts the passage to a width of only about 0.5 mile along the south shore. east of this point, however, the bay is generally clear, although the depths are irregular and there are several rocks 100 to 200 yards off the south shore.

- (123) About 4 miles from the entrance, the bay is constricted by a promontory jutting out from the south shore. A small wooded islet surrounded by foul ground is off the point. West of the point is a large bight in which are two islands. Anchorage in 3 to 10 fathoms is available in the bight west of the islands, poor holding ground. Winds are reported to draw with great force through the gap to the south during southeast storms.

- (124) The best anchorage is near the south shore at the head of the bay, just east of the point 1 mile from the head of the bay, in depths of 15 fathoms, mud bottom, and good holding ground. A small cove just west of the point is suitable for small craft; depths are 3 to 5 fathoms, mud and sand bottom.

- (125) Shipley Bay may be entered safely from either side of Bluff Island.

- (126) **Shakan Bay** is on the east side of Sumner Strait about 6 miles north-northeast of Ruins Point. The bay, including Shakan Strait, is circular in shape. Its entrance is between Shakan Island on the south and the Barrier Islands on the north. The center of the bay is almost filled with islands. At the east extremity of Shakan Strait, the bay connects with El Capitan Passage.

- (127) The north shore of the bay is foul for about 1.5 miles offshore and should be avoided. The east part of the outer bay is extremely foul.

- (128) **The Nipples**, 1 mile southeast of Shakan Strait, and Mount Calder, north of the bay and 2 miles northeast of Barrier Islands, are good landmarks for the bay.

- (129) **Station Island**, off the south point at the entrance, is marked by **Shakan Bay Light** (56°08'57"N., 133°37'33"W.), 25 feet above the water and shown from a small house with a red and white diamond-shaped daymark on a brown skeleton tower on the north side of the island. There are submerged rocks and rocks awash between Station Island and Shakan Island, which is close west.

- (130) **Shakan Island**, 0.3 mile west of Station Island, is about 18 feet high and is covered by scrubby trees. A rock awash and a 3-fathom shoal are about 0.2 mile and

1.2 miles, north-northwest and southwest, respectively, of Shakan Island. The area south of the islet and east of the 3-fathom shoal has several detached rocks, all marked by kelp, and other dangers. The chart is the best guide.

- (131) **Shakan Strait**, comprising the south part of Shakan Bay, is about 4.6 miles long, averages 0.4 mile in width, and is semicircular in shape. It affords a clear and safe route to El Capitan Passage. The west entrance, marked by a daybeacon on an islet off the southwest end of Hamilton Island, is 0.3 mile wide but between the 5-fathom curves is constricted to about half that, by reefs on both sides. About midway of its length is a 5¼-fathom rocky shoal in midchannel, marked by a buoy, about 0.2 mile east of the daybeacon marking the southeast end of Hamilton Island. Off-lying dangers are few, and none is more than 200 yards offshore. A log storage area is along the east shore, 0.5 mile south of the entrance to El Capitan Passage.

- (132) **Hamilton Island, Middle Island, Divide Island and Fontaine Island** are heavily wooded islands in the center of Shakan Bay. Of the several passages between and around them, Shakan Strait is the principal one; the others are used only by small craft with local knowledge. Good anchorage, with mud bottom, in 8 to 9 fathoms, was reported 0.3 mile south of Fontaine Island in about 56°08'36"N., 133°28'33"W.

- (133) **Mount Calder**, a sharp conical peak projecting above the dark timbered slopes, is an outstanding landmark. Easily identified by its light-gray color, it can be seen from the entrance to Sumner Strait in clear weather.

- (134) **Calder Bay** is on the north side of Shakan Bay north of Middle Island. Depths shoal gradually from about 9 fathoms at its entrance to the tidal flat about 0.6 mile from the entrance.

- (135) **Local magnetic disturbance**

- (136) Differences of as much as 6° from the normal variation may be expected in Shakan Strait.

- (137) Enter Shakan Bay with Beauclerc Island Light astern and Shakan Bay Light a little on the starboard bow.

- (138) In entering Shakan Strait, favor the north point slightly. When 1.2 miles inside the entrance to the strait, favor the north shore slightly, otherwise follow a midchannel course to the anchorage, about 0.8 mile south-southwest of the entrance to El Capitan Passage, a distance of 4 miles. Anchor about 0.3 mile offshore in 7 to 9 fathoms, mud bottom.

- (139) At night, deep shadows make it difficult to distinguish the entrance to the channel between Hamilton Island and Kosciusko Island. The channel between Divide Island and Middle Island is used by small craft.

- (140) **Barrier Islands**, on the north side at the entrance to Shakan Bay, are two islands with numerous rocks and islets around and between them. Both islands are almost level and wooded. A reef extends about 0.7 mile south from the south point of the west island. A rock with 2½

fathoms over it, about 0.7 mile west from that point, is marked on the west side by a lighted bell buoy.

- (141) **Calder Rocks** are dangerous kelp-marked reefs off the east shore of Sumner Strait, the southernmost point that is about 2 miles northwest of the Barrier Islands. From this southernmost point, which bares 3 feet, the reefs extend 1.2 miles in a north direction with little depths over them and with deep water close-to. A lighted buoy is close west of the north end. There is good passage on each side of Calder Rocks; the east one is generally used by small craft, and the west one is used by larger vessels.

- (142) **Hole in the Wall to Merrifield Bay**

- (143) **Hole in the Wall** (56°15.7'N., 133°38.5'W.) is a small cove on the east side of Sumner Strait, east of Calder Rocks and 2.5 miles north of Barrier Islands. The entrance is through a very narrow passage 0.5 mile long, between high bluffs, and opens into a basin 400 yards in diameter. Two rocks that bare are in the narrow entrance. Depths in the basin are from ½ to 7 fathoms; it may be used for anchorage, but is subject to strong winds drawing through the entrance. The bottom is sand and mud. Small craft pass through the narrow entrance only at half tide or higher water.

- (144) **Labouchere Bay** is about 1.8 miles north of the entrance to Hole in the Wall and about 4 miles south of Point Baker. It is studded with islets and rocks, the entrance being partially closed by Labouchere Island and the islands and reefs that extend southeast of it to the shore.

- (145) There is sheltered anchorage for small vessels just inside the bay on the south side in about 56°17.2'N., 133°39.0'W., in depths of 3 to 21 fathoms, mud and sand bottom. Three detached rocks that cover at half tide are near the head of the anchorage. Small fishing craft anchor southeast of the rocks and near the sand beach in 2 to 5 fathoms. The recommended entrance to Labouchere Bay is from the northwest. Small fishing vessels may enter Labouchere Bay from the south on a north course, through a channel passing east of the kelp-marked submerged reef at the entrance, 0.5 mile southeast of Labouchere Island, and avoiding the large kelp beds on their right.

- (146) In 1976, a logging camp was at the cove about 1.7 miles east-northeast of Labouchere Island. There are a small-craft float, a seaplane float and log storage in the cove. Water and gasoline are available in an emergency only. A road connects Labouchere Bay with Port Protection. The logging camp maintains radiotelephone communications with the Alaska Loggers Association in Ketchikan.

- (147) **Protection Head**, a bold white bluff, 1 mile north of Labouchere Island, is an outstanding landmark visible from the south for many miles.

- (148) **Port Protection** has its entrance 1.5 miles south of **Point Baker**, the northwest extremity of Prince of

Wales Island, and 1.5 miles north of Protection Head. The entrance is marked by **Port Protection Light** (56°19'35"N., 133°36'45"W.), 19 feet above the water, shown from a pile with a red and white diamond-shaped daymark on the northeast end of the wooded island at the southwest side of Wooden Wheel Cove, 1 mile inside the entrance, and by a daybeacon on a detached reef, 0.3 mile off the north shore. A ship may enter Port Protection on either side of the daybeacon while being careful to pass the reef at a safe distance. There is good anchorage for large craft 1.8 miles in from the daybeacon and southwest of the chain of small wooded islands in the upper half of the bay, in 6 to 18 fathoms, mud and sand bottom. A more sheltered anchorage may be had east of the chain of islands.

- (149) To reach the second anchorage, proceed from the first on an east-northeast course, keeping the two north of the small wooded islands to the northwest. Pass close to the tangent of the larger island on the right. Depths in the passage between the islands are 6 to 11 fathoms. Good anchorage in 10 fathoms, mud bottom, is directly ahead and about halfway between the island passed on the right and the east shore of the bay. This is the best shelter in the bay, affording protection in all weather. Small vessels may find anchorage in 5 to 8 fathoms a little farther in.

- (150) The shores of Port Protection are usually fringed with kelp, and the soundings, though deep, are irregular and the bottom rocky. Log raft mooring facilities are along the southwest shore about 1.2 miles south of Port Protection Light.

- (151) **Port Protection** is a small settlement on the northeast side of the port in **Wooden Wheel Cove** and south of Port Protection Light. Along the beach are several homes and a fish cannery facility. A 250-foot state-maintained small-craft float is anchored on the west side of the cove with 4 to 8 fathoms reported alongside in 2005. Water is available. A microwave tower is about 150 yards south of the facility.

- (152) **Joe Mace Island** is on the north side of the entrance to Port Protection. **West Rock**, in a cluster of dry rocks and rocks on a reef, is about 300 yards north of Joe Mace Island. The rock is marked by **West Rock Light** (56°21'12"N., 133°38'14"W.), 20 feet above the water, and shown from a skeleton tower with a red and white diamond-shaped daymark.

- (153) **Point Baker** is a settlement with two general stores on the inner bay east of Point Baker and about 0.4 mile south of Point Baker Light. Gasoline, provisions, water, diesel fuel and fishing supplies can be had at the stores. A state-maintained 391-foot small-craft float with a seaplane float at its end is at Point Baker. In 1976, depths of 10 to 12 feet were reported alongside. A 45-foot grid is in the mudflats about 60 yards north-northwest of the float. During the fishing season, a fish-buying scow usually moors at Point Baker. Provisions, fishing supplies, gasoline, diesel fuel and water are available from the scow. The settlement maintains radiotelephone communications. A freight

boat visits weekly from Ketchikan, and charter seaplanes are available from Ketchikan.

- (154) The shores of the bay are steep-to and lined with thick kelp. The midchannel passage, with a controlling depth of 2½ fathoms, leads to the float. The inner bay is restricted by several submerged off-lying dangers and is not recommended as an anchorage. This port is used extensively during the fishing season.

- (155) **Point Baker Light** (56°21'33"N., 133°37'05"W.), 20 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the northwest end of the outer island on the east side of the entrance to Point Baker anchorage. **Point Baker Anchorage Daybeacon** is on the east side of the passage about 0.2 mile south of the light. A narrow constricted passage that extends from the head of Point Baker Harbor into Port Protection is used considerably by very small craft drawing up to 3 feet at half tide or higher.

- (156) **Helm Rock**, covered 2½ fathoms, is about 0.75 mile north-northwest of West Rock Light and on a line between the south point of Strait Island and Point Baker and 0.8 mile from the latter. A lighted buoy is about 0.2 mile north of the rock. There are usually heavy tide rips and swirls around it. A rocky shoal with 3 fathoms over it is 700 yards north-northeast of Point Baker. The usual course is midchannel between Point Baker and Strait Island. Small craft frequently pass between Point Baker and Helm Rock to avoid the current and swirls around the rock.

- (157) **Merrifield Bay**, 1 mile east of Point Baker, is good anchorage for small vessels in 8 to 10 fathoms, mud bottom, but is open to the north. On the west side at the entrance are several bare rocks, and a little west of the entrance about 0.55 mile east of Point Baker Light is **East Rock**, a large rock, awash at highest tides.

(158)

Keku Strait to Meadow Island

- (159) **Keku Strait**, marked by lights and daybeacons, connects Summer Strait with Frederick Sound and separates Kuiu Island from Kupreanof Island. Aids to navigation are exposed to high currents and are frequently destroyed by ice and debris. The strait consists of three parts: a large bay at the south and north ends and a narrow, intricate passage, about 18 miles long, known as Rocky Pass, that connects the two bays. The following description covers the south bay and Rocky Pass. The north part is described with Frederick Sound, chapter 8.

- (160) The bay forming the south entrance to the strait is very foul, particularly the east and northeast shore. Navigation through any part of the bay should be with caution. The entrance to the bay is between Sumner Island and Point Barrie.

- (161) In the south bay, anchorage can be had about 300 yards off the east shore, east of Meadow Island. Anchorage can also be had in Threemile Arm, or in the northeast part of the bay, north-northeast of Monte Carlo Island.

(162) **Point Barrie** forms the east point at the south entrance to Keku Strait. Reefs and shoals extend from 0.5 to 1 mile off the point. **Barrie Island**, 0.9 mile southeast of the point, is a wooded island making a good mark for entering Keku Strait from the east. Foul ground extends from the island to the shore.

(163) West and northwest of Point Barrie are numerous off-lying rocks, reefs and islets. **Trouble Island**, 2 miles north-northwest of Point Barrie, is a prominent wooded islet at the outside edge of the foul area. Small craft with local knowledge can follow an irregular passage through this area, but this should not be attempted when the extensive kelp beds are not showing.

(164) **Conclusion Island** is the large densely wooded island about 4.5 miles west-northwest of Point Barrie and 3 miles north of Sumner Island; it has several peaks and is generally steep-to.

(165) **No Name Bay**, about 3 miles west of Conclusion Island, is constricted at its head by several wooded islets. Near the head is anchorage suitable for small craft.

(166) **Seclusion Harbor** is a small inlet about 3.5 miles north-northwest of the west end of Conclusion Island. A chain of islands is east of its entrance.

(167) **Threemile Arm**, north of Seclusion Harbor, makes off to the west at the northwest end of the bay. Its entrance is obstructed by rocks. By proceeding with care, vessels can enter passing northeast of the islet in the middle of the entrance and find good protected anchorage in the middle of the arm in 5 to 8 fathoms, soft bottom.

(168) In 1974, a survey revealed a rock awash in the middle of the arm in 56°35'45"N., 133°50'10"W.

(169) **Meadow Island** is a low, wooded island in the east part of the bay, 4 miles north of Point Barrie. The island is used as a fox farm. Foul ground extends 300 yards south and 0.6 mile north of the island.

(170)

Skiff Island to Entrance Island

(171) **Skiff Island** (56°31.1'N., 133°41.0'W.), on the east side of the bay at the south end of Keku Strait, is low and wooded and is surrounded by rocks and reefs. A small-boat passage is east of the island.

(172) About 1.1 miles west-northwest of Skiff Island is a small, wooded island, divided at high water. The cut is quite prominent from east and west. The south point of the island is a bold, light-colored cliff, easily identified.

(173) **Monte Carlo Island**, near the center of the bay, is a relatively large, low, wooded islet, 2.5 miles south-southwest of the entrance to Rocky Pass. It is surrounded by foul ground and heavy kelp, particularly to the south, east and north. Clear of the foul ground to the north is a passage leading to the west that affords indifferent anchorage in 6 to 7 fathoms, sticky bottom. The small cove on the north side of the island affords anchorage for small craft, but the entrance is difficult because of the numerous rocks and reefs.

(174) **Rocky Pass** has its south entrance about 8 miles north of Point Barrie. The east side of the entrance is bounded by foul ground and heavy kelp, offering a few bays for small boats.

(175) A federal project provides for a channel dredged to a depth of 5 feet through Devils Elbow and The Summit, the shallowest parts of the pass.

(176) The pass is used by fishing vessels, cannery tenders, and tugs with log rafts. The draft which can be carried through depends on the tide. Because of strong currents, narrow channel, and sharp turns, it is advisable to make passage at or near high-water slack.

(177) The depths through Rocky Pass are generally shallow, and small craft can anchor practically anywhere with the aid of the chart. Larger craft can enter the south end of the pass for a distance of 2 miles until opposite **Tunehean Creek** and select anchorage according to draft, either to north or south of the midchannel reef off the mouth of the creek. At the north end of Rocky Pass, larger craft can anchor in Big John Bay or Stedman Cove or in the channel as far south as 1 mile below High Island.

(178) **Devils Elbow**, about 14 miles north of Point Barrie, is the most dangerous part of the pass. The channel here makes a full right-angle turn. In 2007, the channel had a controlling depth of 3.7 feet with shoaling to 2.5 feet along the edge of the channel at Daybeacon 17.

(179)

Local magnetic disturbance

(180) Differences of as much as 3° from the normal variation have been observed in the Devils Elbow in the vicinity of 50°38'N., 133°41'W.

(181) **Beck Island** is a small island in the center of the pass about 6.5 miles north of the south entrance and about 0.7 mile south of Summit Island. South of Beck Island is **Brown Bear Head Island** with off-lying rocks awash to the south.

(182) **Summit Island**, a relatively large island about halfway through the pass, is at the south end of the most constricted part of the pass, known as The Summit. The island is low and wooded to the high-water mark, with large tide flats about the north and east sides.

(183) **The Summit** is the narrow passage, west and northwest of Summit Island, through which a channel has been dredged. The channel had a controlling depth of 4 feet in 2009. Passage through The Summit should be attempted only with local knowledge.

(184)

Local magnetic disturbance

(185) Differences of as much as 4° from normal variation have been observed in Keku Strait, north of The Summit, in the vicinity of 56°42'N., 133°44'W.

(186) **High Island**, about 10.5 miles north of Keku Strait south entrance and 1.8 miles south of Beacon Island, is the largest island in Keku Strait. The west arm of the island has a conspicuous conical peak. Boats awaiting the tide often are off the northwest point of this part of the island. Just south of the point are several clusters of

mooring piles close-in along the shore, and anchorage in 12 to 18 feet can be secured just northwest of the point.

- (187) **Beacon Island** marks the turn in the general direction of the pass from north to west. A low-water rocky ledge extends all around the island to the extent of 125 yards east of the island and 200 yards southwest of the island.

- (188) Passage east of Beacon Island leads into **Big John Bay**, a large bay that extends north and east of Horseshoe Island. Fishing vessels often anchor in the southeast arm of Big John Bay in 18 to 24 feet, soft bottom. This anchorage is protected from all directions except northwest. The north part of Big John Bay is considered good game country. Entering from the west the channel leads north of Horseshoe Island and between the larger two of the islands west of Horseshoe Island.

- (189) **Berry Island**, southwest of Horseshoe Island and about 1.2 miles west-northwest of Beacon Island, is small but quite prominent in the vicinity; the vegetation has a rather distinct shade. The island is on the southwest part of a reef that extends about 0.3 mile northeast. This reef, which covers at half tide, should be given a wide berth.

- (190) **Stedman Cove**, the deep bight in the southwest shore of **Horseshoe Island**, affords the best anchorage in the vicinity for small craft; it is well protected from almost every direction, particularly from southeast and from north to northwest. It is a convenient place to await favorable tidal conditions before proceeding south through the pass.

- (191) When entering the cove, care should be taken to avoid the long sandspit that extends about two-thirds the distance across the entrance from the east shore. The point of this spit is usually marked by a pole. Continue beyond the second point along the east shore and anchor in 12 to 18 feet in the inner cove.

- (192) **Entrance Island**, a long narrow island marking the north entrance to Rocky Pass, is low and wooded to the high-water line. A low-water ledge extends 225 yards off the south shore of the island. Strong tidal currents run around the north end of Entrance Island, and this area is not very favorable for use as an anchorage. Even the head of the bight northeast of Entrance Island is a poor anchorage area, being too exposed.

- (193) **Tides**

- (194) The range of tide at The Summit is about the same as at Ketchikan, but the time of tide occurs about ½ hour later than at Ketchikan. In the south and north bays of Keku Strait, the range of tide is about 0.8 of that at Ketchikan, and the time of tide is about the same as at Ketchikan. When proceeding in either direction, it is best to enter Rocky Pass about 1 ½ to 2 hours before high water. There are many places at each end of Rocky Pass where vessels waiting for the tide can anchor. Strangers should make passage on a rising tide and be careful to remain in the channel because of the many unmarked dangers close to the channel edge.

- (195) **Currents**

- (196) The flood current enters Keku Strait at both ends and meets in varying places between High Island and The Summit. At the entrance to Rocky Pass the tidal current has a velocity at strength of 0.9 to 1.2 knots.

- (197) At Devils Elbow the velocity of current is 1.8 to 2.4 knots, this being the strongest current encountered in the pass. Slack water occurs at practically high and low water. The period of slack at low water lasts only 5 or 10 minutes, and the current attains considerable velocity within a half hour of this time. The high-water slack lasts considerably longer, and passage through Devils Elbow can easily be made within an hour before and after the high-water slack.

- (198) At The Summit strong currents set in within 1 hour of high-water slack attaining a velocity of about 2.6 knots. Through The Summit and the passages north of The Summit, the currents are quite variable because of frequent shallow depths and the intricate topography. High-water slack occurs near high water, but the ebb current runs for a considerable time after low water. (See the Tidal Current Tables for daily predictions.)

- (199) **<Deleted Chart Header>**

- (200) **Point Baker to Duncan Canal**

- (201) Point Baker and Helm Rock have been described earlier in this chapter.

- (202) In **Buster Bay**, the open bight 6.5 miles east of Point Baker (56°21'N., 133°37'W.), vessels may find anchorage with shelter from south winds in 10 fathoms, sand bottom, about 0.7 mile from shore.

- (203) **Totem Bay**, about 10.5 miles northeast of Point Baker, is a large indentation on the north shore of Sumner Strait, midway between Point Barrie and Mitchell Point. A reef extends 1.2 miles east from the west point at the entrance. A shoal extends 0.2 mile off the east point at the entrance.

- (204) To enter the bay, approach from east, keeping about 1 mile off **Moss Island** and about 0.5 mile off the east point at the entrance. The bay has depths of 7 to 8 fathoms, mud bottom, and is good protection except in south weather. Shoals extend over 0.2 mile from the shores of the bay.

- (205) **Shingle Island**, low and wooded, is about 1.5 miles south of the entrance. The bay and its approaches have reefs that extend south of the island and detached submerged rocks.

- (206) **The Eye Opener** is a rocky ledge near the middle of Sumner Strait, about 11.7 miles east of Point Baker. It is marked by **The Eye Opener Light** (56°23'09"N., 133°16'36"W.), 34 feet above the water and shown from a skeleton tower on a brown cylindrical base with a red and white diamond-shaped daymark. A rock with 1 fathom over it, not marked by kelp, and a rock with 5¼ fathoms

over it and marked by a buoy, are 0.4 mile southwest and 1.8 miles southeast, respectively, of the light.

- (207) **Douglas Bay** is a bight, open south, about 4 miles north of The Eye Opener and east of Moss Island. It has depths of 5 to 6 fathoms but is not important as an anchorage.

(208)

Red Bay

- (209) **Red Bay** indents the south shore of Sumner Strait, 11 miles east of Point Baker and 3 miles west of Point Colpoys. The chart shows all known dangers. It is used extensively for anchorage during the fishing season.

- (210) The entrance is through a narrow and rocky channel about 0.7 mile long, with depths of 1 to 4½ fathoms. The narrowest part of the channel is between the southwest side of Bell Island and a rock awash off the southeast end of Danger Island. At about 0.8 mile south of this area, the channel leads between two grassy rocks 13 and 16 feet high, and then west of **Range Islet** (56°18'15"N., 133°19'48"W.), which is wooded. A reef, bare at low water, is about 90 yards north-northwest from the north end of Range Islet. south of Range Islet the bay is about 2 miles long and 0.4 mile wide, with depths of 3 to 15 fathoms. A rock awash is near the south end of Red Bay in 56°16'52"N., 133°19'08"W., about 1.4 miles south of Range Islet.

- (211) **Dead Island**, small and wooded, is close north of Bell Island and forms the east point at the entrance; a reef with bare heads extends 0.2 mile northeast of the islet. **Pine Point** forms the northeast entrance of the outer bay. **Bell Island** and **Danger Island**, low and wooded, form the east and west sides of the narrow entrance and are separated from the main shore by shallow passes useless for navigation except for a high-water canoe channel behind Bell Island.

- (212) Vessels not wishing to enter or waiting for the proper stage of tide may anchor at the entrance to Red Bay in the bight west of Dead Island. Another anchorage is in the middle, northeast of Dead Island, in 7 to 10 fathoms, mud bottom. Larger vessels should anchor farther out with more swinging room in 18 to 20 fathoms. Inside the entrance the anchorage most used is the small bay east of **Flat Island** in 4 to 10 fathoms, mud bottom. This is good shelter in all weather. Vessels wishing to go farther into the bay may find anchorage in 5 to 9 fathoms, mud bottom.

- (213) Tidal currents in the narrow entrance to the bay have velocities of 3 to 5 knots, with very short intervals of slack at times of high and low water.

- (214) About 12 feet is the greatest draft that can be safely carried in at low water. The safest time to enter is at, or shortly before, high-water slack. All dangers are marked by kelp, but it is run under during the strength of the current.

- (215) Enter between the bare rock at the northeast end of Danger Island and the southwest end of Dead Island,

favoring the latter, and then favor the west or Danger Island shore until halfway through the passage, when the east or Bell Island shore should be favored to avoid the rock close to the southeast point of Danger Island. Bring the east grassy rock in line with the west side of Range Islet, about 0.3 mile south of Flat Island, steer that range until near the rock, and then pass midway between the two grassy rocks and west of Range Islet. Then follow a midchannel course up the bay and select anchorage as required.

(216)

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- (217) Two miles east of Red Bay (56°20'N., 133°18'W.) is an open bight, sheltered from south winds, that affords anchorage for vessels of any size in 10 to 15 fathoms, mud bottom, about 0.5 mile offshore. The shore from Pine Point to Point Colpoys is rocky and should not be approached closely.

(218)

Point Colpoys to St. John Harbor

- (219) **Point Colpoys**, low and wooded, is on the northwest side of Clarence Strait where it joins with Sumner Strait. **Point Colpoys Light** (56°20'11"N., 133°11'54"W.), 19 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on the point. Irregular bottom extends about 0.3 mile north from the point. A rock that uncovers 5 feet and is marked by a daybeacon is 1.2 miles east of the light. Shoals and foul ground extend about 2 miles southeast from the rock to Rookery Islands.

- (220) **McArthur Reef**, covered 3 fathoms, is about 3.2 miles east of The Eye Opener and 3.6 miles north of Point Colpoys. The reef is marked by a lighted bell buoy.

- (221) **Mitchell Point**, on the southeast end of Kupreanof Island and about 6.7 miles north of Point Colpoys, is low, level, and rocky. A broad tapering reef, showing considerable kelp, extends about 2.2 miles southeast from the point. The extreme outer end of the reef bares; at high water it is usually marked by tide rips. A lighted buoy marks the south-southwest entrance of the narrow channel leading to the west of Level Islands.

- (222) **Level Islands**, heavily wooded, are about 2.5 miles east of Mitchell Point. South of the west island is a small islet surrounded by rocks, and the entire group is surrounded by a shelving ledge and by kelp that extends out nearly 0.5 mile. A pinnacle rock, with 3 fathoms over it, marked by a lighted buoy, is 0.6 mile southeast of Level Islands in the direction of Vichnefski Rock. The passage southwest and west of Level Islands is foul. A white tower on the north side of the east Level Island is reported obscured by trees from Sumner Strait.

- (223) **White Rock** is 1 mile northeast of the east end of Level Islands and can be readily recognized by its white appearance and detached position. Several rocks awash

are south of White Rock. The outermost, 0.2 mile south, is marked by kelp.

- (224) **Kah Sheets Bay**, north of Level Islands, is shoal and has many dangers. Three wooded islands are south of the north entrance point. Small fishing craft frequently anchor west of the south island in 1½ fathoms, mud bottom.

- (225) **Vichnefski Rock**, on the southeast side of Sumner Strait, about 0.8 mile north of Point St. John, Zarembo Island, is long and bare and awash at extreme high water. It is marked by **Vichnefski Rock Light** (56°26'18"N., 133°00'56"W.), 33 feet above the water is shown from a skeleton tower with red and white diamond-shaped daymark. Southeast of Vichnefski Rock are several ledges that partly bare, and the passage between the rock and **Point St. John** should not be attempted except by small craft with local knowledge.

- (226) **St. John Harbor**, on the northwest side of Zarembo Island and east of Vichnefski Rock Light, is sheltered except from north. **Low Point** and Point St. John, respectively, are to the north and south of the entrance. **Northerly Island** and **Southerly Island** are in the outer part of the harbor. Two large rocks are close to the north side of Northerly Island, and rocks that bare and are marked by kelp are just outside of them. Vessels should enter midway between Northerly Island and Low Point.

- (227) Anchorage in about 14 fathoms, mud bottom, can be had midway between the middle of Southerly Island and the first bight in the opposite shore of Zarembo Island. Anchorage in 7 fathoms can be had farther in, but the currents are strong.

- (228) Small craft can enter St. John Harbor southwest of Northerly Island and Southerly Island, taking care to avoid a rock, awash at half tide, 200 yards southwest of the south point of Northerly Island and a similar rock that is 80 yards south of Southerly Island. A daybeacon is on the point about 1 mile east of Low Point.

(229)

Duncan Canal

- (230) **Duncan Canal** has its entrance 3 miles west of the entrance to Wrangell Narrows. From its head a low marshy valley, sometimes used as a portage, extends to Portage Bay. The soundings in the canal generally are less than 20 fathoms and somewhat irregular. Commercial crabbers and shrimpers operate in the canal.

- (231) A daybeacon marks the west side of the entrance to Duncan Canal; a light on Butterworth Island marks the east side.

(232)

Anchorage

- (233) Several good anchorages were found in Duncan Canal, usually in depths of 8 to 15 fathoms, sticky mud bottom, good holding ground.

(234)

Currents

- (235) The flood enters Duncan Canal with a velocity of 1 to 2 knots and runs in the direction of its axis, except at the west entrance of Beecher Pass, through which it passes into Wrangell Narrows, causing a crosscurrent in this immediate vicinity. The ebb flows in an opposite direction, and the same crosscurrent, with a west set, is found at Beecher Pass. The flood current has a west set in the vicinity of the rocks that are off the south end of Woewodski Island. Strong tide rips are found at the entrance to the canal.

- (236) In 1959 a survey vessel experienced moderate to strong currents in the entrance between Kupreanof and Woewodski Islands, especially near Butterworth Island. Strangers should use caution when navigating this passage. The effect of the current diminishes inside the canal proper, but light to moderate tide rips have been noted in midchannel as far as Indian Point.

(237)

Routes

- (238) Enter Duncan Canal east of Lung Island, proceed in midchannel west of Butterworth Island, and follow midchannel courses. The known dangers are shown on the chart. Navigate with caution.

(239)

Pilotage, Duncan Canal

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

- (241) Duncan Canal is served by the Southeastern Alaska Pilots Association. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup station and other details.)

(242)

Towage

- (243) Three 500 hp tugs from Wrangell are available for assistance in docking and undocking vessels at the Alaska Barite Facility in Duncan Canal. Arrangements should be made in advance through ship's agents.

(244)

Foremost Rock to Butterworth Island

- (245) **Foremost Rock** (56°30.2'N., 133°00.3'W.) uncovers 12 feet and is marked by a daybeacon. It is near the east end of a reef 0.8 mile long off the entrance to Duncan Canal, almost on a line joining White Rock and the west point at the entrance to Wrangell Narrows and about 1 mile from the point.

- (246) **Lung Island**, wooded, is on the west side of the entrance to Duncan Canal. A small islet, 25 feet high and wooded, is in midchannel west of Lung Island; each side of this islet has a narrow passage, the west passage being foul.

- (247) **Baby Island** is on the east side of the entrance to Duncan Canal, about 1.1 miles east-northeast of the southeast end of Lung Island.

(248) **Butterworth Island**, wooded, is close off the west shore of Woewodski Island and on the east side of Duncan Canal, about 1.5 miles from the entrance. The narrow passage between Butterworth Island and Woewodski Island is navigable for small craft at high water but is not recommended for strangers.

(249) **Butterworth Island Light 2** (56°32'13"N., 133°04'31"W.), 21 feet above the water, is shown from a frame structure with a red triangular daymark on the west side of the island. The light marks the east side of the entrance to Duncan Canal.

(250)

Woewodski Island to Wilson Islands

(251) **Woewodski Island** separates the lower part of Duncan Canal from the lower part of Wrangell Narrows and is separated from Lindenberg Peninsula by Beecher Pass. The island is wooded and mountainous.

(252) **Duncan Canal Light 4** (56°34'47"N., 133°04'27"W.), 15 feet above the water, is shown from a skeleton tower with a red triangular daymark on the northwest point of the island. In the first bight to the south of the light are the buildings of the abandoned **Olympic Mine**. A trail leads inland to **Harvey Lake**. A 4¾-fathom shoal and a 3¼-fathom shoal are on the east side of Duncan Canal, about 1 mile and 1.7 miles, respectively, south of Duncan Canal Light 4.

(253) **Beecher Pass**, 4 miles within the entrance to Duncan Canal, connects the canal with Wrangell Narrows; it is filled with islets and reefs showing much kelp. **Fair Island** is at the west end of the pass. A reef extends about 700 yards in a north direction from the northwest end of Woewodski Island, and rocks are off the east end of Fair Island in the middle of the channel to the south of Fair Island. Reefs extend about 250 yards off the north shore of Fair Island, and a rock is about 250 yards east of its east point. All known dangers are charted. The pass is used by tugs with tows and extensively by fishermen and hunters and is easily navigated with proper caution. Boats may pass either north or south of Fair Island with safety. Depths of about 10 feet can be carried through Beecher Pass to Wrangell Narrows.

(254) To go through Beecher Pass, steer midchannel courses from west until beyond the east end of **Big Saltery Island**, and then with the chart as a guide, favor the south shore until almost abeam of No Thorofare Point.

(255) The bay between Keene Island and Big Saltery Island is good shelter and used extensively. A rock, which uncovers at extreme low tide, is about 0.2 mile east of Big Saltery Island in 56°36.0'N., 133°00.0'W. Anchor in 8 to 13 fathoms, mud bottom. Small craft also anchor near the west end of the pass in the small cove on the north side, north of Fair Island in 2 to 3 fathoms.

(256) **Little Duncan Bay**, entering the west shore of Duncan Canal opposite Beecher Pass, about 5 miles from the entrance, is shallow but affords protected anchorage for small craft. **Emily Island** is a small, wooded islet

on the south side of the bay. Foul ground extends in a southeast direction from the north point at the entrance.

(257) **Grief Island**, on the east side of Duncan Canal northwest of Beecher Pass, must not be approached closely, as foul ground is found close inshore and southwest of it. A rock that bares is 1.2 miles 340° from the island.

(258) A rock with a depth of ½ fathom over it, 1.7 miles 323° from the northwest point of Grief Island, is marked by a daybeacon close west. In 1972, a survey revealed a shoal covered 6½ fathoms in 56°38'33"N., 133°09'22.8"W., about 0.6 mile southeast of a mooring facility.

(259) **Castle Islands** are a group of small islands, most of them wooded, on the southwest side of Duncan Canal, about 9 miles from the entrance. **Castle River** empties into the bight west of the islands. The head of the bight is filled with a mudflat. The entire area is shoal to the west of the Castle Islands from the south end of Big Castle Island, the largest in the group. A shoal covered ¼ fathom is about 2.1 miles north-northwest of Big Castle Island in 56°41'57"N., 133°12'00"W.

(260) **Mitkof Island**, triangular in shape, is mountainous and wooded at the north and south ends, with a low divide in an east and west direction through the central portion. Wrangell Narrows is to the west and Federick Sound and Dry Strait to the north and east, respectively.

(261)

Wrangell Narrows to Wrangell

(262) **Point Alexander**, the east point of the south entrance to Wrangell Narrows, is marked by **Point Alexander Light** (56°30'33"N., 132°57'01"W.), 17 feet above the water and shown from a skeleton tower with a red and white diamond-shaped daymark on a reef off the point. **Point Howe**, 4.5 miles to the east of Point Alexander, presents no special features.

(263) **Woodpecker Cove** is a small indentation on the north side of Sumner Strait, close west of Point Howe. It affords anchorage for small craft with protection from Stikine winds.

(264) **Station Island**, about 1.7 miles east from Point Howe, is small and timbered. The shoreline is rocky with cliffs 15 to 30 feet high. **Station Island Light** (56°29'40"N., 132°45'48"W.), 19 feet above the water, is shown from a square frame structure with a red and white diamond-shaped daymark on a rock off the east side of the island.

(265) **Blind Slough** enters the south end of Mitkof Island about 2 miles northeast of Station Island. It has a wooded island at the entrance and another island 1.7 miles inside. The head of the slough divides into several arms. A large stream empties into the east arm. From the head of the slough, low ground extends to Wrangell Narrows. The slough is too shallow to be of use as an anchorage except for small craft, and then local knowledge is desirable. There is log storage along the north shoreline of the slough.

(266) An inter-island ferry terminal, marked by lights, is in the slough. Ferry service to Wrangell and Coffman Cove is available Friday through Monday during the summer. The terminal is connected by road to Petersburg, about 25 miles to the north.

(267) **Baht Harbor**, on the north shore of Zarembo Island, about 3.5 miles east of Low Point (56°27.1'N., 132°56.9'W.), is a broad, open bight, affording anchorage in southeast winds. The anchorage is in the middle of the bight, in 12 to 15 fathoms, about 0.2 mile offshore. At high water, the navigator should not seek less than 15 fathoms.

(268) **Little Baht Harbor**, 1 mile west of Craig Point, affords anchorage for small craft in 11 fathoms, soft bottom, behind a wooded islet and off the mouth of a small creek. There is considerable current at the anchorage, and its use is recommended only in case of emergency.

(269) **Craig Point**, marked by a light, is on the north shore of Zarembo Island, about 2.5 miles east of Baht Harbor.

(270) **Vank Island**, about 2 miles off the northeast end of Zarembo Island, is timbered and has two prominent hills. The south shore is marked by cliffs 40 feet high in places; the north shore is low and strewn with rocks. A small church on the north end of the island is visible from north. A light is on Neal Point at the south end of the island. Mud Bay is to the northwest of Neal Point. It is deep at the entrance, shoals rapidly, and is not regarded as a favorable anchorage. The bight in the north end of Vank Island at times is used as a small-craft anchorage.

(271) **Two Tree Island**, a small rocky islet off the north end of Vank Island, is marked by a light. A 2-fathom spot is about 1 mile north-northwest from Two Tree Island. Passage may be made on either side of Vank Island, but the south is preferred.

(272) **Sokolof Island**, northeast of Vank Island, is timbered. The center is low and is drained by a stream running west, which empties into a bay used as an anchorage by small boats except during west winds. In 1976, log storage took up most of the bay.

(273) **Wilson Islands** are at the south end of Dry Strait about 2.2 miles north of Sokolof Island. The two low, rocky islands are thickly wooded with spruce.

(274)

Dry Strait to Stikine River

(275) **Dry Strait**, mostly bare at low water, affords passage for small craft at high water between the head of Sumner Strait and the head of Frederick Sound. It is extensively used by fishing boats and towboats operating between the towns of Wrangell and Petersburg. The channel requires local knowledge for safe navigation. Boats should attempt the passage only on the upper half of a rising tide. There are no abrupt changes in depth. The water is muddy at all times, and strong currents are experienced in places, 5 knots having been observed at times at Blaquiere Point.

(276) **Dry Strait Light 1** (56°35'02"N., 132°32'33"W.), 29 feet above the water, is shown from a skeleton tower

with a green square daymark on **Blaquiere Point** on the west side of the south entrance to Dry Strait. The channel passes close east of Blaquiere Point and to the west of the small islet 0.9 mile north of the point. A light on the west shore, about 3.5 miles northwest of the islet, marks the north end of the shoal water area through the strait.

(277) **Dry Island** and **Farm Island** are on the east side of Dry Strait north-northeast of Blaquiere Point. Boats should not attempt passage between these islands. A poor channel can be followed at high tide between Farm Island and **Sergief Island** to the south.

(278) **Kadin Island**, about 2.5 miles south of Sergief Island, is 1,810 feet high, and wooded. **Rynda Island** and **Greys Island**, west of Kadin Island, and **Pocket Island** and **Hidden Island**, northwest of Dry Island, are within Dry Strait. Fivemile Island, marked by a light, is about 1.8 miles north from the north end of Woronkofski Island and is described with Stikine Strait.

(279) In 2001, shoaling had progressed 0.6 mile southwest of the southeast tip of Kadin Island toward **Liesnoi Island**, a small wooded island to the south of Kadin Island. Mariners are advised to use extreme caution while navigating in this area due to the constantly changing nature of the bottom.

(280) The **Stikine River** has its source in a small lake in British Columbia near 57°10'N., 128°00'W., and is about 200 miles long. It flows in a southwest direction through glaciers and gorges; one of the latter, very narrow and about 30 miles long, is known as the Grand Canyon. The river freezes in the winter, and with the spring freshets the current builds up great force. The river is usually navigable from about May 1 to October 15. The highest water is generally in July. Vessels drawing 3 feet and less navigate the river to Telegraph Creek, BC, about 143 miles above the mouth.

(281) Stikine River empties by two mouths: one, the north channel, following the mainland west, enters the head of Frederick Sound; the other follows the mainland south and forms the only navigable entrance to the river. The north channel can be navigated only by small craft at high water. The south entrance has a least depth of about 2 feet at mean lower low water. The mean range of tide is about 11½ feet, and the diurnal range is about 14 feet. The channel is from 0.2 to 0.5 mile wide. Tidal effects have been noted for a distance of about 17.4 miles above the mouth.

(282) The federal project provides for snagging of the Stikine River from its mouth to the Canadian border, a distance of about 26 miles above Gerard Point (56°31'N., 132°20'W.). Snagging operations are made annually by the U.S. Forest Service.

(283) No permanent directions can be given since the channel across the mud flats at the mouth of the river changes with every freshet. Strangers can obtain directions from the masters of the river boats at Wrangell. The channels of the south arm of the Stikine River are followed by experienced boatmen by the appearance of the water. There is a strong south current in the channel.

The water appears to boil in the deeper parts, while over the shoals it runs smoothly and evenly.

(284)

Wrangell Narrows

(285) **Wrangell Narrows** extends in a general north direction for 21 miles from near the east end of Sumner Strait to the east part of Frederick Sound. The channel is narrow and intricate in places, between dangerous ledges and flats, and the tidal currents are strong. It is marked by an extensive system of lights, lighted ranges, daybeacons and buoys that, with the aid of the chart, renders the navigation of the narrows fairly easy for small craft, even without local knowledge. It is safest to enter either end late on a flood tide. Waterborne traffic through the narrows consists of cruise ships, state ferries, barges and freight boats carrying lumber products, petroleum products, fish and fish products, provisions and general cargo.

(286)

Channels

(287) The federal project for Wrangell Narrows provides for several dredged sections 24 feet deep through the narrows, except for a dredged section west of Turn Point, that has a project depth of 27 feet. In 2008, the controlling depth in the dredged section from Frederick Sound to Lighted Buoy 53 was 17.1 feet (21.1 feet at midchannel), thence 24.0 feet to Scow Bay, thence 18.8 feet (20.6 feet at midchannel) in the dredged section from Lighted Buoy 42 to Light 8, thence 21.6 feet in the dredged section south of Battery Islets. Some of the cuts have a tendency to fill, and considerable maintenance dredging has been required. Channel edges are sharply defined in most places; large vessels are advised to stay as close to midchannel as possible. Once or twice each year exceptionally low tides occur, at which the water level may fall as much as 4 feet below chart datum. In 2006, shoaler areas caused by boulders were found in the channel near Green Point, restricting the depth in this reach to less than 20 feet.

(288)

Tides

(289) Tidal currents can be significant throughout Wrangell Narrows, creating a near riverine environment in some areas. See the Tidal Current prediction service at tidesandcurrents.noaa.gov for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(290)

Currents

(291) The currents enter Wrangell Narrows from both ends on the flood and meet just south of Green Point (56°42.0'N., 132°57.2'W.). At the north end of the narrows during the turn of the tide on the last of the flood and the

first of the ebb, an unexpected current of about 2 knots sets northwest directly across the channel. The velocity of the current in the narrows varies from place to place. Off Petersburg, the velocity of the current is 3.5 knots. The strongest currents occur off Turn Point, Spike Rock and South Ledge, where the velocity of the current can reach between 4 and 5 knots. During spring and tropic tides, velocities of 6 to 7 knots may occur. (See the Tidal Current Tables for daily predictions.)

(292)

In a 2006 survey, NOAA ship RAINIER noted time differences of up to 30 minutes in the times of predicted and observed slack water.

(293)

Ice

(294)

Occasionally a few stray pieces of ice from Le Conte Bay work into Wrangell Narrows as far as Green Point (56°42.0'N., 133°57.2'W.). The pieces are sufficiently large to make them dangerous to navigation.

(295)

Routes

(296)

Specific courses for Wrangell Narrows would be of little help and could be confusing. The navigator should pay close attention to the chart as the narrows are well marked with aids to navigation that should be closely followed.

(297)

In some cases with twin screw vessels, the engines are reversed in order to help make the sharp turns. Inquiry of local pilots showed that they did not use courses in the narrows because of strong currents and sharp turns. In foggy weather vessels come to anchor at either end of the narrows and wait until the fog clears away. The anchorage off Anchor Point, about 8.5 miles above the south entrance, is also available to vessels under the stress of weather.

(298)

On the course between **Deception Point** and Point Lockwood, there is a strong tendency to be set to the west with a flood current. At Point Lockwood Rock Light, a sharp turn is necessary and usually the time required to get on course makes it necessary to immediately change to the next course. Commercial vessels make this turn by going hard left and hard right without steadying.

(299)

On the course between Burnt Island Reef and South Ledge, there is a tendency to be set to west on the flood.

(300)

On the course out of the north end of the narrows during the flood, there was found to be a strong west set especially in the vicinity of Prolewy Rocks.

(301)

Low-powered vessels usually enter the narrows on the last of the flood and carry a favorable current all the way through. The currents meet about 8 miles from the north entrance and 12 miles from the south entrance.

(302)

Vessels expecting to reach the vicinity of Bush Top Island at slack low water are advised that the channel in this area contains depths shoaler than the charted controlling depths. A survey conducted by NOAA ship RAINIER in 2005 found depths as shoal as 19 feet midchannel. Mariners are advised to transit this area with caution.

- (303) Vessels too large to make the passage through Wrangell Narrows safely continue west through Sumner Strait, round Cape Decision, and go north through Chatham Strait, or west to sea by way of Cape Ommaney. Smaller vessels regularly using Wrangell Narrows sometimes use the longer passage to their advantage when not favored by suitable conditions of tide or daylight in the narrows.
- (304) (See **33 CFR 162.255**, chapter 2, for navigation regulations for the Wrangell Narrows.)
- (305) **Midway Rock** is about 1.3 miles north of Point Alexander, the east point at the south entrance to Wrangell Narrows, and 400 yards from the east shore. It is low and marked by a light.
- (306) Anchorage with protection from north and northeast winds can be had near the west shore of the south end of the Narrows west of Midway Rock, in 6 to 12 fathoms, sticky bottom.
- (307) **Point Lockwood**, 1.6 miles north of Midway Rock, is marked by a light. A ledge is close to the west shore nearly 0.5 mile above the point. A dangerous flat that bares extends 300 yards off the mouth of a stream on the east shore opposite the ledge.
- (308) **Point Lockwood Rock**, covered $\frac{3}{4}$ fathom, is 200 yards off the west shore, about 0.6 mile north of Point Lockwood. The rock is marked on the northeast side, its highest point, by a light. A rock, covered $2\frac{3}{4}$ fathoms but with no kelp, and marked by a light, is about 300 yards north of Point Lockwood Rock and the same distance south of the southernmost **Battery Islets**. The main channel leads west of Battery Islets and has a clear width of 100 yards with rocks on both sides. Two lighted buoys mark the edge of the shoal water on the west side of the channel, and on the east side of the channel a light marks the northwest edge of the reef off the northernmost islet. The tow channel used by small craft and tows runs east of Battery Islets and is marked by buoys. Dense kelp extends into this channel from both sides.
- (309) **Boulder Point**, on the west side of the narrows about 0.4 mile northwest of Battery Islets, is marked by a light.
- (310) **No Thorofare Point**, on the west side of the channel 5 miles above Point Alexander, is the south point of the east entrance of Beecher Pass. Beecher Pass has been described with Duncan Canal earlier in the chapter.
- (311) **Spike Rock**, about 0.6 mile north of No Thorofare Point and 475 yards southeast of Keene Island, is close to the west edge of the channel and is marked by kelp in the summer and fall. Mariners are advised to use extreme caution when transiting the area. A lighted channel buoy is close south of the rock. The dredged channel east of the rock is marked by lights, on the east edge, and by a lighted centerline range. Pick up the lighted range promptly when approaching Spike Rock from the north.
- (312) **Caution** is advised when transiting in the channel east of **Keene Island**. A rock covered 3.1 fathoms and in the side of the channel is about 60 yards south-southwest of Daybeacon 10A in $56^{\circ}36'13''\text{N}$, $132^{\circ}58'32''\text{W}$.
- (313) **Burnt Island**, small and wooded, is on the west side of the channel about 6.1 miles above Point Alexander. A light marks the end of the rock ledge that extends south from Burnt Island. The east edge of the reef off the north side of the island is marked by a buoy. **Caution** is advised when transiting this area due to the proximity of the ledge to the west channel limit. **Burnt Island Reef** is on the east side of the channel, northeast of Burnt Island, and is marked by a light. The dredged channel that leads west of the reef is marked by a lighted range.
- (314) **South Ledge**, a reef marked by kelp in the summer and fall, is on the east side of the channel about 7 miles above Point Alexander. The east edge of the channel northwest of the ledge is marked by a light. The west edge of the channel is also marked by a light.
- (315) **North Ledge** is a bare reef marked by a light on the east side of the channel 0.5 mile north of South Ledge. **North Point** is on the west side of the narrows between North and South Ledges. A reef that extends off the point is marked by a light.
- (316) **Bush Top Island**, north of North Ledge, is to the west of the channel. The southeast edge of the reef surrounding the island is marked by a light.
- (317) **Spruce Point**, low and wooded, is on the east side of the channel opposite Bush Top Island.
- (318) **Colorado Reef** is a reef that bares, on the west side of the narrows opposite **Anchor Point**, about 8.5 miles above Point Alexander. A mud flat fills the large bight between Anchor Point and **Blind Point**. A narrow channel, called **Blind Slough**, is navigable for small craft at high tide and leads across the mudflat to the mouth of **Blind River**. A fixed highway bridge with a 38-foot span and a clearance of 6 feet is about 3.5 miles above the entrance to the river.
- (319) The winding channel between Anchor Point and Rock Point, about 2.2 miles to the north, is well marked by lights, buoys and a daybeacon.
- (320) The dredged anchorage area, 200 yards wide, is on the west side of the channel northwest of Anchor Point. The controlling depth in the anchorage was $24\frac{1}{2}$ feet in 1997.
- (321) **Vexation Point** is the east point of **Woody Island**, about 9.5 miles north of Point Alexander. The edge of the reef that makes off to the northeast of the point is marked by a light. The tow channel, with a reported controlling depth of 23 feet in 2001, passes to the west of the main channel between Anchor Point and Woody Island.
- (322) **Danger Point Ledge** is a reef that bares off **Danger Point** on the east side of the channel opposite Vexation Point. It is marked by a light.
- (323) **Green Rocks** are wooded and about 0.8 mile north of Vexation Point. The north end is marked by a daybeacon and south end by a light. The main channel passes east of Green Rocks.
- (324) **Papkes Landing**, on the east side of the narrows, about 11 miles north of Point Alexander, is the site of a state-maintained small-craft float. In 2002, the 100-foot-long float had a reported depth of 2 feet alongside. A

lumber company bulkhead pier that runs dry at low water is close north of the float. The U.S. Forest Service maintains a log pond and rafting area just north of the pier. A road extends north about 10 miles along the east shore of the narrows from Papkes Landing to Petersburg and southeast about 17 miles through Blind Slough to Dry Strait.

- (325) **North Flat** is a wide flat that bares, on the east side of the channel, north of Papkes Landing and southeast of **Green Point** (56°42.0'N., 133°57.2'W.). **South Flat** is a smaller flat that bares on the opposite side of the channel. The main ship channel between the flats is marked by lights and a lighted buoy.

- (326) From the light off Green Point the channel widens to almost the whole width of the narrows, and the water deepens to 15 to 20 fathoms.

- (327) A logging company has an 80-foot floating pier on the west side of the narrows about 0.75 mile north of Green Point.

- (328) **Mountain Point**, about 2.3 miles north of Green Point, is marked by a light 43 feet above the water.

- (329) **Scow Bay**, on the east side of Wrangell Narrows, is about 2 miles below Petersburg and immediately south of Blunt Point. At night, the lights from the community of Scow Bay show prominently on the narrows.

- (330) A wharf, formed by a landfill, is about 0.2 mile southeast of Blunt Point with 400 feet berthing space; deck height, 20 feet; 14 feet reported alongside in 2002; receipt and shipment of containerized general cargo; approximately six acres of open storage, forklifts to 45-tons; and operated by Alaska Marine Lines and Northland Services, Inc.

- (331) A dock, approximately 0.3 mile northwest of Blunt Point, has a 230-foot face; 15 to 20 feet reported alongside in 2002; handling supplies for fishing vessels; and operated by Reid Co.

- (332) At **Blunt Point** the channel narrows and boulder patches, marked by kelp, are on either side. A light marks the edge of the reef on the east side of the channel off Blunt Point. The light is most brilliant down channel, diminishing around the rest of the horizon.

- (333) At **Turn Point**, about 1.5 miles north of Blunt Point, a shoal extends to northwest halfway across the narrows. Frequent dredging is necessary to keep the channel open at this point. The dredged channel is marked by two lighted ranges, lighted buoys and three lights.

- (334) **Petersburg Creek**, which empties into the narrows from the west side opposite Turn Point, is navigable for small craft at high tide.

- (335) **Bayou Point** is the north point at the entrance to Petersburg Creek. A road extends along the shore behind the point.

- (336) **West Petersburg** is a small settlement on the west side of Wrangell Narrows, 1.6 miles inside the entrance opposite Petersburg.

- (337) **Prolewy Rocks**, off the west point just inside the north entrance to Wrangell Narrows, are marked by a

daybeacon. A dangerous 1¾-fathom reef is 0.15 mile east-northeast of the daybeacon and adjacent to the north side of the channel. Mariners are advised to the use caution when transiting this area. A lighted bell buoy marks the north entrance to Wrangell Narrows.

- (338) **Petersburg** is a fishing center on Mitkof Island, on the east side of Wrangell Narrows, 1 mile inside the north entrance. The city has two cold storage plants, four canneries, two oil terminals, and a sawmill. Petersburg is the home port of over 300 fishing boats. The deepest draft of a commercial vessel calling at the port was 20 feet in 2003. Commodities handled at the port include fish and fish products, logs and lumber products, machinery, petroleum and petroleum products, provisions and general cargo.

(339)

Prominent features

- (340) A church spire, about 1.2 miles east-northeast of Turn Point, is conspicuous from seaward.

(341)

Channels

- (342) A federal project provides for a depth of 24 feet in the approaches to the existing wharves, a small-craft basin 11 to 15 feet in depth and a short channel 8 feet deep to the south side of the Whitney-Fidalgo Pier. In 1993, the project depths were generally available throughout the harbor except for lesser depths along the basin edges.

(343)

Anchorage

- (344) Petersburg Harbor affords excellent protection for small craft. Larger vessels may find protected anchorage 0.3 mile south of Scow Bay in 4 to 5 fathoms, mud bottom.

(345)

Dangers

- (346) All known dangers are charted, and most are marked.

(347)

Weather

- (348) Petersburg has a typical maritime climate with mild winters, cool summers and an annual precipitation of more than 100 inches. Petersburg's location shields it from most of the high winds observed in the channels of southeastern Alaska with a resulting average annual wind speed of about 4.3 knots. The high winds can occur from almost any direction but most commonly blow from either north, north-northeast, south-southeast or southeast. About 45 percent of the winds, 21 knots or more, blow from the south-southeast and southeast, and about 30 percent from the north and north-northeast; higher winds have been observed from other directions.

- (349) Fog is observed on an average of 10 to 12 days in each month except September and October, when fog occurs on an average of 16 to 19 days each month. Snowfall, however, is the greatest restriction to visibility in the winter.

(350)

Pilotage, Petersburg

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

(352) Vessels en route Petersburg meet the pilot boat about 1 mile northwest of Guard Islands Light (55°27.5'N., 131°53.9'W.).

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

(354)

Towage

(355) Tug assistance is not normally required for docking or undocking vessels at Petersburg. If such services are required or desired, commercial towboats up to 320 hp operating from Petersburg and engaged in towing of barges and log rafts are available. Towboats up to 1,270 hp are available from Wrangell.

(356)

Quarantine, customs, immigration and agricultural quarantine

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

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

(359) Two Coast Guard cutters are stationed at Petersburg.

(360)

Harbor regulations

(361) A **speed limit** of 7 knots is prescribed for Wrangell Narrows off Petersburg Harbor. (See **33 CFR 162.255**, chapter 2, for regulations.)

(362) Petersburg city ordinance prescribes a 4 mph and "no wake"**speed limit** inside the floats at the city boat harbors.

(363)

Wharves

(364) All the wharves in Petersburg are privately owned and operated except City Pier, which is owned by the city, and the Ferry Terminal, which is owned and operated by the State of Alaska.

(365) **NorQuest Seafoods Wharf** (56°48'24"N., 132°58'45"W.): 210-foot face; 11 feet alongside in 2004; deck height, 24 feet; a 2-ton forklift; receipt of seafood; mooring commercial vessels; icing vessels; and handling supplies for fishing vessels; owned and operated by NorQuest Seafoods, Inc.

(366) **State of Alaska, Petersburg Ferry Terminal Dock** (56°48'31"N., 132°58'34"W.): 150-foot face; 22 feet alongside in 2004; total berthing space, 600 feet; load and discharge passengers and vehicles; operated by the State of Alaska.

(367) **Petro Marine Services, Petersburg Wharf and Floats (City Pier)** (56°48'36"N., 132°58'19"W.): 160-foot

face; 18 to 20 feet reported alongside in 2002; deck height, 27 feet; receipt of petroleum products; fueling vessels; and mooring U.S. Coast Guard and U.S. Forest Service vessels; owned by the City of Petersburg and operated by Harbor Enterprises, U.S. Coast Guard and U.S. Forest Service.

(368) **South Harbor Crane Wharf** (56°48'38"N., 132°57'43"W.): 120-foot face; 18 feet reported alongside in 2002; deck height, 25 feet; receipt of seafood; handling supplies for fishing vessels; owned by the State of Alaska and operated by the City of Petersburg.

(369) **Ocean Beauty Seafoods** (56°48'46"N., 132°57'50"W.): 300-foot face; 20 feet reported alongside in 2002; deck height, 27 feet; two 2-ton forklifts; receipt of seafood; handling supplies for fishing vessels; icing fishing vessels; mooring government-owned vessels and mooring vessels for repair; owned by Ocean Beauty Seafoods, Inc. and operated by Ocean Beauty Seafoods, Inc., Piston and Rudder Service, U.S. Forest Service, and Alaska Department of Fish and Game.

(370) **NorQuest Seafoods Wharf** (56°48'48"N., 132°57'33"W.): 65-foot face; 12 feet reported alongside in 2002; deck height, 26 feet; three 1½-ton forklifts; receipt of seafood; icing vessels; owned and operated by NorQuest Seafoods, Inc.

(371) **Petersburg Fisheries Wharf** (56°48'51"N., 132°57'37"W.): West face 175 feet; 23 to 26 feet reported alongside in 2002; deck height, 26 feet; thirty 2-ton forklifts; receipt of seafood; icing vessels; and mooring vessels; owned and operated by Petersburg Fisheries. A strong current is reported to set on the wharf on the flood and ebb.

(372)

Supplies

(373) Provisions, fishing supplies and some marine supplies can be obtained in Petersburg. Water is available at all wharves. Gasoline, diesel fuel, distillates, lubricating oils and greases can be had at the oil companies' wharves. Only diesel oil is available in Petersburg for large vessels. Fishing vessels can obtain ice at the wharves of the canneries and cold storage plants.

(374)

Repairs

(375) There are no drydocking or major facilities for larger vessels in Petersburg or in southeastern Alaska. The nearest facility is Alaska Ship and Drydock, Inc. in Ketchikan, AK, which can accommodate ships up to 400 feet. Other major facilities are in British Columbia and the State of Washington. A 300-ton marine railway and a grid capable of handling vessels to 40 feet is available about 0.4 mile southwest of Ocean Beauty Seafoods Wharf. A 210-foot small-craft grid is on the east side of the north boat harbor. Emergency shaft repair and minor repairs can be made in several machine shops adjacent to the waterfront. Repairs to electronic equipment can be made by several local firms.

(376)

Small-craft facilities

(377) The city of Petersburg operates a boat harbor immediately north of the Ocean Beauty Seafoods Wharf and two boat harbors immediately south of the Seafoods Wharf. In 2003, depths of 9 to 15 feet were available in the north boat harbor. In 2002, 15 feet was reported in the south boat harbor and 12 feet was reported in the middle boat harbor. Water and electricity are available on all floats. Surfaced boat-launching ramps are in the southeast corner of the north boat harbor and in the southwest corner of the south boat harbor. The **harbormaster** assigns berths, controls the use of the small-craft grids and maintains an office on the approach pier in the northeast corner of the north boat harbor. The harbormaster's office monitors VHF-FM channel 16.

(378) The U.S. Forest Service owns the south float of the Ocean Beauty Seafoods Pier. Alaska Department of Fish and Game operates a float on the north side of the pier.

(379) A seaplane float is approximately 530 yards southwest of the Ocean Beauty Seafoods Pier.

(380) A state-maintained 95-foot small-craft float is 0.5 mile west of the Ocean Beauty Seafoods Pier at West

Petersburg close northeast of Bayou Point. In 2002, a depth of 3 feet was reported alongside.

(381)

Communications

(382) Petersburg has regular passenger, express and freight service to Puget Sound ports, British Columbia and other Alaska ports by water and air. The Alaska State Ferry System has daily service during the summer to Prince Rupert, BC, Ketchikan, Wrangell, Juneau, Haines, Skagway and Sitka and weekly service to Hoonah, Kake and Seattle. This schedule is less frequent during winter. Scheduled airlines operate daily from Petersburg; charter air service is available. A highway parallels the north shore of Mitkof Island along Frederick Sound for about 5 miles from Petersburg and parallels the west shore of Mitkof Island to Blind Slough, across to Blind Slough on Sumner Strait, and along the south and east shores of Mitkof Island to about 1 mile above Blaquiére Point, about 27 miles from Petersburg. Petersburg maintains telephone and radiotelephone communications, and cellular coverage is quite good throughout this area.

