

PAC 203

Canadian

Sailing Directions

Cape Caution to Stewart and Haida Gwaii

2026/05

Fisheries and Oceans Canada
Pêches et Océans Canada

Canada



PAC 201	**Juan de Fuca Strait and Strait of Georgia**
PAC 202	**Discovery Passage to Queen Charlotte Strait and West Coast of Vancouver Island**
PAC 203	**Cape Caution to Stewart and Haida Gwaii**
PAC 200	**General Information — Pacific Coast**

Pictogram Legend


Anchorage


Current


Radio calling-in point


Wharf


Caution


Lifesaving Station


Marina


Light


Pilotage

Report discrepancies between real-world observations and descriptions in the publication

Users of this publication are requested to forward information regarding newly discovered dangers, changes in aids to navigation, the existence of new shoals or channels, or other information that would be useful for the correction of nautical charts and publications affecting Canadian waters to: chsinfo@dfo-mpo.gc.ca

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Record of Changes

As the CHS acquires new information, relevant changes are applied to Sailing Directions volumes in order to maintain safety of navigation. It is the responsibility of the mariner to maintain their digital Sailing Directions file by ensuring that the latest version is always downloaded. Visit charts.gc.ca to download the most recent version of this volume, with all current changes already incorporated.

The table below lists the most recent changes that have been applied to this volume of Sailing Directions. This record of changes will be maintained at the discretion of the Canadian Hydrographic Service.

Date	Chapter / Paragraph	Description of Change
2025/11	C3	All fixed lights in this chapter have been modified to include a hyperlink to the *List of Lights, Buoys and Fog Signals*. Users can reference that source for additional information on the aid to navigation.
2025/11	C3 / P480	Remove breakwater and piles from the cove west of Bish Creek
2025/11	C4 / P56, P63, P217, P219	Add ODAS buoy
2025/11	C4 / P518	Add **submarine pipeline**
2025/11	C6 / P205, P282	Updated information for *Smyth Passage* ***light buoy*** *C56* and *Masset Inlet* ***light buoy*** *C39*
2025/11	C6 / P294	Updates to Ferguson Bay
2025/11	C6 / P297-298	Updates to **Koutz Rock** and *Richard Island* ***light buoy*** *C41*
2025/11	C7	Updates to light 775, 776, 777 and 780
2026/05	Entire Booklet	Amended “Sail Plan” title in book to “Trip Plan” per Transport Canada
2026/05	Entire Booklet	Table 9: Frequency of Fog, has been removed from the appendices
2026/05	A-3	Updated broken link in “Other References” section of the appendix
2026/05	C1, C8	All fixed lights in this chapter have been modified to include a hyperlink to the *List of Lights, Buoys and Fog Signals*. Users can reference that source for additional information on the aid to navigation.
2026/05	C4 / P200, P201	Delete **radiobeacon**
2026/05	C7, P299	Add silting note in Louise Narrows

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Preface

This edition of *Sailing Directions, PAC 203 — Cape Caution to Stewart and Haida Gwaii*, has been compiled from Canadian Government and other information sources. In general, all hydrographic terms used in this booklet are in accordance with the meanings given in the *Hydrographic Dictionary* (Special Publication No. 32), published by the International Hydrographic Bureau.

This edition introduces a new presentation and layout of the geographical areas.

General information for the British Columbia coast is given in one booklet, S*ailing Directions*, *PAC 200 — General Information, Pacific Coast*. It contains navigational information and a brief description of the main port facilities as well as geographic, oceanographic and atmospheric characteristics.

The detailed descriptions of the geographical areas is given in a series of volumes and booklets. Their limits are printed on page 2 of the booklets. **The appropriate descriptive booklet(s) and volumes of Sailing Directions should be consulted in conjunction with the *PAC 200 — General Information, Pacific Coast* booklet.**

Tide and current information has been revised by the Canadian Hydrographic Service.

Meteorological information has been supplied by the Atmospheric Environment Service, Environment Canada.

The photographs are by the Canadian Hydrographic Service, Fisheries and Oceans Canada and Small craft harbours unless otherwise indicated. Cover photo credit: Jill Heinerth, Ottawa, 2019.

Users' comments concerning the format, content or any other matter relating to *Sailing Directions* would be appreciated and should be forwarded to the Director General, Canadian Hydrographic Service, Fisheries and Oceans Canada, Ottawa, Ontario, Canada K1A 0E6.

References to Other Publications

Canadian Hydrographic Service

- *Catalogue of Nautical Charts and Publications*
- *Canadian Tide and Current Tables*

Canadian Coast Guard

- *List of Lights, Buoys and Fog Signals*
- *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific)*
- *Annual Edition of Notices to Mariners*

Explanatory Notes

Canadian *Sailing Directions* amplify charted details and provide important information of interest to navigation which may not be found on charts or in other marine publications. *Sailing Directions* are intended to be read in conjunction with the charts quoted in the text.

Remarks

Buoys are generally described in detail only where they have special navigational significance, or where the scale of the chart is too small to clearly show all the details.

Chart references, in italics in the text, normally refer to the largest scale Canadian chart but occasionally a smaller scale chart may be quoted where its use is more appropriate.

Distance tables contain approximate distances only that are based on tracks usable by most vessels consistent with safe navigation.

Facilities available to the general public are described. The floats and wharves which are not described can be assumed to be privately owned.

Magnetic Compass Roses must be corrected for annual change in variation.

Names have been taken from the Canadian Permanent Committee on Geographical Names. Where an obsolete name still appears on the chart, it is given in brackets following the official name.

Tidal information relating to the vertical movements of the water is not given and the *Canadian Tide and Current Tables, Volume 7* should be consulted. However, abnormal changes in water level are mentioned.

Wreck information is included where drying or submerged wrecks are relatively permanent features having significance for navigation or anchoring.

Units and terminology used in this booklet

A-frames are derricks generally constructed of logs formed in the shape of the letter "A". They are used for lifting bundles of logs from logging trucks to the water and are usually conspicuous.

Bearings and **Courses** refer to True North (geographic) and are given in degrees from 000° clockwise to 359°. The bearings of conspicuous objects, lights, ranges and light sectors are given from seaward. Courses always refer to the course to be "made good".

Booming grounds can be either areas where logs are yarded and formed into sections, or areas where booms and sections are stored. They are generally private areas, holding water leases, which restrict public usage.

Clearances under bridges, overhead cables, etc., are those at HHWLT.

Conspicuous objects, natural or artificial, are those which stand out clearly from the background and are easily identifiable from a few miles offshore in normal visibility.

Deadheads/Sinkers are logs that have become so waterlogged that they are almost entirely submerged. They usually assume a vertical position; if the water is shallow enough for their bottom end to be aground they can cause massive damage to a hull. They are invisible even in daylight unless a slight swell causes them to break the surface.

Dead-weight tonnage and mass are expressed in metric tonnes of 1,000 kilograms. The kilogram is used for expressing relatively small masses.

Depths, unless otherwise stated, are referred to chart datum. As depths are liable to change, particularly those in dredged channels and alongside wharves and floats, it is strongly recommended that these, when critical, be confirmed by enquiry to the appropriate authority.

Distances, unless otherwise stated, are expressed in nautical miles. For practical purposes, a nautical mile is considered to be the length of one minute of arc, measured along the meridian, in the latitude of the position. The international nautical mile, which has now been adopted by most maritime nations, is equal to 1,852 m.

Elevations on land are given above HHWLT.The elevations of wooded islands, points, etc., are to the tops of trees. **Heights** of objects, as distinct from the elevations, refer to the heights of structures above the ground.

Figures in brackets given after those denoting fathoms, feet or yards, are their equivalent in metres. Those following lights and light buoys are their Canadian Light List number and those after post office are the postal code for General Delivery.

HHWLT (Higher High Water, Large Tides) is the highest predictable tide during an average year in the nineteen year lunar cycle.

HW (High Water) refers to the highest water level achieved during one tidal cycle.

LLWLT (Lower Low Water, Large Tides) is the lowest predictable tide during an average year in the nineteen year lunar cycle.

LW (Low Water) is the lowest water level achieved during one tidal cycle.

Latitudes and longitudes given in brackets are approximate and are intended to facilitate reference to the general area on the chart quoted.

Logbooms are a collection of logs formed into units suitable for towing. They are generally oblong and can range up to 76 m wide and 360 m long. Logbooms are encircled and contained by **boomsticks** formed by logs chained together end to end.

Log dumps are areas where logs are dumped either from A-frames or log ramps. Usually the area is blocked off by boomsticks and pilings.

Public wharf is a wharf that is generally available for public use, though certain fees may be charged by local authorities. Some wharves may give berthing priority to the local fishing fleets or other agencies. It may be shown on older charts as “Government wharf” or “Gov’t whf”.

Radar beacons (Racon) are beacons which respond to radars; a full description is given in *Pacific Coast List of Lights, Buoys and Fog Signals*.

Small craft is the term used to designate pleasure craft and in general, small vessels with shallow draught.

Tidal streams and **currents** are described by the direction toward which they flow. The **ebb** stream is caused by a falling tide and the **flood** stream is caused by a rising tide.

Time, unless otherwise stated, is expressed in Pacific standard or daylight time.

Winds are described by the direction from which they blow.

Pictograms are symbols shown at the beginning of the paragraphs to allow quick reference to information or to emphasize details. The Pictograph Legend is shown on the inside front and back covers of this booklet.

Abbreviations

Units

°C	degree Celsius
cm	centimetre
fm	fathom
ft	foot
h	hour
ha	hectare
HP	horsepower
kHz	kilohertz
km	kilometre
kn	knot
kPa	kilopascal
m	metre
mb	millibar
MHz	megahertz
min	minute
mm	millimetre
NM	nautical mile
t	metric tonne
°	degree (plane angle)
‘	minute (plane angle)

Directions

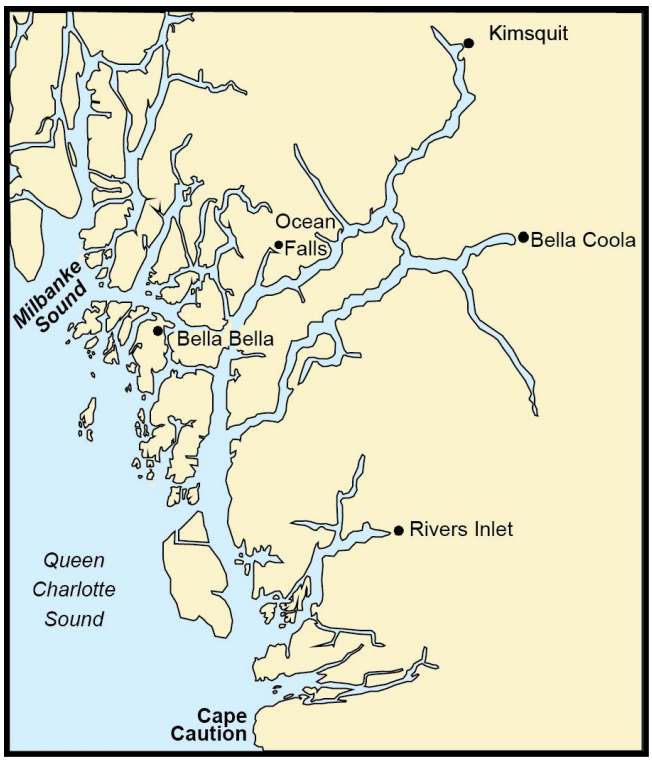
N	north
NNE	north northeast
NE	northeast
ENE	east northeast
E	east
ESE	east southeast
SE	southeast
SSE	south southeast
S	south
SSW	south southwest
SW	southwest
WSW	west southwest
W	west
WNW	west northwest
NW	northwest
NNW	north northwest

Various

A.P.A.	Atlantic Pilotage Authority
CCG	Canadian Coast Guard
CHS	Canadian Hydrographic Service
DFO	Department of Fisheries and Oceans, Canada
DWT	deadweight tonnage
ETA	estimated time of arrival
ETD	estimated time of departure
HF	high frequency
HW	high water
LW	low water
M	million, mega
MCTS	Marine Communications and Traffic Services
NAD	North American Datum
No.	number
SAR	Search and Rescue
U.S.A.	United States of America
VHF	very high frequency
VTS	Vessel Traffic Services

Chapter 1

Queen Charlotte Sound, East Shore and Channels leading to the Inner Passage



General

Chart 3744

1 This chapter covers the east side of Queen Charlotte Sound between the SW extremity of Calvert Island *(51°30'N, 128°05'W)* and Cape Mark at the west extremity of the Bardswell Group *(52°11'N, 128°35'W)*, 45 miles NNW.

Queen Charlotte Sound

Charts 3605, 3744

2 **Queen Charlotte Sound** is the body of water south of Hecate Strait lying between the north end of Vancouver Island and a line joining the south point of Price Island *(52°16'N, 128°41'W)* and Cape St. James, the south extremity of Haida Gwaii.

3 Three individual Marine Protected Areas (MPAs) have been established under the *Oceans Act* on February 2017 in Hecate Strait and Queen Charlotte Sound. The intention of the Northern, Central and Southern MPAs is to protect the Glass Sponge Reefs existing in the area.

4 The Northern and Central Reef Marine Protected Areas are located in Hecate Strait. The Southern one is located in Queen Charlotte Sound. For further information on the MPAs please visit http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/index-eng.html.

5 **Seabed**. — **Cook Bank** *(50°56'N, 128°31'W)*, on the south side of Queen Charlotte Sound, has depths less than 91 m extending up to 20 miles from Scott Islands. A relatively deep trough north of Cook Bank has an arm branching SE into Queen Charlotte Strait, an arm along the north side of Sea Otter Group, and an arm branching north toward Queens Sound and Milbanke Sound.

Chart 3744

6 A bank, with less than 50 fathoms (91 m) over it, lies in the centre of Queen Charlotte Sound north and west of the above-mentioned trough. Least depths over this bank are 17 fathoms (31 m) and lie at its east end *(51°40'N, 128°40'W)*.

7 A deep trough, SE of Haida Gwaii, leads NE from the shelf edge into Queen Charlotte Sound with a branch leading east toward Milbanke and Laredo Sounds and a branch leading north into Hecate Strait. A bank with depths of less than 100 fathoms (183 m), formed between these two branches, has a least depth of 57 fathoms (104 m) at its north end *(52°17'N, 129°56'W)*.

8 The continental slope and shelf edge fronting Queen Charlotte Sound is indented by several canyons. The shelf edge lies at a depth of about 200 fathoms (366 m).



9 *West Sea Otter ODAS* ***light buoy*** *46204 (582.5) (51°24.2'N, 128°41.1'W),* is about 20 miles west of the Sea Otter Group.



10 **Vessel Traffic Services (VTS)**. — The area covered in this chapter is in *Sector 1* of the *Prince Rupert Traffic Zone* and the assigned frequency is 156.55 MHz, Channel 11.

11 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

12 The Calling-in Points are

13 *Calling-in Point No. 35*, called *Triangle Island*, is a line extending 220° from Triangle Island to the limit of the Territorial Sea; it is for changing from *Prince Rupert Traffic Zone South* to *Prince Rupert Traffic Zone North*.

14 *Calling-in Point No. 1A*, called *Cape Caution/ Cape Sutil*, is a line joining Cape Caution light *(578)* to Mexicana Point thence to Cape Sutil, and is the change line between the *Vancouver Traffic Zone* and the *Prince Rupert Traffic Zone*.

15 *Calling-in Point No. 28*, called *McInnes Island/ Cape St. James*, is a line joining McInnes Island light *(619)* and Cape St. James light *(770)*.

16 *Calling-in Point No. 29*, called *Cape Mark/ McInnes Island*, is a line joining Cape Mark light *(616)* and McInnes Island light *(619)*.

17 **Tides**. — Tidal differences in Queen Charlotte Sound for Egg Island (Index No. 8805), referenced on Wadhams (Index No. 8840), tidal differences for Gosling Island (Index No. 8906) and Goose Island (Index No. 8909), referenced on Bella Bella (Index No. 8976), and tidal differences for Cape St. James (Index No. 9502), referenced on Hunger Harbour (Index No. 9570), are given in the Tide Tables, Volume 7.

18 Tidal differences for Cape Scott (Index No. 8790), referenced on Tofino (Index No. 8615), are given in the Tide Tables, Volume 6.



19 **Tidal streams and currents** at the south end of Queen Charlotte Sound *(50°59'N, 129°17'W)* are rotary, turning clockwise, with the maximum (2 kn) occurring 4 hours before HW at Prince Rupert, setting 025°. The minimum rate occurs at HW at Prince Rupert and sets 190°.

20 About 16 hours after the passage of a storm through the sound and where the wind veers from SE to SW to NW the maximum currents will occur about 3.5 hours after HW at Prince Rupert, and can remain out of phase for three or four days. The initial change of phase is usually accompanied by a surge of current about ½ kn greater than usual. This change in the phase of the current is caused by a wind driven inertial current of period 15.4 hours and a starting velocity of 30 cms/sec. (¾ kn). This current slowly decays over a three- to four-day period.

21 Information from tidal stream observations in 1984 in Queen Charlotte Sound is given below.

22 About 16 miles NW of Cape Scott maximum flood sets 045° at 2 kn, last of flood 125° at 1 kn, maximum ebb 235° at 1¾ kn and last of ebb 300° at 1 kn. Last of flood here is at HW Bella Bella, last of ebb at LW Bella Bella.

23 Twenty-eight miles west of Calvert Island first of flood sets 305° at 1 kn, maximum flood 030° at 2 kn, last of flood 125° at 1¼ kn and maximum ebb 210° at 1¼ kn. First of flood here is at LW Bella Bella, last of flood at HW Bella Bella.

24 About 4 miles west of Currie Islet *(51°51'N, 128°28'W)* maximum flood sets 340° at 1 kn, last of flood 030° at ½ kn, first of ebb 105° at ½ kn, maximum ebb 170° at ¾ kn and last of ebb 230° at ½ kn. First of flood here is LW Bella Bella, last of flood at HW Bella Bella.

25 Forty-two miles west of Currie Islet maximum flood sets 010° at 1¼ kn, last of flood 090° at 1 kn, maximum ebb 210° at 1¾ kn and last of ebb 290° at 1 kn. First of flood here is LW Bella Bella, last of flood at HW Bella Bella.

26 **Meteorological information** is available in the Appendices.



27 **Caution**. — A strong outflow from Hecate Strait can occur during large tidal ranges combined with rapid equalization of a large difference in barometric pressure between the coastal area and the head of the inlets.

Unusual currents of 2 to 3 kn setting south were reported in 1968.

28 **Hakai Recreational Area** encompasses the north portion of Calvert Island, the south portion of Hunter Island, Queens Sound and the Goose Group including all the bays, islands, inlets and passages. This is an undeveloped park with only primitive campsites and no garbage facilities; a floating park headquarters is moored in Pruth Bay from May to September.

Blackney Island to Surf Islands

Chart 3727

29 **Blackney Island** *(51°30'N, 128°06'W)* is wooded and connected to Calvert Island by a sand and gravel drying ridge. The bays north and south of the drying ridge are foul. The west side of Blackney Island is fringed with above- and below-water rocks.

30 The west coast of Calvert Island is low and featureless, rising to mountains in the interior of the island.

31 **Fitz Roy Reef**, 1.2 miles NW of Blackney Island, has less than 6 feet (2 m) over it. Shoals, some of which break in heavy weather, extend 1 mile SW from Fitz Roy Reef.

32 **Carrington Reef**, 1 mile north of Blackney Island, extends 0.3 mile from the west side of Calvert Island and consists of a group of drying and below-water rocks. Several drying rocks lie close offshore up to 1.8 miles north of Carrington Reef.

Chart 3935

33 **Bolivar Islet** *(51°34'N, 128°07'W)* lies on a sandy beach. **Dublin Point** is 2 miles NNW.

34 A prominent **microwave tower**, on the 183-m high hill, and two wind driven generators are 3 miles NE of Dublin Point.

35 **Surf Islands** *(51°40'N, 128°09'W)* are 3.8 miles north of Dublin Point. The coast for 2.5 miles south of the islands is fronted by islets and above- and below-water rocks. A rock that dries 4.1 m is about 0.1 mile north of the NE Surf Island.

Hakai Passage and Approaches

36 **Hakai Passage** *(51°43'N, 128°05'W)* leads east from Queen Charlotte Sound into Fitz Hugh Sound. Several dangers lie in the west approach and numerous islets and dangers are on both sides of the fairway.

37 **Tides**. — Tidal differences in Hakai Passage, referenced on Wadhams, are given for Adams Harbour (Index No. 8865), in the Tide Tables, Volume 7.



38 **Tidal streams** in Hakai Passage attain 4 kn at springs, with strong eddies along the shores, on both the flood and ebb. The flood stream sets east past Adams Harbour thence NE through the fairway.

Hakai Passage — South Side

39 **South Pointers Rocks** *(51°40'N, 128°11'W)* are a group of drying, above- and below-water rocks, the south and highest being black with an elevation of 1 m. These rocks are the outermost danger on the south side of the west entrance to Hakai Passage.

40 A chain of islands, the named ones consisting of **Flat Islands**, **Lower Islands**, **Starfish Island** and **Odlum Island**, lies 0.8 mile NE of Surf Islands. **Odlum Point** is the NE extremity of this chain of islands. Drying ledges extend a short distance east and a rock that dries 2.7 m lies south of this point.



41 *Odlum Island* **light** *(see LL 588)* is west of Odlum Point.

42 **Starfish Ledge**, 0.3 mile west of Odlum Island, dries 2 m; the sea usually breaks over this ledge.

43 **Mainguy Rock**, 0.5 mile NE of Odlum Point, dries 0.3 m and is steep-to. **Port Reef**, 0.2 mile SSE of Mainguy Rock, dries 4.2 m. **Foster Rocks** are 0.7 mile east of Mainguy Rock.

44 **Barney Point**, 1.2 miles ENE of Foster Rocks, is the NW extremity of **Hecate Island**. The large bay on the east side of Barney Point has islets near its head inside which small craft might find shelter. A rock that dries 1.4 m lies on the west side of the entrance to this bay. A fishing camp with a float is on the island at the head of the bay during summer months.



45 **Caution**. — Numerous sport fishing boats will be encountered from June to September in the vicinity of Odlum Point, Foster Rocks and Barney Point.

46 The remainder of the NW coast of Hecate Island as far as Goldstream Harbour is free of dangers beyond 0.1 mile from shore. Goldstream Harbour is described in Chapter 2.

Adams Harbour

47 **Adams Harbour**, on the south side and near the west end of Hakai Passage, lies between the chain of islands consisting of Flat, Lower, Starfish and Odlum Islands and

the peninsula that forms the NW part of Calvert Island. It is known locally as **Welcome Harbour**. Though confined, this harbour affords shelter for small vessels from all but strong west winds, which send a swell into the harbour. Local knowledge is advised for entering the harbour. Floating fishing camps are in the harbour during summer months (1990).

48 **Tides**. — Tidal differences for Adams Harbour (Index No. 8865), referenced on Wadhams, are given in the Tide Tables, Volume 7.

49 **Donald Island**, 0.2 mile east of Odlum Island, lies in the north entrance to Adams Harbour. A rock that dries 1.2 m, another with 3.2 m over it and some shoals are on the east side of the fairway between Odlum and Donald Islands

50 The passage on the east side of Donald Island is deep and about 0.1 mile wide. A rock islet, 5 m high, is on the east side of the fairway. A rock with 1.8 m over it is about 0.1 mile SSW of Donald Island.

51 **Leading Island**, 0.3 mile SW of Donald Island, is 49 m high. A group of above- and below-water rocks is about 0.1 mile north and below-water and drying rocks are south of Leading Island. A conspicuous, fine sand beach fronting **Sandspit Point** is 0.3 mile SE of Leading Island.

52 **Choked Passage**, extending south from Adams Harbour, is encumbered with rocks and shoals.

53 **Anchorage** for small vessels is obtainable SE of Leading Island in about 12 m. Exposed **anchorage** for vessels up to 61 m long can be obtained at the south end of Choked Passage, about 0.1 mile north of an unnamed point *(51°40'N, 128°08'W)* on Calvert Island; depths are 12 to 18 m.

54 **Directions**. — Adams Harbour is only suitable for small vessels and caution is necessary, especially when the tidal stream is running at strength. Approaching from the west, round Odlum Point at a safe distance to avoid the foul ground extending east and south from it, then favour the Odlum Island shore until the shoals west of Donald Island are cleared. Then steer to pass 0.1 mile north and east of the rocks lying north of Leading Island, taking care to avoid the rock with 1.8 m over it, and proceed to an anchorage SE of Leading Island.

55 The harbour can also be entered east of Donald Island, passing between the rock with 1.8 m over it and the island about 0.1 mile east of it.

Hakai Passage — North Side

56 **North Pointers Rocks** *(51°44'N, 128°10'W)*, on the north side of the west entrance to Hakai Passage, consist of a group of bare islets and rocks. A shoal, with a least depth of 10.9 m and steep-to on its west side, is 0.7 mile west of the highest islet. A rock with 0.4 m over it lies about 0.4 mile NNW of the same islet; it is steep-to on all but its east side.

57 Another group of islets, drying and below-water rocks extend up to 1.3 miles SW and south from the south end of Stirling Island.

58 **Breaker Group**, 3 miles east of North Pointers Rocks, consists of a group of islands and above- and below-water rocks. The smaller islands are bare. **Breaker Ledge**, on the south edge of the Breaker Group, dries 4.5 m.

59 The south side of **Stirling Island** is indented by a bay with a drying reef in its centre. A bare rock islet, 6 m high, lies 0.2 mile SE of the east entrance point to this bay; drying reefs extend west from the islet.

60 **Planet Group** lies NE of foul ground extending NE from Breaker Group, and consists of **Mercury Islet**, **Mars Islet** and **Jupiter Island**.

61 **Turnbull Inlet**, NE of the Planet Group, penetrates the SW side of **Nalau Island**. A drying reef extends 0.2 mile SSW from the north entrance point of the inlet and a rock with 3.4 m over it lies off the south entrance point. An unnamed inlet, 0.8 mile south of Turnbull Inlet, has its entrance encumbered with drying and below-water rocks. A floating fish camp is at the head of the inlet during summer months.

62 A reef that dries 1.7 m and a rock with 7.1 m over it lie 0.3 mile SW of Bayly Point (described in Chapter 2) the SE point of Nalau Island.

Edward and Ward Channels

Charts 3935, 3936

63 **Edward Channel** *(51°45'N, 128°05'W)*, between Stirling Island and **Underhill Island**, is restricted to less than 0.1 mile wide by islets and rocks in its south entrance and islands abreast the entrance to Lewall Inlet. Local knowledge is advised. Sheltered **anchorage** for small craft can be found in the small cove at the NE end of Edward Channel.

64 **Tides**. — Tidal differences for Edwards Channel referenced on Wadhams, are given for Nammu (Index No. 8870) in the Tide Tables, Volume 7.

65 **Lewall Inlet**, on the west side of Edward Channel, is shallow and less than 91 m wide at its narrowest part. The inlet affords well-sheltered **anchorage** for small craft.

66 **Ward Channel**, between Underhill and Nalau Islands, is less than 91 m wide but has a good depth in the fairway. Drying rocks lie close-off the east shore of the channel.

Kwakshua Channel

Chart 3935

67 **Kwakshua Channel** *(51°42'N, 128°05'W)* leads south and east from Hakai Passage into Fitz Hugh Sound.

68 A private ODAS **light buoy** is in the east entrance of Kwakshua Channel.

69 **Rattenbury Island**, in the north entrance to Kwakshua Channel, has below-water and drying rocks lying close-off its south shore.

70 The passage on the SE side of Rattenbury Island is contracted to about 91 m by a wooded island on the south side of the fairway. Below-water rocks lie near mid-channel, up to 0.4 mile NNE of the wooded island.

71 The passage on the SW side of Rattenbury Island has two unnamed islets and **Boas Islet** in its south end. Shoal water is between the islands. Drying rocks extend 0.1 mile offshore from the north end of Calvert Island and a rock with 5.6 m over it lies 0.15 mile NNW of Boas Islet. A shoal with a depth of 2.3 m is 0.2 mile SE of Boas Islet.

72 An islet, 23 m high, is 0.6 mile south of Rattenbury Island and 0.2 mile off the Hecate Island shore. The passage between the islet and Hecate Island has a rock 1 m high in it. Floating fishing camps are in the bay east of this islet, during summer months (1990).

73 **Meay Islet**, 1.2 miles south of Rattenbury Island, is at the north end of a group of islets and rocks lying in mid-channel. On the east side of the channel, abreast the above-mentioned group of islets, are two islands with a small treed islet between them.

74 **Whittaker Point** is the SW extremity of Hecate Island. A private ODAS **light buoy** is approximately 0.4 mile south of Whittaker Point.

75 A **microwave tower**, 183 m high, and two conspicuous wind driven generators are 1.2 miles SSW of Whittaker Point.

76 **Pruth Bay** *(51°39'N, 128°07'W)*, a popular small craft **anchorage**, has three arms at its head. A rock with 2.7 m over it is close-off the north shore just inside the entrance to the bay. The south arm has small islets and drying rocks extending 0.2 mile east from its west entrance point.

77 **Keith Anchorage** has an abandoned house and cabin on the NE shore of the point that separates the two arms of the anchorage.

78 **Anchorage** can be obtained midway between the entrance points of Keith Anchorage in 20 m. This anchorage is reported to be unsafe in SE gales because of heavy squalls that funnel down the valleys at its head.

79 A small cove, 0.2 mile east of Keith Anchorage, has a wooded islet in its entrance. A rock with 3.8 m over it lies in the passage south of the islet. **Anchorage**, with good holding, is obtainable in this cove.

80 Seasonal barges and **floats** may be moored in the cove at the mouth of **Big Spring Creek**.

PRUTH BAY — WEST ARM (1987)



KEITH ANCHORAGE (1987)



81 From Whittaker Point to Fitz Hugh Sound (described in Chapter 2) the fairway is deep and free of dangers to within 0.1 mile from either shore.

Nalau Passage

Charts 3935, 3936

82 **Nalau Passage** *(51°47'N, 128°02'W)* connects Kildidt Sound to Fitz Hugh Sound and Edward and Ward Channels lead south to Hakai Passage.

83 The west entrance to Nalau Passage has several islets and drying and below-water rocks extending up to 0.8 mile off the NW shore of Stirling Island. The outer rock is 1 m high. On the north side of the entrance, drying and below-water rocks extend up to 0.5 mile off the SW extremity of Hunter Island. Drying and below-water rocks lie close-off the shores in the west portion between Stirling and Hunter Islands.

84 **Tidal streams** attain 3 kn in the narrows between Hunter and Stirling Islands.

85 **Mustang Bay** *(51°49'N, 128°03'W)* is at the east end and on the north side of Nalau Passage. A number of islands, drying reefs and rocks extend 1 mile south from the entrance of Mustang Bay.

86 **Target Bay** lies 0.3 mile east of Mustang Bay. Several shoals are within 0.5 mile south of the entrance to the bay and a drying reef lies in the centre of the bay.

87 **Hergest Point**, east of Target Bay, is the NE entrance point of Nalau Passage. A wooded island, 0.5 mile south of Hergest Point, has drying and below-water rocks close west of it; a rock 2 m high lies off its north shore. The recommended track for entering Nalau Passage is the passage north of the 2-m rock mentioned above.

88 **Tomahawk Island**, 0.9 mile south of Hergest Point, has a rock with 0.5 m over it close north of it. A good passage leads between the north end of Tomahawk Island and the island north of it but take care to avoid the above-mentioned rock. Two rocks, one with 0.2 m over it the other dries 0.1 m (awash), are about 0.2 mile NNW of Daedalus Point, previously described. The passage between the two largest islets close south of Tomahawk Island is obstructed by boomsticks (1987).

Kildidt Sound

Charts 3727, 3935, 3937

89 **Kildidt Sound** *(51°50'N, 128°09'W)* penetrates the SW side of Hunter Island, leading through Kildidt Narrows into Kildidt Inlet. The sound is too deep for anchorage and is exposed to SW winds; however, small craft can find shelter in Bremner Bay or in some of the numerous bays at the head of the sound. The land on both sides of the sound is relatively low; the mountains on Hunter Island line its east coast.

Chart 3935

90 The approach to Kildidt Sound from Queen Charlotte Sound is between Stirling Island, on the north side of Hakai Passage, and Blenheim Island, about 4.5 miles NW. Alternative approaches are from Fitz Hugh Sound by way of Nalau Passage, previously described, or from Queens Sound by way of Spider Channel or Fulton Passage, thence through Brydon Channel into Kildidt Sound. Spitfire Channel is an alternative approach for small craft. These alternative approaches are intricate and local knowledge is advised.

91 **Airacobra Rock** *(51°46'N, 128°13'W)* is bare. A shoal with a least depth of 1.7 m extends 1.2 miles SSW of Airacobra Rock.

92 **Blenheim Island**, 1.7 miles NW of Airacobra Rock, is wooded with high white cliffs. A rock with 0.8 m over it is 0.7 mile south of Blenheim Island. Two rocks, 1 and 3 m high, and a drying rock lie 0.4 mile NW and a rock

with 4.6 m over it is 0.2 mile north of the island. Two bare islets joined by a drying ledge are 0.5 mile NE of Blenheim Island.

Charts 3935, 3937

93 **Breadner Group** *(51°48'N, 128°14'W)* is the group of islands and rocks on the west side of Kildidt Sound, south of Spider and Hurricane Islands. **Kidney Island**, **Ronald Island**, **Triplet Islands** and **Manley Island** form the east portion of this group. Kidney Island, 1.5 miles ENE of Blenheim Island, is joined to the islets on its east side by drying ledges. A rock with 1.9 m over it and several shoals lie up to 0.5 mile SSW of Kidney Island.

94 **Serpent Group**, 0.9 mile east of Kidney Island, consists of three main islands and numerous smaller ones in the entrance to Kildidt Sound. Drying and below-water rocks lie within 0.2 mile of the NE and SW sides of Serpent Group, and depths under 10 m lie up to 0.4 mile SW.

95 **Leckie Bay**, at the SW end of Hunter Island, is too deep and exposed to have any value as an anchorage. The shores of the bay are fringed with rocks and have several indentations. A group of small wooded islands and drying rocks extend 0.5 mile south from the west entrance point of the bay; they are separated from Hunter Island by a deep, narrow passage. A reef, in the middle of the entrance to Leckie Bay, dries 2.7 m at its north end and is steep-to on its east side.

Chart 3937

96 **Camel Island** *(51°49'N, 128°08'W)* and **Clare Island**, with **Rupert Island** east of the latter, are separated from each other and from Hunter Island by narrow boat passages. The passage between Clare and Rupert Islands dries. The west sides of Camel and Clare Islands are steep-to.

97 **Watt Bay** is entered between Clare Island and **Seafire Island**, about 1 mile north; its entrance is encumbered by three islands and a rock awash. A deep, clear channel into the bay is between Clare Island and the two islands north of it. An islet, 25 m high, almost in the middle of the bay, has a shoal 0.1 mile ENE of it. Several islets and rocks are close-off the south and east shores of Watt Bay.



98 **Bremner Bay**, in the NE part of Watt Bay, affords good sheltered **anchorage** for small vessels in 16 to 25 m. The entrance is narrow and lies between a rock with 0.8 m over it close north of the south entrance point and two islets on the north side. Local knowledge is advised.

99 **Mosquito Islets**, on the west side of the fairway between Clare Island and the Kittyhawk Group, consist of a chain of islets and drying rocks. **Lancaster Reef**, 0.2 mile south of Mosquito Islets, consists of two rocks with 1.7 and 2 m over them. A reef with three heads and a least depth of less than 2 m lies close west of Mosquito Islets.

100 **Kittyhawk Group**, west of Mosquito Islets, is a group of islands north of Manley Island.

101 **Brydon Channel**, between the Kittyhawk Group and **Hurricane Island**, is a tortuous passage encumbered with islets, drying reefs and below-water rocks; it connects Kildidt Sound with Spider Anchorage, described later in this chapter.

102 Spitfire Channel entered east of Hurricane Island is described later in this chapter.

103 **Goodlad Bay** *(51°53'N, 128°09'W)* is at the NW end of Kildidt Sound. An islet, about 0.3 mile inside the entrance and in the centre of the bay, has a rock awash close south of it. A rock 2 m high and 0.1 mile offshore is 0.2 mile ESE of the east entrance point of Goodlad Bay and a rock with 6.6 m over it lies 0.1 mile south of the east entrance point.



104 **Anchorage** for small craft can be obtained in 7 to 20 m in the SW part of Goodlad Bay; swinging room is limited.

Charts 3937, 3936

105 **Stewart Inlet** *(51°53'N, 128°08'W)* has a minimum navigable width of 91 m. Several islets and rocks lie on both sides of the fairway. A rock with 5.7 m over it lies in the approach about 0.3 mile NW of the largest island of the Pattinson Group.

106 **Pattinson Group**, on the SW side of the entrance to Kildidt Narrows, consists of one large and several smaller islands. A rock, 0.1 mile east of the group, dries 5.1 m and is steep-to on its west side.

107 **Kildidt Narrows**, with islets and rocks in the south approach, has a least depth of 6.5 m in the fairway but is only suitable for small craft at HW slack. Tidal streams are strong and drying and below-water rocks are on both sides of the fairway. Local knowledge is advised.



108 **Tidal streams** in Kildidt Narrows can attain 12 kn at spring tides with eddies and turbulence on both the flood and the ebb. High water slack occurs approximately 1.5 hour after high water at Bella Bella. The time difference for low water slack varies with the height of the tide. For a low water of 0.4 m, the turn to flood occurs 2 hours or more after low water at Bella Bella; for a low water of 2.5 m, the turn to flood occurs approximately 1 hour after low water at Bella Bella.

KILDIDT NARROWS — SOUTH ENTRANCE (1987)



109 **Kildidt Inlet** extends north from Kildidt Narrows and branches into two arms in the vicinity of **Gnat Islets**.

110 **Kildidt Lagoon** extending NW from Gnat Islets is the wider and deeper of the two arms of Kildidt Inlet. **Canso Island** is north of Gnat Islets and the **Hart Group** lies near the head of the lagoon.

111 **Merritt Lagoon**, the east arm of Kildidt Inlet, has a narrow, tortuous entrance channel.

Queens Sound

Chart 3937

112 **Queens Sound** is entered from south between the Breadner Group *(51°48'N, 128°14'W)* and Gosling Rocks, 8 miles WNW. From the west, it is entered from Golby Passage, which lies between Goose Group and McMullin Group. The east side and the head of the sound are encumbered by a maze of islands through which navigable channels lead to Hunter Channel and Raymond Passage. Fulton Passage, north of Breadner Group, leads to Spider Anchorage and then Brydon Channel leads into Kildidt Sound. Spider Channel, 2 miles north of Fulton Passage, leads east through Spitfire Channel into Kildidt Sound. Islands on the east and west sides of Queens Sound are relatively low and featureless. **Mount Merritt** *(51°59'N, 128°02'W)*, north of Kildidt Lagoon, is the highest land in the vicinity.

113 **Tides**. — Tidal differences in Queens Sound, referenced on Bella Bella, are given for Gosling Island (Index No. 8906), Goose Island (Index No. 8909) and Spider Island (Index No. 8912) in the Tide Tables, Volume 7.

114 **Tidal streams** attain 2 to 3 kn about 2 miles NW of Purple Bluff *(51°56'N, 128°18'W)*. Strong tide-rips are encountered over and around Gosling Rocks and in the vicinity of Superstition Ledge *(51°53'N, 128°15'W)*.

Goose Group

115 **Goose Group** *(51°55'N, 128°27'W)* consist of Goose, Swan, Duck, Gosling and Gull Islands, all connected by drying ledges, and Gosling Rocks, which lie south of the main group. Drying and below-water rocks fringe the west and north coasts of Goose Group.

116 **Tides**. — Tidal differences for Gosling Island (Index No. 8906), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

117 **Gosling Rocks**, extending 3.2 miles SSW from **Gosling Island**, consist of a number of bare islets, up to 10 m high, and numerous drying and below-water rocks. **Currie Islet** is near the south extremity of Gosling Rocks.



118 *Currie Islet (Gosling Rocks)* **light** *(see LL 589)* is on Currie Islet.

119 A shoal area, on which there are several rocks with 2.5 to 9.4 m over them, is 1.5 miles SSW of **Duck Island**. **Swan Island** lies 0.4 mile north of Duck Island.

120 **Vivian Rock**, 1.3 miles west of Duck Island, dries 4.8 m and an 8.7-m shoal is 0.2 mile north of the rock.

121 **Goose Island Anchorage** is on the east side of Goose Group between Goose and Gosling Islands. **Snipe Island** and **Gull Island** lie on the south side of the anchorage. Drying rocks and rocks with less than 2 m over them extend 0.3 mile SE, east and NE from Gull Island.



122 **Anchorage** can be obtained about 0.3 mile north of Gull Island in 13 to 27 m.

123 **Goose Island** has prominent white cliffs near its NE end.

Golby Passage and McMullin Group

124 **Golby Passage** *(52°01'N, 128°25'W)* separates Goose Group from McMullin Group and leads into the head of Queens Sound. Although the fairway is deep, it should only be navigated in clear weather, during daylight hours, because of unmarked dangers in the vicinity.

125 **Tides**. — Tidal differences for Goose Island (Index No. 8909), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

126 **Bourke Rock**, with 5.2 m over it, is 1.5 miles NW of the NW extremity of Goose Island. Seas occasionally break over this rock.

127 **Weyburn Rock**, 1.2 miles east of Bourke Rock, has 2.2 m over it. Numerous below-water rocks lie between Goose Island and Weyburn Rock.

128 **McMullin Group**, on the north side of Golby Passage, consists of two main islands and numerous islets, drying rocks, rocks awash and below-water rocks, extending up to 0.5 mile south of the islands.

129 **Tingley Rock**, 1.8 miles west of the west edge of McMullin Group, dries 3.1 m and the sea nearly always breaks on it. Two rocks with less than 2 m over them are 1.3 miles ESE of Tingley Rock, and a 10.5-m shoal lies midway between them.

130 **Peveril Rock**, 1.5 miles NE of the north extremity of Goose Island, is 2 m high. A detached rock with 0.8 m over it is 0.6 mile WSW of Peveril Rock, on the NE side of the fairway through Golby Passage.

Fulton Passage and Spider Anchorage

131 **Triquet Island** *(51°48'N, 128°15'W)*, **Typhoon Island**, **Edna Islands**, **Anne Islands** and the **Lyte Group**, with numerous islets and rocks between them, form the west portion of the Breadner Group.

132 **Fulton Passage**, entered north of Typhoon Island, leads east from Queen Charlotte Sound into Spider Anchorage. The fairway through Fulton Passage is about 137 m wide, and deep. The Spider Island shore is indented by several bays and several islets, drying and below-water rocks lie close-off it. A reef with two drying heads is on the south side of the fairway, about 0.2 mile east of the north end of Typhoon Island. A 5.1- m shoal is close east of this reef and a rock with 6.6 m over it lies near mid-channel on the south side of the fairway.

133 **Spider Anchorage** has uneven depths ranging from 10.7 to 59 m. A rock, 0.2 mile NNE of the north end of Anne Islands, is 1 m high. Brydon Channel, previously described, leads east from Spider Anchorage into Kildidt Sound.

134 **Tides**. — Tidal differences for Spider Island (Index No. 8912), referenced on Bella Bella, are given in the Tide Tables, Volume 7.



135 **Anchorage** can be obtained about 0.3 mile west of the south extremity of Hurricane Island in 59 m. Small vessels can obtain anchorage about 0.1 mile NNE of the north extremity of Manley Island in 10 to 30 m or between Edna Island and Anne Islands in 10 to 33 m.

Spider and Spitfire Channels

136 **Spider Island** *(51°51'N, 128°15'W)* is a large wooded island with high, bold, white cliffs at its NW end. **Breadner Point**, its west extremity, is a remarkable cliffy point.



137 *Spider Channel* **light** *(see LL 588.7)*, is on an islet close-off the NW end of Spider Island.

CULTUS SOUND ENTRANCE — LOOKING EAST (1987)



138 **Spider Channel**, entered north of Spider Island, leads between Spider and Spitfire Islands into Spider Anchorage. A drying rock and shoals lie across the entrance. A rock, 2 m high, is 0.1 mile off the NE point of Spider Island. **Stopper Group**, at the south end of Spider Channel, obstructs the channel leading into Spider Anchorage. Local knowledge is advised because of the numerous obstructions in the Stopper Group and the shoals in the north entrance.

139 **Spitfire Channel**, which separates **Spitfire Island** and Hurricane Island from Hunter Island, is a very narrow boat passage leading from Spider Channel into Kildidt Sound. It has a least depth of 1.9 m at its narrowest part. The east end is encumbered with islets, drying and below-water rocks. Local knowledge is advised.

140 **Swordfish Bay** *(51°53'N, 128°14'W)*, north of Spider Channel, has a shoal spit extending 0.1 mile south from its north entrance point. A rock that dries 2.5 m is at the south end of the shoal spit. The bay has three shallow arms but the outer part has depths up to 12.6 m.

West Approaches to Hunter Channel

141 The three main west approach channels to Hunter Channel are Cultus Sound, Lillooet Passage and Safe Passage.

142 **Superstition Point** *(51°53'N, 128°15'W)* is the NW extremity of a group of islets that are connected to Hunter Island by a narrow drying ledge. **Superstition Ledge**, 0.2 mile SSW of Superstition Point, consists of a group of drying and below-water rocks. The sea breaks heavily at times on this ledge and there are strong **tide-rips** in the vicinity.

143 **McNaughton Group** and **Simonds Group** lie northward of Superstition Point. **Granville Islands** lie in the south part of the channel that separates the McNaughton and Simonds Groups. The north part of this channel is obstructed by numerous islets, drying and below-water rocks.

144 **Purple Bluff**, the west extremity of the largest island in the Simonds Group, has high, bold cliffs which, in some lights, take on a purple tint.

145 **Guy Island**, the north islet of the Simonds Group, is surrounded by drying and below-water rocks. The westernmost danger off the Simonds Group is a drying reef lying 0.5 mile west of Guy Island.

Cultus Sound

146 **Cultus Sound** *(51°54'N, 128°14'W)*, on the east side of Queens Sound, is bounded on the north and west by the McNaughton Group and on the south and east by Hunter Island. Entered 1 mile north of Superstition Point it leads NE, then north, through Sans Peur Passage into the south part of Hunter Channel.

147 **Goolden Islands** are in a bight on the south side of the sound, 1 mile within the entrance.

148 **Anchorage** can be obtained in an emergency about 0.2 mile north of Goolden Islands in 48 m. Emergency anchorage can also be obtained 0.2 mile NE of the same islands in 16 to 26 m. Swell is encountered in these anchorages.

149 **Lane Rock**, 0.9 mile NE of Goolden Islands, has 1.5 m over it. The rock lies in the centre of the fairway through Cultus Sound and is steep-to on its east side.

150 **Kinsman Inlet** is entered 1 mile north of Lane Rock. Drying rocks are on both sides of the entrance and in mid-channel 0.4 mile within the entrance, and a depth of 1.7 m lies in the narrow section about 1 mile within the entrance. The south arm of the inlet leading to **Kinsman Lagoon** is narrow, shallow and encumbered with drying and below-water rocks. **Tidal streams** reach 8 to 10 kn in the narrows.

151 **Sans Peur Passage** is less than 0.1 mile wide at its narrowest part. Shoals with 5.3 and 4.3 m over them lie near mid-channel at the south entrance. The north end of the passage widens, deepens, and joins the south end of Hunter Channel.

Lillooet and Safe Passages

152 **Prince Group** *(52°00'N, 128°15'W)* is a chain of islands across the south entrance to Hunter Channel. **Robert Island** is the south island of the group.

153 **Beard Islands**, 0.6 mile west of Robert Island, mark the north side of the west entrance of Lillooet Passage.

154 **Lillooet Passage**, close south of Beard Islands and Robert Island, is a deep but narrow passage and affords the shortest route from Queens Sound into Hunter Channel. Because of many dangers in its vicinity, it is only recommended for use during daylight hours and with visibility sufficient to identify all landmarks.

155 **Dangers**. — A rock, 4 m high and steep-to on its south side, lies on the north side of Lillooet Passage between Beard Islands and Robert Island. A reef of drying and below-water rocks is on the south side of Lillooet Passage, 0.3 mile south of Beard Islands; the highest rock dries 1.8 m. A rock, on the south side of the passage, about 0.4 mile WSW of Robert Island, is 5 m high and a rock that dries 2.6 m is close south of it. A rock awash is close south of Robert Island. A chain of drying rocks lies on the south side of the fairway, about 0.2 mile south of Robert Island; the north rock dries 2.7 m.

156 **Admiral Group** lies 0.4 mile NW of Prince Group; **Brodeur Island**, **Jones Island** and **Nelles Island** are the named islands of the group.

157 **Safe Passage** leads between Prince and Admiral Groups and affords an alternative route, by rounding Prince Group, to enter Hunter Channel to the SE, as well as a route to Raymond Passage to the north. It is advised to navigate this passage only during daylight hours with clear visibility.

158 **David Ledge** extends 0.2 mile NW from the north island of Prince Group. An island 70 m high, 0.4 mile ENE of the north end of Prince Group, has islets and drying rocks close west of it.

159 **Henry Rock** is in mid-channel east of the Prince Group. A drying rock and a rock awash are close NW and south, respectively, of Henry Rock.

160 A rock that dries 1.7 m is 0.3 mile ENE of the north end of Robert Island.

161 **Directions**. — If approaching Hunter Channel from south by way of Lillooet Passage or Safe Passage keep at least 1 mile west of Simonds Group. After identifying Beard Islands, and if intending to enter by way of Lillooet Passage, steer for the south point of Robert Island bearing 101°, passing a little more than 0.1 mile south of Beard Islands and midway between the 4 and 5 m high rocks that lie on the north and south sides of the fairway. Round the south side of Robert Island, passing midway between the rock awash off Robert Island and the 2.7 m drying rock on the south side of the fairway opposite it, then steer to enter Hunter Channel midway between Stubbs Point and Latta Island.

162 Safe Passage should be approached with the SE extremity of Jones Island in line with the 61-m high islet, 0.2 mile NE of it, bearing 034°. When within 0.5 mile of Jones Island steer to pass slightly more than 0.1 mile SE of Jones Island and the 61-m high islet. David Ledge should be rounded at a prudent distance then set a course to pass midway between Henry Rock and Dodwell Island and then around the SW side of Dodwell Island into Hunter Channel.

Hunter Channel

Charts 3937, 3938

163 **Hunter Channel** *(52°00'N, 128°11'W)*, between the NW side of Hunter Island and **Campbell Island**, connects Queens Sound to Lama Passage. The approach routes from Queens Sound, described earlier, are by way of Cultus Sound, Lillooet Passage or Safe Passage. The fairway is deep throughout and there are no dangers more than 0.2 mile offshore.

Chart 3937

164 **Latta Island** *(51°59'N, 128°13'W)* lies in the south entrance of Hunter Channel. A reef extends 0.2 mile NNE from the NE side of the island; it dries 2.2 m at the north end. A group of islets extends about 0.6 mile south from the south side of Latta Island; the narrow passage to the SW of these islets is usable by small craft.

165 **Dodwell Island** lies 0.4 mile north of Latta Island. **Stubbs Point** is its south extremity. The channel north and east of Dodwell Island is encumbered with islands and drying and below-water rocks.

166 **Anchorage** for small craft, out of the main tidal stream, can be obtained in the cove on the south side of Dodwell Island, west of Stubbs Point.

167 **Soulsby Point**, 1.5 miles NE of Stubbs Point, has a drying spit, close NE, extending 0.1 mile offshore. Two islets, 1.6 miles north of Soulsby Point, have drying rocks and a rock with 6.2 m over it north of them.

Chart 3938

168 Between the above-mentioned islets and **Bay Island** *(52°04'N, 128°10'W)* an inlet extends 2.5 miles NNW terminating in a landlocked lagoon. The inlet is only suitable for small craft.

169 **Hart Island**, **End Island** and **Want Island** fringe the NW coast of Hunter Island. A rock with 1.6 m over it is about 0.2 mile north of Want Island with a drying rock between.

170 **Mouse Island** *(52°04'N, 128°07'W)* lies 0.7 mile NE of Want Island. **Beak Point**, 0.5 mile ENE of Mouse Island, is the NW extremity of Hunter Island.



171 **Bob Bay**, entered SE of Mouse Island, has **Spire Point** on the east side of its entrance. **Anchorage** about 0.2 mile from the head of Bob Bay is well sheltered though swinging room is limited; depths are about 33 m.

172 Lama Passage is described in Chapter 2.

Charts 3937, 3938

South Approaches to Raymond Passage

173 The north end of Queens Sound *(52°00'N, 128°21'W)* is filled with numerous islands through which four routes lead north to the south end of Raymond Passage. Local knowledge is advised for Tide Rip Passage *(52°01'N,128°18'W)* and the passage between Athabaskan and Iroquois Islands. Codfish Passage *(52°04'N, 128°20'W)*, the most direct route, and Safe Passage *(52°01'N, 128°16'W)* are the preferred routes.

174 **Tribal Group** *(52°02'N, 128°19'W)* consists of **Athabaskan Island**, **Iroquois Island**, **Huron Island**, **Haida Islands** and several smaller islands.

175 **Tide Rip Passage** separates Admiral Group from the SE side of Athabaskan Island and local knowledge is advised. A chain of drying and below-water rocks extends 0.4 mile south from the south end of Athabaskan Island; the south rock of this chain dries 1.2 m.

176 **Murray Shoals**, 0.9 mile south of Athabaskan Island, lie in the south approach to Tide Rip Passage and the passage leading north between Athabaskan and Iroquois Islands. The shoals consist of several detached shoal heads with depths of 16.2 to 3.7 m over them.

177 **Beech Islet** lies in the centre of the fairway at the north end of Tide Rip Passage. A rock, 3 m high, is 0.6 mile north of Beech Islet and 0.2 mile off the east shore of Athabaskan Island.

178 **Pullen Island** *(52°03'N, 128°17'W)* has above-water, drying and below-water rocks extending 0.1 mile south and east from it. **Shot Island**, 0.3 mile south of Pullen Island, has drying rocks off its north and NW sides.

Chart 3938

179 **Brown Narrows** *(52°04'N, 128°18'W)* separates **Creery Islands**, on the west side, from **Piddington Island** on the east side. A chain of above-water, drying and below-water rocks extends along the west side of Brown Narrows between the two main Creery Islands. **Farmer Point** is on the SW side of Piddington Island.

Charts 3937, 3938

180 **Danger Point** *(52°01'N, 128°20'W)*, at the SW extremity of the Tribal Group. Drying reefs, 0.6 mile east of Danger Point, extend 0.4 mile south from Iroquois Island with an islet 2 m high at the south end.

181 The passage leading north between Athabaskan and Iroquois Islands, at its south end, and between Creery Islands and Miles Island, near its north end, is straight and about 46 m wide. Local knowledge is advised because of Murray Shoals and other dangers off the south entrance, and drying and below-water rocks on both sides of the fairway.

182 **Guano Rocks** *(52°03'N, 128°22'W)*, on the west side of the south approach to Codfish Passage, consist of an islet 7 m high and several drying and below-water rocks. Two detached drying rocks are 0.3 mile SSW of the islet. A rock 4 m high and below-water rocks with 4.5 and 2.4 m over them lie close west of the Haida Islands.

Chart 3938

183 **Tuft Islands** *(52°04'N, 128°22'W)* commence 1.2 miles north of Guano Rocks and extend west then NW as a chain through the shoal-filled waters between McMullin Group and Stryker Island. **Seen Island** is near the west end of this chain.

184 **Codfish Passage**, entered from the south between Guano Rocks and Huron Island, leads NE between **Miles Island** and **Alleyne Island** into Raymond Passage. Drying and below-water rocks extend north from Miles Island and the island close east. This is the most direct route from Queens Sound into Raymond Passage and in clear weather presents no difficulties.

185 **Stryker Island** is on the west side of the entrance to Raymond Passage.

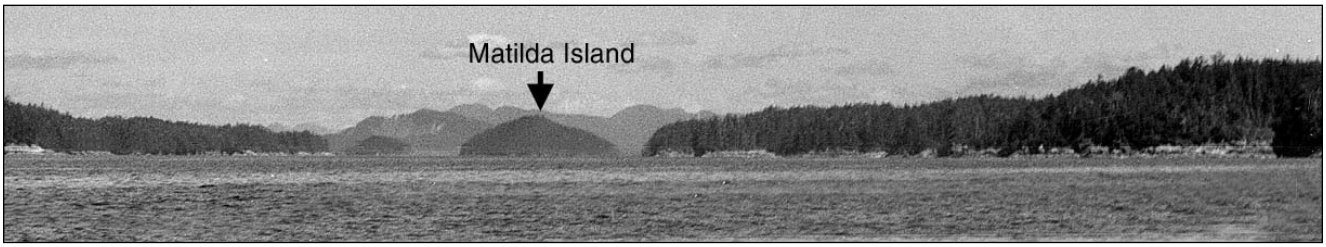
186 **Tides**. — Tidal differences for Stryker Island (Index No. 8917), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

187 **Kingscote Point**, at the NW end of Piddington Island, has drying and below-water rocks extending about 0.2 mile north from it.

188 **Peter Bay**, on the north side of Piddington Island, has **Gow Island** and two unnamed islands in its entrance. The passage NE of Gow Island is only about 300 feet (91 m) wide but provides the easiest access; a rock that dries 2 feet (0.6 m) lies in this passage, close-off the NE shore.

189 The channel east of Piddington Island is encumbered with islands and rocks at its south end. **Redford Point** is on Campbell Island abreast the east extremity of Piddington Island.

CODFISH PASSAGE ENTRANCE (1987)



190 **Anchorage** for small vessels can be obtained in the south part of Peter Bay in 18 fathoms (33 m). When entering Peter Bay, round the north end of Gow Island and keep close to the NE shore of that island until clear of the drying rock.

191 The inlet east of Redford Point is obstructed by an islet and a drying rock 0.7 mile SE of the point. A narrow passage with a depth of 16 feet (5.0 m) is SW of this islet. The narrows 0.4 mile SE has a drying rock and a limiting depth of 8 feet (2.5 m).

192 **Hochstader Basin** is entered 0.5 mile NE of Gow Island through a channel encumbered with numerous islands, drying and below-water rocks. Local knowledge is advised.

193 **Directions**. — The two preferred routes for approaching Raymond Passage from Queens Sound are via Codfish Passage or Safe Passage.

194 To enter via Codfish Passage make for a position about 0.5 mile east of Peveril Rock *(52°01'N, 128°23'W)* and then bring the NW extremity of Miles Island ahead, bearing 026°, which course will lead between Guano Rocks and the dangers NW of Huron Island. When the highest of the Guano Rocks is abeam, alter course to pass midway between Alleyne and Miles Islands, after which a mid-channel course can be followed in Raymond Passage.

195 Entering Raymond Passage via Safe Passage and Brown Narrows follow the first part of the directions for Safe Passage, given earlier in this chapter. The NE side of the Admiral Group should then be rounded at a distance of slightly more than 0.1 mile, then set a course to pass midway between Pullen Island and the NE shore of Athabaskan Island. When Pullen Island is abeam alter course to pass about 0.1 mile east of the 3 m high rock at the south end of Brown Narrows then favour the west shore of Brown Narrows. When clear of the north end of Creery Islands, follow a mid-channel course into Raymond Passage.

Raymond Passage

196 **Raymond Passage** between Campbell Island and **Horsfall Island** connects Queens Sound to Seaforth Channel. The south approach is by way of Codfish Passage or Safe Passage.

197 **DeWolf Island** *(52°07'N, 128°18'W)* is on the east side of the south entrance to Raymond Passage. **Matilda Island** is close east. The boat passage between DeWolf and Matilda Islands is free of dangers. The boat passage between Matilda and Campbell Islands has a rock 1 foot (0.3 m) high in its north entrance.

198 **Clarie Island**, 0.5 mile west of Matilda Island, has a shoal ledge, on which there are rocks with less than 6 feet (2 m) over them, extending 0.1 mile south from it.

199 **Kingsley Point**, 0.4 mile NW of DeWolf Island, is the east extremity of an island close south of Horsfall Island.

200 **Cundall Bay**, 2 miles NE of Kingsley Point, is too deep for anchorage. A reef on which there are above-water and drying rocks extends 0.2 mile east from the south entrance point of the bay.

201 **Poole Islet** is 0.8 mile north of Cundall Bay.

202 **Norman Morison Bay**, at the north end of Raymond Passage, is entered south of **Kintail Point**. Its south and east shores are fringed with islets and drying rocks.

203 **Anchorage**, sheltered from SE winds, can be obtained in 15 to 17 fathoms (27 to 50 m) about 0.3 mile off the south shore of the outer part of Norman Morison Bay; in this anchorage Kintail Point in line with the west extremity of Christiansen Point bears 008°. Small vessels can find anchorage closer to the head of Norman Morison Bay.

204 **Hose Point**, 0.7 mile WNW of Kintail Point, is the east extremity of Horsfall Island at the junction of Raymond Passage and Seaforth Channel.

RAIT NARROWS LOOKING SW (1987)



205 Seaforth Channel is described in Chapter 2.

Joassa Channel

206 **Joassa Channel** *(52°10'N, 128°19'W)*, between Horsfall Island on the east and Stryker, Potts and Dufferin Islands on the west, leads from the south end of Raymond Passage via Boddy Narrow, at the south end, and Rait Narrows at the north end, into Dundivan Inlet. It is only suitable for small craft. Local knowledge is advised.

207 **Tides**. — Tidal differences for Joassa Channel (Index No. 8922), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

208 **Boddy Narrows**, at the south end of Joassa Channel, has **Isabel Point** on its east side. The fairway as far north as **Reba Point** is deep and free of dangers. Between Reba Point and **Quinoot Point**, 0.8 mile north, a group of drying rocks lies on the east side of the fairway. A shoal with a least depth of 31 feet (9.3 m) lies in mid-channel 0.8 mile NE of Quinoot Point. The channel narrows 1.5 miles NE of Quinoot Point and is encumbered with numerous drying and below-water rocks at its north end.

209 **Rait Narrows**, at the north end of Joassa Channel, is only 150 feet (46 m) wide and has a least depth of 20 feet (6 m). It leads into the south end of Dundivan Inlet, which is described in Chapter 2.

Gale Passage, Louise Channel and South Approaches

210 The south approaches to Gale Passage and Louise Channel are between Cape Mark *(52°09'N, 128°32'W)* (described in Chapter 3), and the McMullin Group, about 7 miles SE.

211 **Hope Rocks**, 0.8 mile south of Cape Mark, have a least depth of 0.6 m over them.

212 **Rempstone Rocks**, 2 miles SSE of Cape Mark, consist of a group of above-water, drying and below-water rocks covering an area about 1 mile in extent. A deep channel about 0.5 mile wide separates the north side of Rempstone Rocks from Hope Rocks.

213 **Limit Island** is 1 mile east of Rempstone Rocks. Small islets and drying reefs extend 0.3 mile SW and a rock that dries 2.1 m lies close-off the north side of the island. **Godfrey Rock**, about 1 mile north of Limit Island, has less than 6 feet (2 m) over it. Drying and below-water rocks extend 0.4 mile NE of it. **Edwards Point**, 0.8 mile north of Godfrey Rock, is the south extremity of Athlone Island. Numerous islets, rocks and reefs extend south of Athlone Island between Hope Rocks and Princess Alice Island.

214 **Waskesiu Passage** *(52°09'N, 128°25'W)* separates **Princess Alice Island** from Athlone Island. It is only about 200 feet (61 m) wide with a least depth of 8.1 m. A shoal bar across the west approach to the passage has a least depth of 4.3 m.

215 **Marshall Reef** *(52°04'N, 128°29'W)*, 3.2 miles south of Limit Island, consists of a drying rock and a below-water rock with a rock with 0.1 m over it 0.1 mile south. Below-water rocks are 0.4 and 0.6 mile north of Marshall Reef.

216 **Fingal Island** is about 1.5 miles NE of Marshall Reef. **Fingal Ledges** extend 1 mile SW from Fingal Island and consist of above-water, drying and below-water rocks. The passage between Fingal Ledges and McMullin Group is obstructed by a shoal area in which there are drying and below water rocks.

217 **Agnew Islet**, 2 miles NE of Fingal Island, is surrounded by a drying ledge. Numerous islets, drying reefs and below-water rocks lie between Agnew Islet and the west side of Stryker Island and the south end of Potts Island.

218 **Louise Channel** separates the NW side of Stryker Island from **Potts Island** and is entered from the south through the islets and drying reefs east of Agnew Islet. It is a narrow small craft channel that dries near the middle. The north entrance is encumbered with drying and below-water rocks.

219 **Hibbard Point** *(52°06'N, 128°26'W)*, 1.4 miles WNW of Agnew Islet, is the south extremity of **Houghton Islands**. **Fingal Point** is the south extremity of Princess Alice Island.

220 **Thompson Bay** is entered between Agnew Islet and Hibbard Point. Houghton Islands are comparatively steep-to on their east shore but the east shore of Princess Alice Island should be given a wide berth to clear drying reefs that lie up to 0.5 mile offshore.

221 **Tides**. — Tidal differences for Thompson Bay (Index No. 8998), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

222 **Cree Point**, the south extremity of Dufferin Island, has shoals extending 0.6 mile south from it. The passage between Cree Point and the islets west of it is encumbered with drying and below-water rocks. The passage west of the islets is deep but a rock with less than 6 feet (2 m) over it and shoal water are on the east side of the fairway. Islets, above-water and drying rocks extend 0.2 mile east from the NE end of Princess Alice Island. **The Back Door**, a local name for the passage between Potts and Dufferin Islands, is encumbered with rocks and kelp at its NE end. It is reported that **anchorage** is obtainable in the basin 0.9 mile NE of Cree Point.

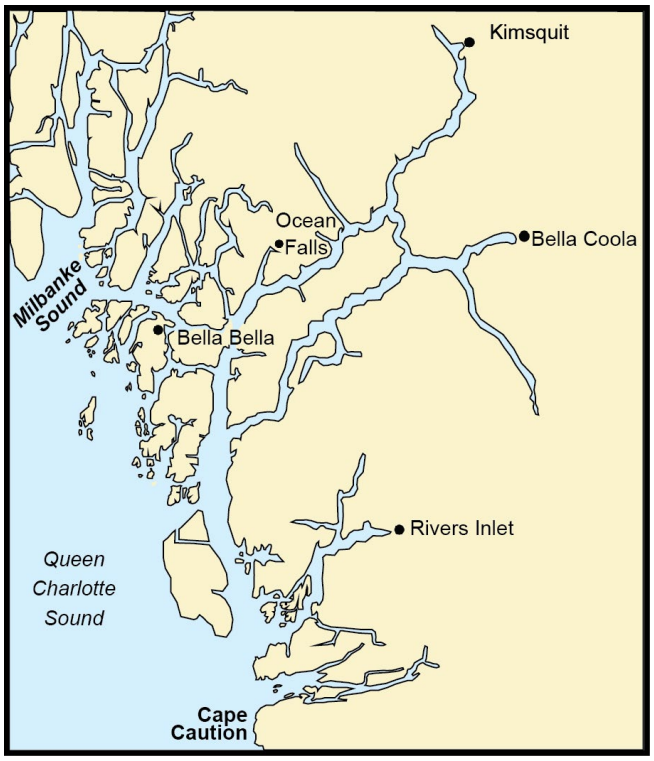
223 **Gale Passage** separates Dufferin Island from Athlone Island and leads from the north end of Thompson Bay to Seaforth Channel. The passage is encumbered with islets, rocks and drying ledges and only suitable for small craft. Local knowledge is advised to navigate Gale Passage safely. **Tidal rapids** are formed about 1.8 miles from the south entrance and again at about the same distance from the north entrance where the fairway dries.

224 Seaforth Channel is described in Chapter 2.

Chapter 2

Inner Passage

Cape Caution to Milbanke Sound



General

Chart 3744

1 This chapter covers the Inner Passage from Cape Caution *(51°10'N, 127°47'W)* to the west end of Seaforth Channel *(52°15'N, 128°25'W)* where it enters Milbanke Sound. The mainland inlets and connecting passages in this area are also described.

2 Commencing at Cape Caution, the section of the Inner Passage described in this chapter leads through South Passage, which lies between Sea Otter Group, on the west, and the rocks off the entrance to Smith Sound. It then follows Fitz Hugh Sound, Fisher Channel, Lama Passage and Seaforth Channel to Milbanke Sound.

3 **Vessel Traffic Services (VTS).** — The area covered in this chapter is in *Sector 1* of the *Prince Rupert Traffic Zone* and the assigned frequency is 156.55 mHz, Channel 11.

4 A brief description of the Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

5 The Calling-in Points are

6 *Calling-in Point No. 35*, called *Triangle Island*, is a line extending 220° from Triangle Island to the limit of the Territorial Sea; it is for changing from *Prince Rupert Traffic Zone South* to *Prince Rupert Traffic Zone North*.

7 *Calling-in Point No. 1A*, called *Cape Caution/ Cape Sutil*, is a line joining Cape Caution light *(578)* to Mexicana Point thence to Cape Sutil, and is the change line between the *Vancouver Traffic Zone*, administered by *Comox Traffic*, and the *Prince Rupert Traffic Zone*.

8 *Calling-in Point No. 1B*, called *Dugout Rocks*, is a line from Dugout Rocks light *(581)* to Cape Calvert. Mariners bound for Fitz Hugh Sound shall report their ETA for Dugout Rocks.

9 *Calling-in Point No. 1C*, called *Pearl Rocks*, is a line from Pearl Rocks to the southernmost Sorrow Island and thence to Cape Calvert. Mariners bound for Queen Charlotte Sound via North Passage shall report their ETA for Pearl Rocks.

10 *Calling-in Point No. 2*, called *Fog Rocks*, is at Fog Rocks light *(591)*.

11 *Calling-in Point No. 3*, called *Walker Island*, is at Walker Island light *(606)* in Lama Passage.

12 *Calling-in Point No. 4*, called *Barba Point*, is a line joining Barba and Boscowitz Points.

13 *Calling-in Point No. 5*, called *Idol Point*, is a line joining Idol Point light *(613)* to Graven Point.

14 *Calling-in Point No. 29*, called *Cape Mark/McInnes Island*, is a line joining Cape Mark light *(616)* to McInnes Island light *(619)*.

15 **Fishing vessels** can be encountered within the Inner Passage. Mariners using the Inner Passage are advised to monitor VHF Channel 78A (156,925 mHz) in addition to the Vessel Traffic Services channel for the VTS Sector they are in. For full details *see* Fishing Vessels in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and in the *Annual Edition of Notices to Mariners*.

Approaches to Smith and Fitz Hugh Sounds

Charts 3727, 3598

16 The approaches to Smith and Fitz Hugh Sounds lie between Cape Caution *(51°10'N, 127°47'W)* and Cape Calvert, about 16 miles NNW. From south the approach is made east of Sea Otter Group through South Passage. From west the approach is made by North Passage, which lies between Sea Otter Group and Calvert Island.

17 West gales send in a heavy swell and dense fog is a frequent occurrence in this vicinity.

18 **Sea Otter Group** *(51°15'N, 128°10'W)*, in the west approach to Smith and Fitz Hugh Sounds, consists of numerous widely scattered dangerous rocks and shoals.

19 **Caution**. — It is hazardous to attempt navigating between the rocks and shoals in the Sea Otter Group due to difficulty in identifying landmarks and obtaining a good position.

20 The above-water rocks in Sea Otter Group are **Virgin Rocks** *(51°17'N, 128°12'W)*, which are light coloured, and **Watch Rock** *(51°23'N, 128°06'W)*, which is steep-to. **Pearl Rocks** *(51°22'N, 128°00'W)* consist of drying, above- and below-water rocks.

21 **New Rocks** *(51°17'N, 128°01'W)* consist of two drying rocks.

22 Isolated rocks in the Sea Otter Group with less than 6 feet (2 m) over them and generally marked by breakers are **Hannah Rocks** *(51°14'N, 127°58'W)*, **England Rock** *(51°16'N, 127°57'W)* and **Tynemouth Rock** *(51°18'N, 128°03'W)*.

23 Other named shoals and banks within the Sea Otter Group are **Silistria Shoal**, **Barugh Shoal**, **Rankin Shoals**, **Kent Bank** and **Wigen Shoal**.

Charts 3550, 3934

South Passage

24 **South Passage** *(51°10'N, 127°55'W)* lies between the dangerous Sea Otter Group on the west and the rocks and islands off the entrance to Smith Sound on the east. This is the main route from south leading to Smith and Fitz Hugh Sounds. Vessels using this passage should pass not less than 0.8 mile and not more than 3 miles west of Egg Island.

25 **Caution. — Fishing vessels**. — During the fishing season, between May and September, numerous fishing vessels can be encountered between Egg Island and Cape Calvert, the heaviest concentration being from about the last week in June to the first week in August.

26 **Tides**. — Tidal differences in the approach to Smith Sound, referenced on Wadhams, are given for Egg Island (Index No. 8805) in the Tide Tables, Volume 7.

27 **Cape Caution** *(51°10'N, 127°47'W)* is moderately high and level; the coast in the vicinity is of granite formation and appears white.

28 *Cape Caution* **light** *(578)*, on the west extremity of the cape, is shown at an elevation of 21.3 m from a square skeleton tower.

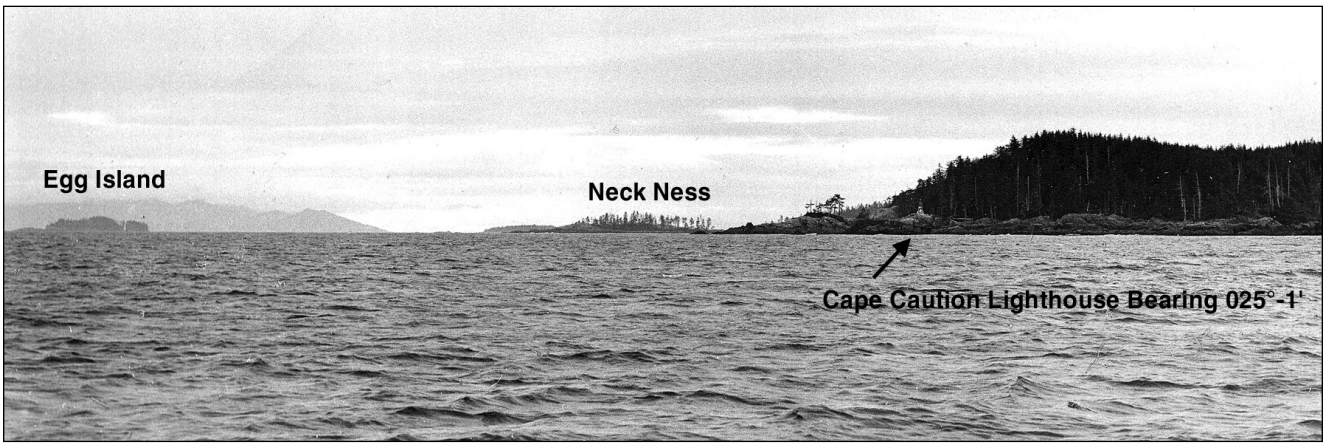
29 **Wright Bank**, 3.5 miles WNW of Cape Caution, has a least depth of 23.4 m.

30 Between Cape Caution and **Macnicol Point**, 5 miles north, the coast is rugged and fringed with numerous rocks; some extend a considerable distance offshore.

31 **Blunden Bay** and **Indian Cove** lie between Cape Caution and **Neck Ness**. **Oar Island** has foul ground between it and shore. A detached rock, with 2 m over it, lies 0.5 mile north of the island and depths less than 5.7 m lie within 0.2 mile NW. A rock awash is 0.1 mile SW of Oar Island.

32 **Hoop Reef** *(51°13'N, 127°47'W)*, 1.3 miles north of Neck Ness, consists of a group of drying, above- and below-water rocks extending NW from an island 5 m high. A rock that dries 1.7 m lies at the NW end of the reef with a rock with 8.1 m over it 0.2 mile farther NW. **Hoop Bay**, entered between Hoop Reef and **Milthorp Point**, is encumbered with drying and below-water rocks and

CAPE CAUTION



suitable only for small craft. **Protection Cove**, close east of Milthorp Point, dries at LW.

33 **South Iron Rock**, 1 mile west of Hoop Reef, dries 0.2 m and is steep-to on its west side; the sea occasionally breaks on it. Two rocks with 4.6 and 2.4 m over them lie 0.15 mile SE and NE, respectively, of South Iron Rock.

34 **North Iron Rock** has two pinnacles that dry 3.4 and 1.1 m. The rocks, when not uncovered, are usually marked by breakers or heavy swells.

35 **Egg Island** *(51°15'N, 127°50'W)* is high, wooded, and makes a conspicuous landmark.

36 *Egg Island* **light** *(579)* is shown at an elevation of 88.4 m from a lattice tower, 25.9 m high. It is fitted with an emergency light.

37 **Egg Rocks**, 0.2 mile south of Egg Island, are bare. **Denny Rock**, 0.3 mile west of Egg Rocks, has a depth of 1 m over it.

38 **Meteorological information** for Egg Island is given in the Appendices.

Chart 3934

39 **Alexandra Passage** *(51°15'N, 127°48'W)*, the south entrance to Smith Sound, is deep but extreme care is necessary during thick weather as soundings will give little warning of the approach to dangers.

40 **Ann Island**, **Armstrong Rock** and a group of rocks, several of which dry, lie off the NW side of **Table Island**.

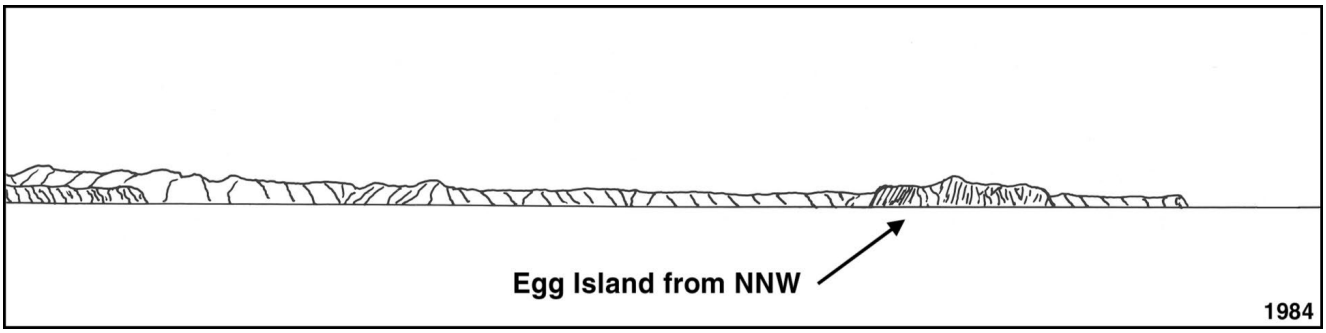
41 **Loran Passage**, except for a 5.8-m shoal 0.1 mile off the SW point of Table Island, is deep and free of dangers.

42 **Speedwell Shoal**, 1 mile WNW of Ann Island, has a least depth of 11 m.

43 **Cluster Reefs** *(51°17'N, 127°47'W)* extend 1.7 miles NE from Ann Island. **Staunton Shoal** forms the NW side of these reefs; other named reefs are **Edward Rock**, **Wood Rocks** and **Bertie Rock**.

44 **Ruby Rocks**, on the north side of **Radar Passage**, are bare and quite prominent when seen from north. Shoals with 5.5 and 7 m over them lie 0.2 mile SW and NW,

EGG ISLAND FROM NORTH NORTHWEST (1984)



respectively, from Ruby Rocks. **Thorndike Shoal**, with a depth of 9.1 m over it, lies 0.8 mile west of Ruby Rocks.

45 **Leading mark**. — The north side of Brown Island bearing 064º leads through Radar Passage midway between Staunton Shoal and Ruby Rocks.

46 **John Rock**, which dries 0.6 m, and a rock with less than 2 m over it lie 0.3 mile north of Ruby Rocks.

47 **False Egg Island**, on the north side of **Irving Passage**, is similar in shape to Egg Island but smaller. **James Rock** with less than 2 m over it and several drying rocks lie 0.2 mile north, and a rock with less than 2 m over it together with three below-rocks lie 0.3 mile west of False Egg Island. The sea often breaks over these rocks and the foul ground extending NNE from the island.

48 **Leading mark**. — The north end of Brown Island bearing 102° leads through Irving Passage midway between John Rock and the shoals extending west from False Egg Island.

49 **Extended Point** is separated from **Tie Island** by a narrow, shallow, boat passage. **Ada Rock** that dries 2.1 m lies 0.2 mile south of Tie Island. **Lucy Bay** is between Extended Point and **Bay Point**, about 1 mile north.

50 The coast between Extended Point and **Kelp Head**, 2 miles north, has numerous islets and rocks lying off it. **Spur Rocks** extend 0.6 mile west of Kelp Head and consist of drying, above- and below-water rocks.

51 **Brown Bank**, 2.5 miles west of Kelp Head, has 27.4 m over it. A **wreck**, in deep water, lies 0.3 mile SW of the bank.

52 **Dugout Rocks** *(51°22'N, 127°48'W)*, about 1 mile offshore between Kelp Head and **Cranstown Point**, consist of a chain of drying, above- and below-water rocks. The largest of these rocks, which is 15 m high and bare, stands out boldly against the coast. **Paddle Rock**, at the north end of the group, is 6 m high.

53 The **boat passage** between Dugout Rocks and the mainland coast has a shoal with a rock awash on it in mid-passage and should be navigated with caution.

54 *Dugout Rocks* **light** *(581)* is shown at an elevation of 20.7 m from a skeleton tower.

Chart 3727

North Passage

55 **North Passage** *(51°24'N, 128°00'W)* lies between the north end of the Sea Otter Group and **Calvert Island**. The fairway is about 3 miles wide and deep, with the exception of **Hedley Patch** *(51°25'N, 128°04'W)*, which has a least depth of 39 feet (12 m) over it.

56 **Cape Calvert** *(51°25'N, 127°54'W)* is about 300 feet (91 m) high and densely wooded; it presents a broad face of rocky coast. The **Cape Range** of mountains extend north from Cape Calvert and attain an elevation of 1,975 feet (602 m) about 4.5 miles north of the cape. **Entry Cone**, 2.3 miles north of Cape Calvert, is conspicuous and makes a good landmark by which to identify Fitz Hugh Sound from west or south.

57 The north shore, between the south extremity of Cape Calvert and **Herbert Point**, about 7.5 miles NW, is fronted by above- and below-water rocks, islands and shoals. **Mark Nipple**, 1.3 miles east of Herbert Point, is an isolated hill and makes a useful landmark.

58 **Stafford Point**, 2.5 miles SE of Herbert Point, forms the west entrance of **Chic Chic Bay**. **Jennie Islet** lies between Herbert and Stafford Points with **Harold Rock** and **Boyle Rocks** about 0.3 mile offshore.

59 **Upward Rock** and **Wing Rock** are 0.8 mile south of Stafford Point.

Chart 3934

60 **Charley Islands** *(51°27'N, 127°58'W)* and **O'Neil Islet** lie close offshore about 2 miles SE of Chic Chic Bay.

61 **Sorrow Islands**, south of Cape Calvert, are covered with gnarled and stunted trees; they make an excellent landmark when approaching from NW.

62 **Henderson Shoal**, 0.5 mile WSW of Sorrow Islands, has a least depth of 4.6 m over it.

63 **Grief Bay**, north of Sorrow Islands, offers fair shelter for small craft; however, during onshore gales the swell entering the bay makes landing both difficult and dangerous.

Smith Sound

64 **Smith Sound** is entered between Macnicol Point *(51°15'N, 127°46'W)* and Extended Point, 4.5 miles north. It is partially protected by Egg, Table and Ann Islands, and by Cluster Reefs, which extend NE from Ann Island, all previously described. A moderate swell is almost always present in the west part.

65 Access to the sound can be obtained by Alexandra Passage or Loran Passage, on the south side, and Radar Passage or Irving Passage, on the north side. The passage between False Egg and Tie Islands is available to small vessels approaching from north. These passages are described earlier in this chapter.

66 **Tides**. — Tidal differences in Smith Sound, referenced on Wadhams, are given for Leroy Bay (Index No. 8810) in the Tide Tables, Volume 7.

67 **Tidal streams**. — The east-going stream sets into Smith Sound at nearly 2 kn at springs.

68 **Anchorage** in Smith Sound can be found in Takush Harbour and McBride Bay.

69 The **Barrier Group** *(51°18'N, 127°40'W)* together with **Halliday Island**, **Haystack Island**, **Central Island**, **Mamie Rock**, **Sound Island**, **Napier Island**, **Wooded Islet** and **Denison Island**, with their off-lying islets and rocks, form a chain dividing Smith Sound into **Browning Channel** and **Blackney Channel**.

70 **Surprise Patch**, in the middle of the fairway leading to Blackney Channel, has 2.7 m over it. Kelp is usually present on this shoal during summer and autumn.

71 A deep channel about 0.3 mile wide passes through the Barrier Group between **Judd Rock** and **Moss Islands**, on the north, and **Jagged Islands**, **Cathcart Island** and **Round Rock**, on the south. The only danger in this passage is a 5.5-m shoal 0.1 mile south of Moss Islands.

Smith Sound — South Shore

72 **Jones Cove**, close NE of **Macnicol Point** *(51°15'N, 127°46'W)*, affords shelter to small craft. A 2.1-m shoal and a rock awash lie in the approach to the cove. **Turner Islands** and **Chest Island**, together with some drying, above- and below-water rocks, fringe the shore for 1.5 miles NE of Macnicol Point. The passage between Turner Islands and the shore is suitable for small craft.

73 **Watcher Islands**, 0.7 mile NE of Chest Island, consist of four small islands close together; they are sparsely wooded and connected by a rocky reef.

74 *Watcher Island* **light** *(580)*, on a bare point on the west island, is shown at an elevation of 11.5 m from a skeleton tower.

75 **Surf Islets**, 0.6 mile NE of Watcher Islands, are sparsely wooded and a shoal with a depth of 2.7 m is about 0.2 mile SW from them.

76 The passage between **Search Islands** and Watcher Islands is deep and clear with the exception of a 10.4-m shoal 0.3 mile south of Watcher Islands.

77 **Indian Island** lies close offshore on the south side of Browning Channel. Foul ground, with an islet on it, extends west from the island to **Leroy Rock**.

78 **Leroy Bay**, entered south of Leroy Rock, is protected on its north side by **Leroy Island**. A rock that dries 0.3 m lies on the south side of the approach to the bay.

79 **Tides**. — Tidal differences for Leroy Bay (Index No. 8810), referenced on Wadhams, are given in the Tide Tables, Volume 7.

80 **Bright Islets** and **Curry Islet** lie close-off **Wakas Point**, the NE extremity of Indian Island.

81 **Nab Patch**, with a depth of 6.7 m over it, lies 0.4 mile NW of **Gikumi Point**, the east entrance point of Takush Harbour. **Angle Bay** is close south of the point.

82 **Takush Harbour** *(51°17'N, 127°37'W)* is entered by way of **Ship Passage**. **Gnarled Islets**, on the west side and close within the entrance, extend 0.4 mile east of **Bloxam Point**. **Fish Rocks**, a group of drying rocks on the east side, extend 0.2 mile west of **Crabpot Point**.

83 **Petrel Shoal**, which is awash, extends SE from the easternmost Gnarled Islet; a private **daybeacon**, east of this islet, consists of a post with white horizontal slats. Narrow passages lie east of Fish Rocks, west of and between Gnarled Islets, but these are shallow and foul. Local knowledge is advised. A rock, with less than 2 m over it, and a **wreck** lie 0.3 mile SSE of the daybeacon. **Drumrock Island** and **Cypress Point** are close south of this rock and wreck.

84 **Anchor Bight**, the west arm of Takush Harbour, is entered between Gnarled Islets and **Anchor Islets**. The fairway leading into this bight is reduced in width by a shoal extending north from the east Anchor Islet.

85 **Anchorage** can be obtained in Anchor Bight in 15 m, mud bottom, midway between **Ship Rock** and **Abrupt Point** on the south shore of Indian Island.

86 **Fly Basin**, the south arm of Takush Harbour, has a narrow entrance encumbered by drying and below-water rocks. It is well-sheltered but only suitable for small craft. **Fly Point** lies centred on the south shore of the basin. **Bull Cove**, close south of **Bull Point**, is on the east side of the entrance to the basin.

87 **Broad Bay**, the east arm of Takush Harbour, has a narrow passage that dries 2.1 m at its east end leading into Ahclakerho Channel, described later in this chapter.

88 **Birkby Point** lies 1 mile ENE of Gikumi Point. The small bay and narrow inlet, about 1 mile east of Birkby Point, are partially filled by drying flats and only suitable as anchorages for small craft. Both are used for **anchorage** by fish boats.

Smith Sound — North Shore

89 **Brown Island** *(51°19'N, 127°46'W)* is 0.5 mile south of Extended Point. Foul ground extends 0.3 mile NE of Brown Island with a rock that dries 0.3 m at its

NE extremity. A narrow boat channel passes between this drying rock and the unnamed islet, 40 m high, to the NE. **Brodie Island** and **Shield Island** lie to the east.

90 **Eliza Bay** can be entered by small craft through the narrow passage between Shield Island and the mainland; local knowledge is advised.

91 **Millbrook Cove** is encumbered with several islets and drying and below-water rocks; **Millbrook Rocks**, off the entrance to the cove, are marked by **starboard hand buoy** *E6*. The cove is used extensively by fish boats. The best **anchorage**, in 7.3 m, is at the head of the cove.

92 **Dsulish Island**, 2 miles ENE of Millbrook Cove, is in the centre of **Dsulish Bay**.

93 **Hook Bay**, on the NW side of **Barb Point**, is too deep and exposed for satisfactory anchorage.

94 **Directions**. — A vessel from south entering Smith Sound should do so by way of Alexandra Passage, passing north of North Iron Rock and between Watcher Islands and Surf Islets into Browning Channel. A vessel bound for Boswell Inlet should pass midway between Round Rock and Halliday Island, taking care to avoid the foul ground on the north side of the latter, and then steer a mid-channel course through the east part of Blackney Channel.

95 Loran Passage is the best entrance to Smith Sound under conditions of poor visibility as it is wide and deep. A vessel making for it from north should take care to avoid Thorndike and Speedwell Shoals.

96 Vessels using Radar Passage should keep well clear of the shoal areas between Cluster Reefs and Brown Island.

97 Irving Passage can be used in clear weather by vessels from north.

98 When using Blackney Channel give a good clearance to Surprise Patch. If navigating Browning Channel take care to give a good clearance to Nab Patch.

Chart 3931

Smith Inlet

99 **Smith Inlet**, an east continuation of Smith Sound, has **Ripon Point** *(51°19'N, 127°32'W)* as its north entrance point.

100 **Tides**. — Tidal differences for Smith Inlet (Index No. 8814), referenced on Wadhams, are given in the Tide Tables, Volume 7.

101 **McBride Bay**, south of Ripon Point, affords **anchorage** in 18 to 37 m. The fairway leading to the anchorage is between **Oblong Island** and **Middle Patch**. A rock that dries 1.2 m and **Bat Island** lie close-off the south shore of the inlet east of Oblong Island.

102 **Quascilla Bay**, on the south side of Smith Inlet, is entered about 6 miles east of Ripon Point. A rock that dries 1.2 m and is steep-to lies close east of **Cape Anne**, the west entrance point to the bay. Islets, drying rocks and shoals lie along the shore in the east approach.

103 Confined **anchorage** can be obtained by small vessels in 10 to 15 m in **Anchor Cove** on the south side of Quascilla Bay.

104 **Ahclakerho Channel** is a narrow, winding channel separating **Greaves Island** from the mainland. From Cape Anne to **Ahclakerho Islands** the channel is narrow and encumbered with islets and below-water rocks. With local knowledge it is navigable at all stages of tide. The channel then opens into **Broad Reach**. At the west end, it turns north into a shallow lagoon that has a narrow passage leading to Broad Bay in Takush Harbour. At the east end of the narrow passage, the charted 0.9 m sounding in the narrows immediately W of Broad Reach is approximately in mid channel, and likely marks the end of a reef extending from the south shore. Deeper water has been reported (2004) to the north of this reef. At the west end, just before it opens into Broad Bay, this passage dries 2.1 m and is navigable only at HW.

105 **Burnt Island** is 8 miles ENE of Quascilla Bay. Drying rocks lie close-off the mainland shore SE of Burnt Island.

106 **Burnt Island Harbour**, entered 0.5 mile south of Burnt Island, is deep with only poor anchorage close to shore.

107 **Nalos Landing**, 1.7 miles NNE of Burnt Island, has the ruins of an old logging operation.

108 **Walkum Bay**, 2.5 miles NE of Burnt Island, is deep with only poor anchorage close to shore. A rock that dries 0.4 m lies offshore in the SE corner and **Walkum Creek** is at the head of the bay. **Booming grounds** line the north shore.

109 An island is 1 mile north of the entrance to Walkum Bay and on the seaward end of the **Nekite River** delta. Small vessels can find **anchorage** in the cove on the east side of the island.

110 **Booming grounds** are along the west shore at the head of the inlet.

111 **Adelaide Point** *(51°18'N, 127°22'W)* is at the entrance to **Naysash Inlet**. **Hickey Cove** and **Naysash Bay** are on the east coast about 2 miles within the inlet. Four miles within the entrance the inlet is narrowed by the delta of **Naysash Creek**. The inlet, 4 miles east of this delta, is

shallow but navigable by small craft to its head. The water in the inlet is discoloured and opaque.

112 **Wyclees Lagoon** is entered 0.5 mile east of Quascilla Bay through a narrow channel encumbered with drying rocks. Slack water in this channel occurs when tide at Bella Bella is approximately 3.9 m. HW slacks will typically occur shortly before HW at Bella Bella and 2.0 to 2.5 hours after HW at Bella Bella. If high water at Bella Bella is less than 3.9 m, tide in the channel will continue to ebb. A **tidal rapids** 0.5 mile within the entrance is narrow with a least depth of 0.8 m but is clear of rocks and can be navigated at HW slack by craft drawing up to 0.8 m.

113 From the rapids the lagoon leads 2 miles south, then joins a basin from which arms extend 3.5 miles east and west. The daily variation in water level rarely exceeds 0.2 m; however, during the course of a month the water level in Wyclees Lagoon fluctuates approximately 0.6 m.

114 A shoal with a depth of 0.5 m lies off the east shore 0.4 mile south of the rapids. The river draining **Long Lake** flows into the east arm 1 mile east of the basin. About 1.2 miles farther east a shoal with a least depth of 3.4 m lies near mid-channel.

115 The west arm narrows around an island 0.4 mile west of the central basin then opens before shoaling at its head. A logging company float is at the head of the arm (1998).

116 **Margaret Bay** *(51°20'N, 127°30'W)* lies between Smith and Boswell Inlets. **Oval Island** is 0.2 mile NW of Ripon Point. **Frank Rock**, 0.3 mile WNW of Oval Island, is 1 m high and has rocks with less than 2 m over them extending west from it.

117 **Dudley Islet** *(51°20'N, 127°32'W)* and **Ethel Cove** are NW of **Mills Point**, the north entrance point of Margaret Bay. **Camosun Rock**, with 3.7 m over it, lies on the south side of the entrance.

118 **Chambers Island** is in the middle of the bay. The passage on the south side of the island is the deeper. A drying rock lies close west of an islet near the head of the bay.

119 The site of an abandoned cannery is at the head of Margaret Bay. Few traces of the buildings remain and there are no facilities.

120 **Directions**. — Approaching Margaret Bay vessels can pass on either side of Frank Rock; in the entrance to the bay pass north of Camosun Rock, favouring the north shore. When in the bay steer to pass in mid-channel, south of Chambers Island.

Boswell Inlet

121 **Boswell Inlet** *(51°21'N, 127°31'W)* is entered between Napier Island and Barb Point, on the north shore of Smith Sound. The passage between Denison Island and **Olive Point** *(51°20'N, 127°32'W)* leads from Margaret Bay into Boswell Inlet.

122 **Tides**. — Tidal differences for Boswell Inlet (Index No. 8812), referenced on Wadhams, are given in the Tide Tables, Volume 7.

123 **Finis Nook**, on the south shore of the inlet, about 1.3 miles ENE of Olive Point is entered by a narrow passage with a least depth of 3.7 m. The inner basin affords protected **anchorage** suitable for small craft only. A private float house and floats are in Finis Nook (1982).

124 **Hazel Island** and a shoal are on the north side of Boswell Inlet abreast Finis Nook. **Twain Islands** are 1 mile ENE of Hazel Island.

125 **Boswell**, midway between Hazel Island and Twain Islands, is the site of an abandoned cannery.

126 **Security Bay**, 0.8 mile ENE of Twain Islands, is clear of dangers but too deep and confined for satisfactory anchorage. Small vessels may be able to anchor close to shore. A large logging camp with an A-frame, oil tanks, floats and **booming grounds** are in the bay (1998).

127 An islet joined to the west shore by a drying ledge narrows the inlet to 152 m wide about 1.3 miles east of Security Bay. Tanks, associated with logging activity, are in the small coves west and SE of the narrows (1984).

128 Secure **anchorage** for small craft is obtainable in 6.2 m, mud and shell, in a small cove 0.4 mile NW of the narrows. The entrance is narrow with a least depth of 5.7 m in mid-channel.

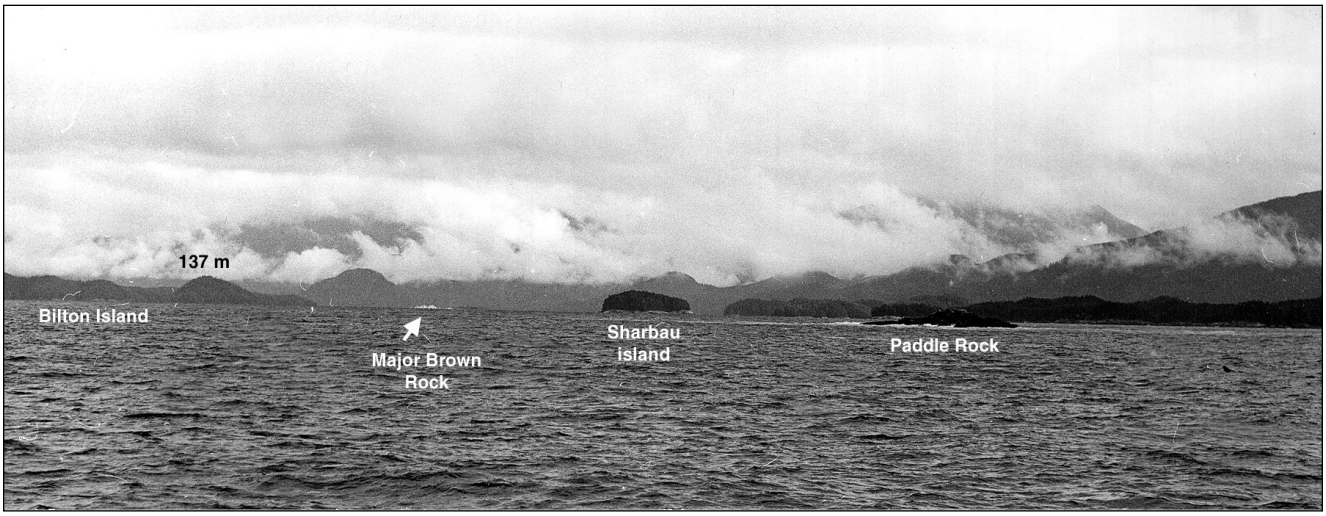
Rivers Inlet

Charts 3932, 3934

129 **Rivers Inlet**, on the east side of the entrance to Fitz Hugh Sound, is entered between Cranstown Point *(51°23'N, 127°47'W)* and Addenbroke Point, 8.7 miles north. The two entrance channels to Rivers Inlet are separated by a group of islands. The main entrance channel lies south of this group; Darby Channel, which is narrow, lies north of it.

130 **Caution. — Fishing vessels**. — When approaching Rivers Inlet during the fishing season attention is drawn to the caution regarding fishing vessels

RIVERS INLET ENTRANCE (1972)



given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

131 **Fishing establishments**. — All the canneries charted in Rivers Inlet have ceased to operate and some have fallen into ruins. Rivers Inlet is now an active sport fishing resort area during summer months.

132 **Tides**. — Tidal predictions for Wadhams (Index No. 8840) and tidal differences for Draney Inlet (Index No. 8830), reference on Wadhams, are given in the Tide Tables, Volume 7.

Chart 3934

Off-lying Islands

133 The three largest of the group of islands in the entrance to Rivers Inlet *(51°29'N, 127°45'W)* are **Penrose Island**, **Ripon Island** and **Walbran Island**. **Quoin Hill**, near the centre of Penrose Island, rises to 253 m.

134 **Penrose Island Marine Park** encompasses Schooner Retreat and all but the north side of Penrose Island; it is undeveloped.

135 **Schooner Retreat** *(51°28'N, 127°45'W)* is the group name given to several anchorages among the islands off the SW side of Penrose Island. Named anchorages of this group are Frigate Bay, Secure Anchorage and Exposed Anchorage; they afford secure anchorage for small vessels. During SE and SW gales the gusts are furious in these anchorages, but with good ground tackle and care there is no danger in Schooner Retreat.

136 **Frigate Bay**, the south anchorage, has **Joachim Island** on its south side, Penrose Island on its east and north sides and is protected on the west side by **Ironside Island**. **Fire Islets**, **Hawser Rock**, **Crooked Island** and **Sulky Point** are in the eastern part of Frigate Bay. **Frigate Islet** is on the NW side of the bay. The best **anchorage** in Frigate Bay is in the SW part, off a clean sandy beach on Ironside Island.

137 **Safe Entrance**, between Ironside and Joachim Islands, is the principal entrance to Frigate Bay. It is entered between **Karslake Point**, which consists of a number of islets on a drying reef extending west from Joachim Island, and **Comber Rock**, off the SW point of Ironside Island. **Bleak Bay** lies between **Surf Point** and **Stormy Point** on the south side of Ironside Island. The narrowest part of this entrance is between **Grey Islets** and **Sea Bluff**. **Kelp Bay** is on the west side of Joachim Island.

138 **Secure Anchorage** is the central anchorage of Schooner Retreat; **Maze Islets** and Ironside Island form its south side, **Bird Island** lies on its west side and **Highway Islands** form its north side. It can be entered from Frigate Bay by keeping south and west of Frigate Islet then close to the Penrose Island shore with Maze Islets to the SW. **Edmund Passage** lies on the north side of Ironside Island and south of Bird Island; local knowledge is advised before entering Secure Anchorage by this passage. **Stunted Islets**, in the approach to Edmund Passage, lie off **Curlew Point**, the NW point of Ironside Island. **Folly Islet** is about 0.1 mile NNE of Stunted Islets; drying rocks lie between these islets therefore pass north of Folly Islet if approaching Edmund Passage.

139 **Exposed Anchorage** is the north anchorage of Schooner Retreat; **Heathcote Island**, north of

Folly Islet, and Highway Islands to the east form its south side and it is protected from the west by **Fury Island** and **Cleve Island**. Along the east side of Exposed Anchorage **Bar Islands** partially obstruct the entrance to **Rocky Bay**. **Dyer Islets**, **Dyer Rock** and several unnamed rocks encumber the centre arm of Exposed Anchorage. The bay to the NE of Fury Island, locally known as **Fury Cove**, offers good **anchorage** and shelter for small craft. A cabin is on the NW shore of Fury Island.

140 The entrance channel between Heathcote Island and Highway Islands is obstructed by **Walrus Rock** and several unnamed rocks. The main entrance to Exposed Anchorage is between Heathcote Island and **Fury Point**, the SW extremity of Cleve Island. **Breaker Passage**, between Cleve and Fury Islands, has a least depth of about 4.6 m. **Rouse Point** is the SW extremity of a group of islets connected by a drying ledge to the SW point of Fury Island.

141 **Klaquaek Channel** *(51°28'N, 127°42'W)* is entered from south between **Dimsey Point** and **Bilton Island**. **Barry Rock**, 1.3 miles ESE of Dimsey Point, has less than 2 m over it and lies in the south approach. The channel between Bilton Island and Ripon Island, to the NE, is narrow and tortuous. The north end of Klaquaek Channel leads into Darby Channel through two narrow boat passages.

142 **Big Frypan Bay**, an almost landlocked bay, penetrates the east shore of Penrose Island and lies close east of Quoin Hill. **Frypan Bay**, a similar bay about 0.7 mile north, affords **anchorage** for small craft. The NE corner is obstructed by boomsticks (1988).

143 **Sunshine Bay** penetrates Ripon Island south of Magee Channel and provides excellent **anchorage** for small craft. Several private float houses are in the bay (1997).

144 **Magee Channel** separates Ripon Island from Walbran Island; it is only suitable for small craft because of the rocks and shoals in its eastern part.

145 **Geetla Inlet**, entered between the NE side of Ripon Island and the south end of Walbran Island, leads north into Walbran Island; about 0.5 mile north of its intersection with Magee Channel the inlet is obstructed by a drying bank. Rocks and shoals within Geetla Inlet make it suitable only for small craft.

Rivers Inlet — South Entrance

146 **Anchorage** of a temporary nature can be obtained in **Open Bight** *(51°22'N, 127°46'W)*, on the east side of Cranstown Point, previously described. As it is exposed to north and there is usually a swell, it is only suitable for anchorage during moderate weather. The best position in which to anchor is about 0.3 mile ESE of Cranstown Point in depths of 7 to 10 m.

147 **Sharbau Island** *(51°25'N, 127°42'W)* is the west island of a group of islands lying on the south side of River Inlet. **Major Brown Rock**, 0.6 mile NE, is composed of white limestone with a little green vegetation. An isolated **rock**, with 4.6 m over it, lies 0.8 mile WSW of Major Brown Rock.

148 *Major Brown Rock* **light** *(583)* is shown at an elevation of 13.3 m from a skeleton tower.

149 **Home Bay**, south of Sharbau Island, has a large floating fish camp at its head. The rocks in the entrance are marked by a private **buoy**.

150 **Goose Bay**, on the south side of Rivers Inlet, is best approached east of **Bull Island**. A deep passage on the SW side of Bull Island is also available, but a rock with less than 2 m over it is on its south side. **Cow Island**, **Calf Islet**, and some drying rocks between them, encumber the entrance. Deep passages lie on the east and west sides of these islands, both of which narrow to about 0.1 mile on either side of Cow Island. If entering east of Cow Island, the east shore should be favoured to avoid the 8.7-m shoal about 0.1 mile south of the island. A 9.2-m shoal is reported (2000) to be approximately 0.3 mile SW of Duncanby Landing.

151 **Duncanby Landing** is on the east side of the entrance of Goose Bay. Commercial fishing vessels congregate in Duncanby Landing.

152 A **submarine cable** (fibre-optic) extends from the west coast of Addenbroke Island to Duncanby Landing. Another **submarine cable** (fibre-optic) arrives from Egg Island. A third **submarine cable** (fibre-optic) extends from Duncanby Landing to the head of Rivers Inlet. It is recommended that mariners consult CHS charts to avoid damaging the cables. For detailed information see https://connectedcoast.ca/.

153 Snug **anchorage** for small craft is on the west side of the 44-m high island 0.8 mile west of Duncanby Landing. A drying rock is on the west side of this anchorage and a fishing camp outpost is on the east shore. Larger vessels can anchor in the cove south of the 105-m high island avoiding the 2.7-m shoal.

154 **Goose Bay** landing, on the east shore about 0.8 mile from the head of the bay, has the buildings and wharf of an abandoned cannery.

155 **Wilson Bay**, 4 miles north of Goose Bay, penetrates the south shore of Ripon Island and is too deep and exposed to have value as an anchorage. **Canniff Point** and **Maud Rock**, with drying and below-water rocks between them, lie at the east entrance to Wilson Bay.

Chart 3931

Draney Inlet

156 **Draney Narrows** *(51°28'N, 127°34'W)*, the entrance to **Draney Inlet**, is 4 miles NE of Goose Bay. A rock, with 4.6 m over it, lies in the west entrance with deeper water around it and through the narrows.

157 **Tidal streams** through Draney Narrows have an estimated rate of 8 to 10 kn. With strong ebb streams dangerous eddies and turbulence develop around the rock mentioned above. Secondary current station Draney Narrows (Index No. 8508), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

158 **Tides**. — Tidal differences for Draney Inlet (Index No. 8830), referenced on Wadhams, are given in the Tide Tables, Volume 7.

159 The arm NE of Draney Narrows is deep with no anchorages. A float camp, floats and log dump are in the cove near the head of the arm (1998). **Fishhook Bay** affords **anchorage** for small vessels in the cove on the south side of its entrance and anchorage with excellent shelter inside the bay. A private float camp and **breakwater** are in ruins.

160 The main body of Draney Inlet is clear of mid-channel dangers for 10 miles but some rocks and shoals lie close to shore.

161 **Robert Arm**, entered 4 miles SE of Draney Narrows, is clear of mid-channel obstructions except for a rock, with 3.9 m over it, about 0.5 mile within the entrance. It is reported that Robert Arm affords good **anchorage**.

162 **Allard Bay**, 9 miles within the inlet, is narrow, shallow and dries 0.4 mile within the entrance.

163 Draney Inlet turns sharply south at Allard Bay with a mid-channel islet, 1 m high, and a rock that dries 3 m just before the inlet narrows and turns again to the east. **Lockhart Gordon Creek** and **Draney Creek** drain across a large estuary at the head of the inlet. **Anchorage** is obtainable off the mud flats.

Chart 3934

Darby Channel

164 **Darby Channel**, locally known as **Schooner Pass**, is entered between the north side of Penrose Island and Addenbroke Point *(51°31'N, 127°47'W)*.

165 **Rouse Reef** and a rock with less than 2 m over it lie 0.5 mile SW and 0.2 mile west of the west extremity of Penrose Island.

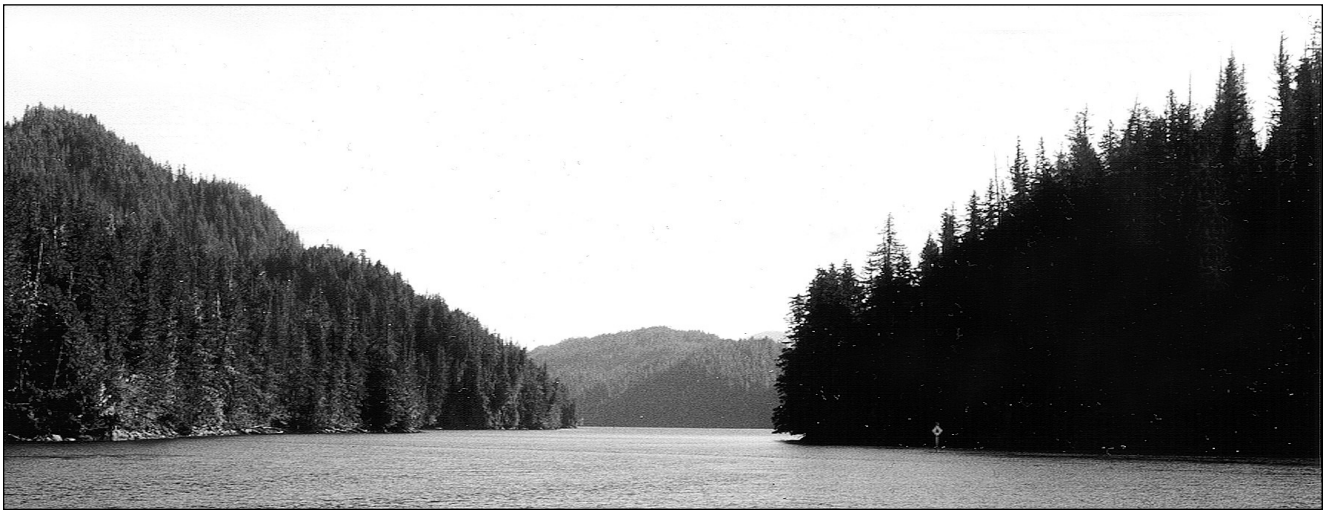
166 **Addenbroke Point** is fringed by islets and rocks extending about 0.35 mile west and SW from it. **Bald Islet**, close west of the point, is the largest islet and **Swan Rock**, with less than 2 m over it, is the outermost danger.

167 ***Bosquet Point* light** *(584)*, on the north extremity of Penrose Island, is shown at an elevation of 7.4 m from a skeleton tower. The light is obscured from 073° to 087° by **Lone Island**.

168 **Pierce Bay**, on the north side of Darby Channel, is encumbered with islands and drying rocks. The bay is exposed and offers little shelter.

169 **Finn Bay**, on the north side of Penrose Island, provides shelter for small craft. Float houses and **floats** are moored in the bay and a

DARBY CHANNEL AT PENDLETON ISLAND (1988)



marina is on the north shore, a short distance within the entrance. A rock, with less than 2 m over it, lies off the north side of the bay, about 0.2 mile inside the entrance.

170 **Welch Island**, on the north side of Darby Channel, is separated from the coast to the north by **Weeolk Passage**. A 7.3-m shoal lies 0.2 mile SW of the east entrance point of **Morgan Bay**. Shoals, with less than 2 m over them, lie in the approach and the entrance to the small cove 0.6 mile SE. **Fleming Point** is at the SE end of Weeolk Passage. A rock, with 8.7 m over it, lies in mid-channel off the point.

171 **Stevens Rocks** lie ESE of Fleming Point. South of Stevens Rocks **Sleepy Bay** penetrates the north shore of Walbran Island. A private floating sports fishing lodge is moored here (1997).

172 **Pendleton Island** obstructs the south end of Darby Channel; the main channel lies to the north of it. A drying rock, marked by a **daybeacon** with a starboard hand daymark, lies in mid-channel off the west end of Pendleton Island. Between Pendleton Island and **McLeod Point**, about 4 miles NE, the channel is deep and clear of dangers in the fairway.

173 At the head of a small bay entered 1.3 miles SSW of McLeod Point, are the ruins of a former cannery. Take care to avoid a rock with less than 2 m over it lying in mid-channel about 0.1 mile from the head.

174 **Dawsons Landing** *(51°35'N, 127°35'W)* is a supply centre for sports and commercial fishermen. It has a **public wharf** 12 m long with a least depth of 4.6 m alongside, also a Fisheries & Oceans **float** 18 m long with depths of 1.5 to 6.7 m alongside. A general store, with 183 m of **floats** for visiting craft, has a good stock of food, hardware, fishing gear, dry goods, post office (V0N 1M0) and liquor store. Gasoline, diesel fuel, stove oil, naphtha, lubrication products, fresh water and ice are available. A coastal supply vessel calls regularly and air service is available. Float houses line the shore north of the floats; accommodation, showers and laundry facilities are available. For detailed information see www.dawsonslanding.ca.

Chart 3932

Rivers Inlet — Central and North Parts

175 A **submarine cable** (fibre-optic) extends from Duncanby Landing to the head of Rivers Inlet. It is recommended that mariners consult CHS charts to avoid damaging the cables. For detailed information see https://connectedcoast.ca/.

176 **Taylor Bay** *(51°30'N, 127°36'W)* and **Hemasila Inlet** are north of **Geetla Point** on the east side of Walbran Island. A shoal with 2.5 m over it is in the middle of the entrance to Hemasila Inlet. **Anchorage**, with limited swing space, is available for small craft.

177 **Johnston Bay**, on the east side of the inlet and opposite the entrance to Hemasila Inlet, has a reef awash in the middle of its entrance and a rock awash off the east shore. A private **buoy** is moored off **Johnston Creek**. It is reported (1998) that a floating fish camp is moored here during summer months. Sheltered **anchorage** for small craft is obtainable at the head of the bay.

178 **Wadhams**, 0.5 mile NNE of Johnston Bay, is the site of an abandoned cannery in ruins.

179 **Florence Island** is about 1 mile NNW of Wadhams; **Ethel Island** is 1 mile farther north. Drying and below-water rocks extend about 0.2 mile north and 0.4 mile south from Ethel Island. **The Haystack** is the island 1.1 miles NW of Florence Island, close-off the Walbran Island shore.

180 **Ida Island** lies close-off the bay in which are the ruins of the former cannery **Good Hope**. Good Hope is now a private resort and during the fishing season a **floating log breakwater** is placed south of the wharf and floats. The **Sandell River** flows into the east side of the bay. A narrow passage, on the NE side of Ida Island, has a least depth of 7.8 m and is usable by small craft. **Charcoal Bay** is 1.2 miles north of Good Hope.

181 **Bickle Passage** *(51°35'N, 127°34'W)* leads between the north end of Walbran Island and some islets lying off the south end of **Edna Mathews Island**. A rock, with less than 2 m over it, lies about 0.3 mile NE of McLeod Point. A prominent Imperial Oil sign is on the NE point of the island, 0.2 mile east of McLeod Point (1982).

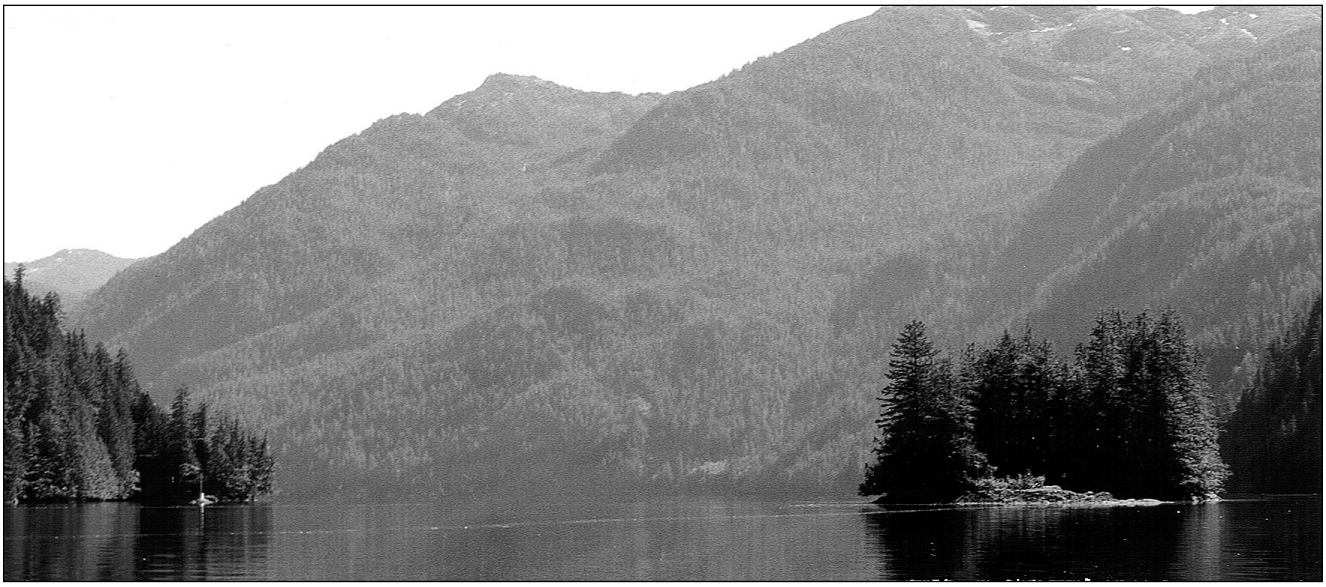
182 The passage on the west side of Edna Mathews Island is deep but encumbered near its south end by a shoal with 4.1 m over it and near its north end by some islets. A small bay on the west side of this passage has a few piles in it.

183 An **overhead cable**, with zero clearance at HW, crosses the small cove 0.4 mile south of **Rutherford Creek** *(50°38'N, 127°33'W)*. Ruins of **Brunswick**, an abandoned cannery, are at the mouth of the creek.

184 **Sandell Bay** has numerous piles at its head. It is reported that **anchorage**, open to the south, is obtainable by small craft near the head of the bay.

185 Some ruins are on the east shore of **Wannock Cove**, 1.5 miles east of Sandell Bay.

NELSON NARROWS LOOKING EAST (1988)



186 Rivers Inlet turns sharply east at **Stone Point**. **McPhee Bay**, on the south shore, lies between **Scandinavia Bay** and **Rutherford Point**. **McAllister Point** is directly across the inlet from McPhee Bay.

187 **Kilbella Bay** is on the north side of Rivers Inlet about 3 miles from the head. The mud bank in the bay is steep-to and forms the delta to both **Kilbella River** and **Chuckwalla River**. A logging camp and **booming ground** are in Kilbella Bay.

188 **Shotbolt Bay** has a wharf, seasonal float and **mooring buoy** belonging to a private sport fishing camp. Another private fish camp is 1.5 miles ENE at the mouth of **McTavish Creek**.

189 **Wannock River** and **Nicknaqueet River** flow into the head of Rivers Inlet. Steep-to sand banks have formed on both sides of the rivers and are **booming grounds**. An Indian village, with wharf and float, is on the north side of the Wannock River.

190 A logging operation is at **Rivers Inlet** landing at the head of the inlet.

191 A **public wharf** has **floats** 25.9 m long on its west side and a 4-tonne crane. The outer float is reserved for seaplanes.

192 **Marine farm** facilities are on the north shore (1991) about 1 mile west of the public wharf.

Moses and Hardy Inlets

193 **Moses Inlet** entered to the west of McAllister Point leads about 14 miles north. **Hardy Inlet**, 2 miles within the entrance, is entered between **Ralph Point** and **Owikeno Point**. Hardy Inlet is very deep and the shores are steep-to to the head. A floating logging camp is on the north shore (1988) 1.2 miles west of Owikeno Point. **Matilda Creek**, **MacNair Creek** and **Doris Creek** are on the north shore 2.5 to 5 miles within the entrance.

194 A **booming ground** is 2.8 miles north of Owikeno Point on the east side of Moses Inlet.

195 **Inrig Bay**, 5 miles north of Owikeno Point, is the site of a logging camp and **booming ground** (1991). **Inrig Creek** and **Milton River** enter the bay from the north.

196 **Nelson Narrows**, east of **Hoy Point**, has an islet 61 m off the south shore with a shoal extending west of it. A drying rock on a shoal ridge, marked by a **daybeacon** with a port hand daymark, is 0.1 mile WSW of the prominent point on the north shore.

197 A **booming ground** is 0.5 mile WSW of **Penelope Point**. **Eberts Cove** has a logging camp with a float and ramp used by freight boats. A **submarine pipeline** (sewer outfall) is laid on the west side of the float. The **Clyak River** flows over a steep-to mud flat at the head of the inlet. Private **mooring buoys** and a **booming ground** are on the east shore near the head of the inlet.

Fitz Hugh Sound

Charts 3934, 3935, 3936, 3727

198 The entrance to **Fitz Hugh Sound** lies between Cranstown Point *(51°22'N, 127°47'W)* and Cape Calvert, about 5.5 miles NW. These entrance points, together with Entry Cone and Cape Range, all previously described, are prominent from the approach. The shores of Calvert Island are generally bold and rocky, backed by steep, wooded slopes. **Safety Mountain** and **Mount Buxton** are the highest mountains on Calvert Island. The south part of the east shore of the sound is rugged and indented.

199 **Tides**. — Tidal differences in Fitz Hugh Sound, referenced on Wadhams, are given for Addenbroke Island (Index No. 8860) and Namu (Index No. 8870) in the Tide Tables, Volume 7.



200 **Tidal streams** in Fitz Hugh Sound ebb south at up to 2 kn; the flood sets north but is considerably weaker and during neap tides is often irregular. The surface streams are influenced a great deal by the prevailing wind, particularly from south, when the ebb stream can be expected to be retarded and the flood stream accelerated. During periods when land drainage runoff is at its maximum, the flood stream almost entirely disappears.



201 **Anchorages** for large vessels can be found near the NE end of the sound and in Namu Harbour. Small vessels can find anchorage on the west side of the sound in Safety Cove and Goldstream Harbour and on the east side of the sound in Fifer Bay and Namu Harbour.

202 The islands and passages on the west side of Fitz Hugh Sound are within the boundaries of the **Hakai Recreation Area**.

Chart 3934

Clark Point to Addenbroke Island

203 **Clark Point** *(51°26'N, 127°53'W)* is the SE extremity of Cape Calvert.



204 *Clark Point* **light** *(582)* is shown at an elevation of 11 m from a white tower.

205 **Safety Cove** *(51°32'N, 127°55'W)* is entered between **South Point** and **Safety Point**. Two islets on a drying ledge, close-off **North Point**, are useful in identifying the entrance, especially when coming from north. A conical peak is at the head of the cove. A sand and mud drying flat extends 0.25 mile from the head of the cove, outside of which it is steep-to.



206 **Anchorage** is good in a depth of 27 m, mud, in the middle of Safety Cove. If entering at night, keep in the middle of the cove and anchor as soon as a depth of 30 m is obtained. During SE or NE gales, strong gusts blow across the valley at the head of the bay. Because of the limited swinging space, this anchorage is suitable only for moderate sized vessels.

207 Other named features on the east side of Calvert Island are **Harold Point**, **Canoe Cove** and **Call Point**.

208 A large waterfall, conspicuous from the north, cascades into Fitz Hugh Sound 1.5 miles north of **Truman Point** *(51°34'N, 127°54'W)*.

209 Addenbroke Point *(51°31'N, 127°47'W)* and the islets and rocks close SW of it are described under Darby Channel. The bay between Bald Islet and **Arthur Point**, about 0.8 mile NW, is too exposed for satisfactory anchorage. Two shoal areas lie in the outer part of the bay, and rocks, with less than 2 m over them, lie about 0.1 mile south and west of Arthur Point. **Clip Rock**, 2 m high on a shoal with below-water rocks, lies 0.5 mile north of Arthur Point.

210 **Philip Inlet** is entered 1.5 miles north of Arthur Point. Just within the entrance is a narrow part encumbered with rock ledges. An islet and below-water rocks obstruct the inlet 0.5 mile from the entrance, but small vessels could find shelter in 16 to 26 m east of the island in mid-channel.



211 *Addenbroke Island* **light** *(585)*, on the west extremity of **Addenbroke Island** *(51°36'N, 127°51'W)*, is shown at an elevation of 29 m from a white tower. It operates during hours of darkness only. Conspicuous red and white buildings surround the light.



212 A **submarine cable** (fibre-optic) extends north from Addenbroke Island up Fitz Hugh Sound and lands at Kaiete Point. A second **submarine cable** (fibre-optic) extends from the west coast of Addenbroke Island towards Duncanby Landing at the mouth of Goose Bay. It is recommended that mariners consult CHS charts to avoid damaging the cables. For detailed information see https://connectedcoast.ca/.

213 A **wind frequency table** for Addenbroke Island is given in the Appendices.

214 An A-frame on pilings is in a small bay north of the light.

Fish Egg Inlet and Approaches

Chart 3921

215 **Convoy Passage** *(51°35'N, 127°48'W)* leads north into Fish Egg Inlet east of **Blair Island**. **Nucleus Reef**, with less than 2 m over it, and drying rocks extending 0.2 mile north of it lies 0.7 mile SE of **Hanbury Point**. **Barge Rock**, with 1.5 m over it, lies in mid-channel east of Handbury Point. A rock that dries 3.6 m lies close-off the east shore 0.8 mile NE.

216 **Henderson Bay**, on the east side of the passage, has a rock with 6.7 m over it in the entrance and above-water and drying rocks at the head.

217 **Fifer Bay**, on the west side of Blair Island, has an islet and below-water and drying rocks extending north from its south entrance point. A narrow inlet, in the NE corner of the bay, has its entrance obstructed by above- and below-water rocks.

218 **Anchorage** for small vessels can be obtained in the south part of Fifer Bay in 20 m; the bottom is uneven.

219 **Sweeper Island** and an unnamed island close east of it lie between Addenbroke and Blair Islands. A narrow passage, suitable only for small craft, leads between the west side of Blair Island and the unnamed island.

220 **Anchorage** can be obtained between Addenbroke and Blair Islands, north of Sweeper Island; the bottom is uneven.

221 **Patrol Passage** *(51°37'N, 127°51'W)*, south of **Corvette Islands**, is clear of mid-channel dangers. Several shoals lie within 0.2 mile off the north and west sides of the Corvette Islands.

222 **Fairmile Passage**, north of Corvette Islands, has an islet with a drying ledge and below-water rock extending south if it.

223 **Souvenir Passage**, north of **Salvage Island**, has a navigable width of about 50 m with a depth of 8.8 m at its east end.

224 **Illahie Inlet** *(51°38'N, 127°50'W)* is best entered between the islands in its SE corner. A rock with 1.7 m over it is in mid-channel, 0.4 mile within the entrance. **Green Island**, so named because of a bramble patch at the SW end, lies close-off the west shore about 0.8 mile within the entrance. Good **anchorage** for small vessels can be obtained in **Green Island Anchorage** in 6 to 10 m. Illahie Inlet has several drying and below-water rocks in mid-channel, **Storm Rock**, 0.3 mile NNE of Green Island, the only named one. It is reported that the head of the inlet affords well-protected **anchorage**, mud bottom.

225 **Fish Egg Inlet** is deep except for a shoal area about 0.8 mile east of Salvage Island. **McClusky Bay**, the NW bay in the inlet, has numerous islets, drying rocks and shoals on its east side. A rock with 9.5 m over it lies in the middle of the bay.

226 The bay east of McClusky Bay can be entered on either side of a large island in the approach. **Joe's Bay**, the basin at the head of this bay, affords good although tight **anchorage** for small vessels in 19 m. **The Rapids** is a waterfall at LW but can be navigated at HW slack, by shallow draught boats, through a narrow slot between the rocks. Local knowledge is advised.

227 The Rapids leads to **Elizabeth Lagoon** through a passage encumbered with rocks. Elizabeth Lagoon is deep in its central basin but numerous shoals and drying and below-water rocks lie along the shores. **Sulphur Arm**, the east end of the lagoon, is entered through a narrow passage with a least depth of 1.3 m. Numerous shoals and rocks lie in the centre of the arm. The water in Elizabeth Lagoon and Sulphur Arm is discoloured and opaque making it impossible to see the dangers.

228 **Waterfall Inlet**, extending north from the islets that separate the central and east parts of Fish Egg Inlet, has three shallow, winding, entrance channels. The inlet is clear of mid-channel dangers but reefs and rocks extend from the islands. A rock that dries 2.6 m lies close-off the east shore 0.1 mile from the head of the inlet. Protected **anchorage** is reported to be obtainable at the head of the inlet.

229 A bay on the south side of Fish Egg Inlet has a group of islands and shoals in the centre with **Gildersleeve Bay** west of the group. **Barracuda Rock**, with 1.6 m over it, lies in the middle of the approach to **Mantrap Inlet**. Good **anchorage** is reported inside the inlet. Local knowledge is advised to navigate the narrow entrance channel.

230 The eastern part of Fish Egg Inlet is entered either north of the large island 91 m high or by **The Narrows** south of this island. **Fish Trap Bay** and **Oyster Bay** are in a narrow inlet leading north. Drying and below-water rocks extend south and north from the island in the south part of Oyster Bay. Oyster Bay and the eastern extremity of the inlet are reported to provide well-sheltered **anchorage**.

Chart 3935

Wedgborough Point to Walker Point

231 **Wedgborough Point** *(51°39'N, 127°57'W)* is the SE entrance point to Kwakshua Channel described in Chapter 1. **Experiment Point** and **Guise Point**, 0.6

and 1.5 miles north of Wedgborough Point, are at the SE extremity of **Hecate Island**.

232 **Goldstream Harbour**, at the north extremity of Hecate Island, is entered between **Umme Point** and the NE point of Hecate Island. Foul ground marked by kelp extends 0.1 mile NE of Umme Point. **Hat Island**, 39 m high, lies 0.2 mile within the entrance close to the Hecate Island shore. **Evening Rock**, on the north side of the fairway NW of Hat Island, dries 1.2 m. The fairway between Hat Island and Evening Rock is 91 m wide and intricate, with depths of 7.3 to 11 m; favour the Hat Island side unless Evening Rock is clearly visible. The north entrance is encumbered with rocks.

233 **Anchorage** for small vessels can be obtained in Goldstream Harbour, sand and mud bottom.

234 **Kelpie Point** is the SE entrance point to Hakai Passage, described in Chapter 1. A **fishing boundary marker** is on Kelpie Point.

235 *Kelpie Point* **light** *(587)* is shown at an elevation of 6.3 m from a skeleton tower.

236 **Bayly Point**, 1.4 miles NNW of Kelpie Point, **Middleton Point** and **Daedalus Point** are the SE, east and NE points of Nalau Island. Nalau Passage is described in Chapter 1.

237 **Kwakume Point** *(51°42'N, 127°53'W)* is on the east side of Fitz Hugh Sound.

238 *Kwakume Point* **light** *(586)* is shown at an elevation of 7 m from a skeleton tower.

239 **Kwakume Inlet** is entered about midway between Kwakume Point and **Whidbey Point**. A rock awash lies about 0.1 mile west of the entrance and islets and rocks on the north and south sides of the entrance reduce the fairway to a width of 76 m. A rock that dries 1.8 m is in the middle of the inlet. This inlet should be used only by small craft. A **fishing boundary marker** is on Whidbey Point.

240 **Koeye River**, nearly 5 miles north of Kwakume Point, is entered on the north side of a rock awash lying about 0.1 mile north of **Koeye Point**. The shallow bay east of Koeye Point is used by local fishermen. A narrow boat channel extends about 1 mile upstream to the site of a former lime plant, now in ruins. A rock that dries 3.7 m lies in the entrance to the boat channel. A cabin is on Koeye Point and a **fishing boundary marker** is on **Uganda Point**, about 2.5 miles north.

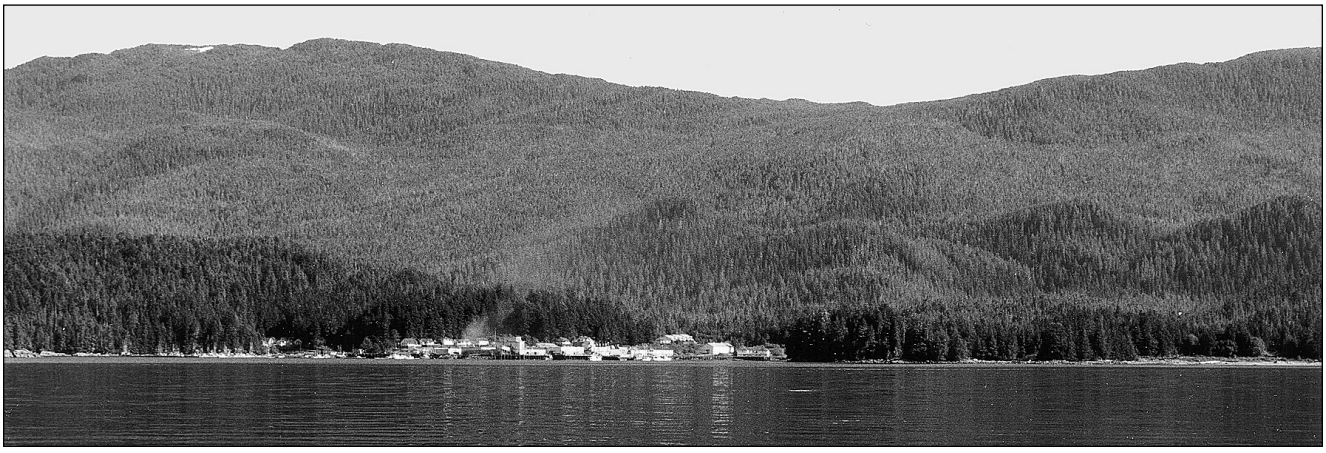
Chart 3936

241 **Sea Otter Inlet** *(51°50'N, 128°02'W)*, in **Hunter Island**, offers confined shelter for small craft in its south arm. **Crab Cove** is the north arm near the entrance of the inlet. **Hanna Islet** lies on the north side of the entrance.

242 **Kiltik Cove**, 3.5 miles north of Hanna Islet, has a drying flat extending 0.5 mile from its head.

243 **Warrior Cove** *(51°50'N, 127°53'W)*, on the east side of the sound, is separated from **Kiwash Cove**, by the peninsula with **Ontario Point** at its SW extremity; both coves are deep. An islet with drying rocks close north and south of it partially obstructs the entrance to Warrior Cove, and a rock, with less than 2 m over it, lies in the middle of the entrance to Kiwash Cove. The fairway into each of the above coves lies close to their SE sides, which are steep-to.

NAMU (1988)



Namu Harbour and Approaches

244 **Kiwash Island** *(51°52'N, 127°54'W)* lies in the middle of the entrance to Namu Harbour.

245 *Kiwash Island* **light** *(590)* is shown at an elevation of 5 m from a skeleton tower.

246 **Namu Harbour** can be entered by either Morehouse Passage or Cloverleaf Passage.

247 **Landmarks**. — The most conspicuous landmarks when approaching the harbour are the buildings of Namu, on the south side of Whirlwind Bay. **Namu Range**, a short distance inland from the harbour, rises to more than 914 m.

248 **Tides**. — Tidal differences for Namu (Index No. 8870), referenced on Wadhams, are given in the Tide Tables, Volume 7.

249 **Morehouse Passage** leads between Kiwash Island and **Lapwing Island**. A rock that dries 0.3 m and an 8.2-m shoal lie 0.1 mile SW and SSE, respectively, from Kiwash Island light.

250 The passage between Lapwing Island and the mainland to the SE has a least depth of 6.4 m in mid-channel. A rock that dries 1.2 m lies close to shore near the NE end of this passage.

251 **Cloverleaf Passage**, between Kiwash Island and **Cliff Island**, has an 11-m shoal in the centre of the fairway. Drying and below-water rocks and shoal water lie up to 0.1 mile off Cliff Island and drying ledges extend a short distance from the NE side of Kiwash Island.

252 Several shoals lie between Cliff Island and the north shore of Namu Harbour. **Que Que Rocks** lie 0.4 mile NE of Cliff Island. The north shore of the harbour is fringed with drying and below-water rocks.

253 The preferred approach to **Harlequin Basin** is on the east side of Que Que Rocks. A rock with less than 2 m over it lies about 91 m off the east shore of the entrance to the basin.

254 **Whirlwind Bay**, on the east side of Namu Harbour, is entered between **Sunday Island** and **Clam Island**, which is connected to the south shore of Whirlwind Bay by a drying bank on which there are several drying rocks. **Verdant Island** is 0.2 mile east of Sunday Island. **Loo Rock**, 0.1 mile south of Verdant Island, dries 0.9 m.

255 **Rock Inlet**, entered east of Verdant Island, is fringed with islets and drying and below-water rocks and only suitable for small craft. The narrowest part of the inlet, with islets on both sides, has a least depth of 3.7 m.

256 **Anchorage** for ships can be obtained in about 40 m in the middle of Namu Harbour. Smaller vessels can anchor in Whirlwind Bay, midway between Sunday and Clam Islands, in about 20 m. During autumn and winter months anchorage in Whirlwind Bay is not recommended, as furious gusts blow down the mountains in this vicinity.

257 **Namu**, on the south side of Whirlwind Bay, was once a large cannery with a summer population peaking at 2000. Now, it is abandoned with no facilities or caretakers present. The town has fallen into significant disrepair and various hazardous materials remain; therefore, walking around the site is quite dangerous. The dock is in very poor condition, with sections falling into the water, and not safe for moorage of any size of vessel.

Burke Channel

Charts 3936, 3974

258 **Burke Channel** *(51°55'N, 127°53'W)* entered between **Walker Point**, the south extremity of **Humchitt Island**, and Edmund Point 1.7 miles SE leads 38 miles along the SE side of **King Island**. High precipitous snow-capped mountains, with sides covered with stunted trees, lie on each side of the channel. The channel is deep throughout its entire length and the shores are generally steep-to; the only off-lying dangers are Odegaard Rocks.

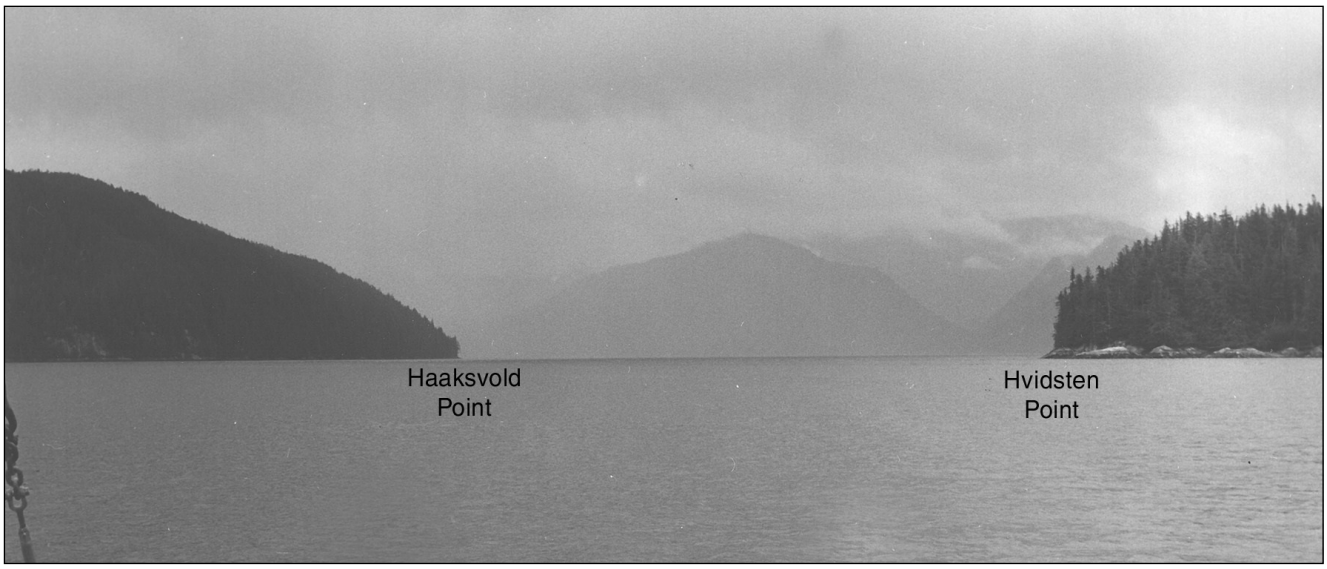
259 **Winds**. — On warm summer days the sea breeze blowing across Fitz Hugh Sound is led up the inlet, as through a funnel, following the directions of the different bends. The breeze generally sets in at about 10:00 and blows fresh until sunset, when it usually becomes calm. During winter months, the so-called *Squamish winds* occur periodically; they funnel down the inlet from the interior plateau and attain gale force.

260 **Anchorages** in Burke Channel can be found in Windsor Cove, Restoration Bay, Kwatna Bay, at the head of Kwatna Inlet, and in South Bentinck Arm in Larso Bay or near its head south of Taleomey Narrows. Small craft can also find anchorage in Fougner Bay, Croyden Bay or in North Bentinck Arm in Green Bay, Whiskey Bay or Bella Coola.

261 **Tides**. — Tidal predictions for Bella Coola (Index No. 8937), at the head of North Bentinck Arm, are given in the Tide Tables, Volume 7.

262 **Tidal streams** from Edmund Point to Restoration Bay are strong and heavy tide-rips are encountered, particularly off Hvidsten Point. Northward

BURKE CHANNEL (1972)



toward Bella Coola the tidal streams are weak. In summer when strong freshets from the various rivers and creeks are in evidence, tidal streams from Gibraltar Point to Bella Coola are masked, there is a definite overlay of fresh water, and the current is mostly all ebb. Tidal streams in South Bentinck Arm are weak.

Chart 3936

Walker Point to Menzies Point

263 **Windsor Cove** *(51°56'N, 127°53'W)*, NE of Walker Point, affords temporary **anchorage** in 24 m but little shelter. **Sagen Islet** and numerous drying rocks lie on the west side of the approach.

264 **Edmund Point** *(51°54'N, 127°52'W)*, the south entrance point of Burke Channel, is low and wooded and has several islets lying close offshore within 1 mile SW of it.

265 **Fougner Bay**, entered 0.5 mile NE of Edmund Point, is encumbered with islets, rocks and shoals. Drying rocks are the outermost danger in the approach. Small craft can obtain **anchorage** in Fougner Bay.

266 **Hvidsten Point** *(51°57'N, 127°45'W)* is 5.5 miles ENE of Edmund Point. A bank, on which there are uneven depths of 16 to 30 m, extends about 1 mile west from the point. On the north side of the channel, opposite Hvidsten Point, a gravel and boulder drying bank extends about 0.1 mile offshore with some rocks, with less than 2 m over them, close offshore.

267 **Haaksvold Point**, on the north side of the channel, is bold and steep-to.

268 *Haaksvold Point* **light** *(603)* is shown at an elevation of 7.4 m from a skeleton tower.

269 **Nootum River** and **Doc Creek** flow into a bight on the east shore, opposite Haaksvold Point. The bight has an extensive steep-to mud flat on its south side. **Booming grounds**, a logging camp and small float front the outlet from Doc Creek (1999).

270 **Restoration Bay** is on the east side of Burke Channel, about 4 miles NE of Haaksvold Point. **Sharp Cone**, close north of the bay, rises steeply. Several streams flow into the head of the bay through a sandy beach.

271 **Anchorage** can be obtained in Restoration Bay in 30 m about 0.15 mile from the LW mark; the shore should be approached slowly when coming to anchor as the coastal bank is steep-to.

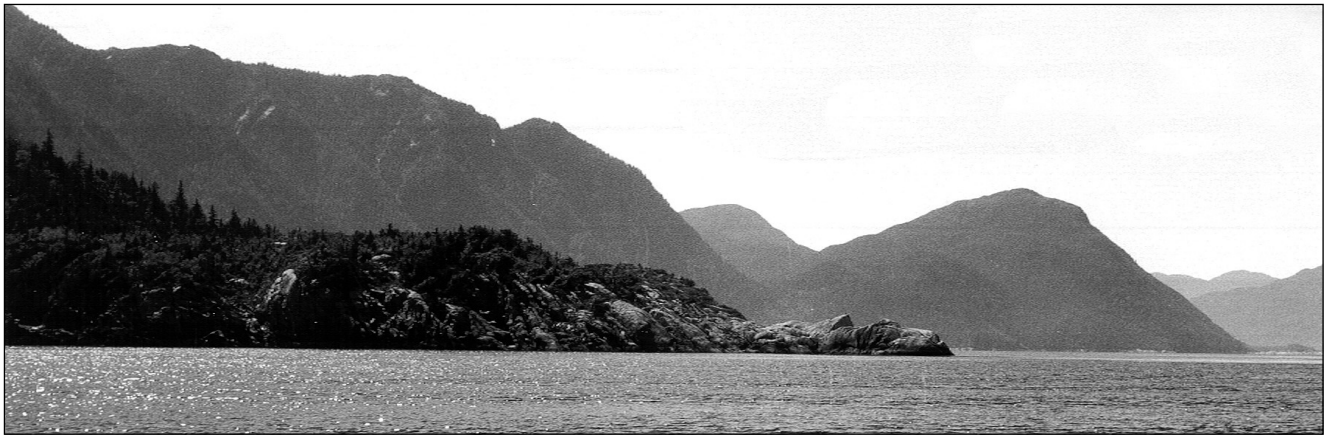
Chart 3974

272 **Kelkpa Point** *(52°07'N, 127°36'W)* is a low, wooded point at the foot of a high mountain on the east side of the channel, about 7 miles NNE of Restoration Bay.

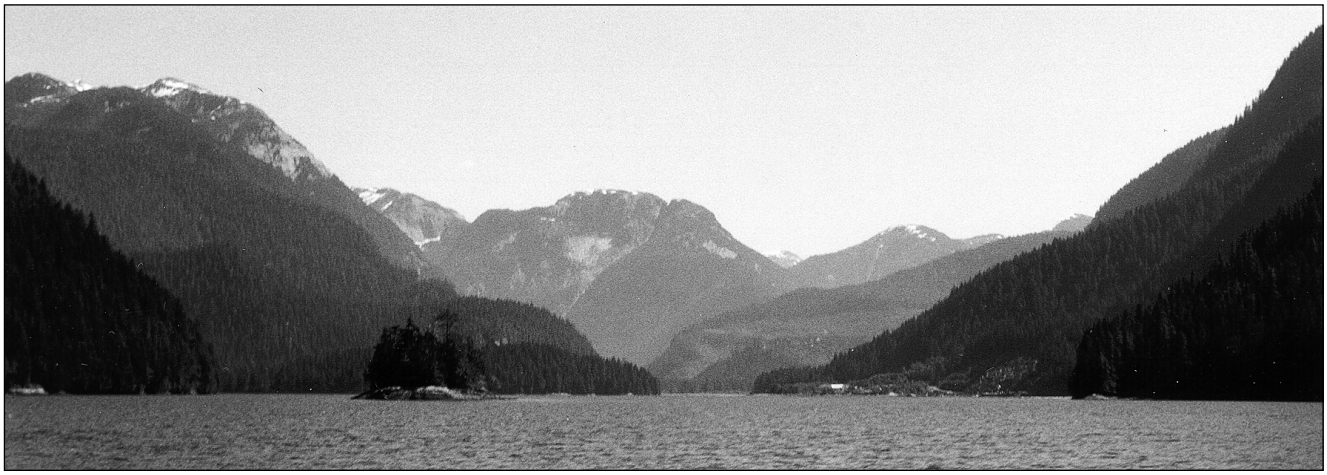
273 Kelkpa Point **light** *(602)* is shown at an elevation of 27 feet (8.1 m) from a skeleton tower.

274 **Mapalaklenk Point** is a conspicuous, low, bare rock, 3.5 miles NE of Kelkpa Point. **Odegaard Rocks**, which dry 12 feet (3.7 m), lie close-off Mapalaklenk Point.

MAPALAKLENK POINT LOOKING SW (1988)



KWATNA BAY (1988)



275 **Nyggard Point** and **Holti Point**, on the NW side of the channel, are bold and steep-to.

276 **Kwatna Inlet** is free of dangers and deep except toward the head where depths gradually shoal; the bottom is irregular for the last mile. The head of the inlet is filled with a drying flat through which the **Quatlena River** flows. A log dump and gin pole are 3 miles SSE of Cathedral Point (1988).

277 Good **anchorage** can be obtained in 15 fathoms (27 m), mud and sand, 0.3 mile from the edge of the drying flat at the head of Kwatna Inlet.

278 **Kwatna Bay** is on the east shore of Kwatna Inlet 4 miles within the entrance. **Kwatna Rocks** and some below-water and drying rocks lie on the south side of the bay, close within the entrance. At the head of the bay is an extensive mud flat through which the **Kwatna River** flows, the deepest channel being on the north side of the flat. The river channel, navigable by small craft for a short distance, is marked by piles. A logging camp, with a small float, and a **booming ground** are in the SE corner of the bay. Fresh water is available.

279 Kwatna Bay is deep but indifferent **anchorage** can be obtained about 0.2 mile from the edge of the drying flat, in about 33 fathoms (60 m), mud bottom. Approach this anchorage with caution because the mud flat is steep-to.

280 **Cathedral Point**, on the north side of the entrance to Kwatna Inlet, is indented by a small bay that has a drying rock on the west side of its narrow entrance and drying flats around its shore. A conspicuous white building and weather

station tower are in the trees above the point. **Gibraltar Point** is 3 miles NE of Cathedral Point. A conspicuous logging slash, log dump and **booming ground** lie between two creeks about 5 miles ENE of Gibraltar Point. **Gaarden Point** is 2 miles NNE of Gibraltar Point. The SE shore of Burke Channel, NE of Cathedral Point, skirts the base of a remarkable, bare, stony mountain.

Chart 3974

281 **Croyden Bay** and **Jacobsen Bay** lie close NE of **Kwaspala Point** *(52°19'N, 127°10'W)*. Both bays are too deep for anchorage except for small craft close inshore. A cliff rises almost vertically from shore on the east side of Kwaspala Point.

282 **Labouchere Point** and **Mesachie Nose** mark the south end of Labouchere Channel, described later under Dean Channel. **Lalakata Point** lies 2 miles and **Menzies Point** 5 miles east of Mesachie Nose.

North Bentinck Arm

283 **North Bentinck Arm** is entered between **Tallheo Point** and **Loiyentsi Point** *(52°20'N, 126°59'W)*. It is deep throughout with no off-lying dangers, and its shores are moderately steep-to. The wreck of the Strady II, a 10.2 m tug sunk in 2004, is reported to lie in 35 feet (10.7 m) of water close west of Tallheo Point. At the head of the arm a steep-to mud and sand flat extends from low, swampy ground which is submerged at HW. The **Bella Coola River**, a stream of considerable size and velocity, flows through the flat, which, from recent surveys, shows indications of extending west. The **Necleetsconnay River** flows into the NE side of the head of the inlet.

284 **Green Bay** lies close NE of Loiyentsi Point, with **Big Bay** farther NE. Green Bay has an extensive sand and gravel bank within it, and a ruined wharf and several cabins on its north side.

285 Small craft can obtain **anchorage** in the vicinity of the ruined wharf in Green Bay.

286 **Flagpole Point**, opposite Big Bay, is a conspicuous sloping point from which a rocky ledge, with a depth of 16 feet (4.9 m) at its extremity, extends about 0.1 mile north.

287 Flagpole Point **light** *(597)* is shown at an elevation of 22 feet (6.7 m) from a skeleton tower.

288 **Windy Bay** is on the east side of Flagpole Point. **Whiskey Bay**, a short distance NE, affords temporary **anchorage** for small craft, close inshore. An old log dump and gin pole are in the bay. A **booming ground** lies along the shore for 1.5 miles to the east.

289 **Bachelor Bay**, on the north shore opposite Windy Bay, has a rock that dries 9 feet (2.7 m) off the south entrance point.

290 **Tallheo** is on the north shore of North Bentinck Arm, close NE of **Custom House Point**. The conspicuous red buildings on piles are the site of an abandoned cannery. A drying bank of gravel and stones extends about 0.1 mile south from Custom House Point.

291 **Sutlej Point** lies on the south shore, SE of Tallheo.

292 Sutlej (Deadman) Point **light** *(598)* is shown at an elevation of 19 feet (5.9 m) from a skeleton tower.

293 A **booming ground**, log dump, **mooring buoys** and a B.C. Forest Service float, protected by a **breakwater**, extend west of Sutlej Point.

294 **Bella Coola** *(52°22'N, 126°45'W)* is a settlement on the south shore of the river of the same name, about 0.8 mile inland from the head of North Bentinck Arm. Sir Alexander Mackenzie came down this valley after a journey across Canada, and first sighted salt water near the mouth of the river where a plaque is now displayed. Bella Coola has several stores, including a liquor store, a post office (V0T 1C0), a RCMP detachment, hospital, doctors, a dentist, a laundromat and showers. Taxi service is available to the village, which is approximately 3 km from the public wharves. Regular supplies are available by sea, air and road. The Harbour Masters office is at the head of the public floats.

295 **Tides**. — Tidal predictions for Bella Coola (Index No. 8937) are given in the Tide Tables, Volume 7.

296 **Communications**. — B.C. Ferries make regular stops during summer months. A highway leads to the interior and joins the Vancouver/Prince George highway at Williams Lake, 479 km inland. From Williams Lake it is 543 km by highway to Vancouver. A road leads to the head of the arm and serves the wharves. There is a 4,000-foot (1,219-m) asphalt landing strip and charter flights can be arranged.

297 A **submarine cable** (fibre-optic) extends from Bella Coola, west through Dean Channel, to Boscowitz Point.

298 **Wharf. — Floats**. — A **rock breakwater** 0.3 mile east of Sutlej Point protects a **public wharf**. The wharf has a concrete deck, elevation 5 feet (1.5 m), on concrete and steel piles and measures about 150 by 50 feet (46 by 15 m). Depths alongside the west and east sides are 23 and 10 feet (7 and 3 m), respectively. A turning dolphin north of the wharf has a timber-faced fender wall. The **ferry and fuel barge berth** at the loading ramp are on the west side of the wharf. The **fuel float** is at the inner end on the

east side of the public wharf and can be reached at 250-799-5580.

299 The Bella Coola Harbour Authority **public floats** are east of the wharf. The floats with 3,058 feet (932 m) of berthing space are protected by **floating breakwaters**. Power (110V/20 amp) and fresh water are laid on the floats and garbage and used oil disposal facilities are available. A 3-tonne crane and a public telephone are on the wharfhead leading to the floats, and a launching ramp is nearby. A tidal grid is at the shoreline close east of the wharfhead. For detailed information see bellacoolaharbour.ca.

300 A short distance east of the public floats is the former **B.C. Packers wharf** with **floats** on its east side. The drying mud flat projects a short distance beyond this wharf, which can be used only at half tide. Close east of B.C. Packers wharf are the ruins of two piers.

301 Bella Coola breakwater **light** *(598.5)*, on the outer end of the breakwater, is shown at an elevation of 25 feet (7.6 m) from a skeleton tower fitted with a red and white rectangular slatwork daymark.

302 There is no satisfactory anchorage for a large vessel near the head of North Bentinck Arm but small vessels can obtain **anchorage** about 0.1 mile north of the public wharf in 24 to 27 fathoms (44 to 49 m).

303 **Winds**. — The prevailing wind in North Bentinck Arm in summer is from SW; it generally sets in at about 10:00 and blows fresh until sunset, when it usually falls calm. During winter months winds up to gale force, from the valley to the east of Bella Coola settlement, can be expected periodically.

South Bentinck Arm

304 **South Bentinck Arm** *(52°19'N, 126°59'W)* leads 24 miles SE between high mountains.

305 **Bensins Island** and **Tallheo Hot Springs** are 6 miles within the entrance.

306 **Larso Bay** affords **anchorage** for vessels up to 150 feet (46 m) long in about 18 fathoms (33 m). The ruins of an old wharf and **mooring buoys** are in the bay.

307 **Noeick River** enters the east side of South Bentinck Arm across an extensive sand and mud flat which is steep-to along its outer side. **Booming grounds**, with snags and piles, line the outer edge of these flats on the north side of the river with a logging camp onshore. A **float** and dolphins are north of the logging camp and a ruined pier is at the camp.

308 **Taleomey Narrows** has a navigable width of about 0.1 mile and a least depth of 12 fathoms (22 m) in the fairway, which lies close to the west shore. The **Taleomey River** enters the north part of the narrows.

309 **Anchorage**, suitable for vessels of moderate size, can be obtained in the basin between Taleomey Narrows and Bentinck Narrows; there are depths of 33 fathoms (60 m) in this basin but the anchorage is well-sheltered during summer months.

310 **Bentinck Narrows** has a navigable width of only 300 feet (91 m) and a least depth of 9 fathoms (16 m) in the fairway, which lies close to the east shore. The west side of this narrows consists of extensive drying mud flats off the entrance to two rivers. This narrows is only suitable for small craft. It is reported that logging operations are on both shores about 1 mile south of Bentinck Narrows.

311 **Winds**. — During summer months prevailing winds in South Bentinck Arm are from the north; they generally set in about 10:00 and blow fresh until sunset when it usually falls calm. South of Taleomey Narrows there are seldom any winds of strength, no matter how strong they may be outside. During winter months winds up to gale force, blowing from the valleys to the south, can be expected periodically.

312 **Ice**. — During winter months it is not unusual for the south part of South Bentinck Arm to freeze up for varying periods.

Fisher Channel

Charts 3936, 3939

313 **Fisher Channel** entered between Walker Point and **DeCosmos Point** *(51°57'N, 127°58'W)* leads to Dean Channel and Cousins Inlet at its north end. Lama Passage, on its west side, is part of the main route of the Inner Passage leading west and north. Johnson Channel and Gunboat Passage, farther north, are alternative routes connecting with the main Inner Passage.

314 **Tides**. — Tidal differences in Fisher Channel, referenced on Bella Bella, are given for Ocean Falls (Index No. 8962), at the head of Cousins Inlet, in the Tide Tables, Volume 7.

315 **Tidal streams**. — The flood stream from the north meets the flood stream from the south about midway between Fog Rocks and the east entrance to Lama Passage.

316 **Anchorages** in Fisher Channel and Cousins Inlet can be found 0.2 mile NW of Humchitt Island,

in Codville Lagoon, in Evans Inlet, in Wallace Bay on the east side of Cousins Inlet, or at the head of Cousins Inlet off Ocean Falls. Small craft can find good anchorage in Long Point Cove and indifferent anchorage in Port John.

317 A **submarine cable** (fibre-optic) extends from Kaiete Point, north through Fisher Channel and Cousins Inlet, to Ocean Falls. Another **submarine cable** (fibre-optic) extends from Addenbroke Island and lands at Kaiete Point.

Chart 3936

318 **DeCosmos Lagoon** *(51°56'N, 127°58'W)*, a landlocked lagoon, is a wildlife refuge.

319 Two rocks with less than 2 m over them lie 0.2 mile north of Humchitt Island *(51°56'N, 127°54'W)*.

320 **Anchorage** that affords little shelter, but might be useful on a temporary basis, can be obtained 0.2 to 0.4 mile NW of Humchitt Island in 38 to 44 m.

321 **Kipling Island**, north of Humchitt Island, has drying rocks and shoals extending 0.2 mile south of it. The passage between Kipling Island and **Kisameet Islands** to the NE is obstructed by an islet and several drying rocks. **Kisameet Bay**, east of Kisameet Islands, has numerous drying rocks in it.

322 **Fog Rocks**, 0.7 mile WNW of Kisameet Islands, consist of six flat rocks of a whitish colour; close to their south end are small black drying rocks and below-water rocks. Fog Rocks can be passed on either side, but the better route lies west of them passing at a distance of at least 0.5 mile.

323 Fog Rocks **light** *(591)*, on the largest rock, is shown at an elevation of 7.2 m from a skeleton tower.

324 **Carpenter Point** on the west shore and **Bernhardt Point** on the east shore are about 2.5 miles north of Fog Rocks.

325 **Clayton Island**, on the west side of Fisher Channel and 1 mile north of Carpenter Point, has several islets and drying and below-water rocks extending off the SE side and about 0.3 mile north from it. **The Trap**, the passage west of Clayton Island, affords shelter but is less than 0.1 mile wide at its narrowest part and should only be used by small craft. **White Top Rock** lies in the north approach to The Trap.

326 **Long Point** is 1 mile north of Clayton Island. **Long Point Cove** is an excellent **anchorage** for small craft. A rock that dries 0.9 m lies in the entrance to the cove, about 0.2 mile north of Long Point.

327 **Pointer Island**, about 0.5 mile north of Long Point, lies close-off the west shore of Fisher Channel on the south side of the entrance to Lama Passage (described later in this chapter). The island is connected to shore by a drying ledge.

328 Pointer Island **light** *(592)* is shown at an elevation of 11.9 m from a white tower. It operates during hours of darkness only.

329 **Miller Rock** and **Bickford Rock**, both 1 m high, lie close to shore SSW of Pointer Island.

330 **Walbran Rock**, 0.3 mile SE of Pointer Island, has less than 2 m over it. Port bifurcation **buoy** "EA" is north of the rock.

331 **Clearing mark**. — The light structure on White Point on the north side of Lama Passage, bearing 315°, and well open of **Kaiete Point**, the NE point of Hunter Island, leads close NE of Walbran Rock.

332 **Lagoon Bay** is on the east side of Fisher Channel, opposite Pointer Island; **Nob Point** is its north entrance point and **Codville Hill** lies on its south shore. At the head of Lagoon Bay, a narrow passage leads east into **Codville Lagoon**. A rock with less than 2 m over it lies in this passage, slightly north of mid-channel.

333 **Codville Lagoon Marine Park** is undeveloped but well-sheltered **anchorage** for small and medium sized vessels is obtainable. **Codville Island** lies in the central part and drying rocks lie in the north part of the lagoon. A landslide (October 2003), in the southeast corner of the lagoon, has produced a conspicuous scar on the hillside and reported shoaling to the charted 30-m depth contour.

334 **Evans Inlet**, on the east side of Fisher Channel, is entered between **Brend Point** *(52°06'N, 127°53'W)* and **Bold Point**. **Luke Island** and **Matthew Island** are in the entrance to Evans Inlet; a rock that dries 0.6 m lies in the middle of the passage between them. **Luke Passage** is the best entrance to Evans Inlet. **Matthew Passage** is obstructed by **Peril Rock** that dries 0.6 m and is steep-to and a rock that dries 1.2 m close WSW. A group of islets and rocks, drying and awash, lie at the SE end of Matthew Passage.

335 **Septimus Point** is on the south side of Evans Inlet; **Boot Island** lies near the head and has shallow water extending 0.1 mile NW and NE of it. A 3.2-m shoal lies off the south shore east of Boot Island.

336 **Anchorage** suitable for vessels of moderate size can be obtained at the head of Evans Inlet in 27 to 37 m.

337 **Port John** *(52°07'N, 127°51'W)* is entered between **Salisbury Point** and **Exeter Point**. A steep-to reef, about 0.2 mile from its head near the mouth of **Hook Nose Creek**, has **Mark Rock** at its SW end.



338 **Anchorage** of indifferent quality for small craft can be obtained close to shore in Port John.

339 **Farewell Point** is 1.5 miles west of Port John. The land on this side of the channel rises steeply from shore.



340 Farewell Point **light** *(594)* is shown at an elevation of 6.5 m from a skeleton tower.

Chart 3939

341 **Salisbury Cone** *(52°09'N, 127°50'W)*, NE of Bold Point, rises abruptly to its summit. North of Salisbury Cone the land on the east side of Fisher Channel slopes more gradually.

342 Georgie Point *(52°11'N, 127°53'W)* is the SE entrance point to both Gunboat Passage and Johnson Channel, both described later in this chapter.

343 **Sunny Island** lies 0.6 mile ENE of Georgie Point.



344 Sunny Island **light** *(595)*, on a bare rock 0.1 mile south of the island, is shown at an elevation of 6.3 m from a skeleton tower, 3 m high.

345 **Dean Island**, **Stokes Island** and **Clitheroe Island** lie close to the west shore of Fisher Channel.

346 **Rattenbury Point** is 5 miles NE of Sunny Island.

Cousins Inlet

Chart 3939

347 **Cousins Inlet** is entered between **Boscowitz Point** *(52°16'N, 127°47'W)*, which is steep-to and prominent, and **Barba Point**. **Ocean Falls** *(52°21'N, 127°41'30"W)* is at the head of the inlet. High, precipitous hills lie on both sides of the inlet.

348 A **speed limit** of 5 kn is recommended to avoid causing damage to floats.

349 **Water aerodrome**. — Cousins Inlet is a water aerodrome known as Ocean Falls.



350 A **magnetic anomaly** of 2° to 3° is reported to exist between Boscowitz and Wearing Points.

351 **Meteorological information** for Ocean Falls is given in the Appendices.

352 **Tides**. — Tidal differences for Ocean Falls (Index No. 8962), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

353 **Wallace Bay** is on the east side of Cousins Inlet about 1.3 miles north of Barba Point; **Benn Point** forms its south entrance point. There are a number of cottages around the bay. **Guns Rock**, with less than 6 feet (2 m) over it, is not usually marked by kelp.

354 Wallace Bay is used as a **booming ground** and logbooms may be along the shore.

355 **Wearing Point**, on the west side of Cousins Inlet, is precipitous and backed by a 450-foot (137-m) high hill that is conspicuous from south. A **shoal** depth of 7.7 m lies 0.4 mile SSW of Wearing Point. **Coolidge Point** is near the head of the inlet.



356 **Lights**. — Wearing Point **light** *(599)* is shown at an elevation of 18 feet (5.6 m) from a skeleton tower.



357 Cousins Inlet **light** *(599.5)*, 1.7 miles north of Wearing Point, is shown at an elevation of 12 feet (3.6 m) from a skeleton tower.



358 Coolidge Point **light** *(600)* is shown at an elevation of 21 feet (6.5 m) from a white tower.

359 **Benrot Island**, 0.5 mile NW of Coolidge Point, is covered with grass. **Martin River** enters the north extremity of Cousins Inlet. The residential district in this area is connected to Ocean Falls by road.



360 **Anchorage** can be obtained at the head of Cousins Inlet, east of Coolidge Point, in depths of 20 to 25 fathoms (37 to 46 m). Winds from Link Lake, to the east, can be troublesome in this anchorage if they attain a fair strength because the hills on each side create turbulent conditions. Under these turbulent conditions vessels usually move to the anchorage in Wallace Bay.



361 A **submarine cable** (fibre-optic) extends from Ocean Falls, south through Cousins Inlet and Fisher Channel, to Kaiete Point.

362 **Link River**, at the head of Cousins Inlet, drains **Link Lake**.

363 **Meteorological information** for Ocean Falls is given in the Appendices.

364 **Ocean Falls** is at the head of Cousins Inlet on the north side of Link River. A large dam, providing power to Shearwater and Bella Bella, and multi story buildings dominate the head of the inlet. Once a busy community of more than 5,000 there are now about 50 year round residents. The paper mill was closed in 1980 and machinery removed. Some houses were demolished in 1986, but many large buildings were spared though these are now empty and in disrepair. Precipitous hills rise immediately north of the townsite and south of the millsite. B.C. Ferries make regular weekly stops from mid June until early September.

Scheduled flights to Port Hardy and then to Vancouver are available year round. There are no roads to Ocean Falls.

365 The town has a post office (V0T 1P0), a lodge with shower and laundry facilities, and several cafes. A doctor is flown in once a month (usually the first Tuesday). A general store is at Martin River. A Canadian Coast Guard Auxiliary unit is available for marine search and rescue.

366 **Public floats**, at the townsite, are managed by the Ocean Falls Harbour Authority. Power, fresh water, garbage disposal facilities and a marine railway, operated by the Ocean Falls Yacht Club, for vessels up to 18 m (20 tons), are available.

367 The **ferry landing** is east of the public floats.

368 **Docks** at the former millsite are in a state of disrepair with some parts being dismantled for use elsewhere.

369 A **commercial fish hatchery** has been built next to the former mill. Fully treated effluent discharges through a submarine pipeline extending from the south side of the millsite 700 m WNW. The western end is marked by a buoy.

Dean Channel

Charts 3974, 3939

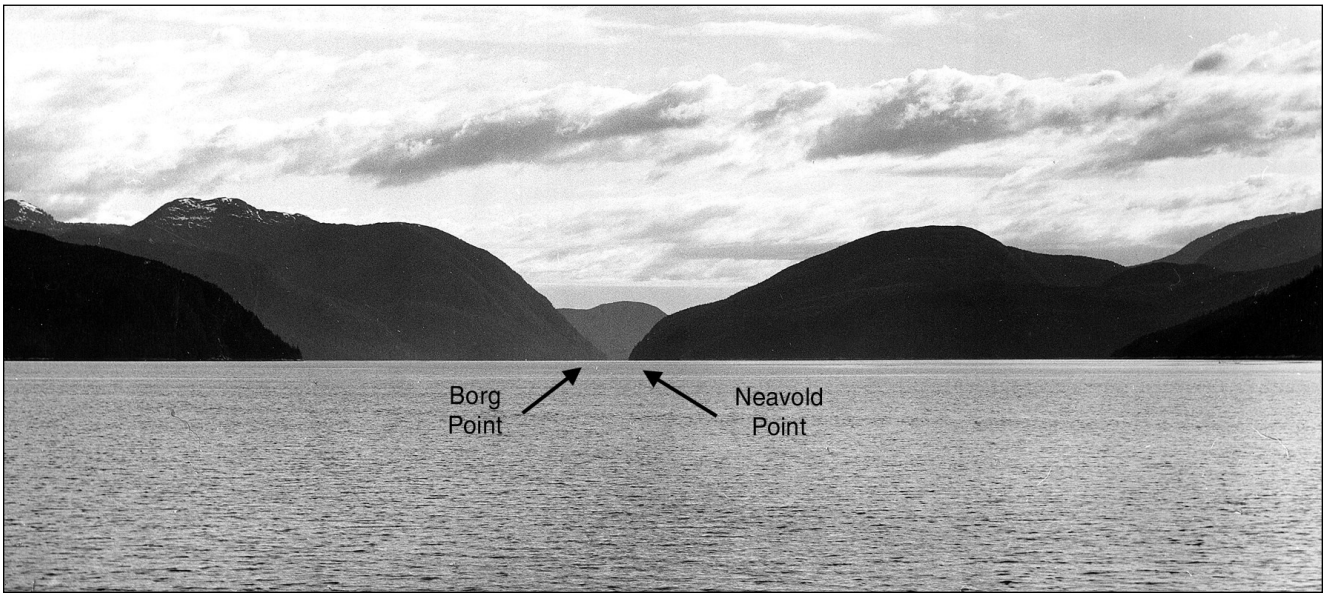
370 **Dean Channel**, 53 miles long, lies between high, often precipitous mountains. Depths in the fairway are great and the shores are, for the most part, steep-to. Dean Channel can be entered from Fisher Channel, north of Rattenbury Point *(52°15'N, 127°46'W)*, or from Burke Channel by way of Labouchere Channel.

371 **Anchorages** along Dean Channel can be found in Elcho Harbour, about 14 miles NE of Rattenbury Point, or in Kimsquit Bay, near the head of the inlet. Small craft can also find anchorage in Jenny Inlet, Eucott Bay, Bryneldson Bay, Nascall Bay, Carlson Inlet and Skowquiltz Bay.

372 A **submarine cable** (fibre-optic) extends from Boscowitz Point, east through Dean Channel, to Bella Coola.

373 **Winds**. — The prevailing wind in Dean Channel in summer is from the SW, being led up the channel as through a funnel, following the direction of the channel. The breeze usually sets in about 10:00 and reaches a maximum in early afternoon; it continues blowing fresh until sunset when it usually falls calm. During winter months, periodical winds, often reaching gale force, can be expected to blow down the channel from the north.

DEAN CHANNEL — BORG POINT BEARING 065° — 5.5 MILES (1972)



374 **Ice**. — The head of Dean Channel, as far south as Kimsquit Narrows, and sometimes beyond, frequently becomes icebound for lengthy periods during winter months.

375 **Tidal streams** between Rattenbury Point and Carlson Inlet, about 30 miles to the NE, attain 1 to 2 kn. To the north of Carlson Inlet they gradually weaken until in the vicinity of Engerbrightson Point they almost disappear. In summer, tidal streams become masked by the effect of the freshet from the rivers and creeks, and an overlay of fresh water is quite marked; in these circumstances the current is mostly an ebb. South of Carlson Inlet this effect is almost lost and the normal tidal streams remain, with the ebb somewhat stronger. Dean Channel is free of tide-rips and eddies.

Chart 3939

Barba Point to Fougner Point

376 **Jenny Inlet** *(52°15'N, 127°37'W)* is entered between **Neavold Point** and **Fosbak Point**. Several streams empty into the head of the inlet and drying banks extend off the mouths of these streams. A ruined barge with a wreck sign on it is on the east shore about 0.7 mile from the head of the inlet (1999).

377 **Anchorage** for small vessels can be obtained near the head of Jenny Inlet in about 23 fathoms (42 m). Small craft can find anchorage near shore.

Chart 3974

378 **Borg Point**, **Thorenson Point** and **Hokonson Point** are on the north side of Dean Channel; **Loken Point** is on the south side. A log dump and **booming ground** are in the bay 2.5 miles ENE of Loken Point (1998).

379 Hokonson Point **light** *(600.6)* is shown at an elevation of 4.7 m from a skeleton tower.

380 **Elcho Harbour** is entered 1 mile north of Hokonson Point; **Elcho Creek**, at its head, has an extensive flat at its mouth.

381 **Anchorage** can be obtained anywhere within Elcho Harbour in depths of 16 to 19 fathoms (29 to 35 m). It is reported to be a good, well-sheltered anchorage.

382 **Sir Alexander Mackenzie Park** extends NE from **Elcho Point**. A cairn marks the place where Sir Alexander Mackenzie landed on July 21, 1793 at the end of his cross-country journey. **Mackenzie's Rock** lies close-off this cairn.

383 **Cape McKay**, 2.7 miles NE of Elcho Point, forms the east side of **McKay Bay**. **Fougner Point**, is 1.3 miles to the east. Fougner Point **light** *(600.8)* is shown at an elevation of 10.5 m from a skeleton tower.

Chart 3974

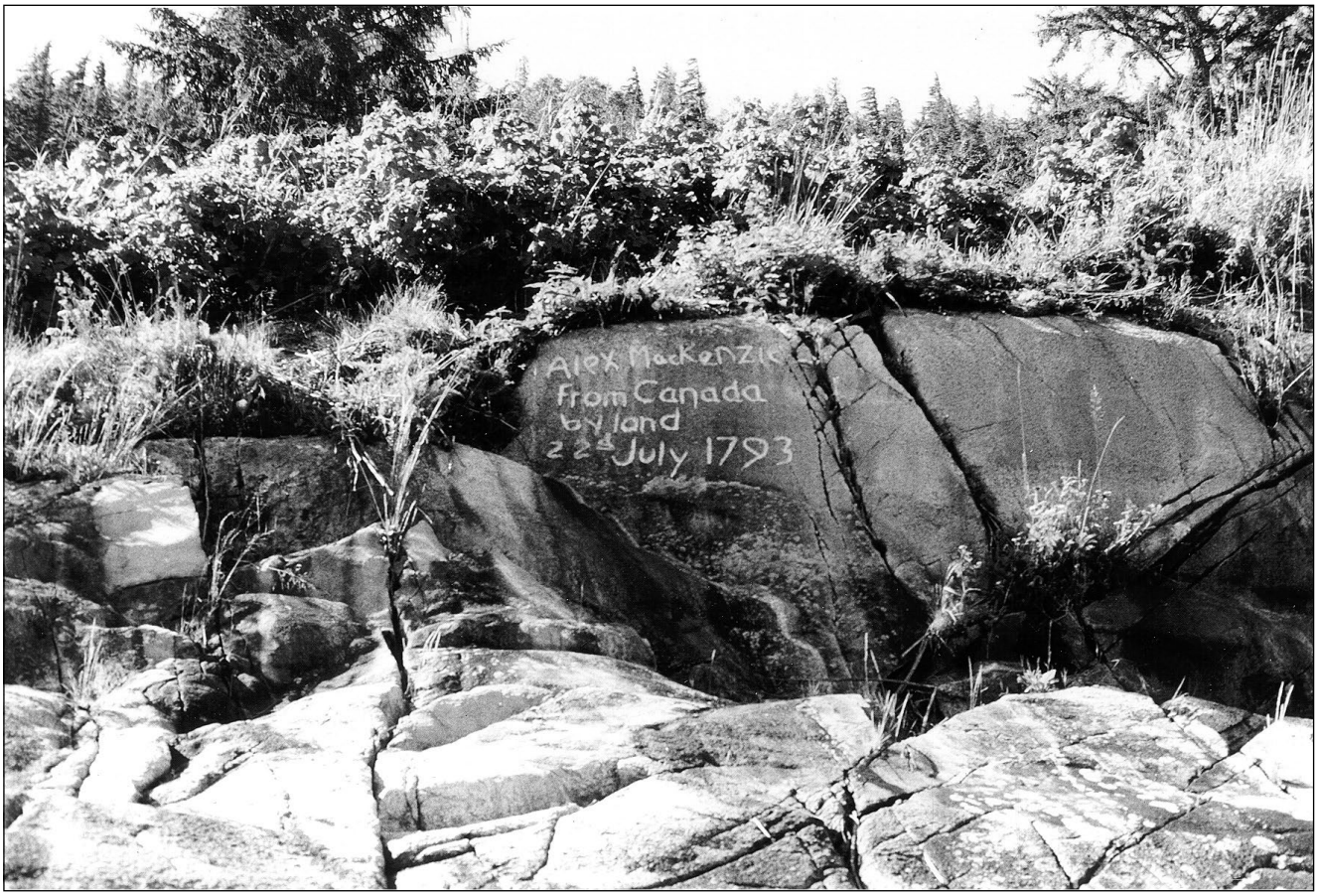
Cascade Inlet

384 **Cascade Inlet** is entered between Cape McKay and **Cascade Bluff** *(52°25'N, 127°24'W)*. The shores of the

SIR ALEXANDER MACKENZIE CAIRN (1988)



MACKENZIE'S ROCK (1988)



inlet are precipitous and numerous streams cascade down the mountains. The fairway is deep and the inlet is free of dangers. At the head of the inlet, there is a mud and grass flat but this flat is steep-to and depths off it are too great for anchorage.

Fougner Point to Ram Bluff

385 **Eucott Bay** is 3 miles NE of Fougner Point *(52°24'N, 127°23'W)*. A drying mud bank extends off the NW side of the bay and from its head. A **float** with a private fresh water pipe on it is on the east shore about 0.5 mile from the entrance. **Eucott Hot Springs** are near the head of the bay. The pool is formed by rocks and concrete blocks.

386 **Anchorage** with good shelter can be obtained by small craft in 8 to 12 feet (2.4 to 3.7 m) in Eucott Bay.

387 **Edward Point** is the north extremity of King Island. **Ram Bluff** lies 1.5 miles ENE. A float camp and gin pole are in the cove 0.9 mile NE of Ram Bluff with log storage in the cove between (1988).

388 Edward Point **light** *(596)* is shown at an elevation of 24 feet (7.3 m) from a skeleton tower, 10 feet (3 m) high.

Labouchere Channel

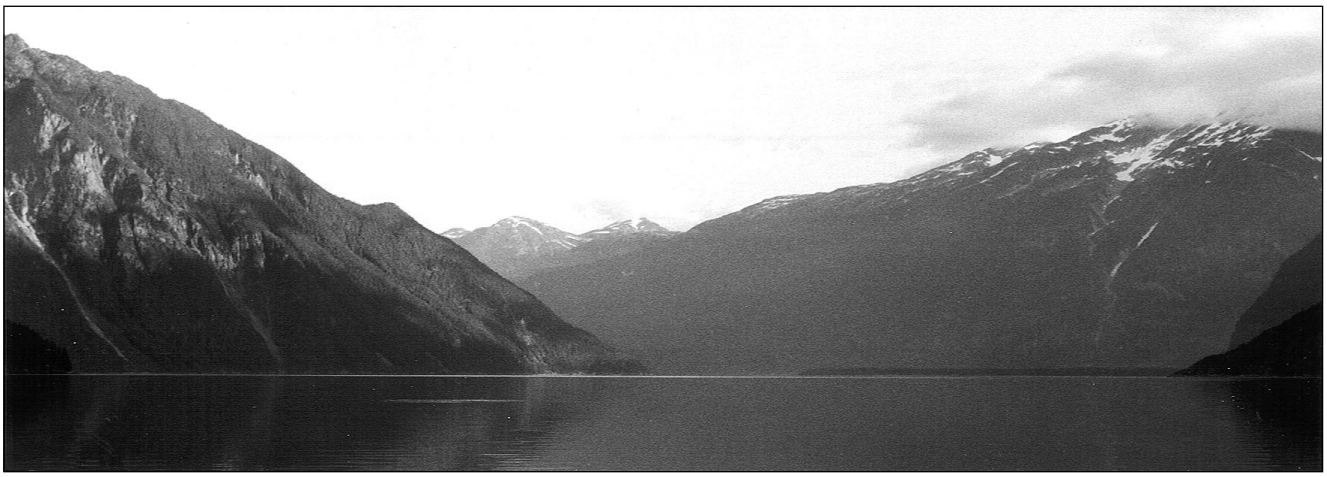
389 **Labouchere Channel** *(52°24'N, 127°14'W)* connects Dean Channel to Burke Channel.

390 **Tidal streams** in Labouchere Channel are weak.

391 **Winds**. — Labouchere Channel is usually calm in summer, no matter how strong the winds may be in Burke and Dean Channels. During the winter very strong north or NE winds can be experienced.

392 **Ovesen Point** is on the west side of Labouchere Channel. On the east side, about 1 mile SE of Ram Bluff is a small cove known

DEAN CHANNEL LOOKING NORTH FROM ABEAM RAPHOE POINT (1988)



locally as **Bryneldson Bay**. The **floats** are used by local fishermen.

393 **Anchorage** for small craft can be obtained in Bryneldson Bay in 18 feet (5.5 m), but there is only 7 feet (2.1 m) in the entrance.

394 **Deas Point light** *(601)*, on a flat rock close west of the point, is shown at an elevation of 15 feet (4.5 m) from a skeleton tower.

395 Some ruins and a waterfall are on the west shore 1.3 miles SSW of Deas Point.

Ram Bluff to the Head of Dean Channel

396 **Nascall Bay** is 3 miles NNW of Ram Bluff. **Nascall Hot Springs**, in the bay, are privately owned. **Nascall River** drains **Nascall Lake**.

397 **Anchorage** for small craft can be obtained in Nascall Bay but it is exposed to SE winds. A steady current flows out of the bay from the Nascall River.

Chart 3974

398 **Nascall Rocks** *(52°30'N, 127°14'W)* and **Nascall Island** lie off the east shore of Dean Channel 1 mile south of **White Cliff Point**. The channel between the island and the east shore of Dean Channel has a least depth of 18 feet (5.5 m), but should only be attempted by small craft.

399 **Carlson Inlet**, on the NW side of the channel, is well-sheltered but does not provide anchorage except for small craft off the drying flat at the head.

400 **Skowquiltz Bay** is 2.5 miles NE of Carlson Inlet. There is an extensive drying mud flat at the head of the bay. Along the edge of the flat are some old piles, the remains of a wharf. **Skowquiltz River** flows into the bay over the drying flat.

401 **Anchorage** for small craft can be obtained in the NE corner of Skowquiltz Bay, in about 12 fathoms (22 m), close to the edge of the drying flat. A drying rock lies close-off **Skowquiltz Point**.

402 **Sylvester Point**, on the north, and **Wattie Point**, on the south side of the channel, 4 miles ENE of Skowquiltz Point, are bold as is **Engerbrightson Point**, 2 miles NE.

403 **Purcell Rock**, which dries 3 feet (0.9 m), and **Ironbound Islet** lie in the bay between Sylvester and Engerbrightson Points. This bay offers no anchorage due to its depths and mariners are advised to give it a wide berth to clear Purcell Rock. **Jump Across Creek** and **Swallop Creek** are on the east shore abreast Purcell Rock.

404 **Raphoe Point**, on the west shore 5.2 miles NNE of Sylvester Point, is bold and conspicuous. **Sutslem Creek** is about 1 mile SW and **Humpback Creek** 1.5 miles NE from Raphoe Point. About 3.3 miles NNW of Raphoe Point, and on the same side of the channel, there are three conspicuous slides and a large boulder on the beach.

405 **Kimsquit Narrows**, 6 miles north of Raphoe Point, has the delta of **Dean River** on its east side. A small drying spit, on the west side of the narrows, consists of grass and stones and extends about 300 feet (91 m) from the mouth of **Manitoo Creek**; it is steep-to and presents no danger. The navigable channel is about 0.3 mile wide with depths over 40 fathoms (73 m) in the fairway.

406 The former Indian village **Kimsquit**, at the mouth of Dean River no longer exists. The ruins of a cannery and wharf are on the west shore of Kimsquit Narrows, near the mouth of Manitoo Creek.

407 **Kimsquit Bay** has a private float at its head. **Anchorage** can be obtained near the head of Kimsquit Bay, about 0.1 mile offshore, but the water is deep.

408 Beyond Kimsquit Bay, the channel trends 3.5 miles NW to a steep-to drying flat at its head. The **Kimsquit River** flows into the head of Dean Channel over the flat. A ruined pier is on the west side of the drying flats. Depths at the head of the channel are too great for satisfactory anchorage.

409 **Note**. — It is reported (1981) that the shapes of the mud flats at the mouths of the Kimsquit and Dean Rivers have changed considerably from those charted.

Lama Passage

Charts 3936, 3938, 3939

410 **Lama Passage** (52°04'N, 127°57'W) is the main passage used by all sizes of vessels connecting Fisher Channel with Seaforth Channel and Milbanke Sound. The east entrance can be identified by a conical mountain 277 m high on the NE end of **Hunter Island**. The passage leads south and west of **Denny Island**. The north shore at the east end of the passage is bold.

411 A **submarine cable** (fibre-optic) extends from Kaiete Point, west through Lama Passage, to Old Bella Bella.

412 **Buoyage**. — The upstream direction for buoyage in Lama Passage is proceeding west and north.

413 **Tides**. — Tidal predictions in Lama Passage are given for Bella Bella (Index No. 8976), at the north end of the passage, in the Tide Tables, Volume 7.

414 **Tidal streams** are strong in the northern entrance of Lama Passage and in the narrow passage between the NE end of Campbell Island and Saunders Island.

Chart 3936

Start Point to Beak Point

415 **Start Point** *(52°05'N, 127°56'W)* is on the north side of the east entrance of Lama Passage; **White Point** is 0.9 mile west. **Cliff Bluff** and **Canal Bight** lie 3 and 4.5 miles farther west.

416 *White Point* **light** *(592.5)* is shown at an elevation of 8.8 m from a skeleton tower fitted with a starboard hand daymark.

417 **Serpent Point** is 1 mile west of White Point, on the south side of Lama Passage; drying rocks lie close north and east of Serpent Point.

418 *Serpent Point* **light** *(593)*, on a rock close north of the point, is shown at an elevation of 5.1 m from a white tower.

419 **Fancy Cove**, 1.2 miles SW of Serpent Point, affords protected **anchorage** for small craft. The holding ground is reported to be good. A rock with less than 2 m over it lies at the entrance to the cove.

420 ***Harbourmaster Point*** **light** *(605.5)*, 1.1 miles west of Fancy Cove, is shown at an elevation of 4.3 m from a skeleton tower.

421 **Cooper Inlet** is entered between Harbourmaster Point and **Westminster Point**, 1.6 miles WNW. Numerous islets and drying and below-water rocks lie across its entrance but several coves offer shelter for small craft.

422 **Ada Cove**, between Harbourmaster Point and **Strom Point**, is entered on the SW side of two islets situated midway between the entrance points. Drying rocks and a rock with less than 2 m over it lie between the islets and Harbourmaster Point.

423 **Jane Cove**, entered between Strom Point and **Gibson Point**, is obstructed by a drying rock and shoals close within the entrance. A rock that dries 4.3 m lies about 0.1 mile NW of Strom Point.

LAMA PASSAGE LOOKING NORTH FROM ABEAM ARCHIBALD POINT (1986)



424 **Fannie Cove**, on the west side of Gibson Point, and **Lizzie Cove**, the west arm of Cooper Inlet, are fronted by numerous islets and rocks; local knowledge is advised. **Gus Island** is 0.2 mile NW of Gibson Point. **Hogan Rock** and a rock with less than 2 m over it lie 0.3 mile NW of Gus Island.

425 **Anchorage** for vessels up to 76 m long can be obtained in about 24 m, about 0.2 mile north of Hogan Rock, or in 20 m midway between Strom and Gibson Points. Anchorage for small craft is obtainable in any of the coves.

426 **Beak Point** *(52°04'N, 128°07'W)* is steep-to. **Bay Rocks** lie 0.5 mile ESE. **German Point**, 1 mile NW of Beak Point, is the NW entrance point to Hunter Channel, which is described in Chapter 1. **Twilight Point** is 1.4 miles east of German Point.

Lama Passage — North Arm

427 **Walker Island** *(52°06'N, 128°07'W)* is connected to shore by a drying rocky ledge; drying rocks extend 0.3 mile SSE from Walker Island.

428 *Walker (Camp) Island* **light** *(606)* is shown at an elevation of 7.9 m from a white tower.

429 **Alarm Cove**, on the east side of the passage, is entered north of **Alert Island**. The cove is encumbered with drying and below-water rocks. **Archibald Point**, a short distance north, is steep-to.

430 ***Napier Point* light** *(607)*, on the west side of the passage, is shown at an elevation of 5.4 m from a skeleton tower.

Chart 3938

431 **McLoughlin Bay** *(52°08'N, 128°09'W)* is a short distance NNW of Napier Point. A shoal with 12.1 m over it is in the centre of the bay.

432 A private float and dolphins are in the south part of the bay. The **Bella Bella Fish Plant** building, wharf and float are in the centre of the bay, fresh water is available. The **B.C. Ferries landing**, in the centre of the bay, is marked by a light. The ferry makes regular stops during summer months.

433 A **submarine pipeline** extends in a NE direction into the middle part of McLoughlin Bay.

434 **Story Point**, 0.6 mile NE, is on the east side of Lama Passage.

435 *Story Point* **light** *(608)* is shown from a skeleton tower.

436 A **submarine cable area** (power) crosses Lama Passage 0.4 mile north of Story Point. **Submarine cables** (fibre-optic) extend from Old Bella Bella, NW to Bella Bella, north to Dryad Point, SE to Clayton Passage, and south through Lama Passage, to Kaiete Point.

437 Lama Passage in front of Bella Bella is a **water aerodrome**.

438 **Old Bella Bella**, a former fish company settlement with a wharf and floats, is on the east shore of the passage. It now belongs to the Indian settlement of Bella Bella. Net floats are NE of the main wharf with fresh water available. Close SW of the wharf is the Fisheries and Oceans Canada office and float. Coast Guard has a **year round rescue unit** based here. It is equipped with a 14 m search and rescue vessel and a rigid hull inflatable. A boat works is between Bella Bella Islands and Spirit Island, approximately 0.5 mile NE from the wharf. It offers a repair yard and a marine railway capable of hauling vessels up to 45 tonnes.

439 A **conspicuous radio tower** at the north extremity of Denny Island has a red air obstruction light.

440 **Bella Bella Islands** consisting of several small islets connected at LW by rocky ledges are an Indian cemetery. A detached drying rock lies about 250 m east of the islets. A narrow boat passage between Bella Bella Islands and the NW side of Denny Island has a least depth of 6.5 m.

441 **Tidal predictions** for Bella Bella (Index No. 8976) are in *Tide Tables, Volume 7*.

442 **Bella Bella** is a large indigenous community on the west side of Lama Passage about 1 mile NNW of Story Point. It has a grocery store, hardware, bank, accommodation, restaurants, school, churches, and hospital and drug store operated by the United Church of Canada. **Waglisla** Post Office (V0T 1Z0) is in the community. Coastal supply vessels make regular calls. An asphalt airstrip, north of the community, is 1,128 m (3,700 ft) long. There are regularly scheduled flights to Port Hardy and Vancouver.

443 A **conspicuous microwave tower**, north of the community *(52°10'13"N, 128°08'38"W)*, is fitted with a red obstruction light.

444 **Submarine pipelines** (sewer outfalls) extend into Lama Passage in the vicinity of Bella Bella.

445 A **submarine cable** (power) is laid from the islet north of the public wharf to 0.6 mile SW of Dryad Point.

DRYAD POINT LIGHT (2018)



446 The **public wharf** has a berthing face 61 m long with a least depth of 7.3 m alongside. A metal freight shed and a fuel company office are on the wharf. Floats for small craft are attached to the inshore side of, and parallel to the wharf. The **fuel dock** supplies gasoline, diesel fuel, naphtha, kerosene and lubricants. Garbage disposal facilities, fresh water, showers, a marine railway and hull and engine repairs are available. There is also a seaplane float.

447 **Port hand buoy** *E17* lies off the edge of a shallow bank, about 0.1 mile south of the wharf.

448 **Campbell Island** community is on a small island 0.5 mile north of the public wharf. **Martins Cove**, close north of the small island, is protected on its east side by a rock breakwater and **port hand light buoy** *E19 (610.5)* marks the rock awash at the entrance. In the cove are public floats with 543 m of berthing for small craft. West of the floats is a small boatyard with a large aluminum shed. It has a marine railway capable of hauling vessels up to 55 tonnes.

449 **Anchorage** can be obtained in about 27 m about 0.4 mile ENE of the public wharf at Bella Bella.

450 **Cavin Cove**, 1.0 mile north of Bella Bella, has a bar 0.2 mile within its entrance with a rock that dries 2 m. It is only suitable for small craft.

451 The north end of Lama Passage is constricted to a least width of about 0.2 mile between the NE end of **Campbell Island** and **Saunders Island**. Care should be taken to keep in mid-channel through this passage.

452 *Saunders Island* ***light buoy*** *E20* (610), marks the edge of the foul ground projecting SW from the island, is a **starboard hand buoy**.

453 **Dryad Point** *(52°11'N, 128°07'W)* is at the junction of Lama Passage and Seaforth Channel.

454 *Dryad Point Sector* **light** *(611)* is shown from a white structure. White buildings with red roofs and a radio tower with a red air obstruction light are near the light

455 A **submarine cable** (fibre-optic) extends from Dryad Point, south to Old Bella Bella. Another **submarine cable** (fibre-optic) extends west, through Seaforth Channel, to Ivory Island.

Shearwater and Approaches

Charts 3938, 3939

456 **Kliktsoatli Harbour** *(52°09'N, 128°05'W)* is entered between **Spirit Island** and **Robins Point**, about 1 mile ESE. **Whisky Cove** lies south of Spirit Island. **Shearwater Island** is on the west side of the harbour. Several shoals are in the approach to the harbour.

457 **Clayton Passage** leads west of Shearwater Island. A reported 9-m **shoal** lies near the centre of Clayton Passage, extending 70 m from the west shore of Shearwater Island. The former Canadian Pacific Fisheries facility on the NW side of Clayton Passage is closed and in disrepair.

458 A **submarine cable** (fibre-optic) extends NW from Clayton Passage to Old Bella Bella.

459 **Wheelock Passage** lies between rocks off Robins Point and a shallow bank 0.2 mile ENE of Shearwater Island. Reefs and shoal water extend up to 0.15 mile north and NE of Shearwater Island. Shoal water and drying rocks fringe the east side of the harbour.

460 A **light** (B.C. Ferries) is at the ferry landing on the SW side of the harbour.

461 **Mooring buoys** are N of Shearwater Island and a private mooring buoy is E of **Atli Point**.

462 **Anchorage** with good holding ground can be obtained in 20 m, mud bottom, about 0.3 mile SE of Shearwater Island.

463 Kliktsoatli Harbour is a **water aerodrome** known as Bella Bella/Shearwater.

464 A **log breakwater** 300 m long fronts marine facilities at Shearwater.

465 **Shearwater settlement** is close north of Atli Point. It has a grocery store, hardware and marine supply store, and a resort hotel with restaurant and pub. Bella Bella post office (V0T 1B0) is in Shearwater.

466 **Shearwater Resort** is the most complete marine facility between Port Hardy and Prince Rupert. There is extensive berthing with power, fresh water, laundry, shower and garbage disposal facilities. Onshore there is an ATM, Internet and e-mail, hardware and charts. A full service shipyard has a 70-ton hoist and a marine ways that can haul vessels up to 24 m long and 100 tonnes displacement. A marine fuel station has diesel fuel, gasoline, aviation fuel, lubricants, bait, ice and fresh water. Welding, electronic and engine repairs, and hull and fibreglass repairs are available. For detailed information see shearwater.ca.

467 A **seaplane float** is in the basin W of Atli Point.

468 **B.C. Ferries wharf** is close SE of Atli Point.

469 **Communications**. — An asphalt airstrip 1.2 mile SE of the harbour is 2,954 feet (890 m) long. Water taxi service operates from Shearwater to Old Bella Bella and Bella Bella. B.C. Ferries make regular stops during summer months.

Kakushdish Harbour and Approaches

Chart 3939

470 **Kakushdish Harbour** *(52°09'N, 128°01'W)* is approached from either south or east of **Cypress Island**. The latter channel, between **Calver Point** and the east end of Cypress Island, is about 0.2 mile wide but is contracted to half that width by drying and below-water rocks extending more than 0.1 mile NW and west from Calver Point.

471 A shallow bar extends across the harbour about 0.3 mile within the entrance. An **overhead cable** (power) across the entrance has a vertical clearance of 23 m. A drying rock is in the middle of the basin near the head of the harbour, anchorage for small craft can be obtained SE of this rock in 6.4 m, mud.

Gunboat Passage

472 **Gunboat Passage** *(52°10'N, 128°00'W)* leads east from the east end of Seaforth Channel, between **Denny Island** and **Cunningham Island**, to the south end of Johnson Channel close to the junction with Fisher Channel. The passage is narrow, intricate and has many rocks and kelp patches. Recommended for small vessels only.

473 **Upstream direction for buoyage purposes in Gunboat Passage is proceeding from Seaforth Channel in an easterly direction toward Johnson Channel.**

474 **Tides**. — Tidal differences for Forit Bay (Index No. 8958), referenced on Bella Bella, are in Tide Tables, Volume 7.

475 **Tidal streams** are not strong and generally set west.

476 The passage between **Meadow Island** and Saunders Island is encumbered by **Pole Island**, **Yates Island**, **Hodges Reef** and rocks. The passage between Meadow and Cypress Islands is encumbered with an islet and rocks.

477 **Rainbow Island** *(52°10'N, 128°04'W)* is connected to Cypress Island by a drying bank. Several islets and rocks lie within 0.1 mile of the NE side of Rainbow Island and 0.3 mile north of Cypress Island. **Blow Reef** lies 0.6 mile NE of Rainbow Island.

478 *Blow Reef* **light** *(609.9)* is shown from a skeleton tower.

479 **Bark Island**, close-off the NE end of Cypress Island, is connected to it by a drying ledge.

480 *Bark Island* **light** *(609.8)* is shown from a skeleton tower.

481 **Cone Point** is 1.2 miles ENE of Bark Island. **Mount Verney**, 1 mile NW of Cone Point, is conspicuous. **Manson Point** is 0.5 mile SE of Cone Point. A **starboard hand daybeacon** is on a drying rock close-off Manson Point.

482 Two bays fronted by islets and drying ledges are on the north side of the passage, about 1 mile east of Manson Point. The east bay provides **anchorage** with excellent shelter for small vessels. Enter east of the islet in the middle of the bay and avoid drying rocks on the west side of the cove. **Beales Bay** is separated from **Beales Lagoon** by tidal rapids.

483 **Dunn Point**, 1.3 miles east of Manson Point, is fringed with rocks. A rock that dries 3.5 m lies about 90 m off the east side of the entrance to **Dunn Bay**.

484 Rocks lie on the south side of the fairway in the west approach to the unnamed bay immediately west of **Anthony Point**. An islet and rocks are in the middle of the bay.

485 Drying rock ledges and below-water rocks off the south shore extend 0.3 mile SE of Anthony Point. **Clute Point** is on the north shore.

486 **Magee Islet**, **Dingle Island** and **Picture Island** lie on the north side of the passage, between Clute Point and **Draney Point**.

487 **Gunboat Front Range daybeacon**, on Magee Islet, and **Gunboat Rear Range daybeacon**, on the reef west of Picture Island, consist of towers with orange range daymarks.

488 Shoal water extends north from Denny Island into Gunboat Passage, SW of Picture Island. **Starboard hand buoy** *E28* lies close north of these dangers. Make sure to keep this buoy on your starboard side when proceeding east and on your port side when proceeding west.

489 A **submarine cable** (power) crosses Gunboat Passage from close west of Draney Point to the south shore; it is marked by signs.

490 An **overhead cable** (power), vertical clearance 17 m, crosses the entrance to the cove north of Draney Point.

491 **Shoals** lie near mid-channel 0.2 mile SW and 0.1 mile SSW and SE of **Algerine Island**.

492 Rocks and shoal water extend into the entrance of **Gosse Bay** from the east side of Algerine Island. Two isolated shoals lie in the middle of the bay. **Anchorage** for small vessels can be obtained in Gosse Bay in 15 m, mud.

493 The passage between **Maria Island** and **Denny Point** is restricted by a drying rock south of Maria Island and a large shoal NE of Denny Point.

494 Drying and below-water rocks lie south and west of **Shave Point**. A rock with 12 feet (3.6 m) over it lies close-off **Hampden Point**.

495 **Anchorage** can be obtained in **Hampden Bay** in 20 fathoms (37 m), mud bottom, about 0.1 mile from its head.

496 **Leila Island** has a drying rock close NE and shoal areas SE and south of it. A drying rock lies close-off the Denny Island shore abreast the north end of Leila Island.

497 **Forit Bay** is entered between a rock that dries 4.6 m and a rock awash lying close north of **Flirt Island**. This narrow passage has a least depth of 3 fathoms (5.5 m). Good sheltered **anchorage** for small craft can be obtained in about 5 fathoms (9 m), mud, close west of Flirt Island. **Wakash Point** lies just north of Forit Bay.

498 **Tides**. — Tidal differences for Forit Bay (Index No. 8958), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

499 Johnson Channel is entered between Madigan Point and Teal Island, 1 mile NE of Wakash Point.

Johnson Channel

500 **Johnson Channel**, entered between **Georgie Point** *(52°11'N, 127°53'W)* and Sunny Island 0.6 mile NE, is free of dangers in the fairway. **Teal Island** lies close-off Georgie Point.

501 Sunny Island and its light, Dean and Stokes Islands are described earlier in this chapter under Fisher Channel. Three drying rocks lie within 0.2 mile west of the south end of Stokes Island.

502 Teal Island **daybeacon** has a port hand daymark.

503 **Madigan Point** is 0.5 mile NW of Georgie Point. A concrete memorial, about 5 feet (1.5 m) high, is on the point. A **submarine cable** (power) crosses Johnson Channel from Madigan Point to a point 0.7 mile NE.

504 **Bainbridge Cove**, 0.5 mile NW of Madigan Point, is only suitable for small craft as it is shallow and encumbered with rocks and islets.

505 A narrow lagoon, 1 mile NNE of Madigan Point, has drying mud flats and a drying rock at its mouth.

506 **Sardonyx Point** is 5 miles NNW of Madigan Point. **McCroskie Islands** have islets, drying ledges and below-water rocks extending NNW of them.

507 *Johnson Channel (Wallace)* **light** *(594.8)* is shown at an elevation of 6.1 m from a skeleton tower located 1.7 miles SE of McCroskie Islands. **Wallace Point** is a local name and not charted.

Chart 3940

508 **Beaumont Island** *(52°18'N, 127°57'W)*, near the north end of Johnson Channel, has **McKernan Rock**, with 0.4 m over it, close north of it and shoal water fringing its SE and SW parts.

509 *Beaumont Island* **light** *(604)* is shown at an elevation of 7.6 m from a skeleton tower.

510 **Anchorage** for small craft can be obtained west of Beaumont Island. Approaching this anchorage from north, there is an islet close to the west shore, and a rock that dries 3.6 m connected to the west

shore by a drying sandy ridge. Approaching south of Beaumont Island, a drying reef and a rock awash project to mid-channel from a point on the south side, and rocks with 1.1, 3.5 and 2.7 m over them lie near mid-channel south of Beaumont Island.

511 **Albert Islet** lies close-off the east shore, 0.6 mile NE of Beaumont Island.

Roscoe Inlet

512 **Roscoe Inlet** extends 21 miles north and east in a winding manner. The shores are very rugged and, for the most part, the inlet is free of mid-channel dangers.

513 **Tidal streams** in Roscoe Inlet are negligible.

514 **Nicholson Island** *(52°19'N, 127°57'W)*, in the approach to the inlet, has foul ground extending 0.1 mile from its north and south ends. **Roscoe Rock**, 0.5 mile north, is awash. A rock with a depth of 9.4 m lies 0.1 mile NNW and a rock with 6.8 m over it is 0.25 mile south of Roscoe Rock.

515 *Nicholson (Hoonees) Island* **light** *(604.2)* is shown at an elevation of 6.7 m from a skeleton tower.

516 **Keyes Point**, 2 miles NNE, is prominent and steep-to.

517 **Clatse Bay**, 2.5 miles ENE of Keyes Point, is entered east of **Clatse Point**. The shores of the bay are fringed with drying shingle ledges on which there are above-water rocks. A landslide on the west shore narrows the bay 0.6 mile from the entrance. **Clatse Creek** flows into the head of the bay over a drying flat.

518 **Anchorage** can be obtained about 0.3 mile within the entrance of Clatse Bay in a depth of 35 m.

519 **Shack Bay**, 1 mile north of Clatse Bay, is fringed with drying shingle ledges on which there are some above-water rocks. An above-water rock lies about 91 m off the north entrance point.

520 **Anchorage** for small vessels can be obtained in the north portion of Shack Bay in about 17 m.

521 **Roscoe Point**, with a drying rock close-off it, is on the west side of Roscoe Inlet opposite Shack Bay.

522 **Ripley Bay**, 2 miles north of Shack Bay, is too deep for convenient anchorage.

523 A **rock**, with less than 2 m over it, lies about 0.1 mile from the east shore and 0.8 mile NW of the west entrance point of Ripley Bay.

524 **Boukind Bay**, 5 miles NNW of Roscoe Point, has shores fringed by ledges but is free of dangers outside a distance of 46 m.

525 **Anchorage** for small vessels can be obtained off a bight on the east shore of Boukind Bay in 18 m. More confined anchorage can be obtained in 4 m near the head of the bay.

526 **Roscoe Narrows**, between **Boukind Bluff** and **Holm Point**, both of which are precipitous, is narrow but deep.

527 **Hansen Point**, 3.5 miles NE of Roscoe Narrows, has **Pan Rock** lying on a drying ledge extending north from it. This ledge reduces the navigable channel north of Hansen Point to 0.2 mile wide. A remarkable precipice, about 366 m high, is about 0.8 mile SW of Hansen Point.

528 A point on the south shore, 0.9 mile east of Hansen Point, has a rock that dries 0.9 m close-off it.

529 **Quartcha Bay** has depths too great for anchorage except for small craft close-off the drying flat near the head; caution should be exercised as the edge of the flat is steep-to.

530 **Thumb Point**, 1.8 miles SE of Quartcha Bay, is prominent and forms the east side of a bay, which is too deep for anchorage.

531 **Latch Islet** 0.1 mile west of **Latch Point** is 1.7 miles SE of Thumb Point. A stream south of Latch Islet has a boulder spit extending north from its mouth; this spit and Latch Islet reduce the fairway to about 0.1 mile wide but depths in the fairway are 33 m.

532 **Roscoe Creek**, 1.6 miles NE of Latch Point, flows into a drying bay.

533 **Anchorage** can be obtained about 0.5 mile from the head of Roscoe Inlet in a depth of about 26 m.

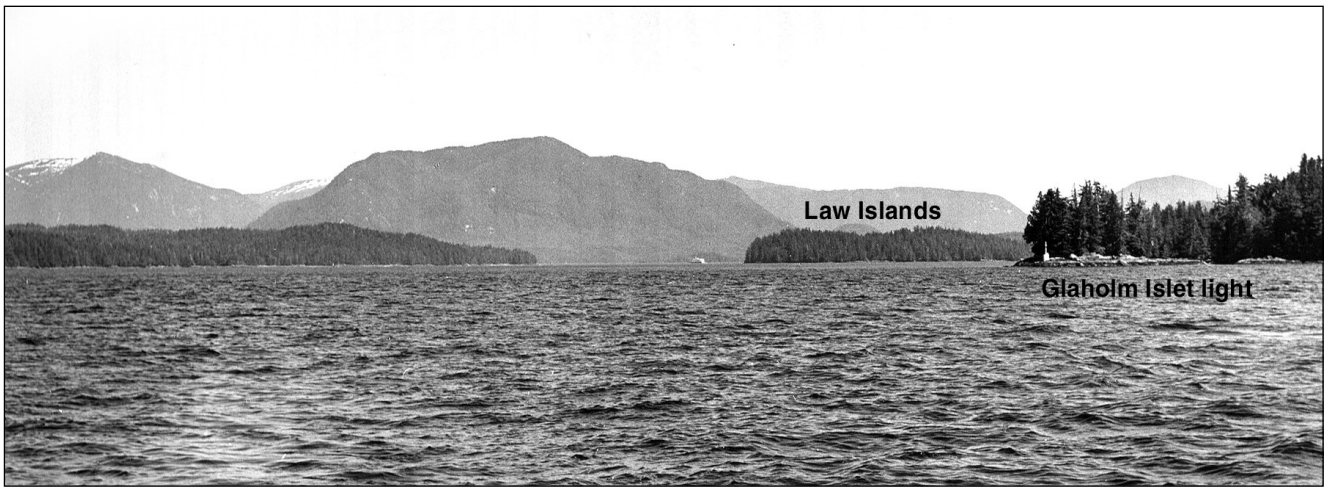
534 **Directions**. — With the exception of the portion of the inlet between Hansen and Thumb Points, where the north shore should be favoured, Roscoe Inlet can be navigated safely on a mid-channel course.

Return Channel

535 **Return Channel** *(52°19'N, 127°57'W)* connects the north end of Johnson Channel to Seaforth Channel.

536 **Eddies** that can be troublesome to small craft sometimes occur off Donald Point *(52°18'N, 128°06'W)* in the vicinity of Lorne Islet. Disturbed water can also be encountered in the vicinity of the 21.1-m shoal lying 0.6 mile WNW of Jagers Point.

RETURN CHANNEL ENTRANCE (1972)



537 **Jagers Point** *(52°18'N, 127°58'W)* is steep-to. Troup Passage, entered 1 mile west, is described later in this chapter.

538 **Roberson Islets** and a rock that dries 4.2 m lie 0.6 mile NNW of Jagers Point.

539 **Rochester Island**, 0.6 mile west of Roberson Islets, is covered with bushes. A rock with 1.2 m over it lies about 91 m south of the island.

540 A conspicuous slide is on the shore of **Florence Peninsula** NE of Rochester Island.

541 **Nealon Point**, 2 miles west of Rochester Island, is the north extremity of **Chatfield Island**. Between Nealon Point and **Donald Point**, 2 miles WSW, the Chatfield Island shore is steep-to.

542 *Donald Point* **light** *(605)* is shown at an elevation of 5.3 m from a skeleton tower.

543 **Lorne Islet**, 0.2 mile SW of Donald Point, lies about 91 m offshore. Several drying rocks lie between Lorne Islet and Donald Point. **McArthur Point** lies on the north side of Return Channel.

544 **Nedden Rock**, with 2 m over it, lies in the approach to Morehouse Bay. It is not usually marked by kelp and is steep-to on its north and east sides.

545 **Orton Hill**, 2 miles SE, has two summits and is conspicuous from west.

546 **Morehouse Bay** is encumbered with numerous islands and drying and below-water rocks.

547 **Anchorage**, suitable for small craft, can be obtained in the cove in the SW part of Morehouse Bay over mud and sand bottom. When approaching this anchorage take care to avoid the dangers on both sides of the approach.

548 The passage leading south between Chatfield and Dearth Islands is described with Seaforth Channel later in this chapter.

549 **Dakin Islets** *(52°17'N, 128°09'W)* are close-off the coast of Yeo Island, 2.2 miles WSW of Donald Point. A rock awash and a rock with 1.3 m over it lie 0.2 mile NE and WSW and **Holt Rock**, which dries 1.4 m, lies 0.3 mile WSW of Dakin Islets.

550 **Wigham Cove** *(52°17'N, 128°10'W)*, at the south end of **Yeo Island**, has a chain of drying rocks in its entrance; the fairway is west of these rocks and about 91 m wide. Two islets lie in the middle of the cove.

551 **Anchorage** for small craft can be obtained at the NE end of Wigham Cove; the holding ground is good. When entering Wigham Cove keep to the west side of the channel until the islets in the middle of the cove are abeam, then pass to the north of them.

552 **Hay Island** is on the west side of the approach to Wigham Cove. **Law Islands** lie south of Wigham Cove. A rocky drying ridge extends a short distance east from the NE Law Island.

553 *Law Islands* **light** *(615.2)* is shown at an elevation of 4.9 m from a skeleton tower.

Briggs Inlet

554 **Briggs Inlet** is entered east of **Coldwell Point** *(52°19'N, 128°01'W)*, the south extremity of **Coldwell**

Peninsula. Coldwell Point is known locally as **Sisters Point**.

555 *Sisters Point* **light** *(604.5)* is shown at an elevation of 7 m.

556 Mid-channel depths south of the narrows *(52°22'N, 128°00'W)*, 2.5 miles within the entrance, are generally 40 to 50 m but a rock with a depth of 4.5 m over it lies in mid-channel 1.2 miles within the entrance.

557 The channel through the narrows has a depth in the fairway of 10.8 m and leads west of a drying rock lying near mid-channel in the south part of the narrows. **Tidal currents** in the narrows reach 3 kn. Within 0.5 mile north of the narrows, two rocks with 4 m over them extend 0.1 mile from the east shore.

558 **Emily Bay** *(52°23'N, 128°01'W)*, on the west side of Briggs Inlet, has several drying rocks across its entrance and a rock with 2.1 m over it lies 0.1 mile off the north shore, 0.2 mile within the entrance. **Anchorage** in Emily Bay is well-protected with good holding over a bottom of sand and shell.

559 Near the head of the inlet, where it narrows, a rock with 6.5 m over it lies in mid-channel.

560 The entrance passage to the lagoon at the head of the inlet is about 15 m wide, with a depth of less than 2 m, which leads south of two drying rocks in mid-channel.

561 **Tidal currents** in the entrance to the lagoon reach 5 kn or more. The tidal range inside the lagoon is one-half the range outside.

562 The lagoon has a below-water rock lying in mid-channel NE of the only island, and an islet 4 m high and a 2.5-m shoal lie in the entrance to the cove at the SE end of the lagoon. Fish boats occasionally anchor in the lagoon and it is reported that the SE corner provides sheltered **anchorage** for small craft.

Bullock Channel

563 **Bullock Channel**, entered east of **Ettershank Point** *(52°19'N, 128°03'W)*, leads north from Return Channel to Spiller Channel. The channel is deep and free of mid-channel dangers. Two small islets lie in the south entrance to the channel and drying rocks and shoal water extend up to 0.15 mile from shore throughout the channel.

564 Two islands, 35 and 45 m high, with drying and below-water rocks extending south from them, lie on the west side of the channel, 1.6 and 1 mile south of the north entrance.

565 Small craft can obtain fair **anchorage** in 10 m in the mouth of a bay on the west side of Bullock Channel 2.8 miles south of the north entrance. A rock that dries 0.9 m lies in the north part of the cove.

566 Good **anchorage** can be found 0.8 mile east of **Gerald Point** in the bay behind a small peninsula on the east side of the north entrance to Bullock Channel in 15 m, sand bottom. A rock awash lies almost midway between the peninsula and an island, 39 m high, 0.1 mile north. An above-water rock lies 0.3 mile north of the island.

Troup Passage

Chart 3939

567 **Troup Passage** *(52°15'N, 128°02'W)*, known locally as **Deer Passage**, leads SW from Return Channel to Seaforth Channel. The north entrance, north of Troup Narrows, is encumbered with islands, above- and below-water rocks and rocks awash. Local knowledge is advised.

568 **Tides**. — Tidal differences for Troup Passage (Index No. 8981), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

569 **Anchorage** for small craft can be obtained in the east part of the north entrance to Troup Passage, but local knowledge is advised to enter between the islands.

570 **Troup Narrows** has a drying rock and rocks awash lying up to 200 feet (61 m) off the Cunningham Island side, a drying reef near the south end, and depths of 2 to 3 fathoms (3.7 to 5.4 m) in mid-channel. **Tidal streams** in the narrows are about 2 kn.

571 Two large islands, about 1 mile SSW of Troup Narrows, have several rocks close-off them. Several smaller islands and some drying reefs lie within 1 mile SSW of the large islands.

572 The cove entered SE of the above-mentioned islands is reported to afford an excellent **anchorage**. Drying rocks lie on the west side of the entrance channel.

573 **Lang Island**, which has a drying reef NE of it, **Handyside Island**, **Rudge Rock**, **Pear Island**, **Sabiston Island**, and several small islets and a drying reef, lie in the south entrance to Troup Passage.

574 **Dumas Point** is the SE entrance point of Troup Passage.

South Approach to Return and Spiller Channels

575 **Graven Point** *(52°15'N, 128°13'W)*, the west extremity of **Dearth Island**, has a shoal rock close west. **Grappler Bight** affords some shelter for small craft.

Chart 3940

576 **Glaholm Islet** *(52°16'N, 128°13'W)* lies close-off the NW point of Dearth Island.

577 *Glaholm Islet* **light** *(615)* is shown at an elevation of 4.2 m from a skeleton tower.

578 **Hyndman Reefs**, consisting of three groups of drying rocks, lie 0.8 mile west of Dearth Island.

579 *Hyndman Reefs* **light** *(614)*, on the south rock, is shown at an elevation of 5 m from a skeleton tower.

580 **Image Island**, 0.8 mile WNW of Hyndman Reefs light, is wooded. Drying and below-water rocks extend 0.3 mile NNE and about 0.1 mile SSW of the island. Two drying rocks lie 0.5 mile SSW and SW of Image Island. West of Image Island are **Foote Islets**, and north of them is **Locke Island**. Reefs extend north and south of Foote Islets. A narrow channel suitable for small craft leads along the west side of Foote Islets and Locke Island. Local knowledge is advised for this channel.

Spiller Channel and Inlet

581 **Spiller Channel**, entered between **Grief Island** *(52°17'N, 128°13'W)* and **Shingle Rock**, close-off **Don Peninsula**, to the west, is wide and deep.

582 **Tides**. — Tidal differences in Spiller Channel, referenced on Bella Bella, are given for Gerald Point (Index No. 8996), in the Tide Tables, Volume 7.

583 **Early Passage**, suitable only for small craft, leads east of Grief Island and **Mid Island**. A rock that dries 1.2 m lies close-off **Early Point**.

584 The **Tankeeah River** enters Spiller Channel 2 miles west of Early Point. Drying rocks lie close offshore north of the river entrance. Temporary **anchorage** can be obtained off the drying flats.

585 **Yeo Cove**, entered south of **Dove Point**, has numerous drying rocks in its entrance and local knowledge is advised to enter the cove. A logging operation and **booming grounds** line the north shore.

586 The entrance to **Tate Lagoon**, 3 miles north of Yeo Cove, is encumbered with numerous drying rocks, shoals and thick kelp. Strong tidal currents are reported in the entrance. Local knowledge is advised to enter the inlet.

587 Drying and below-water rocks lie 0.2 mile off the west shore 0.5 mile south of **Mosquito Bay** *(52°24'N, 128°10'W)*.

588 **Neekas Inlet** *(52°27'N, 128°10'W)* and **Neekas Cove**, the NE arm, are deep and clear of mid-channel dangers. A reef with 9.4 m over it projects 0.5 mile SE from the point between the arms. It is reported that **anchorage**, well-protected except from SE gales, is obtainable at the head of Neekas Cove.

589 The passage east of the large island near the head of Spiller Channel is encumbered with drying rocks in its narrowest part. Small craft can find **anchorage** in the cove at the SE end of the passage and in the cove at the narrows.

590 **Ellerslie Bay** is at the head of Spiller Channel. The bay south of Ellerslie Lagoon, and separated from it by a peninsula, is known locally as **Ellerslie Anchorage**. A drying reef projects from its south side toward the islet in its centre. The bay affords well-sheltered **anchorage** in 12 to 35 m and is a convenient place to await favourable tidal conditions to enter Ellerslie Lagoon.

591 **Ellerslie Lagoon**, at the entrance to **Ellerslie Lake**, has an entrance channel less than 30 m wide with a depth of 0.9 m and encumbered with drying and below-water rocks. **Tidal streams** ebb at 5 kn or more in the entrance. **Caution** is advised. About 0.2 mile inside the entrance, a drying spit projects from the SW shore to within 30 m of the NE shore. Depths inside the lagoon are 2 to 7 m. A large waterfall is at the head of the lagoon. Tidal range inside the lagoon is one-half the range outside.

592 **Spiller Inlet** continues 10 miles north from Spiller Channel. A spectacular waterfall is at the mouth if **Ingram Creek**. A rock with 10.3 m over it lies in mid-channel east of Ingram Creek and a rock with 3 m over it lies off the mouth of the creek.

593 A **submerged cable** crosses the mouth of a bay on the west side of Spiller Inlet, 1.2 miles north of the entrance.

Seaforth Channel

Charts 3941, 3938

594 **Seaforth Channel** *(52°12'N, 128°06'W)* is part of the deep draught Inner Passage route described in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and at the beginning of this chapter. Return Channel, entered from the NE side of Seaforth Channel, connects with Johnson Channel; it is the most easily navigated route from Seaforth Channel to Fisher Channel and Ocean Falls.

595 A **submarine cable** (fibre-optic) is laid in Seaforth Channel, from Dryad Point to Ivory Island.

596 **Buoyage**. — The upstream direction for buoyage purposes in Seaforth Channel is proceeding from Lama Passage toward Milbanke Sound (east to west).

597 **Tides**. — Tidal predictions, in Seaforth Channel, for Bella Bella (Index No. 8976) and tidal differences for Troup Passage (Index No. 8981), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

598 **Tidal streams** in the channels between Idol Point, in Seaforth Channel and Ocean Falls, at the north end of Fisher Channel, are variable in direction and weak; the currents depend to a great extent on the prevailing winds.

Chart 3938

Dryad Point to Idol Point

599 Dryad Point *(52°11'N, 128°07'W)* and light are described earlier in this chapter under Lama Passage.

600 **Ardmillan Bay**, 0.7 mile NW of Dryad Point, on the west side of **Song Island**, is unsuitable as an anchorage. A narrow passage only suitable for small craft connects the bay to Ormidale Harbour and has a least depth of 2.5 m.

601 **Ormidale Harbour**, NW of Ardmillan Bay, is protected from north and east by **Thorburne Island** and **Nevay Island**. **Wellington Rock** lies in the approach to the main entrance west of Nevay Island. The passage between Nevay and Thorburne Islands is encumbered with drying and below-water rocks.

602 **Anchorage** can be obtained in Ormidale Harbour in 30 m, mud bottom, about 0.2 mile south of Nevay Island.

603 **Kynumpt Harbour**, known locally as Strom Bay, is entered between **Defeat Point** and **Lay Point**, which can be identified by **Oland Islet**, lying close-off it. **Shelf Point** lies on the west side of the harbour. **Active Islet** lies close SW of Defeat Point. **Green Neck**, at the head of the harbour, is a narrow isthmus of formerly cultivated land.

604 The best **anchorage** in Kynumpt Harbour is in 13 to 16 m about 0.1 mile west of **Spratt Point**, at the entrance to **Strom Cove**. It is suitable for vessels up to 60 m long. Holding is reported to be good over a sand and mud bottom.

605 **Odin Cove**, close west of Kynumpt Harbour, has a shoal with 1.6 m over it on its east side.

606 Raymond Passage, entered west of Odin Cove between Kintail Point and Hose Point, is described in Chapter 1.

607 **Rithet Island** *(52°13'N, 128°08'W)* lies in mid-channel and has a drying reef extending 50 m west from it and shoal water lying to the NW.

608 **Regatta Rocks** are 0.5 mile NW of Rithet Island.

609 ***Regatta Rocks* light** *(611.7)* is shown from a white tower with a red band at the top.

610 **Dall Rocks**, 0.6 mile WSW of Regatta Rocks, are a series of rocky shoals marked on the south side by *Dall Rocks* ***south cardinal buoy*** *ED*. A dangerous submerged wreck is on the north side of the rocks.

611 *Dall Rocks* ***light and bell buoy*** *E33 (612)*, north of the rocks, is a **port hand buoy**.

612 **Wood Island** and **Ark Island** are close offshore at the junction of Seaforth Channel and Troup Passage. **Newby Island**, **Munsie Point** and **Christiansen Point** lie 0.5 to 2 miles WNW of Ark Island. **Nose Island**, 0.6 mile west of Christiansen Point, is steep-to on its south side and has a conspicuous tree about 60 m high. **Beazley Islands** lie north of Nose Island. The area surrounding Beazley Islands is encumbered with numerous small islets and drying and below-water rocks.

613 The passage entered between Christiansen Point and Nose Island leads north to Return Channel.

614 **Restless Rock**, 0.5 mile NE of **Noon Point**, is a pinnacle not usually marked by kelp. **Insley Rock** lies close-off the east end of Dearth Island.

615 **Raven Cove** affords anchorage for small craft only. **Beak Island** and drying rocks lie in the entrance to the cove.

616 **Ferrie Island**, 1 mile WNW of Nose Island, has reefs off its east and NW shores.

617 **Bardswell Group** consists of large islands bordering the south side of Seaforth Channel between Raymond Passage and Milbanke Sound.

618 **Mount Gowlland** *(52°13'N, 128°14'W)*, at the NE end of **Horsfall Island**, is conspicuous.

619 **Dundivan Inlet**, west of Mount Gowlland, is entered between **McGown Point** and the NE point of **Dufferin Island**. Depths within the inlet are too great for satisfactory anchorage, however small craft may be able to find anchorage in the small bay between **Kimlock Point** and **Mallory Islands**. **Muir Island**, **Check Island**, **Penny Point**, and **Lockhart Bay** are features in the inlet. Rait Narrows is described in Chapter 1.

620 **Idol Point** *(52°14'N, 128°17'W)* is on the south side of Seaforth Channel.

621 Idol Point **light** *(613)* is shown from a white tower.

Idol Point to Cape Swaine

622 **Denniston Point** *(52°14'N, 128°18'W)* lies 1 mile WSW of Idol Point. Reefs and numerous drying and below-water rocks exist up to 0.3 mile off the coast between Denniston Point and **Cape Swaine**, 5 miles west, named ones are **Gale Rock** and **Edge Reef**. Gale Passage is described in Chapter 1.

Bullen Rock to Robb Point

623 **Bullen Rock** *(52°15'N, 128°18'W)* lies 0.1 mile off the north shore of Seaforth Channel and a rock that dries 0.8 m lies close NE of it. **Joanna Rock** lies 0.5 mile west of Bullen Rock. **Porter Reef** is 0.5 mile west of Joanna Rock and about 0.3 mile SSW of **Bush Point**.

624 **Berry Inlet** is entered between **Wootton Islet** and **Fisher Point** then leads between **Evening Islets** and the treed islet 40 m high lying in the fairway 0.1 mile NNE. Berry Inlet is useless as an anchorage however small vessels can find shelter in **Mouat Cove**. Local knowledge is advised.

Charts 3910

625 **Balagny Passage** *(52°16'N, 128°22'W)* has drying rocks and shoals off its SE entrance point and numerous drying and below-water rocks encumber the passage. Halfway through the passage an islet and drying ledge extending east from Watch Island with drying rocks to the south almost block the passage. The fairway leading north to Blair Inlet is shallow and encumbered with drying and below-water rocks.

626 **Harmston Island** is connected to the south shore of **Watch Island** by drying ledges.

627 **South Island** *(52°16'N, 128°24'W)* and **Surf Islet** are connected to **Ivory Island** by drying ledges. **Robb Point** is the SW point of Surf Islet.

628 An **overhead cable**, with a vertical clearance of 6.9 m, crosses between Surf Islet and Ivory Island. A **submarine cable** (fibre-optic) extends from Ivory Island, east through Seaforth Channel, to Dryad Point. A second **submarine cable** (fibre-optic) extends west, across Milbanke Sound, to McInnes Island. A third **submarine cable** (fibre-optic) extends NW, through Milbanke Sound and Finlayson Channel, to Boat Bluff, on Sarah Island.

629 *Ivory Island* **light** *(617)*, on Robb Point, is shown at an elevation of 20.3 m from a skeleton tower, 5.2 m high.

630 **Cod Bank**, 1 mile SW of Robb Point, lies in the middle of the entrance to Seaforth Channel.

631 Milbanke Sound is described in Chapter 3.

Chart 3910

Blair Inlet

632 **Blair Inlet** *(52°17'N, 128°25'W)* lies south and SE of **Cecilia Island**. **Mouse Rock**, in the west approach to Blair Inlet, has less than 0.6 m over it and is generally marked by kelp; the sea sometimes breaks on it. **Rat Rock** and several drying and below-water rocks lie between Mouse Rock and the west side of Ivory Island.

633 The outer part of Blair Inlet, between Ivory and Cecilia Islands, is encumbered with numerous islands and rocks. The preferred entrance is from Seaforth Channel by way of the passage, only suitable for small vessels, between Ivory and Watch Islands.

634 **Muster Rock**, at the west extremity of the reefs extending west from Watch Island, is marked by starboard hand **buoy** "E50".

635 *Perrin Anchorage* **light** *(617.5)*, on the outer end of a drying ledge extending east from Ivory Island, is shown at an elevation of 4.1 m from a skeleton tower, 3 m high.

636 **Perrin Anchorage** lies in the fairway of vessels proceeding north toward Reid Passage; it is surrounded by drying and below-water rocks and exposed to SE gales.

637 **Overhead cables**, with a vertical clearance of 0.4 m, cross between the islets and the NE extremity of Ivory Island.

638 **Branks Islet**, **Roar Islets**, with drying reefs between them, form the west side of the fairway leading north. An islet 33 m high, 0.3 mile ENE of Branks Islet, forms the east side of the fairway; its west shore is fringed with drying and below-water rocks.

639 **Powell Anchorage** is a capacious and well-sheltered anchorage with a mud bottom. **Deep Rock**, on the NE side of Powell Anchorage, has some bushes on it and a white tombstone on its summit.

Chart 3938

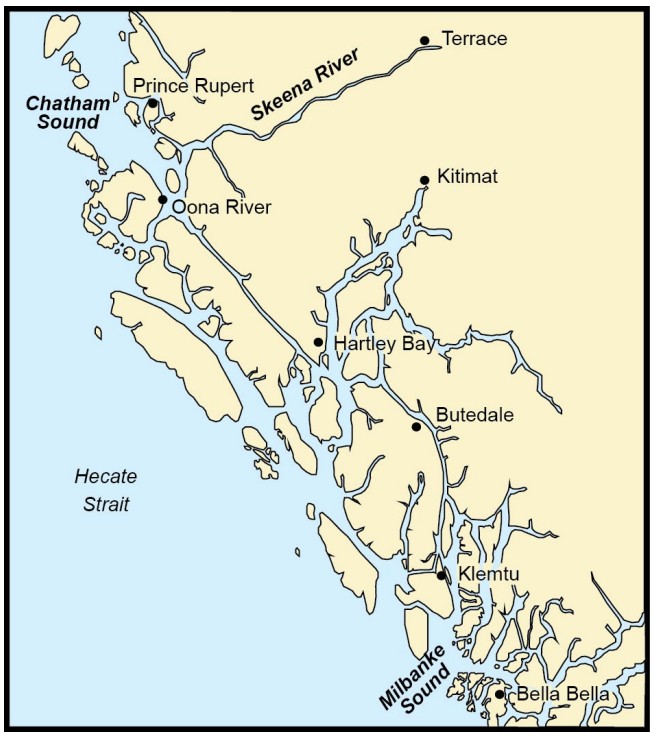
640 **Knarled Point**, on the north shore, and **Sun Point**, on the south shore, are at the entrance to the east arm of Blair Inlet. A rock, with less than 1.6 m over it, lies 0.1 mile north of the islet just west of Sun Point. East of Sun Point numerous islands and rocks lie off the south shore. **Tuno Creek** flows into the head of the inlet.

641 Reid Passage, which leads north from Powell Anchorage, is described in Chapter 3.

Chapter 3

Inner Passage

Milbanke Sound to Skeena River and Chatham Sound



General

Chart 3002

1 This chapter covers the Inner Passage from Milbanke Sound to Chatham Sound. The mainland inlets and connecting passages east of this route are also described.

2 Commencing from the west end of Seaforth Channel, described in Chapter 2, the usual route through Milbanke Sound is between Susan Rock and Cross Ledge. The Inner Passage then follows Finlayson, Tolmie, Princess Royal, Grenville Channels, Arthur and Malacca Passages into Chatham Sound.

3 **Vessel Traffic Services (VTS).** — The area covered in this chapter is primarily in *Sector 1* with only the northern portion in *Sector 2* of the *Prince Rupert Traffic Zone*. The assigned frequencies are *Sector 1* – 156.55 MHz, Channel 11 and *Sector 2* – 156.575 MHz, Channel 71.

4 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

5 The Calling-in Points are

6 *Calling-in Point No. 6*, called *Freeman Point*, is at *Freeman Point* **light** *(see LL 638)*. Northbound mariners shall report an ETA for Boat Bluff light and Ditmars Point and shall advise if intending to transit Hiekish Narrows.

7 *Calling-in Point No. 7*, called *Ditmars Point*, is at Ditmars Point. Southbound mariners shall report an ETA for Boat Bluff light and Freeman Point.

8 *Calling-in Point No. 8*, called *Griffin Point*, is at *Griffin Point* **light** *(see LL 645)*. Northbound mariners shall report which side of Work Island they intend to transit. Southbound mariners shall advise if intending to transit Hiekish Narrows.

9 *Calling-in Point No. 9*, called *Kingcome Point*, is a line joining *Kingcome Point* **light** *(see LL 648)* and Angler

Cove. Southbound mariners shall report which side of Work Island they intend to transit.

10 *Calling-in Point No. 10*, called *Money Point*, is at *Money Point* **light** *(see LL 651)*. Mariners bound for Kitimat shall report an ETA for Emilia Island light.

11 *Calling-in Point No. 11*, called *Sainty Point*, is a line joining *Sainty Point* **light** *(see LL 665)* and Yolk Point. Northbound mariners shall report an ETA for Tom Island light and Pitt Island light.

12 *Calling-in Point No. 12*, called *Pitt Island light*, is at *Pitt Island* **light** *(see LL 670)*. Southbound mariners shall report an ETA for Tom Island light and Sainty Point light.

13 *Calling-in Point No. 13A*, called *Baker Inlet*, is a line across Grenville Channel from *Baker Inlet* **light** *(see LL 670.5)*; it is a change line between *Sector 1* and *Sector 2* of the *Prince Rupert Traffic Zone*.

14 *Calling-in Point No. 13B*, called *Swede Point*, is a line across Ogden Channel joining Bareside and Swede Points; it is a change line between *Sector 1* and *Sector 2* of the *Prince Rupert Traffic Zone*.

15 *Calling-in Point No. 14A*, called *Lawyer Islands*, is a line joining Hunt Point and Lawyer Islands.

16 *Calling-in Point No. 14B*, called *Genn Islands*, is a line joining Lawyer Islands and Hazel Point.

17 **Tidal stream chartlets** of the channels between McKay Reach and Kitimat are given later in this chapter under McKay Reach.

Milbanke Sound

Charts 3938, 3941

18 **Milbanke Sound** is the main opening from seaward leading to Seaforth, Mathieson and Finlayson Channels. It is entered from seaward between Cape Mark *(52°09'N, 128°32'W)*, the SW extremity of Bardswell Group, and the group of islands and reefs extending SW from the south end of Price Island.

19 A **submarine cable** (fibre-optic) is laid in Milbanke Sound from Ivory Island to McInnes Island. Another **submarine cable** (fibre-optic) is laid in Milbanke Sound and Finlayson Channel from Ivory Island to Boat Bluff, on Sarah Island.

20 The main Inner Passage leading north from southern British Columbia toward Alaska enters Milbanke Sound from Seaforth Channel, passes between Susan Rock and Cross Ledge, and then leads north into Finlayson Channel. This Inner Passage is used by most coastal traffic.

21 **Landmarks**. — Approaching Milbanke Sound from SW **Helmet Peak** *(52°21'N, 127°21'W)*, on Lake Island, is a conspicuous landmark. This remarkable peak bears a striking resemblance to a helmet, with the sloping side toward the west. Nearing the sound, the low, wooded shores of Cape Mark will be identified; the tops of the trees are about 150 feet (46 m) high. **Jocelyn Hills** on the east side of Price Island are conspicuous.

22 **Tidal streams**. — The north-going stream divides near the middle of Milbanke Sound, one portion running toward Finlayson Channel, another toward Mathieson Channel, and a third toward Seaforth Channel. The reverse takes place with the south-going stream.

23 The rate of the stream is variable, but seldom exceeds 1 kn in Milbanke Sound. In the channels adjoining Milbanke Sound the rate increases to 2 and 3 kn in the narrow parts.

24 **Meteorological information** is available in the Appendices.

25 A considerable **magnetic disturbance** has been observed along the east side of Milbanke Sound between Vancouver Rock and Keith Point.

Chart 3733

Milbanke Sound — West Side

26 **McInnes Island** *(52°16'N, 128°43'W)* is situated among a group of islands and reefs extending 2.5 miles SW from the south end of Price Island.

27 *McInnes Island* **light** *(see LL 619)*, is fitted with an emergency light. The light is visible from 292°30' through north and east to 115°.

28 Catala Passage is described under Laredo Sound in Chapter 3.

29 **Day Point**, the south extremity of **Day Island**, has drying rocks lying close-off it and the island is joined to the south end of **Price Island**. The east coast of Price Island between Day Point and **Aldrich Point**, 4.3 miles NE, is indented by **Muir Cove** and other small bays exposed to the sea.

30 **Keary Rock**, which dries 3 feet (0.7 m), lies 1.3 miles NE of Day Point about 0.5 mile off Price Island.

Charts 3941, 3726

31 **Langford Cove**, close north of Aldrich Point, has a drying reef off the south entrance point and numerous drying rocks and rocks awash line the shore. The cove provides shelter for small craft.

32 **Pidwell Reef**, 6.6 miles NNE of Aldrich Point and close-off the south coast of Swindle Island, is 1.3 miles long

and its highest part has an elevation of 8 feet (2.4 m); most of the reef consists of drying and below-water rocks.

33 **McGregor Bank**, 2 miles SE of Pidwell Reef, has a least depth of 23 fathoms (42 m).

34 **Higgins Passage** separates the north end of Price Island from Swindle Island. The west portion of the passage is described in Chapter 5.

35 **Anchorage** can be obtained by small vessels in 7 to 8 fathoms (12.8 to 14.6 m), sand bottom, 5.5 miles NW of Pidwell Reef, south of Higgins Lagoon.

36 **Higgins Lagoon** *(see Chart 3737)* has **tidal rapids**, overfalls, rocks and kelp in its entrance. The 1996 survey is of a reconnaissance nature and no shoal examinations were done. The main basin has depths of 20 to 118 feet (6 to 36 m), the east arm depths of 13 to 30 feet (4 to 9 m) and the west arm depths of 10 to 23 feet (3 to 7 m). Drying rocks lie in both entrances to the west arm.

37 The unnamed inlet on the NE end of Price Island *(52°29'N, 128°41'W)* has easy access and affords good shelter. Depths in the basin range from 62 to 20 feet (19 to 6 m). Seasonal **marine farm** facilities lie along the shores throughout the inlet.

Chart 3938

Cape Mark to Cape Swaine

38 **Cape Mark** *(52°09'N, 128°32'W)* is the south extremity of a small island at the SW end of the Bardswell Group. The islands in its vicinity are wooded and the tops of the trees are about 150 feet (46 m) high.

39 **Providence Rock**, 0.8 mile west of Cape Mark, has 2.7 m over it. The sea seldom breaks over the rock in good weather. **Cheeseman Rock**, 0.8 mile NNW of Cape Mark, has 1 m over it and frequently breaks. Two shoal rocks lie 0.3 mile SE and a drying and below-water rocks lie about 0.8 mile NE of Cheeseman Rock.

40 *Cape Mark* **light** *(see LL 616)* is shown from an islet 0.7 mile east of Providence Rock.

41 **Wurtele Island**, about 1.2 miles NE of Cape Mark, is separated from the west coast of **Athlone Island** by a narrow passage. The SW and NE ends of this passage are encumbered with numerous islets and above- and below-water rocks. **Townsend Point** is the north extremity of Wurtele Island.

42 The coast between the entrance to St. John Harbour and Cape Swaine, about 3 miles NE, is fronted by drying ledges and offshore reefs that are covered with kelp.

43 **Welch Rock** and a number of above- and below-water, drying and awash rocks lie up to 0.5 mile off Cape Swaine.

44 **Yaaklele Lagoon**, close south of Cape Swaine, has its entrance obstructed by below-water rocks, drying ledges and islands. It is only accessible to small craft at or near HW and local knowledge is advised. There are **tidal rapids** in the entrance.

Chart 3938

St. John Harbour

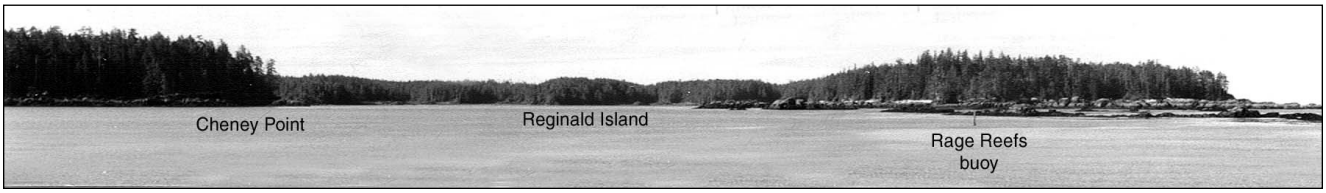
45 **St. John Harbour** *(52°11'N, 128°28'W)* is confined but affords anchorage for small vessels.The harbour is fairly well protected at its entrance by **Rage Reefs**, which extend 0.7 mile NNE of Townsend Point and are marked by starboard hand buoy "E46" at the NE end. **Lenz Islet** lies about midway along the reefs.

46 Between **Cheney Point**, the NE entrance point of the harbour, and **Beeton Point**, 0.8 mile south, the coast is fringed with rock ledges extending up to 0.15 mile offshore.

47 **Caution**. — At HW, when Rage Reefs are covered, it is difficult to distinguish the entrance to St. John Harbour. At half tide and at LW the north end of Rage Reefs and the drying ledges along the east side of the channel are visible and no undue difficulties should be encountered.

48 **Reginald Island**, about 0.4 mile east of Townsend Point, has drying ledges and reefs along its north and west shores. The channel west of Reginald Island leads into **Louisa Cove**.

ST. JOHN HARBOUR ENTRANCE (1987)



49 **Raby Islet**, 0.1 mile east of Reginald Island, lies in the entrance to **Dyer Cove**. Two seasonal fishing lodges are moored in the south part of Dyer Cove.



50 **Anchorage**, suitable for small vessels, can be obtained in 14 to 23 m in Dyer Cove; this is the usual anchorage for St. John Harbour.

51 **Directions**. — When approaching St. John Harbour from south, Cape Mark should be given a berth of about 2 miles. When approaching Rage Reefs, Cape Mark should be kept well open of the conspicuous wedge-shaped point 2 miles NNE of it, bearing not more than 212° astern, until the north end of Rage Reefs and the entrance to St. John Harbour have been clearly identified.

Chart 3941

Seaforth and Mathieson Channels — West Approach

52 **Emmaline Bank** *(52°14'N, 128°30'W)*, 2 miles west of Cape Swaine, is a large area with depths of 50 to 12 fathoms (91 to 22 m). **Mohun Shoal**, on the north end of Emmaline Bank, has 39 feet (11.9 m) over it.

53 **Susan Rock** *(52°17'N, 128°30'W)*, in the middle of the approach to Seaforth and Mathieson Channels, is 19 m high and bare.



54 *Susan Rock* **light** *(see LL 618)* is on the rock.

55 **Skinner Rock**, 0.5 mile NNE of Susan Rock, is 5 m high and steep-to on its east side. Both Susan and Skinner Rocks are prominent showing up against the dark background of spruce and cedar trees that line the shores of Milbanke Sound. Shoal areas with 28.6 and 23.6 m over them lie 0.6 and 1.25 miles east of Skinner Rock.

56 **Ada Shoal**, 0.7 mile SSE of Susan Rock, has 11.5 m over it. A rock 0.3 mile ESE of Susan Rock has 2.9 m over it and breaks in heavy weather.

57 **Leading marks**. — Idol Point light structure bearing *(52°14'N, 128°16'W)* 110° and kept well open south of Ivory Island light structure leads about 0.4 mile SW of Mouse Rock, which is 0.5 mile west of Ivory Island.

58 Seaforth Channel and Blair Inlet are described in Chapter 2; Mathieson Channel is described later in this chapter.

59 **Cross Point** *(52°19'N, 128°27'W)* is at the SW end of **Lady Douglas Island**, which is low and wooded.

60 **Cross Ledge**, 0.7 mile SW of Cross Point, has less than 6 feet (2 m) over it. A rock that dries 2.2 m lies close east of the ledge and foul ground lies between Cross Ledge and Cross Point.

Cross Point to Keith Point

61 **Boulder Head**, 1.5 miles NW of Cross Point, is a conspicuous rocky headland forming the south extremity of **Salal Island**.

62 **Boulder Ledge**, midway between Cross Point and Boulder Head, has a drying rock and several rocks with less than 6 feet (2 m) over them on it. Deep water with scattered shoals lies between Boulder Ledge and Lady Douglas Island and between the ledge and Boulder Head.

63 **Clam Passage** separates Salal Island from Lady Douglas Island and dries at its narrowest part.

64 **Boulder Bank** lies 0.2 mile west of the west extremity of Salal Island. **Salal Point** is the north extremity of Salal Island.

65 **Vancouver Rock**, 1.3 miles west of Salal Point, dries 12 feet (3.6 m) and is steep-to on its west side.

66 Vancouver Rock **light and whistle buoy** "E54" *(636)*, west of the rock, is a starboard hand buoy.

67 **Clearing marks**. — Boulder Head in line with the islet lying close-off Cross Point, bearing 129°, leads SW of Vancouver Rock. Keith Point bearing 030° and just open NW of Gaudin Islands leads NW of Vancouver Rock.

68 **Dowager Island** *(52°25'N, 128°23'W)* is low and wooded in its SW part.

69 **Dallas Island**, on the north side of the west entrance to Moss Passage, has conspicuous white cliffs on its south side. The islands north and NE of Dallas Island are surrounded by drying rocks.

70 **Keith Point**, 1.7 miles north of Dallas Island, is low and wooded.

71 **Gaudin Islands**, 1 mile SW of Keith Point, are a group of islands, rocks and reefs. A rock that dries 2 feet (0.6 m) is near the south end and **Fellowes Rock**, at the north end, dries 5 feet (1.5 m) and is steep-to on its west side.

72 **Merilia Passage**, on the east side of the Gaudin Islands group, is 0.4 mile wide with a least depth of 12.8 m between the rock ledges extending NW of Dallas Island and the drying rocks off the east side of Gaudin Islands.



73 A considerable **magnetic disturbance** has been observed in Merilia Passage.

74 **Leading marks**. — Swindle Point *(52°29'N, 128°28'W)* bearing 006° and open of Keith Point leads through Merilia Passage to abreast the north end of Gaudin Islands.

75 **Directions**. — Approaching Milbanke Sound from SW in clear weather Susan Rock should be kept in line with Helmet Peak *(52°21'N, 128°21'W)* bearing 055°; these

leading marks will lead through the entrance well clear of dangers.

76 In thick weather soundings will indicate the vessel's approximate position when approaching Milbanke Sound as they become deeper as the entrance is approached.

Moss Passage

Chart 3941

77 **Moss Passage** *(52°22'N, 128°25'W)* leads between Lady Douglas and Dowager Islands and connects Milbanke Sound to Mathieson Channel. Sloop Narrows at the east end is its narrowest part. Local knowledge is advised for navigating this passage. Oscar Passage north of Dowager Island, described later in this chapter, offers a better route.

78 **Tidal streams** in Moss Passage flood east and ebb west; both streams attain 4 kn at springs.

79 **Aurelia Rock** *(52°22'N, 128°28'W)*, 0.3 mile south of Dallas Island in the west entrance of Moss Passage, has an above-water head 1 m high, on a drying reef. A rock with a drying height of 0.2 m lies 0.3 mile ENE of Aurelia Rock.

80 **Detached Islet**, 0.9 mile east of Aurelia Rock, lies close to the Dowager Island shore.

81 **Kitty Patch**, 1 mile ESE of Aurelia Rock, is a group of below-water rocks in the entrance to **Morris Bay**.

82 **Anchorage** can be obtained at the entrance to Morris Bay, about 0.1 mile from its west shore, in 13 fathoms (24 m), sand bottom. In this anchorage the west entrance point to Morris Bay bears 284° and Detached Islet bears 000°. Small craft can anchor at the south end of the bay.

Chart 3910

83 **Canoe Islet** *(52°22'N, 128°25'W)* has a drying ledge with above-water rocks on it extending 0.15 mile west from it.

84 **Squaw Island** is low and has drying ledges extending 91 m south and west from it. A rock with 4.7 m over it lies 0.1 mile west of the SW point of the island.

85 **Sloop Narrows** is about 91 m wide with a depth of 13.2 m. A rock that dries 2.5 m lies in the narrows, about 61 m south of the east end of Squaw Island. East of Squaw Island, drying rocks and rock ledges extend from both sides of the passage.

86 **Agnes Point**, the NE extremity of Lady Douglas Island, has drying rocks off the drying ledge extending 0.1 mile east from it.

87 **Guard Point**, the SE extremity of Dowager Island, is fringed by a drying ledge extending 0.1 mile south of it.

Mathieson Channel

Charts 3910, 3941, 3942

88 **Mathieson Channel** *(52°18'N, 128°25'W)*, entered from Milbanke Sound between Cecilia and Lady Douglas Islands, leads 36 miles north. The fairway through the channel is deep and wide except at Perceval Narrows, which is near the south end between Lady Douglas and Lake Islands, and at Mathieson Narrows, which is at the north end.

89 **Tides**. — Tidal differences in Mathieson Channel, referenced on Bella Bella, are given for Port Blackney (Index No. 9005), Tom Bay (Index No. 9010) and Griffin Passage (Index No. 9020) in the Tide Tables, Volume 7.

90 **Tidal streams** flood north through Mathieson Channel and meet the flood flowing east through Sheep Passage in the vicinity of Mathieson Narrows, at the north end of Mathieson Channel.

Chart 3910

Rankin Point to Lady Trutch Passage

91 **Cameron Point** *(52°17'N, 128°24'W)* and **Rankin Point** form the SW extremity of Cecilia Island. **Lilly Islet**, 31 m high, and a group of islets and above- and below-water rocks north and east of it, lie between Cameron and Rankin Points. A passage suitable for small craft, with drying and below-water rocks and a least depth of 1.2 m, separates the Lilly Islet group from Cecilia Island. Drying and below-water rocks extend about 0.3 mile north of Rankin Point.

92 **Flounce Reef**, which dries 0.9 m, is the outer rock on the north side of the approach to **King Cove** *(52°18'N, 128°24'W)*. King Cove is useless as an anchorage. A rock with 3.2 m over it and a rock awash lie in the centre of the cove and drying ledges and rocks lie near the head of the cove.

93 **Bend Point** lies 0.5 mile ENE of Flounce Reef and the small cove close south of it nearly connects with Boat Inlet in Port Blackney.

94 **Lang Point**, 0.8 mile NW of Bend Point at the SE end of Lady Douglas Island, is steep-to. The bay on the west side of Lang Point is foul.

95 **Bird Point** and **Promise Point**, at the north end of Cecilia Island, have **Tear Islet** and numerous drying and below-water rocks between them. **Cod Reefs** and **Walter Islet** 0.1 mile north and 0.2 mile NNW, respectively of Promise Point, lie in the approach to Port Blackney and Lombard Inlet.

96 **Leighton Island**, 0.4 mile NE of Cod Reefs, lies on the NW side of the entrance to **Lambard Inlet**, which leads 2 miles north. The inlet narrows to a width of about 61 m 1 mile from the entrance. Depths in the inlet are generally deep with a few mid-channel shoals; the narrows has a least depth of 4.2 m. **Booming grounds** are in the coves at the south and north ends of the inlet.

97 **Oke Islet**, in the west approach to Lady Trutch Passage, has a ledge with drying rocks extending 0.2 mile south of it. A rock that dries 1.8 m and a rock awash lie close-off the west side of the islet.

98 **Lady Trutch Passage** is narrow and has several drying and below-water rocks in mid-channel. The south entrance is less than 0.1 mile wide between the group of drying rocks 0.2 mile SW of **Bailey Point** and a rock that dries 0.9 m 0.2 mile south of **Hannah Island**. The passage is narrowed to a width of about 25 m by and islet and a rock that dries 0.8 m off the east extremity of Lake Island.

99 The north end of Lady Trutch Passage east and north of **Nathan Island** is very narrow, shallow and encumbered with a drying rock and rock ledges. A rock with 5 m over it lies in the middle of the bay formed between Hyde Point and Nathan Island.

Port Blackney and Reid Passage

100 **Port Blackney** *(52°19'N, 128°21'W)* is entered from north between Cod Reefs and **Schubert Point**, 0.2 mile SE. Drying rocks and a rock awash extend nearly 0.1 mile east from Promise Point and the west shore of the harbour is foul to a distance of 91 m offshore. **Diver Rock** lies in the middle of the harbour, about 0.2 mile SW of **Kent Point**.

101 **Tides**. — Tidal differences for Port Blackney (Index No. 9005), referenced on Bella Bella, are given in the Tide Tables, Volume 7.



102 **Anchorage** can be obtained about 0.1 mile SW from Diver Rock in 30 m, mud bottom. In this anchorage Helmet Peak, on Lake Island, is just open east of Promise Point, and the islet close-off Diver Point bears 135°.

103 **Oliver Cove**, on the east side of Port Blackney, has drying ledges and rocks extending from its north and south shores. **Diver Point**, the south entrance point, has an islet close north of it. A rock, with 0.9 m over it, lies in the centre of the entrance to Oliver Cove.

104 **Passage Cove**, at the head of Port Blackney, has extensive drying flats at its head.



105 **Oliver Cove Marine Park** encompasses Oliver and Passage Coves; it is undeveloped. Small craft can obtain **anchorage**, sheltered from all winds, in the middle of Oliver Cove in 10 m, mud bottom.



106 **Boat Inlet**, on the SW side of Port Blackney, is entered north of **Lillie Point**. A rock with 0.6 m over it is on the south side of the entrance about 90 m north of Lillie Point. The entrance channel is narrow and has a limiting depth of 1.1 m. Favour the north side to avoid rocky ledges extending from the south shore. The basin at the head of the inlet affords anchorage in 4.3 to 9.2 m, mud bottom.

107 **Reid Passage** leads south from Port Blackney into Powell Anchorage; it provides a route for small craft following the Inner Passage that avoids the exposed waters of Milbanke Sound.



108 **Tidal streams** in Reid Passage generally set north on both the flood and ebb. The maximum is about 2 kn.

109 **Carne Rock** and a rock that dries 1.2 m close SW of it lie in the middle of Reid Passage.



110 *Carne Rock* **light** *(see LL 617.7)* is on the rock.

111 A 2.2 m **shoal** lies in mid-channel, about 0.15 mile SSW of Carne Rock.

112 Drying and below-water **rocks** lie along the east side of the south entrance to Reid Passage; the outer rock dries 5.2 m.

113 Powell Anchorage is described in Chapter 2.

Perceval Narrows to Hyde Point

114 **Perceval Narrows** *(52°20'N, 128°22'W)* the main route leading north through Mathieson Channel lies between **Lizzie Rocks** close-off **Grautoff Point**, the south extremity of **Lake Island**, and **Martha Island**. The navigable channel through the narrows is 0.15 mile wide and deep.



115 **Tidal streams** in Perceval Narrows flood north and ebb south with a maximum of 5 kn. With strong SE winds there are considerable tide-rips SW of Lizzie Rocks.

116 Secondary current station Perceval Narrows (Index No. 8520), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

117 The passage on the west side of Martha Island is encumbered with drying and below-water rocks and **Colonel Reef**. Drying rocks and rocks awash lie north of Martha Island.

118 **Reef Islet** and several below-water rocks lie in the bay on the east side of the fairway between **Brew Point** and **Stapleton Point**, 0.6 mile north. A rock that dries 0.3 m lies NE of Reef Islet.

119 **Alec Islet**, west of Reef Islet, is connected to Lady Douglas Island by a drying rock ledge. A shoal ridge and rocks awash extend 0.1 mile south and SE of the islet.

120 **Cockle Bay** has a broad expanse of sandy beach at its head. Small vessels can obtain good **anchorage** in Cockle Bay, about 0.2 mile NNW of Alec Islet, in 20 to 30 m. **Caution** is required in approaching this anchorage as the depths decrease rapidly toward shore. A shoal, with a rock that dries 1.4 m on it, lies in the north approach to Cockle Bay.

121 Moss Passage (described earlier in this chapter) is entered 0.8 mile north of Stapleton Point between Agnes and Guard Points.

Chart 3941

Hyde Point to Arthur Island

122 **Hyde Point** *(52°22'N, 128°21'W)* is the north extremity of Lake Island. North of Hyde Point the fairway through Mathieson Channel is deep and free of dangers.

123 **Jermaine Point**, 4 miles NE of Hyde Point, has a small wooded islet about 100 feet (30 m) high close-off it.

124 **Tom Bay**, SE of Jermaine Point, extends south from **Symonds Point** and is free of off-lying dangers. A small cove at the NE entrance is a **booming ground** (1988).

125 **Tides**. — Tidal differences for Tom Bay (Index No. 9010), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

126 **Anchorage** for vessels to about 130 feet (40 m) long can be obtained in Tom Bay about 0.5 mile south of Symonds Point in about 11 fathoms (20 m).

Arthur Island to Hird Point

127 **Arthur Island** *(52°27'N, 128°16'W)* is on the west side of the fairway. A narrow but deep passage on its west and north sides separates the island from Dowager Island. The passage west of Arthur Island is reported to be obstructed by a marine farm (2004).

128 **De Freitas Islets** lie on the east side of Mathieson Channel abreast Arthur Island. A rock that dries 11 feet (3.4 m) lies about 0.1 mile NW of the north islet.

129 **Anchorage**, suitable for small vessels, can be obtained between De Freitas Islets and the east shore in about 12 fathoms (22 m).

130 **Salmon Bay**, 2 miles north of De Freitas Islets, is entered between **Carmichael Point** and **Ursus Point**. An islet is on the drying flat at the head of the bay.

131 **Anchorage** for small vessels can be obtained about 0.1 mile from the head of Salmon Bay in about 10 fathoms (18 m).

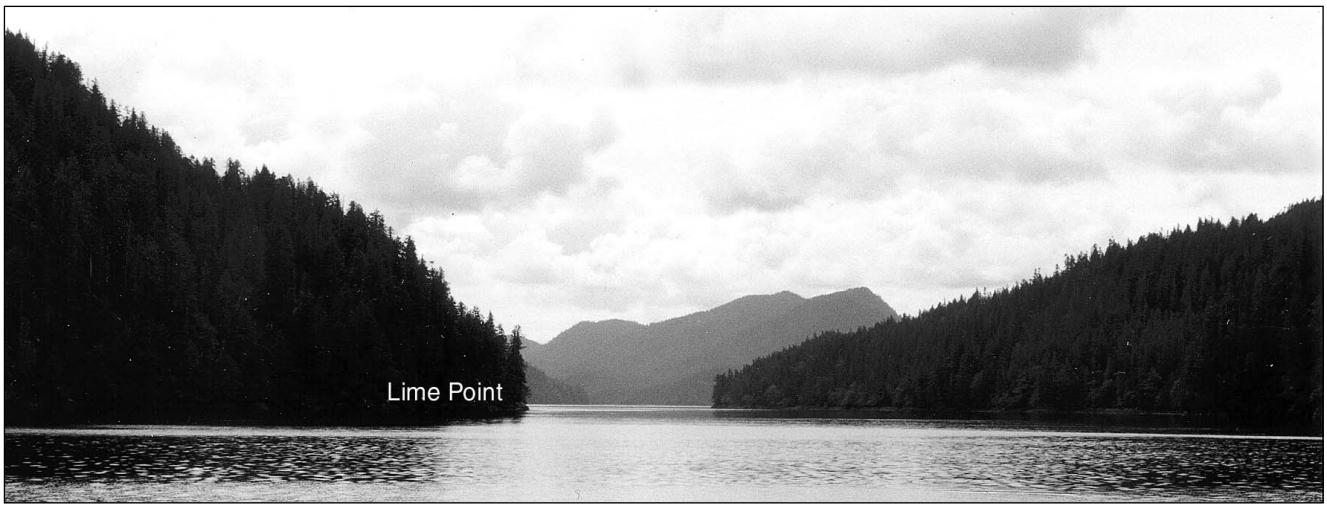
132 Oscar Passage, opposite Salmon Bay, is described later in this chapter.

133 **Miall Islet** *(52°31'N, 128°17'W)* lies in the approach to Rescue Bay and Jackson Narrows. Drying

GRIFFIN PASSAGE SOUTH ENTRANCE (1988)



GRIFFIN PASSAGE NORTH ENTRANCE (1988)



reefs lie within 0.1 mile of the north side of the islet, a rock awash lies east and a rock with 10 feet (3 m) over it lies about 0.1 mile SE of the islet.

134 **Rescue Bay**, on the west side of **Spaniel Point**, affords good sheltered **anchorage** for small vessels about 0.2 mile from its head in about 9 fathoms (16 m). The passage between the islands on each side of the entrance is deep. Within the bay rock ledges and mud banks extend from both sides of the bay and a rock that dries 3 feet (0.9 m) lies about 0.1 mile from the head.

135 Jackson Narrows and Jackson Passage are described later in this chapter.

Chart 3942

136 **Griffin Passage** is entered west of **Charles Head** *(52°35'N, 128°17'W)* at its south end and leads 12 miles north between **Pooley Island** and **Roderick Island** to Sheep Passage. A rock that dries 0.1 m is on the west side of the passage 0.4 mile NNW of Charles Head. Three drying narrows with hazardous **tidal rapids** are 1.8, 7 and 7.9 miles north of Charles Head.

137 The north part of the passage has a logging camp and **booming grounds** (1998) on the west shore 2.5 miles south of Lime Point.

138 **Tides**. — Tidal differences for Griffin Passage (Index No. 9020), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

Hird Point to Mathieson Narrows

139 **Hird Point** *(52°34'N, 128°15'W)* is steep-to. The small bay east of Hird Point is too deep for satisfactory anchorage. **Counsel Point** is 1.7 miles north, and a conspicuous waterfall at **McPherson Creek** is 6 miles NNE, of Hird Point.

140 **James Bay**, 7.5 miles north of Hird Point, is entered west of **Pooley Point** and is free of off-lying dangers.

141 **Anchorage** for vessels up to 200 feet (61 m) long can be obtained about 0.2 mile south of the drying flat in James Bay in 16 fathoms (29 m), mud and shell bottom. The bay is open to south winds.

142 **Garvey Point**, 5 miles NNE of Pooley Point, is prominent and makes a good leading mark up the centre of the channel from Hird Point.

143 **Heathorn Bay**, 4.2 miles farther north, is too deep for satisfactory anchorage.

144 **Mathieson Narrows** connects Mathieson Channel to Sheep Passage and Mussel Inlet. The narrows is free of off-lying dangers with a depth of 24 fathoms (44 m) across the south end. **Mathieson Point**, at the north end of the narrows, is the NE extremity of Pooley Island.

145 **Tidal streams**. — The flood tidal stream that flows north through Mathieson Channel and the flood that flows east through Sheep Passage meet in the vicinity of Mathieson Narrows and cause some turbulence.

146 Sheep Passage and Mussel Inlet are described later in this chapter.

147 **Fiordland Recreation Area** encompasses the north portion of Mathieson Channel, Kynoch and Mussel Inlets. There are few anchorages and no development.

Kynoch Inlet

148 **Kynoch Inlet** *(52°46'N, 128°06'W)*, entered between Garvey Point and **Kynoch Point**, has spectacular shores that are generally bold and steep-to. A conspicuous waterfall is on the north shore, 1.6 miles east of Garvey Point.

149 **Desbrisay Bay**, known locally as **Big Bay**, extends north from Kynoch Inlet and terminates in a steep-to mud flat. Depths are too great for satisfactory anchorage.

150 **Kainet Creek**, 4.5 miles east of Desbrisay Bay, enters the head of Kynoch Inlet over an extensive drying flat. A conspicuous landmark on the north shore, about 0.5 mile west of the drying flat, consists of a deep and very narrow cleft, which is permanently filled with snow. Indifferent **anchorage** can be obtained off the mud flat at the head of Kynoch Inlet, but it is affected by the outflow from Culpepper Lagoon.

151 **Culpepper Lagoon**, at the head of Kynoch Inlet, is entered through a narrow, shallow passage. **Riot Creek** and **Lard Creek** flow into Culpepper Lagoon.

Mussel Inlet

152 **Mussel Inlet**, entered east of **Crosson Point** *(52°51'N, 128°10'W)*, leads north then east between high and mountainous shores. The inlet is very deep throughout and the only off-lying dangers are close to shore.

153 **Barrie Point** is 2 miles NNE of Crosson Point. A rock that dries 2 feet (0.6 m), with foul ground extending 300 feet (91 m) north, lies 0.1 mile SW of Barrie Point.

154 **David Bay** has no off-lying dangers but is too deep to afford anchorage.

155 **Thomas Islet**, 0.8 mile NNW of Barrie Point, on the west side of the entrance to Oatswish Bay, has drying rocks extending north from it.

156 **Oatswish Bay**, entered between Thomas Islet and **Carse Point**, is deep and provides only fair weather **anchorage**, for small craft, close-off the drying flat at its head in about 10 fathoms (18 m).

157 **Lizette Creek**, with a spectacular waterfall, and **Feeder Creek** flow into Oatswish Bay.

158 **Mussel Bay**, 3 miles east of Carse Point, is filled with drying flats, which are moderately steep-to, and form the mouth of the **Mussel River**.

159 **Poison Cove**, close south of Mussel Bay, terminates in a steep-to drying flat of mud, sand and stones. Depths in the cove are too deep for satisfactory anchorage.

Finlayson Channel

Charts 3941, 3943

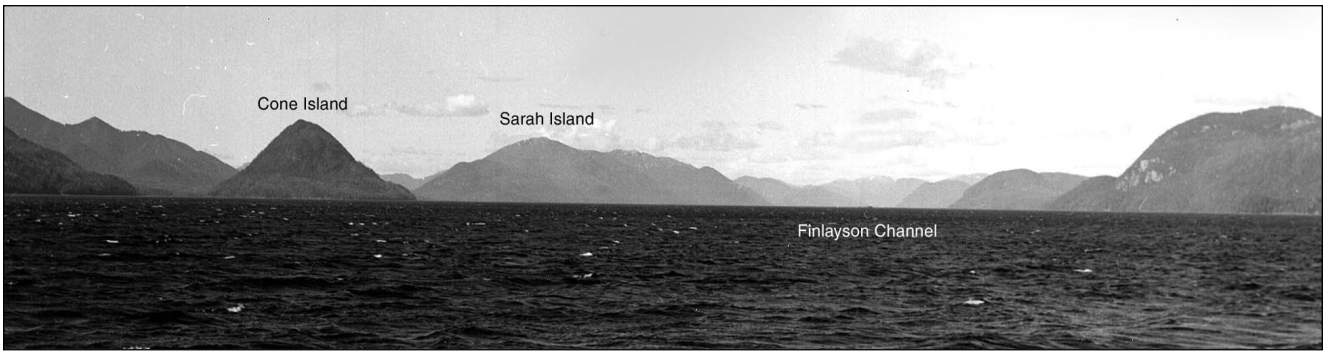
160 **Finlayson Channel** *(52°25'N, 128°29'W)* leads 24 miles north from Milbanke Sound. The islands on both sides of the channel rise precipitously from the water's edge to elevations of 1,500 to 2,600 feet (457 to 793 m). The south part of Finlayson Channel, as far north as Sarah Passage and Tolmie Channel, is part of the main Inner Passage leading north toward Alaska.

161 A **submarine cable** (fibre-optic) is laid in Milbanke Sound and Finlayson Channel from Ivory Island to Boat Bluff, on Sarah Island.

162 **Tides**. — Tidal differences in Finlayson Channel, referenced on Bella Bella, are given for Klemtu (Index No. 9035) in the Tide Tables, Volume 7.

163 **Tidal streams** flood north through Finlayson Channel and ebb south. The north-going stream is stronger in Finlayson Channel than in Tolmie Channel. The south-going stream, however, is stronger in Tolmie Channel and runs for 1 h 30 min after the same

FINLAYSON CHANNEL



stream has ceased in Finlayson Channel. In the narrow parts of these channels, both streams attain 3 kn at springs but in the broader parts only 1 kn.

Chart 3941

Keith Point to Legace Point

164 **Suzette Bay** lies NE of Keith Point *(52°24'N, 128°29'W)*. **Factor Islets** form a chain of several islets and drying and below-water rocks across the entrance.

165 Two islands, connected to shore by a drying ledge, lie midway between Suzette Bay and the entrance to Oscar Passage. The north island has a drying ledge extending 0.2 mile north from it.

166 **Legace Point** *(52°28'N, 128°25'W)* is the SW extremity of **Susan Island**. A rock with 18 feet (5.5 m) over it lies 0.1 mile SW of the point.

167 *Legace Point* **light** *(see LL 637.3)* is on the point.

Jorkins Point to Cone Island

168 **Jorkins Point** *(52°26'N, 128°30'W)*, the south extremity of Swindle Island, is bold and steep-to.

169 *Jorkins Point* **light** *(see LL 637)*, is 0.7 mile NE of the point.

170 A **fishing boundary marker** is on the point 1.5 miles NNE of Jorkins Point.

171 **Swindle Point**, 3 miles NNE of Jorkins Point, is the east extremity of Swindle Island.

Chart 3911

172 **Freeman Point** *(52°33'N, 128°29'W)*, 4.8 miles NNW of Swindle Point, is the south extremity of **Cone Island**. **Bell Peak**, known locally as **China Hat**, is the summit of Cone Island; it is conical and its east and west sides are precipitous.

173 *Freeman Point* **light** *(see LL 638)* is on the point.

Klemtu Passage

174 **Klemtu Passage**, between Cone and Swindle Islands, has a least mid-channel depth of 49 feet (14.9 m), encountered about midway through the passage. The passage is safe, provided a mid-channel course is kept.

175 **Speed**. — In order to avoid damage to vessels secured alongside the wharves and floats at Klemtu, mariners are advised to reduce speed to a minimum consistent with safe navigation when passing the settlement.

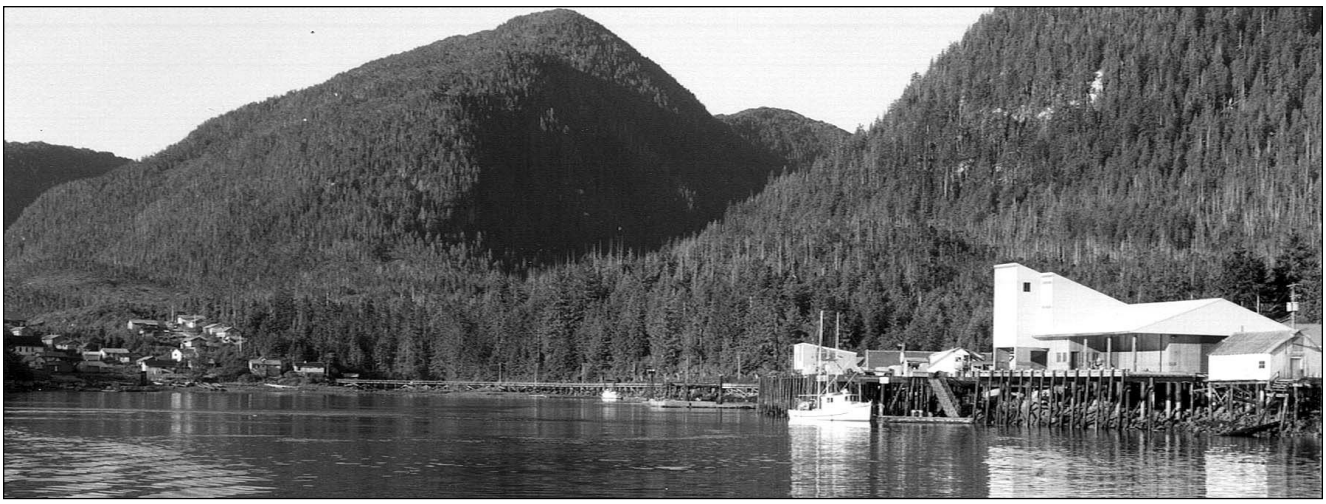
176 **Tides**. — Tidal differences for Klemtu (Index No. 9035), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

177 Tidal streams in Klemtu Passage are comparatively weak. The north-going (flood) stream is only slightly felt, the greatest body of water passing into Finlayson Channel. The south-going (ebb) stream seldom exceeds 1 kn.

178 **Fishing boundary markers** are on both shores at the north and south ends of Klemtu Passage.

179 **Kean Point**, 0.5 mile WNW of Freeman Point, is the SW entrance point to Klemtu Passage. **Fish Island**, **Needle Rock**, **Stockade Islets**, **Star Island** and **Observation Islet** form a chain on the west side of the fairway between Kean Point and **Base Point**. **Clothes Bay** is entered between Star Island and Base Point. The **wreck** of a tug is in the bay south of Fish Island. **Freshwater**

KLEMTU (1987)



KLEMTU PASSAGE NORTH ENTRANCE (1986)



Point, on Cone Island, is about 0.3 mile north of Star Island.

180 **Klemtu Anchorage**, abreast the entrance to Clothes Bay, is not recommended because it is in the middle of the fairway for Klemtu Passage which is used extensively by fish boats and during summer months the ferry. The depth in the anchorage is about 12 fathoms (22 m), sand and shell bottom. It is suitable for vessels up to about 150 feet (46 m) long.

181 **Anchorage** for small craft can be obtained in Clothes Bay in 30 feet (9.1 m) or west of Stockade Islets or Star Island. However, holding has been reported to be poor due to a rocky bottom and kelp.

182 **Trout Bay**, 1 mile north of Base Point, is entered north of **Klemtu Point**. The settlement of Klemtu is on the north side and the Indian village is on the south side of Trout Bay.

183 **Klemtu**, on the north side of Trout Bay, has a store with a cafe and a post office (V0T 1L0). Gasoline, diesel fuel, lubricants and fresh water are obtainable. Coastal supply vessels make regular calls and B.C. Ferries make scheduled stops during summer months. For detailed information see klemtu.com.

184 **Submarine pipelines** (sewer outfalls) extend into the channel close north of the fuel float and about 0.1 mile south of Klemtu Point.

185 **Wharves**. — The **B.C. Ferries wharf** is at the south end of the village. A **float** for aircraft is on the south side of the wharf.

186 The **public wharf** has a depth of 33 feet (10.1 m) alongside.

187 A fish processing plant **wharf** is close north of the public wharf.

188 The **fuel wharf** is at the north end of the village. The **float** in the SW corner of Trout Bay is not for public use.

189 **Legge Point** is 0.7 mile north of Klemtu Point on the east side of Klemtu Passage.

190 *Legge Point* **light** *(see LL 639)* is on the point.

191 Jane and Sarah Passages are described later in this chapter under Tolmie Channel.

Chart 3941

Legace Point to Denton Point

192 **Dodd Islets** *(52°31'N, 128°26'W)* consist of a chain of wooded islets with drying rocks and reefs between them. **Nowish Island**, 0.3 mile NE of Dodd Islets, lies across the entrance to Nowish Inlet.

193 **Charles Narrows**, at the south end of Nowish Island, has **tidal rapids** up to 6 kn. This narrows is obstructed by several drying reefs and rocks and should not be used. The recommended entrance to **Nowish Inlet** is through **Nowish Narrows**, which is suitable only for small craft.

194 **Tidal rapids** up to 6 kn run through Nowish Narrows.

195 **Nowish Cove**, on the west side of Susan Island, is sheltered by Nowish Island; it is approached from north and **tidal streams** are relatively

weak in the fairway. **Fell Point** is the north entrance point to Nowish Cove.

196 **Anchorage** for small craft can be obtained in Nowish Cove in coarse sand in 12 to 15 fathoms (22 to 27 m).

197 **Schofield Point** *(52°32'N, 128°26'W)* and **Begg Point** are the entrance points of Jackson Passage, described later in this chapter.

198 **Mary Cove**, 3.8 miles north of Begg Point, has a bar across it about 0.2 mile within the entrance with 18 feet (5.5 m) over it. Toward the head of the cove, the depths increase to nearly 60 feet (18.3 m). A sand beach is at the head of the cove.

199 **Anchorage** for small craft can be obtained near the head of Mary Cove; the holding ground is good.

Chart 3943

200 **Watson Bay**, 4 miles north of Mary Cove, is entered between **Bancroft Point** and **Howay Point**. **Roderick Cove**, east of **Bolt Point**, forms the head of Watson Bay. Depths in Watson Bay and Roderick Cove are too great for convenient anchorage.

201 **Bottleneck Inlet**, 1.2 miles north of Howay Point, has an entrance only 300 feet (91 m) wide with a least depth of 10 feet (3 m) through it. **Anchorage** for small craft, with good shelter, can be obtained anywhere within Bottleneck Inlet.

202 **Wallace Bight**, 1 mile north of Bottleneck Inlet, is entered between **Golder Point** and **Denton Point**. Depths in the bight are too great for anchoring; the cove at the north end is exposed and not recommended as an anchorage. A narrow channel on the east side of Wallace Bight leads into a lagoon in which there are depths of 24 to 90 feet (7.3 to 27.4 m). The narrow entrance channel to this lagoon has a least depth of 1 foot (0.3 m) through it and is only suitable for small craft at or near HW.

203 **Waterfall Point**, 1.9 miles SW of Denton Point, on the east side of Sarah Island, has two waterfalls on it.

Denton Point to Finlayson Head

204 **Work Bay** *(52°46'N, 128°29'W)*, on the east side of Sarah Island, is entered west of **Adze Point**. The main part of the bay is deep and exposed to the south.

205 **Anchorage** for small craft can be obtained in the small cove at the NE end of Work Bay. This is a good anchorage in about 7 fathoms (12.8 m).

206 **Goat Bluff** on the east side of the channel, 2 miles ENE of Adze Point, is a conspicuous steep-to and precipitous cliff.

207 **Goat Cove** has a passage at its SE end less than 300 feet (91 m) wide with a least depth of 31 feet (9.4 m) leading into a sheltered basin. Well-protected **anchorage** for small vessels can be obtained in the basin in about 17 fathoms (31 m).

208 **Kid Bay**, about 1 mile NNE of Goat Cove, is free of off-lying dangers but too deep for satisfactory anchorage.

209 **Finlayson Head** *(52°49'N, 128°26'W)*, at the junction of Finlayson Channel, Hiekish Narrows and Sheep Passage, is high, bold and steep-to.

210 **Carter Bay**, 1.3 miles ENE of Finlayson Head, is easily identified by the high cliffs on its west shore. **Carter Point** is its east entrance point. A rock, with less than 6 feet (2 m) over it, and usually marked by kelp is about 0.2 mile north of Carter Point. **Carter River** flows into the head of the bay across an extensive sand flat. The **wreck** of the S.S. *Ohio* lies on the edge of the sand flat.

211 Temporary **anchorage**, which is exposed, can be obtained about 0.2 mile from the edge of the sand flat at the head of Carter Bay; depths are 14 to 15 fathoms (26 to 27 m), mud bottom.

212 Sheep Passage and Hiekish Narrows are described later in this chapter.

Oscar Passage

Chart 3941

213 **Oscar Passage** *(52°29'N, 128°20'W)* leads east between Dowager and Susan Islands and joins Mathieson Channel between **Buckley Head** and **Miall Point**. The passage is deep except at its east end where there are shoals with depths of 18 and 27.4 m. A rock with 18 feet (5.5 m) over it lies at the west end, about 0.1 mile SW of Legace Point. The shores are, for the most part, steep-to. Along the Susan Island shore the **Hyne Range** attains elevations in excess of 1,200 feet (366 m).

214 **Tidal streams** flood east and ebb west through Oscar Passage.

215 **Bulley Bay**, 1.5 miles within the east entrance, indents the shore of Dowager Island and has a drying reef close-off its east entrance point.

216 **Anchorage** for small vessels can be obtained in Bulley Bay, about 0.1 mile offshore, in about 15 fathoms (27 m); local knowledge is advised.

Jackson Passage

Chart 3941

217 **Jackson Passage** *(52°32'N, 128°22'W)* separates Susan and Roderick Islands. The passage is very narrow and shallow near its east end, in Jackson Narrows. Between the west entrance and **Lochalsh Bay**, about 3 miles ESE, the north shore of Jackson Passage has several islets and drying reefs close-off it. **Marine farm** facilities are in Lochalsh Bay and on the south shore 1.5 miles west of the bay.

218 **Jackson Narrows** *(52°31'N, 128°18'W)*, near the east end of Jackson Passage, is very narrow and obstructed by below-water rocks and drying reefs. A navigable passage through the narrows, suitable for small craft, is close to the south shore and should only be attempted near HW slack. Rescue Bay is described earlier in this chapter.



219 **Jackson Narrows Marine Park** is undeveloped. **Anchorage** for small craft is obtainable in the bay at the west end of the narrows.

Sheep Passage

Chart 3942

220 **Sheep Passage** *(52°49'N, 128°24'W)* is deep throughout with no off-lying dangers. At its west end a sill extends from Fawn Point to Finlayson Head, and near its east end another sill crosses the passage. The shores of the passage are moderately steep-to and the land rises steeply from the water's edge; the mountain peaks have elevations of about 3,000 feet (914 m). The slopes are thickly wooded except where landslides have removed the vegetation.



221 **Tidal streams** flood east through Sheep Passage and meet the flood flowing north through Mathieson Channel in the vicinity of Mathieson Narrows.

222 **Fawn Point** *(52°48'N, 128°23'W)* is the SW entrance point to Sheep Passage. **Lime Point**, 2.3 miles SE of Fawn Point, is at the north end of Griffin Passage, which is described earlier in this chapter.

223 **Windy Bay** *(52°47'N, 128°13'W)* is free of off-lying dangers. An islet close-off the east entrance point is separated from shore by a very narrow passage encumbered with drying rocks. A steep-to drying flat of stones and gravel is at the head of the bay.



224 **Anchorage** is obtainable, about 0.3 mile off the drying flat at the head of Windy Bay, in about 12 fathoms (22 m). Small craft can anchor east of the islet at the entrance.



225 **Bolin Bay** is 3 miles north of Windy Bay. **Anchorage** can be obtained in Bolin Bay in about 25 fathoms (46 m) or for small craft, near the head of the bay, in 11 fathoms (20 m), mud bottom.

226 Mussel Inlet in the Fiordland Recreation Area is described earlier in this chapter.

Tolmie Channel

Chart 3943

227 **Tolmie Channel** *(52°39'N, 128°32'W)*, which separates **Sarah Island** from **Swindle Island** and **Princess Royal Island**, forms part of the main Inner Passage route. Jane and Sarah Passages are the south approach channels.



228 **Tidal streams** flood north through Tolmie Channel and ebb south. The north-going (flood) stream is stronger in Finlayson Channel than in Tolmie Channel. The south-going (ebb) stream, however, is stronger in Tolmie Channel and runs for 1 h 30 min after the same stream has ceased in Finlayson Channel. In the narrow parts of these channels both streams attain 3 kn at springs but in the broader parts only 1 kn.

Chart 3911

Jane Passage

229 **Jane Passage** *(52°37'N, 128°31'W)* separates Cone Island from **Jane Island**. **Wedge Point** is the north extremity of Cone Island and **Reef Point** is the south extremity of Jane Island.



230 **Tidal streams** in Jane Passage flood NW and ebb SE.

231 **Wedge Rock**, about 150 feet (46 m) east of Wedge Point, is 3 feet (0.9 m) high.

232 **Hogan Bank**, in the centre of Jane Passage, has 10 fathoms (18.3 m) over it.

233 **Jane Patch**, 0.2 mile west of Reef Point, on the north side of Jane Passage, consists of three rocks, with less than 6 feet (2 m) over them, usually marked by kelp.



234 **Lights**. — *Wedge Point Sector* **light** *(see LL 639.3)* is on the point.



235 *Reef Point Sector* **light** *(see LL 639.8)* is on the point.

236 The red sectors of these lights cover Jane Patch.

Sarah Passage

237 **Sarah Passage** separates the north end of Jane Island from Sarah Island. **Pering Point** is at the SE end and **Boat Bluff** is at the SW end of Sarah Island.

238 **Tidal streams** in Sarah Passage flood NW and ebb SE.

239 **Hazard Rock**, which dries 1 foot (0.3 m), is on the south side of Sarah Passage, about 0.1 mile off the north extremity of Jane Island.

240 **Caution**. — The ebb tidal stream will set a vessel down toward Hazard Rock.

241 *Boat Bluff Sector* **light** *(see LL 640)*, is on the SW side of Boat Bluff. White buildings with red roofs are near the light.

242 **A submarine cable** (fibre-optic) extends from Boat Bluff, south through Finlayson Channel and Milbanke Sound, to Ivory Island. Another **submarine cable** (fibre-optic) extends north, through Tolmie Channel and Graham Reach, to Butedale.

243 **Directions**. — Tolmie Channel should be entered from south by way of Sarah Passage where the only danger is Hazard Rock. A southbound vessel from Tolmie Channel when proceeding with the ebb tidal stream, may, if attempting to proceed through Sarah Passage, get set toward Hazard Rock when the tidal stream gets on the port quarter. Southbound vessels with the ebb tidal stream are recommended to proceed west of Jane Island and then through Jane Passage, thus using Jane Island as a natural traffic separation zone.

244 **Caution**. — Traffic may be encountered which is not conforming with the traffic separation routes recommended above.

Chart 3943

Boat Bluff to Tenas Island

245 **Split Head** *(52°41'N, 128°33'W)*, locally known as **Separation Point**, the north extremity of Swindle Island, is 2.2 miles NNW of Boat Bluff.

246 *Split Head* (Separation Point) **light** *(see LL 641)* is on the north extremity of Sarah Island. The light is obscured by trees from the entrances of Meyers Passage and Alexander Inlet.

247 **Parry Patch**, 0.3 mile north of Split Head in the centre of the fairway of Tolmie Channel, has a least depth of 6.3 m.

248 An island, 0.7 mile NNE of Split Head, is on the north side of the fairway and connected to Sarah Island by a drying ridge. Foul ground, with a drying rock, extends 450 feet (137 m) south from this island.

249 **Lights**. — *Parry Patch Sector* **light** *(see LL 640.5)*, is 0.5 mile ESE of Split Head.

250 *Tolmie Channel Sector* **light** *(see LL 641.5)*, is 0.7 mile north of Split Head.

251 The red sectors of these lights cover Parry Patch.

252 **Tenas Island**, 1.8 miles north of Split Head, lies close to the Sarah Island shore.

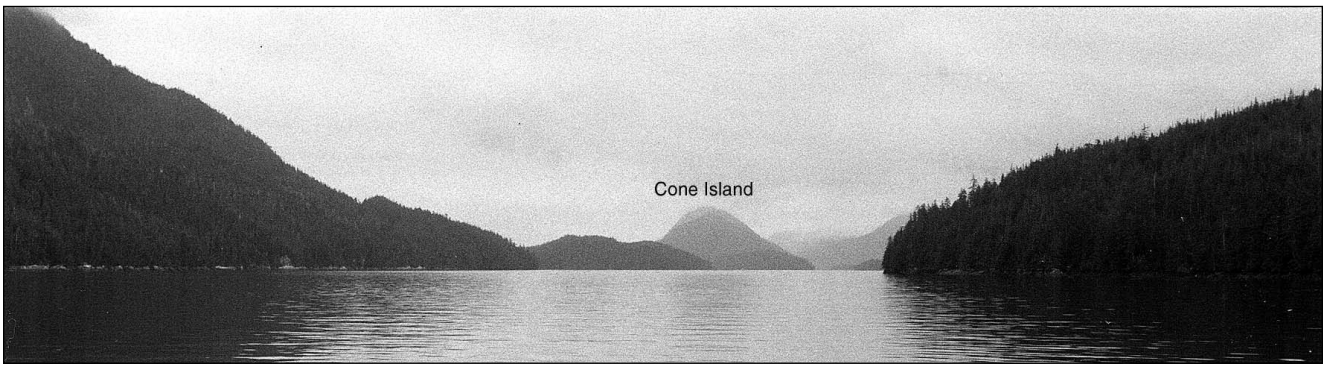
253 *Tenas Island* **light** *(see LL 642)*, is on the NW side of the island.

254 **Directions**. — It is recommended that Parry Patch be used as a natural traffic separation zone; the red sectors of both Parry Patch Sector light and Tolmie Channel Sector light cover Parry Patch and will assist in this traffic separation at night. Southbound vessels are recommended to pass between Split Head and Parry Patch. Northbound vessels are recommended to pass east and then north of

BOAT BLUFF LIGHT (1986)



TOLMIE CHANNEL LOOKING SOUTH FROM SPLIT HEAD (1986)



Parry Patch taking care to avoid the foul ground and drying reefs lying on the north side of the fairway.

255 **Caution**. — Traffic may be encountered which is not conforming with the traffic separation routes recommended above.

Errigal Point to Ditmars Point

256 **Errigal Point** *(52°40'N, 128°34'W)* is the south entrance point to **Alexander Inlet**. Between **Tunis Point**, on the north side of the inlet, and **Bingham Narrows**, about 2.3 miles SW, several islets and drying and below-water rocks encumber the fairway. Bingham Narrows is contracted to a width of about 200 feet (61 m) by a drying ledge on the east side. Small craft can find well-protected **anchorage** at the head of the inlet.

257 **Nash Point** lies in Tolmie Channel 1 mile north of Errigal Point. **Brown Cove**, on the west side of Nash Point, is too deep for convenient anchorage. A **marine farm** is located south of Brown Cove.

258 **Cougar Bay**, 2.6 miles north of Nash Point, is entered west of **Ditmars Point**. **Anchorage** for small craft can be obtained in the cove on the east side of Cougar Bay in about 10 fathoms (18.3 m). Holding ground is reported to be poor.

Ditmars Point to Sarah Head

259 **Hook Point** *(52°47'N, 128°32'W)* is on Sarah Island, 3.2 miles NNW of Ditmars Point.

260 **Tolmie Point** *(52°53'N, 128°32'W)* is the NW entrance point to Tolmie Channel. **Sarah Head** is 0.9 mile east. Below-water rocks with a least depth of 6 feet (2 m) over them extend 0.1 mile off Sarah Head.

261 *Sarah Island* **light** *(see LL 643)*, is on Sarah Head.

Hiekish Narrows

262 **Hiekish Narrows** *(52°52'N, 128°29'W)* connects the head of Finlayson Channel to the junction of Tolmie Channel and Graham Reach of Princess Royal Channel.

263 **Tidal streams**. — Predictions of the time and rates of maximum current and the time of slack water when the direction of the current turns are given for Hiekish Narrows (Index No. 7500) in the Tide Tables, Volume 7. The maximum flood is 4 kn the ebb is 4½ kn, the flood setting north and the ebb south.

264 *Hiekish Narrows* **light** *(see LL 642.6)*, is 0.9 mile NW of Finlayson Head *(52°49'N, 128°26'W)*.

265 **Ohio Rock**, with less than 6 feet (2 m) over it, lies 300 feet (91 m) off the SW entrance point to Hiekish Narrows. In 1909 the S.S. *Ohio* struck this rock.

266 Hiekish Narrows **daybeacon**, on Sarah Island about 3.3 miles NW of Finlayson Head, is fitted with two port hand daymarks.

267 **Hewitt Rock**, with less than 6 feet (2 m) over it, lies at the NW end of a shoal area in the middle of the fairway 1 mile SE of Sarah Head.

268 **Hewitt Island**, 0.3 mile NW of Hewitt Rock, is separated from Sarah Island by a narrow, shallow passage.

269 Hewitt Rock **light buoy** "EH" *(642.7)*, SE of the rock, is a starboard bifurcation buoy.

270 *Hewitt Island* **light** *(see LL 642.8)*, is on the east side of the island.

HIEKISH NARROWS NORTH ENTRANCE (2025)



Princess Royal Channel

Charts 3943, 3740, 3944

271 **Princess Royal Channel** *(52°53'N, 128°31'W)*, entered from Tolmie Channel or Hiekish Narrows at its south end, extends 38 miles NW to Whale Channel. Princess Royal Channel is divided into four parts consisting of Graham Reach, Butedale and Malcolm Passages, Fraser Reach and McKay Reach.

272 A **submarine cable** (fibre-optic) is laid in Princess Royal Channel from Boat Bluff, on Sarah Island, to Butedale.

273 **Tides**. — Tidal differences in Princess Royal Channel, referenced on Bella Bella, are given for Butedale (Index No. 9053) in the Tide Tables, Volume 7.

274 **Tidal streams** in Princess Royal Channel come from north and south and meet in Graham Reach in the vicinity of Aaltanhash Inlet. In Graham Reach, between the north end of Sarah Island and Aaltanhash Inlet, the flood sets north and the ebb south. In Butedale Passage, Fraser Reach and McKay Reach the flood sets toward the SE and the ebb NW. Tidal streams in McKay Reach, at the NW end of Princess Royal Channel, are complicated and described later, in that section.

Chart 3943

Graham Reach

275 **Graham Reach** is entered abreast Sarah Head *(52°53'N, 128°31'W)*, previously described. **Quarry Point** is 1.1 miles NNW of Sarah Head.

276 *Quarry Point* **light** *(see LL 644)* is on the point.

277 **Green Inlet**, 1.5 miles NNE of Quarry Point, is entered north of **Netherby Point**. A rock with 22 feet (6.7 m) over it lies in the middle of the entrance. **Horsefly Cove** is on the north side of the inlet, 0.6 mile inside the entrance. **Baffle Point** is 4 miles within the entrance of Green Inlet. The **tidal rapids** at Baffle Point and the remainder of Green Inlet NE of them are unnavigable.

278 **Green Inlet Marine Park** encompasses Horsefly Cove; it is undeveloped. **Anchorage** for small craft can be obtained in Horsefly Cove in about 13 fathoms (24 m).

Chart 3944

279 **Flat Point**, 3.5 miles north of Netherby Point, is comparatively low and wooded. **Carroll Island**, 0.9 mile NW of Flat Point, is connected to Princess Royal Island by a drying flat. Drying and below-water rocks extend 0.2 mile south from the island.

280 A **conspicuous waterfall**, 1.3 miles north of Carroll Island and west of **Swanson Point**, is reduced to a trickle in very dry weather.

281 **Swanson Bay** *(53°01'N, 128°31'W)* has the ruins of a wharf, sawmill, pulpmill and chimney at its head. The bay does not afford satisfactory anchorage, except for small craft close inshore.

282 **Griffin Point** is 3.4 miles NNW of Swanson Point.

283 *Griffin Point* **light** *(see LL 645)* is on the point.

284 **Canoona River**, 0.8 mile NW of Griffin Point, has flat land on both sides of its mouth. A heavy outflow of water enters Graham Reach from this river. Concrete fish ladders that cross the river are visible from the reach.

285 **Khutze Inlet**, on the east side of Graham Reach, is entered between **Baudre Point** and **Asher Point**. **Green**

Spit, 0.5 mile east of Baudre Point, extends 0.3 mile from the south shore; it has shoal depths over it and is usually marked by kelp. Between the north end of Green Spit and **Meldrum Point** the fairway is only 0.1 mile wide. **Pardoe Point**, 2.5 miles east of Green Spit, is on the south side of the inlet opposite **Boxer Cliff**.

286 **Khutze River** flows into the head of Khutze Inlet along the north side of an extensive drying mud flat. A dangerous wreck was reported (1977) to lie off the SW extremity of the mud flat. It was not visible at LW in 1987.

287 Depths in Khutze Inlet are generally too great for satisfactory anchorage. Small vessels can obtain temporary **anchorage** about 0.1 mile from either side of Green Spit in depths of 10 to 20 fathoms (18 to 37 m).

288 **Aaltanhash Inlet**, 2.5 miles north of Khutze Inlet, is entered south of **Heddington Point** and extends 4 miles east. **Garnier Bluff** is 1 mile east of Heddington Point. The depths in this inlet are too great for satisfactory anchorage. **Aaltanhash River** and **Head Creek** flow into the head of the inlet.

Butedale and Malcolm Passages

289 **Redcliff Point** *(53°09'N, 128°38'W)*, at the SE end of Butedale Passage, has a reddish brown cliff behind it.

290 *Redcliff Point* **light** *(see LL 646)* is on the point.

291 **Butedale Passage**, on the south side of **Work Island**, is the passage most frequently used; it is deep and clear of dangers.

292 *Work Island* **light** *(see LL 647)*, is on the west end of the island.

293 **Butedale**, in a bay on the south side of Butedale Passage, is the site of a former cannery. Many buildings are in ruins and the wharf is in disrepair. Fuel and supplies are not available, but fresh water has been piped out to 150 m of float space that can be used by visiting small craft. Good fendering is recommended due to wakes generated by passing ferries and cruise ships. A caretaker lives on site. Waterfalls on the west side of the bay are conspicuous.

294 **A submarine cable** (fibre-optic) extends from Butedale, NW through Fraser Reach and McKay Reach, to Hartley Bay. Another **submarine cable** (fibre-optic) extends south, through Graham Reach and Tolmie Channel, to Boat Bluff, on Sarah Island.

295 **Caution**. — When approaching the wharf at Butedale exercise caution as the current from the waterfalls is strong, particularly at LW.

296 **Tides**. — Tidal differences for Butedale (Index No. 9053), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

297 **Malcolm Passage**, on the north side of Work Island, is deep and clear of dangers. **Klekane Island**, 0.3 mile east of Work Island, at the SE end of Malcolm Passage, is connected to the mainland by a drying flat; **Marmot Cove**, close north, is filled with a drying flat.

298 **Klekane Inlet** is entered east of **Maskill Point**. From a vessel approaching from south through Graham Reach the inlet appears to be a continuation of Graham Reach. The drying sand and mud flats fronting the **Klekane River** at the head of Klekane Inlet are steep-to.

299 Depths within Klekane Inlet are too great for satisfactory anchorage. Small craft can find **anchorage** in **Scow Bay**, close to the edge of the drying flat.

Fraser Reach

300 **Fraser Reach** *(53°11'N, 128°42'W)* has steep-to shores with high mountains on both sides.

301 **Conspicuous waterfalls**, on the Princess Royal Island shore about 2 miles WNW of Work Island, flow continuously and are used as a landmark by mariners familiar with the area. The heavy outflow of water from these falls can be heard at a fair distance and are used as a guide during thick weather.

302 **Elephant Head Point**, on the west shore of Fraser Reach, 3.7 miles SE of **Kingcome Point** *(53°18'N, 128°54'W)*, is a prominent landmark.

303 A valley on the Princess Royal Island shore penetrates the steep mountains west from Elephant Head Point.

304 **Elephant Head Mountain**, a bold cliff face, forms the south side of this valley. When viewed from Fraser Reach it resembles the head of an elephant. Three conspicuous logged off patches (1987) are on the mainland shore from opposite Elephant Head Point to Angler Cove in Ursula Channel.

305 *Kingcome Point* **light** *(see LL 648)* is on the point.

McKay Reach

306 **McKay Reach** separates the north end of Princess Royal Island from **Gribbell Island**.

307 **Tidal stream chartlets** showing the tidal streams in knots from McKay Reach to Kitimat are on adjacent pages.

FIGURE 3.1: CURRENTS IN THE INNER PASSAGE 6 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

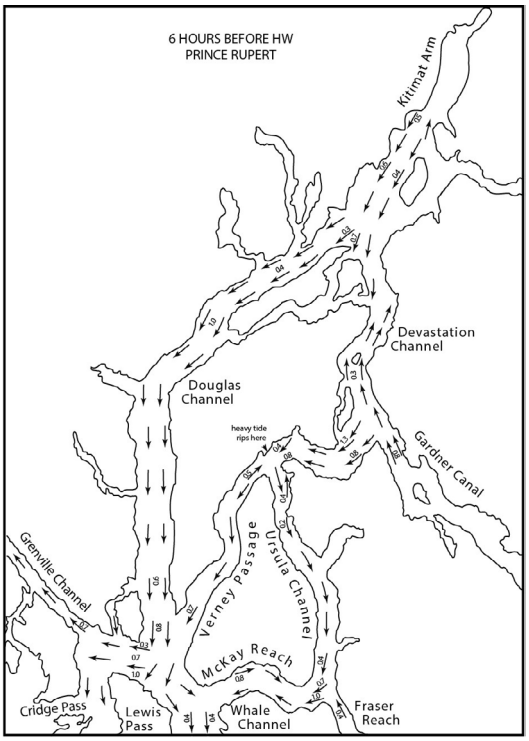


FIGURE 3.2: CURRENTS IN THE INNER PASSAGE 5 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

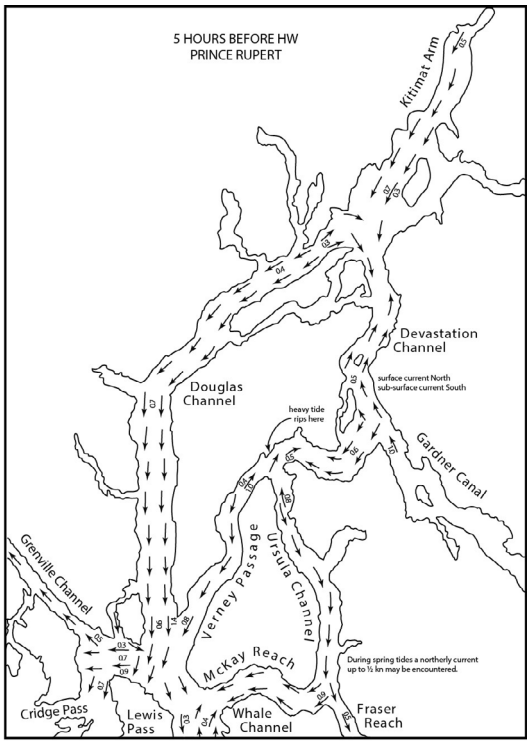


FIGURE 3.3: CURRENTS IN THE INNER PASSAGE 4 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

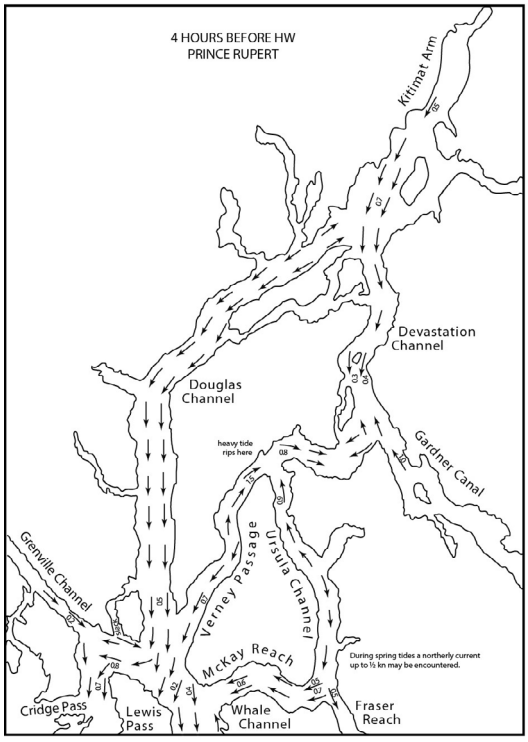


FIGURE 3.4: CURRENTS IN THE INNER PASSAGE 3 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

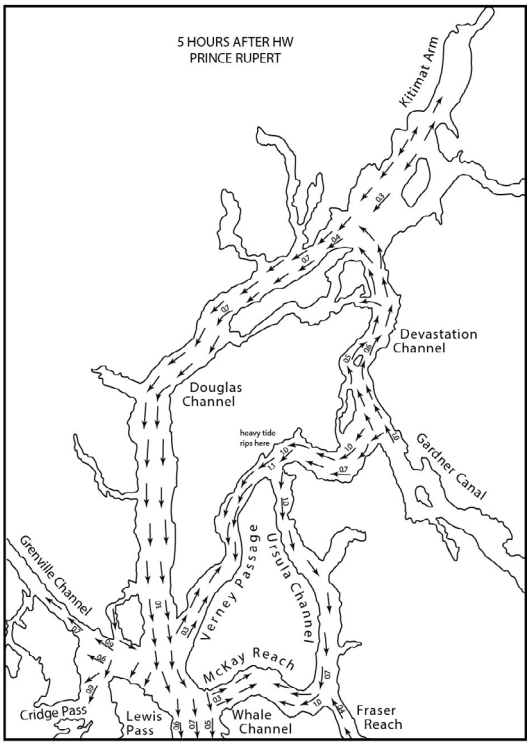


FIGURE 3.5: CURRENTS IN THE INNER PASSAGE 2 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

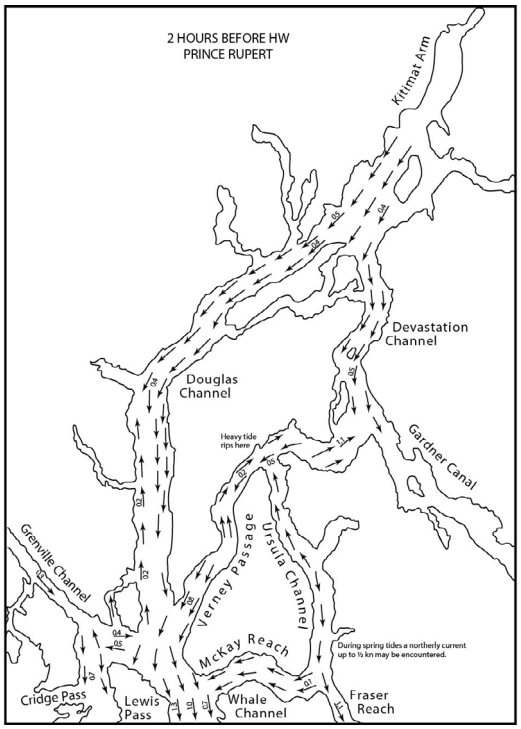


FIGURE 3.6: CURRENTS IN THE INNER PASSAGE 1 HOUR BEFORE HIGH WATER AT PRINCE RUPERT

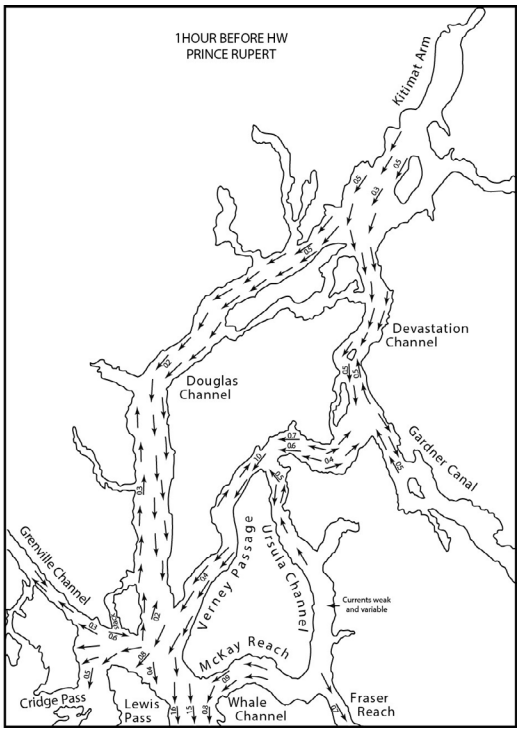


FIGURE 3.7: CURRENTS IN THE INNER PASSAGE DURING HIGH WATER AT PRINCE RUPERT

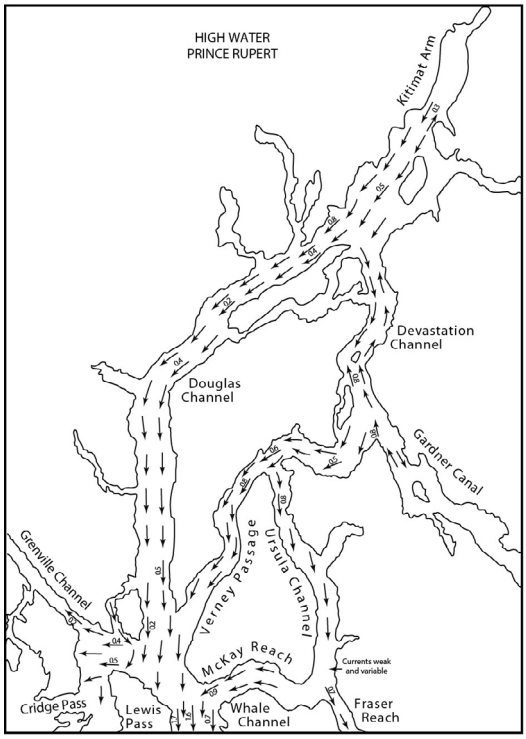


FIGURE 3.8: CURRENTS IN THE INNER PASSAGE 1 HOUR AFTER HIGH WATER AT PRINCE RUPERT

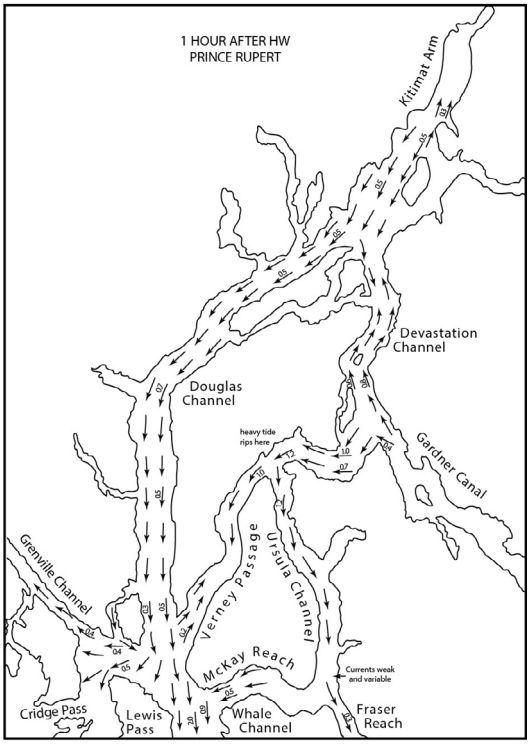


FIGURE 3.9: CURRENTS IN THE INNER PASSAGE 2 HOURS AFTER HIGH WATER AT PRINCE RUPERT

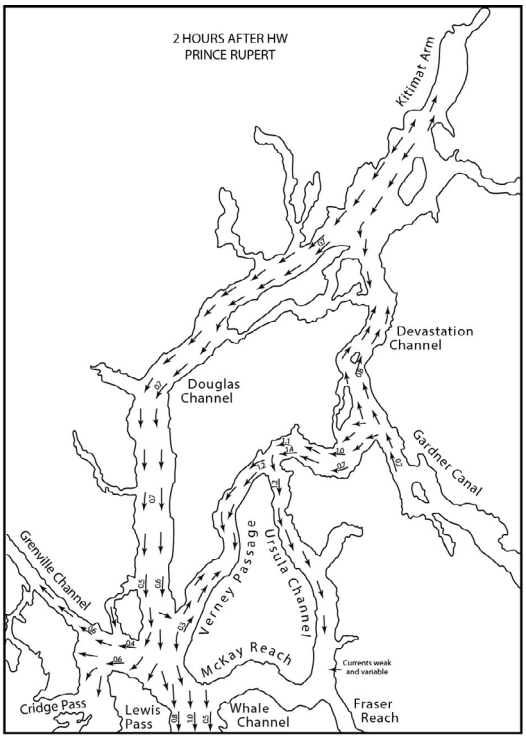


FIGURE 3.10: CURRENTS IN THE INNER PASSAGE 3 HOURS AFTER HIGH WATER AT PRINCE RUPERT

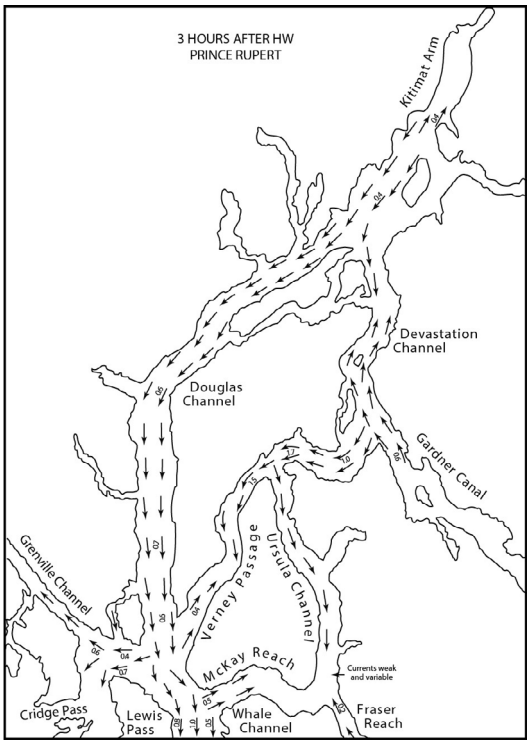


FIGURE 3.11: CURRENTS IN THE INNER PASSAGE 4 HOURS AFTER HIGH WATER AT PRINCE RUPERT

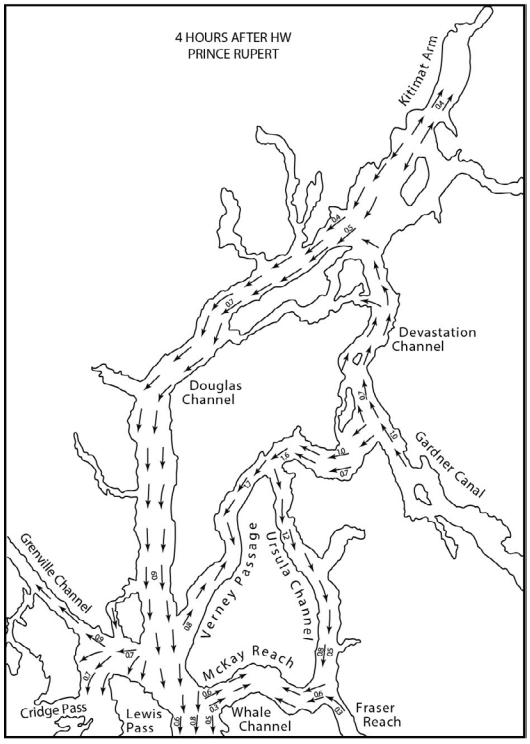


FIGURE 3.12: CURRENTS IN THE INNER PASSAGE 5 HOURS AFTER HIGH WATER AT PRINCE RUPERT

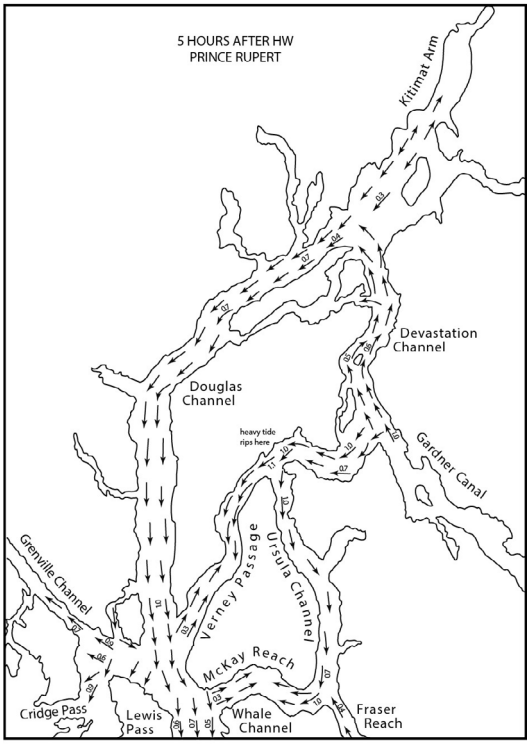
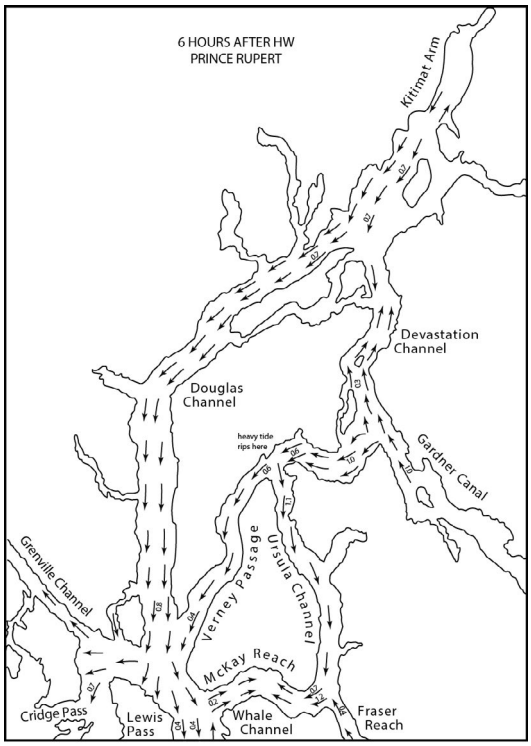


FIGURE 3.13: CURRENTS IN THE INNER PASSAGE 6 HOURS AFTER HIGH WATER AT PRINCE RUPERT



308 **Pilot Point** is the SE extremity of Gribbell Island and **Fellbrook Point** is 1.7 miles NW. The high summits of the **Wimbledon Range** are a short distance inland.

309 A **rockfill breakwater** is on the west side of the bay 2.6 miles west of Kingcome Point.

310 **Trivett Point**, 4.6 miles west of Kingcome Point, is the north extremity of Princess Royal Island.

311 *Trivett Point* **light** *(see LL 649)* is on the point.

Chart 3945

312 **Point Cumming**, 3.1 miles west of Trivett Point, is the SW extremity of Gribbell Island.

313 *Point Cumming* **light** *(see LL 650)* is on the point.

314 **Nelly Point** *(53°17'N, 129°06'W)* is the NW extremity of Princess Royal Island.

Ursula Channel

Charts 3742, 3944

315 **Ursula Channel** *(53°19'N, 128°54'W)* connects Princess Royal Channel to Verney Passage. The mountains on both sides of the channel rise abruptly from the coast.

316 **Tidal stream chartlets** are given on adjacent pages.

317 **Note**. — Tidal streams in Ursula Channel can be increased or decreased by as much as 1 kn due to weather conditions. The range of tide appears to have little effect on the streams though there are large inequalities in the tidal stream rates.

318 Due to the amount of fresh water drainage into this channel the subsurface current can, at times, flow in an opposite direction to the surface current.

Chart 3944

319 **Angler Cove** *(53°19'N, 128°53'W)*, at the SE entrance to Ursula Channel, has a small island connected to its south entrance point. The drying flat at the head of the cove is steep-to and a small stream enters the cove over it.

320 Angler Cove affords indifferent **anchorage** in 30 fathoms (55 m) with the island off its south entrance point bearing 210°; from this anchorage the depths decrease suddenly to the edge of the drying flat.

321 **Goat Harbour**, 2.5 miles north of Angler Cove, is entered south of **Kid Point**; depths are too great for convenient anchorage. The drying flat at the head of the harbour is steep-to. A hot springs is located here. A **booming ground**, log dump and access road are 1.1 miles NE of Kid Point.

Chart 3742

322 **Shepherd Point** *(53°24'N, 128°55'W)* is 2.5 miles NNE of Kid Point. **Tomkinson Point**, about 2 miles NE, is the south entrance point to Bishop Bay.

323 *Tomkinson Point* **light** *(see LL 662)* is on the point.

324 **Bishop Bay** *(53°27'N, 128°53'W)* is entered between Tomkinson Point and **Riordan Point**. Shores are steep to and the water is deep for the most part. *Bishop Bay – Monkey Beach Conservancy*, at the head of the Bay, protects **Bishop Bay Hot Springs** one of the most popular marine hot springs and anchorage sites along the Inside Passage. There is a small boat dock, boardwalk, tent platforms,

picnic shelter, pit toilet and bath house. Two mooring buoys, although marked Priv, are for public use. It is reported that anchorage is only fair to poor as the bottom slopes steeply into deep water, and that an uncharted shoal extends into the bay from shore a short distance south of the dock.

325 **Boxer Reach** extends from Riordan Point to **Moody Point** and **Amy Point** where it joins Verney Passage.

326 **Bishop Cove** is 3 miles NNW of Riordan Point and close south of **Egerton Point**. An abandoned logging operation is in Bishop Cove. A private fishing camp and **mooring buoy** are in the cove 0.7 mile east of Moody Point (1998).



327 *Gribbell Island Northeast* **light** *(see LL 661.6)*, is SW across from Bishop Cove.

328 A rock with less than 6 feet (2 m) over it lies off Moody Point. A **daybeacon** with a starboard hand daymark is on Moody Point.

Wright Sound

Chart 3945

329 **Wright Sound** *(53°21'N, 129°14'W)* is the junction of seven channels and forms part of the main Inner Passage leading north toward Alaska. The Inner Passage is heavily used by coastal vessels and consists, in this locality, of McKay Reach, Wright Sound and Grenville Channel. Whale Channel, Lewis and Cridge Passages all enter the south side of Wright Sound and are approach routes from sea-ward; they are described in Chapter 5. On the north side of Wright Sound, Douglas Channel leads north toward Kitimat and Verney Passage leads NE to the junction of Gardner Canal and Devastation Channel leading to Kitimat.



330 **Tidal stream chartlets** are given earlier in this chapter.

331 Tidal streams can be increased or decreased by as much as 1 kn due to weather conditions. From observations in Wright Sound, Douglas, Verney and Devastation Channels, the range of tide appears to have little effect on the velocity of the stream, though there are large inequalities in the tidal stream rates.

332 Due to the amount of fresh water drainage into these channels, the subsurface current can, at times, flow in an opposite direction to the surface current.

333 **Home Bay**, in the SE part of Wright Sound, is entered between **Swirl Point** *(53°16'N, 129°05'W)* and **Transit Point**. A sand flat extends from the head of the bay and a rocky ledge, with above-water heads on it, fringes the south shore.



334 **Anchorage** for small vessels can be obtained in Home Bay in about 14 fathoms (26 m), sand bottom. In this anchorage Transit Point is in line with the SW extremity of Gribbell Island, and Mount Gil, on Gil Island, is just open north of Swirl Point.

335 **Maple Point** *(53°17'N, 129°10'W)* is on the east side of Gil Island at the junction of Wright Sound and Whale Channel. **Mount Gil**, 1.5 miles SW, has a well-defined peak near its north end.

336 **Gil Rock**, with less than 6 feet (2 m) over it, is 2 miles NW of Maple Point and about 0.2 mile offshore. **Juan Point** is 0.5 mile west of Gil Rock.

337 **Fisherman Cove**, at the north end of Gil Island, lies between **Turtle Point** and **Blackfly Point**. Most of the cove dries. It was named by Captain Vancouver to identify an anchorage just off its entrance.



338 *Blackfly Point* **light** *(see LL 665.8)* is close north of the point.



339 **Anchorage** off the entrance to Fisherman Cove is indifferent and not recommended because of the steep drop-off in depths.

340 **Promise Island** *(53°23'N, 129°15'W)* has two dome-shaped peaks, **Mount Brodie** and **Mount White**.

341 **Cape Farewell**, the south extremity of Promise Island, terminates in a high bold cliff. A rock 3 feet (0.9 m) high is close-off the cape.



342 *Cape Farewell* **light** *(see LL 664)* is on the south extremity of Promise Island.

343 **Coghlan Anchorage**, on the west side of Promise Island, is entered from Wright Sound between **Waterman Point** and **Thom Point**. A drying rock ledge extends about 300 feet (91 m) west from Thom Point.



344 **Caution**. — When entering Coghlan Anchorage keep in mid-channel to avoid the drying ledge off Thom Point.



345 **Tidal streams** set north through Coghlan Anchorage from about 4 hr. before HW at Prince Rupert. The south-going stream divides off Waterman Point with part turning east along the south shore of Promise Island and part turning west toward Grenville Channel. Tidal **stream chartlets** are given earlier in this chapter.

346 Coghlan Anchorage is sometimes used as a **booming ground** or log storage area and logbooms may be along both shores.

347 **Observation Point** is 1 mile NNW of Waterman Point on the west side of Coghlan Anchorage. **Harbour Rock**, 0.5 mile north, lies nearly in mid-channel.

348 *Harbour Rock* **light** *(see LL 651.5)* is on the rock.

349 **Otter Shoal**, 1 mile NNW from Observation Point, extends from the NW shore of the anchorage. **Brodie Point**, 0.9 mile north of Observation Point, is the west extremity of Promise Island.

350 **Anchorage** can be obtained near the head of Coghlan Anchorage in 7 to 8 fathoms (13 to 15 m), sand bottom. In this anchorage Mount Gil is just open west of Thom Point and **Letitia Point**, on the NW coast of Promise Island, bears 053°.

351 *Stewart Narrows West* **light** *(see LL 651.4)*, is across from Letitia Point.

352 **Stewart Narrows** leads from Coghlan Anchorage to Douglas Channel along the north side of Promise Island. **Tidal streams** in the narrows are strong and the fairway is confined by ledges extending from both shores; it is therefore recommended for small craft only.

353 **Stephens Point** is at the NE end of the narrows.

354 *Stewart Narrows East* **light** *(see LL 651.3)* is across from Stephens Point.

Verney Passage

Charts 3945, 3977

355 **Verney Passage** *(53°22'N, 129°09'W)* leads 20 miles NE from Wright Sound to the junction of Devastation Channel and Gardner Canal. The shores in Verney Passage are generally steep-to; depths in the fairway are for the most part great. A sill, with 13 to 16 fathoms (24 to 29 m) over it, crosses Verney Passage near the mouth of Ursula Channel.

356 **Tidal stream chartlets** are given earlier in this chapter.

Chart 3945

357 **Money Point** *(53°23'N, 129°10'W)* is the south extremity of Hawkesbury Island.

358 *Money Point* **light** *(see LL 651)* is on the point.

Charts 3742, 3977

359 **Jenkinson Point** *(53°27'N, 129°05'W)*, 4.8 miles NE of Money Point, is bold.

360 *Verney Passage East* **light** *(see LL 661.5)* is east of Jenkinson Point.

361 *Verney Passage West* **light** *(see LL 661.4)* is north of Jenkinson Point.

362 **Fishtrap Bay** *(53°33'N, 129°01'W)* is filled with drying flats. A drying spit extends 0.2 mile south into Verney Passage from its east entrance point.

363 Exposed **anchorage** can be obtained off the centre of the entrance to Fishtrap Bay, west of the drying spit, in 14 fathoms (26 m). In this anchorage **Mary Point** light bears 088° and Amy Point 153°.

364 *Mary Point* **light** *(see LL 661)*, is on the point.

365 A log dump with an access road is on the north shore 1.5 miles NW of Mary Point.

366 **Danube Bay**, 1.8 miles NNE of Mary Point, is too deep for anchorage. A gravel beach 0.1 mile wide, at the mouth of **Evelyn Creek**, is at the head of the bay.

367 **Eva Point**, 2.8 miles east of Mary Point, is prominent. A conspicuous hill, 0.5 mile north of the point, is 720 feet (219 m) high and is separated from the mountainous interior of Hawkesbury Island by low land.

368 *Eva Point* **light** *(see LL 660.5)* is on the point.

369 **Staniforth Point**, 2.7 miles east of Eva Point, is at the junction of Gardner Canal, Verney Passage and Devastation Channel.

370 *Staniforth Point* **light** *(see LL 660)* is on the point.

Gardner Canal

Chart 3977

371 **Gardner Canal** *(53°34'N, 128°49'W)*, entered north of Staniforth Point, is an inlet that trends about 45 miles SE. The shores are very steep and rise to high mountains on which there are some spectacular glaciers.

372 **Tides**. — Tidal differences in Gardner Canal, referenced on Kitimat, are given for Kemano Bay (Index No. 9150) in the Tide Tables, Volume 7.

Staniforth Point to Europa Point

373 **Crab River**, 1.7 miles east of Staniforth Point, is fronted by a gravel and boulder beach. The bay close south of the entrance to Crab River has broken piles close-off its shores; the depths in this bay are too great for

anchorage. A First Nations reserve is on the north side of the river.

374 **Rix Island** lies in mid-channel. The main channel lies between Rix Island and **Collins Point**.

375 *Rix Island* **light** *(see LL 656)*, is on the NE point of the island.

376 **Collins Bay** is entered east of Collins Point. The bay is deep but **anchorage** for small craft can be obtained near the drying flat at the head of the bay; approach this anchorage with caution, especially at HW, because the drying flat is steep-to.

377 **Ochwe Bay**, SW of Rix Island, is too deep for anchorage. The **Paril River** flows into Ochwe Bay over an extensive drying flat. An abandoned **booming ground**, log dump and moorings are on the west side of the bay (2020).

378 **Triumph Bay**, south of Rix Island, is entered close west of **Walkem Point**. **Triumph River** flows into the head of Triumph Bay over an extensive drying flat, which is steep-to. A small islet, known locally as **Crew Island**, is at the edge of the drying flat. A white stone monument is on the islet.

379 **Anchorage** can be obtained in the wide part of Triumph Bay in depths of 22 fathoms (40 m). Small craft can find anchorage closer to the drying flat at the head of the bay but caution should be exercised as the drying flat is steep-to.

380 **Anchorage** can also be obtained in depths of 15 to 18 fathoms (27 to 33 m) on the ridge between Walkem Point and the south extremity of Rix Island.

381 **Alan Reach**, entered at its NW end between Walkem Point and **Barker Point**, extends 7 miles SE to **Europa Point**. **Shearwater Point** is on the north shore.

Chart 3948

382 Indifferent **anchorage** can be obtained in 15 to 20 fathoms (27 to 37 m) in the centre of the bight lying NE of Shearwater Point.

383 The bay 2 miles SE of Shearwater Point, known locally as **Europa Bay**, has a drying flat at the head. The ***Shearwater Hot Springs Conservancy*** *(BC Parks)*, known locally as Europa Hot Springs, is on the north side of the bay. There is a bath house and picnic shelter. Two **mooring buoys**, marked Priv, are for public use. A cabin, at the mouth of the creek on the SE side of the bay, is available for overnight use. Contact the *Haisla Nation* for use of the cabin.

384 *Europa Point* **light** *(see LL 657),* is on the point.

385 The Kiltuish Haisla Cabin (*Haisla Nation*) is in the cove of the creek across from Europa Point.

Europa Point to Kemano Bay

386 **Kiltuish Inlet**, 2 miles SE of Europa Point, has a narrow entrance encumbered with rocks, with less than 2 m over them, and drying ledges extend from its shores. Local knowledge is advised to safely navigate this entrance. **Kiltuish River** enters the head of the inlet over a drying flat.

387 **Europa Reach** extends from Europa Point to Cornwall Point. **Bare Point**, on the north shore, is cliffy and steep-to. **Allen Point** is on the south shore, 1.6 miles east of Bare Point.

388 *Allen Point* **light** *(see LL 658),* is on the point.

389 **Salient Point**, 1 mile NE of Allen Point, is prominent and steep-to.

390 **Cornwall Point**, at the west end of Barrie Reach, has prominent bare cliffs forming the west side. **Owyacumish Bay**, to the north, is too deep for anchorage. **Owyacumish Creek** and **Brim River** flow into the head of the inlet over a drying flat.

391 *Cornwall Point* **light** *(see LL 659)*, is on the point.

392 **Barrie Reach** extends from Cornwall Point to Kemano Bay with **Icy Point** on the north shore and **Pocklington Point** on the south shore.

Kemano Bay

393 **Kemano Bay** *(53°29'N, 128°07'W)* is the site of facilities developed by the Aluminum Company of Canada. **Entrance Point**, on the west side of the bay, is low and fringed by a drying ledge. A spit with a least depth of 1.5 m over it extends 0.2 mile south of Entrance Point. The west and north shores of the bay are fronted by extensive drying flats. **Entrance Bluff** and most of the east shore of the bay are steep-to.

394 *Entrance Bluff Sector* **light** *(see LL 659.5)* is close south of the bluff.

395 **Booming grounds** lie along the west and north sides of Kemano Bay.

396 **Anchorage** can be obtained in Kemano Bay in depths of 30 to 77 m. **Caution** should be exercised inside the 20 m line as depths shoal rapidly toward the drying flats.

397 **Tides**. — Tidal differences for Kemano Bay (Index No. 9150), referenced on Kitimat, are given in the Tide Tables, Volume 7.

398 **Kemano**, in the NE corner of Kemano Bay, is built on the drying flats. A road leads 15 km across the drying flats and along the east bank of **Kemano River** to **Kemano** settlement. This settle-ment was built by the Aluminum Company of Canada to develop large hydroelectric sites to supply elec-tricity to the smelter in Kitimat. The townsite is now closed and there are no public facilities in Kemano Bay.

399 In the NE corner of Kemano Bay a narrow **wharf** extends from the causeway built across the drying flats; there is a depth of 6.4 m at the head of the wharf. A barge loading ramp and a boat launch ramp are in the area NE of the wharf.

400 **Communications**. — A private ferry, operated by the Aluminum Company of Canada, operates between Kemano Bay and Kitimat.

Kemano Bay to Kitlope River

401 **Whidbey Reach** *(53°26'N, 128°06'W)* extends 12 miles SE from Kemano Bay to Queen Point.

402 **Chief Mathews Bay**, entered west of **Courageux Point**, is too deep for anchorage. The **Kowesas River** flows across an extensive drying flat at the head of the bay. **Queen Point**, 5 miles SE of Courageux Point, is prominent.

403 **Egeria Reach** extends 5 miles south and SE where it terminates in an extensive drying flat at the head of Gardner Canal. The drying flat is composed of sand and mud and has grass on it that covers only at HW.

404 **Price Cove**, 3 miles south of Queen Point, is filled with a drying flat. Small vessels can obtain **anchorage** in 15 to 20 fathoms (27 to 37 m) off the drying flat.

405 **Kitlope Anchorage** at the head of Gardner Canal has silted in. Mariners are still using this area as an anchorage, but caution must be used when approaching due to changing depths.

406 **Kitlope River** flows into the head of Gardner Canal through a broad wooded valley. **Tsaytis River** and **Icy Creek** flow into the head of the canal from the NE and SW respectively.

Devastation Channel

Chart 3977

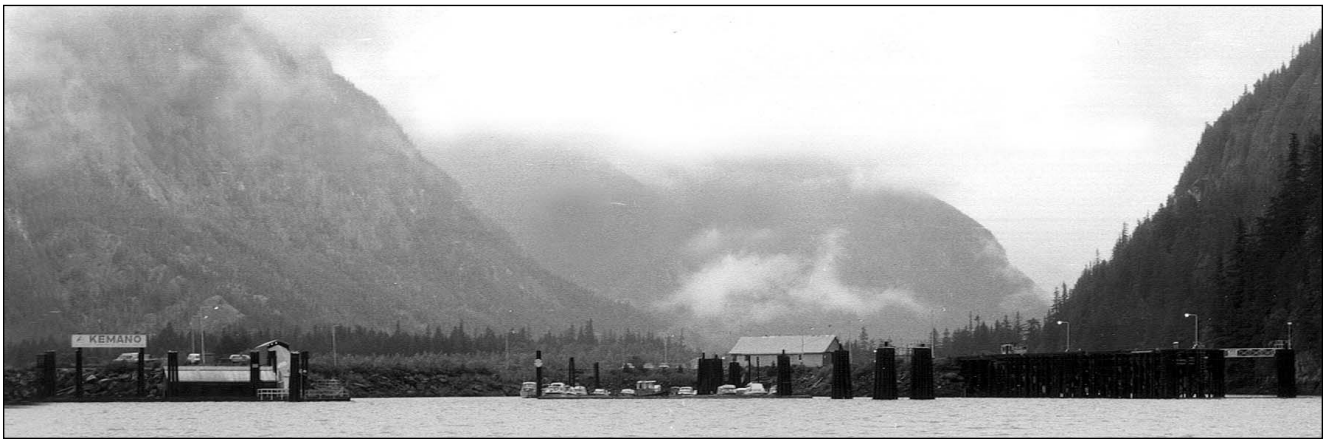
407 **Devastation Channel** *(53°35'N, 128°50'W)* leads 12 miles north from its junction with Verney Passage and Gardner Canal and joins Kitimat Arm. The shores of the channel are steep-to.

408 **Tidal stream chartlets** are given earlier in this chapter.

409 **Note**. — There is a noticeable difference in current velocities between spring and neap tides in this channel which is not apparent in the adjoining channels, and spring tides increase the rate of both the north-going and south-going streams by as much as ½ to 1 kn.

410 **Staniforth Bank**, at the south end of the channel, has a least depth of 13 fathoms (24 m) over it.

KEMANO (1988)



411 Sheltered **anchorage** is available in 13 fathoms (24 m) in **Kitsaway Anchorage**, between the north end of **Kitsaway Island** and Hawkesbury Island. Small craft can anchor farther south, off the drying bank.

412 **Dorothy Island**, in the middle of Devastation Channel, is conspicuous. **Dorothy Narrows**, the passage east of the island, is the one generally used. **Anderson Point** is at the SE end of the narrows. **Heysham Creek** flows into the east shore south of Anderson Point.

413 *Dorothy Island* **light** *(see LL 655)*, is on the NE point of the island.

414 A **booming ground**, log dump and a float camp are along the shore north of **Pike Creek** (1995).

415 **Weewanie Creek**, 2.5 miles NE of Dorothy Island light, empties into a small bay that dries. The remains of a logging operation are in this bay.

416 **Weewanie Hot Springs** are in a cove about 0.5 mile north of Weewanie Creek; these hot springs have been developed by the Kitimat Aquanauts Scuba Club. Two **mooring buoys** and an old log dump are in the cove.

417 **Gaudin Point**, the NE extremity of Hawkesbury Island, is bold. **Hugh Creek** enters the channel 1.8 miles ENE of Gaudin Point. **Walbran Point** and **Hopkins Point**, 3 miles north of Gaudin Point, are the north entrance points of Devastation Channel.

Douglas Channel

Chart 3742

418 **Douglas Channel** *(53°23'N, 129°12'W)* leads 30 miles north and NE from Wright Sound to the junction of Kitimat Arm and Devastation Channel. Depths in Douglas Channel are great and the shores are steep-to, rising to high mountains a short distance inland. The NW shore is indented by several inlets. **Hawkesbury Island** separates Douglas Channel from Verney Passage and Devastation Channel.

419 **Tides**. — Tidal predictions for Kitimat (Index No. 9140), at the head of Douglas Channel, and tidal differences for Hartley Bay (Index No. 9130), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

420 **Tidal streams** in Douglas Channel are noteworthy in that the stream is predominantly south-going due to the large runoff of fresh water from the rivers emptying into the channel. A slight north-going stream, of about ¼ kn, may be encountered abreast Promise Island from 3 hours before to HW at Prince Rupert; this current is felt along the west shore of the channel as far north as Kitkiata Inlet. North winds reduce or eliminate the north-going stream; south winds tend to increase its strength and duration. **Tidal stream chartlets** are given earlier in this chapter.

Chart 3945

Hartley Bay and Approaches

421 **Dawson Point** *(53°25'N, 129°14'W)* is the north extremity of Promise Island. **Nessie Point**, west of Dawson Point, is the south entrance point to **Malsey Bay**, which dries.

422 **Hartley Bay** is north of Dawson Point between **Sutton Point** and **Halsey Point**. Hartley Bay has a church, a helipad and post office (V0V 1A0). An L-shaped **rock breakwater** extends over and across the front of the drying flat. A **wharf** and a three-fingered **float** are behind the breakwater in the basin dredged to 11 feet (3.4 m) (1984). Fuel and garbage disposal facilities are on the wharf. The **floats** at Sutton Point are for aircraft. For detailed information see www.gitgaatnation.ca.

423 *Halsey Point* **light** *(see LL 651.6)* is on the point.

424 *Canadian Coast Guard Lifeboat Station Hartley Bay* is located at Sutton Point with a float and floating breakwater. *Hartley Bay Floating Breakwater* **light** *(see LL 651.21)* is on the NE end.

425 *Hartley Bay breakwater* **light** *(see LL 651.2)*, is on the end of the breakwater.

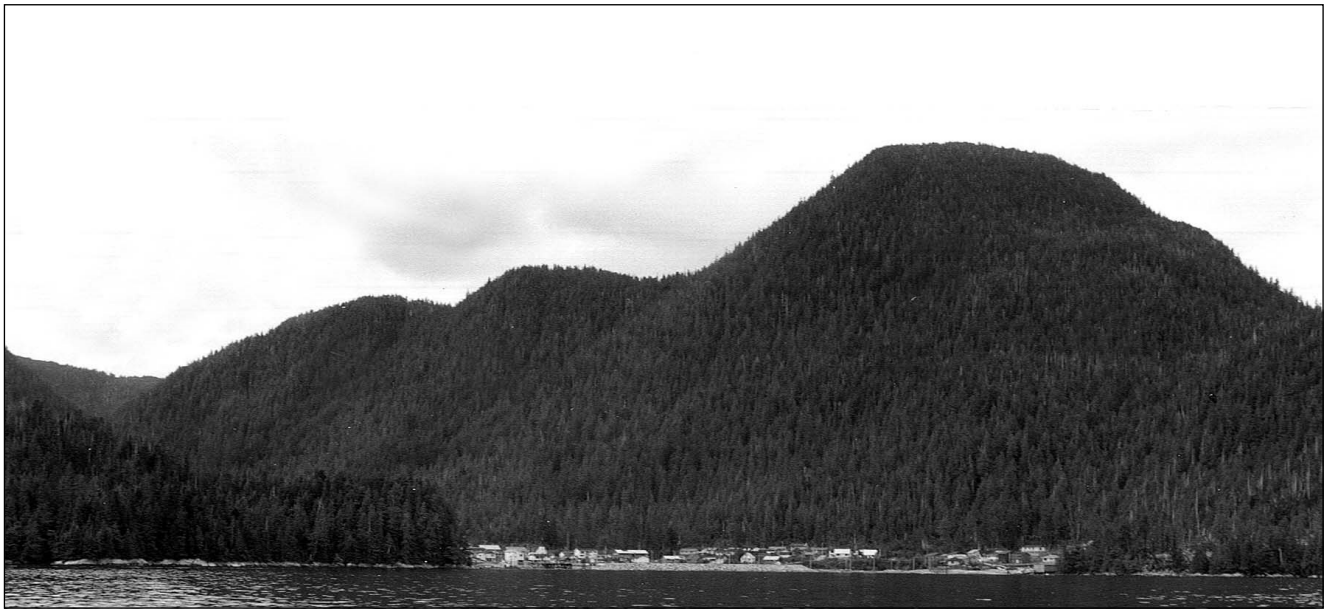
426 A **barge loading facility** is in the NE part of the bay. A submerged rip-rap reef marked by a private buoy is close SE of this facility.

427 A **submarine pipeline** (sewer outfall) is laid on the SW side of the bay and extends about 300 feet (91 m) beyond Sutton Point.

428 A **submarine cable** is laid on the east side of the bay and extends approximately 114 m SW, and then 200 m SE to an underwater platform at a depth of 65 m.

429 A **submarine cable** (fibre-optic) extends from Hartley Bay, south to Cape Farewell, and then NW through Grenville Channel, to Oona River. Another **submarine cable** (fibre-optic) extends SE through McKay Reach and Fraser Reach, to Butedale. A third **submarine cable** (fibre-optic) extends from Kitamaat Village to Hartley Bay. It is recommended that mariners consult CHS charts to avoid damaging the

HARTLEY BAY (1988)



cables. For detailed information see https://connectedcoast.ca/.

430 **Water aerodrome**. — Douglas Channel fronting Hartley Bay is a water aerodrome.

431 Two **obstructions** with depths of 21 fathoms (38 m) and 77 fathoms (141 m) are close to shore on the east side of Douglas Channel, about 5 miles north of Hartley Bay.

Chart 3977

Halsey Point to Gertrude Point

432 **Kiskosh Inlet** *(53°31'N, 129°15'W)*, with the exception of the first 0.5 mile, is only suitable for small craft. A rock with 6 feet (2 m) over it lies 0.7 mile within the entrance, slightly north of mid-channel. Inside the above-mentioned rock the shores of the inlet are fringed with drying ledges for about 1.5 miles; these drying ledges reduce the channel to less than 0.1 mile wide and the fairway is shallow. A rock with less than 6 feet (2 m) over it lies in mid-channel 2 miles within the entrance. The inner portion of Kiskosh Inlet widens and depths increase. The entrance to a lagoon at the head of the inlet is choked with drying rocks.

433 *Kiskosh Inlet* **light** *(see LL 651.7)* is at the entrance to the inlet.

434 **Anchorage**, suitable for vessels up to 250 feet (76 m) long, can be obtained about 0.4 mile within the entrance to Kiskosh Inlet with the north entrance point bearing 064° and the south entrance point bearing 135°. Care must be taken not to anchor too far inside the inlet as depths shoal suddenly.

435 **Kitkiata Inlet**, 6 miles north of Kiskosh Inlet, is entered between **Helen Point** and **Gertrude Point** but most of the inlet is filled with an extensive drying flat. The **Quaal River** flows into the head of the inlet over the drying flat. A **breakwater** and dolphins, on the north shore about 1 mile west of Gertrude Point, are the remains of a logging operation. A **bridge**, vertical clearance unknown, crosses the mouth of **Kitkiata Creek**.

436 *Helen Point* **light** *(see LL 651.9)* is on the point.

437 **Anchorage** can be obtained in Kitkiata Inlet in 22 fathoms (40 m) with Gertrude Point bearing 067° and Helen Point bearing 159°.

438 *Hawkesbury Island* **light** *(see LL 652.2)*, is on the west coast of the island about 1.9 mile ESE of Gertrude Point.

Gertrude Point to Hilton Point

439 **Grant Point**, 6.3 miles NE of Gertrude Point, is at the west extremity of **Maitland Island**.

440 *Maitland Island* **light** *(see LL 652.5)*, is 0.4 mile NNE of Grant Point.

441 *Douglas Channel* **light** *(see LL 652.4)*, is west of Grant Point.

442 A **conspicuous waterfall** is on the mainland coast about 1.8 miles west of Grant Point. **Kihess Creek** and **Stair Creek** flow into the channel between Gertrude and Paisley Points.

443 **Paisley Point**, 4.2 miles NNE of Grant Point, is the west entrance point to **Drumlummon Bay**; there is no satisfactory anchorage in this bay.

444 **Foch Lagoon**, at the head of Drumlummon Bay, has a narrow entrance with depths in its fairway of 12 feet (3.7 m). The lagoon can only be entered by small craft at or near slack water; at other times, the strength of the tidal streams makes entrance impossible or extremely hazardous. In the entrance to Foch Lagoon HW slack occurs between 30 minutes and 1 hour after HW at Prince Rupert; LW slack can occur as late as 2 hours after LW at Prince Rupert.

445 **Emilia Island**, 2 miles east of Paisley Point, is conspicuous.

446 *Emilia Island* **light** *(see LL 653)*, is on the SE side of the island.

447 **Point Ashton** is 1 mile NE of Emilia Island. An islet and a rock on a drying ledge lie up to 0.5 mile SW of the point.

448 **Gilttoyees Inlet** *(53°50'N, 128°58'W)* terminates in an extensive drying flat at the mouth of **Gilttoyees Creek**. On the east shore of the inlet, about 0.8 mile north of Point Ashton, shoal water extends 0.2 mile from shore.

449 **Miskatla Inlet** has below-water rocks and drying ledges close to its east shore.

450 **Anchorage** can be obtained in mid-channel, about 0.7 mile north of Point Ashton, in 10 to 20 fathoms (18 to 37 m); take care to avoid the shoal water extending from the east shore. The entrance to Miskatla Inlet also affords anchorage in about 15 fathoms (27.4 m).

451 **Directions**. — Gilttoyees Inlet can be entered on either side of Emilia Island; when using the entrance east of Emilia Island give the 65 foot (20 m) high islet a wide berth to avoid the drying ledge extending SW from it. Small craft can also enter between Point Ashton and the islet. The west shore of Gilttoyees Inlet should be favoured to avoid the shoal water north of Point Ashton. The wooded island, 3 miles north of Point Ashton, should be passed on its west side. The north part of the inlet can be navigated safely on a mid-channel course. Miskatla Inlet requires no special directions other than to maintain a mid-channel course.

452 **Kersey Point**, 3 miles east of Point Ashton, is the NE extremity of Maitland Island.

453 *Kersey Point* **light** *(see LL 654)* is on the point.

Sue and Loretta Channels

454 **Sue Channel** *(53°41'N, 129°05'W)* has a least depth of 90 feet (27.4 m) through the fairway, encountered about 1 mile within the west entrance. The fairway is narrowed to a width of 0.1 mile, 2 miles within the west entrance, by a gravel bank extending off the mouth of a small stream on the Hawkesbury Island shore. A large conspicuous stump is grounded on the end of this gravel bank (1988). A rock that dries 8 feet (2.4 m) lies close-off the Hawkesbury Island shore, about 4.5 miles within the west entrance. A rock, 7 feet (2.1 m) high, is 0.3 mile SW of the SW extremity of **Loretta Island**. A drying reef lies 0.3 mile south of the above-mentioned rock, close-off the Hawkesbury Island shore. A bay on the south side of Loretta Island has **booming grounds** in it and an islet off its east entrance point. The passage east of the islet is encumbered by a rock with less than 6 feet (2 m) over it, and a rock 5 feet (1.5 m) high.

455 **Anchorage**, in 19 fathoms (35 m), can be obtained about 0.5 mile from the head of the bay in Loretta Island. It is well-sheltered with good holding ground. Good anchorage in 19 fathoms (35 m) can also be obtained in the bay on the south shore of Sue Channel, due south of the SW end of Loretta Island.

456 **Loretta Channel**, between Maitland and Loretta Islands, is deep in the fairway and the shores are steep-to. An islet, with a shoal close NE of it, lies in mid-channel.

Kitimat Harbour

457 **Kitimat Arm** extends NE from the junction of Douglas and Devastation Channels and terminates in low land fronted by an extensive drying flat with the **Port of Kitimat** facilities on its west side. The Port of Kitimat consists of privately owned and operated waterfront facilities.

458 **Pilotage** is compulsory; for information on obtaining a pilot *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

459 **Tides**. — Tidal predictions for Kitimat (Index No. 9140) are given in the Tide Tables, Volume 7.

460 **Tidal streams** in Kitimat Arm attain 1 kn on the ebb and ½ kn on the flood. **Tidal stream chartlets** are given earlier in this chapter.

461 **Meteorological information** for Kitimat is given in the Appendices.

462 **Hilton Point** *(53°49'N, 128°52'W)* is prominent and steep-to. The bay, on the south side of the point, has a mud flat at its head. Depths within this bay are too great for satisfactory anchorage. **Jesse Falls**, about 1.3 miles north of Hilton Point, are conspicuous. *Jesse Falls Protected Area (BC Parks)* encompasses the falls. No facilities are available. **Nanakwa Shoal**, 1 mile east of Jesse Falls, has a least depth of 17.4 m.

463 *Hilton Point* **light** *(see LL 654.2),* is on the point.

464 *Nanakwa Shoal ODAS* ***light buoy*** *46181 (654.5)*, on the shoal, is equipped with a number of subsurface floats. Mariners are advised to give this buoy a wide berth.

465 **Markland Point**, on the NW shore, about 3.3 miles NE of Hilton Point, forms the east side of an exposed bay. A **rock** that dries 0.5 m lies about 0.1 mile offshore at the head of the bay and depths less than 10 m extend more than 0.1 mile SW from the rock.

466 **Coste Island**, east of Markland Point, fronts the entrance to Kildala Arm. **Coste Rocks** are a group of above-water, drying and below-water rocks lying between 0.7 and 1.3 miles SW of **Louis Point**, the south extremity of Coste Island. *Coste Rocks Provincial Park (BC Parks)* encompasses the rocks. No facilities are available. **Brentzen Rock**, with a depth of 3.5 m, is 0.2 mile NE of **Coste Point**, the north extremity of Coste Island.

467 *Coste Island* **light** *(see LL 654.7)*, is on the west side of the island.

468 *Coste Rocks* **light** *(see LL 654.4)*, is on the rock and is fitted with **Starboard hand daymarks**.

469 **Amos Passage**, between Coste Island and the mainland to the east, is deep and, with the exception of Coste Rocks and Brentzen Rock, free of dangers.

470 *Amos Passage* **light** *(see LL 654.8)*, is at the north end of the passage on an islet.

471 **Eagle Bay**, on the east side of Amos Passage, is entered between **Legeak Point** and **Steel Point**. A **rock** that dries 2.4 m lies close-off Legeak Point. The bay offers good **anchorage** to small craft in 20 m about 0.2 mile from its head. *Eagle Bay Provincial Park (BC Parks)* encompasses the bay. A cabin, available for overnight use, and pit toilets are available at the head of the bay. Contact the *Haisla Nation* for use of the cabin. No other facilities exist. A First Nations reserve is on the NE side of the bay. A treed islet and a rock that dries 4 m lie close offshore 1.2 miles NNE of Steel Point.

472 **Gobeil Island**, on the east side of Amos Passage near its junction with Kildala Arm, has above-water and drying rocks close-off it.

473 **Kildala Arm** *(53°52'N, 128°41'W)* is entered north or south of Coste Island by Amos Passage.

474 **Kobeil Bay**, known locally as **Mud Bay**, is on the north side of the entrance to Kildala Arm. Small craft can find indifferent anchorage at the head of the bay. A cabin, in the next bay east, is available for overnight use. Contact the *Haisla Nation* for use of the cabin. A First Nations reserve is at the NW point of the bay.

475 **Atkins Bay**, 4.3 miles ESE of Gobeil Bay, affords no anchorage. A cabin, on the north side of the bay at the creek, is available for overnight use. Contact the *Haisla Nation* for use of the cabin.

476 **Dala River**, **Falls River** and **Kildala River** flow into the head of Kildala Arm across extensive drying flats. *Dala-Kildala Rivers Estuaries Bay Provincial Park (BC Parks)* encompasses the head of Kildala Arm. No facilities are in the park. A cabin, at Falls River, is available for overnight use. Contact the *Haisla Nation* for use of the cabin. A First Nations reserve is on the east shore of the arm between the Dala and Kildada Rivers.

477 **Caution. — Depths at the head of Kildala Arm are subject to change as a result of silting and scouring.**

478 **Kildala Arm** (landing) is at the head of the arm east shore, just north of the edge of the Kildala River drying bank. A small **float** is at the landing. Conspicuous buildings are onshore above the float.

Chart 3908

479 **Emsley Point**, on the west side of Kitimat Arm, forms the east shore of **Emsley Cove**, which does not afford anchorage and is partially filled with a steep-to stone and gravel drying flat. A First Nations reserve is in the cove on the south side of the creek.

Table 3.1: Major Port Facilities — Kitimat

Berth	Wharf Length (m)	Least Depth (m)	Elevation (m)	Remarks
Rio Tinto Hydraulic Barge Ramp	—	—	—	Hydraulic Barge Ramp. Operator: Rio Tinto
Rio Tinto Terminal — Berth 2	230	13.5*	—	Approx. wharf length 230 m. Least depth of approx. 13.5 m as of 09/2021 survey data. Operator: Rio Tinto
Rio Tinto Terminal — Berth 1	210	9.6*	—	Approx. wharf length 210 m. Least depth of approx. 9.6 m as of 09/2021 survey data. Operator: Rio Tinto
LNG Canada Marine Terminal — Tug Berth	—	12.1*	—	Mooring dolphins north and south of berth; distance between breasting pads approx. 78 m and overall length between dolphins 300 m. Least depth of approx. 12.1 m, as of 09/2021. Depth shoaler near outer dolphins. Operator: LNG Canada Operator: Rio Tinto
LNG Canada Marine Terminal — Material Offloading Facility (MOF) West	230	9.7*	—	Approx. wharf length 230 m. Least depth of approx. 9.7 m, as of 09/2022. Operator: LNG Canada
LNG Canada Marine Terminal — Material Offloading Facility (MOF) North	220	9.7*	—	Approx. wharf length 220 m. Least depth of approx. 9.7 m, as of 09/2022. Operator: LNG Canada
LNG Canada Marine Terminal — Material Offloading Facility (MOF) East	230	12.7*	—	Approx. wharf length 230 m. Least depth of approx. 12.7 m, as of 09/2022. Operator: LNG Canada
LNG Canada Marine Terminal — Berth 2	230	12.7*	—	Approx. wharf length 230 m. Least depth of approx. 12.7 m, as of 09/2022. Operator: LNG Canada
LNG Canada Marine Terminal — Berth North	137	8.2*	—	Approx. length 137 m. Mooring dolphins north and south of berth; overall length between dolphins approx. 230 m. Least depth of approx. 8.2 m, as of 09/2022. Operator: LNG Canada
LNG Canada Marine Terminal — Berth South	137	10.9*	—	As above. With a least depth of approx. 10.9 m, as of 09/2022.

*Caution: Mariners should contact the Berth Operator for up-to-date information including revised depths

480 **Bish Creek**, which enters Kitimat Arm about 1.8 miles NE of Emsley Point, is fronted by a gravel flat extending about 0.2 mile offshore. The cove on the west side of the mouth of Bish Creek affords indifferent anchorage to small vessels in 20 to 40 m. A dock, barge loading ramp, and wharf that are privately owned, are in this cove.

481 **Clio Bay**, north of Amos Passage and on the east side of Kitimat Arm, is entered between **Clio Point** and **Raley Point**. Clio Bay affords **anchorage** to small craft in depths of 10 to 20 m near the drying bank at its head. It is reported that logging debris on the bottom can foul an anchor.

482 *Clio Point* **light** *(see LL 654.9)*, is 0.4 mile SW of the point.

483 **Wathlsto Creek**, on the east shore, is 2 miles NNE of Raley Point.

484 A **Spoil Ground** (disposal site), under permit through the *Canadian Environmental Protection Act*, is located at *53°57.5'N, 128°40.9'W*.

485 A private *ODAS* ***light buoy*** is approximately 0.4 mile west of the spoil ground.

486 **Kitamaat Village** *(53°58'N, 128°39'W)* is a small community on the east side of Kitimat Arm, close south of **Wathl Creek**. The **Haisla** Post Office (V0T 2B0) is in the village. An extensive drying flat, on which there are numerous large stumps and deadheads, fronts the village and the mouth of Wathl Creek.

487 A **submarine pipeline** (sewer outfall) extends 0.2 mile across the drying flats and into Kitimat Arm. A **submarine cable** (power) close north of the pipeline extends from the shore 0.2 mile into Kitimat Arm, 0.15 mile north to an underwater platform at an approximate depth of 40 m. A **submarine cable** (fibre-optic) extends from Kitamaat Village and terminates at the east side of LNG terminal. Another **submarine cable** (fibre-optic) extends from Kitamaat Village to Hartley Bay. It is recommended that mariners consult CHS charts to avoid damaging the cables. For detailed information see https://connectedcoast.ca/.

488 Kitimaat Village **floats**, operated by the *Haisla Nation*, 0.7 mile south of the mouth of Wathl Creek, are protected by a **floating breakwater**. A launching **ramp** is available close north of the floats.

489 *MK Bay Marina* **floats** and facilities, in the cove north of the mouth of Wathl Creek, is protected by rock and floating **breakwaters** and offers permanent and transient moorage. For detailed information see www.mkbaymarina.ca.

490 Privately operated **lights** are on the breakwaters at the marina.

491 **Conspicuous towers** of the power transmission line from Kemano extend north from Wathl Creek along the east shore and across the drying flat at the head of Kitimat Arm. The vertical clearance of the power line across the drying flats is 23 m.

492 A **conspicuous tower** of a stack flare with a height of 128 m can be seen north of the head of Kitimat Arm.

493 Private mooring **buoys** are on the west shore opposite Kitimaat Village.

494 **Caution. — Depths at the head of Kitimat Arm are subject to change as a result of silting and scouring.**

495 Major Port facilities in Kitimat, all privately owned, are at the head of Kitimat Arm and are presented in the adjacent table. For latest depths and terminal information contact the terminal operator.

496 Kitimat townsite is about 13 km inland from the port facilities, on the NE side of the **Kitimat River**. The townsite has shopping centres, a liquor store, a post office (V8C 2G5), a hotel and motels, schools, banks, and a hospital with a heliport. An RCMP detachment is stationed here.

497 **Boating Restriction Regulations** prohibit the use of power driven vessels on the Kitimat River.

498 Temporary anchorage for vessels awaiting berth at Kitimat can be obtained approximately 0.2 mile SW of the LNG Canada Marine Terminal wharf in about 83 m, mud bottom. The anchorage is indifferent, being on a narrow bank with limited swinging room. While at anchor a radio watch should be maintained on 156.55 mHz, Channel 11.

499 *Rio Tinto Terminal*, at the head of Kitimat Arm, is at the NW corner of the arm. Details of the terminal are given in the Major Port Facilities table earlier in this chapter.

500 **Lights —** Privately operated lights are at the north and south end of Rio Tinto Terminal and at the north and south end of the LNG Canada Marine Terminal.

501 **Sector Light. —** Rio Tinto Terminal sector light is shown at an elevation of 19 m from a steel wer located approximately 0.1 mile NNE from berth 1.

502 *LNG Canada Marine Terminal*, at the head of Kitimat Arm, is 0.4 mile east of the *Rio Tinto Terminal.* Details of the terminal are given in the Major Port Facilities table earlier in this chapter.

503 **Caution. — A temporary debris boom has been installed in the vicinity of the LNG berths.**

504 A **submarine cable** (fibre-optic) extends from the east side of LNG terminal and terminates at Kitamaat Village. It is recommended that mariners consult CHS charts to avoid damaging the cables. For detailed information see https://connectedcoast.ca/.

505 **Sector Light. —** LNG Canada Marine Terminal Sector light is shown at an elevation of 19 m from a white tower at approximately 0.06 mile north of LNG Canada Marine Terminal Materials Offloading Facility (MOF) North.

506 A **submarine pipeline** (outfall) extends 0.1 mile from LNG Canada Marine Terminal and into Kitimat Arm.

507 **Light buoys**. — A **port hand light buoy** marks the west side and a **starboard hand light buoy** the east side of the dredged channel to Rio Tinto Terminal 2. Both buoys are privately operated.

508 A private **starboard hand light buoy** and private **port hand light buoy** are found marking the entrance to the LNG Terminal.

509 Three berthing facilities lie 0.3 mile south of Rio Tinto Terminal Berth 2. The southernmost is a barge loading ramp with berthing dolphins belonging to Lihigh Cement. Close north is a wharf used by Rio Tinto Nechako for small passenger ferries that operate to Kemano. Farther north is the SAAM Towage wharf. A public launching **ramp** is close north of the SAAM Towage wharf.

510 *Royal Canadian Marine Search and Rescue (RCM-SAR) Unit 63* are close north of the Rio Tinto Nechako wharf.

511 **Towing services**. — Tugs of 1800 hp for berthing vessels are operated by *SAAM Towage*.

512 **Supplies**. — Fresh water is available at the wharves. Ships stores, food supplies, diesel fuel, gasoline and lubricants are available in small quantities; advance notice is required for large amounts.

513 **Communications**. — A highway connects Kitimat to the city of Prince George, 637 km inland; from Prince George highways lead south to Vancouver (784 km), east to the interior and north to Alaska. Canadian National Railways branch line from Kitimat connects with the main line at Terrace, about 64 km inland.

514 A gravel landing strip 914 m long is at Kitimat. The nearest airport is at Terrace, about 64 km from Kitimat. A limousine service operates between Kitimat and the airport, which has regular air service to Vancouver.

515 **Minette Bay**, at the head of Kitimat Arm, is obstructed at its entrance by extensive drying flats. The entrance channel, which is accessible only at HW, lies close to the east shore. There are numerous snags and stumps in the area and local knowledge is advised. The basin near the head of the bay has depths of 10 to 37 m.

516 **Overhead cables**, with a vertical clearance of 23 m, cross the drying flats at the entrance to the bay.

517 **Booming grounds** line the east shore of the basin in Minette Bay and log dumps are on both sides of the basin.

518 *Minette Bay Marina* **floats**, near the head of the basin on the east shore of Minette Bay, offers permanent moorage only. No facilities are available.

Grenville Channel

Charts 3945, 3946

519 **Grenville Channel** *(53°22'N, 129°19'W)*, which leads 45 miles NW from Wright Sound, is part of the main Inner Passage route leading north toward Alaska.

520 The channel is deep throughout except near its NW end where some shoals lie along the south side of the fairway. The narrowest part of Grenville Channel is 0.2 mile wide in the vicinity of Ormiston Point. Both sides of the channel are mountainous and for the most part densely wooded.

521 **Tides**. — Tidal differences in Grenville Channel, referenced on Bella Bella, are given for Lowe Inlet (Index No. 9195) in the Tide Tables, Volume 7.

522 **Tidal streams** flood from seaward through the NW and SE entrances of Grenville Channel and meet off Evening Point *(53°40'N, 129°45'W)*; the separation of the ebb tidal stream takes place about 1 mile farther NW. These meeting and separation points of the tidal streams are subject to considerable change, depending on the winds outside. At springs the streams in the narrow portion of Grenville Channel attain 2 kn. The ebb streams continue to run for 1 h 30 min after LW by the shore.

523 Strong eddies can be encountered abreast Lowe Inlet with the ebb stream.

Chart 3946

Sainty Point to Ormiston Point

524 **Sainty Point** *(53°22'N, 129°19'W)* is at the SE end of Grenville Channel. **Mount Pitt** rises 2.2 miles NW.

525 *Sainty Point* **light** *(see LL 665)* is on the point.

526 **Yolk Point**, 0.9 mile SW of Sainty Point, is the east extremity of **Farrant Island**, which attains its maximum elevation about 1 mile WSW of the point. **Davenport Point**, 4 miles NW of Yolk Point, is the north extremity of Farrant Island.

527 **Pitt Island** is separated from Farrant Island by Union Passage. Hawkins Narrows and Union Passage are described in Chapter 5. **Red Bluff Creek**, 5.5 miles NW of Davenport Point, enters the south side of a cove on the coast of Pitt Island across a drying flat.

528 **Mosley Point** is 1 mile east of Red Bluff Creek. **Belowe Creek** flows across a drying flat close south of the point. The **Countess of Dufferin Range** extends along the NE side of Grenville Channel between Mosley Point and Lowe Inlet. **Anchor Cone**, near the north end of Countess of Dufferin Range, has a remarkable conical summit.

529 A **safety zone** has been established around a wreck, which has **unexploded ordnances** on board, on the west side of Grenville Channel, 0.6 mile ENE of Sylvan Peak. The Brigadier General M G Zalinski was a US Army transport vessel that sank in 1946. This steel hulled vessel was 77 m long, 13 m wide and now rests upside down in approximately 27 m of water with about 20 m of water over it. Weakness and cracking in the hull are resulting in oil seepage. Mariners are requested not to anchor or fish within 200 m of the wreck.

530 **Lowe Inlet** *(53°33'N, 129°35'W)* is entered between **Hepburn Point** and **James Point**. At **Don Point** the fairway is reduced to about 0.1 mile wide by shallow ledges on both sides. A group of drying and below-water rocks, the largest of which dries 22 feet (6.7 m), lies about 450 feet (137 m) off the west shore at the north end of these ledges. **Whiting Bank** extends across the inlet between Don Point and the west shore.

531 **Nettle Basin**, at the head of Lowe Inlet, is entered between **Pike Point** and **Mark Bluff**; both entrance points are fringed by reefs, which reduce the fairway to about 450 feet (137 m) wide. The extremity of Pike Point has the appearance of an islet. **Kumowdah River** flows into the east end of Nettle Basin over **Verney Falls** and drains **Lowe Lake**, which lies to the north. Pilings in ruins are on the north shore of Nettle Basin.

532 **Lowe Inlet Marine Park** encompasses Lowe Inlet and Nettle Basin; it is undeveloped.

533 **Anchorage** can be obtained in Lowe Inlet about 0.2 mile SW of Pike Point in 17 fathoms (31 m). Small craft can anchor close inshore south of Don Point or in Nettle Basin, close to the north side of Pike Point. **These anchorages should be used with caution due to strong winds funneling down the valley at the head of the inlet.**

534 **Caution.** — Ice falls have been reported on the north side of Nettle Basin during the spring. Avoid anchoring on the north side of Lowe Inlet and Nettle Basin.

535 **Tom Island**, 0.2 mile NW of James Point, lies close to the NE shore of Grenville Channel. The **Bare Top Range** extends along the NE side of Grenville Channel, north of Lowe Inlet.

536 *Tom Island* **light** *(see LL 666)* is on the island.

537 **Burnaby Range** lies along the SW side of Grenville Channel, opposite Lowe Inlet; at the north end of Burnaby Range a broad valley enters Pitt Island. **Ormiston Point**, 2.5 miles NW of Tom Island, is on the north side of the above-mentioned valley.

538 *Ormiston Point* **light** *(see LL 667)* is on the point.

Ormiston Point to Klewnuggit Inlet

539 **Saunders Creek** flows into Grenville Channel 2.6 miles NW of Ormiston Point.

540 *Saunders Creek* **light** *(see LL 668)*, is on the NE side of Grenville Channel opposite Saunders Creek.

541 **Stella Creek**, on the west shore, and **Batchellor Creek**, on the opposite shore, are about 3.5 miles north of Saunders Creek.

542 **Nabannah Bay**, 4.5 miles NW of Saunders Creek light, between **Evening Point** and **Morning Point**, is fronted by **Barrier Rock**, which has drying and below-water rocks extending NW and SE from it.

543 **Morning Reef** extends 0.35 mile NW of Morning Point and consists of several drying rocks and some rocks with less than 6 feet (2 m) over them.

544 **Lights**. — *Klewnuggit* **light** *(see LL 669)*, is on the NW drying rock of Morning Reef.

545 *Pitt Island (Grenville Channel)* **light** *(see LL 670)*, is on Pitt Island 2.4 miles NW of Morning Reef.

Klewnuggit Inlet

546 **Klewnuggit Inlet** *(53°41'N, 129°44'W)* is entered between **Rogers Point** and **Silas Point**. A small islet and a rock that dries 11 feet (3.4 m) lie within 0.1 mile NW of Rogers Point. **Harriot Island**, 0.5 mile NE of Rogers Point, is separated from the north shore of Klewnuggit Inlet by a narrow channel with below-water rocks in it. **West Islet** lies close-off the SW side and **Bare Islet** lies close-off the south extremity of Harriot Island. **Purple Cliff** is on the south side of Klewnuggit Inlet, about 0.5 mile SE of Rogers Point.

547 **Ship Anchorage** lies to the east and north of Harriot Island. A reef that dries 1 foot (0.3 m) and a below-water rock lie 0.1 mile east of the north end of Harriot Island. Small vessels can obtain **anchorage** in Ship Anchorage off the east side of Harriot Island in 21 fathoms (38 m), mud bottom.

548 **East Inlet** has drying reefs and below-water rocks near the head. When entering, note the shoal water extending from the west entrance point. The basin at the NW end of East Inlet lies west of a relatively low peninsula; its entrance is about 300 feet (91 m) wide with a depth of 46 feet (14 m) through it.

549 **Klewnuggit Inlet Marine Park** encompasses East Inlet, **Brodie Lake** and **Freda Lake**. It is undeveloped.

550 **Anchorage** can be obtained at the south end of East Inlet in 15 fathoms (27.4 m). Small craft can obtain well-sheltered anchorage in the basin at the head of East Inlet in 9 fathoms (16.5 m).

551 **Exposed Inlet**, at the south end of Klewnuggit Inlet, terminates in a swamp fronted by drying sand flats. When entering, take care to avoid the rock that dries 20 feet (6 m) lying at the end of a drying reef extending from the east shore.

Klewnuggit Inlet to Baker Inlet

552 **Ormond Point** *(53°44'N, 129°50'W)* has a reef that dries 16 feet (4.9 m) 0.2 mile SE of it.

553 **Kxngeal Inlet**, entered east of the above-mentioned reef, affords **anchorage** for small vessels in 17 fathoms (31 m) near the head.

554 Between Ormond Point and **Griffon Point**, 6 miles NW, several drying reefs lie close-off the NE shore. **Northness Point** lies midway along this stretch.

555 **Baker Inlet** is entered close north of Griffon Point by way of Watts Narrows.

556 *Baker Inlet* **light** *(see LL 670.5)* is at the entrance, on the south side of Watts Narrows.

557 **Watts Narrows** is about 200 feet (61 m) wide and screened by overhanging trees; the least depth in the fairway is 10 fathoms (18.3 m).

558 **Tidal streams** in Watts Narrows attain a considerable rate. HW and LW slack occur about the times of HW and LW at Prince Rupert; the duration of slack water is about 5 minutes.

559 East of Watts Narrows, Baker Inlet broadens into an extensive basin, 4 miles long. Some shoal ledges with drying rocks on them lie along the south side of the inlet; the north shore is, for the most part, steep-to. **Anchorage** for small craft can be found at the head of the inlet in 11 fathoms (20 m). The holding ground is reported to be good.

Baker Inlet to Watson Rock

560 **Pa-aat River** *(53°49'N, 130°00'W)* is a stream of considerable size that drains the interior of Pitt Island; its mouth is choked with drying flats.

Chart 3947

561 **Stuart Bight**, 1 mile NW of Pa-aat River, lies SE of a high bold projection. Several drying rocks lie close offshore in this bight, a 3 fathom (5.5 m) shoal lies in the middle of the bight, and a rock with less than 6 feet (2 m) over it lies 0.1 mile off the south point of the bight. Anchorage in Stuart Bight is not recommended.

562 **Kumealon Inlet**, 2.5 miles north of Pa-aat River, is entered between **McMurray Point** and **Lerwick Point**.

563 When entering Kumealon Inlet from south take care to avoid the drying ledges and shoals extending 0.2 mile offshore south of McMurray Point. An islet, a group of drying rocks, and rocks with less than 6 feet (2 m) over them lie about 1 mile within the entrance.

564 A logging operation (1995), with a scow grid, floats and **booming ground** is in the bay 0.6 mile NE of Lerwick Point. A rock, with 11 feet (3.4 m) over it, lies in the approach to the bay.

565 **Anchorage** can be obtained about 0.8 mile within the entrance of Kumealon Inlet in 30 fathoms (55 m). Small craft can pass north of the islet and rocks in mid-channel and anchor near the east end of the inlet.

566 **Kumealon Narrows** leads north from the head of Kumealon Inlet into **Kumealon Lagoon**. The narrows is a shallow and tortuous narrow channel, encumbered with rocks, with tidal falls at its north end.



567 **Kumealon Island**, 0.3 mile west of Lerwick Point, shelters a small cove to the north that affords good **anchorage** for small craft.

568 **Baron Point** is 1.2 miles NW of Kumealon Island. **Ker Point** is 1.9 miles NW of Baron Point. The mainland coast for 2 miles NW of Ker Point is fringed by drying and below-water rocks lying up to 0.2 mile offshore.

569 **Bonwick Point** *(53°51'N, 130°04'W)*, at the north end of a low peninsula, has shoal water close-off it. A rock with 9 feet (2.7 m) over it lies 0.1 mile NE of the point.



570 **Stuart Anchorage** is 1 mile NW of Bonwick Point. **Stag Rock**, which dries 18 feet (5.5 m), lies in the approach to Stuart Anchorage. A ridge of foul ground extends 0.3 mile NW of Stag Rock and a rock that dries 4 feet (1.2 m) lies 0.1 mile south of it. **Anchorage** for large vessels, in 17 to 22 fathoms (31 to 40 m), is obtainable west of Stag Rock. Small craft can anchor in the cove 0.35 mile SW of Bonwick Point in 6 to 8 fathoms (11 to 15 m). A rock with 7 feet (2.1 m) over it lies in the entrance but the below-water rocks are generally marked by kelp.

571 **Pitt Point** is 2.2 miles NW of Bonwick Point and **Calvert Point** lies 0.7 mile NW of Pitt Point.



572 *Pitt Point* **light** *(see LL 671)* is on the point.

573 Pitt Point **light buoy** "D3" *(671.2)*, on a shoal 0.5 mile NE of Pitt Point, is a port hand buoy.

574 **Rippon Point**, 3 miles WNW of Calvert Point, is the north extremity of Pitt Island.

575 **Gibson Group**, 1.5 miles NE of Rippon Point, consists of several islands. **Gibson Island** lies at the south end of the group.



576 **Gunboat Harbour** lies between the SE side of Gibson Island and **Bloxam Island**. It affords temporary **anchorage**, to small vessels, in about 3 fathoms (5.5 m) off the drying flat near its head. A shoal with 36 feet (11 m) over it lies in the approach to Gunboat Harbour.

577 **Watson Rock**, 0.2 mile off the SW side of Gibson Island, dries 18 feet (5.5 m). A shoal rocky ledge extends 0.3 mile NNW from the rock. A detached shoal rock, with 15 feet (4.6 m) over it, is 0.5 mile SE of Watson Rock.

578 Gibson Island **light and bell buoy** "D6" *(671.6)*, on the south side of the above-mentioned rock, is a starboard hand buoy.



579 *Watson Rock* **light** *(see LL 672)* is on the rock.

Arthur Passage — South Approach

580 The south approach to Arthur Passage is between Gibson Group and Porcher Island. The main southern entrance to Telegraph Passage lies between Marrack and Kennedy Islands.



581 **Tidal streams**. — The flood (north-going) tidal stream from Ogden Channel divides near Rippon Point with one part turning SE into Grenville Channel and the other continuing north toward Arthur and Telegraph Passages. The ebb streams from Grenville Channel, Arthur Passage and Telegraph Passage unite off the north end of Ogden Channel and pass out to sea by it. The muddy water of the Skeena River, coming from Telegraph Passage, is usually distinguishable against the blue water of the other channels.



582 In case of fog, vessels approaching either Arthur or Telegraph Passages from south can find good **anchorage** on the mud bank extending south from Seabreeze Point and Cardena Bay *(53°59'N, 130°10'W)*.

583 **Bedford Island** lies 0.6 mile north of Gibson Island. A rock awash and several below-water rocks lie in the middle of the passage between these islands, and drying reefs and ledges lie along the north shore of Gibson Island. A drying flat extends west from Bedford Island. **Marrack Island** is the north island of Gibson Group; drying reefs lie 0.25 mile off the SW side and 0.1 mile south of the SE extremity of the island.

584 The channels between the islands of the Gibson Group are not recommended. The channels east and north of Gibson Group leading into Telegraph Passage are described later in this chapter.

585 **Oona River** flows from the interior of Porcher Island, down a broad valley, entering the channel between **Peninsula Point** and **Oona Point**. The mouth of the river is filled with a broad drying flat.



586 A large **rock breakwater** extends from the south shore of the entrance to Oona River. This breakwater shelters a basin that has been dredged to a depth of 11 feet (3.4 m), and has a **public float**. The public float is managed by the *Oona River Harbour Authority*. Water (non-potable) and power are available. A sawmill operation, with a loading dock, is on the drying flat east of the breakwater.

587 **Directions**. — Oona River should be entered only at HW and local knowledge is advised to make a safe

entrance. If not in possession of local knowledge, examine the entrance at LW before proceeding into the river entrance on the following HW.

588 **Oona River** settlement began when Scandinavians came to homestead the area in the early 1900's. Once a centre for fishing, logging and boat building, some boat shop buildings still exist. There are approximately 15 full time residents. A post office (V0V 1E0), and accommodation are available. The settlement is accessible via float plane, ferry, or chartered launch from Prince Rupert. Showers and laundry facilities are available at the Post Office. Several local small businesses offer conference facilities, rental kayaks, and fishing guides. Call 250-628-3214 cell 778-884-1359 to contact the Harbour Authority. Visitors are advised to contact Oona River on VHF Channel 06 for instructions prior to arrival. Further information is available at www.oonariver.net.

589 A **submarine cable** (fibre-optic) extends from Oona River, south through Ogden Channel, to Kitkatla. A second **submarine cable** (fibre-optic) extends north, through Arthur Passage and Marcus Passage, to the Prince Rupert Grain terminal on Ridley Island. A third **submarine cable** (fibre-optic) extends SE through Grenville Channel, north from Cape Farewell, to Hartley Bay.

590 Between Oona Point and the entrance to Arthur Passage, 2.5 miles north, the coast of Porcher Island is fringed by drying ledges and drying rocks lying close offshore.

Arthur Passage

591 **Arthur Passage** *(53°59'N, 130°13'W)*, a continuation of the main Inner Passage, connects Grenville Channel, at its SE end, to Malacca Passage, at its NW end. It lies between Kennedy Island, on the east side, and **Lewis Island**, **Elliott Island** and **McMicking Island** on the west side.

592 **Tides**. — Tidal differences in Arthur Passage, referenced on Prince Rupert, are given for Seabreeze Point (Index No. 9250) in the Tide Tables, Volume 7.

593 **Tidal streams** flood north and ebb south through Arthur Passage. About 0.5 mile south of Hanmer Island the flood stream attains 2½ kn.

Seabreeze Point to Bamfield Islands

594 **Seabreeze Point** *(53°59'N, 130°11'W)* is at the SW extremity of Kennedy Island. A large shoal area, with a least depth of 8.8 m, extends south from Seabreeze Point and **Cardena Bay**.

595 **Henderson Point**, 1.8 miles west, is the SE extremity of Lewis Island. Foul ground, on which there is a drying rock and a rock awash, extends 0.2 mile SE from Henderson Point.

596 **Kennedy Island** *(54°02'N, 130°10'W)* forms the east side of Arthur Passage; the land on this side of the island is bold. Two conspicuous peaks rising to elevations of 2,290 and 2,470 feet (724 and 753 m) are near the middle of the island. **Elizabeth Peak** is the highest.

597 *Kennedy Island* **light** *(see LL 673)*, is on the west coast of the island 1.8 mile NW of Seabreeze Point.

598 **Godfrey Point** is on the east coast of Lewis Island. **Herbert Reefs**, 1 mile north on the west side of the fairway, consist of two drying reefs 0.3 mile apart and a rock with 12 feet (3.7 m) over it 0.25 mile north.

599 *Herbert Reefs* **light** *(see LL 674)*, is near the north end of the north drying reef.

600 **Lawson Harbour** is between the north end of Lewis Island and **Break Island**, close east. Local knowledge is advised for entering this harbour. A rock, with less than 6 feet (2 m) over it, lies close NW of Break Island and a drying reef lies along the west shore of the harbour. **Anchorage** for small vessels can be obtained 0.1 mile within the entrance. The remains of an abandoned settlement are on the south shore of the harbour.

601 **Francis Point**, 1.7 miles NNW of Herbert Reefs, is the north extremity of Elliott Island.

602 **Chalmers Anchorage** *(54°03'N, 130°16'W)*, west of Francis Point, affords **anchorage** in 24 m. Drying and below-water rocks and an islet lie on the SW side of the anchorage, between Elliott and McMicking Islands.

603 **Hanmer Island** *(54°04'N, 130°15'W)*, in the middle of Arthur Passage, is surrounded by drying ledges.

604 **Lights**. — *Hanmer Island* **light** *(see LL 675)* is on the south end of the island.

605 *North Hanmer* **light** *(see LL 675.3)*, is on the NE end of the island.

606 **Cecil Patch**, 0.8 mile west of Hanmer Island, is on the west side of the fairway. It is seldom marked by kelp.

607 *Cecil Patch* **light** *(see LL 676.5)*, is located on the shallowest part of the shoal patch, and operates at night only.

608 Base Sand **light buoy** "D10" *(675.6)*, 1.4 miles NNW of Hanmer Island, is a starboard hand buoy.

609 **Bamfield Islands**, 0.9 mile WNW of Cecil Patch, consist of a chain of two rocky islets and numerous drying

and below-water rocks lying parallel to the east shore of McMicking Island. A drying reef lies 0.3 mile east of and parallel to the islands.

Kelp and Chismore Passages

610 **Kelp Passage** *(53°59'N, 130°14'W)*, between Lewis and Porcher Islands, is narrow and encumbered with drying reefs, below-water rocks and kelp. It is only suitable for small craft and local knowledge is advised.

611 **Bloxam Passage** *(54°02'N, 130°15'W)* separates Lewis Island from Elliott Island and is about 0.2 mile wide. **Cocktail Point**, the south extremity of Elliott Island, has a small islet 1 foot (0.3 m) high close south of it.

612 **Anchorage** can be obtained about 0.3 mile SW of Cocktail Point in 5 to 10 fathoms (9.1 to 18.3 m). Anchorage can also be obtained in mid-channel about 0.5 mile WNW of Cocktail Point, in 7 to 9 fathoms (12.8 to 16.5 m), NW of the 20 and 32 foot (6.1 and 9.4 m) shoals. The holding ground and shelter in these two anchorages are excellent.

613 **Chismore Passage** *(54°02'N, 130°18'W)* separates Elliott and McMicking Islands from Porcher Island and is contracted to about 0.1 mile wide at its north end by drying rocks and ledges on both sides. A reef, known locally as **Elizabeth Rock**, dries 20 feet (6.1 m) and lies close-off the McMicking Island shore about 1 mile SE of **Lamb Point**, the north extremity of McMicking Island. Another drying reef lies on the south side of the channel, 0.4 mile south of Lamb Point. **Lampost Islet** is on the end of a drying ledge SW of Lamb Point.

Malacca Passage

Charts 3947, 3956

614 **Malacca Passage** *(54°05'N, 130°19'W)* joins Arthur Passage to Chatham Sound. The passage affords some shelter during SE weather; the sea becomes rough but there is little swell.

615 **Tides**. — Tidal differences in Malacca Passage, referenced on Prince Rupert, are given for Lawyer Islands (Index No. 9312) and Humpback Bay (Index No. 9309) in the Tide Tables, Volume 7.

616 **Tidal streams**. — The flood tidal stream sets NW through Malacca Passage and meets the flood setting NE from Edye Passage in the vicinity of Hunt Point.

617 **Genn Islands** *(54°06'N, 130°17'W)* consist of a large wooded island and **Little Genn Island**, both surrounded by drying ledges.

618 *Genn Islands* **light** *(see LL 684)* is on the NW extremity of the larger Genn Island.

619 **Bribery Islet**, 0.8 mile west of Genn Islands light, consists of two islets on a common drying reef. Several drying and below-water rocks extend east and WNW from Bribery Islet to the south end of Lawyer Islands. **Client Reefs**, 0.4 mile north of Bribery Islet, has three drying heads.

Chart 3956

620 **Lawyer Islands** *(54°07'N, 130°20'W)* consist of several islands, islets and drying and below-water rocks.

621 A **submarine cable area** crosses Malacca Passage between Lawyer Islands and Porcher Island.

622 *Lawyer Islands South* **light** *(see LL 684.5)*, is located on the south side of a small islet at the south end of the group**,** and operates at night only. *Lawyer Islands North* **light** *(see LL 685.3)*, is located on the north side of Cruice Rock, and operates at night only.

623 **Cruice Rock**, 0.2 mile NW of Lawyer Islands light, lies on an extensive drying reef.

624 **Mason Point** *(54°05'N, 130°23'W)* is the east entrance point to **Humpback Bay**, which is completely filled with a drying mud flat. Drying and below-water rocks extend 0.1 mile north from Mason Point. The passage between Mason Point and **Ada Islands**, to the NW, is about 140 m wide.

625 **Porcher Island** locality, the site of a former cannery, is approached through the channel between Mason Point and Ada Islands or through the channel west of Ada Islands. Old piles are all that remain of the former jetty and the buildings are in ruins.

626 NW of Ada Islands the depths are irregular and a rock that dries 0.4 m lies 0.5 mile NW of Ada Islands. A conspicuous powerline slash leads SW from the point close north of Ada Islands.

627 **Hunt Point**, 1.2 miles NW of Ada Islands, is the north extremity of Porcher Island. Drying ledges, on which there are some islands, extend 0.3 mile north from Hunt Point, with **Grace Island**, at their north end. Many shoals and drying rocks extend from 1 mile NW to 1.7 miles west and to 1.3 miles SW, respectively, from Hunt Point.

628 Chatham Sound and Prince Rupert are described in Chapter 4.

Skeena River — Approaches

Chart 3947

629 The Skeena River can be approached by way of Telegraph Passage, Marcus Passage or Inverness Passage.

Telegraph Passage

630 **Telegraph Passage** *(53°57'N, 130°07'W)* can be entered from south between the Gibson Group and the mainland shore, or by way of the channel between Marrack and Kennedy Islands; the latter channel is preferable. Marcus Passage enters Telegraph Passage between the north end of Kennedy Island and De Horsey Island; this junction is known locally as **Standard Gap**.

631 **Tides**. — Tidal differences for Seabreeze Point (Index No. 9250) and Claxton Creek (Index No. 9260), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.



632 **Tidal streams**. — The north-going flood stream and the south-going ebb both attain 3 to 4 kn. Abreast the east entrance of Marcus Passage the streams turn 1 hour after HW. In spring, the south-going ebb stream is greatly accelerated at times by freshets.

633 **Ice**. — During severe winters ice from the Skeena River can be encountered but it seldom reaches down as far as Kennedy Island.

634 **Sand waves** with amplitudes up to 1.6 m occur near the junction of Telegraph and Marcus Passages, south and east of Parry Point.



635 **Caution** is required because the drying and shoal banks in Telegraph Passage are constantly shifting. A sharp lookout should be kept for deadheads and other debris, particularly during periods of spring tides and freshets.

636 **Bloxam Flat** *(53°55'N, 130°07'W)*, a shoal area with a least depth of 4 feet (1.2 m), extends up to 1.4 miles east of Bloxam Island, Gibson Island and **Lamb Island**. The fairway is 0.3 mile wide between the east side of Bloxam Flat and **Buckley Point**. The mainland shore, north and south of Buckley Point, is fringed with drying ledges; a rock that dries 14 feet (4.3 m) lies 0.1 mile offshore about 0.8 mile north of Buckley Point. An islet, with deep water between it and the mainland, lies on a drying reef 1.2 miles north of Buckley Point.

637 **Fleming Bay** is 1.7 miles north of Buckley Point; **Chell Point** is 1 mile farther north.

638 **Isbister Shoals**, with 15 feet (4.6 m) over them, lie in the centre of the east end of the channel between Marrack and Kennedy Islands.

639 **Daring Point** *(53°59'N, 130°09'W)* is the SE extremity of Kennedy Island. Between Daring Point and a conspicuous grey cliff, about 2.3 miles NNE, shallow water extends about 0.7 mile from the SE side of Kennedy Island.

640 **Davies Bank**, 2.5 miles NNE of Daring Point, is an extensive drying bank separated from Kennedy Island by a channel about 0.1 mile wide.

641 **Moore Cove**, on the east side of Telegraph Passage 1 mile north of Chell Point, is choked by drying flats. **Clough Point**, 1 mile north of Moore Cove, is steep-to. **Inrig Point**, 1 mile farther north, is steep-to.

642 **Hegan Point** *(54°04'N, 130°06'W)* is known locally as **Longnose Point**.

643 A **daybeacon**, on Hegan Point, has a starboard hand daymark.

644 **Claxton Creek** enters Telegraph Passage about 1 mile NNE of Hegan Point. Ruins of an abandoned settlement are near the mouth of the creek.

645 **Lambert Point**, known locally as **Vancouver Point**, is 2 miles north of Claxton Creek. Ruins of a former cannery and steamer landing are south of Lambert Point and **Carlisle Creek** is north of the point.

646 **Hanmer Point**, 0.6 mile NNE of Lambert Point, is cliffy. **Kildala Creek** flows across a drying flat close south of Hanmer Point. **Orwig Islets** lie close-off the mainland coast about 0.8 mile NE of Hanmer Point.

647 **Veitch Point**, known locally as **Point Lambert**, is the south entrance point to the Skeena River. An islet 1 m high lies close-off the point.

648 **Robertson Banks**, known locally as **Carlisle Bar**, are separated from Veitch Point by a narrow channel and extend about 3 miles SW. The greater part of the banks dry at LW. The fairway for Telegraph Passage lies between Robertson Banks and De Horsey Island. **Veitch Rock**, 0.1 mile SW of Veitch Point, dries 0.4 m and is at the north end of Robertson Banks.

649 **De Horsey Island** is at the north end and on the west side of Telegraph Passage. **Parry Point**, the south extremity of De Horsey Island, is known locally as **De Horsey Point**, by some, and as **The Horn**, by others.



650 *De Horsey Island* **light** *(see LL 678)*, is on the east side of the island 2.6 miles NNE of Parry Point.

Marcus Passage

651 **Marcus Passage** *(54°06'N, 130°14'W)*, known locally as **Kennedy Gap**, connects Chatham Sound to Telegraph Passage. Two bars obstruct Marcus Passage; one

extends north from Base Sand and the second extends SW from Parry Point.

652 **Tides**. — Tidal differences for Lawyer Islands (Index No. 9312) and Claxton Creek (Index No. 9260), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.



653 **Tidal streams**. — The east-going flood stream and the west-going ebb stream attain 3 to 3½ kn. In Telegraph Passage, abreast the east entrance of Marcus Passage, the streams turn 1 hour after HW. In spring, the west-going ebb stream is greatly accelerated at times by freshets.

654 **Sand waves** with amplitudes up to 1.6 m occur near the junction of Marcus and Telegraph Passages, south and east of Parry Point.



655 **Caution** is required because the drying and shoal banks in Marcus Passage are constantly shifting. A sharp lookout should be kept for deadheads and other debris, particularly during spring tides and freshets.

656 **Smith Island** lies on the north side of Marcus Passage. **Mount McGrath**, in the NW part of the island, is a good landmark from the offing.



657 A **submarine cable area** crosses Marcus Passage between Lawyer Islands and Smith Island.

658 **Hazel Point** *(54°07'N, 130°15'W)* is near the south extremity of Smith Island.

659 **Oceanic Bar** is the local name for a bar on which there are two rocks awash and a drying area. The north end of this bar is 0.7 mile west of Hazel Point. The bar extends south to the NW end of Base Sand. The west side of Oceanic Bar is steep-to but shoal water extends from its east side.

660 **Base Sand**, known locally as **Wilson Bar**, is an extensive drying bank forming the major portion of the south side of Marcus Passage. At its east end it is separated from **Georgy Point**, the north extremity of Kennedy Island, by a narrow gap locally known as **Glory Hole**. A drying rock ledge extends 0.1 mile NW from Georgy Point.

661 A **daybeacon**, 0.2 mile east of Georgy Point, has a starboard hand daymark.

662 **Marked Tree Bluff** is 1.2 miles SE of Georgy Point.



663 *Marked Tree Bluff* **light** *(see LL 677)* is on the northern end of Kennedy Island 1.2 mile SE of Georgy Point.

664 **Croasdaile Island**, known locally as **Bay Island**, lies close south of Smith Island. **Neill Islet** is joined to the NW side of Croasdaile Island by a drying ledge. The narrow passage separating the north sides of Neill and Croasdaile Islands from Smith Island is known locally as **Hells Gate Slough**.



665 **De Horsey Passage**, known locally as **Osland Passage**, separates the NW side of De Horsey Island from Smith Island; most of this passage dries but it is used by local fishermen at HW. A **float** and occupied houses are at **Osland**, on the Smith Island shore of De Horsey Passage.

666 The detached drying bank, west and NW of Parry Point, is known locally as **Seal Bar**. The deep basin between Seal Bar and the SW side of De Horsey Island is known locally as **Simon Joe Hole**.

Inverness Passage

667 **Inverness Passage** *(54°11'N, 130°12'W)* leads from Chatham Sound to the entrance of the Skeena River around the north end of Smith Island.

668 The limits for the Harbour of Prince Rupert pass along the centre of the channel in the west entrance to Inverness Passage. West and north of this line the *Port of Prince Rupert Practices and Procedures* apply.

669 **Conspicuous mountains**. — Mount McGrath, in the NW part of Smith Island, and **Mount McDonald**, 3 miles NNE, make good landmarks. A ridge trends 1.5 miles west from Mount McDonald then slopes sharply down to Porpoise Harbour.



670 **Tidal streams** attain 3 kn off Hicks Point. In spring, the west-going ebb stream is greatly accelerated at times by freshets.

671 **Ice**. — During winter months, Inverness Passage is sometimes encumbered with ice that comes down from the Skeena River.



672 **Caution** is required because the drying and shoal banks in Inverness Passage are constantly shifting. A sharp lookout should be kept for deadheads and other debris, particularly during spring tides and freshets. Because of strong tidal streams and floating debris, caution should be exercised when mooring at the floats in Inverness Passage.

673 **Horsey Bank** *(54°10'N, 130°18'W)* extends south and SE from **Kitson Island**. The SW edge is marked by **starboard hand buoy** *D18*.

674 **Kitson Island Marine Park** encompasses Kitson Island, **Kitson Islet** and the SW portion of Flora Bank. There are no anchorages and the park is undeveloped.

675 **Lelu Island**, 1.1 miles NE of Kitson Island, can be identified by a conspicuous hill at its south end close NE of **Leer Point**. **Flora Bank**, known locally as **Kitson Bank**, is an extensive drying bank between

Kitson and Lelu Islands. A narrow channel, known locally as **Small Craft Channel**, separates the NE side of Flora Bank from Lelu Island; it dries at its north end. The narrow drying channel between the NE side of Lelu Island and **Stapledon Island** is used by small craft at half tide.

676 **Tsum Tsadai Rock**, with two drying heads, lies on the east side of the fairway of Inverness Passage 1.1 miles east of Kitson Island. It is the westernmost rock of a group of small islets and drying ledges extending from the north entrance point of Tsum Tsadai Inlet. Drying ledges and reefs also extend north from the south entrance point of this inlet.




677 **Tsum Tsadai Inlet** has a very narrow and shallow entrance. **Tidal streams** attain upwards of 5 kn through this entrance channel. The inlet is suitable only for small craft. Local knowledge is advised and entering at or near slack water is recommended. The inlet provides a good, well-sheltered **anchorage**.



678 An **overhead cable** (power), with a vertical clearance of 27 m, crosses the entrance to Tsum Tsadai Inlet.

679 **Soar Point**, 0.7 mile NNE of Tsum Tsadai Rock, is the west extremity of a wooded island. **Hicks Point**, 0.7 mile farther NE, is known locally as **Inverness Point**.

680 **Mathews Rock**, in the centre of the fairway between Hicks Point and Lelu Island, has one drying and one below-water head. Starboard bifurcation **buoy** "DC" lies SW of the rock. Safer waters are found to the NW of the buoy.



681 *Inverness Passage* **light** *(see LL 689)*, is on the mainland 0.3 mile NW of Hicks Point.



682 A **submarine cable area** (power) crosses Inverness Passage 0.4 mile east of Hicks Point.

683 A **daybeacon**, on Smith Island about 0.6 mile ESE of Hicks Point, has a **starboard hand daymark**.

684 Drying rocks lie on the north side of the fairway abreast the above-mentioned daybeacon. Drying reefs and a rock awash are close-off the Smith Island shore about 0.2 mile WNW of the same beacon.

685 **Tatenham Point**, on the south side of the channel, is 1.3 miles east of Hicks Point.

686 The **North Pacific Cannery Museum**, open to the public, is a preservation of an old cannery. It is connected by road to Prince Rupert.



687 **Caspaco Creek**, 1.7 miles ESE of Tatenham Point, is the site of a former cannery falling to ruin. A **float** is on the SE side of the pier.

688 **Osborn Point** is at the north entrance to De Horsey Passage.

689 **Eleanor Passage**, at the SE end of Inverness Passage, is contracted to less than 0.1 mile wide by a drying mud flat extending south and SW from **Gust Point**, known locally as **Point Edward**.

690 **Clara Shoal** is a detached drying bank. The fairway for Eleanor Passage lies between Clara Shoal and **Clara Point**, on the NE side of De Horsey Island. Silting is occurring near Clara Shoal and mariners are advised to obtain local knowledge before attempting this part of the passage.

691 The drying gravel mound charted just north of Clara Shoal dries 5.3 m and has grass on it.

Skeena River

692 The **Skeena River**, entered between Gust Point and Veitch Point *(54°09'N, 130°03'W)*, is the largest river on the coast of British Columbia north of the Fraser River. The shores at the entrance are densely wooded and the river is navigable by small craft for about 100 miles inland. Attempts have been made to dredge the river to permit large-scale log transport, but due to problems with currents and heavy siltation these attempts have been abandoned. With the exception of some log towing operations there is no waterborne cargo traffic on the Skeena River.

693 Settlements on the Skeena River include **Terrace** and **Hazelton**, about 54 and 112 miles, respectively, upstream. In the vicinity of Hazelton the river divides into three branches. The principal branch leads north to its source in the **Skeena Mountains**; the **Babine River** leads east and the **Bulkley River** SE. The lower courses of the Skeena and Bulkley Rivers are paralleled by the Canadian National Railway and the main highway connecting Prince Rupert to Prince George.

694 **Charts**. — There are no charts of the Skeena River east of Skeena Banks *(129°56'W)*.

695 **Tides**. — Tidal differences for the Skeena River, referenced on Prince Rupert, are given for Haysport (Index No. 9266), Khyex Point (Index No. 9275) and Kwinitsa Creek (Index No. 9285) in the Tide Tables, Volume 7.

696 Gillnet **fishing vessels** operate in the lower Skeena River and adjacent waters March to September each year. During the peak period of the salmon fishery, late June to

early September, over half the fleet fish in the lower river and estuary.

697 **Ice**. — The upper part of the Skeena River is frozen over during winter; in severe winters, the whole river as far as Port Essington has been frozen over. The greater part of loose ice, which encumbers the estuary of the Skeena River in the cold season, comes from the Ecstall River.

698 **Caution**. — The drying and shoal banks in the Skeena River are constantly shifting. A sharp lookout should be kept for deadheads and other debris, particularly during spring tides and freshets.

699 **Anchorage caution**. — Mariners intending to anchor in the estuary of the Skeena River should ensure that their vessel is equipped with heavy ground tackle and be prepared to veer a good deal of cable. This is due to the nature of the bottom, mainly gravel. Do not anchor in the estuary other than temporarily from December through to mid April. Strong NE gales in winter interrupt communication with shore and, though not frozen over, there is a great deal of loose ice and quantities of heavy driftwood.

700 Between Gust Point *(54°09'N, 130°08'W)* and **Mowitch Point**, 3.8 miles ENE, the drying bank fronting **Boneyard Creek** and extending 0.7 mile from the north shore of the Skeena River is known locally as **Boneyard Bar**.

701 **Sand waves**, with amplitudes up to 1.6 m, are encountered south and east of Mowitch Point.

702 **Haysport**, 0.8 mile NE of Mowitch Point, is the site of a former cannery now in ruins.

703 **Tyee Bank** is an extensive drying flat fronting the north shore of the Skeena River NE of Haysport. The **McNeil River** enters the Skeena River across this drying flat.

704 The south side of the Skeena River between Veitch Point and Port Essington, 3.3 miles east, is fronted by a broad drying flat known locally as **Cunningham Bar**.

705 **Port Essington** is the site of a former cannery with many old piles and wharves in ruins close offshore around the townsite.

706 **Anchorage** can be obtained in about 10 m close NW of Port Essington but the general caution regarding anchorage in the Skeena River, given earlier, also applies here. A heavy cross sea, caused by strong winds from seaward, can be encountered here; vessels are liable to foul their anchors at such times.

707 **Ecstall River**, known locally as **Hocsall River**, enters the Skeena River between Port Essington and **Carthew Point**.

708 **Skip Rock**, on the east end of a boulder-strewn drying gravel bar, dries 4.6 m. **Herman Rock**, 0.2 mile SE, dries 2 m.

709 **Ecstall Island**, close east of Port Essington, is known locally as **Village Island**. Drying areas extend 0.1 mile north of the island.

710 *Ecstall Island* **light** (see *LL 679*), is on the north end of the island.

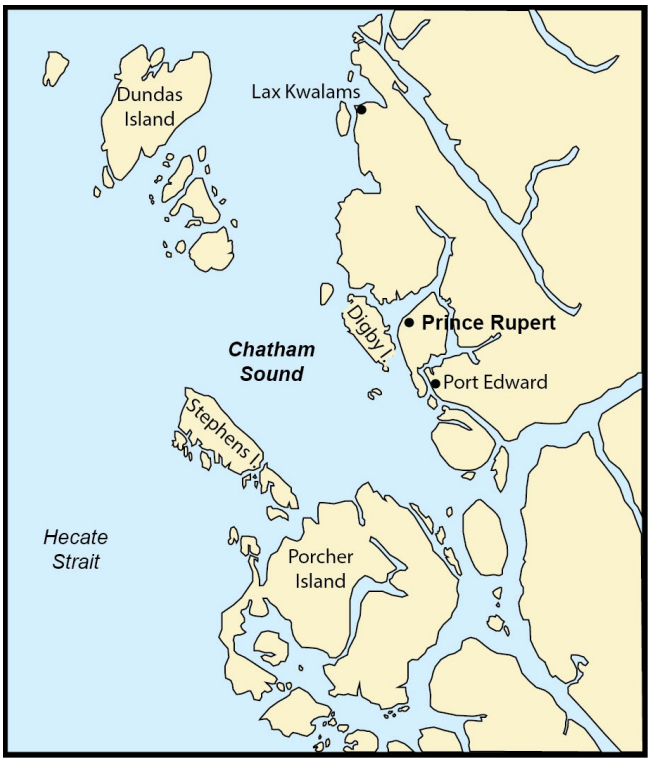
711 **Raspberry Islands**, on the north side of the entrance to Ecstall River, are on a drying flat between Carthew Point and **Raspberry Bluff**.

712 **Skeena Banks** are an extensive series of drying banks extending NE from Raspberry Bluff to within about 0.3 mile of the north shore of the Skeena River.

713 **Overhead cables** cross the Skeena River near the east end of Skeena Banks. Local knowledge is the only guide up the Skeena River from this point onward.

Chapter 4

Chatham Sound Approaches
Harbour of Prince Rupert



General

Chart 3002

1 This chapter covers the Harbour of Prince Rupert, Chatham Sound and the passages leading into Chatham Sound from Hecate Strait and Dixon Entrance.

2 The **Inner Passage**, after leaving Malacca Passage, described in Chapter 3, follows the east side of Chatham Sound as far as Port Simpson then passes through Main Passage and NE toward Portland Inlet or NW toward Alaska.

3 The deep-draught routes through Brown Passage to Ridley Island are described later in this chapter.

4 **Vessel Traffic Services (VTS)**. — The area covered in this chapter is in *Sector 2* of the *Prince Rupert Traffic Zone*. The assigned frequency is 156.575, Channel 71.

5 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*, full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

6 The Calling-in Points are

7 *Calling-in Point No. 15A*, called *Petrel Rock*, is a line from Digby Island to West Kinahan Island.

8 *Calling-in Point No. 15B*, called *Greentop Islet*, is a line from West Kinahan Island to a position near Greentop Islet.

9 *Calling-in Point No. 15C*, called *Holland Rock*, is a line from a position near Greentop Islet to Kitson Island.

10 *Calling-in Point No. 16*, called *Lucy Islands*, is a line from Lucy Islands light *(719)* to Tugwell Island.

11 *Calling-in Point No. 17*, called *Pillsbury Point*, is a line joining Pillsbury and Tobey Points.

12 *Calling-in Point No. 18*, called *Edye Passage*, is a 3-mile arc centred on Table Point.

13 *Calling-in Point No. 20A*, called *Butterworth Rocks*, is a line from Jacinto Point light *(732)* to Butterworth Rocks light *(751)* thence to Seal Rocks light *(748)*. Mariners shall report routeing to *Prince Rupert Traffic* if not using Brown Passage.

14 *Calling-in Point No. 20B*, called *Seal Rocks*, is a line joining Seal Rocks light *(748)* to Oval Point on Porcher Island and is a change line between *Sector 1* and *Sector 2* of the *Prince Rupert Traffic Zone*.

Chatham Sound

15 **Chatham Sound** *(54°28'N, 130°32'W)* is bounded on its east side by **Tsimpsean Peninsula**, on its south side by Porcher Island and on its west side by Prescott Island, Stephens Island and Dundas Islands. Two groups of islands and several small islands, reefs and shoals lie along the centre of Chatham Sound, and reefs, shoals and islands are located along both sides of the sound.

16 The main approach channel to Chatham Sound from Dixon Entrance or Hecate Strait is Brown Passage. South of Brown Passage the three channels connecting Chatham Sound to Hecate Strait are Bell Passage, Stephens Passage and Edye Passage. Stephens Passage is only suitable for small craft at HW.

17 Three channels north of Brown Passage pass through Dundas Islands. The passage between Melville and Dunira Islands is narrow, shallow and encumbered with reefs; it is not recommended. The narrow channel between Dunira Island and Baron Island is usable by small vessels but local knowledge is advised. A wreck, visible at HW, is at the NE end of the passage on rocks close-off Baron Island. Hudson Bay Passage, between Baron Island and Dundas Island, is suitable for small vessels.

18 The north entrance to Chatham Sound, between the NE end of Dundas Island and the north extremity of Tsimpsean Peninsula, is separated into four passages by islands and reefs.

19 **Tides**. — Tidal predictions in Chatham Sound are given for Prince Rupert (Index No. 9354) in the Tide Tables, Volume 7.

20 Tidal differences for the south side of Chatham Sound, referenced on Prince Rupert, are given for Welcome Harbour (Index No. 9305), Refuge Bay (Index No. 9306), Hunt Inlet (Index No. 9310), Humpback Bay (Index No. 9309) and Lawyer Islands (Index No. 9312) in the Tide Tables, Volume 7.

21 Tidal differences along the west side of Chatham Sound, referenced on Prince Rupert, are given for Qlawdzeet Anchorage (Index No. 9315) and Moffatt Islands (Index No. 9325) in the Tide Tables, Volume 7.

22 **Tidal streams**. — In the north part of Chatham Sound, between Dundas Islands and the north part of Tsimpsean Peninsula, the flood sets north and the tidal streams do not exceed 1 kn. In the south part of Chatham Sound the flood tidal streams entering from Brown, Bell and Edye Passages, and the flood setting north from Malacca Passage produce, for the most part, an easterly set of about 2 kn. The ebb has the reverse effect.

23 **Meteorological information** is available in the Appendices.

24 A **submarine cable** (fibre-optic) is laid in Chatham Sound leading west from Ridley Island, south of Bishop Island, to south of Georgia Rock, then NW between Digby Island and the Kinahan Islands, then north along the sound to Dixon Entrance, and then NW across Dixon Entrance into US Waters.

Aspect

Charts 3956, 3957, 3959, 3960, 3963

25 The mountains along the SE side of Chatham Sound, as far north as Mission Mountain, are described under the approach to Prince Rupert Harbour. **Mount Griffin** *(54°32'N, 130°25'W)*, rises to an elevation of 416 m and has a sharp summit. The ridge SE of Mount Griffin has several conspicuous peaks on it; among these peaks are **Leading Peak**, a well-defined peak with a steep fall on its south side, and **Basil Lump**. **Mount McNeil** *(54°35'N, 130°15'W)*, on the NE side of Work Channel, has a conical shaped summit and is usually snow clad.

26 Approaching Edye Passage from Hecate Strait the **Bell Range**, on the NW end of Porcher Island, reaches elevations of 673 m and **Spiller Range**, on the NE side of the same island, reaches elevations of 727 m. **Mount Stephens**, at the SE end of **Stephens Island**, attains an elevation of 422 m and is conspicuous. **Congreve Hill**, 2.2 miles NW of Mount Stephens, is 159 m high and has a sharp summit. Several hills all about the same elevation are along the north side of Stephens Island. The highest of these hills is **Qlawd Hill** with an elevation of 335 m.

27 **Melville Island** *(54°22'N, 130°45'W)*, on the north side of Brown Passage, is densely wooded and rises gradually to a range of hills in the middle, the highest being **Knee Hill**.

28 **Jackal Point** is the extremity of a group of islands, joined by drying ledges, extending west from Melville Island. Drying ledges and foul ground extend 0.5 mile SW from Jackal Point and several unnamed dangerous shoals lie within a 1.5 mile radius.

29 **Dunira Island**, north of Melville Island, is densely wooded. **Coast Mound**, on the west side of the island, has

an oval summit, conspicuous from NE and SW. **Farwest Point** is the west extremity.

30 **Dundas Island**, north of Hudson Bay Passage, has several conspicuous mountains; **Mount Henry**, with an elevation of 465 m is the highest. **Mount Bonwick**, on the SE side of the island, has an elevation of 402 m. **Slab Hill**, formerly known as **Table Hill**, at the NE end of the island, has a flat summit and is conspicuous.

Brown Passage and Approaches

Chart 3957

31 **Brown Passage** *(54°20'N, 130°50'W)* is the main approach channel to Chatham Sound for large vessels coming from Dixon Entrance or Hecate Strait.

32 The **wreck** of the 24-m fishing vessel *Western Commander*, at a depth of about 80 m, lies 4.9 miles WSW of Connel Islands. Mariners are advised to exercise **caution** in the area.

33 **Pilotage**. — The pilot boarding station for Prince Rupert and other ports north, south or in Haida Gwaii is in Brown Passage in the vicinity of Triple Islands. Also 5.5 nautical miles to the east is a pilot transfer area by helicopters. For information on obtaining a Pilot *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

34 **Tidal streams**. — In the west approach to Brown Passage the flood stream sets at about 2 kn onto Triple Islands and in the direction of the fairway up to these islands. Between Triple Islands and Hanmer Rocks the flood sets ESE and the ebb NW at up to 1½ kn. Farther SE the flood takes a more easterly direction and the ebb sets westerly onto the Tree Nob Group.

35 In the vicinity of Triple Islands the tidal streams are strong and irregular.

36 The tidal streams are greatly affected by prevailing winds.

37 **Directions**. — Because of the dangers in the approach to and within Brown Passage, and the probability that tidal streams will set a vessel toward these dangers, it is essential to be continually certain of your position before approaching or attempting to make a passage through Brown Passage. If good positioning is not possible it is advisable to keep an offing until conditions improve. It should be noted that Lucy Islands light is not visible in Brown Passage south of a bearing of 094°.

Deep-Draught Routes

38 Two **deep-draught routes** lead through Brown Passage and Chatham Sound to Ridley Island and Prince Rupert. These are referred to as the "Southern" and "Northern" routes. *See* the adjacent diagram.

39 The southern route leads south of Stenhouse Shoal and along the NE sides of Triple Islands, Osborne Islands and Rushton Island, then ESE between North Rachael Island and Alexandra Bank, then between Greentop Islet and Kinahan Islands.

40 The northern route leads south of Stenhouse Shoal and 0.8 mile south of Hanmer Rocks light, around the north and east sides of Lucy Islands, then SE to join the southern route west of Kinahan Islands.

41 *Directions for southern route*. — From a position SW of Stenhouse Shoal, bring Lucy Islands light ahead bearing 097°. This course leads between Stenhouse Shoal, marked by a light and whistle buoy with a Racon, and an 11 m shoal 2 miles SSE marked by a light and whistle buoy.

42 When Triple Islands light is abeam, distant about 1.25 miles, alter to a SE course to pass between a rock with 5.2 m over it lying 0.3 mile NE of Rushton Island and a rock with 15.8 m over it lying 0.8 mile farther NE; both rocks are marked by a light and bell buoy.

43 When the above described dangers are passed, alter course to bring the NE point of Rushton Island astern bearing 286° to make good a course of 106° which leads midway between 22 m depths on Alexandra Bank and on the bank extending from North Rachael Island. North Rachael Island is marked by a light, Alexandra Bank by a light and whistle buoy with a Racon.

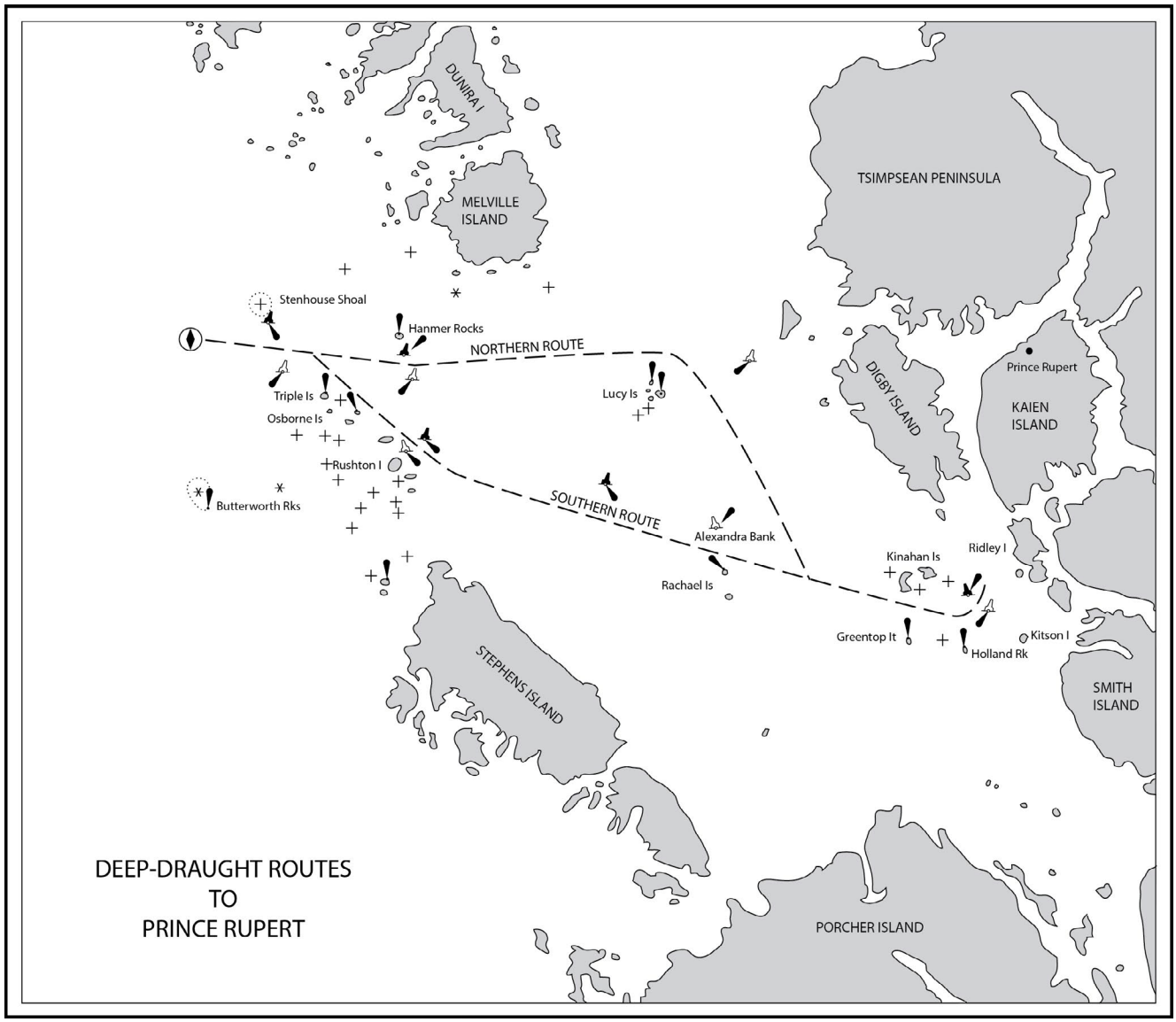
44 When north of North Rachael Island light, adjust course to 108° on the south point of Kitson Island. This course leads between Greentop Islet light and Kinahan Islands to the south approaches to Ridley Island and Prince Rupert.

45 *Directions for northern route*. — Follow the directions for the southern route given above but continue to steer 097° on Lucy Islands light passing south of Hanmer Rocks, marked by a light with a Racon and a light and whistle buoy, and north of a rock with 16.5 m over it marked by a light and whistle buoy.

46 When SE of Hanmer Rocks, set courses as required to round the lights on the north and east sides of Lucy Islands at a prudent distance.

47 When east of Lucy Islands, steer SE courses to join the southern route about 2 miles west of Kinahan Islands, passing east of Alexandra Bank and SW of a bank with 27 m over it lying 2 miles NW of Kinahan Islands.

FIGURE 4.1: DEEP DRAUGHT ROUTES TO PRINCE RUPERT



48 **Butterworth Rocks** *(54°14'N, 130°59'W) (Chart 3800)*, in the west approach to Brown and Bell Passages, consist of several drying rocks and a rock at the south end is 3.7 m high.

49 *Butterworth Rocks* **light** *(751)* is shown at an elevation of 16.1 m from a tripod tower fitted with a **Racon** (— • • —).

50 *Wolf Clan* ***light buoy*** *EF5 (749.4)*, moored SW of Butterworth Rocks, is a **port hand buoy**.

51 **Kipcke Rock** *(54°15'N, 130°55'W)*, 2.3 miles ENE of Butterworth Rocks light, dries 1.8 m. It is not advisable to pass between Kipcke Rock and the Tree Nob Group.

52 **Tree Nob Group** separates Brown Passage from Bell Passage to the south and consists of numerous islands, islets, drying reefs and rocks. Do not attempt to pass between the islands of this group without the aid of local knowledge; the whole area is foul and tidal streams are strong.

53 **Triple Islands** *(54°18'N, 130°53'W)*, at the north extremity of Tree Nob Group, are three bare, white rocky islands; they have elevations of 6 to 12 m and form a good

landmark. Drying rocks, reefs and shoals surround these islands.

54 *Triple Islands* **light** *(752)*, on the NW island, is shown at an elevation of 28 m from a white tower 21.9 m high and operates during hours of darkness only.

55 A private *ODAS* ***light buoy*** (MarineLabs Data System Inc) is approximately 1.5 mile WNW of Triple Islands.

56 **Stenhouse Shoal**, 3.3 miles NW of Triple Islands, in the west approach to Brown Passage, is a rocky head, awash, on the south end of a shoal bank. The shoal is generally marked by kelp and breaks continuously during strong winds from seaward.

57 *Stenhouse Shoal* ***light and whistle buoy*** *D59 (751.1)*, close south of the shoal, is a **port hand buoy** fitted with a **Racon** (— • — •).

58 *Brown Passage* ***light and whistle buoy*** *D60 (751.2)*, 1.4 miles NW of Triple Islands, is a **starboard hand buoy**.

59 **Hanmer Rocks**, 2.8 miles NE of Triple Islands, consist of two separate groups of drying rocks and shoals, the shoalest head in each group dries 5.2 m.

60 *Hanmer Rocks* **light** *(752.3)*, on the NW rock, is shown at an elevation of 10.9 m from a white tower fitted with a **Racon** (— —).

61 *Hanmer Rocks* ***light and whistle buoy*** *D57 (753)*, a **port hand buoy**, and *Hanmer Rocks* ***light and whistle buoy*** *D62 (753.1)*, a **starboard hand buoy**, mark the channel south of the rocks.

62 Two private *ODAS* ***light buoys*** (MarineLabs Data System Inc) are approximately 1.4 mile and 2.6 miles south of Hanmer Rocks.

63 **Spoil ground**. — An ocean dumpsite, under permit through the *Ocean Dumping Control Act*, for old boom defence nets is about 2 miles ESE of Hanmer Rocks in *(54°18'N, 130°45'W)*.

64 **Osborne Islands**, 1 mile SE of Triple Islands, are surrounded by drying ledges. Numerous drying rocks and reefs extend from Osborne Islands to **Rushton Island** and beyond, forming the SW side of Brown Passage.

65 *Osborne Island* **light** *(752.2)*, on the east island, is shown at an elevation of 10.2 m from a white tower.

66 *Rushton Island* ***light and bell buoy*** *D75 (753.3),* a **port hand buoy**, and *Rushton Island* ***light and bell buoy*** *D72 (753.2),* a **starboard hand buoy**, mark the channel NE of Rushton Island.

67 **Egeria Rock** *(54°21'N, 130°52'W)*, 2.5 miles NW of Hanmer Rocks, has 0.2 m over it and breaks heavily in a westerly swell.

68 **Simpson Rock**, 3 miles east of Egeria Rock, lies near the outer end of foul ground, on which there are several islets, drying and below-water rocks, extending about 1 mile south from the SW end of Melville Island. A reef that dries 4.6 m lies 0.2 mile SE of Simpson Rock. Several unnamed shoals with less than 11 m over them lie within 1.5 miles of the south coast of Melville Island.

69 **Beaver Rock**, 2.8 miles east of Simpson Rock, has 0.3 m over it and **Cutter Rock**, 0.7 mile north, has 2.7 m over it; both rocks are marked by kelp.

Bell Passage and Approaches

Chart 3956

70 **Roland Rocks** *(54°10'N, 130°50'W)* consist of several bare islands and drying and below-water rocks. A detached rocky area, with a least depth of 4.6 m, lies 1 mile WSW of the group. Pass well west of this area as the bottom is uneven.

71 **Archibald Islands**, 1.5 miles north of Roland Rocks, consist of a group of islands surrounded by drying ledges and reefs.

72 Detached shoals, the shallowest with 2.4 m over it, lie midway between Roland Rocks and Archibald Islands.

73 *Archibald Islands* **light** *(750)*, on the NW island, is shown at an elevation of 8.6 m from a skeleton tower.

74 **Bell Passage** separates the north sides of Archibald Islands and Stephens Island from the south side of Tree Nob Group. The fairway is about 0.5 mile wide and deep. However, because of dangers in the vicinity, it is advisable to navigate this passage only when all landmarks are clearly visible.

75 **Tidal streams** through Bell Passage set east on the flood and west on the ebb at about 2 kn.

76 **Hooper Point**, 1.3 miles east of Archibald Islands, is the north extremity of Stephens Island. A conspicuous dome-shaped hill, 140 m high, is 0.8 mile south of Hooper Point.

77 **Harris Rock**, 0.8 mile east of Hooper Point, dries 7 m.

78 *Harris Rock* **light** *(733)* is shown at an elevation of 4.8 m from a skeleton tower.

79 **Directions**. — Approaching Bell Passage from Hecate Strait, keep Butterworth Rocks light structure ahead bearing 000° until Archibald Islands light bears 050° then alter course to 046°. Maintain 046° until Harris Rock light structure is open north of Hooper Point bearing 095° then alter course to 087° to pass about 0.3 mile off Hooper Point and about the same distance north of Harris Rock.

Chart 3909

80 **Qlawdzeet Anchorage** *(54°13'N, 130°46'W)*, entered between Hooper Point and Harris Rock, is a useful anchorage when seeking shelter from strong SE winds, prevalent in this area. It is open to NW winds, but these are usually light.

81 **Tides**. — Tidal differences for Qlawdzeet Anchorage (Index No. 9315), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

82 **Avery Island** and **Dunn Island**, forming the east side of Qlawdzeet Anchorage, are surrounded by drying ledges and rocks. Extensive drying rock ledges, with several islets on them, extend 0.3 mile from the south shore of Qlawdzeet Anchorage. Four dolphins are in a shallow basin south of Dunn Island, which has been used during the fishing season as a base for operations. This bay and the anchorage are known locally as **Squaderee**. **Trunk Island** and **Log Island**, with several drying reefs and shoals, lie along the west side of the anchorage.

83 **Anchorage** for vessels of moderate size can be obtained in about 22 m, mud and sand, with the NW extremity of Avery Island bearing 062°, and Hooper Point bearing 306° just open NE of Trunk Island.

Edye Passage and Approaches

Chart 3956

84 The west approach to Edye Passage lies between **Philip Island** *(54°09'N, 130°49'W)* and **Fan Point** *(53°55'N, 130°44'W) (Chart 3987)*. A chain of drying reefs, rocks and shoals extends across the approach, the only danger marked is Seal Rocks. The named dangers in the west approach are as follows.

85 **Gore-Langton Rock** *(54°06'N, 130°51'W)*, on a shoal ridge, has 2.7 m over it. **Evelyn Rocks**, 2 miles east of Gore-Langton Rock, consist of several rocky shoals close together with a least depth of 3.4 m.

86 **Warrior Rocks**, 1.8 miles south of Gore-Langton Rock, consist of two bare rocks, 2 and 5 m high, and several drying and below-water rocks; they lie near the NE end of an extensive bank which has numerous dangerous shoals on it. **Grenville Rock**, 2.5 miles from Warrior Rocks on the SW end of the bank, has 6.1 m over it.

87 *Grenville Rock* ***light buoy*** *EF2 (749.2)*, NW of Grenville Rock, is a **starboard hand buoy**.

88 **Wallace Rocks**, 3 miles SSE of Warrior Rocks, consist of three rocky heads with less than 2 m over them, and a 3.7 m shoal 0.4 mile south.

89 **Seal Rocks**, 1.2 miles SE of Wallace Rocks, consist of a rock 2.1 m high and two drying rocks on a drying reef.

90 *Blackfish Clan* ***light buoy*** *EF1 (748.5),* moored west of Seal Rocks, is a **port hand buoy.**

91 *Seal Rocks* **light** *(748)*, on the highest rock, is shown at an elevation of 13.4 m from a square skeleton tower fitted with a **Racon** (— • — —).

Chart 3987

92 **Hall Rock** *(53°59'N, 130°47'W)*, 1.5 miles south of Seal Rocks, has 34 feet (10.4 m) over it. **Ste. Croix Rock**, with 7.3 m over it, and a rock with 33 feet (10.1 m) over it, lie up to 1.5 miles SSW of Hall Rock.

93 **Oval Bank** extends 4 miles offshore between Fan and Oval Points.

94 *Oval Bank West Cardinal* ***light buoy*** *EOB (747.5) (53°55.6'N, 130°54.4'W)*, is about 6 miles WNW of Fan Point (*see Chart 3800*).

Edye Passage — SW Approach

95 **Fan Island** *(53°54'N, 130°44'W)*, joined to Fan Point by a drying reef, is prominent from NW or SE. Conspicuous white cliffs are on the coast about 1 mile ESE of Fan Island.

96 The west coast of **Porcher Peninsula** is rocky and fringed with boulders and foul ground usually marked by kelp. A heavy and continuous swell sets on this coast, which should be approached with caution.

97 **Oval Point** is 1.9 miles NNE of Fan Point. **Bass Rock**, 0.3 mile west of Oval Point, is 30 feet (9.1 m) high, bare and connected to the point by a drying ridge of sand and boulders. **Oval Hill**, 0.6 mile SE of Oval Point, is 630 feet (192 m) high and appears oval from all directions.

98 **Oval Rock**, which dries 17 feet (5.2 m), and a group of drying and above- and below-water rocks lie up to 1.4 miles NW and north of Oval Point.

99 **Oval Bay** lies between Oval Point and Welcome Point, about 4 miles NE. The coast for 1.5 miles south of Welcome Point is fringed with drying rocks and shoals.



100 **Anchorage** can be obtained in Oval Bay in a position with Oval Hill bearing 190° and Seal Rocks light structure bearing 301°; depths are 16 to 18 fathoms (29 to 33 m), sand bottom.

101 **Welcome Point** *(54°00'N, 130°40'W)* has foul ground, with numerous drying and below-water rocks, extending 0.3 mile west from it. These drying rocks and foul ground almost join Welcome Point to a chain of islands and drying ledges extending along the south side of Henry Island. **Fog Islands** consist of three islands at the west end of the above-mentioned chain.

Chart 3909

102 **Secret Cove** *(54°00'N, 130°40'W)*, close NE of Welcome Point, can be entered by small craft through a narrow passage, encumbered with rocks, between the above-mentioned chain of islands and Henry Island. The cove can also be entered through a narrow, winding, channel close west of Welcome Point. Local knowledge is advised to safely navigate both channels. A shallow, narrow channel leads from the north end of Secret Cove into Welcome Harbour, described later in this chapter.

Chart 3956

103 **Hearndon Point** *(54°02'N, 130°40'W)*, the NW extremity of **Henry Island**, has drying reefs and islets extending 0.5 mile NW from it.

104 **William Island**, NW of Henry Island, has foul ground extending 0.7 mile from its west side and **Ibbetson Point** at its north extremity.

105 **Chearnley Passage** separates Henry Island from William Island.



106 *Chearnley Passage* **light** *(749)*, on a small islet near the SE end of the passage, is shown at an elevation of 5.8 m from a skeleton tower.



107 **Tidal streams** flood north and ebb south through Chearnley Passage at 1 kn.

Edye Passage — NW Approach

108 **Landmark**. — Mount Stephens *(54°08'N, 130°40'W)* is conspicuous.

109 **China Islet** *(54°09'N, 130°50'W)*, connected to the SW side of Philip Island by drying ledges, is wooded. A rock that dries 5.2 m lies 0.4 mile NW of China Islet. The coast between China Islet and Skiakl Bay, 2 miles SE, is fringed with numerous drying reefs and rocks.

110 **Skiakl Bay**, entered west of **Skiakl Island**, is encumbered with drying ledges and rocks on all sides. The NW arm of the bay, and the arm entered west of **Ludlam Point**, are only suitable for small craft.

111 **Skiakl Point**, the south extremity of Skiakl Island, has conspicuous white cliffs.

112 **Skiakl Rock**, 0.6 mile SSE of Skiakl Point, has 6.1 m over it and is marked by kelp. **Angle Rock**, 1 mile east of Skiakl Rock, is 2 m high, bare and has drying and below-water rocks lying up to 0.3 mile off it.

113 **Butler Cove**, between the south side of Stephens Island and **Joyce Island**, is sheltered except from south or SW winds when a heavy swell sets into the cove. **Rod Island** lies close-off the south extremity of Joyce Island. A group of drying rocks lies close-off the SW side of Joyce Island in the approach to Butler Cove. **Dolly Island**, at the head of Butler Cove, is joined by drying ledges to Stephens Island and **Minnie Island**.



114 **Anchorage** for small craft can be obtained in the NE end of Butler Cove in 22 m, mud bottom. When entering Butler Cove give the drying rocks at the SW end of Joyce Island a good berth, then favour the Joyce Island shore to avoid the rock 0.3 m high near the middle of the cove.

115 **Stephens Passage**, separating Stephens Island from Prescott Island, dries 1.2 m in the narrowest part of the fairway. Local knowledge is advised for navigating this passage.



116 **Tidal streams** in Stephens Passage attain 4 kn.

117 **Prescott Island** has low, flat, marshy land at its north end from which several low hills rise; a range of hills with an elevation of 250 m occupies the south part of the island. **Parry Island** is joined to the NW side of Prescott Island by a drying flat.

118 **Prescott Passage**, separating Prescott Island from Arthur Island, has a least depth of 2.4 m and is only suitable for small craft. **Snuff Islet** lies at the west end of Prescott Passage on a drying ledge. An islet, 0.3 m high, lies 0.1 mile NW of Snuff Islet. A small island and some islets lie on drying ledges on the north side of the fairway, NNE of Snuff Islet.

Edye Passage

119 **Edye Passage** *(54°03'N, 130°37'W)* is deep in the fairway, with reefs on both sides, and easily navigated at all stages of the tide. This passage affords a convenient route

for entering the south portion of Chatham Sound from the north end of Hecate Strait.

120 **Tides**. — Tidal differences in Edye Passage, referenced on Prince Rupert, are given for Welcome Harbour (Index No. 9305) and Refuge Bay (Index No. 9306) in the Tide Tables, Volume 7.

121 **Tidal streams** flood east and ebb west through Edye Passage at 2 kn. The streams are probably stronger in the narrow part, abreast Pearce Point. There are heavy tide-rips at times over the bank extending south from the east end of Arthur Island.

122 **Arthur Island** lies on the north side of Edye Passage. **View Point**, the SW extremity of the island, has a steep-to drying ledge extending 0.2 mile south from it. A drying reef with above-water rocks on it lies 0.4 mile east of View Point. A wooded island, 0.8 mile east of View Point, is connected to the south side of Arthur Island by a drying ledge. Drying and below-water rocks, covered with kelp, extend 0.3 mile south of this island into Edye Passage.

123 **Morrell Point**, the SE extremity of Prescott Island, has drying reefs, extending 0.3 mile south, on which there are some white topped, bare, above-water rocks.

124 **Truscot Rock** *(54°03'N, 130°39'W)*, with 3.7 m over it, and numerous drying rocks extend north from the east end of Henry Island, and depths under 10 m lie up to 0.7 mile north of the island.

125 **Edwin Point**, 2 miles ESE of Truscot Rock, is the east entrance point to Welcome Harbour, which is described later in this chapter.

126 **Useless Point**, 1.5 miles ENE of Edwin Point, has a drying ledge, drying rocks and shoal water extending up to 0.4 mile off it.

127 *Useless Point* **light** *(686)*, on a crib near the outer end of the drying reef west of the point, is shown at an elevation of 5.9 m from a white tower.

128 **Useless Bay** is filled with a drying sand flat over which **Useless Creek** flows.

129 **Goble Point** and **Pearce Point** are north of Useless Point. **Table Point** is the NE entrance point to Refuge Bay, described later in this chapter.

130 **Barrett Island**, 0.4 mile NE of Table Point, is on an extensive drying ledge extending 0.2 mile north from shore. **Clode Patch**, 0.3 mile west of Barrett Island, has 2.7 m over it and a rock with 5.2 m over it 0.1 mile WNW.

131 **Directions**. — Approaching Edye Passage from SW keep Seal Rocks light structure bearing 041° to pass west of Oval Bank. When Oval Hill bears 090° alter course to pass 0.5 mile SE of Seal Rocks. From Seal Rocks a route either west of William Island or through Chearnley Passage can be taken. After rounding Seal Rocks, if proceeding west of William Island, steer a course with the summit of Mount Stephens ahead, bearing about 026°. Maintain this course until View Point bears 105° then alter course to 112° to pass 0.4 mile south of View Point and about the same distance north of Edwin Point. When Morrell Point is abeam, bearing 022°, alter course to pass midway between Pearce Point and the bare white rocks south of Morrell Point.

132 If proceeding through Chearnley Passage, then, from a position 0.5 mile SE of Seal Rocks, steer to pass within 0.15 mile of the SE side of William Island and keep within 0.15 mile of the west shore of Chearnley Passage until the islet close north of Ibbetson Point is abeam. From a position abeam the above-mentioned islet alter course to bring the NW extremity of Arthur Island ahead, bearing 057°, and when in mid-channel alter course SE and steer to pass 0.4 mile south of View Point, thence as directed above.

Chart 3909

Welcome Harbour and Refuge Bay

133 **Welcome Harbour** *(54°02'N, 130°38'W)* is entered from Edye Passage between the east side of Henry Island and Edwin Point. This harbour is suitable only for small craft and does not offer a welcome to the stranger. The entrance from Edye Passage is obstructed by numerous drying reefs and below-water rocks. Small craft can also enter Welcome Harbour from Oval Bay, by way of Secret Cove, previously described; this route is very shallow and intricate. **Dancey Island** is the largest island in Welcome Harbour.

134 **Mooring buoys** are in the bay east of Secret Cove and a **float** is on the islet in the bay to the south.

135 **Tides**. — Tidal differences for Welcome Harbour (Index No. 9305) and Refuge Bay (Index No. 9306), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

136 **Refuge Bay**, entered between Pearce Point and Table Point *(54°04'N, 130°32'W)*, has a sand flat extending 0.5 mile from its head. Both entrance points, and both sides of the bay, are fringed with drying ledges and foul ground. **Knox Island** lies near the outer edge of a drying ledge on the SW side of the bay. **Gun Island** is on the drying flat on the SE side of the bay.

137 **Anchorage** for vessels of moderate size can be obtained in the middle of Refuge Bay in 20 to 30 m, sand bottom. During SE gales strong squalls are experienced in this anchorage and with north winds a heavy swell sets in.

Chatham Sound — South Part

Chart 3957

138 The south part of **Chatham Sound**, for descriptive purposes, lies south of a line drawn from Tugwell Island *(54°20'N, 130°30'W)* to **Deans Point** *(Chart 3959)*, the SE extremity of Melville Island.

139 **Lucy Islands** *(54°18'N, 130°37'W)* consist of a group of wooded islands and drying reefs and rocks. A shoal spur with depths of less than 11 m extends 1.5 miles south from Lucy Islands.



140 *Lucy Islands* **light** *(719)*, on the NE point of the east island, is shown at an elevation of 21.6 m from a white tower.



141 *Lucy Islands North* **light** *(719.2)* is on the north island of the group.



142 **Tidal streams** NE of Lucy Islands flood 330° and ebb 160° at about 1 kn.

143 **Alexandra Bank**, 3.7 miles SSE of Lucy Islands, has a least depth of 4.3 m over it. Kelp generally grows on the bank but is frequently towed under by the tidal stream.

144 *Alexandra Bank* ***light and whistle buoy*** *DAX (688.5)* is a **port bifurcation buoy** fitted with a **Racon** (— • —).

145 **Rachael Islands** *(54°12'N, 130°33'W)* consist of two wooded islands, **North Rachael Island** and **South Rachael Island**, and several islets, fringed by drying ledges and reefs.



146 *North Rachael Island* **light** *(688)*, on the north side of the north island, is shown at an elevation of 9.8 m from a white tower.



147 *South Rachael Island* **light** *(687.5)* is on the SW tip of the south island.

148 *Rachael Island South Cardinal* ***light and whistle buoy*** *DSO (687.3)* is 0.6 mile south of the island.

149 **Pitt Shoal**, 1.5 miles east of South Rachael Island, has a least depth of 14 m.

150 **Colquhoun Shoal**, 2.7 miles SSE of South Rachael Island, has a depth of 9 m with irregular depths extending 2 miles ESE from it.

151 *Colquhoun Shoal North Cardinal* ***light and whistle buoy*** *DCO (687.1)* is close north of the shoal.

152 **Gull Rocks**, 1.2 miles south of Colquhoun Shoal, consist of a rock 5.2 m high and several drying and below-water rocks.



153 *Gull Rocks* **light** *(687)* is on the highest rock.

154 **Ettrick Rock**, 1.4 miles SSE of Gull Rocks, dries 2.4 m and is steep-to. A 10.6 m shoal lies midway between Ettrick and Gull Rocks. Starboard bifurcation **buoy** "DA" is close NW of Ettrick Rock.

155 **Havelock Rock**, a drying rock, is on a detached bank 1 mile SSE of Ettrick Rock.



156 *Havelock Rock* **light** *(685.5)* is shown at an elevation of 4.6 m from a white tower.

Chart 3956

157 **Riel Point** *(54°12'N, 130°45'W)* is close south of Avery Island at the NE end of Stephens Island. The **east coast of Stephens Island** is relatively low lying, rising to hills a short distance inland. Drying ledges extend up to 0.2 mile from shore. **Congreve Point**, 4.5 miles SE of Riel Point, is 1.5 miles east of Congreve Hill, which has a sharp summit.

158 The east coast of Prescott Island has rocks and shoals close offshore.

159 **Creak Islands** *(54°05'N, 130°29'W)*, off the north coast of **Porcher Island**, extend 0.9 mile WNW from **Creak Point**. Several shoals lie within 0.7 mile west and WNW of Creak Islands in the east approach to Edye Passage.

160 **Island Point**, 1.6 miles NE of Creak Point, has islands, drying reefs and shoal rocks extending up to 1.2 miles NW and north of it; these include **Alice Island** and **Brooks Rock**, which are marked by kelp.

Chart 3909

161 **Hunt Inlet** *(54°04'N, 130°27'W)*, with Havelock Rock and Brooks Rock in its approach, penetrates the north coast of Porcher Island. Drying ledges on both sides of the inlet should be given a good berth. Drying reefs lie off the east side of the inlet, about 0.5 mile north of the public wharf. **Hunts Inlet** (locality), about 0.7 mile from the entrance, is used as a base during the fishing season. Houses lie along the shore south of the public wharf.

162 **Tides**. — Tidal differences for Hunt Inlet (Index No. 9310), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.



163 The **public wharf**, consisting of a **pier** and **floats**, offers 64 m of berthing space. There is a depth of 3 m at the outer end of the floats.

Port of Prince Rupert

Charts 3957, 3958

164 The *Port of Prince Rupert* is administered by *Prince Rupert Port Authority* under the *Canada Marine Act*. The harbour is governed by the *Port of Prince Rupert Practices and Procedures*.

165 **Harbour limits** of the Port of Prince Rupert include: All the waters of Prince Rupert Harbour including Tuck Inlet, Morse Basin, Wainwright Basin, Porpoise Harbour and Venn Passage, and further including the waters of Chatham Sound lying north of *54°08'36"N* and east of *130°26'47"W*. *See charted harbour limits*.



166 **Vessel Traffic Services (VTS)**. — Mariners are reminded to make the anchorage and berthage reports, and to maintain an anchor watch, as required by the VTS system. A brief description of the Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

167 **Arrival information**. — The owner of every deep-sea vessel and, if requested by the Port Authority, the owner of every other vessel shall, where possible, give notice to the Prince Rupert Port Authority of the current expected date and approximate time of arrival of the vessel at the port. Vessels with explosives onboard shall not enter, move within or depart from the port, except with permission of the Prince Rupert Port Authority.

168 Tugs and linesmen are available for berthing vessels. A boat is required to run lines at the coal terminal on Ridley Island.

169 Prince Rupert is a port of entry and has a resident Customs officer.



170 **Pilotage** is compulsory and the pilots generally board ships at Triple Islands. For information on obtaining a Pilot *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

171 **Tides**. — The mean and large tidal ranges at Prince Rupert are 4.9 and 7.4 m. Tidal predictions for Prince Rupert (Index No. 9354) and tidal differences, referenced on Prince Rupert, for Port Edward (Index No. 9342), Casey Cove (Index No. 9350), Seal Cove (Index No. 9360), Morse Basin (Index No. 9344) and Wainwright Basin (Index No. 9343) are given in the Tide Tables, Volume 7.

172 **Meteorological information** is available in the Appendices.

173 **Regulations**. — The *Port of Prince Rupert Practices and Procedures* apply within the harbour limits. Copies of the regulations can be obtained from

Prince Rupert Port Authority,
200-215 Cow Bay Rd.,
Prince Rupert, B.C. V8J 1A2
Telephone 250 627-8899
www.rupertport.com

174 The regulations govern vessels manoeuvring or otherwise underway, at anchor, berthing or alongside a berth in the Port of Prince Rupert. The regulations require that no vessel shall move in the port at a rate of speed that may endanger life or property or is in excess of any rate of speed authorized by the Port Authority.

175 The Port Authority may order vessels to move, use tugs, berth or anchor in locations that it designates.

176 Vessels are regulated with respect to bunkering, cargo-handling operations, and the equipment and lighting employed in these operations. Instructions for signalling, action in the event of accidents, cargo or gear lost overboard and safety requirements are included.

177 There are specific vessel regulations for the carriage and handling of explosives and dangerous goods, as well as rules to be observed in the prevention of fires.

178 **Ballast water**. — All vessels arriving in Prince Rupert with ballast on board will be required to comply with the *National Guidelines for Control of Ballast Water Discharge* prior to arriving in Canadian waters. *See* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

179 **Speed**. — Mariners using the Port of Prince Rupert are required to reduce speed to minimize wash and wake. No Wake zones are enforced in the following areas

(a) within 0.3 mile of the Prince Rupert shoreline;
(b) within 0.3 mile of the Digby Island ferry dock and the Metlakatla floats in Venn Passage and
(c) all of Porpoise Harbour.



180 **Anchorages** for vessels waiting for berths at Prince Rupert, in addition to those within the harbour limits, are designated as follows: Berths 2 to 7 in Prince Rupert Harbour, Berths 8, 9 and 10 in the approach to Marcus Passage, Berths 11 to 14 along the west shore of Digby Island, Berths 15, 16 and 17 on the east side of Rachael Islands, Berths 18 to 23 south of Lucy Islands and Berths 24 to 31 along the east shore of Prescott and Stephens Islands.



181 Masters are cautioned that these anchorages may not provide ideal holding ground during periods of inclement weather. Mariners are urged to exercise extreme caution at all times when anchored in these areas

and keep a continuous radio watch on VHF 156.575, Channel 71, Prince Rupert Marine Communications and Traffic Services Centre.

Prince Rupert Harbour — South Approach

182 The **south approach to Prince Rupert Harbour** lies between **Kitson Island** *(54°11'N, 130°19'W)* and Digby Island, 4 miles NW.

183 **Aspect**. — **Mount Stewart** *(54°14'N, 130°15'W)*, on Tsimpsean Peninsula SE of **Kaien Island**, rises to an elevation in excess of 640 m. **Mount Hays** *(54°17'N, 130°19'W)*, in the centre of Kaien Island, rises to an elevation of 707 m. **Mount Oldfield** *(54°18'N, 130°17'W)*, toward the NE end of Kaien Island, has an elevation of about 549 m. **Mission Mountain** *(54°22'N, 130°23'W)*, on Tsimpsean Peninsula north of Kaien Island, rises from comparatively low land to an elevation of about 460 m. **Mount Morse**, about 2.5 miles ENE of Mission Mountain, rises to an elevation of 911 m. Digby and Ridley Islands are comparatively low lying.

184 A **television tower** *(54°17'05"N, 130°18'48"W)*, marked by air obstruction **lights**, is on Kaien Island near the summit of Mount Hays.

185 Conspicuous **white strobe lights** are shown from the tops of the loaders and stackers of Ridley Island coal terminal. The lights on the loaders have an elevation of 42 m.

Chart 3958

186 **Holland Rock** *(54°10'N, 130°22'W)*, **Grace Rock**, and **Dor Rock** lie on a shallow bank 1.4 to 2.5 miles west of Kitson Island. An automatic weather station is on Holland Rock

187 *Holland Rock* **light** *(690)*, on the south extremity of the rock, is shown at an elevation of 9.1 m from a skeleton tower.

188 **Greentop Islet**, 1.8 miles west of Holland Rock, is a grey, rocky islet, 6 m high, on a drying ledge. The islet is fringed with shoals and its summit is covered with grass.

189 *Greentop Islet* **light** *(691)* is shown at an elevation of 13.2 m from a white tower.

190 **Kinahan Islands** *(54°12'N, 130°24'W)* lie on the north side of the main approach route to Prince Rupert. The islands include **West Kinahan Island**, **East Kinahan Island**, **South Kinahan Island** and **Little Kinahan Island**. Drying ledges, reefs and shoals extend from the west, SW and south sides of West Kinahan Island. **Marion Rock**, 0.2 mile NW of West Kinahan Island, dries 0.3 m. **Ellinor Rock**, 0.4 mile east of the SE point of East Kinahan Island, has 0.9 m over it and is marked by **south cardinal buoy** *DH*.

191 *East Kinahan Island* **light** *(699)*, on the NE extremity of the island, is shown at an elevation of 8.1 m from a white tower.

192 *Ridley Island* ***light and bell buoy*** *D27 (698.5)*, at the SE end of a shoal bank extending about 0.8 miles SE of Ellinor Rock, is a **port hand buoy** with a **RACON** — — • (G).

193 **Tidal streams** south of Kinahan Islands flood 100° at about ½ kn and ebb 265° at about 1½ kn.

194 **Petrel Rock**, 1 mile north of West Kinahan Island, has 4.6 m over it and lies in the middle of an extensive bank.

195 *Petrel Rock* ***light and bell buoy*** *D39 (700)*, south of the rock, is a **port hand buoy**.

196 **Snider Islet**, 2.5 miles NNW of Petrel Rock, is connected to **Digby Island** by drying ledges. **Snider Rock**, which dries 4.6 m, together with several other drying rocks lie 0.2 mile SW. **Marine farm** facilities lie close west of these drying rocks.

197 *Prince Rupert Aeronautical Beacon* **light** *(720)* is on Digby Island, about 1.4 miles north of Snider Islet.

198 **Radio towers**, with red air obstruction **lights**, are about 0.4 mile SSE of the aeronautical light.

199 A **submarine cable** (power) is laid from the shore on the SW coast of Digby Island about 0.7 mile ESE of Snider Islet extending 0.3 mile to an underwater platform at a depth of 24 m.

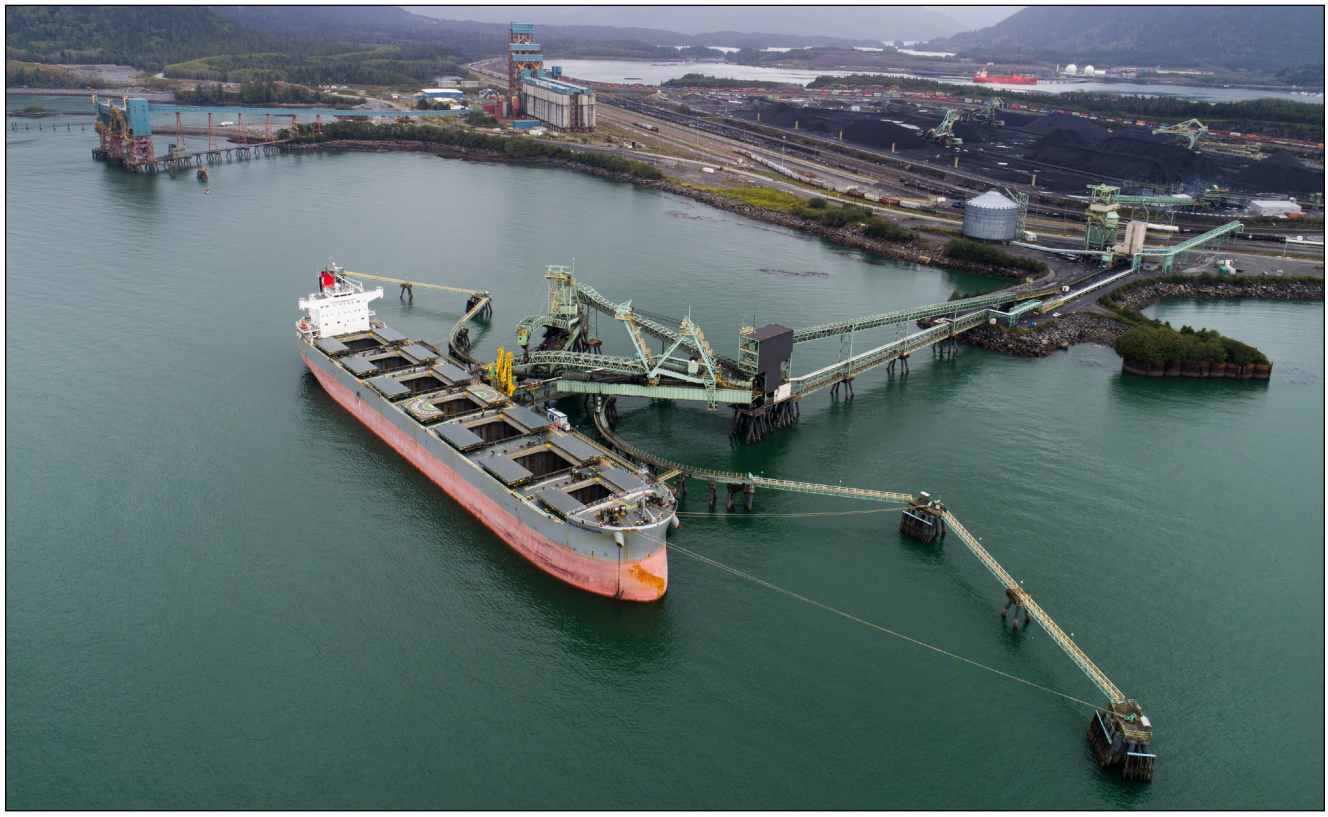
200 **Martini Island**, 1.5 miles SE of Snider Rock, lies on a drying ledge extending from the west side of Digby Island. **Tremayne Bay**, SE of Martini Island, lies between **Moore Point** and **Fraser Point**. Several below-water and drying rocks and shoals lie in the approach to and within Tremayne Bay.

201 **Chassepot Rock** 2 m high on a drying ledge and a reef that dries 5.2 m lie between Fraser Point and Petrel Rock.

202 **Lima Point**, the south extremity of Digby Island, has drying ledges and islets extending south from it. A wooded islet 9 m high lies near the south end of these drying ledges.

203 **Kestrel Rock**, marked by **port hand buoy** *D41*, **Falcon Rock** and **Georgia Rock** lie 0.6 to 1 mile SE of Lima Point.

TRIGON PACIFIC TERMINALS (2021)



204 *Georgia Rock* ***light and bell buoy*** *D43 (701)*, east of the rock, is a **port hand buoy**.

Chart 3955

205 **Ridley Island** *(54°13'N, 130°19'W)*, on the east side of the approach to Prince Rupert Harbour, forms the west side of Porpoise Harbour. **Coast Island**, 0.3 mile west of Ridley Island, is surrounded by drying ledges. **Bacon Rock**, 0.3 mile north, dries 2.1 m and is marked by *Bacon Rock* ***light buoy*** *D40* (*701.2*), a **starboard hand buoy**.

206 *Trigon Pacific Terminals, Trigon Pacific Propane Export Terminal, Prince Rupert Grain,* and the *Ridley Island Cargo Ramp* are on the NW part of Ridley Island.

207 Major port facilities on Ridley Island are presented in a south to north sequence on the adjacent table. For latest depths and port information contact the *Port of Prince Rupert.*

208 Privately operated **lights** are shown from the SW and NW corners of the Trigon Pacific Terminals wharf. White strobe **lights** are shown from the tops of the shiploaders and the stacker/reclaimers.

209 **Tidal streams** set parallel to or slightly offshore from the Trigon Pacific Terminals wharf face, reaching maximums of ½ kn on the flood and ¾ kn on the ebb. HW slack lasts from 1 hour before to 1 hour after HW Prince Rupert, and LW slack from 1 hour before to 2 hours after LW Prince Rupert.

210 Private **mooring buoys** are south and north of the grain terminal.

211 A **submarine cable** (fibre-optic), marked by a "No Anchoring" sign ashore, leads west from Ridley Island, south of Bishop Island, into Chatham Sound.

212 A **submarine pipeline** (sewage outfall) extends 0.2 mile offshore close north of the grain terminal.

Table 4.1: Major Port Facilities — Prince Rupert - Ridley Island

Berth	Wharf Length (m)	Least Depth (m)	Elevation (m)	Remarks
Trigon Pacific Terminals	150	20.2	3.6	Coal and petroleum coke in bulk. Four berthing dolphins 150 m apart; four mooring dolphins 370 m apart. Handle ships to maximum dimensions 250,000 dwt; 20m draught; 325 m length; 50 m beam. Wharf has two sonar speed of approach indicators. Maximum approach speed 8 cm/sec. Two shiploaders up to 9,000 tonnes/hr. Linesmen and tugs of 3600 HP. 1.4 million tonnes storage. Shore gangway. No fresh water Operator: Trigon Pacific Terminals Ltd.
Trigon Pacific Propane Export Terminal	As above	As above	As above	Liquefied Propane Gas (LPG). Four berthing dolphins 150 m apart; four mooring dolphins 370 m apart Handle ships to maximum dimensions 100,000 dwt; 20 m draught; 325 m length; 50 m beam. Wharf has two sonar speed of approach indicators. Maximum approach speed 8 cm/sec. Linesmen and tugs of 3600 HP. Shore gangway. No fresh water. Operator: Trigon Pacific Terminals Ltd.
Prince Rupert Grain Limited	150	14.2	3.9	Wheat, barley, canola and other grains. Three berthing dolphins 150 m apart; four mooring dolphins 370 m apart. Mooring buoys have been positioned to take head and stern lines of vessels over 280 m. Handle ships to maximum dimensions 145,000 dwt; 14 m draught, 280 m length; 40 m beam. Three shiploaders at 4,000 tonnes/hr. 202,000 tonnes storage. Shore gangway. Fresh water and power (600v/30 amp and 120 v/15 amp). Operator: Prince Rupert Grain Ltd.
Ridley Island Cargo Ramp	—	4	6.2	Inshore of Prince Rupert Grain. The Prince Rupert Port Authority licenses the ramp to other users as needed. Further information can be obtained from the Prince Rupert Port Authority. Operator: Port of Prince Rupert

Porpoise Harbour and Approach

213 **Flora Bank**, known locally as **Kitson Bank**, is an extensive drying bank on the south side of the approach to Porpoise Harbour. **Agnew Bank** extends 0.6 mile west from Flora Bank and has two drying reefs on it.

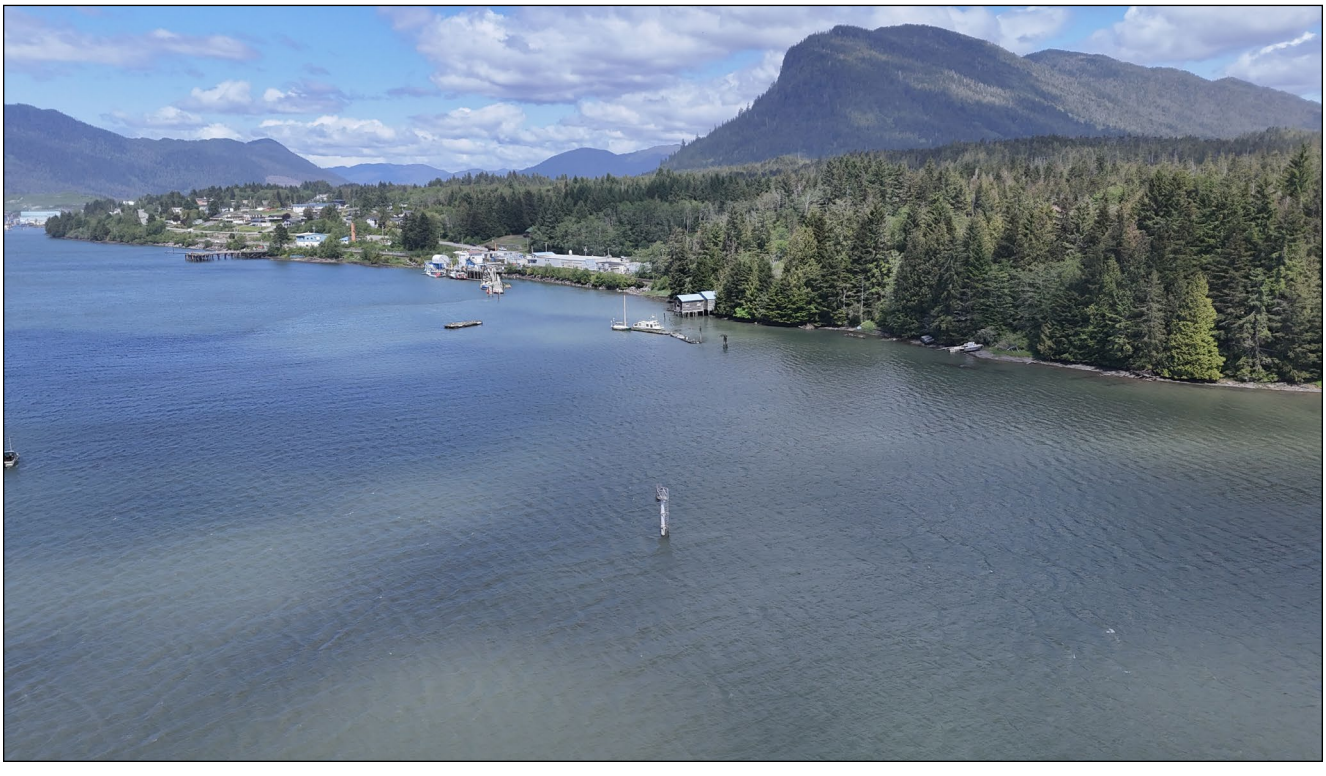
214 *Agnew Bank* ***light and bell buoy*** *D24 (692)*, west of the bank, is a **starboard hand buoy**.

215 A private *ODAS* ***light buoy*** (MarineLabs Data System Inc) is approximately 0.15 mile SE of buoy *D24*.

PORPOISE CHANNEL LOOKING SW (2025)



PORPOISE CHANNEL LOOKING NORTH TOWARDS PORT EDWARD (2025)



216 **Buoyed channel**. — The entrance fairway leading to Porpoise Channel lies between Agnew Bank and a detached shoal area to the north. This fairway has a least depth of 7.2 m and is marked by *Porpoise Harbour* **light**, **port hand buoy** *D35*, **starboard hand buoys** *D26* and *D30* and *Porpoise Harbour Entrance* **range**.

217 A private *ODAS* ***light buoy*** (MarineLabs Data System Inc) is approximately 0.1 mile SE of buoy *D35*.

218 **NW approach**. — The entrance to Porpoise Channel can also be approached from NW between the detached shoal area mentioned above and a shoal area to NE which has a rock awash and drying rocks on it and Porpoise Harbour light structure at its SE end.

219 **Leading line**. — The SW extremity of Martini Island in line with the south extremity of Digby Island *(see Chart 3958)*, bearing 314°, leads through the NW approach to Porpoise Channel.



220 *Porpoise Harbour* **light** *(693),* on the north side of the entrance to Porpoise Channel, is shown at an elevation of 7.1 m from a white cylindrical tower with a green band on top.



221 *Porpoise Harbour Entrance range* **lights** *(694, 695)*, close-off the NW part of Lelu Island, in line bearing 073° lead north of Agnew Bank. The front light, on a drying ledge, is shown at an elevation of 3.7 m from a concrete base surmounted by an aluminum structure fitted with a range daymark. The rear light is shown at an elevation of 7.7 m from a skeleton tower with a similar daymark.

222 **Porpoise Channel** separates Lelu Island from Ridley Island; the fairway is about 0.1 mile wide.



223 **Tidal streams** in the entrance to Porpoise Channel attain 2 kn. At the NE end of Porpoise Channel a very strong set north, during the falling tide, comes from the channel separating Lelu Island from Tsimpsean Peninsula. Great vigilance is necessary while passing through Porpoise Channel.

224 **Entry restrictions**. — Entry to Porpoise Harbour is generally restricted to HW slack during daylight hours, however, on some occasions vessels may be piloted in at LW slack.

225 **Sound signals**. — When entering Porpoise Channel mariners should, on nearing Porpoise Channel Entrance light, signal their approach by giving one long blast of the whistle. On leaving Porpoise Harbour mariners should before making the turn into Porpoise Channel signal their approach by giving one long blast of the whistle.



226 *Porpoise Channel Entrance* **light** *(696)*, on a drying **rock** on the south side of the channel about 0.2 mile NW of the Entrance Range lights, is shown at an elevation of 7.2 m from a white cylindrical tower with a red band on top.



227 *Porpoise Channel West* **light** *(697),* on the NW side of the channel on a drying ledge extending from Ridley Island, is shown at an elevation of 4.6 m from a mast and has a **port hand daymark**.



228 *Porpoise Channel East* **light** *(698)*, on a drying rock off the north point of Lelu Island, is shown at an elevation of 7 m and is fitted with a range daymark. A **daybeacon** fitted with a range daymark is on the east shore of Porpoise Harbour, 0.3 mile NE of the light. The light and daybeacon in line, bearing 039½°, lead through Porpoise Channel.

229 **Gay Island**, at the NE end of Porpoise Channel, is joined to Ridley Island by causeways.



230 **Porpoise Harbour** between Ridley Island and Tsimpsean Peninsula has the marine facilities of Port Edward on its east shore. Depths within the harbour are uneven and caution is necessary.

231 **No Wake** is enforced in Porpoise Harbour.

232 **Buoys**. — **Port hand buoy** *D33* and **starboard hand buoy** *D32* mark a constriction in the navigable channel about 0.5 mile north of Gay Island.

233 **Booming grounds** existed along the Ridley Island shore about 0.8 mile north of Gay Island, the drying flats at the north end of the harbour, and the west coast of Watson Island. Several dolphins lie within the discontinued booming grounds.



234 **Submarine pipelines and cable**. — Submarine pipelines (sewer outfalls) extend into Porpoise Harbour from 1 mile north of the public wharf and from the *Porpoise Harbour Marina*; they are marked by signs onshore. Another pipeline extends from the narrow isthmus at the south end of Watson Island. On the shore end of this pipeline a sign reads "*Pipeline Outfall — No Anchoring*".



235 An abandoned **submarine pipeline** crosses Porpoise Harbour from the north end of the ruined wharf on **Watson Island** to **Ridley Island**.



236 A **submarine cable** (telephone), marked by signs ashore, crosses the harbour from the NE end of Ridley Island to Watson Island.



237 A **submarine pipeline** (gas) crosses the harbour from the NW end of Watson Island.

238 A **railway bridge** connects the north end of Watson Island to Kaien Island. The vertical clearance is 0.5 m.

239 **Zanardi Rapids** connects Porpoise Harbour to Wainwright Basin, described later in this chapter.

240 **Tidal streams** through Zanardi Rapids are violent during large tides. Slack water occurs between 10 and 40 minutes after HW and between 30 minutes and 2 hours after LW at Prince Rupert. LW slack is most delayed during very low tides.

241 An **overhead cable** (power), with a vertical clearance of 7.6 m, crosses Zanardi Rapids about 0.3 mile east of the railway bridge.

242 **Anchorage** is obtainable at the head of Porpoise Harbour, clear of the submarine pipelines, in 13 to 16 m; the bottom is uneven and caution is necessary. Tidal streams from Zanardi Rapids can also be troublesome.

243 **Port Edward** is on the east shore of Porpoise Harbour. It has a post office (V0V 1G0), laundromat and general store. There is a boat launching ramp. The main marine facilities are in Prince Rupert.

244 **Marina** information can be found at https://peharbourauthority.com.

245 **Wharves**. — All wharves are on the east side of Porpoise Harbour; commencing from the south end they are as follows.

246 *Cassiar Fish Company* **float**, about 0.2 mile NE of Porpoise Channel East light, is used for net drying.

247 *Aero Trading Ltd*. **wharf**, with **floats** extending north and south from the wharf face and a storage shed, is 0.1 mile north of Cassiar Fish Company float.

248 The **public wharf** with a **float**, and a launching **ramp**, are 0.4 mile north of Porpoise Channel East light. The float has 160 m of berthing space. A 3 tonne crane is on the wharf.

249 *Porpoise Harbour Marina* **public wharves** and **floats**, operated by the *Port Edward Harbour Authority*, about 1 mile north of Porpoise Channel East light, provides 400 m of berthing space for vessels up to 60 m. The buildings are for net repair and storage. *Moore's Boatworks* provides vessel repairs.

250 *Pembina Propane Export Terminal* is on Watson Island on the site of the former pulp and paper mill. The north end of the wharf is in ruins.

251 **Caution**. — There is debris, from the decommissioned pulp mill, in the water NNW of the Pembina LPG Terminal on Watson Island.

252 **Communications**. — Port Edward is on the Canadian National Railway line into the interior. Regular bus service operates to and from Prince Rupert.

Chart 3958

Prince Rupert Harbour

253 **Prince Rupert Harbour** *(54°17'N, 130°22'W)* between Digby Island, Kaien Island and Tsimpsean Peninsula, is a portion of the Port of Prince Rupert, defined earlier in this chapter. The main entrance is from south, but it can also be entered from NW through Venn Passage.

254 **Water aerodrome**. — Prince Rupert Harbour is a water aerodrome known as Seal Cove. Aircraft generally land or take off at the NE end of the harbour opposite Seal Cove.

255 **Ferry**. — Regular ferry service, operated by the City of Prince Rupert, crosses Prince Rupert Harbour between the city of Prince Rupert and Digby Island. Charted **ferry routes** shown on the chart are general indications of the route followed by the ferry. Ferries can be encountered anywhere within the vicinity of the route shown.

256 **Buoyage**. — The upstream direction for buoyage purposes in Prince Rupert Harbour is approaching from seaward that is proceeding from south to north. However, it should be noted that McIntosh Rock daybeacon, which is in Prince Rupert Harbour, is at the east extremity of the Venn Passage buoyage system and is a part of that system. Venn Passage upstream direction is approaching from seaward that is proceeding from west to east.

257 **Tidal streams** in the channel abreast Casey Point begin to ebb 1 hour after HW; the maximum rate is 2 to 3 kn.

258 **No Wake** is enforced when within 0.3 mile of the Prince Rupert shoreline.

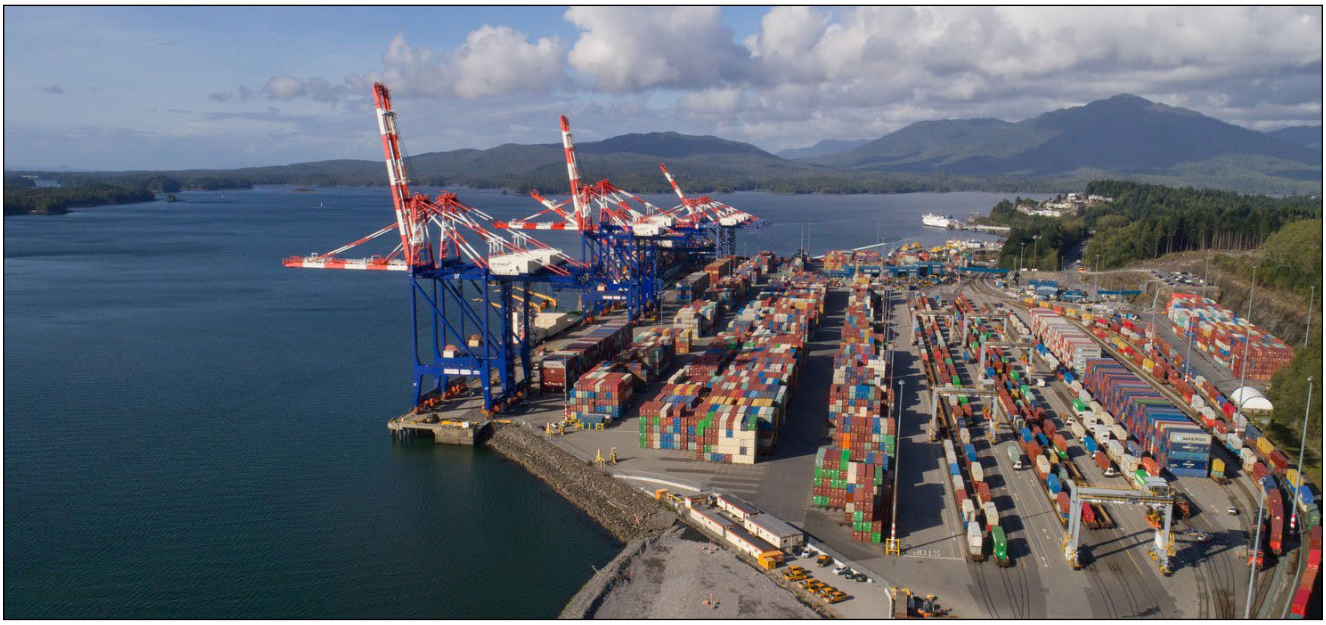
259 A bight in the SW part of the channel between Lima Point and **Frederick Point**, 1.3 miles NNE, fronts **Delusion Bay** and has numerous drying rocks and reefs and some islands in it. **Spire Island**, **Metford Island** and **Tuck Island**, south of **Miller Point** and Frederick Point, are surrounded by drying reefs. A private *ODAS* ***light buoy*** (*PRPA Research*) is approximately 0.2 mile SW of Tuck Island. **Spire Ledge** extending east from Spire Island dries 1.4 m.

260 *Spire Ledge* ***light and bell buoy*** *D47 (702)*, east of the ledge, is a **port hand buoy**.

261 *Frederick Point* **light** *(703.5)*, 0.2 mile NE of the point, is at the edge of a drying ledge with foul ground and is shown at an elevation of 10 m from a white cylindrical tower with a green band on top.

262 **Bishop Island**, on the east side of the entrance, is on an extensive drying ledge extending from the SW extremity of Kaien Island. *Bishop Island* ***light buoy*** *D42 (701.5),* a **starboard hand buoy**, marks a rock awash

FAIRVIEW TERMINAL (2021)



FAIRVIEW TERMINAL LOOKING EAST (2021)



and several drying rocks extending 0.15 mile west of Bishop Island. **Barrett Rock** lies 0.45 mile NW of Bishop Island.

263 *Barrett Rock* **light** *(703),* on the rock, is shown at an elevation of 6.7 m from a white square tower with a red band on top.

264 A **submarine cable** (power) is laid from Barrett Rock to Kaien Island.

265 *Kaien Island Sector* **light** *(703.3)*, 0.7 mile north of Barrett Rock, is shown from a square skeleton tower on top of a three pile dolphin.

266 **Casey Point**, 2 miles north of Barrett Rock, is the west extremity of Kaien Island.

Table 4.2: Major Port Facilities — Prince Rupert

Berth	Wharf Length (m)	Least Depth (m)	Remarks
Fairview Container Terminal	800	16.6	Containers. 4 Super Post Panamax Cranes, 3 Malacca Max Cranes, 1,800 tonne cranes, 17 reachstackers to support container yard and on-dock double stack rail operations, 34 terminal tractors. Handle ships to 16 m draught, 400 m length. Operator: DP World Prince Rupert Inc.
Westview Wood Pellet Terminal	309	11.8	Wood Pellet loading. Five berthing dolphins 309 m apart. Handle ships to maximum dimensions 77,500 dwt; 10 m draught; 245 m length; 32 m beam. Shiploader at 2,000 tonnes/hr. 50,000 tonnes storage. Operator: Pinnacle Renewable Energy Inc.
Northland Cruise Terminal	325	21.2	Cruise ship terminal. Eight mooring dolphins with a floating dock mid-ship, two shore gangways. Handle ships to maximum dimensions 78,400 dwt, 15 m draught, 313 m length. Operator: Port of Prince Rupert

267 *Casey Point* **light** *(704)*, 0.1 mile SW of the point, is shown at an elevation of 7.8 m from a white square tower with a red band on top.

268 *Phillips Point Sector* **light** *(703.7)*, on the drying **rocks** off the point, is shown at an elevation of 6.8 m from a white square tower. **Philips Point**, **Emmerson Point** and **Charles Point** are on the west shore of the harbour. Between Frederick and Charles Points the west shore is fringed with drying rocks and ledges.

269 **Casey Cove** is entered between Charles Point and **Parizeau Point**. The ruins of a wharf, some old buildings and wrecks are on the south side of the cove. A **submarine cable** crosses Casey Cove.

270 A **radio tower** with red air obstruction **lights** is on the north side of Casey Cove SW of Parizeau Point.

271 *Parizeau Point* **light** *(705)*, 0.1 mile NE of the point, is shown at an elevation of 4.4 m from a dolphin.

272 A **submarine cable** crosses the entrance to Prince Rupert Harbour from Philips Point to Kaien Island. A **submarine cable area**, marked by a cable sign on Charles Point, is laid between Charles and Casey Points. An abandoned **submarine cable area** crosses the entrance between Parizeau Point and Fairview Terminal. A **submarine cable** (fibre-optic) crosses from Dodge Cove to the Prince Rupert BC Ferry Terminal. A **submarine cable** (fibre-optic) extends from the Prince Rupert Grain terminal south, through Arthur Passage and Marcus Passage, to Oona River. Another **submarine cable** (fibre-optic) extends NW, on the west of Digby Island, to Metlakatla.

273 **Dodge Cove** is entered between **Elizabeth Point** and **Dodge Island** through a narrow channel with drying flats on each side and a least depth of 0.9 m.

274 *Dodge Cove* ***light buoy*** *D50 (705.1)*, on the north side of the entrance channel, is a **starboard hand buoy**.

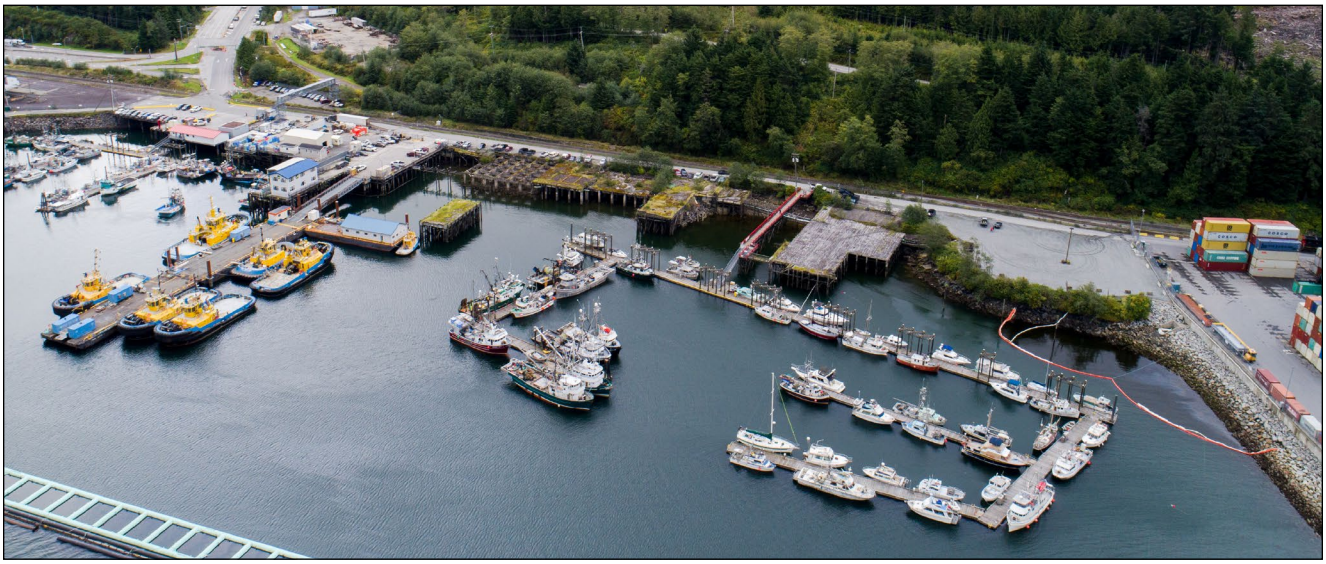
275 *Dodge Island* ***light buoy*** *D53 (706.3)*, 0.3 mile NE of Dodge Island, is a **port hand buoy**.

276 *Dodge Cove range* **lights** *(706.1, 706.12)*, in line bearing 253°, lead through the entrance of Dodge Cove. The front light is shown at an elevation of 3 m and the rear light 7 m; both lights are on dolphins fitted with range daymarks.

277 **Digby Island** settlement is on the west shore of Dodge Cove. The **public wharf** consists of five **floats**, secured end to end, each 24 m long; these floats are attached to a trestle approach that crosses the foreshore. The depth alongside the floats is 3.7 m. The **Dodge Cove Boatyard**, NW of these floats, has a marine ways with a capacity of 73 tonnes. It does boat construction and repairs.

278 *Fairview Terminal* is on the Kaien Island shore about 0.5 mile north of Casey Point. Details of

FAIRVIEW HARBOUR (2021)



ALASKA AND BC FERRIES TERMINALS (2021)



the terminal are given in the Major Port Facilities table later in this chapter. A **floating breakwater** commences a short distance north of the wharf and extends 0.3 mile north; it protects *Fairview Harbour* floats and *Diep Sea Products* wharves.

279 Privately operated **lights** are at the north and south end of Fairview Terminal.

280 Oldfield Terminal **light**, at the end of the catwalk, is privately operated.

281 *Oldfield breakwater* **light** *(706.2)*, at the north end of the floating breakwater, is fitted with a starboard hand daymark.

282 *Fairview Bifurcation* ***light buoy*** *DE (705.8),* west of the floating breakwater, is a **starboard bifurcation buoy** that marks a rock, with 4.3 m over it.

283 **Ferry landings**. — The Digby Island Ferry landing is about 0.1 mile SE of Oldfield breakwater light.

284 The *Alaska Marine Highway System* ferry and *BC Ferries* terminals are about 0.15 mile NE of Oldfield breakwater light.

285 *Alaska Ferry South* and *North* **lights** *(709, 710)* are shown from dolphins at the outer end of the ferry landing.

286 *BC Ferry South* and *North* **lights** (*710.1, 710.2*) are shown from the outer ends of the BC Ferries terminal. A **fog signal** is operated by ferry personnel when required for ferry movements only.

287 *CN Wharf* **light** (*710.3*) is shown from the outer end of the barge landing.

288 The above lights and fog signal are privately operated.

289 **Submarine pipelines** (sewer outfalls) extend from the shore at the public floats in Fairview Harbour and NE of Rushbrook Harbour.

290 **Tobey Point**, on the west side of Prince Rupert Harbour, is 0.5 mile north of Dodge Island. Foul ground fronts the coast between Dodge Island and Tobey Point. A conspicuous **tower** is west of Tobey Point. **McIntosh Rock**, 0.3 mile NE of Tobey Point, dries 2.1 m.

291 *McIntosh Rock* **light** (*711.5*), on the **rock**, is shown at an elevation of 7.7 m from a white cylindrical tower.

292 **Russell Arm** is entered between **de Stein Point** and **Russell Point**. **Wolfe Island** *(54°19'N, 130°22'W)*, south of de Stein Point, has depths under 20 m projecting 0.2 mile south from it. **Hill Island** and **Burrowes Island** lie on a drying ledge extending from the west side of Russell Arm. There are drying flats at the head of the arm; a dam at the north end of these flats separates Russell Arm from **Salt Lake**.

293 **Melville Arm**, 0.5 mile NE of Russell Arm, entered between **Detention Island** and **Douglas Point** consists mainly of a drying flat. **McNichol Creek** enters the east side of the arm.

294 Two private **mooring buoys** lie off the north side of Prince Rupert Harbour between the entrances of Russell and Melville Arms.

295 **Bacon Cove**, 0.7 mile ENE of Douglas Point, is a small indentation with drying flats at its head used as a **booming ground**. Two conspicuous concrete pillars lie 0.2 and 0.4 mile NE of **Bacon Point**.

296 **Vigilant Island** is 0.4 mile east of Bacon Cove. A drying rock, close south of the middle of the island, is steep-to on its south side. **Booming grounds** line the shore from Vigilant Island to Schreiber Point.

297 **Anchorages**. — Anchor berths 2 to 7 in Prince Rupert Harbour are shown on the chart. The bottom is mainly silt and clay and holding is not good. Temporary anchorages lie along the east coasts of Prescott and Stephens Islands in the SW part of Chatham Sound and in the north approach to Marcus Passage *(Chart 3956)*.

298 **Caution**. — Prince Rupert Harbour is subject to violent gusts of wind from the mountain slopes in the vicinity during SE gales, which are prevalent during autumn and winter months. When these weather conditions are expected all necessary precautions to guard against dragging anchor should be taken. Vessels at anchor must have engines at standby and a second anchor ready to let go in winds of 20 kn or more and maintain a continuous radio watch on 156.575 mHz (Channel 71), Prince Rupert Marine Communications and Traffic Services Centre.

Prince Rupert

299 **Prince Rupert** (city) is on the NW side of Kaien Island along the SE side of Prince Rupert Harbour. It is the terminus of the Canadian National Railway transcontinental system and the centre for extensive mining, lumbering and fishing industries. A modern hospital, with a Poison Control Centre and heliport, doctors, dentists, clinics and pharmacies are available. The city is equipped with all modern municipal facilities.

300 **Customs**. — Prince Rupert is a port of entry. Canada Customs have introduced a selective boarding system and the ships agents usually carry out vessel clearances in Prince Rupert.

301 **Administration**. — The port is administered by *Prince Rupert Port Authority* with offices at 200-215 Cow Bay Road — telephone 250 627-8899. After hours the Harbour Master can be reached on VHF Channel 68.

302 Major port facilities in Prince Rupert are presented in a south to north sequence on the adjacent table. For latest depths and port information contact the *Port of Prince Rupert.*

303 A **small craft basin**, known locally as ***Fairview Harbour***, is NE of Fairview Terminal behind the **floating breakwater** described earlier.

304 *Fairview Harbour* **public floats**, operated by the *Port Edward Harbour Authority*, in the basin, have 1,640 m of berthing space. The floats are generally for the fishing fleet but will accommodate pleasure craft when space is available. For detailed information see peharbourauthority.com.

305 *Diep Sea Products* wharves, *SAAM Towage*, and the *Pacific Pilotage Authority* are also behind the

WESTVIEW WOOD PELLET TERMINAL (2021)



NORTHLAND CRUISE TERMINAL AND COW BAY MARINA (2021)



breakwater. The Digby Island **ferry landing** is at the north end of Fairview Harbour.

306 *Canadian Coast Guard Lifeboat Station Prince Rupert* and the *Royal Canadian Marine Search and Rescue (RCM-SAR) Unit 64* are in Fairview Harbour.

307 **Ferry landings** for the Alaska Marine Highway System and BC Ferries Corporation are close north of Fairview Harbour.

308 The *Canadian National* **barge loading ramp** and mooring **dolphins** are close north of **Pillsbury Point**.

309 Wolverine Marine Fuel barge lies 0.3 mile NNE of Pillsbury Point. Lights are displayed from two private buoys in front of barge.

310 *Westview Wood Pellet Terminal*, shown in the Major Port Facilities earlier in this chapter, is 0.5 mile NNE of Pillsbury Point. Private **mooring buoys** are SW and NE of the terminal.

311 *Ocean Dock*, 0.4 mile NE of *Westview Wood Pellet Terminal*, is in ruins.

312 A float, 0.3 mile NE of *Ocean Dock*, is 30 m in length and is used for customs clearance of fishing vessels and yachts.

CANADIAN FISHING COMPANY (2025)



RUSHBROOK HARBOUR (2025)

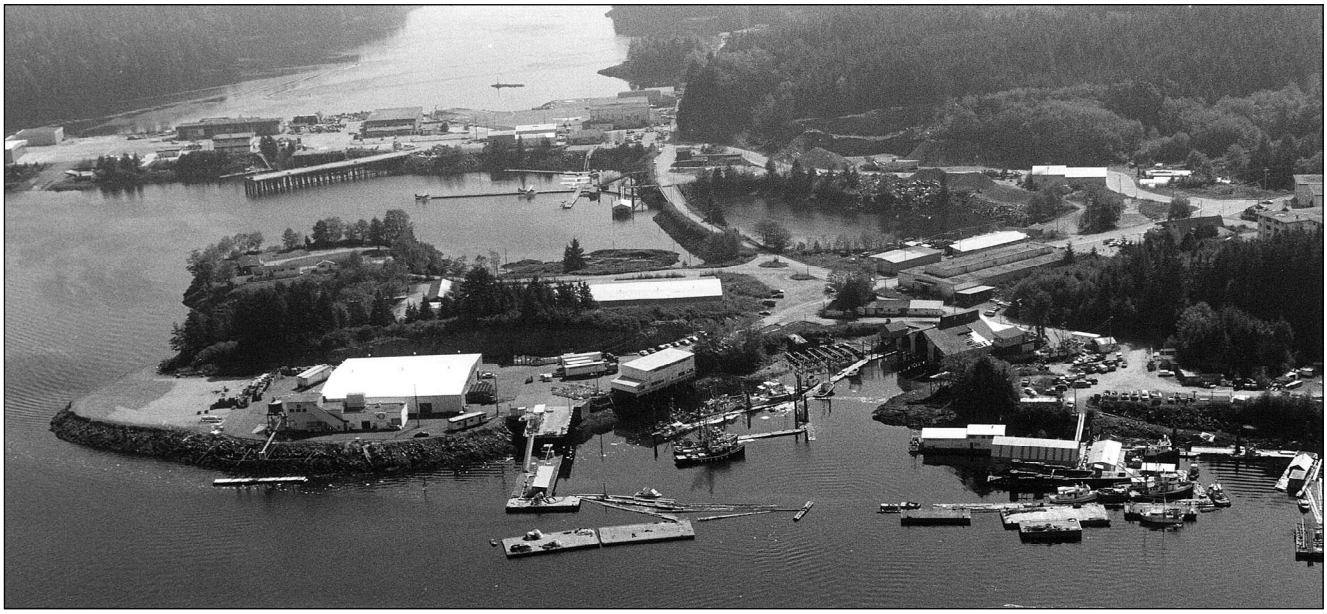


313 *Northland Cruise Terminal*, 0.6 mile NE of *Ocean Dock*, is shown in Major Port Facilities table earlier in this chapter. Private lights are shown from dolphins at the outer ends of the dock and on the floating dock.

314 *Metlakatla Ferry* dock is close SW of *Northland Cruise Terminal*.

315 *Cow Bay Marina*, operated by the *Port of Prince Rupert*, close SW of **Cow Bay**, is behind a **floating breakwater** and has 51 slips that can accommodate vessels

HAYS AND SEAL COVES (1990)



up to 21 m. A private light is on the NE corner of the breakwater. For detailed information see cowbaymarina.ca.

316 *Cow Bay* **public wharf,** operated by the *Port Edward Harbour Authority*, behind the **floating breakwater** described earlier, has 139.5 m of berthing space for small craft. For detailed information see peharbourauthority.com.

317 The *Prince Rupert Rowing and Yacht Club* **floats**, protected by a **floating breakwater**, are on the east side of Cow Bay. These floats do not require a yacht club reciprocal. For detailed information see www.prryc.com.

318 *Northwest Fuels (Petro Canada)* **wharf and floats** have diesel fuel, gasoline, lubricants, water, showers, washrooms, and a small hoist. Garbage disposal and sewage pumpout facilities are available. For detailed information see www.northwestfuels.ca.

319 *Tymac Launch Service (Tidal Transport and Trading)* **floats** are at the NE end of Cow Bay.

320 *Canadian Fishing Company* **floats** are 0.3 mile NE of the Northwest Fuels wharf.

321 *Rushbrook Harbour* **public float**s, operated by the *Port Edward Harbour Authority*, have 1,250 m of berthing space, and is protected by two **floating breakwate**rs. The area between the floats and the breakwaters has been dredged to 2.1 m. The north and main entrance to the floats is marked by a port hand **daybeacon** on the north breakwater. A **drying rock** in the west end of the protected area is marked by a green and white pole, fitted with a port hand **daybeacon** and calibrated to show the depth in feet over the rock. There is a derrick and a boat launching **ramp** available. For detailed information see peharbourauthority.com.

322 **Booming grounds**, with private **mooring buoys**, line the shore from *Rushbrooke Harbour* to Hays Cove.

323 **Hays Cove** is at the north end of Kaien Island. The *Canadian Fishing Company* **wharf**, protected by a **floating breakwater**, is at the SW entrance point to Hays Cove. *McLeans Shipyard* is in the cove.

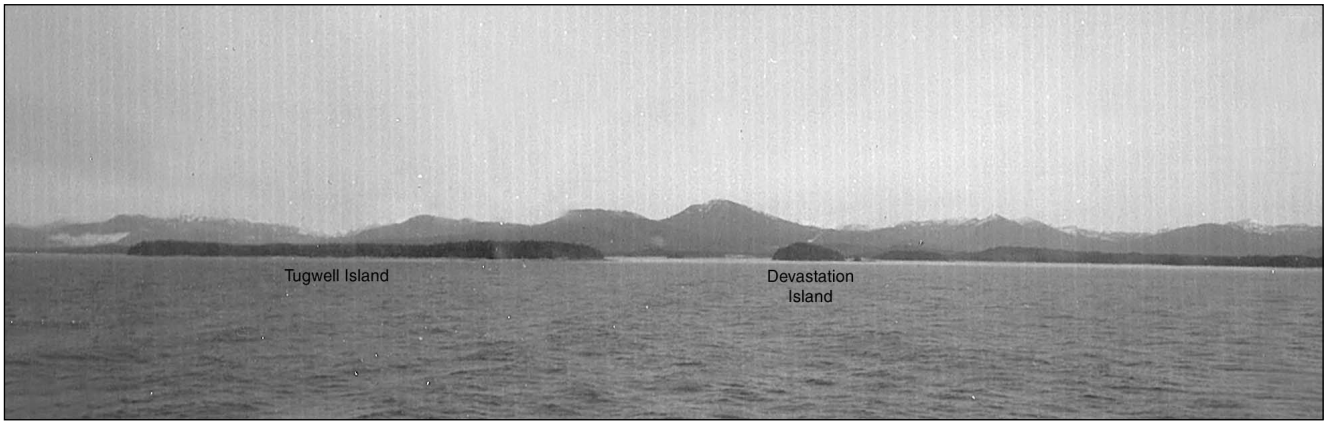
324 **Ritchie Point**, at the north extremity of Kaien Island, has **wharves** and **floats** attached to a recent fill area.

325 **Bunkering**. — Gasoline, diesel fuel, stove oil and lubricating oils are obtainable at the floats of the various oil companies. Diesel fuel can be delivered to Fairview Terminal by truck or to a vessel at anchor by barge. Deep-sea vessels should arrange for bunkers in advance.

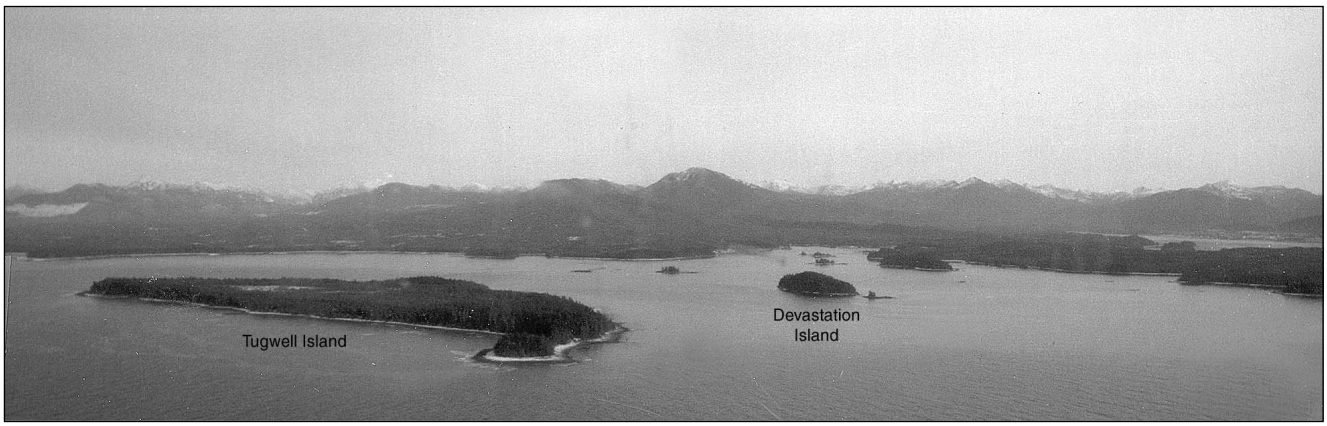
326 **Supplies** of fresh provisions and deck and engine stores are available. Fresh water is laid on to most wharves and floats.

327 **Services available**. — Tugs are available from *SAAM Towage* and *Wainwright Marine Service Ltd.* Linesmen are available. Shore gangways are available but the ship's gangway can be utilized at all berths except *Trigon Pacific Terminals*, *Trigon Pacific Propane Export*

METLAKATLA BAY (1984)



AERIAL VIEW OF METLAKATLA BAY (1984)



Terminal, *Prince Rupert Grain*, and *Westview Wood Pellet Terminal*. There are no consulates in the city; most are located in Vancouver.

328 **Repairs. — Salvage**. — *McLeans Shipyard*, in Hays Cove, offer repairs to wood, steel and fibreglass vessels. There are marine railways capable of handling craft up to 227 tonnes and 46 m in length. Repairs to machinery and equipment can be effected and there are fully equipped machine shops.

329 **Communications**. — The Prince Rupert Marine Communications and Traffic Services Centre (VAJ), in Seal Cove, provides ship-to-shore radio and marine telephone service *see Radio Aids to Marine Navigation (Pacific and Western Arctic)*. A highway connects Prince Rupert to the city of Prince George, 725 km inland; from Prince George, highways lead south to Vancouver (784 km), east to the interior and north to Alaska. The Canadian National Railway provides service to the interior. Prince Rupert Airport, on the west side of Digby Island, is served by bus and ferry services from the city and provides daily air service to major centres. There is a water aerodrome in Prince Rupert Harbour. B.C. Ferry Corporation maintains a regular car and passenger service between Port Hardy, on Vancouver Island, and Prince Rupert; they also operate a car and passenger ferry between Prince Rupert and Skidegate in Haida Gwaii. The Alaska Marine Highway Ferries make regular scheduled calls at Prince Rupert. Scheduled intercity bus service is available. The municipality provides a local bus service.

Chart 3957

Metlakatla Bay and Venn Passage

330 **Tugwell Island** *(54°20'N, 130°30'W)*, on the east side of Chatham Sound, has **Doolan Point** as its east extremity. The west side of the island is fronted by a drying ledge with numerous drying rocks lying up to 0.6 mile

offshore. **Dawes Point** is the SW extremity of the island. **Dawes Rocks** 0.5 mile SW of Dawes Point, are two rocks that dry 0.9 and 2.1 m.

331 **Enfield Rock**, 0.9 mile SW of Dawes Point, has 4.4 m over it.

332 *Enfield Rock* ***light and bell buoy*** *D76 (719.5)*, SW of the rock, is a **starboard hand buoy**.

333 **Tugwell Reef**, 0.4 mile south of Tugwell Island, is nearly connected to it by a drying spit.

334 *Tugwell Reef* ***light and bell buoy*** *D61 (721)*, SE of the reef, is a **port hand buoy**.

335 **Alford Reefs**, 0.7 mile south of Tugwell Reef, consist of a group of drying rocks and rocks awash. **Starboard hand buoy** *D58* is close NW of the reefs.

336 **Henry Point**, 2.2 miles SE of Dawes Point, on the west coast of Digby Island, is fronted by drying ledges and numerous drying rocks and reefs. **Cridge Island**, 0.4 mile SW of Henry Point, is surrounded by a broad drying ledge. **Little Cridge Island** is 0.2 mile west of Cridge Island.

337 **Kerr Rocks**, 0.7 mile south of Henry Point, **Quartermaster Rock**, 0.2 mile WNW of Little Cridge Island, and **Midge Rock**, 0.5 mile NNE, are drying rocks.

338 **Metlakatla Bay**, east of Tugwell Island, is entered between Tugwell Reef and Alford Reefs. The bay can also be entered from the north via Duncan Bay and a channel across a shallow ridge east of Tugwell Island marked by **port hand buoys** *D81* and *D83*.

Chart 3955

339 **Straith Point** *(54°19'N, 130°28'W)* is 1.3 miles ESE of Tugwell Reef. **Cutch Rock** with 1.7 m over it, and another rock with 1.9 m over it are 0.4 mile west. **Scattered Reefs**, a group of drying rocks and reefs, extend 0.3 mile north and NE of Straith Point. **Marine Farm** facilities lie west of these rocks. **Armour Rock** drying 0.9 m, a shoal rock with 1.0 m over it 0.1 mile SW, and **Knight Island** 1 m high, lie up to 0.6 mile north of Straith Point.

340 **Devastation Island**, in the middle of Metlakatla Bay, has a shoal area with a drying reef on it extending 0.4 mile east from its north end.



341 *Devastation Island* **light** *(721.6),* on the NW side of the island, is shown at an elevation of 5.3 m from a white cylindrical tower with a red band on top.

342 **Venn Passage**, known locally as **Metlakatla Passage**, connects Metlakatla Bay to Prince Rupert Harbour. The passage should be used only by small vessels and local knowledge is advised.

343 **Buoyage**. — The upstream direction for buoyage purposes in Venn Passage is when approaching Prince Rupert Harbour from seaward, that is proceeding toward the east. It should be noted that McIntosh Rock daybeacon, which is in Prince Rupert Harbour, is the easternmost marker in this system.



344 **Tidal streams** in Venn Passage, between Dundas Point and Verney Island, attain 3 kn on the flood and ebb; the stream turns about 1 hour before HW.

345 A **speed limit** of 5 kn is enforced in Venn Passage when within 0.3 mile of the ferry dock and the Metlakatla floats.

346 **Observation Point** *(54°20'N, 130°28'W)* is the NW entrance point to Venn Passage. A drying ridge, locally known as **Tugwell Bar**, extends 0.8 mile westward from Observation Point and has **Carr Island** on its south part. **Port hand buoy** *D85* marks the south extremity of Tugwell Bar.



347 **Pike Island** and **Shrub Island** are on an extensive drying flat extending 0.6 mile from the NW coast of Digby Island. A **float**, 18.5 m long, at the end of a trestle approach extends from the SW extremity of Pike Island.

348 **Kelp Reef**, on the north side of the fairway about 0.2 mile south of Observation Point, has several drying boulders on it. A rock that dries 0.4 m lies 0.1 mile east of Kelp Reef.



349 *Shrub Island* **light** *(722)*, on a drying **rock** 0.15 mile north of the island, marks the north end of the drying flat, and is shown at an elevation of 7.5 m from a white cylindrical tower with a red band on top.

350 *Kelp Reef* ***light buoy*** *D63 (722.5)*, south of the reef, is a **port hand buoy**.

351 **Port hand buoy** *D65* marks the drying rock east of Kelp Reef.

352 **Gribbell Islet**, 0.5 mile east of Shrub Island light, together with **Isabel Islet**, 0.1 mile NE of it, lie on a detached drying sand bank on the south side of the fairway. Drying rocks lie close-off the north edge of this sand bank. A rock with 0.2 m over it, marked by **port bifurcation buoy** *DJ*, is in the middle of the fairway 0.1 mile NW of Isabel Islet.

353 A private *ODAS* ***light buoy*** is approximately 0.2 mile NW of Gribbell Islet.

354 **Metlakatla** is the community for the Indian Reserve on the north shore of Venn Passage close NW of **Mission Point**.

355 A **submarine cable** (fibre-optic) extends from Metlakatla, to the west side of Devastation Island and

south to the Prince Rupert Grain terminal on Ridley Island. Another **submarine cable** (fibre-optic) extends from Metlakatla, west to Tugwell Island, then north to Lax Kw'alaams.



356 **Mission Point** has a **pier** on it with a "No Wake" sign. Reduce speed when passing the pier.

357 A **barge ramp** with a **pier** on its SW side is 0.45 mile NE of the public wharf. A **float**, 84 m long, with a 15 m **ferry float** at its NE end, extends SW from the barge ramp. **Note**. — Rockfill lies along the seaward face of the pier, only the SW side is usable.



358 A **submarine cable** (power) crosses Venn Passage from Mission Point to SW of **Auriol Point**, the north extremity of Digby Island.



359 A **submarine pipeline** (sewer outfall) extends 0.1 mile SE from Mission Point.



360 *Metlakatla Sector* **light** *(718)*, 0.6 mile east of Mission Point on the north end of a small island, is shown at an elevation of 2.7 m from a skeleton tower fitted with an orange and black vertically striped daymark.



361 **Anchorage** for small craft can be obtained NNE of **Carolina Islands**; this bay has extensive drying ledges on all shorelines. *Metlakatla Entrance* ***light buoy*** *D67 (718.5)*, positioned NE of the Carolina Islands, is a **port hand buoy**. Three **wrecks** are on the flats north of the islands. A fourth **wreck**, with 2.2 m of water over it, lies between the flats and the dock NE of Mission Point. **Scott Inlet** and **Bencke Lagoon** are on the east side of this bay.

362 **Ritchie Island**, **Arthur Rock** and **Verney Island** lie on the NE side of the fairway between Metlakatla Sector light and **Dundas Point**, about 0.9 mile SSE. A rock with 1.6 m over it lies on the SW side of the fairway about 0.2 mile east of Auriol Point. **Starboard hand buoy** *D66* is 0.1 mile NW of this rock.

363 Drying flats extending 0.1 mile east of Dundas Point are marked by **starboard hand buoy** *D68*. **Boundary Cove**, south of Dundas Point, has extensive drying flats and dolphins in it.

364 **Roberson Point** is the south extremity of a small peninsula extending south from Tsimpsean Peninsula.



365 *Dundas Point Sector* **light** (717), NW of the point, is shown at an elevation of 4.9 m from a skeleton tower fitted with an orange and black vertically striped daymark.



366 *Roberson Point Sector* **light** *(716)*, 0.25 mile NW of the point on the east side of the fairway, is shown at an elevation of 2.8 m from a white square tower fitted with an orange and black vertically striped daymark.

367 **Water aerodrome**. — Venn Passage between Dundas and Grindstone Points is a water aerodrome called Digby Island.

368 **Shkgeaum Bay**, 0.7 mile south of Dundas Point, is filled with drying flats.



369 *Shkgeaum Bay range* **lights** *(715, 715.1)*, on the east side near the head of the bay, in line bearing 171½° lead between the drying flats east of Dundas Point. The front light is shown at an elevation of 3.9 m and the rear light at an elevation of 8.4 m; both lights are shown from a mast fitted with a range daymark.

370 **Note**. — A rock with 1.9 m over it lies on the above range, 0.15 mile SE of Dundas Point.

371 **Port hand buoy** *D73* is 0.2 mile NW of Du Vernet Point.



372 A **ferry wharf** on **Du Vernet Point** consists of a rock causeway, dolphins, a ramp and a float extending NW from the ramp. The ferry crosses Prince Rupert Harbour and is the main transportation between the city of Prince Rupert and the airport on Digby Island. Reduce speed when passing the ferry wharf.

373 The ruins of the former ferry wharf are close west.



374 *Du Vernet Point* **light** *(714)*, on a drying ledge 0.1 mile east of the point, is shown at an elevation of 3.4 m from a white cylindrical tower with a red band on top.

375 **Anian Island**, **Wilgiapshi Island** and **Garden Island** are on an extensive drying flat extending south and east from Roberson Point. The bay lying east and north of this drying flat has a **Marine Farm** in the entrance and **Pillsbury Cove**, which dries, on its north side. Several isolated drying reefs and rocks extend 0.2 mile SSE from Wilgiapshi Island.



376 *Venn Passage* **light** *(713)*, on a drying **rock** on the north side of the fairway 0.2 mile SSE of Wilgiapshi Island, is shown at an elevation of 6.7 m from a white cylindrical tower with a green band on top.



377 **Crippen Cove** has two small **floats** at the HW line south of Venn Passage light.

378 The east entrance to Venn Passage lies between **Grindstone Point** and Wolfe Island, about 0.7 mile NNE. Drying ledges extend from both entrance points. **Grindstone Island** is on the drying ledge close east of Grindstone Point and a drying reef is 0.1 mile NE of the point. A rock awash is close north of the drying reef.



379 *Grindstone Point* **light** *(712),* on a drying **rock** about 0.1 mile NNE of the point, is shown at an

BUTZE RAPIDS FROM FERN PASSAGE (2025)



elevation of 7.7 m from a white cylindrical tower with a red band on top.

Charts 3958, 3964

Fern Passage and Morse Basin

380 **Fern Passage**, entered between Ritchie Point, previously described, and **Pethick Point** *(54°20'N, 130°16'W)*, leads south through Butze Rapids into Morse Basin. It is part of the Port of Prince Rupert. The navigable channel is less than 90 m wide in places and at Butze Rapids it is less than 30 m wide and should only be used by small craft.

381 **Tidal streams** in the narrow parts of Fern Passage run with considerable strength and create eddies. At the north end of Fern Passage, in the vicinity of David Point, slack water occurs 45 minutes after HW and 1 h 30 min after LW at Prince Rupert.

382 *Seal Cove* **light** *(711)*, on a rock 0.1 mile west of Pethick Point, is shown at an elevation of 4.9 m from a white tower.

383 A B.C. Ministry of Forest **pier** and **float** are in the cove 0.25 mile SW of the light.

384 **Seal Cove**, 0.2 mile SE of Ritchie Point, has the Coast Guard depot and **wharf** on its south side. A seaplane base with **floats** and offices of several airlines are at the head of the cove. A rock that dries 0.6 m is close north of the seaplane floats.

385 **David Point**, 0.2 mile SSE of Pethick Point, has a bare islet, drying rocks and shoal depths lying up to 0.1 mile WNW of it.

386 A seaplane launching ramp and heliport are SW of David Point. A drying reef is marked by a **daybeacon** fitted with a starboard hand daymark.

387 **Sourdough Bay**, 0.6 mile SE of Ritchie Point, has wharves and floats in ruins. Shoal rocks lie off the public wharf and in the entrance to the bay.

388 **Submarine cables** and **submarine pipelines** (water) cross Fern Passage between 0.6 and 1.2 miles SE of Pethick Point.

389 **Shawatlan Lake** drains into the east side of Fern Passage, 0.9 mile SE of Pethick Point, over drying tidal flats. An **overhead cable**, with a vertical clearance of 12 m, crosses the tidal flats.

390 The bay on the west shore, between the submarine pipelines, has a **rock causeway** across it and barges may be moored alongside.

391 **Booming grounds** are on the east shore 0.55 mile SE of the causeway.

Chart 3958

392 The bay *(54°18'N, 130°16'W)* is the site of a large log sorting area and **booming ground**. Considerable fill has been placed along the shoreline. An A-frame is on the west shore and a **rock breakwater** is in the south part of the bay.

393 A **submarine pipeline** extends into the passage close north of the bay.

394 **Butze Rapids** *(54°18'N, 130°15'W)* is formed by several islets, drying reefs and rocks and rocks awash. The rapids are dangerous and, at times, spectacular; it is only suitable for small craft and should be navigated only at HW slack. Local knowledge is advised.

395 **Tidal streams** flow in and out of Morse Basin through Butze Rapids and the flow is violent during larger tides. HW slack occurs 30 to 45 minutes after HW, and LW slack occurs 1 to 2 hours after LW at Prince Rupert. LW slack is most delayed during very low tides.

396 A port hand **daybeacon** is on a drying reef at the NE end of the fairway leading into Butze Rapids. A starboard hand **daybeacon** is on a drying rock ledge on the west side of the fairway about 260 m SSE of the above-mentioned daybeacon.

397 **Butze Point** is south of Butze Rapids.

Charts 3958, 3955

398 **Morse Basin** *(54°16'N, 130°15'W)* can only be entered by small craft, either through Butze Rapids or from Porpoise Harbour by way of Zanardi Rapids, Wainwright Basin and Galloway Rapids.

399 **Miller Bay**, formerly known as **Hospital Cove**, is 2 miles south of Butze Point. The former hospital, near the head of the bay, is used as a hatchery (1988). An **overhead cable** (power), vertical clearance unknown, crosses the head of the bay.

Chart 3955

400 **Denise Inlet** *(54°16'N, 130°12'W)* is entered from the SE end of Morse Basin.

401 **Kloiya Bay**, entered south of the entrance to Denise Inlet, has a rock that dries 2.1 m in the middle of its entrance. The **Kloiya River** flows into the head of the bay over an extensive drying mud flat. Several drying rocks lie up to 0.2 mile off the drying flats. An **overhead cable** (power), vertical clearance unknown, crosses the mud flats along the west side of the bay.

Chart 3958

402 **Galloway Rapids** *(54°15'N, 130°15'W)* leads to Wainwright Basin from the SW end of Morse Basin. Islands, drying rocks and a rock awash lie in the east and west approaches to the rapids.

403 A **highway bridge**, with a vertical clearance of 6.7 m, crosses Galloway Rapids.

404 **Overhead cables**, with a vertical clearance of 14 m, cross Galloway Rapids close east of the highway bridge.

405 **Tidal streams** in Galloway Rapids reach maximum flood and ebb velocities of 5 and 4 kn, respectively, during spring tides.

406 **Wainwright Basin** is only usable by small craft. A log dump and **booming grounds** are on the south shore of the basin. A **submarine pipeline** (sewer outfall) extends into the basin from the north shore. Zanardi Rapids is described earlier in this chapter.

Chart 3964

Prince Rupert Harbour — NE Part

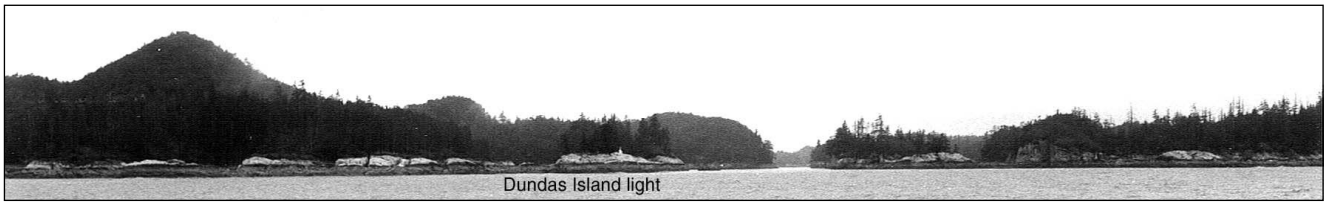
407 **Schreiber Point** *(54°21'N, 130°17'W)* has a drying rocky ledge extending 91 m south of it. **Naden Islets**, 2.8 miles NNE, are connected to the west shore by a drying reef. Between Schreiber Point and Naden Islets the west shore of the harbour is fronted by islets, drying banks and below-water rocks extending up to 0.1 mile offshore. A **wreck** is 0.1 mile SW of Naden Islets.

408 **Booming grounds** and sorting areas line the shores of the harbour north of Schreiber Point.

409 A private **mooring buoy** is 0.6 mile NNE of Schreiber Point.

410 **Osborn Cove**, 0.7 mile SE of Naden Islets, is entered east of **Beatty Point** and has a **wreck** off the drying flats fronting **Scissors Creek**. A holding area for log debris, enclosed by a **floating breakwater** and a **log boom**, is at the north entrance to Osborn Cove.

EDITH HARBOUR ENTRANCE (1988)


Dundas Island light

411 **Laurier Cove**, with **Silver Creek** flowing into its head, is south of **Pepin Point**. The cove is completely filled with a drying mud flat with numerous dolphins and piles on it.

412 **Tuck Narrows**, east of **Tuck Point**, is about 91 m wide. A drying rock ledge extends about 91 m north from the north side of Tuck Point.

413 *Pepin Point* **light** *(710.5)* is on the end of the point at the entrance to Tuck Narrows.

414 *Tuck Inlet Narrows* **light** *(710.6)* is on the north side of Tuck Point.

415 *Tuck Inlet North* **light** *(710.7)* is on the north side at the exit of Tuck Narrows.

416 **Tidal streams** in Tuck Narrows attain 6 kn. The times of slack water are the same as those for HW and LW at Prince Rupert; the stream runs out of Tuck Inlet shortly after HW and into it shortly after LW, with very little slack water.

417 **Tuck Inlet** has high mountains on both sides and a thickly wooded valley at the NW end through which a small stream flows.

418 **Tidal streams** in Tuck Inlet are weak.

419 **Pattullo Point** is 1.5 miles NW of Tuck Point. **Stork Rock** lies near mid-channel 0.7 mile farther NNW. A large pile of old logs is about 0.1 mile west of Pattullo Point.

420 A ferry and barge landing **float** is at the head of Tuck Inlet.

Hudson Bay Passage

Chart 3959

421 **Hudson Bay Passage** *(54°28'N, 130°54'W)*, along the SE side of **Dundas Island**, is encumbered with numerous islands, reefs and shoals. The fairway narrows to 0.2 mile between Dundas Island and Nares Islets and is suitable for small vessels. The passage between Nares Islets and Baron Island is not recommended.

422 **Tides**. — Tidal differences for Hudson Bay Passage (Index No. 9327), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

423 **Tidal streams**. — The flood tidal stream sets NE and the ebb SW through Hudson Bay Passage. In the SW entrance the flood runs at about ½ kn and the ebb at 1 to 1½ kn. In the NE entrance both streams run at 1 kn. Abreast the north end of Nares Islets, where the channel is narrow, the rate of the stream is increased.

424 **Connel Islands** *(54°25'N, 130°55'W)*, in the SW approach to Hudson Bay Passage, consist of a group of small islands and drying reefs. Drying rocks and reefs lie within 1 mile SE, SW and NW of the islands. **Taylor Rock**, 1 mile SW of Connel Islands, dries 3 m.

425 A chain of unnamed islands lies between Connel Islands and **Baron Island**, which is thickly wooded.

426 **Prince Leboo Island**, SW of the south extremity of Dundas Island, is connected to Dundas Island by a drying ridge on which there are several islands. Drying and below-water rocks extend 0.8 mile west and south of Prince Leboo Island. **Chearnley Islet** is 0.45 mile south of Prince Leboo Island.

427 **Edith Harbour**, entered 1.8 miles NE of Chearnley Islet, offers good shelter. The upper part of the harbour is best accessed close-off the west side of the 14 m high islet. **Anchorage** for small vessels is obtainable in Edith Harbour.

428 *Dundas Island* **light** *(730.6)*, on the south entrance point to Edith Harbour, is shown at an elevation of 10.5 m from a skeleton tower.

429 **Gore-Langton Point**, 3 miles NE of Edith Harbour, forms the east entrance point to a bay encumbered with drying and below-water rocks. A rock that dries 0.6 m lies 0.9 mile ENE of Gore-Langton Point on the SE side of the fairway.

430 **Nares Islets** consist of three groups of wooded islands on the SE side of the fairway; they are surrounded

by shoals and drying and below-water rocks. The north island of the north group appears conical in shape from north and south. A rock that dries 0.6 m is 0.9 mile NNE of the north island and about 0.2 mile off the coast of Dundas Island.

431 **Anchorage** in 10 to 30 m can be obtained on the bank extending east and NE from the north group of Nares Islets but there are a few shoals on the bank. Large vessels can find anchorage farther NE, outside the 30 m line.

Chatham Sound — North Part

432 The north part of **Chatham Sound**, for descriptive purposes, lies north of a line drawn from Tugwell Island *(54°20'N, 130°30'W)* to Deans Point, the SE extremity of Melville Island.

Moffatt Islands to Holliday Island

433 **Moffatt Islands** *(54°27'N, 130°43'W)*, on the west side of Chatham Sound, are a chain of wooded islands, islets and drying reefs. A narrow channel west of the chain is navigable by small vessels but local knowledge is advised. Islets, drying reefs and below-water rocks, among which are **Hammond Rocks**, lie up to 0.6 mile south and SE of the south island of the chain.

434 **Tides**. — Tidal differences for Moffatt Islands (Index No. 9325), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

435 **Anchorage** can be obtained in about 30 m between Moffatt Islands and Melville Island, about 1 mile within the south entrance of the above-mentioned channel. Shelter in this anchorage is good, but local knowledge is advised. Approaching from south, keep about 0.3 mile off Melville Island, and note the rock with 7.3 m over it lying 0.4 mile ESE of the NE extremity of Melville Island.

436 **Tidal streams** in the above-mentioned anchorage are weak.

437 **Coghlan Rock**, 1 mile NNE of the south Moffatt Island, is awash and marked by kelp.

438 **Clearing mark**. — Rachael Islands bearing 168°, open east of Lucy Islands *(Chart 3957)*, leads east of Hammond and Coghlan Rocks.

439 **Randall Island** *(54°30'N, 130°46'W)* is 0.5 mile NNW of the north Moffatt Island and **Ducie Island** lies 0.5 mile farther NNW. Bare islets, drying reefs and shoals surround Ducie Island. The passage west of Randall Island is obstructed by a chain of drying and below-water rocks and shoals. **Clam Inlet**, on the NE side of Baron Island, is entered west of the above-mentioned chain. The passages close west and north of Randall Island are only suitable for small craft and local knowledge is advised.

440 **Whitesand Island**, 0.6 mile NE of Randall Island, lies on a drying reef. Shoals extend 0.9 mile north from the island.

441 *Whitesand Island* **light** *(730.5)* is shown at an elevation of 6.7 m from a skeleton tower.

Charts 3959, 3960

442 **Green Island** *(54°34'N, 130°42'W)* is a grassy island 11 m high with two hummocks connected by a low shingle beach. Foul ground extends 0.3 mile north from the island.

443 *Green Island* **light** *(730)* is shown at an elevation of 19.2 m from a white tower, 10.7 m high. The light operates only during hours of darkness and is fitted with an emergency light.

444 **Grey Islet**, 0.8 mile NNE of Green Island, lies on the east edge of foul ground on which there are numerous drying rocks. An automated weather station is on this islet (1988). **Bristol Rock**, 0.7 mile NW of Grey Islet, has 3 m over it.

445 **Holliday Passage** separates Green Island, Grey Islet and Bristol Rock from Dundas Island; it is frequently used by coastal vessels.

446 **Connis Rocks**, 2.7 miles east of Green Island, consist of a bare islet, 2 m high, on the south end of a rock that dries 7.3 m on a steep-to drying shoal.

447 **Oriflamme Passage** leads between Green Island and Grey Islet on its west side from Connis Rocks on its east side.

Chart 3960

448 **Holliday Island** *(54°37'N, 130°45'W)*, close-off the NE end of Dundas Island, lies at the SE end of a chain of drying and below-water rocks. Two islets on a drying ledge lie close west of Holliday Island.

449 *Holliday Island* **light** *(731)* is shown at an elevation of 6.5 m from a skeleton tower.

450 The waters north and west of Dundas Island are described in Chapter 6.

Chart 3959

Tugwell Island to Tree Bluff

451 **Chapman Point** *(54°20'N, 130°30'W)* is the north extremity of Tugwell Island. Drying flats and shoal water with drying rocks extend up to 0.5 mile off Chapman Point.

452 **Duncan Bay** is entered between Chapman Point and **Ryan Point**, 1.6 miles NNE. Drying ledges fringe the bay and drying and below-water rocks, including **Hecate Rock**, lie off the shores and near the middle of the bay.



453 ***Ryan Point Reef* light** *(723)*, 0.6 mile SW of Ryan Point, is shown at an elevation of 9 m, from a white cylindrical tower on a 4 pile steel dolphin.

454 **Starboard hand buoy** *D80* marks the edge of the drying bank east of Chapman Point and the entrance to a buoyed channel leading south to Metlakatla Bay.



455 **Anchorage** can be obtained in 12 to 14 m, mud bottom, in Duncan Bay.

456 **Hodgson Reefs**, 1.5 miles NW of Ryan Point, consist of several drying reefs and below-water rocks. **Swamp Island**, west of Hodgson Reefs, is covered with grass. Drying rocks lie west of the island and below-water rocks are in the passage between Hodgson Reefs and Swamp Island.

457 *Hodgson Reefs* ***light and whistle buoy*** *D84 (724)*, west of the reefs, is a **starboard hand buoy**.

458 **Moore Shoal**, with 13.4 m over it, is 2 miles west of the south end of Hodgson Reefs.

Charts 3957, 3959

459 **Clearing marks**. — The following clearing marks used in rounding Hodgson Reefs are only suitable for vessels whose draught will allow them to easily clear Moore Shoal. The west extremity of Kinahan Islands bearing 152°, and just open of the south extremity of Tugwell Island, leads SW of Hodgson Reefs. Passing west of Hodgson Reefs do not let the east end of Lucy Island bear more than 196° until South Island, in Big Bay, is in line with Mount Griffin, south of Port Simpson, bearing 032°.

Charts 3959, 3963

460 **Slippery Rock** *(54°24'N, 130°30'W)* is 1 mile NE of Hodgson Reefs. A reef that dries 0.3 m, 0.65 mile west, is covered with kelp.



461 *Slippery Rock* **light** *(725)* is shown at an elevation of 6.7 m from a white tower.

462 **Tree Bluff**, 1.9 miles north of Slippery Rock, is low, wooded and fronted by drying flats and with drying and below-water rocks extending 0.8 mile from shore.

463 *Tree Bluff* ***light and bell buoy*** *D86 (726)*, west of the rocks extending from the bluff, is a **starboard hand buoy**.

Chart 3963

Big Bay

464 **Big Bay** *(54°28'N, 130°28'W)*, between **Trenham Point** and **South Island**, can be entered either south or north of Ripple Bank and Escape Reefs which lie in the middle of the entrance. Several dangers lie within the bay, but prominent landmarks provide leading lines to clear them. The shores are low and wooded, with the exception of **Shattock Hill**, on the north shore, which rises abruptly from **Shattock Point** to an elevation of 91 m.

465 **Ripple Bank**, with a least depth of 4.6 m, lies on the south side of North Passage. **Escape Reefs** are two rocky heads. The west reef, 0.3 mile south of Ripple Bank, has a depth of 1.8 m and the east reef, 0.4 mile east, has 0.9 m over it.

466 **Hogan Ledge**, on the south side of **South Passage**, is 0.6 mile west of Trenham Point and dries 3 m. **Entry Rock**, with 5.8 m over it, is 0.9 mile north of Trenham Point. Below-water rocks lie between Entry Rock and **Reeks Point**. The fairway through South Passage leads between Entry Rock and Escape Reefs.

467 **North Passage**, which leads north of Ripple Bank, has below-water rocks extending SW and SE of South Island and **Haycock Island** on its north side. **Leading Shoal**, with 8.8 m over it, is 0.5 mile south of Haycock Island.

468 **Burnt Cliff Island**, 0.2 mile NNE of South Island, has reddish brown cliffs at its north end. **Cultivation Point**, the NE extremity of Burnt Cliff Island, is low. South and Burnt Cliff Islands are connected to the mainland by a drying flat between **Belletti Point** and **Pearl Point**.

469 **Whitecliff Island**, 1.1 miles SE of South Island, has white cliffs on its west side. A reef that dries 6.4 m lies between Whitecliff Island and Shattock Point.

470 **Anchor Shoal**, with 8.5 m over it, is 0.6 mile SSW of Whitecliff Island.

471 **Swallow Island**, with **One Foot Rock** close SW, lies 0.8 mile SE of Shattock Point.

472 **Curlew Rock**, 0.5 mile SW of Swallow Island, dries 7.3 m. A reef that dries 1.5 m, 0.1 mile north of Curlew Rock, has shoal water extending 0.1 mile north of it. The fairway between this drying reef and One Foot Rock is about 0.1 mile wide with a depth of 6.7 m.

473 **Salmon Bight**, at the head of Big Bay, between **West Base Point** and **East Base Point** is filled with a

drying sand and mud flat extending about 0.7 mile from shore; small vessels can be beached here. Several streams flow into Salmon Bight.

474 A **dolphin**, 0.3 mile SE of Swallow Island, marks the SE side of the entrance to a narrow channel, with a reported depth of 0.3 m that leads NNE across the drying flats to Georgetown Mills.



475 **Georgetown Mills** has a sawmill and a **pier** that dries at LW. A waterfall on **Georgetown Creek**, 0.3 mile NE of the pier, is 6 m high and a dam is close NE of the waterfall.

476 Other named features in Big Bay are **Reeks Point**.



477 **Anchorages**. — Big Bay affords good protection in all winds with little swell. The three recommended anchorages are as follows.



478 Haycock Island in line with the NE extremity of South Island, bearing 324°, and Whitecliff Island in line with Mount Griffin, bearing 013°; the depth in this **anchorage** is about 20 m, mud bottom.



479 Nearer to Swallow Island, **anchorage** can be obtained with Shattock Point in line with Mount Griffin, bearing about 006°, and One Foot Rock in line with a distant sharp peak, bearing 107°; the depth here is about 13 m.



480 Confined **anchorage** can be obtained south of Swallow Island with the SW extremity of that island in line with Mount Griffin, bearing 000°, and **Simpson Point**, bearing about 259°, open north of Curlew Rock; the depth here is about 9 m.

481 **Directions**. — Approaching Big Bay from south, keep South Island in line with Mount Griffin, bearing 032°; this bearing leads NW of Hodgson Reefs and the shoal water extending west from Tree Bluff.

482 Entering Big Bay by way of South Passage, keep the above-mentioned marks in line until the summit of Shattock Hill is in line with **Basil Lump** *(54°29'44"N, 130°20'30"W)*, bearing 068°, then steer with these marks in line; this bearing leads between Escape Reefs and Entry Rock. Care must be taken not to open Basil Lump north of Shattock Hill. When Haycock Island is in line with the NE extremity of South Island, bearing 324°, alter course SE and steer with these marks in line astern; this will lead to the outer anchorage.

483 Approaching North Passage from south, then, before the leading marks for South Passage come into line, steer with the north extremity of Burnt Cliff Island in line with Mount Griffin bearing 042°; this bearing leads NW of Ripple Bank. When Swallow Island is open its own breadth north of a distant sharp peak, and the peak is bearing 106°, alter course to this bearing; it will lead north of Ripple Bank, Escape Reefs and Anchor Shoal and south of the foul ground extending SW from South Island and about 0.1 mile south of Leading Shoal.

484 If intending to proceed to the anchorage south of Swallow Island, then, the SW side of Whitecliff Island in line astern with the SW extremity of Burnt Cliff Island, bearing 318°, leads between the dangers in the passage between One Foot Rock and Curlew Rock. One Foot Rock is a good guide when entering near HW.

Cunningham Passage

485 **Cunningham Passage** *(54°32'N, 130°27'W)*, north of Burnt Cliff Island, separates Finlayson Island from Tsimpsean Peninsula and Harbour Reefs. Although deep in the fairway, the passage is unsuitable for large vessels as the navigable channel is only about 0.1 mile wide between Pender and Centre Rocks.



486 **Tidal streams** in Cunningham Passage attain about 1 kn but are probably somewhat accelerated in the narrow parts; the flood sets south and the ebb north.



487 **Caution**. — Shoals in the entrance to and within Cunningham Passage are steep-to and kelp may not always be visible on them; soundings will give little warning.

488 **Finlayson Island** is flat-topped and densely wooded, and attains an elevation of about 61 m. **Fortune Point** and the SW side of Finlayson Island have cliffs 18 to 24 m high. Drying ledges, drying rocks and reefs extend up to 0.2 mile from the south and west sides of the island.

489 **Sparrowhawk Rock**, with 1.5 m over it, lies in the south entrance to Cunningham Passage and in the fairway leading to Pearl Harbour. It is a pinnacle rock marked by starboard bifurcation **buoy** "DK". Kelp generally grows on the rock during summer and autumn months.

490 **Dodd Rock** is at the south extremity of a drying ledge extending 0.2 mile south from Fortune Point. Shoal depths extend 0.1 mile SW of Dodd Rock.

491 **Pearl Harbour**, NE of Burnt Cliff Island, is protected from the west by drying ledges and **Mist Island**. The preferred entrance is between the ledge that extends north from Mist Island and **Flat Top Islands**, which consist of three islands on a common drying reef; the NE island has a green mound at its NE end. The channel between Flat Top Islands and Tsimpsean Peninsula has **Datum Rock**, which dries 3.7 m, in the south entrance. Local knowledge is advised for the channel.

492 **Boat Passage** leads into Pearl Harbour south of Mist Island. Local knowledge is advised.

493 Good **anchorage** can be obtained near the middle of Pearl Harbour in 20 m, mud. In this anchorage the NE extremity of the NE Flat Top Island bears 017° and the north extremity of Mist Island bears 274°.

494 **Otter Anchorage**, at the south end of Cunningham Passage, affords **anchorage** about 0.2 mile north of the NE end of Flat Top Islands in 33 m, mud.

495 **Pender Rock**, 0.4 mile east of Fortune Point, has 4.9 m over it and lies on the east side of the fairway. **Centre Rock**, 0.2 mile NNW of Pender Rock, lies nearly in the middle of the fairway and has 6.7 m over it. A 2.1 m shoal extends 0.15 mile east from **Duncan Point**.

496 **Redcliff Point**, east of Centre Rock, has red-brown cliffs conspicuous only under certain light conditions. **Hook Point** and **Sarah Point** are north of Redcliff Point. **Gordon Point**, the north extremity of Finlayson Island, is low with drying ledges and shoals extending 0.2 mile north from it.

497 **Directions**. — Approaching the south entrance to Cunningham Passage, keep Fortune Point in line with Redcliff Point and Mount Griffin, bearing 073°, until the green mound on the NE Flat Top Island is in line with **Leading Peak**, bearing 100°. Leading Peak *(54°30'22"N, 130°22'36"W)*, which is not charted, is a well-defined peak with a steep fall on its south side. Alter course to keep these marks in line bearing 100° until Belletti Point is in line with Shattock Point, bearing 150°, or the whole of Mist Island is open west of Burnt Cliff Island; at this point the vessel will be NE of Sparrowhawk Rock and course can be altered north into Cunningham Passage.

498 Bring the east extremity of the SW Flat Top Island in line with the west extremity of Burnt Cliff Island, bearing 194° astern, and proceed at a moderate speed when approaching and passing between Pender and Centre Rocks. When Fortune Point bears 270°, edge over to the east shore until abreast Redcliff Point, then alter course to regain mid-channel. The west extremities of the SW Flat Top Island and Burnt Cliff Island in line astern, bearing 192°, leads nearly in mid-channel until abreast Sarah Point.

499 **Caution**. — It should be borne in mind that the peaks forming the rear objects of the marks given are often obscured by clouds.

Port Simpson and Approaches

500 **Port Simpson** harbour, at the north end of Cunningham Passage, is fronted by Harbour Reefs and Birnie Island; it is one of the most spacious harbours on the north part of the British Columbia coast. The harbour is well-sheltered from all but west winds and is easy of access, having no strong tidal streams. The main entrance is by way of Inskip Passage. Dodd Passage, to the south, and Rushbrook Passage, to the north, are only suitable for small vessels.

501 **Tides**. — Tidal differences for Port Simpson (Index No. 9390), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

502 **Water aerodrome**. — The waters of Port Simpson fronting the community Lax Kw'alaams are a water aerodrome.

503 **Birnie Island** *(54°36'N, 130°28'W)* is densely wooded. **Knox Point**, the south extremity, has a drying ledge extending south with a rock 1.2 m high at the outer end.

504 *Birnie Island* **light** *(728)*, on the rock south of Knox Point, is shown at an elevation of 8.5 m from a skeleton tower.

505 **Harbour Reefs**, 0.8 mile south of Knox Point, consist of two groups of drying reefs separated by a narrow, shallow passage. These reefs afford some protection to the harbour from heavy seas caused by strong west winds. A rock with 1.5 m over it, at the north extremity of Harbour Reefs, is marked by **starboard hand buoy** *D90*.

506 **Inskip Passage**, between Harbour Reefs and Knox Point, is the main entrance to Port Simpson.

507 **Rose Island**, formerly **Village Island**, SE of Harbour Reefs, is connected at its south end to Tsimpsean Peninsula by a trestle bridge and a causeway. Drying ledges surround the island and extend NW from it into Dodd Passage. **One Tree Islet**, on the drying ledge NW of Rose Island, has a few stunted trees on it.

508 *One Tree Islet* **light** *(726.2)* is on the north side of the islet.

509 **Hankin Reefs**, west of Rose Island, consist of a group of drying and below-water rocks. The rock with 3 m over it at the SW end of the reef is reported (1985) to be shoaler than charted.

510 **Clearing marks**. — Sarah Point in line with the west extremity of the centre island of the Flat Top Islands, bearing 183°, leads about 0.1 mile west of Hankin Reefs.

511 **Dodd Passage** leads north of Hankin Reefs and One Tree Islet and separates them from Harbour Reefs. This passage is only suitable for small vessels and local knowledge is advised.

512 The fairway through Dodd Passage is marked by **starboard hand buoy** *D88*, **port hand buoy** *D89* and **starboard bifurcation *light buoy*** *DF (726.1)*.

LAX KW'ALAAMS (2022)



513 **Rushbrook Passage**, between **Picnic Point**, the NE extremity of Birnie Island, and **Flewin Point** and **Grassy Point**, both on Tsimpsean Peninsula, is encumbered with drying reefs and below-water rocks. It is only suitable for small vessels and local knowledge is advised.

514 Between Grassy Point and Stumaun Bay, the NE shore of the port is fringed with a rocky beach backed by steep high land. The south shore, east of the community, is not so steep. **Stumaun Bay**, at the head of the harbour, has an extensive drying flat at its head. The south shore is an active logging area (1998) with log dumps, a large **booming ground** and **mooring buoys**.

515 **Anchorages**, designated 1, 2 and 3, are used by large vessels awaiting berths at Prince Rupert. Masters are cautioned that these anchorages may not provide ideal holding ground during periods of inclement weather. Mariners are urged to exercise extreme caution at all times when anchored in these areas and keep a continuous radio watch on 156.575 mHz, Channel 71, Prince Rupert Marine Communications and Traffic Services Centre.

516 **Anchorage** can be obtained off the community of Lax Kw'alaams with Gordon Point (Finlayson Island) bearing 270° and **Bath Point** bearing about 115°; the depth in this anchorage is 26 m. Small vessels can obtain anchorage closer inshore. A **submarine pipeline** (outfall) extends 0.5 mile NW of Bath Point. Mariners are advised to use caution when anchoring.

517 **Compass adjustment bearings**. — Two useful bearings of distant objects for swinging ship to ascertain

the error of the compass are obtainable from the above-mentioned anchorage as follows.

518 The knob at the north end of Slab Hill, on Dundas Island, bears 283° at a distance of 12 miles.

519 The summit of Mount Lazaro in line with Pointer Rocks bears 300°; it is 37 miles distant on the south end of Duke Island.

520 **Lax Kw'alaams**, the community in Port Simpson, close SE of Rose Island, was established as a trading post by the Hudson's Bay Company in 1834. Little remains of the original building and the walls and bastions of the fort have been demolished. Two churches, several stores and a post office (V0V 1H0) are in the community. A resident doctor and nurses and medical service are available year round. Daily passenger ferry service operates to Prince Rupert.

521 A **submarine cable** (fibre-optic) extends south from Lax Kw'alaams, to the east of Finlayson Island, then east of Tugwell Island to Metlakatla.

522 A **rock causeway** extends 305 m north from the community across the drying flats. At the south end and on the west side of the causeway, close north of the trestle bridge, an area has been filled and a fuel tank is erected on this fill. A fish plant is on the north end of the causeway. A **rock breakwater** extends 152 m east from the north end of the causeway.



523 *Port Simpson breakwater* **light** *(726.7)* is on the east end of the breakwater.

524 *Lax Kw'alaams* ***light buoy*** *D91 (727)*, about 0.1 mile NNE of the breakwater light, marks the outer edge of a shoal ledge, and is a **port hand buoy**.



525 A **seaplane float** is at the SW end of the public wharf.

526 An **L-shaped wharf**, at the north end of the causeway, extends 37 m north. A **float** 24 m long is attached alongside the west end of the wharf.

527 The **Port Simpson Harbour Authority boat basin** south of the breakwater has depths of about 2.1 to 2.4 m with shallower depths east and south of the floats. Three **floats**, each about 91 m long, have a common connection to the causeway. Fresh water is available. A storage shed and launching ramp are on the filled area south of the float.

528 Some dolphins lie off the east side of Rose Island.

529 **Supplies**. — A marine service station operates during the fishing season; gasoline, diesel fuel, stove oil, fresh water, fresh meat and groceries are obtainable, and there is a cafe.

Chatham Sound — NE Part

530 Connis Rocks *(54°35'N, 130°38'W)* have been described with Oriflamme Passage.

531 **Pointer Rocks**, 3.5 miles NE of Connis Rocks, consist of two large drying reefs. An above-water head, on the south drying reef, has an elevation of 0.9 m and the north reef dries 6.7 m.



532 *Pointer Rocks* **light** *(729)*, on the highest part of the south reef, is shown at an elevation of 7.8 m from a white tower.

533 **Main Passage**, between Connis Rocks and Pointer Rocks, is wider and deeper than Oriflamme or Holliday Passages.

534 **Parkin Islets** *(54°38'N, 130°28'W)*, 2.7 miles NE of Pointer Rocks, consist of three islets in the SW approach to Dudevoir Passage. The two south islets are wooded, conspicuous and on a common drying reef; the north islet is a jagged rock 6 m high.

535 **Barrat Shoal**, 0.8 mile NW of Parkin Islets, has 19.2 m over it.

536 **Maskelyne Island** is 0.6 mile NE of Parkin Islets. Its west coast, except for a small bay, is steep-to and cliffy.

537 **Dudevoir Passage** separates Maskelyne Island from Tsimpsean Peninsula. The passage is very narrow with a least depth of 0.9 m and only suitable for small craft. A drying spit, about midway through the passage, projects north from the south shore; it is reported to be subject to change.

538 The waters north and east of Maskelyne Island are described in Chapter 6.

Chapter 5

Hecate Strait, East Shore and Channels leading to the Inner Passage



General

Charts 3744, 3800, 3902, 3978, 3980, 3981, 3982

1 This chapter covers the east side of Hecate Strait between Price Island *(52°18'N, 128°40'W)* and Porcher Island *(53°51'N, 130°42'W)*. The channels along the east side of Hecate Strait and those leading to the **Inner Passage** between Price, Swindle, Princess Royal, Pitt and Porcher Islands are also described. The Inner Passage is described in Chapters 2 and 3.

Hecate Strait

2 **Hecate Strait** separates Haida Gwaii from the outlying islands that fringe the mainland of British Columbia. Its south entrance, between Cape St. James *(51°56'N, 131°01'W)* on the west and Price Island on the east, is about 87 miles wide. The strait gradually narrows to a width of about 30 miles at its north end, between Rose Point on the west and Stephens Island on the east side.

3 The east side of Hecate Strait, between the south end of Aristazabal Island and the north end of Banks Island, is fringed by banks with numerous islets and reefs extending up to 13 miles offshore. **Dogfish Banks**, at the north end of Hecate Strait, extend east from the Haida Gwaii shore between Cumshewa Head and Rose Point; off Rose Point they extend east to within 3.5 miles of Butterworth Rocks.

4 **Changing seabed and depths**. — The NW part of Hecate Strait in the area bounded below consists of mobile bedforms or sandwaves as high as 7 metres from trough to peak. This area is roughly indicated by the darker blue colour depth areas on charts.

- North limit 54°25’N
- South limit 52°50’N
- West limit 131°55’W
- East limit 130°50’W

5 These sandwaves are moved by tides and storm driven currents. Material eroded from the east side of Graham Island between the Tlell River and Rose Spit moves northward at a rate between 3 to 12 m per year. The result is rapidly changing depths, contours and

low water lines. Rose Spit is building eastward at a rate of approximately 150 m per year. MacIntyre Bay is also affected but the rate of change is much slower (approximately 1 m per year).

6 **Pilotage**. — All approaches to and the channels on the east side of Hecate Strait, such as Laredo Sound, Caamaño Sound, Otter Passage, Browning Entrance, Edye Passage and Bell Passage, are within Area 4 of the Pacific Pilotage Authority and pilotage is compulsory. All the coastal waters of Haida Gwaii along the west side of Hecate Strait are within Area 5 of the Pacific Pilotage Authority and pilotage is compulsory. For details regarding pilotage areas and obtaining a pilot, *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

7 Three individual Marine Protected Areas (MPAs) have been established under the *Oceans Act* on February 2017 in Hecate Strait and Queen Charlotte Sound. The intention of the Northern, Central and Southern MPAs is to protect the Glass Sponge Reefs existing in the area.

8 The Northern and Central Reef Marine Protected Areas are located in Hecate Strait. The Southern one is located in Queen Charlotte Sound. For further information on the MPAs please visit http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/index-eng.html.

9 **Tides**. — Tidal differences along the east side of Hecate Strait, referenced on Bella Bella, for Higgins Passage (Index No. 9056), McKenney Islands (Index No. 9077), Beauchemin Channel (Index No. 9082), Borrowman Bay (Index No. 9080), Gillen Harbour (Index No. 9105), Block Islands (Index No. 9165) and referenced on Prince Rupert, for Larsen Island (Index No. 9232) and Griffith Harbour (Index No. 9230) are given in the Tide Tables, Volume 7.

10 **Tidal streams**. — In general, the flood coming in from Dixon Entrance meets the flood coming up Hecate Strait from the south in the vicinity of Porcher Island. In late summer, from mid July to mid September, they meet some 25 or 30 miles farther south.

11 At springs, or during bad weather, the tide-rips caused by the meeting of the streams are sometimes so great as to convey an appearance of broken water.

12 The flood stream through Dixon Entrance, on reaching the north end of Hecate Strait, divides at a point midway between Rose Spit and Dundas Island. Part of the current sets north past Dundas Island, no doubt because of the indraught toward Portland Inlet, and part turns SE into Hecate Strait; in winter the flood and ebb here are quite regular, but in late summer the flood greatly exceeds the ebb. In August, especially, there can be 2½ to 3 kn of flood, with little appreciable ebb or only slack water.

13 Farther south, where the strait widens in the latitude of Porcher Island, the currents rarely exceed 1 kn in the central part of the strait. However, along the shore of Stephens Island, as far north as Butterworth Rocks, the strongest set is NW with the ebb, and the flood is hardly appreciable.

14 Off the south end of Haida Gwaii, the direction of the flood is NE and the ebb is SW.

15 Information from tidal stream observations in 1984 in Hecate Strait is given below.

16 The tidal stream 17 miles SE of Cape St. James is rotary clockwise. First of flood sets 290° at ¾ kn, maximum flood 025° at 1¼ kn, last of flood 105° at 1 kn and maximum ebb 200° at 1¼ kn. Maximum flood here is at HW Bella Bella, last of flood at 1 hour after LW Bella Bella.

17 Ten miles east of Kunghit Island first of flood sets 280° at 1½ kn, maximum flood 340° at 2½ kn, last of flood 075° at 1 kn, first of ebb 110° at 1¼ kn and maximum ebb 175° at 2¾ kn. Maximum flood here is 1 h 30 min before HW Bella Bella, maximum ebb 2 hours before LW Bella Bella.

18 About 8 miles east of Copper Islands the stream is rectilinear, maximum flood setting 335° at 1½ kn and maximum ebb 155° at 1½ kn.

19 In a position 097°, 53 miles, from Cape St. James maximum flood sets 010° at 1¼ kn, last of flood 090° at 1 kn, maximum ebb 210° at 1¾ kn and last of ebb 290° at 1 kn.

20 Sixteen miles west of Aristazabal Island first of flood sets 270° at ½ kn, maximum flood 000° at 1½ kn, first of ebb 085° at ½ kn and maximum ebb 195° at 1 kn.

21 About 37 miles west of Aristazabal Island maximum flood is 025° at 1 kn and maximum ebb 140° at 1 kn. In summer the stream nearly always turns through east with first and last of flood and ebb setting 080° at ½ kn. In winter the stream nearly always turns through west with first and last of flood and ebb setting 270° at ½ kn. Last of flood here is at HW Bella Bella, last of ebb at LW Bella Bella.

22 Four miles north of North Danger Rocks, close west of Banks Island, maximum flood sets 310° at 1½ kn, maximum ebb 125° at ¾ kn.

23 About 12 miles west of North Danger Rocks maximum flood sets 320° at 1½ kn, maximum ebb 120° at 1¼ kn and last of ebb 240° at ¾ kn. Maximum flood

here is 1 h 30 min before HW Bella Bella, maximum ebb 1 h 30 min before LW Bella Bella.

24 About 27 miles east of Sandspit maximum flood sets 330° at 1½ kn, maximum ebb 130° at 1 kn.

25 Fourteen miles SE of Sandspit maximum flood sets 340° at 1½ kn, maximum ebb 155° at 1¼ kn.

26 About 6 miles WNW of Fan Point on Porcher Island maximum flood sets 000° at 1¼ kn, maximum ebb 205° at 1 kn.

27 About 12 miles west of Fan Point maximum flood sets 350° at ¾ kn, maximum ebb 180° at 1 kn. Maximum flood here is at HW Prince Rupert, maximum ebb at LW Prince Rupert.



28 **Caution**. — About sixteen hours after the passage of a storm through Queen Charlotte Sound, and where the wind veers from SE to SW to NW, the maximum currents at the south end of Hecate Strait will occur about 3 h 30 min after HW at Prince Rupert, and can remain out of phase for three or four days. The initial change of phase is usually accompanied by a surge of current about ½ kn greater than is usual. This change in the phase of the currents is caused by a wind driven inertial current of period 15.4 hours and a starting velocity of 30 cms/sec. (0.6 kn). This current slowly decays over a three to four day period.

29 A strong outflow from Hecate Strait can occur during large tidal ranges combined with rapid equalization of a large difference in barometric pressure between the coastal area and the head of the inlets. Unusual currents of 2 to 3 kn setting south were reported in 1968.

30 **Meteorological information** is available in the Appendices.



31 **Vessel Traffic Services (**VTS**)**. — The area covered in this chapter is in *Sector 1* of the *Prince Rupert Traffic Zone* and the assigned frequency is 156.55 MHz, Channel 11.

32 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

33 The Calling-in Points are

34 *Calling-in Point No. 28*, called *McInnes Island/ Cape St. James*, is a line joining McInnes Island light *(619)* and Cape St. James light *(770)*.

35 *Calling-in Point No. 30*, called *Bonilla Island/ Sandspit*, is a line from Bonilla Island Sector light *(734)* to Sandspit Aeronautical Beacon *(784)*.

36 *Calling-in Point No. 32*, called *White Rocks*, is a line joining Browning Entrance light *(742)* and Hankin Rock light *(743)*.

37 *Calling-in Point No. 33*, called *Duckers Islands*, is a line joining Duckers Island light *(629)* and Dupont Island light *(630)*. **Note**. — Northbound mariners shall report whether their route is through Squally Channel or Whale Channel.

38 *Calling-in Point No. 34*, called *Wilson Rock*, is a line running 232° across Laredo Channel through Wilson Rock.

39 **Fishing vessels** of all types can be encountered in Hecate Strait, the heaviest concentrations being during the herring fishery in March and during the salmon fishery from May until October. During certain times of the year, mariners can encounter numerous crab traps, marked by dan buoys, in the shoal water areas of Rose Spit. Mariners intending to pass through Hecate Strait are advised to monitor VHF Channel 78A (156.925 MHz) in addition to the Vessel Traffic Services channel for the VTS Sector they are in. For full details *see* Fishing Vessels in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and in the *Annual Edition of Notices to Mariners*.

40 **Ferry**. — A ferry crosses Hecate Strait between Skidegate Inlet and Prince Rupert. Charted **ferry routes** are general indications of the route followed by the ferry. The ferry may deviate from the charted route at times as determined by prevailing weather conditions.



41 A **submarine cable** (fibre-optic) is laid in Hecate Strait, from Tlell to Bonilla Island.

42 *South Hecate Strait ODAS* ***light buoy*** *46185 (621.5) (52°31.7'N, 130°05.2'W)* is about 25 miles west of Conroy Island.

43 *North Hecate Strait ODAS* ***light buoy*** *46183 (734.5) (53°37.0'N, 131°06.3'W)* is about 19 miles west of Bonilla Island.

44 *Oval Bank* ***light and bell buoy*** *EOB (747.5) (53°55.6'N, 130°54.3'W)*, about 6 miles west of Fan Point, is a **west cardinal buoy**.

45 Continuously operating radiobeacons in Hecate Strait are at McInnes Island, Sandspit and Dead Tree Point. Radar beacons (Racons) are at Hanmer Rocks, Jacinto Island, Lawn Point, Rose Spit, Seal Rocks and Stenhouse Shoal.

46 **Directions**. — Keep on the east side of Hecate Strait and when approaching Brown Passage, at the north end, pass west of Butterworth Rocks.

Aristazabal Island — West Coast

Charts 3726, 3975, 3980

47 **Aristazabal Island** *(52°40'N, 129°10'W)* separates Laredo Channel from Hecate Strait. **Mount Johnston**, 10 miles NNW of its south extremity, is a conspicuous saddle-shaped hill. **Knight Range**, at the north end of the island, is a bare ridge of hills with four conspicuous peaks. **Mount Parizeau**, the highest of the peaks, has a conspicuous dome-shaped summit.

48 The west coast of Aristazabal Island is fringed with islands and dangerous reefs extending 13 miles into Hecate Strait. Two good harbours on the west coast of Aristazabal Island are Clifford and Borrowman Bays. Weeteeam Bay, also on the west coast of the island, offers good anchorage during summer months.

49 Beauchemin Channel leads close along the west and NW coasts of Aristazabal Island and is described later in this chapter.

50 **Tides**. — Tidal differences, referenced on Bella Bella, are given for McKenney Islands (Index No. 9077), Borrowman Bay (Index No. 9080) and Beauchemin Channel (Index No. 9082) in the Tide Tables, Volume 7.

Chart 3726

Off-Lying Islands, Rocks and Shoals

51 **Harvey Islands** *(52°31'N, 129°19'W)* have a maximum elevation of about 150 feet (46 m). **Sinnett Islets** are 1 mile NNW of Harvey Islands; the water between these two groups is encumbered with reefs. **Conroy Island** is 3 miles west of Harvey Islands. The bottom surrounding these islands is very uneven with reefs extending 7 miles south. The named reefs are as follows. **Muriel Rocks** are awash. **Morey Rock** has less than 6 feet (2 m) over it. **Gertrude Rock** and **Frances Rock** both dry 6 feet (1.8 m). **Steele Rock** is 54 feet (16.5 m) high with a rock awash 0.25 mile north of it. **Mason Rock** has less than 6 feet (2 m) over it.

52 **Baker Shoal**, 1.5 miles WSW of Conroy Island, has a depth of 16 feet (4.9 m) over it and a rock with less than 6 feet (2 m) over it is reported (1999) 1.4 miles SW. **Allen Rocks**, 2.3 miles NW of Conroy Island, dry 3 feet (0.9 m). A rock with a depth of 15 feet (4.6 m) over it lies 0.8 mile south.

53 **Byers Islands**, 1.5 miles north of Conroy Island, are in the centre of a chain of reefs extending 4 miles north from Conroy Island. **Wakely Rock**, at the north end of these reefs, is awash. **Eaton Rock**, 1.8 miles NW of Byers Islands, is awash. A rock with less than 6 feet (2 m) over it is reported (1999) 1.2 miles NW of Eaton Rock. **Christie Shoal**, 1.3 miles NE of Wakely Rock, has a depth of 19 feet (5.8 m) over it.

54 Byers, Conroy, Harvey and Sinnett Islands and surrounding waters are an **Ecological Reserve**.

55 **Wright Passage**, with Wakely Rock and Christie Shoal on its south side and the rocks and shoals extending south from McKenney, Whitmore and Moore Islands on its north side, has a navigable width of about 1.5 miles.

56 **McKenney Islands** *(52°39'N, 129°29'W)*, with **Carter Rocks** close north, lie on the north side of the approach to Wright Passage and the south side of Willis Passage. **Whitmore Islands** are about 1 mile east of McKenney Islands. It is advised not to attempt to pass between these islands, or between Whitmore and Moore Islands, without local knowledge.

57 **Munro Shoal**, 2.5 miles SW of McKenney Islands, has 27 feet (8.2 m) over it. **Liddell Rocks** extend 1.6 miles south from McKenney Islands and consist mainly of drying rocks with a few above-water rocks. **McGowen Rocks**, which extend 0.8 mile south from Whitmore Islands, also consist mainly of drying reefs with some above-water rocks.

58 **Ecological Reserve**. — The south Moore Island, the McKenney and Whitmore Islands, the surrounding islets and rocks are an Ecological Reserve and is closed to the public.

Chart 3975

59 **Moore Islands** *(52°40'N, 129°25'W)*, NE of McKenney Islands, consist of two large islands and several islets. Numerous rocks and shoals extend west to Carter Rocks and north to **Keith Rock**, which dries 15 feet (4.6 m), and form the south side of Willis Passage.

60 **Willis Passage**, north of Moore Islands, leads from Hecate Strait into Beauchemin Channel.

61 **Towner Bank**, on the north side of the west entrance to Willis Passage, has a least depth of 72 feet (21.9 m) over it.

62 **Schram Rocks**, a group of drying and above-water rocks 2.5 miles north of McKenney Islands, and **Verdier Shoal**, 0.9 mile east of Schram Rocks, are on the north side of Willis Passage.

63 **Richards Shoal**, 1 mile NE of Moore Islands, has a least depth of 30 feet (9.1 m) over it and is usually marked by kelp in summer.

64 **Isnor Rock** *(52°44'N, 129°32'W)* is 60 feet (18.3 m) high and bare. **Wells Rocks**, 0.8 to 2.5 miles east of Isnor Rock, are a group of drying and above-water rocks;

the highest has an elevation of 23 feet (7 m). **Woods Shoal**, 1 mile NNE of Wells Rocks, has 48 feet (14.6 m) over it.

65 **Lombard Rocks** and a rock, with 21 feet (6.4 m) over it, 0.5 mile SE, are 2.4 miles SSE of Woods Shoal and on the west side of Leadman Passage.

66 **Leadman Passage** leads south from Caamaño Sound to its junction with Willis Passage and Beauchemin Channel.



67 **Tidal streams** set north on the flood and south on the ebb and attain 2 to 3 kn in Leadman Passage. The streams change about the time of HW and LW.

68 **Beaven Islands** and **Anderson Islands** are on the east side of Leadman Passage and separate it from Beauchemin Channel.

69 **Knarston Rock** dries 2 feet (0.6 m) and lies on a shoal bank SSE of Anderson Islands, on the north side of Willis Passage.

70 **Directions**. — When entering Willis Passage from Hecate Strait keep Mount Parizeau bearing 064° and open south of the Anderson Islands. This bearing will lead midway between Keith Rock and Verdier Shoal. When the east extremity of Moore Islands, which is a steep conspicuous cliff, bears 152°, alter course to 093° to pass between Richards Shoal and Knarston Rock into Beauchemin Channel.

71 When approaching Leadman Passage from Caamaño Sound, pass through a position about 1.5 miles east of Cliffe Rock and steer for the east extremity of Moore Islands, bearing 174°. This course will lead between Lombard Rocks and the shoal west of the south end of Anderson Islands. When the south extremity of Anderson Islands is abeam, alter course to 135° to pass midway between Richards Shoal and Knarston Rock into Beauchemin Channel.

72 **Parker Passage** *(52°48'N, 129°21'W)* separates the north end of the Anderson Islands from **Rennison Island** and leads east from Leadman Passage into Beauchemin Channel. Foul ground, in which there are numerous above-water and drying rocks, extends 0.8 mile west from the SW side of Rennison Island in the west approach to Parker Passage.

73 **Laundy Rock**, 0.8 mile SW from the SW corner of Rennison Island, dries 2 feet (0.6 m) and lies in the west approach to Parker Passage.

74 **Oswald Point** is the NW extremity of Rennison Island. **Wall Islands**, close-off Oswald Point, have high cliffs on their north sides.



75 Wall Islands **light** *(628.5)*, on the NW side of Wall Islands, is shown at an elevation of 43 feet (13 m) from a white tower fitted with a **Racon** (— • — •).

Charts 3726, 3982

Beauchemin Channel and Approach

76 **Rylatt Rock** *(52°27'N, 129°05'W)* dries 7 feet (2.1 m) and lies in the approach to Weeteeam Bay. A rock, about 1.5 miles ESE of Rylatt Rock, has a depth of 15 feet (4.6 m) over it and is usually marked by kelp. **Haynes Rocks** are 2 miles east of Rylatt Rock. Between Haynes Rocks and Cummins Islet, 2.2 miles north, numerous islets, drying, above- and below-water rocks extend about 1.3 miles off the SW side of Aristazabal Island. **Rogerson Rock**, 50 feet (15.2 m) high, bare and grey, is 2.3 miles NNW of Rylatt Rock.

77 **Arriaga Islands**, 1 mile north of Rogerson Rock, with drying and below-water rocks between them, are a group of three islands separated from the coast of Aristazabal Island by a narrow boat passage. Numerous above-water and drying rocks lie close-off the shores of these islands. **South Arriaga Island** is the south island of the group.

Chart 3910, 3980

78 **Weeteeam Bay** *(52°30'N, 129°02'W)* is entered between **Cummins Islet**, which is bare and grey, and **Ede Island** 0.7 mile NW, which is wooded except for a bare rock ledge at the SE end. **Murray Rock**, 0.4 mile NW of Cummins Islet, has 22 feet (6.7 m) over it and lies on the SE side of the fairway. **Colston Islet**, 0.5 mile north of Cummins Islet, has some bushes on it.

79 **Digby Rock** and **Howell Rock**, SE and east of **Bruce Islet**, are on the west side of the fairway. **Thistleton Islands**, north of Ede Island, offer some protection from west winds.

80 **Meade Point** is 0.5 mile NE of Bruce Islet. **Soar Rock**, 0.5 mile WNW of Meade Point, dries 10 feet (3 m). **Breakenridge Point** is 0.3 mile north of Soar Rock. A shoal, with a least depth of 9 feet (2.7 m) over it, is 0.2 mile ESE of Breakenridge Point. **Archer Islets** and some unnamed islands are at the head of the bay. **Duffy Creek**, **Harrison Lagoon**, **Kdelmashan Creek** and **Noble Lagoon** are NE, north and NW of Archer Islets.



81 **Caution**. — Because of the dangers existing farther in, local knowledge is advised for large vessels to seek anchorage north of a line between Meade Point and Soar Rock.



82 **Anchorage** can be obtained in 7 to 9 fathoms (13 to 16 m), sand bottom, about 0.2 mile

NE of the largest of the Thistleton Islands. This is a good summer anchorage, but a swell comes in with south gales. Anchorage for small vessels can be obtained NW of Archer Islands in the approach to Noble Lagoon in 5 fathoms (9 m), sand bottom. This anchorage offers limited protection from south swells.

83 **Bent Harbour**, on the west side of Weeteeam Bay and north of Thistleton Islands, is entered SW of **Alman Island** through a narrow channel encumbered with rocks and kelp. It is only suitable for small craft and is open to SE winds.

84 The western enterance to Weeteeam Bay is a narrow channel north of the largest Thistleton Islands and south of Alman Island. **This passage is not recommended unless entered at high water and with no swell.** The passage has a limiting depth of 4 feet (1.2 m).

Charts 3910, 3726

85 **Directions**. — If approaching Weeteeam Bay from south steer to keep Rogerson Rock in line with Mount Johnston, bearing 007°, which leads about 0.7 mile west of Rylatt Rock. When the south extremity of Ede Island, which can be difficult to identify, bears 040° steer for it on that bearing until the north end of Cummins Islet bears 100°, when course should be altered to pass about 0.15 mile SE of Ede Island. Pass about 0.2 mile SE of Bruce Islet to clear Digby Rock, then round Bruce Islet at a distance of about 0.2 mile and proceed to the anchorage.

Charts 3726, 3982

86 **Beauchemin Channel** *(52°37'N, 129°15'W)* leads close along the west and NW coasts of Aristazabal Island.

87 **Tides**. — Tidal differences in Beauchemin Channel, referenced on Bella Bella, are given for McKenney Islands (Index No. 9077), Borrowman Bay (Index No. 9080) and Beauchemin Channel (Index No. 9082) in the Tide Tables, Volume 7.

88 **Tidal streams** set north on the flood at up to 1½ kn and south on the ebb at up to ½ kn in Beauchemin Channel. The streams change about the time of HW and LW.

89 **Normansell Islands** *(52°33'N, 129°10'W)* consist of several islands and rocks with narrow passages between them.

90 **Bowden Islands**, 1.2 miles west of Normansell Islands, are wooded and conspicuous, and have rocks close NW and SW.

91 **Lindsay Rocks**, 1.3 miles NW of Bowden Islands, consist of drying and above-water rocks. Several rock islets, up to 23 feet (7 m) high, are about 0.3 mile south of Lindsay Rocks.

Chart 3910

92 **Benney Islets** *(52°35'N, 129°10'W)* lie on the SE side of the approach to Clifford Bay. **Hawkins Rock**, 0.4 mile north, dries 13 feet (4 m).

93 **Babbage Island** is 0.4 mile ENE of Hawkins Rock. **Howse Island**, 0.2 mile NE of Babbage Island, is bold on its north side and conspicuous from the west.

94 **Woodcock Islands** are on the north side of the approach to Clifford Bay. **Dobbs Islets**, ESE of Woodcock Islands, lie on a drying reef. Drying reefs with above-water rocks on them are between Woodcock Islands and Dobbs Islets, and three below-water rocks, marked by kelp in summer, lie up to 0.4 mile SW and WSW of the islets.

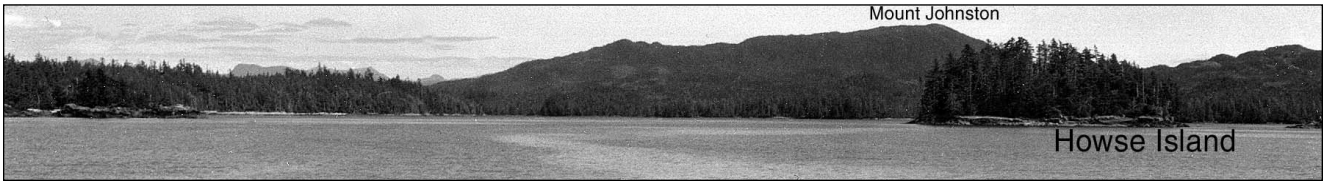
95 **Clifford Bay** is entered between Dobbs Islets and Howse Island. The fairway through the entrance is about 0.15 mile wide and free of dangers.

96 **Craft Island** is 0.4 mile ESE of Howse Island. A rock, with 11 feet (3.2 m) over it, is 0.1 mile NNE of Craft Island; the rock is usually marked by kelp. **Turner Rock**, which dries 13 feet (4 m), is 0.4 mile NE of Craft Island. A drying reef and below-water rocks extend 0.1 mile north of Turner Rock. Several drying rocks are along the SE shore of Clifford Bay.

97 **Deasy Point**, on the east shore at the head of the bay, is surrounded by a drying flat over which **Flux Creek** flows.

98 Good **anchorage** can be obtained in 90 to 102 feet (27 to 31 m), mud, about 0.3 mile NE of the north extremity of Howse Island. Small craft can obtain

ENTRANCE TO CLIFFORD BAY (1987)



ENTRANCE TO BORROWMANN BAY VIA MORISON PASSAGE (1987)



anchorage in 18 to 36 feet (5.5 to 11 m) about 0.2 mile west of Craft Island.

Charts 3910, 3726

99 **Directions**. — Approaching Clifford Bay from the south, pass 0.5 mile east of Bowden Islands, then steer north until the north point of Howse Island is in line with the summit of Mount Johnston, bearing 076°; alter course on to this leading line and pass about 0.4 mile north of Hawkins Rock, then steer to pass midway between Howse Island and Dobbs Islets and proceed to the anchorage.

Chart 3726

100 Along the west side of Beauchemin Channel, 2 to 3 miles offshore, is **McColl Rock** *(52°37'N, 129°18'W)* that dries 3 feet (0.3 m). A shoal that dries 2 feet (0.6 m) and a rock with less than 6 feet (2 m) over it lie 1.7 miles WSW of McColl Rock. **Hazel Shoal**, with 30 feet (9.1 m) over it, and **Bridgeman Rock**, which is 13 feet (4 m) high, are 0.9 mile NE and 2.2 miles north of McColl Rock.

101 Between the entrances of Clifford Bay *(52°35'N, 129°10'W)* and Kettle Inlet, 7 miles NNW, several islands and dangers lie within 1 mile of Aristazabal Island. **Thurgate Rock**, 1 mile NNW of Woodcock Islands, has less than 6 feet (2 m) over it. **Butler Shoal**, 1.5 miles NNW of Thurgate Rock, has a least depth of 29 feet (8.8 m) and **Bonson Rock**, 1.4 miles NNW of Butler Shoal, dries 3 feet (0.9 m) and has a shoal with a depth of 21 feet (6.4 m) close north of it. **Trenaman Island**, 1 mile north of Bonson Rock, has reefs and a drying rock extending 1 mile SE of it.

Chart 3975

102 **Russell Banks** *(52°41'N, 129°20'W)*, 2.5 miles NW of Bridgeman Rock, have a least depth of 27 fathoms (49 m).

103 **Kettle Inlet** *(52°42'N, 129°15'W)* is a narrow inlet entered 3 miles NW of Trenaman Island. The entrance is encumbered with numerous islets and rocks. A rock awash lies in the middle of the fairway, about 1 mile from the head of the inlet, with shoal depths SE of it. The passage between the large island and the peninsula forming the SW shore of Kettle Inlet dries.

Chart 3910

104 **Borrowman Bay**, between **Wriglesworth Point** *(52°44'N, 129°18'W)* and **Pearse Point**, 1.5 miles north, can be entered by Morison or Meiss Passages.

105 **Tides**. — Tidal differences for Borrowman Bay (Index No. 9080), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

106 **Wall Rocks**, 0.3 mile WNW of Wriglesworth Point, are a group of above-water and drying rocks. **Wall Islets** are north of Wriglesworth Point. **Mesher Rock**, with 16 feet (4.8 m) over it, is north of Wall Islets. A rocky area lies close SW of Mesher Rock. **Raby Rock** has a depth of 29 feet (8.7 m) and **Sehl Rock** has 33 feet (10.2 m) over it and are 0.3 and 0.5 mile east of Mesher Rock.

107 **Trickey Islands**, in the centre of the entrance to Borrowman Bay, are wooded and surrounded by drying ledges.

108 **Morison Passage**, between Mesher Rock and Trickey Islands, is about 0.4 mile wide with a least depth of 36 feet (10.9 m).

109 **Meiss Passage**, between Trickey Islands and Pearse Point, is deep in the fairway but is narrowed to less than 0.2 mile wide by shoal ledges on both sides.

110 A rock **awash** is at the head of the bay close east of Pearse Point.

111 **Thomson Island** and **Tarte Island** are on the south side of Borrowman Bay. **Switzer Cove**, south of these islands, has not been completely surveyed and local knowledge is advised before entering it.

112 **Turtish Harbour**, at the east end of Borrowman Bay, is east of Wilks Island. The north side of **Wilks Island** has a single stunted tree on a bare rock ledge and is steep-to. **Sere Rock** with 9.5 feet (2.9 m) over it lies in the middle of Turtish Harbour. **Stannard Creek** enters the east side of Turtish Harbour south of **Fox Point**.

113 **Tate Cove** is on the south side of Turtish Harbour east of Tarte Island.

114 A sport fishing lodge is in Turtish Harbour between Thomson Island and Tarte Island.

115 Good **anchorage** can be obtained in 21 fathoms (38 m), clay, with the north extremity of Wilks Island bearing 119°, distant 0.2 mile. Small vessels can anchor in Turtish Harbour, south of Sere Rock, in 10 fathoms (18 m), mud. Tate Cove offers anchorage for small vessels in 6 fathoms (11 m).

116 **Directions**. — Entering Borrowman Bay via Morison Passage, keep Fox Point, bearing 108°, just open north of the north extremity of Wilks Island. This bearing will lead through the centre of Morison Passage, north of Mesher, Raby and Sehl Rocks; the least depth encountered is 45 feet (13.7 m). Both Fox Point and Wilks Island are difficult to identify beyond a distance of 0.5 mile.

117 Entering Borrowman Bay by way of Meiss Passage, keep in mid-channel.

Chart 3975

118 **Hicks Island** *(52°46'N, 129°19'W)*, on the east side of Beauchemin Channel, is steep-to on its west side. The narrow passage between it and Aristazabal Island is navigable by small craft.

Chart 3982

119 **Tuzo Islands** are 1 mile NW of Hicks Island at the junction of Beauchemin Channel and Parker Passage.

120 **Nob Hill**, at the north end of Aristazabal Island, is 530 feet (162 m) high. A rock that dries 3 feet (0.9 m) is about 100 feet (30 m) offshore directly west of Nob Hill.

121 **Ulric Point**, the north extremity of Aristazabal Island, is low and steep-to.

Caamaño Sound

Chart 3983

122 **Caamaño Sound** *(52°53'N, 129°30'W)* is bounded on the south by Aristazabal Island, Rennison Island and the islets and rocks extending SW from Rennison Island. On the north it is bounded by the Estevan Group and Campania Island and on the east by Princess Royal Island.

123 The Knight Range, on the north end of Aristazabal Island, is the most conspicuous feature from the approach, and Mount Parizeau, a dome-shaped summit, is the highest of this range. **Mount Pender** *(53°03'N, 129°25'W)*, 6.8 miles from the south end of Campania Island on the north side of Caamaño Sound, is a bare, dome-shaped summit, which makes a conspicuous landmark.

124 **Tides**. — Tidal differences in the south approach to Caamaño Sound, referenced on Bella Bella, are given for McKenney Islands (Index No. 9077) and Beauchemin Channel (Index No. 9082) in the Tide Tables, Volume 7.

125 **Tidal streams** in Caamaño Sound set 240° except for the period 3 hours before HW until HW at Prince Rupert when they are variable in direction. *See* chartlets under Laredo Sound later in this chapter.

Chart 3975

Off-lying Rocks and Shoals

126 **Aranzazu Banks** lie in the fairway of the west entrance to Caamaño Sound. **Ness Rock** *(52°51'N, 129°44'W)*, at the SW end of Aranzazu Banks, is awash. A shoal with 25.6 feet (7.8 m) over it is at the east end of the banks, 6.3 miles ENE of Ness Rock.

127 Aranzazu Banks West **light buoy** "EB2" *(631.3)* is NW of Ness Rock and is a starboard hand buoy.

128 Aranzazu Banks **light buoy** "EB4" *(631.4)* is NE of Ness Rock and is a starboard hand buoy.

129 **Spencer Bank**, 6 miles SE of Ness Rock, has a least depth of 18 fathoms (33 m).

130 **Yates Shoal**, 6.9 miles east of Ness Rock, has a depth of 45 feet (13.7 m) over it. **Evans Rock**, with 21.3 feet (6.5 m) over it, and **Janion Rock**, with a depth of 18 feet (5.5 m), are 1.2 and 1.8 miles SSE of Yates Shoal.

Charts 3975, 3982

131 **Cliffe Rock**, with 12 feet (3.7 m) over it, and **Shakespeare Banks**, with a least depth of 13 fathoms (24 m), are east of Evans Rock in the approach to Leadman Passage.

Chart 3911

Caamaño Sound — North Side

132 **Ecological Reserve**. — **Dewdney Island** *(52°59'N, 129°37'W)*, Glide Islands and surrounding rocks and islands are an Ecological Reserve and is closed to the public.

133 **Jacinto Islands** *(52°57'N, 129°37'W)* are close-off the SW part of Dewdney Island. Two rocks, with less than 6 feet (2 m) over them, lie slightly more than 0.1 mile east of the east side of these islands.

134 Jacinto Islands **light** *(631)*, on the SE extremity of the largest island, is shown at an elevation of 92 feet (28 m) from a white tower fitted with a **Racon** (— — • —).

135 **Pemberton Bay** is entered between Jacinto Islands and **Porter Island**, 1.7 miles ENE.

136 **Shannon Rock**, which is 13.1 feet (4 m) high, and **Sage Rock**, with 25.9 feet (7.9 m) over it, are 0.7 mile SW and 0.8 mile WSW of Porter Island.

137 **Robertson Rock** is 1.5 miles NNW of Shannon Rock, on the east side of the entrance to Gillen Harbour. Numerous islets, drying reefs and some below-water rocks lie along the east side of Pemberton Bay, east of a line joining Shannon Rock to Robertson Rock. To the NE of this line Pemberton Bay has not been surveyed and local knowledge is advised before entering this area.

138 **Thomson Point**, 0.7 mile NNE of Jacinto Islands, is low and steep-to. A rock that dries 6.2 feet (1.9 m) is 0.4 mile north of Thomson Point.

139 North of Robertson Rock the shores of the narrow channel leading to Gillen Harbour are fronted with islets and rocks. **Peatt Islets** are on the east side of the entrance to the harbour. A rock, with 12 feet (3.7 m) over it, lies in the middle of the passage, about 0.15 mile south of Peatt Islets; east of this rock the passage is only about 120 feet (37 m) wide.

140 **Gillen Harbour** offers sheltered anchorage for vessels of moderate draught. The channel leading to the harbour has a least depth of 22 feet (6.7 m).

141 **Tides**. — Tidal differences for Gillen Harbour (Index No. 9105), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

142 **Carne Island**, with two islets and some drying rocks, is in the NW part of Gillen Harbour; **Adams Island** is in the east part. A rock that dries 7 feet (2.1 m) lies about 65 feet (20 m) NE of the north extremity of Adams Island. A drying rock shelf extends about 65 feet (20 m) from the north side of the island. A rock with 2.3 feet (0.7 m) over it is 300 feet (91 m) NE of the NE extremity of Peatt Islets.

143 **Anchorage** in fine weather can be obtained 0.15 mile west of Robertson Rock in 21 fathoms (38 m), sand and shell. Small vessels can obtain anchorage with good shelter from all winds in the middle of Gillen Harbour in 26 feet (7.9 m), mud.

144 **Directions**. — Approaching Gillen Harbour from east, steer for the east side of the harbour entrance bearing 353° and pass 0.15 mile west of Robertson Rock. If approaching from west, round Jacinto Islands at a distance of 0.3 mile and steer to pass 0.15 mile east of Thomson Point and about the same distance west of Robertson Rock. Keep in mid-channel until about 0.3 mile south of Peatt Islets then keep toward the east shore to pass east of the shoal rock in mid-channel lying 0.15 mile south of Peatt Islets. Pass about 120 feet (27 m) west of the 4 foot (1.2 m) high rock that lies on the west side of Peatt Islets. Do not attempt to enter Gillen Harbour in a gale from SE, except in case of necessity.

Chart 3975

145 **Goodacre Point** *(52°57'N, 129°33'W)* is the SE extremity of Dewdney Island.

146 **Borthwick Rock**, which dries 14 feet (4.3 m), **Cort Rock**, with 10 feet (3.2 m) over it, and a rock with 34 feet (10.4 m) over it lie up to 2 miles SSE and SE of Goodacre Point. These rocks are steep-to on their south sides.

147 Borthwick Rock **light buoy** "EB5" *(631.5)* is south of Borthwick Rock and is a port hand buoy.

Chart 3982

148 **Dupont Island**, 4 miles ESE of Goodacre Point, has drying reefs and above-water rocks extending 0.5 mile north of it.

149 **Lights**. — Dupont Island West **light** *(630.1)*, on the SW end of the island, is shown at an elevation of 52 feet (16 m) from a white tower.

150 Dupont Island East **light** *(630)*, on the east side of the island, is shown at an elevation of 54 feet (16.6 m) from a white tower.

151 Estevan Sound, Campania Sound, Surf Inlet and Laredo Channel are described later in this chapter.

Estevan Group — West Coast

Charts 3975, 3976

152 **Estevan Group** *(53°03'N, 129°40'W)* consists of five large islands and numerous smaller islands. The four south islands, Dewdney Island, **Lotbinière Island**, **Barnard Island** and **Prior Island**, are low and deeply indented. **Trutch Island**, the north and largest of the group, has a maximum elevation of 960 feet (293 m) in **Musgrave Peaks**.

153 **Conspicuous microwave antennas** are on the west summit of Musgrave Peaks.

154 Langley Passage, described later in this chapter, leads south of Trutch Island. The west entrance to Langley Passage is shallow and encumbered with drying rocks; even in moderate weather the sea breaks across this entrance. It is

recommended that all vessels enter from the east by Devlin Bay.

155 The only sheltered **anchorage** on the west coast of Estevan Group is Murray Anchorage, in Oswald Bay. Gillen Harbour, previously described, at the south end of Dewdney Island, also offers sheltered anchorage.

Off-lying Banks and Shoals

156 **Cridge Banks** *(52°58'N, 129°50'W)* extend 9 miles WSW of Dewdney Island. **Cran Shoal**, on the east end of Cridge Banks, is a rocky area with a depth of 48 feet (14.6 m) over it.

157 Cran Shoal **light buoy** "EB7" *(631.1)* is on the south side of the shoal and is a port hand buoy.

158 **Agassiz Banks** *(53°04'N, 130°03'W)* lie in the west approach to Otter Passage, which is at the north end of Estevan Group.

159 **Noot Shoal** *(53°07'N, 130°06'W)* is NW of Agassiz Banks and has a depth of 22 feet (6.7 m) over it. Kelp is usually present on the shoal during summer.

160 **Joseph Island** *(53°09'N, 130°02'W)* has shoal rocks and depths under 6 fathoms (11 m) extending up to 0.7 mile from it, and a shoal with 24 feet (7.3 m) over it is 1.4 miles west.

Chart 3975

Jacinto Islands to Flynn Point

161 Between Jacinto Islands *(52°57'N, 129°37'W)* and a point about 3 miles NNW, the coast and bays are encumbered with islets and drying reefs, and shoal depths extend up to 1.3 miles offshore.

162 **Macdonald Island** is 3.5 miles NW of Jacinto Islands. Several drying rocks are between Macdonald Island and Dewdney Island. Macdonald Island is within the boundaries of the **Ecological Reserve** and is closed to the public.

163 **Bland Rocks**, 2.5 miles NNW of Macdonald Island, are a group of drying and below-water rocks; the highest rock dries 12 feet (3.7 m). Numerous above- and below-water rocks are between Bland Rocks and the coast to the NE.

164 **Oswald Bay** is approached between Bland Rocks and Le Jeune Point, 1 mile ESE. **Le Jeune Point** is steep-to.

165 **Murray Anchorage**, on the south side of Oswald Bay, affords good shelter to small craft. Drying reefs extend 0.4 mile west from the east entrance point of the anchorage. Murray Anchorage is within the boundaries of the **Ecological Reserve**, which is closed to the public.

166 **Nichol Island**, 3.5 miles NW of Le Jeune Point, lies in the west entrance to Langley Passage. **Finnerty Point** is the SW extremity of Nichol Island. The opening on the SE side of Nichol Island leading to Langley Passage is encumbered with islets and rocks.

167 Between Finnerty Point and **Flynn Point**, 2 miles NNW, several below-water and drying rocks lie up to 0.8 mile offshore. The west entrance to Langley Passage, on the north side of Nichol Island, is encumbered with drying rocks between which is a narrow shallow passage. Tidal streams run with considerable strength through this passage and even in moderate weather the sea breaks across the entrance. It is recommended that any vessel wishing to enter Langley Passage should do so through Devlin Bay in Estevan Sound.

168 **Marchant Rock**, 2.5 miles NW of Finnerty Point, dries 9 feet (2.7 m) and has rocks awash and a shoal extending 0.5 mile south from it.

Otter Passage

Chart 3984

169 **Otter Passage** *(53°08'N, 129°45'W)* leads from Hecate Strait into Nepean Sound. The fairway is deep and about 0.3 mile wide but because of strong tidal streams and the large number of islands in the passage, local knowledge is advised.

170 **Tides**. — Tidal differences in Otter Passage, referenced on Bella Bella, are given for Block Islands (Index No. 9165) in the Tide Tables, Volume 7.

171 **Tidal streams** are strongest in the east part of Otter Passage where the maximum on both the flood and ebb is 6 kn. The flood sets NE and the ebb SW and the duration of slack water is about 11 minutes. Most of the ebb stream from Nepean Sound runs out through this passage and, meeting the ocean swell at the west entrance, produces a turbulent breaking sea.

172 Secondary current station Otter Passage (Index No. 8535), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

173 **Laithwood Island** *(53°08'N, 129°47'W)* is on the north side of the fairway at the west end of Otter Passage and has a conspicuous, light grey, bare rock shelf at the south end. A shoal spit extends 0.3 mile SSE from the island, and 6 fathom (11 m) shoals are farther SSE.

174 **Man Island** is 0.5 mile east of Laithwood Island. A drying reef is close south of Man Island and the area between Laithwood and Man Islands is foul.

175 Otter Passage **light** *(740)*, on the south end of Man Island, is shown at an elevation of 62 feet (19 m) from a white tower.

176 **Crews Rock** and **Breaker Islets** are north of Laithwood and Man Islands; this area is encumbered with numerous islets and drying and below-water rocks.

177 **Cox Point**, 0.8 mile east of Man Island, is the NW extremity of Trutch Island.

178 **Block Islands**, 1.5 miles NE of Man Island, are on the north side of the fairway through Otter Passage. A shoal ridge, on which there are islets, drying and below-water rocks, lies between Man and Block Islands.

179 Block Islands **light** *(741)*, on an islet on the SE side of the group, is shown at an elevation of 32 feet (9.8 m) from a skeleton tower.

180 **Sisters Islands**, 0.5 mile NNW of Block Islands, lie close-off the SE shore of Banks Island.

181 Banks Island Southeast Sector **light** *(739.7)*, NNW of Sisters Islands, is shown at an elevation of 28 feet (8.5 m) from a skeleton tower.

182 **Trap Islands**, south of Block Islands and on the south side of the fairway through Otter Passage, have drying reefs and below-water rocks off their north and east sides. **Trap Rocks**, extending 1 mile ENE of Trap Islands, consist of above-water, drying and below-water rocks. The east and highest rock has an elevation of 18 feet (5.5 m).

183 Nepean Sound is described later in this chapter.

Banks Island — West Coast

Charts 3976, 3978

184 **Banks Island** *(53°10'N, 129°55'W)*, with Otter Passage at its south end and Browning Entrance at its north end, separates Hecate Strait from Principe Channel. The west side of the island is comparatively low with no conspicuous features. The east side of Banks Island, along the Principe Channel shore, is bold and mountainous.

185 The numerous indentations along the west coast of Banks Island, between Terror Point and Kingkown Inlet, are exposed and encumbered with dangers. Kingkown Inlet, although sheltered, is difficult to enter. The only sheltered anchorages along this coast are at the north end, in the vicinity of Griffith Harbour.

Chart 3976

Off-lying Banks and Rocks

186 Joseph Island *(53°09'N, 130°02'W)* and Noot Shoal have been described earlier under Estevan Group — West Side.

187 **McKenzie Shoal** *(53°13'N, 130°15'W)*, 9 miles NW of Joseph Island, has a least depth of 21 feet (6.4 m) over it. **North Danger Rocks** are a group of bare rocks 3.8 miles NW of McKenzie Shoal. **Nicholas Shoal**, 1 mile SSE of North Danger Rocks, has a least depth of 11 feet (3.4 m) over it.

188 **McHarg Bank**, about 4 miles NW of North Danger Rocks, is an extensive bank of irregular depths. The least known depth over the bank is 6 fathoms (11 m).

189 McHarg Bank **light buoy** "E88" *(740.5)* is on the west side of the bank and is a starboard hand buoy.

190 **South Rocks** *(53°24'N, 130°35'W)* consist of three drying rocks; the highest dries 18 feet (5.5 m). Numerous rocks and shoals lie between South Rocks and Banks Island with Stewart Passage separating them from the coast of Banks Island; these are described later with the coastline.

191 **Bonilla Rocks**, between South Rocks and Bonilla Island, consist of several drying, above- and below-water rocks.

Charts 3986, 3976, 3978

192 **Bonilla Island** *(53°29'N, 130°37'W)* is surrounded by drying ledges, drying reefs and below-water rocks; they extend up to 1.8 miles offshore on the east side. A sandy beach is on the north side of the island. On the south side of the island are two small bays; the east bay provides a suitable landing place. **Dome Hill**, near the centre of Bonilla Island, is dome-shaped and conspicuous. The summit is bare and the north and south sides of the hill fall away steeply; the west side of the slope is gradual.

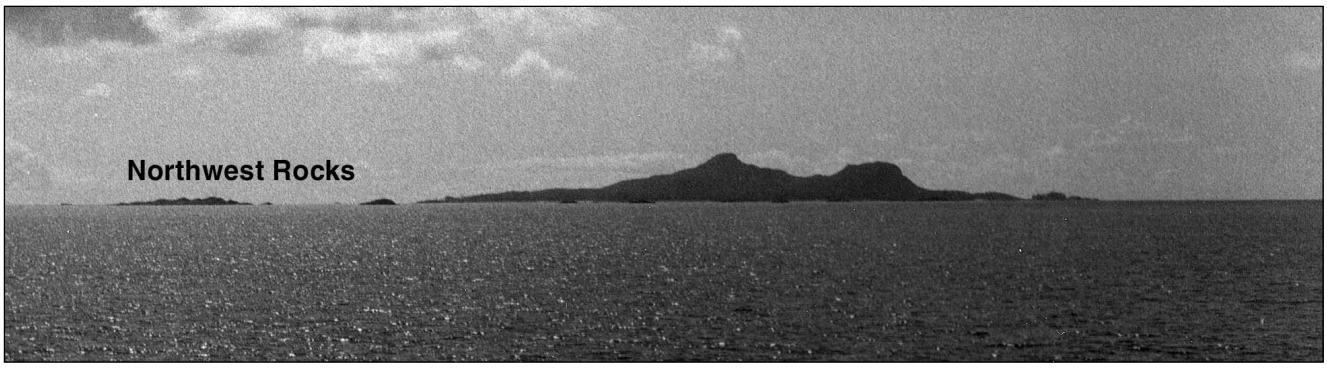
193 *Bonilla Island Sector* **light** *(734)* is shown at an elevation of 120 feet (36.6 m) from a white tower, 32 feet (9.8 m) high. White buildings with red roofs stand NW of and below the light.

194 **Submarine cables** (fibre-optic) extend from Bonilla Island, north through Schooner Passage to Kitkatla, and west across Hecate Strait to Tlell.

195 **Meteorological information** for Bonilla Island is given in the Appendices.

196 **North Rock** *(53°31'N, 130°37'W)* is 0.5 mile north of the north point of Bonilla Island. Shoals, with less than

BONILLA ISLAND FROM NORTH (1984)



3 fathoms (5.5 m) over them, lie up to 1.8 miles off the NE coast of Bonilla Island. **Northwest Rocks**, 1.5 miles north of Bonilla Island, extend 2 miles north. They consist of a group of above-water, drying and below-water rocks; the highest has an elevation of 41 feet (12.5 m).

197 *Northwest Rocks* **light** *(735)*, on the south side of the rocks, is shown at an elevation of 23 feet (7 m) from a white tower.

Chart 3976

Terror Point to Antle Islands

198 **Terror Point** *(53°10'N, 129°57'W)*, with conspicuous grey cliffs, is the SW extremity of Banks Island. **Calamity Bay**, 4 miles east of Terror Point and on the south side of Banks Island, is encumbered with numerous rocks.

199 **Spearer Point**, 3.5 miles NW of Terror Point, has a hill near its extremity. Above- and below-water rocks extend 0.4 mile south from the point. Between Terror and Spearer Points numerous drying, above- and below-water rocks are within 0.6 mile of the shore.

200 **Grief Point**, 4.5 miles NW of Spearer Point, is low. A flat-topped rock, 29 feet (8.8 m) high, close west of Grief Point is prominent from the south. **Phillisкirk Hill**, 2 miles east of Grief Point, is prominent from south and SW. Between Spearer and Grief Points drying and below-water rocks extend about 0.8 mile offshore.

201 **Waller Bay** is a broad bay extending 4 miles north from Grief Point. Its shores are broken and rugged and numerous drying and below-water rocks extend 1 mile offshore. At the north end of the bay a narrow inlet, encumbered with rocks, extends about 2 miles north.

202 **Wreck Islands** *(53°21'N, 130°13'W)* consist of several islands with numerous above-water and drying ledges joining and surrounding them. **Junk Ledge**, extending 1 mile SSE from Wreck Islands, consists of islets, drying and below-water rocks and forms the west side of Foul Bay.

203 **Hart Rock**, the westernmost rock west of Wreck Islands, is 23 feet (7 m) high and steep-to on its west side.

204 **Foul Bay** is obstructed by numerous drying and below-water rocks. A boat passage through Foul Bay leads east and north of Wreck Islands into Survey Bay; it is extremely intricate and should not be attempted without the aid of local knowledge.

205 **Anchorage** for small craft can be obtained in the above-mentioned boat passage in 42 feet (12.8 m) about 0.3 mile NW of the north extremity of the largest of Wreck Islands. Local knowledge is advised to get to this anchorage.

206 **Survey Bay**, NW of Wreck Islands, is fringed with reefs up to 0.4 mile from shore; its middle is deep. The head of the bay has a group of islands in it and from these islands, a narrow inlet extends 1 mile east.

207 **Kelp Point** is the north entrance point of Survey Bay. Drying reefs and foul ground extend about 0.3 mile SW from the point.

208 **Carlo Rock**, 3 miles west of Kelp Point, has less than 6 feet (2 m) over it and lies at the SE end of **Halibut Rocks**. Halibut Rocks consist of drying, above- and below-water rocks. The highest rock is 28 feet (8.5 m) high.

209 **Surge Rocks**, 3.3 miles NNW of Carlo Rock, consist of two groups of drying rocks. Three detached rocks, all marked by kelp, extend 1.8 miles SE from the south Surge Rock.

210 **Cliff Point**, 6.8 miles NW of Kelp Point, is high with conspicuous white cliffs. The coast between Kelp and Cliff Points is fringed with above-water, drying and below-water rocks extending 0.5 mile offshore.

211 **Stewart Passage**, between Banks Island on the NE, and Surge and Carlo Rocks on the SW side, provides a deep route along the SW side of Banks Island. Two 35 foot (10.7 m) shoals lie 0.8 and 1.4 miles west of Cliff Point and a 36 foot (11 m) shoal is 0.9 mile SW of the same point.

Chart 3912

Kingkown Inlet

212 **Antle Islands** *(53°29'N, 130°27'W)* lie in the entrance to Kingkown Inlet. **Goring Reefs**, extensive drying boulder banks, extend 0.9 mile NNW from Antle Islands. Numerous drying and below-water rocks extend west from the north Antle Island.

213 **Kingkown Inlet** can be entered by Reverie Passage or Allerton Passage but because of the numerous drying and below-water rocks and drying banks in both passages, local knowledge is advised.

214 **Kirkendale Island** and **Shadforth Islands**, east of Antle Islands, have narrow boat passages between them that can only be navigated at HW.

215 **Reverie Passage**, the south entrance to Kingkown Inlet, leads along the east side of Antle Islands. It is narrowed in places to less than 300 feet (91 m) wide by drying rocks and boulder banks.

216 **Allerton Passage**, the north entrance of Kingkown Inlet, is on the north side of Goring Reefs. A 1 foot (0.3 m) high rock that provides a good mark for entering is at the north end of Goring Reefs. A rock, with less than 6 feet (2 m) over it, lies in mid-channel 0.3 mile ESE of the last-mentioned rock.

217 **Byers Bay**, NE of Shadforth Islands, has several islets, drying and below-water rocks in it. A passage in the SE part of the bay leads to a very narrow arm that is obstructed by drying boulder banks.

Chart 3986

Laverock Point to Larsen Island

218 **Laverock Point** *(53°31'N, 130°29'W)* has a group of drying rocks 0.3 mile SSE from it. The coast of Banks Island NW of this point is low, rugged and indented.

219 **East Rock**, 3.2 miles WSW of Laverock Point and 1 mile east of Bonilla Island, is 3 feet (0.9 m) high.

220 **Sneath Islands** are between Laverock Point and **Solander Point**, 3 miles NW. The outermost danger in the vicinity is a rock that dries 10 feet (3 m), 0.3 mile SW of the largest of the Sneath Islands.

221 **Venn Shoal**, 2.5 miles NW of Solander Point, has less than 6 feet (2 m) over it. **Lonely Rocks**, 0.6 mile NW, consist of drying and below-water rocks, the highest of which dries 13 feet (4 m).

222 Between Solander Point and **Larsen Island**, 3.5 miles NNW, there are numerous islets and rocks. **Wells Islet** and **McCoy Rocks**, the outermost named features, are on the south side of the approach to Griffiths Harbour and Rawlinson Anchorage.

Griffith Harbour, Rawlinson Anchorage and Approach

223 **Borrowman Group** *(53°36'N, 130°34'W)* are the islands lying in an extensive area of foul ground on the west side of Griffith Harbour. **Chandler Rocks**, at the west extremity of the Borrowman Group, are a group of drying and below-water rocks. **English Rock**, 0.6 mile SSE of Chandler Rocks, has an elevation of 18 feet (5.5 m) and is surrounded by drying rock ledges. Chandler Rocks, **Parlane Islet** and English Rock are on the north side of the approach to Griffith Harbour and Rawlinson Anchorage.

224 **Parker Rocks** extend 0.5 mile east from English Rock along the south side of the Borrowman Group. **Webb Rock**, with a depth of 4.1 m over it, and **Anderson Rock**, with less than 6 feet (2 m) over it, lie south of Parker Rocks, on the north side of the fairway leading to Griffith Harbour and Rawlinson Anchorage.

225 **Hawley Rocks**, the highest of which dries 21 feet (6.4 m), **Webb Island**, which is wooded, and **Johnson Rocks**, the highest of which dries 14 feet (4.3 m), are east of McCoy Rocks on the south side of the fairway leading to Griffith Harbour and Rawlinson Anchorage.

226 **Rawlinson Anchorage** is entered between Johnson Rocks and **Bromley Island**, 0.4 mile east. **Bennett Islet** and **Beadle Rocks** are on the west side of the anchorage. **Butler Rock**, 0.3 mile south of Bromley Island, is on the east side of the anchorage. **Isnor Islets**, 0.6 mile SSW of Bromley Island, are on the south side of the anchorage.

227 **Anchorage** can be obtained about 0.3 mile north of Isnor Islets in 12 fathoms (22 m), sand. Better holding ground of mud and sand can be obtained in 8 fathoms (15 m), about 0.2 mile WNW of Bromley Island. These anchorages do not offer much shelter from the SW.

228 **Tidal streams** in the approach channel to Rawlinson Anchorage, and at the anchorage, attain 1 to 1½ kn.

229 **Askew Islands**, 0.25 mile NE of Bromley Island, lie on a drying flat in **Millar Bay** just south of the entrance to **Norway Inlet**.

230 **Griffith Harbour** is entered between Anderson Rock and **Kettle Rock**, 0.2 mile east. The fairway, leading NE, is about 300 feet (91 m) wide at its narrowest part and has a least depth of 4.6 feet (1.4 m) west of **Whittle Point**. **Laird Rocks**, 0.1 mile NW of Jewsbury Islets, are on the west side of the fairway; the west rocks dry 4 and 5 feet (1.2 and 1.5 m). The concrete base of a former structure, on the highest of the Laird Rocks, is an identifying, but not very prominent, mark. **Whittle Point** is 0.1 mile NE of Jewsbury Islets, on the east side of the fairway. Three drying rocks are close north of Whittle Point. The narrowest part of the fairway lies between these drying rocks and **Deans Rocks**. **Heron Islands** and **Sladden Island** are west of Deans Rocks. A reef that dries 21 feet (6.4 m) and a rock with less than 6 feet (2 m) over it are 0.1 mile north of Deans Rocks. North of **Appleby Island** and **Birch Point**, 0.2 mile east, the channel opens out in Griffith Harbour.

231 **Tides**. — Tidal differences for Griffith Harbour (Index No. 9230), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

232 **Ford Rock**, at the east end of Griffith Harbour, dries 23 feet (7 m). **Krone Island** is 0.1 mile north of Ford Rock at the outer end of some drying flats. **Bone Islet** and some drying rocks are at the west side of the harbour north of Appleby Island.

233 **Anchorage** for small vessels can be obtained in 9 fathoms (16 m), mud, about 0.15 mile NE of Appleby Island. Small craft can anchor in 5 fathoms (9 m) about 0.1 mile WSW of Ford Rock. The anchorages are sheltered from all winds.

234 **Directions**. — Local knowledge is advised for entering Griffith Harbour. Draught permitting, the best time to enter is at or near LW on a rising tide, when most dangers are visible.

Browning Entrance

Charts 3978, 3986

235 **Browning Entrance** *(53°43'N, 130°35'W)* provides a convenient route from Hecate Strait to the Inner Passages; it lies between Goschen, Dolphin and Spicer Islands on the north side and Banks and McCauley Islands on the south side. Principe Channel heads southward from Browning Entrance; Beaver and Schooner Passages lead northward. Beaver Passage is marked by lights and is the better of the two channels.

236 Browning Entrance is extensively used by tugs towing log scows or rafts crossing from Haida Gwaii.

237 **Tides**. — Tidal differences in Browning Entrance, referenced on Prince Rupert, are given for Larsen Island (Index No. 9232) in the Tide Tables, Volume 7.

238 **Tidal streams**. — A portion of the flood setting north along the west coast of Banks Island rounds the north end of Banks Island and meets the flood setting NW through Principe Channel at the north end of Principe Channel in the vicinity of Deadman Islet and Baird Point. These streams seldom exceed ½ kn. Tide-rips are sometimes encountered off Baird Point.

239 **Aspect**. — The NW extremity of Banks Island appears, from NW, as low bare land, fringed with trees near the coast and fronted by numerous wooded islets. The land begins to rise about 3 miles inland to thickly wooded hills, about 700 feet (213 m) high. **Passage Cone** *(53°46'N, 130°24'W)*, on the east side of Dolphin Island, is conspicuous. **False Cone** *(53°47'N, 130°31'W)*, on the largest of the Prager Islands, is wooded and from the west it can be mistaken for Passage Cone.

240 Marks that are more distant are **Anchor Mountain** and **Mount Shields**, both at the NW end of Pitt Island. **Egeria Mountain**, on Porcher Island, is nearly always snow-clad.

241 **Anchorages** are in Larsen Harbour, on the north coast of Banks Island, and in Willis Bay, on the south coast of Goschen Island.

Chart 3986

Browning Entrance — South Side

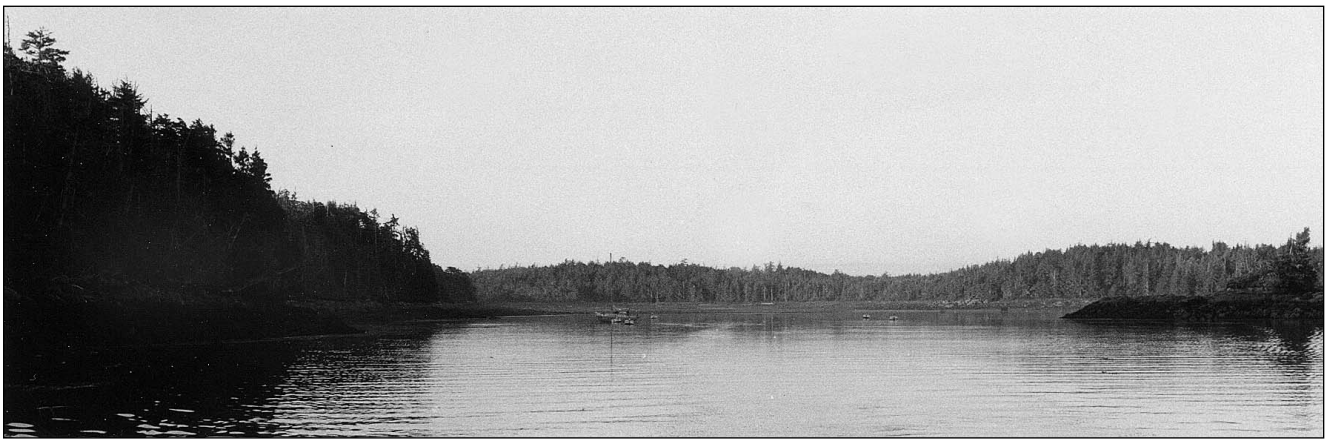
242 **Archie Rock** *(53°37'N, 130°36'W)*, which dries 23 feet (7 m), has drying and below-water rocks extending 0.75 mile south of it.

243 **White Rocks**, 1.5 miles NE of Archie Rock, are white and prominent. Three detached rocks, with depths of 9, 12 and 33 feet (2.7, 3.7 and 10.1 m) over them, lie between Archie and White Rocks.

244 **Lights**. — Browning Entrance **light** *(742)*, on the north islet of White Rocks, is shown at an elevation of 41 feet (12.5 m) from a skeleton tower.

245 Larsen Harbour **light** *(736)*, at the NW end of Banks Island and the east entrance point to Larsen Harbour, is shown at an elevation of 18 feet (5.4 m) from a skeleton tower.

LARSEN HARBOUR (1986)



246 **Larsen Harbour** is between the north side of Larsen Island and the islands and drying reefs to the NW. It is only suitable for small craft and local knowledge is advised. The approach is between Larsen Harbour light and the drying rocks 0.1 mile west. Heavy kelp grows on the bank in the approach to the harbour.

247 **Anchorage** in Larsen Harbour is rather confined in depths of 12 to 18 feet (3.7 to 5.5 m).

248 Drying and below-water rocks lie up to 0.5 mile off the coast between Larsen Harbour and **Deadman Islet**, 2.5 miles east. **Deadman Inlet** is filled with drying flats. **Ludlam Rock**, 0.8 mile north of the west entrance point to Deadman Inlet, has 5.1 m over it.

249 Deadman Islet Sector **light** *(736.5)* is shown at an elevation of 9.5 m from a skeleton tower.

250 **Anchorage** in settled weather can be obtained about 1 mile north of Larsen Harbour light or 1 mile west of Deadman Islet in 8 to 20 fathoms (15 to 37 m); holding is reported to be good.

251 **Baird Point**, 3 miles NE of Deadman Islet, is the NE entrance point of Principe Channel. The land NE of the point is low and flat. An islet, close SW of the point and joined to it by a drying ledge, is 95 feet (29 m) high. Drying and below-water rocks extend up to 0.3 mile south and west and 0.5 mile NW of Baird Point.

252 *Baird Point* **light** *(742.5)*, on the west side of McCauley Island, is shown from a white tower fitted with a **Racon** (— • —).

253 Principe Channel is described later in this chapter.

254 **Sheldon Islet** is 0.3 mile offshore, 0.6 mile north of Baird Point. Numerous islets, above- and below-water rocks lie between it and the shore of McCauley Island.

Beaver Passage

255 **Beaver Passage**, entered from the south between Hankin Rock and Ralph Islands, is the wider and better of the two passages leading to Kitkatla and Ogden Channels.

256 **Tides**. — Tidal differences for Kitkatla Islands (Index No. 9242), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

257 **Tidal streams** flood north and ebb south through Beaver Passage and the duration of slack water is, on the average, about 13 minutes. The rate is 2 to 3 kn in the south approach and north entrance and 4 kn within the passage.

258 Secondary current station Beaver Passage (Index No. 8545), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

259 **Hankin Point** *(53°42'N, 130°24'W)* is at the SWend of Beaver Passage. The south shore of Beaver Passage for 2 miles NE of Hankin Point is fringed with islets and rocks. **Hankin Rock** is 0.4 mile WNW of Hankin Point.

260 Hankin Rock **light** *(743)* is shown at an elevation of 32 feet (9.7 m) from a white tower.

261 **Ralph Islands** are 0.6 mile NW of Hankin Rock. **Friday Island** is 0.5 mile NE of Ralph Islands with a group of rocks between them.

262 **Spicer Island** and **South Spicer Island** separate Beaver Passage from Schooner Passage. The passage separating Spicer and South Spicer Islands is narrow and intricate but suitable for small craft.

BEAVER PASSAGE NORTH ENTRANCE (1986)



263 **Spicer Point** is the east extremity of Spicer Island. **Connis Islet**, 0.3 mile SSE of Spicer Point, is on the west side of the fairway and is covered with bushes. A flat-topped drying rock is 0.2 mile SW of Connis Islet. A rock awash is 0.1 mile NW of the islet.

264 Connis Islet **light** *(744)* is shown at an elevation of 22 feet (6.6 m) from a white tower with a green band at the top.

265 **Gurd Rock**, with a depth of 12 feet (3.7 m) over it, is 0.3 mile SE of Connis Islet. Another rock, with 14 feet (4.3 m) over it, is close SE of Gurd Rock. The fairway leads between Connis Islet and Gurd Rock.

266 **Murder Cove**, 1.2 miles SW of Connis Islet, is on the SE side of Beaver Passage and indents the coast of McCauley Island. A waterfall flows into its south side.

267 **Connis Cove**, east of Connis Islet, is almost filled with drying flats.

268 **Anchorage** for small craft can be obtained in Connis Cove, about 0.1 mile NE of a small wooded islet off the south entrance point of the cove. The depth in this anchorage is 16 fathoms (29 m).

269 **Jock Island**, with a rock that dries 11 feet (3.4 m) close NE, lies 2 miles north of Connis Islet and is the outermost of the dangers in the vicinity of **McCauley Point**. Several islets, drying and below-water rocks are 0.4 mile SE of Jock Island.

270 Kitkatla Islands East **light** *(745.1)*, 0.75 mile west of Jock Island, is shown at an elevation of 23 feet (7 m) from a white tower.

271 **Bully Island**, 0.4 mile north of Jock Island, is wooded.

272 Bully Island **light** *(745)* is shown at an elevation of 22 feet (6.7 m) from a white tower. This light is obscured by trees when approaching from the south.

273 **Directions**. — If approaching Beaver Passage from the west side of Banks Island, pass Archie Rock and White Rocks at a convenient distance then steer to pass midway between Hankin Rock and Ralph Islands, taking care to avoid the rock, with 6.4 m over it, 0.8 mile west of Hankin Rock. Then keep in mid-channel and pass slightly less than 0.2 mile SE of Connis Islet to avoid Gurd Rock. When Bully Island light structure is sighted alter course to pass midway between Bully Island and the Kitkatla Islands; a course can then be set to enter Ogden Channel between Comrie Head and Sparrowhawk Point.

Schooner Passage

274 **Schooner Passage**, between Spicer and Dolphin Islands, is entered from the south between Christie Islands and Boys Point.

275 **Tidal streams** in Schooner Passage attain 2 kn in the south entrance and 4 kn in the north entrance, where it is much narrower. The flood sets north and the ebb south.

276 **Dolphin Island** *(53°46'N, 130°26'W)* has **Boys Point** at its south extremity.

277 **Sentinel Islet** *(53°45'N, 130°29'W)*, 1.6 miles west of Boys Point, is 125 feet (38 m) high. Three drying rocks lie within 0.2 mile west of it. A chain of islets, drying reefs, above- and below-water rocks lies between Sentinel Islet and the SW shore of Dolphin Island. **Terry Rock**, with 24 feet (7.3 m) over it, is 1.2 miles SE of Sentinel Islet at the SE extremity of the above-mentioned chain.

278 **Boys Rock**, which dries 16 feet (4.9 m), and a 20 foot (6.1 m) shoal are 0.2 mile south of Boys Point.

279 **Christie Islands**, 1 mile SE of Boys Point, are on the south side of the approach to Schooner Passage.

280 **Christie Rock**, 0.3 mile WNW of the south island of the group, has 26 feet (7.9 m) over it. Several shoal rocks are 0.5 mile SSW of Christie Rock.

281 **Letts Islets**, 0.7 mile east of Boys Point, consist of two islets connected by a drying reef. A rock that dries 7 feet (2.1 m) is close south, and shoals, with a least depth of 9 feet (2.6 m), extend up to 0.4 mile north of the islets. Two rocks that dry 9 feet (2.7 m) are 0.3 mile ESE of Letts Islets, on the east side of the fairway through Schooner Passage. A rock, with 10 feet (3.0 m) over it, lies 0.8 mile NNE of Letts Islets in the middle of the fairway. A rock

with a depth of 8.4 m over it lies in mid-channel abreast Passage Cone.

282 **Shaman Cove**, close NE of Boys Point, is encumbered with rocks; it offers shelter to small craft but local knowledge is advised.

283 **Totem Inlet** is entered 0.3 mile NW of Letts Islet. The narrow entrance passage, about 40 feet (12.2 m) wide, has a clear central track with a least depth of 13 feet (2.3 m) at the north end. However, care must be taken to avoid reported rocks on the NE and NW sides of the end of the narrows. Anchorage for small craft is available inside the inlet with good holding in heavy mud.

284 **Welham Cove**, 1.5 miles NE of Letts Islets, is almost filled with drying flats. An islet on the north side of the entrance is connected to Spicer Island by a drying led ge. A rock with less than 6 feet (2 m) over it is 0.1 mile north of the islet.

285 **Shibasha Island** is connected to the NE end of Dolphin Island by a drying bank. A drying ledge, marked by kelp, extends 0.1 mile south from the south end of the island.

286 **Anchorage** for small craft can be found in the sheltered cove SW of Shibasha Island. It is entered through a narrow passage with a least depth of 15 feet (4.6 m), which leads south of the above-mentioned drying ledge.

287 **Browning Island** is on the west side of the north entrance of Schooner Passage. Below-water rocks and drying ledges are in the channel west of the island.

288 Kitkatla Islands West **light** *(745.3)*, 0.45 mile NE of Browning Island, is shown at an elevation of 23 feet (7 m) from a white tower.

289 **Directions**. — If approaching Schooner Passage from SW, keep Letts Islets ahead bearing 049° until the SW Christie Island is abeam then alter course to pass about 0.2 mile SE of the south of Letts Islets. Then steer with the NW tangent of the islet off the north entrance point of Welham Cove ahead, bearing 023°. When Passage Cone bears 270°, and clear of the mid-channel dangers, steer a course in mid-channel. If proceeding north through Ogden Channel, round the north side of Spicer Island in mid-channel between it and the SE point of Kitkatla Islands then pass midway between Kitkatla Islands on the west and Jock and Bully Islands on the east. After passing Bully Island set course to pass into Ogden Channel midway between Comrie Head and Sparrowhawk Point. If proceeding NW through Kitkatla Channel and the flood stream is running, haul close around Browning Island to avoid being set onto the rocks off the SW end of Kitkatla Islands.

Willis Bay and Approach

290 **Prager Islands** *(53°47'N, 130°31'W)* consist of a group of four large and numerous smaller islands joined by drying ledges and surrounded by foul ground.

291 **Barren Rocks** together with several drying and below-water rocks extend 0.4 mile SW of Prager Islands.

292 **Goschen Point**, 2 miles NW of Barren Rocks, is fronted by a drying gravel bank with numerous boulders on it and depths of less than 6 fathoms (11 m) extending 0.6 mile south. **Goschen Spit** is the SW extremity of these ledges. A rock that dries 12 feet (3.7 m) is 0.5 mile east of Goschen Point; a spit of below-water rocks and shoals extends 0.4 mile SE from it.

293 **Viscount Point** is 1.5 miles east of Goschen Point. From 0.5 mile west of Viscount Point to the south entrance point of Willis Bay, 1 mile NE, the coast is fronted by drying and below-water rocks.

294 **Moore Island** is 0.8 mile east of Viscount Point. The channel leading to Willis Bay lies between Moore and Goschen Islands.

295 Moore Island **light** *(746)*, on the NW point of the island, is shown at an elevation of 23 feet (7 m) from a white tower.

296 **Willis Bay**, on the SE side of Goschen Island, and 1 mile north of Moore Island, affords good shelter during west winds. **Anchorage** can be obtained in the middle of Willis Bay in a depth of about 20 fathoms (37 m).

297 **Shakes Islands**, east of Willis Bay, are separated by narrow and intricate channels obstructed by numerous drying reefs and foul ground. No attempt should be made, even by small craft, to pass from Browning Entrance into Kitkatla Channel through any of these channels.

298 The narrow and intricate channel between Prager Islands and Shakes Islands is only suitable for small craft and local knowledge is advised. The SW coast of Dolphin Island, east of Prager Islands, is fronted by numerous islets, drying and below-water rocks.

299 **Dolphin Lagoon** penetrates the west side of Dolphin Island; its entrance dries.

300 **Directions**. — Approach Willis Bay between Prager Islands and Goschen Island by keeping the NW extremity of Moore Island ahead, bearing 054°, to avoid the dangers in the vicinity of Viscount Point. When the south entrance point of Willis Bay bears 000°, steer to pass 0.15 mile west of Moore Island. Round the south entrance point of Willis Bay at a safe distance, taking care to avoid the foul ground lying off it, then steer for the anchorage.

Freeman Passage and Approach

Chart 3987

301 **Goschen Island** *(53°49'N, 130°35'W)* is mountainous with its highest peak lying south of **Nubble Mountain**.

302 **Joachim Point**, the west extremity of Goschen Island, is low. A drying ledge with a small islet on it extends 0.1 mile SW from the point. A shoal with 34 feet (10.4 m) over it is 0.9 mile SW of the point.

303 **Cape George**, 3 miles NW of Joachim Point, is the SW extremity of Porcher Peninsula. **Joachim Rock**, which dries 11 feet (3.4 m), and a rock that dries 5 feet (1.5 m) are 0.5 mile west of Cape George.

304 **Porcher Peninsula** extends south and SE from the SW end of **Porcher Island**. Oval Hill, near the north end of Porcher Peninsula, is prominent and appears oval-shaped from all directions.

305 Shoal depths extend 1.5 miles offshore between Cape George and Fan Point.

306 The east side of Hecate Strait from Fan Point north is described in Chapter 4.

307 **Freeman Passage**, between the NW side of Goschen Island and the SE side of Porcher Peninsula, is narrow and intricate. The fairway is about 300 feet (91 m) wide between the dangers on each side. It is only suitable for small vessels and local knowledge is advised.



308 **Tidal streams**. — Secondary current station Freeman Passage (Index No. 8548), referenced on Prince Rupert, is given in the Tide Tables, Volume 7. The flood sets NE and the ebb SW through the fairway and the maximum rate is 4 kn.

309 **Joachim Spit** extends 0.7 mile into the fairway at the south end of Freeman Passage. The spit consists of sand and boulders, which dry; a boulder, 3 feet (0.9 m) high, lies on the spit about 0.3 mile offshore. A spit of several drying and below-water rocks is on the SW side of Joachim Spit. North of Joachim Spit, a shoal spit extends 0.5 mile south from the south extremity of Porcher Peninsula. A rock with less than 6 feet (2 m) over it lies near the south end of the shoal spit.

310 Freeman Passage Entrance **light and bell buoy** "E98" *(746.8)*, 0.4 mile west of the north end of Joachim Spit, is a starboard hand buoy.



311 Freeman Passage **light** *(747)*, on the SW island of the chain of islands in mid-channel, is shown at an elevation of 16 feet (4.9 m) from a skeleton tower.

312 A rock, with less than 6 feet (2 m) over it, lies 0.3 mile SE of the entrance to the narrow bay.

313 **Absalom Island**, with a group of islets close SW of its south point, and **Coquitlam Island** are on the NW side of the east end of the fairway through Freeman Passage. Drying and below-water rocks fringe the south and east sides of Coquitlam Island; between this foul ground and that which fringes Goschen Island the fairway is at its minimum width. A rock that dries 1 foot (0.3 m) lies close-off the Goschen Island shore, 0.25 mile west of Nubble Point.

Kitkatla Channel and Gasboat Passage

Charts 3986, 3987

314 **Kitkatla Channel** *(53°47'N, 130°23'W)* is on the north side of Spicer Island, Dolphin Island, Shakes Islands and Goschen Island, and on the south side of Kitkatla Islands, Pelham Islands, Ewart Island, Porcher Island and the Cessford Islands. At the NW end of Kitkatla Channel, Kitkatla and Porcher Inlets lead NW and north into Porcher Island.

315 **Tides**. — Tidal differences in Kitkatla Channel, referenced on Prince Rupert, are given for Kitkatla Islands (Index No. 9242) in the Tide Tables, Volume 7.

316 **Kitkatla Islands** *(53°48'N, 130°21'W)*, at the junction of Beaver Passage and Kitkatla Channel, form a semi circular chain consisting of several islands and drying and above- and below-water rocks. A **wreck** is on a 3 foot (0.9 m) rock at the SE extremity of the islands.



317 A **submarine cable area** crosses Kitkatla Channel from close east of Kitkatla to west of Grassy Island; it is marked by a sign onshore.

318 **Grassy Island**, on the north side of Kitkatla Channel, is 35 feet (11 m) high and surrounded by an extensive drying sand and gravel bank. A reef with drying and below-water rocks and a rock 6 feet (1.8 m) high at its SW end lie up to 0.5 mile WSW of Grassy Island.



319 Stick Islet **light** *(745.4)*, 0.5 mile SE of Grassy Island, is shown at an elevation of 26 feet (8 m) from a white tower with a green band on top.

320 **Sand Island**, 0.8 mile WNW of Grassy Island, is on a drying reef that extends 0.2 mile ESE terminating in a rock that dries 16 feet (4.9 m).

321 **Ewart Island**, close WNW of Sand Island, is the west island of the group that lies in the west end of Kitkatla Channel. An islet, 0.2 mile south of Ewart Island, has a reef

of drying and below-water rocks extending 0.5 mile WNW from it. The reef is steep-to on its SW side.

322 **Gilbert Island**, 0.9 mile north of Kitkatla Islands, has two islets and some drying reefs extending 0.2 mile from its east side. **Pelham Islands**, with numerous above- and below-water rocks, lie on an extensive area of foul ground between Kitkatla Islands, Gilbert Island and Ewart Island. A passage between Pelham and Kitkatla Islands is obstructed at its west end with drying and below-water rocks. Local knowledge is advised to pass between these islands.

323 A **private daybeacon**, constructed from a stake and 2 orange floats, is in the middle of the passage, between Pelham and Kitkatla Islands. It is located on the northern of two HW islets.

324 **Gasboat Passage** *(53°50'N, 130°25'W)* separates Pelham Islands and Gilbert Island from Porcher Island. The fairway has a least depth of 42 feet (12.8 m) but drying rocks and rocks with less than 6 feet (2 m) over them, north of Pelham Islands, restrict the channel to less than 0.1 mile wide and make it suitable only for small craft.

325 A **submarine cable area** crosses the west end of Gasboat Passage; it is marked by a sign onshore.

326 **Billy Islands** and **Gladstone Islands** *(53°50'N, 130°27'W)* lie on the west side of the entrance to Billy Bay. Two drying rocks are about 0.1 mile east of Billy Islands and a rock awash is 0.3 mile east, in the approach to Billy Bay.

327 **Billy Bay** is encumbered with drying rocks and its head is filled with an extensive drying flat. The bay is only suitable for small craft. It is reported that the east part of the cove affords good shelter.

328 **Kitkatla** *(53°48'N, 130°26'W)* is a thriving First Nations community (Tsimshian nation) of approximatly 500 people, on a point of land on the north side of Dolphin Island. It has a post office (V0V 1CO), school, nursing station (250 848-2245), regular float plane service from Prince Rupert, a public dock with mooring for visiting vessels, fuel, fresh water, provisions and accommodation. Kitkatla Channel fronting the community is a water aerodrome.

329 A **submarine cable** (fibre-optic) extends from Kitkatla, south through Schooner Passage, to Bonilla Island. Another **submarine cable** (fibre-optic) extends NE, through Ogden Channel, to Oona River.

330 Kitkatla Boat Harbour port hand **light buoy** "E95" *(745.5)* marks the NW extremity of a drying ledge extending about 0.15 mile off Kitkatla.

331 The **public wharf** and **floats** at Kitkatla, SW of the above-mentioned drying ledge, are protected by an islet and **breakwater** and have 643 feet (196 m) of berthing space. A least depth of 8 feet (2.4 m) lies along the outside of the main float.

332 A **barge ramp** is close east of the public wharf.

333 **Anchorage** for vessels of moderate size can be obtained about 0.3 mile NW of Kitkatla in depths of 10 to 18 fathoms (18 to 33 m). The anchorage is indifferent with a mud bottom and strong tidal streams.

334 A detached rock, with 28 feet (8.5 m) over it, lies on the SW side of the fairway 0.8 mile NW of Kitkatla.

335 The passages leading through the Shakes Islands, NW of Kitkatla, are obstructed by rocks and drying reefs and should not be attempted.

336 **Chief Point**, 2 miles west of Gladstone Islands, is low except for a hill near its south extremity. Islets and drying rocks extend 0.5 mile SE from Chief Point and drying rocks and an islet lie up to 0.4 mile NW.

337 **Cessford Islands**, about 1.5 miles NW of Chief Point, are surrounded by drying ledges and reefs. **Whiteley Point** is 0.7 mile NE of Cessford Islands. Several above-water rocks on a drying reef are 0.2 mile SW of Whiteley Point.

338 Small vessels can obtain well-sheltered **anchorage** in about 7 fathoms (12.8 m), about 0.3 mile ENE of the 110 foot (34 m) high islet at the NW end of Cessford Islands.

339 **Nubble Point** *(53°51'N, 130°34'W)*, the north extremity of Goschen Island, is the entrance point to Freeman Passage. Several shoals, usually marked by kelp, lie along the NE side of Goschen Island, about 0.2 mile offshore.

Kitkatla Inlet

340 **Kitkatla Inlet** is entered between Nubble and Whiteley Points. **Gurd Island** is in the middle of the inlet. Several islets and drying and below-water rocks lie up to 0.3 mile off the south side of Gurd Island.

341 **Anchorage** can be obtained almost anywhere in Kitkatla Inlet. Depths in the inlet are generally less than 25 fathoms (46 m) with a mud bottom.

342 **Ness Islands**, in the entrance to Kitkatla Inlet, are surrounded by drying and below-water rocks extending up to 0.6 mile from them.

343 **Winter Rock**, 1 mile NNW of Ness Islands, is surrounded by a drying ledge and rocks.

344 **Snass Islands** are 1.4 miles east of Winter Rock. A rock that dries 19 feet (5.8 m) and several below-water rocks lie in the centre of the channel between Snass and Ness Islands. **Phoenix Islands** are east of Snass Islands, off the mouth of **Phoenix Creek**.

345 **Snass Point** is 0.8 mile ENE of Winter Rock. Drying rocks are close SE and close NW of Snass Point.

346 A group of islets, drying and below-water rocks projects from the coast of Porcher Island, about 1.8 miles NW of Snass Point.

347 **Kitkatla Creek**, 2.4 miles NW of Snass Point, is fronted by a drying flat fringed with drying and below-water rocks along its south side.

348 A peninsula on the NE side of Gurd Island, 1 mile east of **Gurd Point**, has a bay on its south side that is fouled by numerous drying and below-water rocks.

349 **Dries Inlet**, at the head of Kitkatla Inlet, has extensive drying sand and gravel flats fronting its shores. **Camp Creek** flows into the inlet at the SE entrance.

350 **Serpentine Inlet**, 2 miles west of Dries Inlet, is very shallow and almost filled with drying flats. Several cabins are on the north shore.

351 The **Wilcox Group**, with **Clamshell Island** and numerous other islets, drying and below-water rocks, extend 2 miles south from the entrance of Serpentine Inlet. A narrow channel leads between the above-mentioned group and the rock and islets off the NW side of Gurd Island; it is only suitable for small vessels as it has a 6.5 m shoal and a rock with 12 feet (3.7 m) over it in the centre of the fairway.

352 **Robert Island**, 0.2 mile south of the west extremity of Gurd Island, is surrounded by a drying sand and gravel flat with drying and below-water rocks close west of it. Numerous drying rocks extending SE from Robert Island lie in the approach to Gurd Inlet.

353 **Gurd Inlet** is entered 0.5 mile SE of Robert Island. The narrow entrance dries at LW; at other stages of the tide there are rapids through it. The inlet is accessible only to small craft at HW slack.

Porcher Inlet

354 **Porcher Inlet** *(53°57'N, 130°26'W)* has generally steep-to shores and depths too great for anchorage, except near its head. It is only suitable for small craft because of the numerous reefs in its narrow entrance; entry should be attempted only at or near HW slack.

355 **Theresa Rock**, on the north side of the entrance, has rocks with less than 6 feet (2 m) over them within 0.4 mile SW, SE and east of it. Several drying rocks, 0.5 mile east of Theresa Rock, are on the north side of the entrance to Porcher Inlet. East of these drying rocks, the entrance is narrow and encumbered with several drying and below-water rocks.

356 **Porcher Narrows**, 2.5 miles within the entrance of Porcher Inlet, is less than 300 feet (91 m) wide between the dangers fringing both shores.

357 **Tidal streams** in Porcher Narrows attain a maximum of 7 kn on the flood and ebb. Secondary current station Porcher Narrows (Index No. 8551), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

358 Both sides of Porcher Inlet are encumbered with drying and shoal ledges for 1.5 miles NNE of Porcher Narrows. The only other dangers are near the head, where a drying rock is close SE of the west entrance point of the channel leading to Salt Lagoon, and a rock, with less than 6 feet (2 m) over it, lies nearly in mid-channel about 1.3 miles from the head.

359 **Salt Lagoon** is entered through a narrow, intricate channel that dries.

Laredo Sound

Charts 3726, 3980, 3981

360 **Laredo Sound** *(52°20'N, 128°50'W)* is entered from south between McInnes Island, close south of Price Island, and Munro Island which is close south of Aristazabal Island.

361 **Aspect**. — The land on the west side of Price Island and the south end of Aristazabal Island is comparatively low and featureless. Jocelyn Hills, on the east side of Price Island, and **Kitasu Hill**, on the SW side of Swindle Island, are conspicuous. Mount Johnston, 10 miles NNW of the south extremity of Aristazabal Island, is a conspicuous saddle-shaped hill. The west coast of Price Island is fringed by numerous islets and rocks extending up to 2 miles offshore. The east coast of Aristazabal Island is comparatively steep-to; islands and rocks extend 4 miles south from this island.

362 **Kitsoo Spirit Bear Conservancy** encompasses the north end of Price Island and the west sides of Swindle Island and **Princess Royal Island**.

FIGURE 5.1: CURRENTS IN CAMANO SOUND 6 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

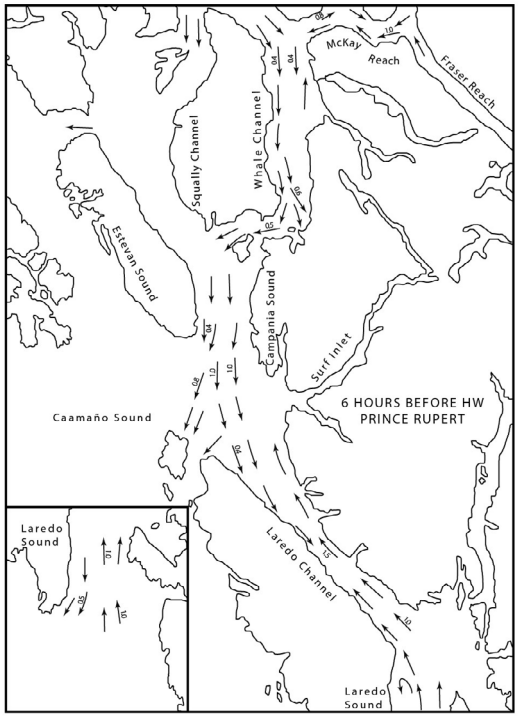


FIGURE 5.2: CURRENTS IN CAMANO SOUND 5 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

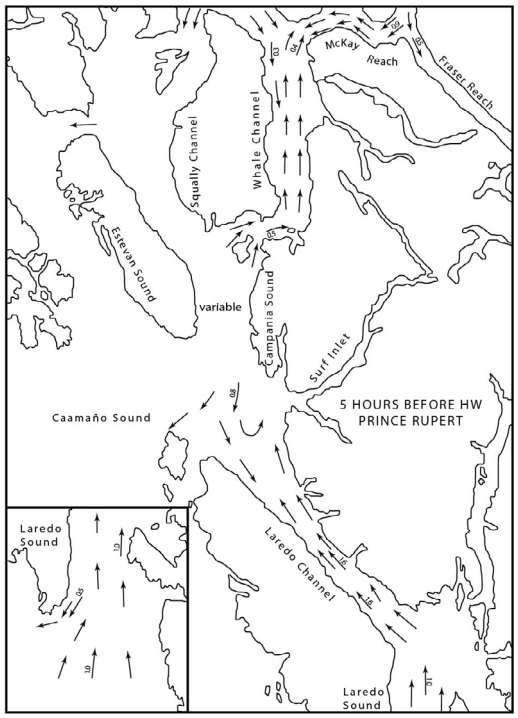


FIGURE 5.3: CURRENTS IN CAMANO SOUND 4 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

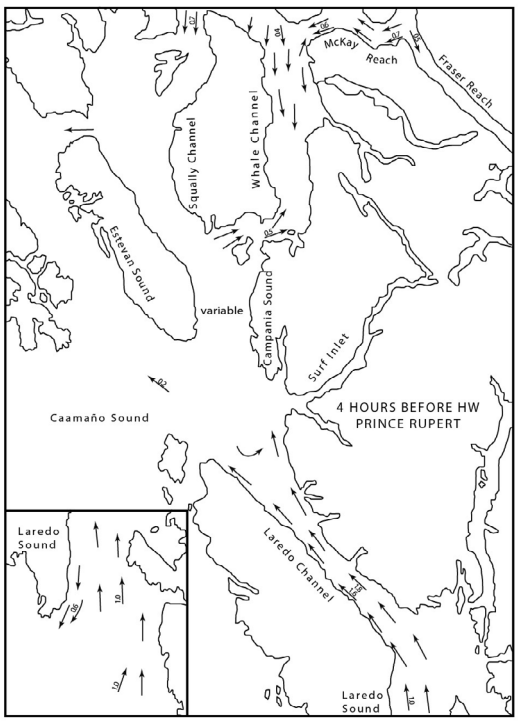


FIGURE 5.4: CURRENTS IN CAMANO SOUND 3 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

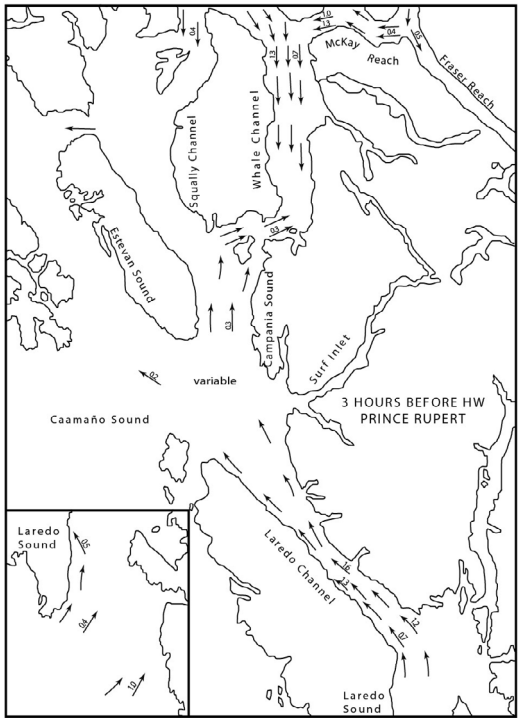


FIGURE 5.5: CURRENTS IN CAMANO SOUND 2 HOURS BEFORE HIGH WATER AT PRINCE RUPERT

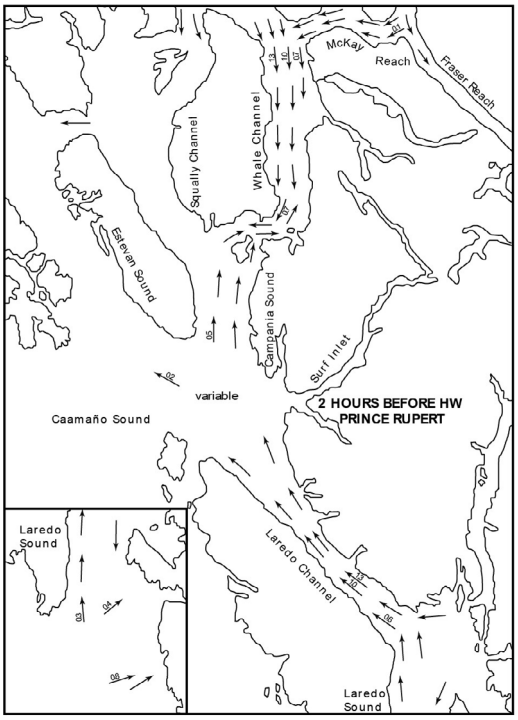


FIGURE 5.6: CURRENTS IN CAMANO SOUND 1 HOUR BEFORE HIGH WATER AT PRINCE RUPERT

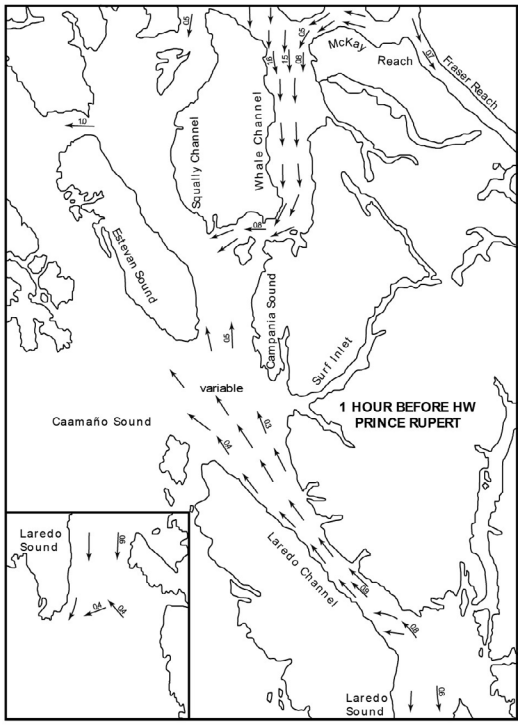


FIGURE 5.7: CURRENTS IN CAMANO SOUND DURING HIGH WATER AT PRINCE RUPERT

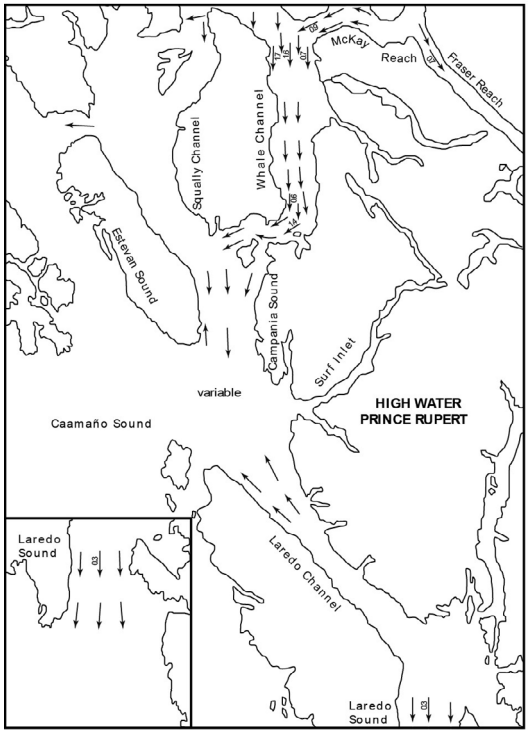


FIGURE 5.8: CURRENTS IN CAMANO SOUND 1 HOUR AFTER HIGH WATER AT PRINCE RUPERT

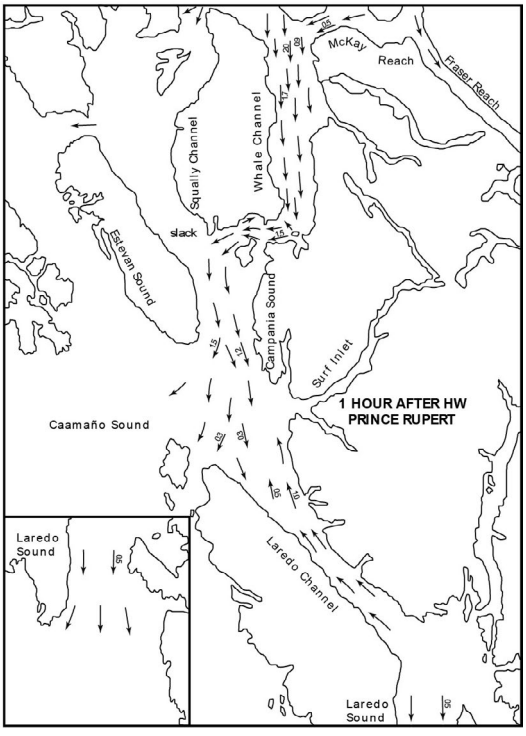


FIGURE 5.9: CURRENTS IN CAMANO SOUND 2 HOURS AFTER HIGH WATER AT PRINCE RUPERT

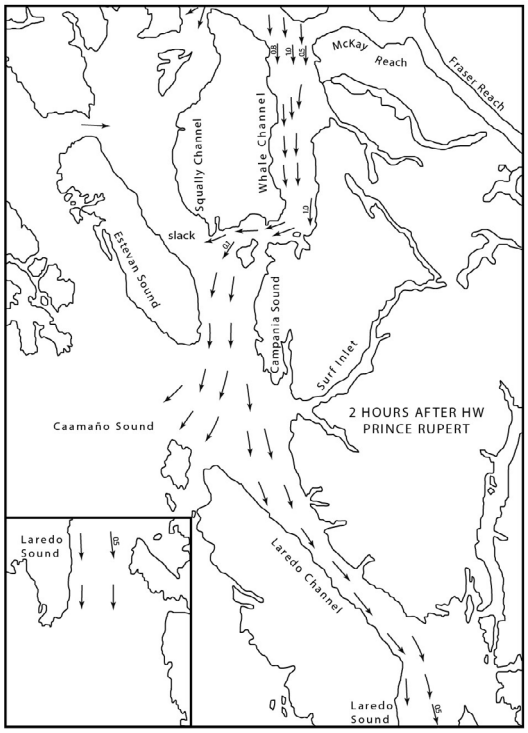


FIGURE 5.10: CURRENTS IN CAMANO SOUND 3 HOURS AFTER HIGH WATER AT PRINCE RUPERT

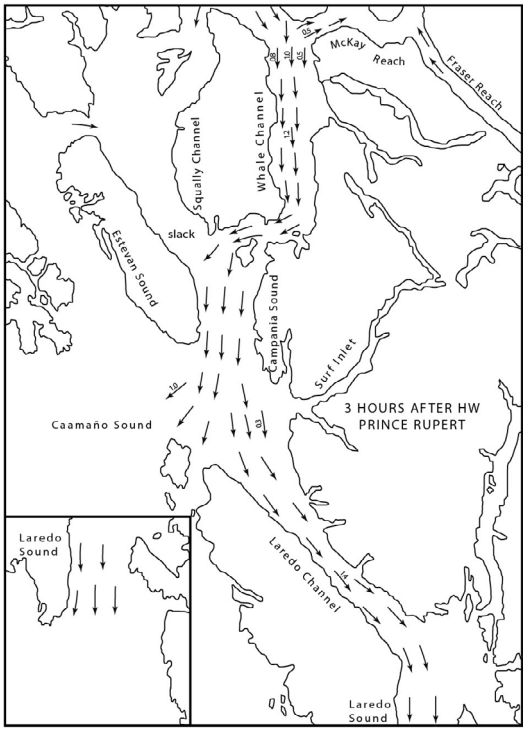


FIGURE 5.11: CURRENTS IN CAMANO SOUND 4 HOURS AFTER HIGH WATER AT PRINCE RUPERT

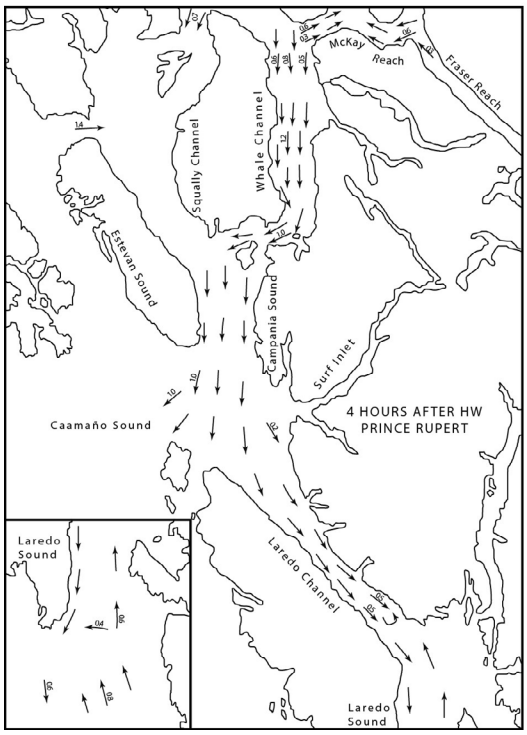


FIGURE 5.12: CURRENTS IN CAMANO SOUND 5 HOURS AFTER HIGH WATER AT PRINCE RUPERT

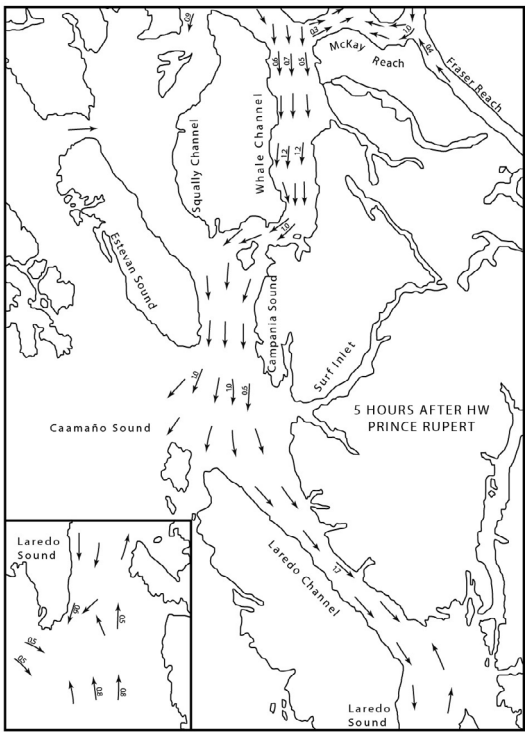
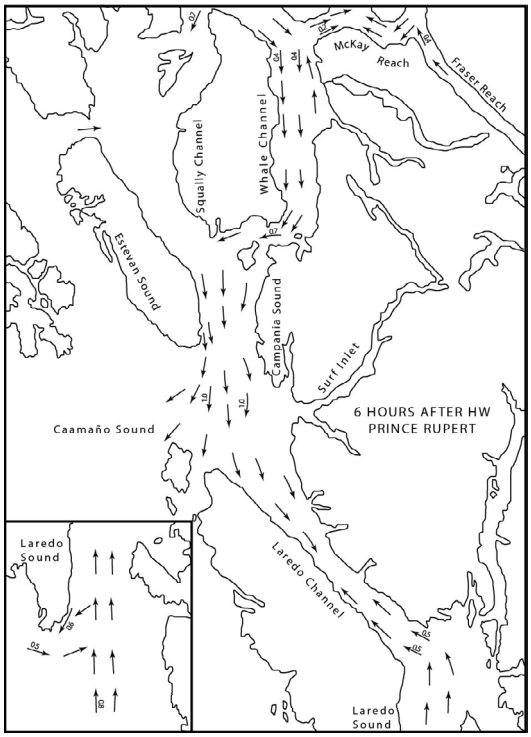


FIGURE 5.13: CURRENTS IN CAMANO SOUND 6 HOURS AFTER HIGH WATER AT PRINCE RUPERT



363 **Caution**. — Surveys in 1979 found depths shoaler than charted in Laredo Sound, north of *52°23'N*, and Laredo Channel. The current editions of *Charts 3975* and *3726* embody new information from these surveys only on least depths over principal shoals and dangers inside the 10 fathom (18.3 m) contour. The new *Chart 3981* contains new information from recent surveys, but it is recommended that the mariner consult the source class diagram on the chart for clarification. Deep draught vessels and tows with deep catenaries should follow the routes described under "Directions".

364 **Tides**. — Tidal differences in Laredo Sound, referenced on Bella Bella, are given for Higgins Passage (Index No. 9056) and Milne Island (Index No. 9063) in the Tide Tables, Volume 7.

365 **Tidal streams** in Laredo Sound turn about 4 hours after HW and 1 hour before HW at Prince Rupert.

366 Tide-rips, dangerous to small craft, occur with the ebb stream on Moody Banks, especially during south winds, and south of McInnes Island at the junction of the streams from Laredo and Milbanke Sounds.

367 **Tidal stream chartlets** showing the streams in knots from Laredo Sound to McKay Reach are on adjacent pages.

Chart 3726

Dangers South of Aristazabal Island

Chart 3980

368 **Lempriere Bank** *(52°23'N, 129°02'W)*, about 2 miles in extent from north to south, has several pinnacles on it; the least depth is 45 feet (13.7 m). **Nab Rock**, which dries 5 feet (1.4 m), is 2 miles east of Lempriere Bank.

369 **Moody Banks**, east of Nab Rock, with depths less than 20 fathoms (36.6 m) are about 5 miles long in a north/south direction. **Luard Shoal** *(52°24'N, 128°53'W)*, near the NE end of Moody Banks, has a least depth of 36 feet (11 m).

370 Luard Shoal **light and whistle buoy** "E63" *(620)*, near the shallowest part of the shoal, is a port hand buoy.

371 **Munro Island** is 1 mile SW of the south extremity of Aristazabal Island. Drying and below-water rocks extend 1.5 miles SE and 1.3 miles east of the island. Several shoals lie between this area of foul ground and Nab Rock. **Oldham Rock**, 1.3 miles east of Munro Island, dries 15.7 feet (4.8 m).

372 **Prior Passage** separates Munro Island and the foul ground east of it from the islands, islets and rocks off the south end of Aristazabal Island. It is about 0.15 mile wide, intricate and only suitable for small craft. Local knowledge is advised.

Price Island — West Coast

Chart 3980

373 McInnes Island *(52°16'N, 128°43'W)*, its light and Day Point are described with Milbanke Sound in Chapter 3.

374 Between McInnes and Price Islands and 0.8 mile south of the former, are numerous islets and rocks.

Chart 3733

375 **Catala Passage** *(52°16'N, 128°42'W)* leads through the above-mentioned islets and rocks and provides a safe and easy channel for small vessels travelling from Laredo Sound to Milbanke Sound.

376 **Mould Rock**, 1.5 miles NW of McInnes Island, is on the north side of the west approach to Catala Passage and has a depth of 4 m over it. **Linn Rock**, 0.4 mile north of McInnes Island, is 4 m high and lies on the north side of

the fairway of Catala Passage. **Bray Island**, 0.5 mile SE of Linn Rock, is 61 m high. The least width through the fairway is between Bray Island and the island, 43 m high, 0.15 mile south of it. A group of islets, 0.5 mile east of Bray Island, are on the north side and at the east end of the fairway through Catala Passage.

377 **Clearing marks**. — Linn Rock in line with the south extremity of Bray Island, bearing 118°, leads about 137 m SW of Mould Rock.

Chart 3980

378 **Morley Creek** and **Lipsett Creek** *(52°21'N, 128°44'W)*, 5.5 miles north of McInnes Island, have a common entrance.

379 **Rudolf Bay**, 9 miles north of McInnes Island, has several rocks off its narrow entrance but is well-sheltered and suitable for small craft. A rock with a depth of 7 feet (2.1 m) is 1.5 miles west of the north entrance point of Rudolf Bay. Two rocks, with less than 6 feet (2 m) over them, are 0.1 mile WSW of the same point.

380 **Jaffrey Rock** *(52°28'N, 128°50'W)* is 5 feet (1.5 m) high, bare and steep-to on its west side.

381 Jaffrey Rock is marked by a starboard V-AIS *(622)*, SW of the rock showing MMSI 993166098.

382 **Seddall Shoals** is an area of foul ground to the east and SE of Jaffrey Rock.

Chart 3910

Higgins Passage

383 **Higgins Passage** *(52°28'N, 128°43'W)* leads from Laredo Sound into Milbanke Sound. Its shoalest part, west of **Lohbrunner Island**, dries 5 feet (1.5 m) and is only suitable for small craft near HW on a rising tide; local knowledge is advised. The west entrance, encumbered by numerous islands and rocks, is best approached from the vicinity of Jaffrey Rock where **Kipp Islet** and the approach channel can be identified. Keep north of a line joining Jaffrey Rock and Kipp Islet to avoid being set south to Seddall Shoals. A narrow channel along the south and east sides of Kipp Islet leads NE through the islands then SSE into the west entrance of Higgins Passage. A shoal with a least depth of 26 feet (7.9 m) lies in this narrow channel 0.1 mile south of Kipp Islet.

384 **Grant Anchorage**, east of the island 0.5 mile ENE of Kipp Islet, is in the west entrance of Higgins Passage and affords **anchorage** to small vessels in 20 fathoms (37 m), mud bottom. Less sheltered anchorage with more swinging room can be obtained in the basin 0.6 mile NNE of Kipp Islet in 18 fathoms (33 m).

385 From Grant Anchorage, the fairway through Higgins Passage leads SSE and then east between several drying reefs and islets to Lohbrunner Island. **Fishing boundary markers** are on the south end of the large island 0.4 mile west of Lohbrunner Island and on the north side of the peninsula to the south. The fairway leads north along the west side of Lohbrunner Island, where a bar dries 5 feet (1.5 m), then SE through a narrow rock infested passage, which is full of kelp. The fairway then leads south along the east side of Lohbrunner Island to a wide basin.

386 The channel that dries 13 feet (4 m) south of Lohbrunner Island has wooded islets in its west and east entrances; the route through this channel lies between Lohbrunner Island and the islets. Do not attempt to pass south of the islets because the channel is obstructed by several large rocks.

HIGGINS PASSAGE LOOKING NW ABEAM NE POINT LOHBRUNNER ISLAND (1986)



387 A narrow channel with drying reefs on both sides leads NE from the basin east of Lohbrunner Island and widens near Higgins Lagoon. A **fishing boundary marker** is on the NW shore of the channel.

388 Higgins Lagoon and the east part of Higgins Passage are described in Chapter 3.

389 **Tidal streams**. — The north-going tidal streams from Milbanke and Laredo Sounds meet near the middle of Higgins Passage. In the narrowest part of Higgins Passage, north of Lohbrunner Island, the tidal streams attain 5 kn.

390 **Tides**. — Tidal differences for Higgins Passage (Index No. 9056), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

Charts 3726, 3975, 3980, 3981

Aristazabal Island — East Coast

391 **Lombard Point** *(52°29'N, 128°57'W)*, 2 miles NNE of the south extremity of Aristazabal Island, is steep-to on its east side. Several islets and drying rocks are close offshore between the south end of Aristazabal Island and Lombard Point.

392 Lombard Point **light** *(621)* is shown at an elevation of 27 feet (8.2 m) from a skeleton tower.

393 Between Lombard Point and **Tildesley Point**, 7.5 miles north, the coast of Aristazabal Island is steep and rocky. There are no dangers outside 0.2 mile from shore.

394 **Haig Rock**, 0.1 mile east of Tildesley Point, is 20 feet (6.1 m) high and steep-to on its east side. A rock, 7 feet (2.2 m) high, is 0.2 mile north of Haig Rock.

395 Haig Rock **light** *(624)* is shown at an elevation of 25 feet (7.6 m) from a skeleton tower.

Swindle Island — West Coast

396 **Larkin Point** *(52°31'N, 128°50'W)* is the west extremity of Swindle Island. Between Larkin Point and Kipp Islet, 2.7 miles SE, numerous islets and rocks fringe the SW coast of Swindle Island. **Abrams Island**, 1.3 miles north of Larkin Point, is connected to Swindle Island by a drying rock ledge.

397 Abrams Island **light** *(623)* is shown at an elevation of 27 feet (8.2 m) from a skeleton tower.

398 **Wilby Point**, 1.5 miles north of Abrams Island, is low. Drying rock ledges extend 0.3 mile NW and west from the point with a rock, 6 feet (1.8 m) high, at the west extremity.

399 **Kitasu Bay** is entered between Wilby Point and **Jamieson Point**, 2 miles east. **Kwakwa Creek**, **Cann Inlet** and **Osment Inlet**, on the east side of Kitasu Bay, have not been surveyed and local knowledge is advised. Several islets lie in the common entrance of Kwakwa Creek and Cann Inlet; drying rocks encumber the entrance of Osment Inlet.

400 **Parsons Anchorage**, at the head of Kitasu Bay and south of **Marvin Islands**, affords good shelter to small vessels during SE winds. The **anchorage** is in 15 to 20 fathoms (27 to 37 m), sand and gravel. A rock that dries 3 feet (0.9 m) is 0.1 mile north, a rock with less than 6 feet (2 m) over it is 0.1 mile south and two cabins are on the west side of the easternmost Marvin Island.

401 **Marine farms** are off the east shore of Parsons Anchorage and are reported to be in Osment Inlet (1986).

402 **Directions**. — Approaching Laredo Sound from Hecate Strait keep outside the 20 fathom (37 m) contour along the SE side of Moody Banks by steering for Kitasu Hill *(52°30'N, 128°44'W)*, bearing 029°. When the north extremity of Munro Island is abeam, bearing 299°, alter course to 352° to pass about 1 mile west of Jaffrey Rock and about 1.3 miles off Haig Rock.

403 If bound for Laredo Channel, alter course when Haig Rock is abeam to pass midway between Wilson Rock and the point on Princess Royal Island about 1 mile NE of it, after which the directions for Laredo Channel, given later in this chapter, should be followed.

404 If bound for Laredo Inlet alter course when Haig Rock light structure bears 308° to bring the south extremity of Croft Island ahead, bearing 047°, after which the directions for Laredo Inlet, given later in this chapter, should be followed.

405 If bound for Parsons Anchorage in Kitasu Bay or through Meyers Passage, then round Wilby Point at a distance of about 1 mile. Approaching Parsons Anchorage follow the shore SE of Wilby Point at a distance of about 0.2 mile, anchoring 0.3 mile south of the east entrance point of the anchorage. If entering Meyers Passage pass either 0.2 mile north of Gaudin Rock or 0.1 mile south of Ellard Rock thence into the entrance of Meyers Passage.

Meyers Passage

Charts 3943, 3980, 3981

406 **Meyers Passage** *(52°36'N, 128°39'W)*, between Swindle and Princess Royal Islands, leads from Laredo Sound into Tolmie Channel. It is suitable for small vessels

but local knowledge is advised. The least depth through the fairway is encountered in Meyers Narrows.

407 **Tides**. — Tidal differences for Meyers Narrows (Index No. 9060), referenced on Bella Bella, are given in the Tide Tables, Volume 7.



408 **Tidal streams** flood from Laredo Sound toward Tolmie Channel and the ebb flows in the opposite direction; the maximum rate for both is 3 kn.

409 Secondary current station Meyers Passage (Index No. 8528), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

410 **Wingate Point** *(52°36'N, 128°45'W)* and **Hartnell Point**, 0.5 mile north, are the west entrance points of Meyers Passage.

411 **Draper Islets** *(52°35'N, 128°45'W) (Charts 3726, 3975)* are 0.3 mile SSW of Wingate Point.

412 **Ellard Rock** and **Gaudin Rock** are bare and, together with several shoals, lie in the west approach to Meyers Passage.



413 **Corney Cove** indents the north shore 1.5 miles east of Hartnell Point. A rock with less than 6 feet (2 m) over it lies at the head of the cove. It is reported that small craft can obtain sheltered **anchorage** in Corney Cove.

414 **Cullum Point**, 4.5 miles east of Hartnell Point on the north side of Meyers Passage, is the west entrance point to Meyers Narrows.

415 **Meyers Narrows**, between Cullum Point and **Saunders Point**, 1.3 miles east, is less than 0.1 mile wide in its narrowest part and has a least depth of 2.4 m in the fairway. A rock that dries 5 feet (1.5 m) on the south side of the fairway about halfway through the narrows is marked by starboard hand **buoy** "E70" close NW. Two rocks awash are on the north side of the fairway, about 300 feet (91 m) NE and NW of the drying rock. During summer and autumn months, kelp grows thickly in the shoal water on both sides of the narrows.



416 A **wreck** is 0.4 mile SW of Cullum Point, in the vicinity of the anchorage.



417 **Anchorages** for small craft can be obtained at the west end of Meyers Narrows in 10 fathoms (18 m), mud, about 0.25 mile SW of Cullum Point and 0.1 mile from the south shore. At the east end they can obtain anchorage west of the drying spit that is close west of Saunders Point.



418 **Anchorage** can also be obtained in the middle of the passage, about 0.25 mile SE of Saunders Point, in 19 fathoms (35 m), mud. All the above-mentioned anchorages are close to the fairway through Meyers Passage.

419 **Jorgensen Harbour** *(52°38'N, 128°35'W)*, 2.3 miles north of Saunders Point and on the west side of Meyers Passage, is sheltered by an island off its north entrance point.



420 **Anchorage** for small craft can be obtained in 13 fathoms (24 m) in Jorgensen Harbour.

421 **McRae Cove** is 0.3 mile north of Jorgensen Harbour.

422 The east shore of Meyers Passage is free from off-lying dangers except for a rock with less than 6 feet (2 m) over it abreast Jorgensen Harbour and 0.1 mile off the east shore. A similar rock is close north of an island 0.7 mile to the north.



423 Considerable **magnetic disturbance** has been reported at the north entrance to Meyers Passage *(52°39'N, 128°34'W)*. The maximum intensity, amounting to 8° east, was experienced toward the east side of the channel midway between the 40 and 38 m high islands.

424 Tolmie Channel is described in Chapter 3.

Laredo Inlet

Chart 3975

425 **Laredo Inlet** *(52°40'N, 128°45'W)*, entered between Laidlaw and Jessop Islands on the west and Aitken and Croft Islands on the east, has high mountain ranges on both sides. The most conspicuous bare peaks are **Mount Parry**, on the west side, and **Mount Learmonth**, **South Needle Peak** and **North Needle Peak** on the east side.

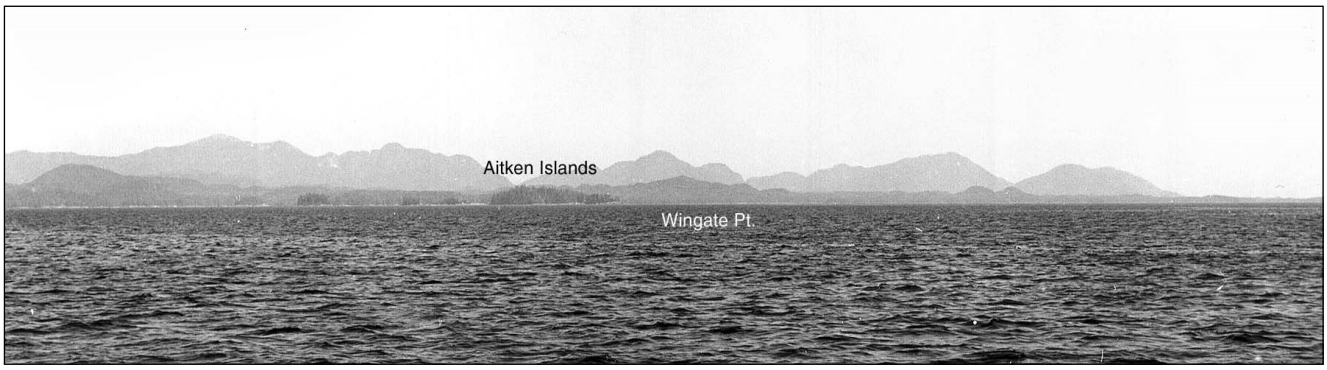
426 Laredo Inlet is generally deep in the middle. Burr Rock, about 16 miles inside the entrance, is the only danger in mid-channel.

427 **Tides**. — Tidal differences for Milne Island (Index No. 9063), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

428 **Milne Island** *(52°37'N, 128°46'W)* has foul ground extending 0.2 mile north and 0.1 mile west of it. **Hastings Island**, north of Milne Island, is separated from it by a boat passage encumbered with islets and rocks.

429 **Thistle Passage**, east of Hastings Island, has several islands and rocks in it; north of Palmer Anchorage it is only suitable for small craft.

ENTRANCE TO LAREDO INLET (1972)



430 **Palmer Anchorage**, in the south part of Thistle Passage, affords **anchorage** for small vessels in 19 fathoms (35 m), shell bottom.

431 **Quigley Creek**, on the east side and at the north end of Thistle Passage, has several islets in its entrance.

432 **Aitken Islands**, about 1 mile west of Milne Island, are a small group of islands, islets, drying and below-water rocks. **Croft Island**, 0.8 mile north of Aitken Islands, has two rocks that dry 5 feet (1.5 m) about 0.1 mile west from its west side. **Deas Rock**, 0.5 mile SSE of Croft Island, has two drying heads; the highest dries 15 feet (4.6 m). **Hilbert Point**, the NW extremity of Hastings Island, is steep-to.

433 **Laidlaw Islands** are 1 mile NNW of Aitken Islands. Foul ground, with two rocks that dry 6 and 7 feet (1.8 and 2.1 m) at its extremity, extends 0.25 mile SE from the south island. **Duffy Rock**, 0.3 mile south of the same island, has less than 6 feet (2 m) over it. A rock that dries 9 feet (2.7 m) is about 0.1 mile east of the NE of the Laidlaw Islands.

434 **Mansell Point**, the south extremity of **Jessop Island**, is steep-to. **Hume Rocks**, which dry 13 and 8 feet (4 and 2.4 m), lie in the passage between Laidlaw Islands and Mansell Point.

435 **Dallain Point**, 2 miles west of Laidlaw Islands, is the SW point of Princess Royal Island. Foul ground, which extends 0.3 mile SE from the point, has two rocks 9 and 3 feet (2.7 and 0.9 m) high at its extremity. Above- and below-water rocks fringe the point.

436 **Monk Bay**, between Dallain Point and **Hague Point**, is too deep for anchorage. An island on the NE side of the bay has drying rocks extending 0.2 mile south and SE from it, and detached shoal rocks are in the north part of the bay. **Pride Rock**, 1.5 miles ESE of Dallain Point, is a pinnacle with less than 6 feet (2 m) over it.

437 **Trahey Inlet**, NE of Hague Point, can be entered on either side of Jessop Island; it is only suitable for small craft. Drying and above-water rocks lie in the approach to and in the passage on the west side of Jessop Island. **Nares Hills**, east of the head of the inlet, are conspicuous from the entrance and from within Laredo Inlet.

438 **Waser Point**, 1 mile east of Jessop Island and on the west side of Laredo Inlet, is steep-to and can be rounded at a short distance. Conspicuous black cliffs are along the coast about 1.2 miles north of Waser Point. **Powles Creek**, 2.2 miles NNE of Waser Point, is on the east side of Laredo Inlet.

439 **Alston Cove**, 3 miles north of Powles Creek, has a narrow entrance with a depth of 21 feet (6.4 m). **Blee Creek** empties into the head of the cove over a drying flat. **Hards Creek** is on the west shore opposite Alston Cove.

440 **Anchorage** for small craft can be obtained in Alston Cove and in the unnamed cove 1.5 miles south of Hards Creek. A rock with less than 6 feet (2 m) over it lies in the approach to the unnamed cove and the rock charted in the centre of the entrance to the same cove is a very small treed islet. Pass to the east of the rock and islet.

441 **Busey Creek**, 2.3 miles NNW of Alston Cove, is on the west side of Laredo Inlet. A detached rock that dries 2 feet (0.6 m) is 0.2 mile east of the entrance to Busey Creek.

442 **Kohl Island** and **Pocock Island**, close north, and an unnamed island close south of Kohl Island lie off the west shore of Laredo Inlet. **Weld Cove**, west of Pocock Island, is reported to afford well-sheltered **anchorage**. The cove can be entered either side of Kohl

Island but the passage between Kohl and Pocock Islands is the easiest. Two rocks that dry 7 feet (2.1 m) lie close NW of Kohl Island.

443 **Bay of Plenty**, 1 mile north of Pocock Island, is encumbered with islets and rocks. It is reported that this is a popular, well-protected **anchorage** for small craft.

444 **Burr Rock**, which dries 8 feet (2.4 m), lies in the middle of the fairway of Laredo Inlet 2.5 miles NNE of Bay of Plenty.

445 **Fifer Cove**, east of Burr Rock, is entered between **Tuite Point** and the islands in its entrance. The fairway between Tuite Point and these islands is about 450 feet (137 m) wide with a depth of 24 feet (7.3 m). The outlet of **Bloomfield Lake** is at the south end of the cove. **Anchorage** for small craft can be obtained in Fifer Cove.

446 **Mellis Inlet** is entered 1.5 miles north of Burr Rock. **Nias Creek** and **Packe Creek** drain into the head of the inlet.

447 **Brew Island** is separated from a small peninsula at the head of Laredo Inlet by a narrow boat passage. The channels on both sides of the island are deep. An islet lies 0.1 mile south of the south extremity of Brew Island. Several creeks flow into the inlet east and west of Brew Island. **Arnoup Creek** and **Buie Creek** flow into the head of Laredo Inlet.

448 **Directions**. — Enter Laredo Inlet with the south extremity of Croft Island ahead, bearing 047°; this course will pass midway between Duffy Rock and the west extremity of Aitken Islands. When the south extremity of Laidlaw Islands is abeam alter course to bring Mansell Point ahead, bearing 005°, and maintain this course until the north extremity of Croft Island is abeam, then alter course NE to pass Hilbert Point in mid-channel and then maintain a mid-channel course up the inlet to Burr Rock. Burr Rock can be passed on either side, but the straighter channel to the east of the rock is preferred.

Laredo Channel

449 **Laredo Channel** *(52°40'N, 129°00'W)* connects Laredo Sound with Caamaño Sound. The banks in mid-channel between Wilson Rock and Ramsbotham Islands, 3 miles NW, have several shoals on them which rise steeply from the bottom; soundings will give little warning of these shoals.

450 The coast of Princess Royal Island, between Dallain Point and Kent Inlet, 5.5 miles NW, is fringed by drying and below-water rocks extending 0.3 mile offshore. The coast of Aristazabal Island has several shoals and drying rocks up to 0.3 mile offshore.

451 The fairway through Laredo Channel lies on the NE sides of Wilson Rock and Ramsbotham Islands and on the west side of Morehouse Rock; depths in the fairway are great.

452 **Caution**. — Surveys in 1979 found shoaler depths than charted in Laredo Sound north of *52°23'N* and in Laredo Channel. The current editions of *Charts 3975* and *3726* embody new information from these surveys only on least depths over principal shoals and dangers inside the 10 fathom (18.3 m) contour. The new *Chart 3981* contains new information from recent surveys, but it is recommended that the mariner consult the source class diagram on the chart for clarification. Deep draught vessels and tows with deep catenaries should follow the routes described under “Directions”.

453 **Magnetic anomalies** of as much as 4° have been reported (1979) in the vicinities of Wilson Rock, Ramsbotham Islands and Morehouse Rock.

454 **Tides**. — Tidal differences in Laredo Channel, referenced on Bella Bella, are given for Smithers Island (Index No. 9067) in the Tide Tables, Volume 7.

455 **Tidal streams**. — *See* chartlets under Laredo Sound, earlier in this chapter. At the north end of Laredo Channel, midway between Ulric and McPhee Points, the north-going flood stream from Laredo Channel meets the flood stream passing around the north end of Aristazabal Island and can cause tide-rips in that locality at springs.

456 The ebb stream divides in mid-channel off Ulric Point, one portion sets round the north end of Aristazabal Island, the other sets fairly down Laredo Channel.

457 The tidal stream in Laredo Channel turns to ebb about 1 hour after HW at Prince Rupert off Ulric Point and about 2 hours after HW at Prince Rupert off the Ramsbotham Islands. The stream is fairly constant in direction, setting SE parallel to shore, and attains about 1 kn off Ulric Point, ½ kn in the centre and east part of the channel, and up to 2 kn off Ramsbotham Islands.

458 The tidal stream turns to flood about 4 hours before HW at Prince Rupert off Ulric Point and about 6 hours before HW at Prince Rupert off Ramsbotham Islands. The stream sets NW past Ramsbotham Islands and attains 1½ kn but off Ulric Point it tends to be erratic in direction and attains 1 kn.

459 South of Wilson Rock the flood stream normally runs parallel with shore in a NW direction until about 3 hours before HW slack when it usually sets fairly

consistently about 280° across the channel. Between Wilson Rock and Ramsbotham Islands, at about mid-tide, the stream can set diagonally across the channel toward the south shore. In both cases, a backeddy can be present along the shore at this time.

460 **Walsh Rock** *(52°38'N, 128°57'W)*, which dries 13 feet (4 m) and is steep-to on its east side, is 0.3 mile offshore 2 miles NW of Tildesley Point. **Fernie Point**, 1.6 miles NW of Walsh Rock, is steep-to.



461 Walsh Rock **light** *(624.8)* is shown at an elevation of 23 feet (7 m) from a white tower.

462 **Wilson Rock**, 1 mile ENE of Fernie Point, lies nearly in mid-channel. In summer and autumn, it is usually marked by a large area of kelp.

463 Wilson Rock **light and bell buoy** "E75" *(625)*, close east of the rock, is a port hand buoy. Port hand **buoy** "E77" marks a shoal 0.5 mile NW of Wilson Rock.

464 **Richardson Range**, on the NE side of the channel, commences about 2 miles north of Dallain Point, previously described. **Mount Irving**, 7 miles north of Dallain Point, is a conspicuous cone-shaped mountain. A peculiarly shaped promontory, 3 miles NW of Dallain Point, with sandy beaches on each side, was the site of a First Nation village.

465 **Fishing boundary markers** are on Aristazabal Island 1.7 miles SE and 1.4 miles NW of Ramsbotham Islands light. On Princess Royal Island, markers are 2.1 miles east and 1.5 miles north of Ramsbotham Islands light.

466 **Ramsbotham Islands**, on the SW side of the channel and about 3 miles NW of Wilson Rock, consist of three islands and several islets. Foul ground with drying and below-water rocks extends 0.4 mile SE from the SE end of the islands.



467 Ramsbotham Islands **light** *(626)*, on the east extremity of the islands, is shown at an elevation of 21 feet (6.3 m) from a skeleton tower.

468 The mouth of a creek on Aristazabal Island, west of the south end of Ramsbotham Islands, is filled with drying flats and has the ruins of a bridge across its entrance. An abandoned limestone quarry is 0.4 mile SE of the mouth of the creek.



469 **Anchorage** can be obtained in 15 fathoms (27 m), rock and shell bottom, about 0.2 mile NE of the limestone quarry.

470 **Louis Islands**, 0.7 mile NW of Ramsbotham Islands, extend 1 mile NW along the coast of Aristazabal Island. This chain of islets and rocks has a reef that dries 15 feet (4.6 m) at the SE extremity and the largest islet, 174 feet (53 m) high, at the NW end. A narrow and shallow passage leads between these islands and the shore of Aristazabal Island.

471 **Shotbolt Point**, 1.5 miles NW of Louis Islands, is bold and steep-to. Drying ledges, with some off-lying drying reefs, are 2 miles NW of Shotbolt Point and extend about 0.2 mile off the Aristazabal Island shore. An island, at the north end of these drying ledges, is 46 feet (14 m) high and joined to shore by drying ledges.

472 **Morehouse Rock**, with 1 foot (0.3 m) over it, is 1.3 miles NNE of Shotbolt Point on the NE side of the fairway. Shoals and irregular depths are north and NNE of this rock, between it and the shore of Princess Royal Island.

473 Morehouse Rock **light and bell buoy** "EC" *(627)*, SE of the rock, is a starboard bifurcation buoy.

Chart 3982

474 **Baker Point**, 5.3 miles NW of Shotbolt Point, is a low sandy point. Three rocky shoals are within 0.5 mile offshore and extend 0.2 mile NW and 1.2 miles SE of Baker Point. A **fishing boundary marker** is on Baker Point.



475 Baker Point **light** *(628)* is shown at an elevation of 19 feet (5.8 m) from a skeleton tower.

476 **Ulric Point**, the north extremity of Aristazabal Island, is 2.5 miles NW of Baker Point; it is low and steep-to.

477 **McPhee Point** *(52°52'N, 129°08'W)*, on Princess Royal Island, is the NE entrance point of Laredo Channel. The bay 0.75 mile south of McPhee Point has a rock that dries 8 feet (2.4 m) close SW of the island in its south part.

478 **Directions**. — Entering the SE end of Laredo Channel, pass midway between Wilson Rock and the point on Princess Royal Island about 1 mile NE, then keep 0.5 mile from the Princess Royal Island shore, passing NE of Ramsbotham Islands and Louis Islands. When abeam Louis Islands steer to pass close-off Shotbolt Point, keeping SW then west of Morehouse Rock, then keep in mid-channel.

Charts 3911, 3975, 3982, 3981

Inlets on NE Side of Laredo Channel

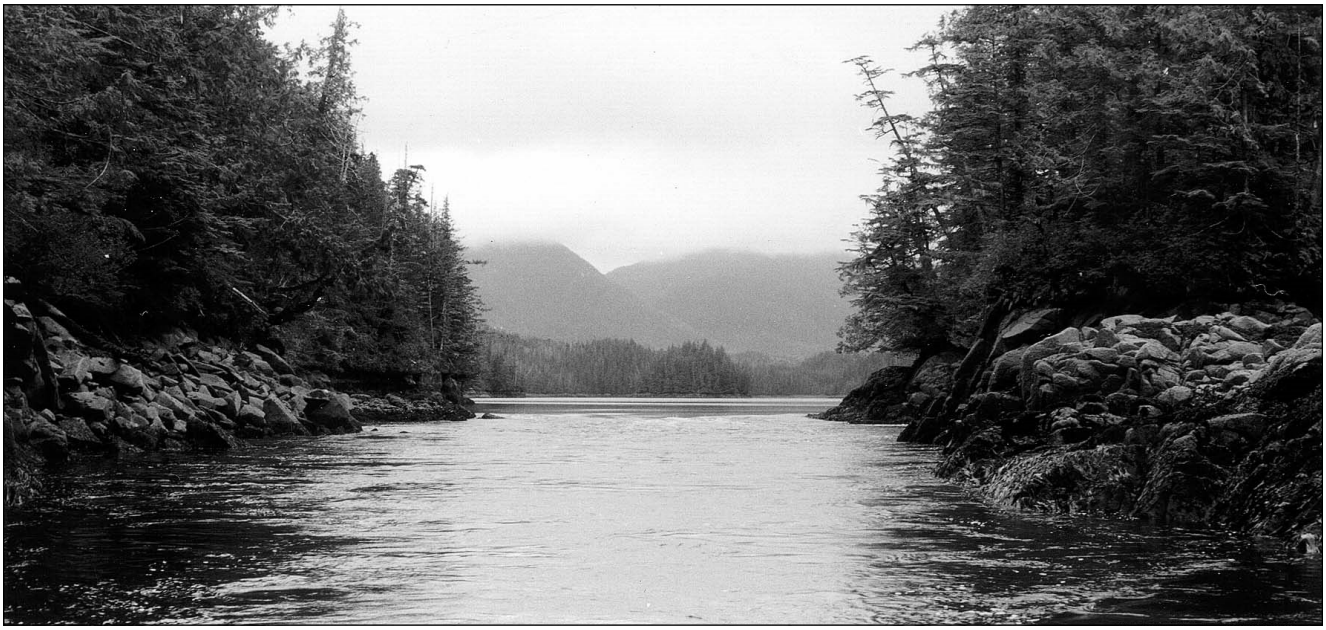
479 Kent, Helmcken, Commando and Evinrude Inlets, which indent the NE side of Laredo Channel, are only suitable for small craft. Local knowledge is advised.

480 **Kent Inlet** *(52°42'N, 129°00'W)* is entered south of **Loap Point**. Drying and below-water rocks extend slightly more than 0.1 mile west of Loap Point. A rock awash, 0.1 mile south of Loap Point, lies in the middle of the entrance to the inlet.

PHILIP NARROWS LOOKING SOUTH (1987)



ENTRANCE TO LAGOON AT HEAD OF HELMCKEN INLET (1987)



481 **Philip Narrows**, a short distance within the entrance, is less than 150 feet (46 m) wide and has a depth of 7 feet (2.1 m). **Tidal streams** in the narrows attain 6 to 8 kn at springs. A rock that dries 8 feet (2.4 m) and a rock with less than 6 feet (2 m) over it close SW are nearly in the middle of the south entrance to Philip Narrows. Pass to the east of these rocks. Small craft should only enter at or near slack water.

482 Several drying rocks and a rock with less than 6 feet (2 m) over it are at the north end of Kent Inlet.

483 **Helmcken Inlet** *(52°46'N, 129°05'W)* has **Smithers Island** in its entrance. The entrance channel north of Smithers Island is obstructed by drying rocks and dense kelp. The channel south of Smithers Island is only 150 feet (46 m) wide and has a least depth of 12 feet (3.7 m). A

COMMANDO INLET — EAST END OF ENTRANCE (1987)



salt-water lagoon is connected to the head of Helmcken Inlet by a narrow passage in which there are rapids.

484 **Anchorage** and shelter for small craft can be obtained in a small bight in the south shore of Smithers Island in 8 fathoms (15 m).

485 **Commando Inlet** *(52°47'N, 129°05'W)* is entered south of **Hawkins Point** through a narrow boat passage. At the east end of the boat passage, an islet is connected to the south shore by a drying ridge; depths north of the islet are 6 feet (1.8 m). **Tidal streams** in the narrow part of the entrance attain 8 to 10 kn at springs. Small craft should only enter at or near HW slack.

486 **Evinrude Inlet** *(52°48'N, 129°06'W)* is entered north of Hawkins Point and its entrance is less than 450 feet (137 m) wide at its narrowest part. A rock with 10 feet (3 m) over it is on the north side of the fairway just within the entrance and 0.25 mile NE from it is a shoal with a least depth of 8 feet (2.4 m).

Surf Inlet

Charts 3975, 3982, 3981

487 **Surf Inlet** *(52°53'N, 129°06'W)*, at the east end of Caamaño Sound, extends 12 miles NE into the coast of Princess Royal Island. Racey Inlet extends SE and Chapple Inlet and Emily Carr Inlet extend north from the entrance of Surf Inlet.

488 **Tides**. — Tidal differences for Surf Inlet (Index No. 9090), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

489 **Johnstone Point** *(52°53'N, 129°08'W)* is the south entrance point of Surf Inlet. **Mallandaine Point** is 1 mile north.

490 **Wearmouth Rock**, with 2 feet (0.6 m) over it, is 0.5 mile WSW of Johnstone Point and usually marked by thick kelp during summer and autumn.

491 **Sager Islands**, 1 mile west of Mallandaine Point, are on the north side of the approach to Surf and Chapple Inlets. A rock that dries 13 feet (4 m) and a rock with less than 6 feet (2 m) over it extend 0.2 mile SW from the islands. A **daybeacon** with a port hand daymark is on the south extremity of the islands.

492 **Holler Rock**, between Mallandaine Point and Sager Islands, dries 2 feet (0.6 m). A rock, with 14 feet (4.1 m) over it, is 0.1 mile south of Mallandaine Point.

Chart 3982

493 **Bryant Point**, 1.3 miles SE of Mallandaine Point, is steep and cliffy and has a rock, with 12 feet (3.7 m) over it, close west. **Argyh Cove**, 2.5 miles ENE of Bryant Point, has a rock that dries 6 feet (1.8 m) in its entrance. A conspicuous white cliff is on the opposite side of Surf Inlet, abreast Argyh Cove.

494 **Adams Point**, 2.8 miles NE of Argyh Cove, is bold. A rock that dries 5 feet (1.5 m) is close offshore just

SURF INLET LOOKING NE ABEAM ARGYH COVE (1987)



north of the point. **Adams Bay**, south of Adams Point, is too deep for anchoring.

495 **Penn Harbour**, 1.5 miles NNE of Adams Point and on the east side of Surf Inlet, has a narrow entrance, about 180 feet (55 m) wide, with a least depth of 36 feet (11 m) through it. It is well-sheltered from all winds.

496 Penn Harbour affords good **anchorage** for small vessels in 11 to 12 fathoms (20 to 22 m), mud.

497 **Directions**. — Keep in mid-channel when entering Penn Harbour and, when through the narrowest part, keep toward the NW side of the channel and anchor in the middle of the basin that forms the head of the harbour.

498 At the head of Surf Inlet, 4.5 miles NNE of Penn Harbour, are the ruined wharf and buildings of a former mining operation. A small creek, at the head of Surf Inlet, is the overflow from a dam that separates **Bear Lake** from Surf Inlet.

499 Indifferent **anchorage**, with limited swinging space, can be obtained at the head of Surf Inlet in about 17 fathoms (31 m), mud, about 0.2 mile north of the creek. **Caution** is necessary as the bottom drops steeply to depths over 40 fathoms (73 m).

500 **Directions**. — When entering Surf Inlet give Sager Islands a wide berth and pass midway between Johnstone and Mallandaine Points; thereafter maintain a mid-channel course.

501 **Racey Inlet** is entered between Johnstone and Bryant Points. **Hallet Rock**, in the middle of the entrance, has 2 feet (0.6 m) over it.

502 **Jay Islands**, 2 miles SE of Johnstone Point, are close-off the south shore of Racey Inlet.

503 **Carne Bay**, 1.5 miles SE of Jay Islands, is deep and unsuitable for anchorage. High land is on the north side of the bay and a valley extends to the east. A rock awash, opposite the middle of Carne Bay, is about 300 feet (91 m) off the SW shore of Racey Inlet.

504 **Cox Rocks**, south of Carne Bay, are a group of above-water and drying rocks almost in the middle of the fairway leading to Bone Anchorage. The fairway on the SW side of these rocks is only 500 feet (152 m) wide.

505 **Wale Island**, near the head of Racey Inlet, has a rock with 18 feet (5.5 m) over it west of its NW extremity. A rock that dries 7 feet (2.1 m) is close-off the west shore of the island.

506 **Bone Anchorage**, NW of Wale Island, is suitable for small vessels and **anchorage** can be obtained in 18 fathoms (33 m), mud.

507 **Directions**. — Do not attempt to enter Racey Inlet at night or in thick weather. Entrance can be made on either side of Hallet Rock, then keep in mid-channel and pass NE of the rock awash opposite Carne Bay and SW of Cox Rocks, then to the anchorage 0.15 mile NW of Wale Island.

Charts 3911, 3975, 3982, 3981

508 **Chapple Inlet** *(52°56'N, 129°08'W)* is entered between Holler Rock and Mallandaine Point. About 0.8 mile north of Mallandaine Point, the fairway is contracted to a width of about 450 feet (137 m) by islands on the west side.

509 **Doig Anchorage**, between **Webber Island** and the west side of Princess Royal Island, affords good **anchorage** in 16 fathoms (29 m). Two rocks are about 450 feet (137 m) from the east shore of the north part of Doig Anchorage; the south rock has less than 6 feet (2 m) over it and the north one is awash.

510 **Chettleburgh Point**, 1.3 miles north of Doig Anchorage, has a drying ledge with an islet on it extending 0.1 mile north.

511 **Anchorage** for small craft can be obtained in 7 fathoms (12.8 m) in the bay west of Chettleburgh Point.

512 **Baile Island**, 0.8 mile north of Chettleburgh Point, has a drying rock and several below-water rocks close-off its south end. The passage east of a drying ledge on the

east side of Baile Island is only 150 feet (46 m) wide with a depth of 12 feet (3.7 m) in the fairway. A 27 foot (8.2 m) shoal is 0.1 mile NW of the north extremity of Baile Island.

513 **Kiln Bay** has two islands on its west side. A rock, with less than 6 feet (2 m) over it, about 300 feet (91 m) NE of these islands, is on the west side of the approach to Kiln Bay.

514 **Anchorage** for small craft can be obtained north of the islands in Kiln Bay in 11 fathoms (20 m); it is exposed to SE gales.

515 **McKechnie Point** is separated from the north end of Baile Island by a ridge on which there is a wooded islet, drying reefs and below-water rocks. An islet, east of McKechnie Point and connected to it by a drying mud flat, has a rock awash off its east side. The fairway east of the rock awash is about 75 feet (23 m) wide. Several drying and below-water rocks are in the north part of Chapple Inlet, and the head of the inlet is filled with a drying mud flat.

516 **Emily Carr Inlet**, west of Webber Island, is encumbered by rocks and only suitable for small craft. Well-protected **anchorage** is reported to be obtainable at the head of the inlet and in the cove near the entrance. Both anchorages have very narrow entrances and local knowledge is advised. **Holgate Passage**, north of Webber Island, is obstructed at its east end by a drying reef projecting from Webber Island.

517 **Groundings** have occurred by vessels attempting to enter the unnamed cove on the west side of Emily Carr Inlet near the entrance. The passage on the north side of the large island in the entrance to this cove is narrow, shallow and obstructed by drying rocks. The west end of this passage has a large drying rock in the centre. Mariners must favour the south side and go close to a large fallen tree. Local knowledge and prior reconnaissance at low water is recommended before any attempt is made to enter this cove.

Campania Sound

Charts 3975, 3982

518 **Campania Sound** *(52°58'N, 129°15'W)*, between Campania Island on the west and Princess Royal and Ashdown Islands on the east, leads north from Caamaño Sound to Squally Channel and Whale Channel.

519 **Tidal streams**. — *See* chartlets under Laredo Sound, earlier in this chapter. The north-going flood stream enters Campania Sound from Caamaño Sound and runs from 5 to 2 hours before HW at Prince Rupert; for the most part it is weak and variable. The main ebb flows north of Ashdown Island into Campania Sound.

520 **Duckers Islands** *(52°56'N, 129°12'W)* are separated from Princess Royal Island by a boat passage encumbered with drying rocks. Two rocks, 0.4 and 0.2 mile SSE of Duckers Islands, have 22 and 24 feet (6.7 and 7.3 m) over them.

521 Duckers Islands **light** *(629)*, on the SW extremity of the south island, is shown at an elevation of 30.5 feet (9.3 m) from a white tower.

522 **Clarke Cove**, 2.3 miles north of Duckers Islands, has a narrow entrance with a depth of 3 feet (0.9 m) in it. A strong **tidal stream** sets through the entrance, which is only suitable for small craft at slack water.

523 **Alexander Islands** are 0.3 mile south of the SE extremity of Campania Island. Several drying and below-water rocks are west and north of these islands.

524 Alexander Islands **light** *(630.2)*, on the south extremity of the largest island, is shown from a mast with a white base.

525 **Eclipse Point**, 1 mile north of Alexander Islands, is the south entrance of a small bay.

526 **Dougan Point**, 4.2 miles north of Eclipse Point, has a bold and conspicuous white cliff on its SE side.

527 Dougan Point **light** *(631.6)*, on the east side of Dougan Point, is shown at an elevation of 23 feet (7 m) from a white tower fitted with a green band on top.

528 **Seabrook Point**, 4.5 miles ESE of Dougan Point, is bold. **Murphy Range** is south and **Mount Cardin** is 4 miles east of Seabrook Point.

529 **Ashdown Island** is on the east side of the north end of Campania Sound. **McNeill Point** is the south extremity of Ashdown Island.

530 Ashdown Island **light** *(632)*, on the west extremity of the island, is shown at an elevation of 29.5 feet (9 m) from a white tower with a red band at the top.

Casanave Passage

531 **Casanave Passage** *(53°03'N, 129°11'W)* separates Ashdown Island from Princess Royal Island and has a width of about 0.5 mile.

532 **Tidal streams** in Casanave Passage attain 3 kn on large tides with some eddies in the vicinity of Redfern Point. The streams turn to flood about 5 hours

before HW at Prince Rupert and turn to ebb about 1 hour before HW at Prince Rupert.

533 **Barlow Point**, the SE point of Ashdown Island, is bold and fronted by cliffs. A rock, 4 feet (1.2 m) high, is close-off the point. Several islets and drying rocks lie between Barlow and McNeill Points.

534 A small group of islets is at the south end and on the east side of Casanave Passage. A rock that dries 19 feet (5.8 m) lies 0.1 mile north of the islets. A small bay, 1 mile NNE of the group of islets, has an island off its west entrance point and a rock, that dries 9 feet (2.7 m), is close west of this island.

535 **Redfern Point**, the NW point of Princess Royal Island, is at the north end of Casanave Passage and is steep-to.

Whale Channel

Chart 3742

536 **Whale Channel** *(53°11'N, 129°08'W)*, between the NW sides of Ashdown and Princess Royal Islands and the south and east sides of **Gil Island**, leads NE and north from Campania Sound into Wright Sound.

537 **Vessel Traffic Services (**VTS**)**. — McKay Reach, Wright Sound and Grenville Channel, all at the north end of Whale Channel, are part of the main Inner Passage that leads north toward Alaska. Before crossing or joining this main channel, report your intentions in sufficient time to alert any traffic within the main channel. *See* Vessel Traffic Services in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

538 **Tides**. — Tidal differences in the vicinity of Whale Channel, referenced on Bella Bella, are given for Barnard Harbour (Index No. 9115) in the Tide Tables, Volume 7.

539 **Tidal streams**. — *See* chartlets under Laredo Sound, earlier in this chapter. The flood stream makes its way north at about ½ kn up the east shore of Whale Channel, and at the north end off Home Bay it sets north around Nelly Point into McKay Reach from 6 hours after to 4 hours before HW at Prince Rupert.

540 For the most part the stream sets continuously south in the centre and along the west shore of Whale Channel; it is strongest from 3 hours before to 3 hours after HW at Prince Rupert, averaging 1¼ kn in the centre with a maximum of 2 kn. On the west side rates are ¾ to 1 kn and on the east side, off Home Bay, ½ kn. At the south end the main stream flows north of Ashdown Island into Campania Sound and attains its maximum of 3 kn in this part.

541 The range of tide appears to have little effect on the streams though there are large inequalities in the tidal stream rates; these rates can be increased or decreased by as much as 1 kn due mainly to weather conditions.

542 Due to the amount of fresh water drainage into Whale Channel the subsurface current, at times, can flow in the opposite direction to the surface current.

543 **Fawcett Point** *(53°05'N, 129°17'W)* is the south extremity of Gil Island. Rocks and shoal water extend 0.2 mile south of the point.

544 Fawcett Point **light** *(631.9)* is shown at an elevation of 23 feet (7 m) from a white tower.

545 **Fish Bay**, close east of Fawcett Point, has rocks on both sides of its entrance and near its head.

546 **Levy Point**, 2.7 miles east of Fawcett Point, is the north extremity of Ashdown Island.

547 Levy Point **light** *(633)* is shown at an elevation of 23 feet (7 m) from a white tower with a red band at the top.

548 **Taylor Bight**, in the south coast of Gil Island, is deep and exposed. An islet is on the west side of the bight.

549 **York Point**, on the east side of Taylor Bight, is steep-to.

550 York Point **light** *(634)*, on the south extremity of the point, is shown at an elevation of 28 feet (8.4 m) from a white tower with a green band at the top.

551 **Allatt Point**, 1 mile ENE of York Point, is bold.

552 **Borde Island** is on the south side of Whale Channel in the entrance of Barnard Harbour, which is described later. **Drummond Bay** is 0.5 mile east.

553 Borde Island **light** *(635)*, on the north side of the island, is shown at an elevation of 23 feet (7 m) from a skeleton tower.

554 **Molly Point** is 1 mile NNE of Allatt Point. **Camp Islet**, 1.3 miles north of Molly Point, is conspicuous. **Shrub Point**, 4.5 miles north of Camp Islet, is comparatively low and wooded. **Maple Point** is 4.8 miles north of Shrub Point.

555 Maple Point **light** *(635.5)* is shown at an elevation of 23 feet (7 m) from a skeleton tower.

Chart 3945

556 **Leading Point**, on the east side of the channel 2.1 miles ESE of Shrub Point, has a prominent hill close east of it. **River Bight** is north of Leading Point. **Whalen Creek** flows into the north part of River Bight.

557 Leading Point **light** *(635.3)* is shown at an elevation of 24 feet (7.3 m) from a skeleton tower.

558 **Clement Rapids**, SE of **Salmon Point**, connects River Bight to Cornwall Inlet.

559 **Tidal streams**. — In Clement Rapids the time of HW slack varies from 1 h 30 min to 2 h 10 min after HW at Prince Rupert; the time of LW slack varies from 1 h 55 min to 3 h 20 min after LW at Prince Rupert.

560 **Cornwall Inlet** extends 6 miles SE from Clement Rapids. **Drake Inlet** extends 2 miles south from Cornwall Inlet.

561 Home Bay, at the NE end of Whale Channel, is described with Wright Sound in Chapter 3.

Charts 3911, 3982

Barnard Harbour

562 **Barnard Harbour** *(53°04'N, 129°07'W)* can be entered by Aikman or Burnes Passages.

563 **Tides**. — Tidal differences for Barnard Harbour (Index No. 9115), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

564 A considerable **magnetic disturbance** is in the vicinity of both Aikman Passage and Burnes Passage.

565 **Aikman Passage**, on the west side of Borde Island, is about 0.1 mile wide between **Claudet Point** and the island; it is steep-to on both sides.

566 **Burnes Passage** leads between the east side of Borde Island and **Flett Point**. Shoal ledges on both sides of the passage reduce the fairway to about 360 feet (110 m) wide.

567 **Leighton Point**, 0.4 mile SSE of Claudet Point, is low, bare and fronted by shoal water. The bay, between Claudet and Leighton Points, is filled with drying flats and has a 1 foot (0.3 m) high rock in its entrance.

568 **Cameron Cove** is entered between Leighton Point and **Goodfellow Point**. Two wooded islets, connected to shore by drying ledges, are close-off the west shore of the cove. **Barnard Creek** flows into the head of Cameron Cove, east of **Uren Point**.

569 A floating fishing resort is reported to be in Barnard Harbour.

570 Good **anchorage** can be obtained in the middle of Cameron Cove in 18 fathoms (33 m), sand and mud bottom.

571 **Directions**. — Enter Barnard Harbour by either Aikman or Burnes Passages keeping in the centre of the fairway. The greater part of Barnard Harbour is too deep for convenient anchorage. Approaching Cameron Cove give Leighton Point a wide berth and keep in the middle of the fairway of the cove when approaching the anchorage.

Squally Channel

Charts 3975, 3976

572 **Squally Channel** *(53°08'N, 129°23'W)*, between Campania and Gil Islands, is the NW continuation of Campania Sound. **Mount Gil**, near the north end of Gil Island, is a well-defined summit. Violent squalls are often experienced in Squally Channel; they descend from the high land of Campania Island. At the same time calms or light winds are often experienced in Whale Channel.

573 **Skinner Islands** are close-off the SW part of Gil Island. Foul ground and a rock that dries 6 feet (1.8 m) are 0.3 mile SSE of Skinner Islands.

Chart 3742

574 **MacDonald Bay** *(53°12'N, 129°20'W)*, 6 miles north of Skinner Islands, has a very narrow entrance that dries.

575 **Fernyhough Point**, 4.2 miles NW of Skinner Islands on the Campania Island shore, is steep-to.

576 Fernyhough Point **light** *(631.7)* is shown at an elevation of 20 feet (6 m) from a white tower with a green band on top.

Lewis and Cridge Passages

Chart 3945

577 **Blackrock Point** *(53°13'N, 129°21'W)*, on the west side of Gil Island, is on the south side of the junction between Squally Channel and Lewis Passage.

578 Blackrock Point **light** *(665.4)* is shown at an elevation of 22 feet (6.6 m) from a skeleton tower.

579 Blackrock Point Sector **light** *(665.41)* is shown at an elevation of 27 feet (8.3 m) from a skeleton tower.

580 **Fin Island** is between Gil Island and **Farrant Island**. **Buckle Point**, the west extremity of Fin Island, is low and shelving; it is fronted with below-water rocks. **Brant Bay** is to the south and **Hawk Bay** to the north of Buckle Point.

581 **Lewis Passage**, between Gil and Fin Islands, is entered at its west end between Blackrock Point and **Keld Point**, 1.7 miles NNW.

582 **Fin Rock**, 0.2 mile east of Keld Point, is connected to Fin Island by a drying sand spit. A reef, consisting of drying and below-water rocks, extends 0.3 mile NE of Fin Rock along the coast of Fin Island.



583 Fin Rock **light** *(665.3)* is shown at an elevation of 20 feet (6.1 m) from a skeleton tower.

584 **Plover Point**, the NE extremity of Fin Island, has a rock that dries 9 feet (2.7 m) and below-water rocks close-off it. **Howard Islet**, south of Plover Point, lies in the entrance of a bay that is filled with drying flats.



585 Plover Point **light** *(665.1)* is shown at an elevation of 12 feet (3.8 m) from a skeleton tower.



586 Gil Island NW **light** *(665.6)*, SW from Plover Point, is shown at an elevation of 22 feet (6.6 m) from a skeleton tower.



587 Lewis Passage **light** *(665.7)*, NW from Plover Point, is shown at an elevation of 23 feet (7 m) from a skeleton tower.

588 **Crane Bay**, in the SE part of Lewis Passage, is too deep for anchorage. **Williams Islet** is off the north entrance point to Crane Bay. Two rocks that dry 10 and 17 feet (3 and 5.2 m) are in the south end of the passage between Williams Islet and Gil Island.

589 **Cridge Passage**, between Fin and Farrant Islands, is entered at its west end between **Corbett Point** and Blossom Point. The north side of the passage is steep-to. Four islets and several drying and below-water rocks lie within 0.2 mile of the Fin Island shore of Cridge Passage.



590 Cridge Passage **light** *(665.5)* is shown at an elevation of 23 feet (7 m) from a skeleton tower.

591 **Block Head**, at the NE end of Cridge Passage, terminates in a high, bold, white cliff.



592 Block Head **light** *(665.2)* is shown at an elevation of 20 feet (6 m) from a skeleton tower.

593 **Blenkinsop Islet**, which has below-water rocks close south of it, is off the NE end of Fin Island and fronts **Curlew Bay**.



594 **Anchorage** for small craft can be found in the entrance to Curlew Bay, SW of Blenkinsop Islet.



595 **Vessel Traffic Services (**VTS**)**. — McKay Reach, Wright Sound and Grenville Channel, at the north end of Cridge and Lewis Passages, are part of the main Inner Passage that leads north toward Alaska. Before crossing or joining this main channel, report your intentions in sufficient time to alert any traffic within the channel. *See* Vessel Traffic Services in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

Tuwartz Inlet, Union Passage and Approaches

596 **Dillon Bay** *(53°13'N, 129°30'W)*, 0.5 mile north of McCreight Point, is a narrow indentation in the SE end of Pitt Island. An islet and a rock with less than 6 feet (2 m) over it are close-off the north entrance point.

597 **Cherry Islets**, 1 mile north, are wooded and connected to Pitt Island by a drying ledge.

598 **Betton Rocks**, 0.8 mile north of Cherry Islets, consists of a group of islets and drying and below-water rocks. Rocks that dry 5 and 8 feet (1.5 and 2.4 m) are 0.2 mile north and 0.4 mile NE of Betton Rocks.

Tuwartz Inlet

599 **Tuwartz Inlet** *(53°18'N, 129°31'W)*, entered between **Wilman Point** and **Leggeat Point**, extends 3 miles NNW into the SE side of Pitt Island. Detached drying reefs are 0.2 mile east of Wilman Point. Drying rocks are 0.1 mile south and 0.1 mile WSW of Leggeat Point. A bushy islet, 0.2 mile SSW of Leggeat Point, lies in the entrance of Tuwartz Inlet.

600 **Tuwartz Narrows**, 1.7 miles NNW of Leggeat Point, is about 150 feet (46 m) wide at its south end. The passage through the narrows is only suitable for small craft at or near slack water. A rock that dries 15 feet (4.6 m) is just within the south entrance, near the east shore. Three treed islets, on a common drying reef, are at the north end of Tuwartz Narrows; there is a narrow passage on either side of this reef. The passage on the east side of the islets is deeper.

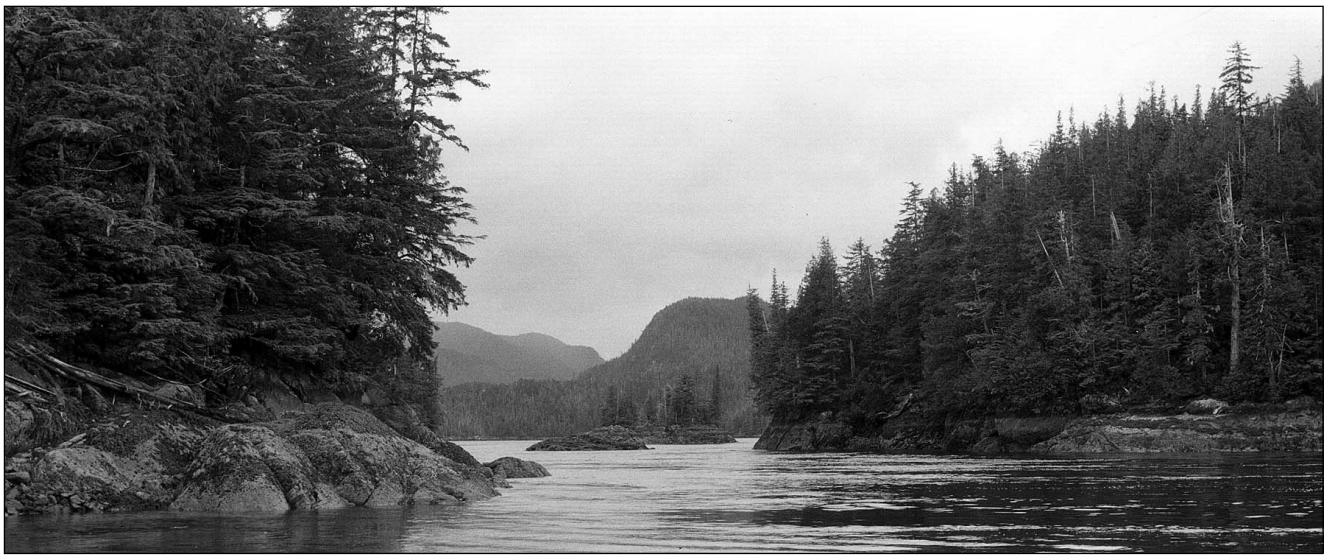
601 **Cridge Lagoon**, at the north end of Tuwartz Inlet, is obstructed by a drying flat at its entrance.

Union Passage

602 **Union Passage**, between Farrant and Pitt Islands, leads from the north end of Squally Channel into Grenville Channel. The least depth in the fairway through Union Passage is 2.3 m, encountered in the middle of Hawkins Narrows.

603 **Mollison Point** *(53°17'N, 129°29'W)* is on the west side of the south approach to Union Passage. **Blossom Point**, 2.6 miles ENE, is on the east side of the south approach.

TUWARTZ NARROWS LOOKING NORTH (1987)



604 **Ascroft Islet** is 0.8 mile north of Blossom Point. Several islands, drying and below-water rocks are NE of Ascroft Islet, between it and the shore of Farrant Island.

605 **Hinton Island**, 2 miles NNW of Blossom Point, separates Union Passage from Payne Channel. **Minnis Bay** penetrates the south side of Hinton Island. **Hale Point** is the west entrance point to Minnis Bay. An islet on a drying ledge, some drying reefs, and a rock with less than 6 feet (2 m) over it, extend 0.3 mile SSE from the point.

Chart 3946

606 **Payne Channel** separates Hinton Island from Pitt Island. **Mitchell Cove**, at the north end of Payne Channel, offers protection from all but south winds. A rock that dries 12 feet (3.7 m) is on the east side of the approach to the cove.

607 **Hoey Narrows**, between the NW end of Hinton Island and an islet west of it, is less than 300 feet (91 m) wide with a depth of 21 feet (6.4 m) in its fairway.

608 **Edwards Islet**, 0.3 mile east of Hinton Island, is surrounded by drying ledges and shoal water, and has depths under 6 fathoms (11 m) between it and Hinton Island.

609 Above Edwards Islet, Union Passage gradually narrows to **Peters Narrows** where it becomes a narrow boat passage about 80 feet (24 m) wide between the 3 fathom (5.5 m) lines. The narrows has a least depth of 21 feet (6.4 m) in the fairway.

610 An islet, 0.3 mile north of Peters Narrows, lies in the middle of the fairway and has a drying ledge extending from its SE side. The coves on both sides of the fairway between Peters and Hawkins Narrows, 2 miles north, provide good shelter for small craft in convenient depths.

611 **Hawkins Narrows**, at the north end of Union Passage, has a least depth of 2.3 m in the fairway. A rock with less than 6 feet (2 m) over it is in the south entrance of Hawkins Narrows and another is 0.1 mile north.

612 **Tidal streams** in Peters Narrows attain a maximum of about 7 kn and in Hawkins Narrows about 8 kn. Slack water in Hawkins Narrows occurs 15 minutes before HW and LW at Prince Rupert; duration of slack is about 5 minutes. The ebb flows north in Hawkins Narrows and south in Peters Narrows.

613 **Union Passage Marine Park** encompasses the north end of Union Passage, Hawkins Narrows and the east shore of Grenville Channel for about 3 miles north of the narrows. It is undeveloped.

614 Grenville Channel is described in Chapter 3.

Estevan Sound

Charts 3912, 3982, 3983

615 **Estevan Sound** *(52°58'N, 129°26'W)* separates the Estevan Group from Campania Island, and connects Caamaño Sound to Nepean Sound. **Campania Island** has high mountains, some of which are bare, in its SE part. Mount Pender has a bare, dome-shaped, summit which makes a conspicuous landmark. The NW and SW extremities of the island are comparatively low and wooded.



616 **Tidal streams** at the south end of Estevan Sound, between Dupont Island and Estevan Group, set NE on the flood and SW on the ebb. A maximum of 1¾ kn has been observed on the flood; the ebb is generally stronger.

617 **Michael Bank** *(53°03'N, 129°31'W)*, in the middle of the fairway through Estevan Sound, has 21 fathoms (38 m) over it. This bank is a large mound of bedrock with steep sides.

Charts 3975, 3982



618 **Emergency anchorage**. — An area in the centre of the fairway and at the south end of Estevan Sound was examined in 1977 as a possible emergency anchorage for large vessels. The area examined was a rectangle, approximately 1 mile wide, east of Hickey and Glide Islands. The co-ordinates of the area examined are

52°59.6'N 129°29.0'W
53°00.4'N 129°27.6'W
52°57.3'N 129°25.7'W and
52°58.0'N 129°24.3'W.



619 Seventy bottom samples obtained show the bottom to be a uniform mix of sand, gravel and pebbles. A few core samples taken only penetrated about 6 to 8 inches (15.2 to 20.3 cm) and showed a layer of pebbles on top of sand and shell. Depths in this emergency anchorage area range from 25 to 45 fathoms (46 to 82 m). Although it is possible to anchor in an emergency in the area examined, and the overall holding ground appears to be fairly good, it is exposed to all directions but the east and lies in the middle of the fairway. If it is necessary to **anchor** in this area mariners are reminded to make the anchorage report required by Vessel Traffic Services (VTS). *See* Vessel Traffic Services in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

Estevan Sound — West Side

620 Dupont Island *(52°56'N, 129°26'W)* and its lights, at the south entrance to Estevan Sound, are described earlier in the chapter under Caamaño Sound.

621 **Blinder Rock**, 1.7 miles NW of Dupont Island, has less than 6 feet (2 m) over it. A rock that dries 5 feet (1.5 m) is close north and a rock islet 5 feet (1.5 m) high and a below-water rock are 0.4 mile SW of Blinder Rock.

622 **Glide Islands**, 2 miles NW of Dupont Island, have drying and below-water rocks extending 0.2 mile east from their east extremity.

623 **Ecological Reserve**. — Blinder Rock, Glide Islands and Dewdney Island are an Ecological Reserve and is closed to the public.

624 **Estevan Reef**, consisting of several rocks that dry from 3 to 15 feet (0.9 to 4.6 m), lies midway between Glide Islands and the SE side of Dewdney Island. **Hickey Islands**, NW of Glide Islands, lie off the north entrance of the bay between Goodacre and Humphreys Points. The bay is encumbered with numerous above-water, drying and below-water rocks. Passages, which have not been surveyed, lead between Dewdney and Lotbinière Islands from the NW end of the bay.

625 **Humphreys Point**, 1.8 miles north of Hickey Islands, is bold. The bay 1 mile NW of Humphreys Point is encumbered with rocks.

626 **Trouble Passage**, entered 2.2 miles NW of Humphreys Point, is obstructed by islands and rocks; it leads to Langley Passage.

Charts 3976, 3975

627 Devlin Bay *(53°04'N, 129°36'W)*, on the north side of Prior Island, as well as Gillespie Channel and Langley Passage are described later in this section.

628 **Geodetic Cove** is 2.3 miles NNW of Devlin Bay.

629 **Conspicuous microwave antennas** are on the west summit of Musgrave Peaks.

Charts 3912, 3982

Estevan Sound — East Side

630 The SW shore of Campania Island, between Alexander Islands *(52°57'N, 129°18'W)*, previously described, and Cartwright Rocks, 6.5 miles NW, is fronted by numerous islets, drying reefs and below-water rocks that extend up to 0.7 mile offshore.

631 **Cartwright Rocks** *(53°02'N, 129°27'W)*, 0.5 mile off the coast of Campania Island, are a group of above-water, drying and below-water rocks. Rocks that dry 18 feet

(5.5 m) and a rock with a depth of 21 feet (6.4 m) over it are 0.5 mile SW and west of Cartwright Rocks. A previously uncharted rock with a depth of 1½ fathoms (2.9 m) over it is on the north side of the passage between Cartwright Rocks and the group of rocks 0.3 mile east of Logan Rock light.

632 **Logan Rock**, 0.7 mile SSW of the south extremity of **Jewsbury Peninsula**, has a depth of 15 feet (4.6 m) over it. A group of above-water, drying and below-water rocks is 0.4 mile south of Logan Rock.

633 Logan Rock **light** *(630.5)*, on a drying rock about 0.4 mile SSW of the rock, is shown at an elevation of 49 feet (15 m) from a white tower.

Chart 3742

634 The west coast of Campania Island north of Jewsbury Peninsula *(53°06'N, 129°30'W)* is fringed by numerous drying reefs and below-water rocks; it should be given a wide berth. The inlets penetrating this coast are described later in this section.

Charts 3742, 3982

635 **Directions**. — Entering Estevan Sound from Caamaño Sound the best approach is east of Dupont Island. If passing west of Dupont Island keep close to the islets north of the island to avoid the rocks south and east of Glide Islands. Give the coast of Campania Island a wide berth by keeping in the fairway, but nearer the west shore. In thick weather soundings will be of assistance.

Charts 3975, 3795

Devlin Bay and Langley Passage

636 **Devlin Bay** *(53°04'N, 129°36'W)* is the entrance to Gillespie Channel, which leads into Langley Passage. An islet in the middle of Devlin Bay, 0.3 mile off the south shore, has an elevation of about 50 feet (15 m). Foul ground lies between the islet and the south shore. A rock that dries 6 feet (1.8 m) is close north, two rocks that dry 4 and 9 feet (1.2 and 2.7 m) are 0.25 mile SE of the islet.

637 **Narwhal Reef**, with rocks that dry 0.7 and 4.6 feet (0.2 and 1.4 m), lies in SE Devlin Bay.

638 **Sekani Reef**, 0.4 mile SW of the above-mentioned islet, has less than 6 feet (2 m) over it. Starboard hand **buoy** "E86" is close south of the reef.

639 **Sekani Island**, at the west end of Devlin Bay and on the NW side of Gillespie Channel, has drying reefs extending east and NE from its NE end. The island is connected to Trutch Island by a drying ledge at its west end.

640 **Anchorage** for small vessels can be obtained in 8 fathoms (14.6 m) north of the north extremity of Sekani Island.

641 **Buoys**. — The fairways through Gillespie Channel and the east part of Langley Passage are marked in places by starboard and port hand **buoys**, but not all dangers are marked. The upstream direction for buoyage is proceeding from east to west. White posts on the shore, although appearing to be ranges, do not lead through the fairway.

642 **Gillespie Channel**, between Sekani and Prior Islands, is entered SE of Sekani Reef; it should only be attempted at slack water. A drying reef on which there is a chain of islets lines the SE shore of Sekani Island. A wooded islet in the middle of a drying reef lies close-off the Prior Island shore of Gillespie Channel. The narrow fairway through Gillespie Channel lies between the drying reef and islets off the SE shore of Sekani Island and the drying reef and wooded islet close-off Prior Island. The passage has a least depth of 21 feet (6.4 m) and is marked by starboard hand **buoy** "ET2".

643 **Tidal streams** in the narrowest part of Gillespie Channel attain at least 7 kn at springs. HW slack occurs 1 h 25 min after the time of HW at Prince Rupert. Duration of HW slack is 30 to 45 minutes. LW

GILLESPIE CHANNEL EAST ENTRANCE (1986)



slack occurs 30 minutes after the time of LW at Prince Rupert. Duration of LW slack is 10 to 15 minutes.

644 **Fairchild Point** is the south extremity of Trutch Island. A group of drying rocks and rocks with less than 6 feet (2 m) over them extends 0.1 mile SE from Fairchild Point.

645 A small islet, 0.15 mile SW of Fairchild Point, is on the south side of the fairway and has a few trees on it. A reef with drying and below-water rocks on it extends 0.1 mile NW from the islet.

646 **Anchorage** for small craft can be obtained in 7 fathoms (12.8 m) off the mouth of a small creek in the shore of Barnard Island, about 0.3 mile SW of Fairchild Point.

647 The channel leading SE from Fairchild Point, between Prior and Barnard Islands, leads to Trouble Passage, which is obstructed by islands and rocks, and to the unsurveyed channel, reported to dry, between Lotbinière and Barnard Islands.

648 **Langley Passage**, entered west of Fairchild Point, separates Barnard and Nichol Islands on its south side from Trutch Island to the north. The west entrance to Langley Passage, between the SW end of Trutch Island and the NW end of Nichol Island, is encumbered with drying rocks through which there is a shallow, narrow channel. Even in moderate weather the sea breaks across this entrance, therefore this approach to Langley Passage is not recommended.

649 A rock with a depth of 10 feet (3 m) over it and some drying rocks, 0.3 mile NW of Fairchild point. A chain of islets and drying and below-water rocks, 0.9 mile NW of Fairchild Point, extends across the passage and almost blocks it. The channel between the north end of these reefs and the shore of Trutch Island is very narrow with a least depth of 21 feet (6.4 m) in its narrowest part but it is the route used to proceed to Ethelda Bay. The channel between the south end of these reefs and the Barnard Island shore leads to a well-sheltered **anchorage** south of **Tennant Island**.

650 **Ethelda Bay**, west of Tennant Island, has a facility on the west side that is unoccupied and in a state of disrepair.

651 Ethelda Bay affords good **anchorage** near its head in 14 fathoms (25.6 m), mud bottom.

652 **Meteorological information** is available in the Appendices.

653 The unnamed bay 0.4 mile NNE of Ethelda Bay, on the N side of Langley Passage, is used for mooring barges to allow supplies to be delivered by helicopter to communication facilities on the summit of Trutch Island.

654 The shores of Langley Passage west of Ethelda Bay are very indented and fringed with islets and drying rocks. As previously mentioned, the west entrance is not recommended. The entrance between Barnard and Nichol Islands has not been completely surveyed and is encumbered with rocks.

Charts 3912, 3742, 3982

Inlets in Campania Island

655 **McMicking Inlet** *(53°03'N, 129°27'W)* is entered south and east of a chain of islets and drying reefs extending 0.3 mile south from the south end of Jewsbury Peninsula. Logan Rock (previously described), several drying reefs and rocks with less than 6 feet (2 m) over them lie in the approach to, and in the entrance of McMicking Inlet. Drying rocks lie close-off the shores throughout the inlet and a rock with less than 6 feet (2 m) over it is in the middle of the north basin. Local knowledge is advised.

656 **Betteridge Inlet**, between Jewsbury Peninsula and **Finlayson Peninsula**, is encumbered with islands and rocks. Numerous islets, drying and below-water rocks encumber its entrance. The best passage leading into Betteridge Inlet is between **Hale Islet** and a rock that dries 0.3 m 450 feet (137 m) west of the south end of the islet. Hale Islet is steep-to on its west side and the rock awash is sometimes marked by kelp.

657 **Clifford Rocks** are a chain of rocks that dry 1 to 15 feet (0.3 to 4.6 m) lying in a NW/SE direction across the west entrance to Betteridge Inlet. A group of islands, connected by drying rock ledges, and numerous drying rocks extend 0.4 mile west of Finlayson Peninsula.

658 **Weinberg Inlet** can be entered either south or north of **Langthorne Island**, through **Dunn Passage** or **Anderson Passage**. Numerous drying and below-water rocks lie throughout the inlet.

659 **Harwood Bay**, 1.2 miles north of Anderson Passage, is open to the SW and too exposed for anchorage.

660 **Harlan Point** *(53°09'N, 129°34'W)* is the west extremity of Campania Island.

661 **Lindsay Bay**, north of Harlan Point, is open to the SW and too exposed for anchorage. **Boyko Rock**, with a depth of 18 feet (5.5 m) over it, is off the entrance.

Nepean Sound

Chart 3945

662 **Nepean Sound** *(53°14'N, 129°40'W)* is the junction of Estevan Sound, Otter Passage, Principe Channel and Otter Channel.

663 **Ring Point** *(53°13'N, 129°36'W)*, at the SW extremity of Pitt Island, is high, bold and conspicuous. **Fleishman Point**, 0.8 mile SE, is lower and less conspicuous. **Mount Hulke** rises 3.5 miles NNE of Fleishman Point.

664 **Nepean Rock**, 0.5 mile SW of Ring Point, dries 7 feet (2.1 m) and has shoal rocks extending 0.5 mile SSE.

665 Nepean Rock South Cardinal **light and bell buoy** "EM" *(741.5)*, SW of Fleishman Point at the west entrance to Otter Channel, is fitted with a **Racon** (— •).

Otter Channel

666 **Otter Channel** leads between Campania and Pitt Islands and connects Nepean Sound to Squally Channel, Lewis Passage, Cridge Passage and Union Passage.

667 **Tidal streams** in Otter Channel attain 1½ kn on large tides. The stream sets east fairly constantly through this channel on small tides; on large tides it sets west from 6 hours before to 1 hour after HW at Prince Rupert.

668 **Marble Rock**, off Campania Island at the SW entrance to Otter Channel, is 10 feet (3 m) high and white.

669 **Sharp Bay**, 0.5 mile SE of Marble Rock, has two islets close-off its west entrance point. A rock, with less than 6 feet (2 m) over it, is near the head of the bay.

670 **Paige Point**, 1 mile ENE of Marble Rock, forms the north side of a small unnamed cove.

671 Paige Point Sector **light** *(741.8)* is shown at an elevation of 26 feet (8 m) from a skeleton tower.

672 **Fanny Point**, 1.8 miles east of Paige Point, is the NW extremity of Campania Island. A rock with less than 6 feet (2 m) over it lies close-off the point.

673 Fanny Point **light** *(741.7)* is shown at an elevation of 26 feet (8 m) from a skeleton tower.

674 **McCreight Point**, 1.2 miles NNW of Fanny Point, is the south extremity of Pitt Island. The point terminates in a high, bold, white cliff.

675 McCreight Point **light** *(741.3)* is shown at an elevation of 39.4 feet (12 m) from a skeleton tower.

Principe Channel

Charts 3984, 3985, 3986

676 **Principe Channel** *(53°15'N, 129°43'W)* between the east side of Banks Island and **Pitt Island** and McCauley Island, to the west, leads from Nepean Sound to Browning Entrance. Petrel Channel, on the NE side of Principe Channel, separates Pitt Island from McCauley Island and leads NW to Ogden Channel and the Inner Passage.

677 **Tides**. — Tidal differences for Block Islands (Index No. 9165), referenced on Bella Bella, and for Larsen Island (Index No. 9232), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

678 **Tidal streams**. — In Principe Channel the NW-going flood stream approaches mainly by Estevan Sound, being joined in Nepean Sound by the flood stream which enters through Otter Passage. At the NW end of Principe Channel, in the vicinity of Deadman Islet and Baird Point, the flood stream setting NW through Principe Channel is met by the flood which has passed up the outside of Banks Island. The ebb tidal stream runs out mainly by Otter Passage. Both streams attain 2 to 3 kn.

Chart 3742

Ring Point to Gale Point

679 Ring Point *(53°13'N, 129°36'W)*, together with Nepean Rock and its light buoy, are described earlier with Nepean Sound.

680 **Principe Islets** *(53°15'N, 129°38'W)*, 1.5 miles NW of Ring Point, are wooded and extend 0.4 mile from the Pitt Island shore. An islet between Ring Point and Principe Islets is about 0.2 mile from the Pitt Island shore. Drying and below-water rocks extend 0.4 mile west and SW from this islet.

681 The coast of Pitt Island between Principe Islets and Monckton Inlet, 4.5 miles NW, has several small indentations but most are encumbered with rocks.

682 Monckton Inlet, Port Stephens and Buchan Inlet are described later in this section.

683 **Oar Point** is 7 miles NW of Monckton Inlet. Several drying and below-water rocks lie up to 0.2 mile offshore along this section of the coast.

684 **Deer Point** *(53°13'N, 129°45'W)*, on the SE side of Banks Island, is a small peninsula which from a distance appears to be an islet.

685 **Gale Point**, 4.5 miles NNW of Deer Point, is high, bold and prominent.

686 Gale Point **light** *(739.5)* is shown at an elevation of 31 feet (9.5 m) from a skeleton tower.

Gale Point to Foul Point

687 **Keecha Point** *(53°19'N, 129°50'W)* is 1.5 miles NW of Gale Point. A shoal spit, with a rock that dries 8 feet (2.4 m) near its inner end, extends 0.3 mile east from the point. A group of rocks that dry 8 feet (2.4 m) and a rock with less than 6 feet (2 m) over it are 0.5 mile SE of Keecha Point and about 0.2 mile off the coast.

688 **Kooryet Bay**, 2.3 miles NNW of Keecha Point, with **Kooryet Island** off its north entrance point, is partially blocked by several islets and drying reefs. Confined shelter for small craft can be found in the south end of the bay, clear of the shoal rocks. Local knowledge is advised.

689 **Joseph Hill**, about 1 mile west of Kooryet Bay, is a remarkable bare summit.

690 A small inlet, 0.8 mile NNW of Kooryet Island, offers shelter for small craft. An islet lies in the entrance to this inlet and the passage NW of the islet dries but the entrance south of the islet is clear.

691 Principe Channel **light** *(739)*, about 3 miles NNW of Kooryet Island, is shown at an elevation of 20 feet (6.1 m) from a skeleton tower.

692 A small bay, 1.2 miles NW of Principe Channel light, has drying ledges with islets on them extending off both entrance points. A rock that dries 10 feet (3 m) and a rock with less than 6 feet (2 m) over it lie on the south side of the entrance to the bay. *See Chart 3721.*

693 **Limestone Bay**, 3.7 miles NW of Principe Channel light, has a rock that dries 2 feet (0.6 m) in the centre of it. **Despair Point** forms the north side of Limestone Bay and has a rock that dries 10 feet (3 m) close-off it.

694 **Patsey Cove**, 3 miles NW of Despair Point, is filled with a drying flat. **Donaldson Creek** flows into the head of Patsey Cove.

695 Banks Island Middle **light** *(738.5)* north of Patsey Cove is shown at an elevation of 25 feet (7.7 m) from a skeleton tower.

696 **Anger Island** is on the NE side of Principe Channel, NE of Despair Point. The SW coast of Anger Island, between Ralston Islands and Foul Point, is fronted by drying reefs extending 0.4 mile from shore.

697 **Ralston Islands**, off the SW side of Anger Island, have a drying reef with four islets on it off their SE extremity. **Trade Islets** lie 0.7 mile SE of Ralston Islands and a reef that dries 21 feet (6.4 m) lies between them.

698 Ralston Island South **light** *(738.7)* is shown at an elevation of 30 feet (9 m) from a white tower with a red band on top.

699 **Foul Point** is the west extremity of Anger Island. **Freberg Islet**, 0.1 mile SW of Foul Point, is joined to Anger Island by a drying reef.

Inlets on the SW Coast of Pitt Island

700 Several inlets, on the NE side of Principe Channel, penetrate the SW coast of Pitt Island and afford **anchorage**. Monckton Inlet, Port Stephens and Moolock Cove offer anchorage to vessels of moderate size. Small craft can find shelter and anchorage in Buchan Inlet, Lundy Cove, Patterson Inlet and Miller Inlet.

Chart 3721

701 **Monckton Inlet** *(53°19'N, 129°39'W)* is entered north of Cranston Island. A sill across the inlet about 0.8 mile east of Monckton Point has a depth of 11 fathoms (20.1 m). A **fishing boundary marker** is on the south entrance point.

702 **Cranston Island** is wooded. A small wooded islet 70 feet (21 m) high, 0.25 mile NNE of Cranston Island, is on the north side of the entrance to Monckton Inlet. Drying reefs are 0.1 mile NW of this wooded islet and extend east from it, almost connecting to a larger unnamed island.

703 The bay to the east of **Monckton Point** has a reef that dries 6 feet (1.8 m) about 0.1 mile off its east side, and a 27 foot (8.2 m) shoal in the middle of its entrance.

704 **Roy Island**, 3 miles east of Cranston Island, lies in the entrance of an arm that extends 1 mile north. Numerous below-water rocks lie in the middle of the arm.

705 **Anchorage** can be obtained about 0.2 mile SE of Roy Island in 13 to 20 fathoms (24 to 37 m), mud bottom. Anchorage can also be obtained near the head of Monckton Inlet in 11 to 14 fathoms (20 to 26 m).

706 **Ettershank Islands** *(53°19'N, 129°42'W)* are between Cranston Island and Centre Point. **Centre Point** is the SW extremity of a chain of islets extending from the SW shore of Port Stephens. **Littlejohn Point**, 0.4 mile WNW of Centre Point, is dome-shaped with white cliffs and has a **fishing boundary marker** on it.

707 **Port Stephens** is entered between Centre and Littlejohn Points. A 27 foot (8.2 m) shoal lies on the east side of the fairway, about 0.4 mile ENE of Littlejohn Point.

A prominent bare white patch on a cliff face is on the south side of Port Stephens about 1 mile NE of Centre Point.

708 **Stephens Narrows**, 2 miles inside the entrance of Port Stephens, has an island at its east end. The narrow boat passages north and south of this island dry and should only be navigated at or near HW slack. At other stages of tide, the rapids frequently form a waterfall creating considerable foam in the anchorage.

709 East of Stephens Narrows there is a basin with a narrow channel at its NE end that is encumbered with below-water rocks. This narrow channel leads into **Leavitt Lagoon**.



710 **Anchorage** can be obtained in Port Stephens, west of the entrance to Stephens Narrows, in about 20 fathoms (37 m), sand and rock.

711 **Buchan Inlet**, suitable only for small craft, is entered north of an island close-off **Tweedsmuir Point** *(53°22'N, 129°47'W)*. Drying reefs and below-water rocks lie close offshore south and north of the entrance.

712 **Elsfield Point**, 0.3 mile north of Tweedsmuir Point, has a rock with less than 6 feet (2 m) over it close east and another 0.1 mile north of it. Drying rocks, the highest of which dries 15 feet (4.6 m), fringe the shore close south of Elsfield Point.

713 A narrow passage, 0.3 mile north of Elsfield Point, has islets and rocks extending from its east side. The fairway through this passage is close to the west shore and has a least depth of 6 feet (1.8 m).

714 **Lundy Cove** *(53°25'N, 129°50'W)* has, in its outer part, a narrow drying channel with **tidal rapids** leading north into a lagoon. A rock that dries 3 feet (0.9 m) is 0.2 mile south of the entrance to this lagoon.

715 Drying ledges, on which there are a number of islets, extend across Lundy Cove about 0.5 mile within the entrance. A very narrow boat passage, near the NE end of these drying ledges, leads into the basin at the head of Lundy Cove. **Tidal rapids** run through this passage and local knowledge is advised to navigate it.

716 **Annie Point**, 0.8 mile north of Lundy Cove, has a **fishing boundary marker** on it. The entrance to a lagoon, 0.2 mile south of Annie Point, has **tidal rapids** through it and dries at LW.

717 **Sewell Islet**, NW of Lundy Cove, lies in the approach to Patterson Inlet and Mink Trap Bay. The islet is surrounded by foul ground and has shoals 0.2 mile NNW of it. **Nesbitt Rock**, 0.9 mile NW of Sewell Islet, is wooded.



718 **Patterson Inlet**, entered between Annie Point and Rungé Island, is 300 feet (91 m) wide at its narrowest part and branches into two arms about 2 miles from its entrance. The fairway up Patterson Inlet is clear and small craft can find **anchorage**, mud bottom, near the head of either arm at its head.

719 **Rungé Island** *(53°26'N, 129°51'W)* has drying reefs with small islets on them extending west and north from it and shoals lying up to 0.2 mile west and NW. A shoal, with a least depth of 9 feet (2.7 m), is 0.2 mile west of the north end of Rungé Island.

720 **Mink Trap Bay**, entered north of Rungé Island, has **Burns Bay** at its head.

721 **Moolock Cove** is entered through a narrow channel at the NE end of Mink Trap Bay. Drying and below-water rocks encumber the south end of this cove.



722 **Anchorage** can be obtained in Moolock Cove, 0.2 mile east of the entrance channel, in 25 fathoms (46 m); the holding ground is indifferent. Small craft can anchor closer to shore. During SE gales, furious gusts blow over the narrow neck of land that separates Moolock Cove from Patterson Inlet.

723 **Hodgson Cove**, 1.5 miles NW of Rungé Island, is fronted by several large islands and provides shelter for small craft. A drying reef with several islets on it extends 0.1 mile east from the west entrance point and a drying reef is about 200 feet (61 m) NW from its east entrance point. The entrance is narrow; stay in mid-channel between the two drying rocks off the above-mentioned drying reefs.

724 **Becker Point** *(53°28'N, 129°54'W)* is the south entrance point of Miller Inlet. Drying and below-water rocks fringe the shores around this point, and a group of wooded islets with drying and below-water rocks lie up to 0.2 mile west and south of it. A bare rock, 8 feet (2.4 m) high, on a drying reef and a rock that dries 19 feet (5.8 m), 0.75 mile south of it, are 0.5 mile south of Becker Point.

725 **Peck Shoal**, 0.4 mile west of Becker Point, consists of a rock that dries 5 feet (1.5 m), a rock awash and several rocks with less than 6 feet (2 m) over them.





726 **Miller Inlet** has several coves, which could provide shelter for small craft. The narrows, about 0.5 mile within the entrance, has a rock that dries 13 feet (4 m) near the middle of its west entrance. Several shoal and drying rocks are nearly in the centre of the fairway of Miller Inlet; extra caution is advised. **Anchorage** for small craft can be found in the basin at the head of the inlet in 8 fathoms (15 m), sand and mud bottom.

Charts 3984, 3985

Ala Passage

727 **Ala Passage** *(53°28'N, 129°55'W)* separates Anger Island from Pitt Island. Because of the intricacy of the

channels through Ala Narrows and between Ala Narrows and Anger Point, the passage is only suitable for small craft. Local knowledge is advised.

728 **Lock Island** *(53°29'N, 129°55'W)* lies in the south end and near the middle of the fairway through Ala Passage. A reef with drying and below-water rocks on it is 0.2 mile SSE of Lock Island and about 0.1 mile off the Pitt Island shore.

Chart 3984

729 A rock that dries 1.8 m *(53°30'N, 129°54'W)* lies in the middle of the fairway, 1 mile north of Lock Island.

730 **Ire Inlet** *(53°30'N, 129°55'W)*, 1.3 miles north of Lock Island, has a very narrow entrance.

731 **Curtis Inlet**, east of Ire Inlet, penetrates Pitt Island for about 1 mile. Depths in the fairway, about 0.3 mile inside the inlet, are 6 feet (1.8 m).

732 **Ala Narrows**, 1.2 miles north of Curtis Inlet, is about 300 feet (91 m) wide. Numerous drying rocks, rocks awash and rocks with less than 6 feet (2 m) over them are in the south and north approaches to Ala Narrows.

733 **Wright Inlet**, east of Ala Narrows, has a very narrow entrance. **Wright Narrows**, 0.7 mile within the entrance, is obstructed by a ridge of boulders that dries 10 feet (3 m). **Tidal falls** occur in Wright Narrows.

734 Between Ala Narrows and **Anger Point**, 1.2 miles north, the fairway through Ala Passage is obstructed by numerous islets, drying and below-water rocks.

735 Between Anger Point and **Logarithm Point**, 2 miles west, the fairway through Ala Passage is deep and clear of dangers.

Chart 3985

West Approaches to Ala Passage

736 **Anger Anchorage** *(53°32'N, 130°01'W)*, off the NW side of Anger Island, is an extensive bank encompassed by the 50 fathom (91 m) line. In 1977, this bank was examined as a possible emergency anchorage for large vessels; a total of 23 bottom core samples were taken. The bottom consists of 1 to 3 inches (2.5 to 7.6 cm) of sand and/or gravel on top of hard blue-grey clay. This anchorage is protected from the south and east; it is open to winds from the NW blowing down Petrel Channel or from the west down Principe Channel. The tidal range was near its maximum during the survey of Anger Anchorage but the tidal streams across the anchorage were not strong.

737 If it is necessary to anchor in this area, make the anchorage report required by Vessel Traffic Services (VTS). *See* Vessel Traffic Services in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

738 **Cosine Island** *(53°33'N, 129°59'W)* and **Sine Island**, close north, lie across the west entrance of Ala Passage. **Cosine Point** is the west extremity of Cosine Island. **Cosine Bay**, on the SW side of Cosine Island, is too deep for satisfactory anchorage.

739 **Clear Passage**, between Cosine and Sine Islands, is less than 300 feet (91 m) wide and has a least depth of 3 feet (0.9 m).

740 **Evinrude Passage**, east of Anger Anchorage, is entered between **Azimuth Island** and a rock, 11 feet (3.4 m) high, 0.2 mile NE. Several drying rocks and shoals are in the south portion of Evinrude Passage, around the south end of Cosine Island.

741 **Anger Inlet**, south of Cosine Island, is encumbered with islands and numerous drying and below-water rocks.

742 **Markle Passage**, on the north and east sides of Sine Island, leads to Markle and Wilson Inlets and the west entrance to Ala Passage. **Markle Island**, on the north side of Markle Passage, is the westernmost island of a chain of islands extending from the entrance to Markle Inlet. A rock that dries 6 feet (1.8 m) lies 0.1 mile south of the east extremity of this chain of islands. Two rocks, both with a depth of 18 feet (5.5 m), lie in mid-channel north and east of **Sine Point**, the NE extremity of Sine Island.

743 **Directions**. — Approaching Ala Passage by way of Markle Passage, round Sine Point at a distance of not more than 0.1 mile to avoid the two 18 foot (5.5 m) rocks lying in mid-channel.

744 **Markle Inlet** is entered 0.5 mile north of Sine Point. The entrance is encumbered with islets, drying reefs and below-water rocks.

745 **Wilson Inlet**, east of Sine Island, has **Tangent Island** in its entrance. A narrow boat passage along the north side of Tangent Island has a least depth of 11 feet (3.4 m) through it. The main entrance to Wilson Inlet is south of **Tangent Point**. About 1.5 miles within the entrance a rock, with 14 feet (4.3 m) over it, lies in the middle of the fairway. East of Tangent Island there are a number of islands and rocks.

Charts 3985, 3912

Principe Channel — NW End

746 **Headwind Point** *(53°31'N, 130°06'W)* is on the SW side of Principe Channel.

747 **Colby Bay**, 2.5 miles NW of Headwind Point, indents the NE side of Banks Island. Reefs extend from islets close within the entrance on both sides of the bay.

748 **Anchorage** for small craft can be obtained in 5 fathoms (9.1 m), mud bottom, in Colby Bay, about 300 feet (91 m) south of a prominent point on the north shore and 0.3 mile inside the north entrance point.

749 **Wright Island** is 2 miles north of Headwind Point. **McCauley Island** forms the NE side of Principe Channel.

750 **Dory Passage** separates Wright Island from McCauley Island; it has a least depth of 6 feet (1.8 m) in the fairway.

751 The NE side of Principe Channel, between Wright Island and Logan Bay, 5.5 miles NW, is fronted by several islands and shoals. **Anchorage** for small craft can be found among these islands in Port Canaveral.

752 **Alexander Shoal**, with a least depth of 22 feet (6.7 m), is 1 mile WSW of **Gibbons Point**, the SW extremity of Wright Island.

753 **Wheeler Island**, 1.3 miles west of Wright Island, has several islets and below-water rocks off its SE and north sides.

754 Wheeler Island **light** *(738)*, on the SW extremity of the island, is shown at an elevation of 19 feet (5.8 m) from a white tower with a red band on top.

755 **Dixon Island**, 1.5 miles NW of Wheeler Island, has **Bush Islet** and numerous small islets, drying and below-water rocks extending up to 0.3 mile off its south and SW coasts. **Dark Islet**, 0.2 mile off the west extremity of Dixon Island, has an islet and below-water rock 0.1 mile south of it. Between Dark Islet and **Logan Bay**, 1.5 miles NW, numerous drying and below-water rocks fringe the coast of McCauley Island.

756 Banks Island North **light** *(737.5)* west of Dixon Island is shown at an elevation of 23 feet (7 m) from a skeleton tower.

Chart 3912

757 **Squall Bay** *(53°33'N, 130°07'W)* is entered between Wright Island and **Cliff Islands**, or by way of Dory Passage. Depths throughout the bay are irregular and no good anchorage is afforded.

758 The area between Cliff Islands, Wheeler Island and Squall Island is encumbered with islets and drying and below-water rocks. **Sherman Islet** is the south islet of this group.

759 **Squall Point**, the west extremity of **Squall Island**, is bold and conspicuous. **Hat Hill** is the highest part of Squall Island. **Red Point**, 0.2 mile north of Squall Point, has a reddish brown cliff over it.

760 **Tonkin Point** and **Urquhart Point** are on the south shore of Dixon Island. **Dimple Point** is the east extremity of Dixon Island. **Globe Rock**, 2 feet (0.6 m) high, and numerous drying and below-water rocks fringe the SW, south and SE sides of Dixon Island.

761 **Twain Rocks** have two heads with less than 6 feet (2 m) over them and lie up to 0.4 mile south of Squall Point. **Ethel Rock**, 0.5 mile WSW of Squall Point, dries 4 feet (1.2 m) and has shoals ENE and SW of it.

762 **Alarm Rocks**, 0.2 mile WNW of Squall Point, consist of several pinnacles with a least depth of 10 feet (3 m). **Clown Rock**, west of Alarm Rocks, dries 8 feet (2.4 m) and a rock with less than 6 feet (2 m) over it is 0.1 mile south of it. **Stephen Rocks**, north of Alarm Rocks, are a group of rocks that dry from 4 to 16 feet (1.2 to 4.9 m). The highest rock is on the north side of the group. **Canaveral Rock**, 0.15 mile NE of Squall Point, has 27 feet (8.2 m) over it.

763 **Port Canaveral**, between the NW side of Squall Island and the south side of McCauley Island, is suitable for small vessels but local knowledge is advised. **Canaveral Passage**, encumbered with islets, drying and below-water rocks, is at the east end of Port Canaveral and leads north and east of Squall Island.

764 **Anchorage** for small vessels can be obtained in Port Canaveral about 0.15 mile SE of Red Point in 14 to 15 fathoms (26 to 27 m), mud bottom. The holding ground is good and the anchorage secure but is uncomfortable in winds from the NW quadrant. Small craft can find anchorage east of **Round Islet**, near the entrance of Canaveral Passage, and in the basin NE of Dixon Island.

765 **Directions**. — The highest of Stephen Rocks (visible only at low to mid-tide) just open east of Dimple Point, bearing 353°, will lead between Ethel and Twain Rocks. When Globe Rock is in line with the south extremity of Bush Islet, bearing 294°, alter course to pass 300 feet (91 m) off Squall Point, and thence to the anchorage.

Chart 3986

Logan Bay to Deadman Islet

766 **Whalen Point** *(53°37'N, 130°18'W)* is low. **Table Hill** rises 1.5 miles NW.

767 Table Hill **light** *(737.1)* is shown at an elevation of 26 feet (8 m) from a white tower with a red band on top.

768 **Keswar Point**, 2.5 miles NW of Whalen Point, is bold and fronted with drying reefs. Reefs and shoal water

lie up to 0.2 mile off the coast between these two points. Two shoals, with 36 and 27 feet (11 and 8.2 m) over them, lie 0.25 mile off Keswar Point.

769 **Keswar Inlet**, NE of Keswar Point, has several drying reefs in the entrance and within it.

770 **Keyarka Cove** is 1.8 miles south of Keswar Point. **End Hill** rises 1.6 miles WNW of Keyarka Cove.

771 Deadman Islet and Baird Point, 3 miles NE, are described with Browning Entrance earlier in this chapter.

Petrel Channel

Chart 3985

772 **Petrel Channel** *(53°34'N, 130°03'W)* separates McCauley Island from Pitt Island and leads north from Principe Channel to Ogden Channel. The fairway through Petrel Channel has a least width of 0.3 mile and is deep. The Pitt Island shore is backed by moderately high mountains; those of the McCauley Island shore are relatively lower.

773 Hevenor Inlet and Newcombe Harbour, both on the east side of Petrel Channel and Captain Cove, at the NE end of Petrel Channel, offer anchorage for small vessels and are described at the end of this section.

774 **Tidal streams** attain a maximum of 3 kn and set fairly through Petrel Channel.

775 **Petrel Point** *(53°34'N, 130°01'W)* is the SE entrance point to Petrel Channel and has a **fishing boundary marker** on it. **Meet Point**, 2.4 miles west, is the SW entrance point.

776 Petrel Point **light** *(738.3)* is shown at an elevation of 23 feet (7 m) from a skeleton tower.

777 **Allcroft Point**, 2.8 miles NW of Petrel Point, is prominent.

778 **Mathers Point**, 4.3 miles NNW of Allcroft Point, is a prominent headland; it is fronted by a rock that dries 9 feet (2.7 m). **Morrison Point**, 0.6 mile NW, is also bold and prominent.

779 **Robinson Point**, 1.3 miles NNW of Morrison Point, is fronted by a rock that dries 15 feet (4.6 m). A reef with 17 feet (5.2 m) over it is on the east side of the fairway NE of Robinson Point. A conspicuous hill, 1.3 miles west of Robinson Point, is 1,475 feet (450 m) high.

780 **Petrel Islets**, 1 mile NW of Robinson Point, consist of several above-water, drying and below-water rocks.

781 **Noble Mountain**, 2.5 miles NW of Robinson Point, is prominent.

782 **Elbow Point**, 3.3 miles WNW of Robinson Point, is bold and steep-to.

783 **Strouts Point**, 4.4 miles NNW of Elbow Point, is the NE point of McCauley Island; it is steep-to.

784 Comrie Head, at the junction of Petrel and Ogden Channels, is described later with Ogden Channel.

Inlets in Petrel Channel

785 **Hevenor Inlet** *(53°38'N, 130°04'W)* is entered between **Stark Point** and **Hevenor Point**. **Hevenor Islet**, 1.4 miles east of Hevenor Point, has a rock that dries 15 feet (4.6 m) between it and the north shore. **Clark Islet**, at the head of the inlet, has a rock that dries 12 feet (3.7 m) close south, and two rocks, both with 11 feet (3.4 m) over them, 0.2 and 0.3 mile SSE.

786 Small vessels can obtain sheltered **anchorage** at the head of the inlet, east of the last-mentioned rocks.

787 **Hevenor Lagoon**, at the head of Hevenor Inlet, dries 0.4 mile within its very narrow entrance. The lagoon extends 4 miles SE from its entrance.

ENTRANCE TO HEVENOR INLET (1986)



ENTRANCE TO NEWCOMBE HARBOUR (1986)



788 **Newcombe Harbour** *(53°42'N, 130°06'W)* is entered east of **McCutcheon Point**. The entrance is only 300 feet (91 m) wide and a shoal spit extends about 300 feet (91 m) south from McCutcheon Point. **Fishing boundary markers** are on both shores at the entrance.

789 An islet, 0.4 mile NNE of McCutcheon Point, is attached to the west shore by a drying ledge. A rock with less than 6 feet (2 m) over it is 300 feet (91 m) south of this islet.

790 A prominent point, 1.2 miles NNE of McCutcheon Point, has islets and drying rocks attached to it by a drying ledge. Above this point drying flats extend from both sides of the harbour leaving a narrow channel between them.

791 **Anchorage** for small vessels can be obtained in Newcombe Harbour, 1 mile within the entrance and about 0.2 mile SW of the prominent point, in 8 fathoms (15 m), mud bottom.

Chart 3987

792 **Captain Cove** *(53°49'N, 130°13'W)*, entered north of **Captain Point**, is a good harbour, well-sheltered from all winds. A rock that dries 2 feet (0.6 m) and a rock awash are close west and several islets are 0.5 mile east of Captain Point. All have shoal water in their vicinity. A logging camp and **booming ground** are in the cove (1994).

793 **Anchorage** can be obtained in 12 to 13 fathoms (22 to 24 m), mud, at the head of the cove.

Ogden Channel

Chart 3947

794 **Ogden Channel** *(53°50'N, 130°19'W)* separates Pitt Island from Porcher Island and leads north from Beaver Passage and Petrel Channel to Grenville Channel and Arthur Passage. It is deep and free of dangers in the fairway.

795 **Vessel Traffic Services** (VTS). — Grenville Channel and Arthur Passage, at the north end of Ogden Channel, are part of the main Inner Passage. Before crossing or joining this main channel, report your intentions in sufficient time to alert any traffic within the channel. *See* Vessel Traffic Services in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

796 **Tides**. — Tidal differences in Ogden Channel, referenced on Prince Rupert, are given for Kitkatla Islands (Index No. 9242) and Seabreeze Point (Index No. 9250) in the Tide Tables, Volume 7.

797 **Tidal streams**. — The north-going flood stream sets into Ogden Channel and near its north end it divides, one part turning SE in Grenville Channel, the other continuing north toward Arthur and Telegraph Passages. The ebb streams from Grenville Channel, Arthur Passage and Telegraph Passage unite off the north end of Ogden Channel and pass out to sea by it. The muddy water of the Skeena River, coming from Telegraph Passage, is usually distinguishable against the blue water of the other channels.

798 **Spoil ground**. — An ocean dumpsite, under permit through the *Ocean Dumping Control Act*, is in *53°54'N, 130°16'W*.

799 **Comrie Head** *(53°49'N, 130°17'W)* is the SE entrance point to Ogden Channel; **Sparrowhawk Point**, 1.8 miles west, is the SW entrance point.

800 **Skene Cove** is 1 mile north of Sparrowhawk Point, and **Peter Point** is 2 miles farther NNE. **Bareside Point**, 1.7 miles NE of Peter Point, rises steeply to the summit of **Bareside Mountain**.



801 Peter Point **light** *(672.5)* is shown at an elevation of 23 feet (7 m) from a white tower with a green band on top.

802 **Alpha Bay**, 2.3 miles north of Comrie Head, is between **Fish Point** and **Alpha Point**; it is filled with drying flats that front the mouth of **Alpha Creek**. **Swede Point** is 1.4 miles NE of Alpha Point.

Chapter 6

Dixon Entrance, Portland Inlet and Adjacent Channels



General

Chart 3002

1 This chapter covers Dixon Entrance, Portland Inlet, Work Channel, Observatory Inlet, Pearse Canal and Portland Canal. Virago Sound, Naden Harbour, Masset Sound and Masset Inlet, on the north coast of Graham Island are also described.

2 Chatham Sound, at the east end of Dixon Entrance and the approach channels, Brown Passage, Hudson Bay Passage, Holliday Passage, Oriflammme Passage and Main Passage are described in Chapter 4.

3 The United States coast of Dixon Entrance, Pearse Canal and Portland Canal is only briefly described; for complete information on United States waters *see United States Coast Pilot 8*.

4 The **International Boundary Line** between the United States and Canada is charted.

Dixon Entrance

Charts 3800, 3960

5 **Dixon Entrance** *(54°30'N, 132°30'W)* is the north approach from the Pacific Ocean to the inner channels of British Columbia and the south approach to those of SE Alaska. It is entered between Haida Gwaii on the south, Dall and Prince of Wales Islands on the north, and extends from Langara Island and Cape Muzon for 75 miles east to the mouth of Portland Inlet.

6 **Light buoys**. — Dixon Entrance ODAS **light buoy** "46205" *(807.1) (54°09'54"N, 134°16'54"W)* is about 45 miles west of Langara Island.

7 Dixon Entrance ODAS **light buoy** "46145" *(801) (54°23'01"N, 132°26'54"W)* is about 17 miles NNW of Wiah Point.

8 The channels and passages on the north side of Dixon Entrance that lead north through the inside waters of the State of Alaska are **Kaigani Strait**, **Cordova Bay**, **Clarence Strait**, **Revillagigedo Channel** and **Nakat Bay**, all described in *United States Coast Pilot 8*.

9 When approaching Dixon Entrance from the west or NW, Forrester Island is a good landmark. Along the north side of Dixon Entrance there are high mountains near the south ends of Dall, Long, Prince of Wales and Duke Islands.

10 Approaching Dixon Entrance from the SW, **Pivot Mountain** *(54°01'N, 133°00'W)* is conspicuous; it is rounded and somewhat detached from other mountains on the north side of Graham Island. In clear weather it can be seen for about 50 miles. The north coast of Graham Island is generally low, rising to mountainous peaks about 7 miles inland. Between Masset Sound and Rose Spit the country is low, densely wooded and swampy with low sand hills fringing the woods. Taaw Tldáaw *(54°05'N, 131°48'W)* is the only valuable landmark in this otherwise featureless part of the coast. Rose Spit, about 7 miles NE, and Overfall Shoal, NE of it, present the greatest dangers on this side of Dixon Entrance. Dundas Island, 30 miles NE of Rose Spit, has several conspicuous mountains on it.

11 **Tides**. — Tidal predictions for Langara Point (Index No. 9964) and tidal differences for McPherson Point (Index No. 9963), Wiah Point (Index No. 9940), referenced on Langara Point, and for Qlawdzeet Anchorage (Index No. 9315), Hudson Bay Passage (Index No. 9327) and Brundige Inlet (Index No. 9333), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

12 **Tidal streams**. — Along the south side of Dixon Entrance the flood stream sets east around the north end of Langara Island at up to 2½ kn and then sets along the north shore of Graham Island. In the area about midway between Rose Spit and Dundas Island it divides; the weaker part sets north past Dundas Island toward Portland Inlet and the main flood turns SE into Hecate Strait. The turn of the tidal stream in the vicinity of Rose Spit coincides approximately with the times of HW and LW by the shore, which corresponds very nearly with the times of HW and LW at Prince Rupert. Heavy overfalls are encountered off Rose Spit, principally along its north side near the edge of the deep water; they have the appearance of breakers and occur during the full strength of the streams, which attain 3½ kn between Rose Spit and Overfall Shoal. At the junction of Dixon Entrance and Hecate Strait the flood and ebb are quite regular in the winter; during late summer the flood greatly exceeds the ebb. In August, especially, there can be 2½ to 3 kn of flood, with little appreciable ebb or only slack water.

13 Along the north shore of Dixon Entrance, in the vicinity of Cape Muzon *(54°40'N, 132°42'W)*, the flood sets NE around the cape and the ebb SW at about 2½ kn. South of Cordova Bay the flood sets east at about 1¼ kn and the ebb west at up to 1¾ kn.

14 Between Cape Chacon, Zayas Island, Cape Fox and Duke Island the tidal streams are very confused. In bad weather, the heavy and confused sea sometimes looks like breakers.

15 Between Dundas Island and Cape Fox the flood stream sets east at about 2 kn and the ebb west at about 3 kn. The turn of the streams apparently occurs near the time of HW and LW at Prince Rupert.

16 Information from tidal stream observations in 1984 in Dixon Entrance is given below.

17 Four miles north of Langara Island maximum flood sets 085° at 2½ kn and maximum ebb 275° at 2½ kn. Turn to flood here is 1 h 30 min after LW Prince Rupert, turn to ebb 1 h 30 min after HW Prince Rupert.

18 About 10 miles SW of Cape Muzon maximum flood sets 095° at 1½ kn and maximum ebb 265° at 2 kn.

19 Thirteen miles NNE of Klashwun Point maximum flood sets 090° at 2 kn and maximum ebb 250° at 2 kn. Seven miles NE of Klashwun Point maximum flood sets 110° at 2 kn, maximum ebb 270° at 1½ kn.

20 Eleven miles west of Rose Spit Racon maximum flood sets 070° at 1½ kn and maximum ebb 220° at 1 kn. Turn to flood here is at LW Prince Rupert, turn to ebb at HW Prince Rupert. The duration of flood is 6 hours on spring tides and 3 hours on neaps.

21 Twenty miles NW of Rose Spit Racon maximum flood sets 090° at 2 kn and maximum ebb 245° at 2 kn.

22 About 4 miles SW of Cape Chacon *(54°41'N, 132°01'W)* maximum flood sets 100° at 2 kn and maximum ebb 265° at 2½ kn. After sustained SE winds, which build up a head of water in Clarence Strait, the flood stream off Cape Chacon is weak and the ebb stream sets SW at 3 kn or more. Strong tide-rips occur in this vicinity.

23 Midway between Celestial Reef and McCulloch Rock maximum flood is 025° at 1½ kn and maximum ebb 290° at 1½ kn.

24 **Weather**. — Dixon Entrance is exposed to the Pacific Ocean. Gales blow frequently out of the SE, up Hecate Strait, from October through April. During winter months northerly gales, known as “Squamish winds”, funnel down Portland Inlet and across the NE end of Chatham Sound; they make the crossing from Dundas Island to Cape Fox hazardous. Strong SW winds create a heavy beam sea on this same crossing.

25 Swells approach Dixon Entrance mainly from the west and SW, particularly in winter. They move through passages, break on shoals or against shorelines and are heavy at times.

26 Advection fog plagues these waters July through September, when visibility of less than 0.5 mile occurs up to 15% of the time, and is often cyclical over a period of several days.

27 **Meteorological information** is available in the Appendices.

28 Along the north side of Dixon Entrance, local **magnetic anomalies** of as much as 4° have been observed at Cape Muzon. Differences of as much as 17½° from the normal variation have been observed in the vicinity of Percy Islands, at the SE end of Clarence Strait. Extreme magnetic disturbances exist in the south entrance to Revillagigedo Channel, SE of Duke Island. In this vicinity the magnetic compass should not be relied upon within the area outlined in magenta on the charts. Differences of as much as 5° from the normal variation have been observed along the west shore of Nakat Inlet.

29 **Pilotage**. — All the coastal waters of Haida Gwaii along the south side of Dixon Entrance are within Area 5, and the approach channels to Chatham Sound are within Area 4 of the Pacific Pilotage Authority; within these waters pilotage is compulsory. For further information on pilotage areas and obtaining a pilot *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

30 In United States waters pilotage is compulsory for the inside waters of the State of Alaska. For further information *see United States Coast Pilot 8*.

31 **Vessel Traffic Services (**VTS**)**. — The area covered in this chapter is in *Sector 2* of the *Prince Rupert Traffic Zone*. The assigned frequency is 156.575 MHz, Channel 71.

32 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*, full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

33 The Calling-in Points are

34 *Calling-in Point No. 19*, called *Wales Island*, is a line joining Wales and Maskelyne Points and is a change line.

35 *Calling-in Point No. 20A*, called *Butterworth Rocks*, is a line from Jacinto Point light *(732)* to Butterworth Rocks light *(751)* thence to Seal Rocks light *(748)*. Mariners shall advise *Prince Rupert Traffic* of routeing if not using Browning Passage.

36 *Calling-in Point No. 21*, called *Rose Spit/Seal Rocks*, is a line joining Rose Spit Racon and Seal Rocks light *(748)* and is a change line between *Sector 1* and *Sector 2* of the *Prince Rupert Traffic Zone*.

37 *Calling-in Point No. 22*, called *Rose Spit*, is a line extending north from Rose Spit Racon to the International Boundary.

38 *Calling-in Point No. 23*, called *International Boundary Dixon Entrance*, is the International Boundary from Cape Muzon light to Wales Island. Mariners shall report to *Prince Rupert Traffic* whether their route is through Holliday Passage, Oriflamme Passage or Main Passage when transiting Chatham Sound.

39 *Calling Point No. 24*, called *Zone Limit*, is a line running from Point Cornwallis light extending on a southwestward arc to a point 270° westward of Cape Knox on the Territorial Sea limit. This line is the western limit of the *Prince Rupert Traffic Zone*.

Chart 3800

40 **Shoals and reefs** in Dixon Entrance that are a particular source of danger to navigation are as follows.

41 **Learmonth Bank** *(54°30'N, 133°05'W)* lies in the fairway of the west entrance of Dixon Entrance. Depths over this bank are uneven and the bottom is sand, rock and gravel. The least depth is 26.4 m. Overfalls and tide-rips are encountered over the bank; an ebb tidal stream with west winds can create sea conditions hazardous to small craft.

42 Celestial Reef, West Devil Rock and several unnamed shoals, about 20 miles west of Dundas Island, lie in the centre of the fairway of Dixon Entrance. McCulloch Rock lies between the above-mentioned reefs and Zayas Island. East Devil Rock is 3.3 miles north of Zayas Island. These reefs and shoals are a source of danger to all craft.

43 Rose Spit, on the south side of Dixon Entrance, is fairly steep-to on its NW side and soundings may not indicate the danger in sufficient time to take avoiding action; low lying land in the vicinity does not provide adequate radar definition. In the shoal area east of Rose Spit sand waves form on the bottom, careful attention to soundings should be taken in this area.

44 Nunez Rocks, on the north side of Dixon Entrance and south of Prince of Wales Island, should be given a good clearance because of the uncertain tidal streams in the locality.

45 The south and SW sides of Duke Island should be avoided as rocks and reefs extend about 7 miles offshore. Avoid going inside a line joining Hassler Reef, West Rock, Club Rocks and East Island.

46 **Caution**. — The dangers described above and the strong, and in some areas uncertain, tidal

streams make navigation in Dixon Entrance treacherous when visibility is poor.

47 **Radar beacons (Racons)** are at Butterworth Rocks, Hanmer Rocks, Rose Spit, Seal Rocks and Stenhouse Shoal.

48 For details of radio aids see *Pacific Coast List of Lights, Buoys and Fog Signals*.

49 The high land of Forrester, Langara, Dall, Prince of Wales and Dundas Islands will assist radar-equipped vessels.



50 Two **submarine cables** are laid NE around the north end of Learmonth Bank, easterly to Cape Muzon then east to close-off Cape Chacon.

Forrester Island to Cape Chacon

51 **Forrester Island** *(54°48'N, 133°31'W)* is a ridge of distinctive summits in the north half. The south part is a wooded flat with a knob on the east side. The island makes a prominent landmark when approaching Dixon Entrance from NW. Forrester Island is a National Wildlife Refuge under the jurisdiction of the United States Fish and Wildlife Service. There are no secure anchorages off Forrester Island, but small craft anchor in several places during the summer.

52 **Petrel Island**, 0.5 mile south of Forrester Island, has two wooded summits; from a distance they look like two islands. **South Rock**, close south of Petrel Island, is not very prominent. The passage between Forrester and Petrel Islands is used by fishermen. The currents are severe at times, and during heavy weather the passage is dangerous.

53 **Lowrie Island**, 1 mile north of Forrester Island, is wooded. **Sea Lion Rock** and **Cape Horn Rocks** lie between Forrester and Lowrie Islands. **North Rocks**, 0.5 mile north of Lowrie Island, have a maximum elevation of 25 feet (7.6 m). The passages between Lowrie and Forrester Islands and between Forrester Island and North Rocks are used only by small fishing craft; local knowledge is advised.



54 Lowrie Island **light** *(US 995)* is shown at an elevation of 52 feet (15.8 m) from a skeleton tower fitted with a red and white diamond-shaped daymark.

55 **Point Cornwallis** *(54°42'N, 132°52'W)* is a prominent headland on the SW side of Dall Island. **Stripe Mountain**, 1.3 miles NE of the point, is marked by a prominent slide on its NW side.

56 **Dall Island** is mountainous and indented by numerous bays, coves and inlets, some of which are excellent harbours of refuge.

57 **Cape Muzon**, the south extremity of Dall Island, is heavily wooded and rises to a rounded peak about 2 miles NW. A rock, 0.3 mile south of the cape, breaks heavily with a moderate sea. A group of small islands and rocks is off the east end, and depths of 13 and 16 fathoms (24 and 29 m) are reported (1984) to exist 2.3 miles SW of the cape.



58 Cape Muzon **light** *(US 985)* is shown at an elevation of 80 feet (24.4 m) and is fitted with a red and white diamond-shaped daymark.



59 **Tidal streams** off Cape Muzon are described at the beginning of this chapter.



60 A **magnetic anomaly** with differences of as much as 4° from normal variation has been observed at Cape Muzon.

61 **Point Marsh**, 13 miles ENE of Cape Muzon, is a group of low, wooded, rocky islets lying close-off the SW extremity of **Prince of Wales Island**. The land rises evenly and attains an elevation of about 1,000 feet (305 m) between 1 and 2 miles inland from the point. A prominent hill, 3 miles NE of the point, has a round top and is almost bare.



62 Point Marsh **light** *(US 21855)*, on a small islet SE of the point, is shown at an elevation of 74 feet (22.6 m) from a skeleton tower fitted with a red and white diamond-shaped daymark.

63 **Surf Point**, 4.6 miles ESE of Point Marsh light, rises steeply to a knob, then to higher ground to the north. **Brown Bear Rock**, close south of Surf Point, is prominent.

64 **Bean Island**, 2 miles east of Surf Point, has a number of rounded, steep-sided rocky knobs. From the west they show as a rounded hill standing well above the general level of the island. **Nunez Point**, the SE extremity of Bean Island, has several rocky ridges, with bare bluffs, on the seaward face.

65 **Nunez Rocks**, 1.5 miles south of Nunez Point, consist of a reef that dries 11 feet (3.4 m) and below-water rocks. Because of the uncertain tidal streams in this locality the rocks should be given a berth of at least 1 mile when passing to the south. The passage between Nunez Rocks and Nunez Point is clear.

66 **Cape Chacon**, the SE extremity of Prince of Wales Island, is easily recognized from the NE and SW by three hills. The outer hill appears as a perfect cone, the second hill is slightly higher and somewhat rounded and the third hill has a flat top. The land to the NW of the cape is high and broken. A rock awash is about 0.15 mile SE of the cape.

67 Cape Chacon **light** *(US 21850)* is shown at an elevation of 50 feet (15.2 m) and is fitted with a red and white diamond-shaped daymark.

68 **Tidal streams** in the vicinity of Cape Chacon and Nunez Rocks are described at the beginning of this section.

Chart 3868

Langara Island to Rose Spit

69 **Langara Island** *(54°15'N, 133°00'W)* is densely wooded and has a range of rounded hills, of nearly uniform height, extending east and west across its central part. The west and north coasts are rocky and precipitous; cliffs on the west side of the island rise in high pinnacles of sandstone. Shoals and reefs lie up to 0.5 mile off the west and north coasts of Langara Island; when rounding the north side of Langara Island keep outside the 50 fathom (91 m) line.

70 Parry Passage, on the south side of Langara Island, is described later in this chapter.

71 **Tides**. — Tidal predictions for Langara Point (Index No. 9964) and tidal differences for McPherson Point (Index No. 9963), referenced on Langara Point, are given in the Tide Tables, Volume 7.

72 **Meteorological information** is available in the Appendices.

73 **Langara Point** is at the NW end of Langara Island. A group of drying rocks, 0.3 mile east of Langara Point, extends 0.2 mile offshore; the outer rock dries 5 feet (1.5 m).

74 Langara Point **light** *(807)* is shown at an elevation of 160 feet (48.8 m) from a white tower. It is fitted with an emergency light. The light is visible from 055° through east and south to 265°.

75 **Langara Rocks**, 1.3 miles east of Langara Point and 0.3 mile off **St. Margaret Point**, are two bare above-water rocks surrounded by drying and below-water rocks. Shoals under 6 fathoms (11 m) are up to 0.5 mile offshore between Langara Point and Langara Rocks. **Tide-rips** occur in this vicinity.

76 **McPherson Point** is the NE extremity of Langara Island. **Andrews Point**, 0.8 mile SE of McPherson Point, has a ledge of above-water rocks extending 0.15 mile NE from it, off which **tide-rips** occur.

77 **Explorer Bay**, on the north side of Andrews Point, and **Dibrell Bay**, entered between Andrews Point and **Cohoe Point**, are deep and exposed to the north and east; they afford indifferent anchorages. Egeria Bay is described later with Parry Passage.

Chart 3800

78 The north coast of Graham Island, between **Seath Point** *(54°09'N, 132°53'W)* and Cape Naden, about 11 miles east, is generally rocky with occasional low cliffs. The shores are gravel, interspersed with sand beaches.

79 **Nankivell Point**, 3.5 miles east of Seath Point, is a drying ridge of stones and gravel extending north from close east of it. A rock 1 foot (0.3 m) high is at the outer end of the ridge. A rock with less than 6 feet (2 m) over it is 0.5 mile NW of the point and a rock that dries 11 feet (3.4 m) is 1.2 miles NE of the point and 0.9 mile offshore.

80 **Jalun River** is close west of Nankivell Point; its entrance is encumbered with drying rocks.

Chart 3892

81 **Klashwun Point** *(54°09'N, 132°40'W)* is prominent because of the low, flat character of the adjacent coast. A distinct summit 95 m high near its west part is visible for a considerable distance and provides a useful landmark.

82 **Shag Rock** is 0.4 mile NE of Klashwun Point.

83 Shag Rock **light** *(804.6)* is shown at an elevation of 7.1 m from a mast.

84 **Cape Naden**, 3.5 miles SE of Klashwun Point, is the west entrance point, and **Cape Edensaw**, which is low but somewhat prominent, is the east entrance point of Virago Sound, described later in this chapter.

85 **Wiah Point** *(54°07'N, 132°19'W)*, known locally as **Seven Mile Point**, is low, wooded and has no distinguishing features.

86 Wiah Point **light** *(800)*, on a drying reef NE of the point, is shown at an elevation of 7.5 m from a cylindrical tower.

87 Wiah Point **light and bell buoy** "C50" *(798.8)*, 0.5 mile north of Wiah Point, is a starboard hand buoy.

88 **Tides**. — Tidal differences for Wiah Point (Index No. 9940), referenced on Langara Point, are given in the Tide Tables, Volume 7.

89 **Refuge Island**, 0.3 mile east of Wiah Point, is near the SW end of a large drying rocky reef.

90 Refuge Island Boat Harbour Sector **light** *(799)* is on the Graham Island shore about 0.1 mile west of Refuge Island. The white sector indicates the preferred channel.

91 A **boat harbour**, between Wiah Point and Refuge Island, is used during the fishing season, May to September, approximately. A **public float** and dolphins

are in the south part of the harbour. A cabin can provide emergency shelter.

92 **Hedden Island**, 1.5 miles SE of Wiah Point, is wooded and has an extensive drying ledge extending north and east from it. Drying and below-water rocks lie off the drying ledge.

Charts 3800, 3892

93 **McIntyre Bay** *(54°05'N, 132°10'W)*, the large bay between Wiah Point and Rose Point, 23 miles east, has dense kelp in its inner part. The beaches, with the exception of a few small rocky points, are almost entirely composed of hard sand with gravel in some places. Low sand hills generally fringe the woods, which densely cover this stretch of low, featureless and swampy coast.

Chart 3800

94 The shore for about 1.5 miles SW of **Yakan Point** *(54°04'N, 131°50'W)* is an **Ecological Reserve**.

95 **Taaw Tldáaw** *(54°05'N, 131°48'W)* rises immediately from shore with cliffs about 400 feet (122 m) high; it makes a good radar target. The land in the vicinity is low, which makes it prominent, but it is difficult to identify on certain bearings because of Argonaut Hill, 3.5 miles SE, which is flat-topped and wooded to its summit.

96 **Naikoon Park** is a provincial park at the NE end of Graham Island. Campsites are at Agate Beach, near Taaw Tldáaw, and picnic facilities are at Taaw Tldáaw.

97 **Hiellen River** enters Dixon Entrance close east of Taaw Tldáaw. Except during northerly winds, landing is possible at Hiellen River near HW by keeping very close to the rocky shore under Taaw Tldáaw. A First Nation reservation is on the east side of the river.

98 **Anchorage** can be obtained about 2 miles north of Taaw Tldáaw in about 7 fathoms (13 m) or about the same distance WNW of the extremity of the trees on Rose Point in 7 to 9 fathoms (13 to 16 m).

99 **Rose Point** is a low promontory that forms the NE extremity of Graham Island. The Haida Nation called Rose Point "Nai"; Rose Spit was "Nai-kun", the-long-nose-of Nai, or just **Long Nose**.

100 A survey in 1984 found that although the treeline on Rose Point ends about 1 mile SSW of Rose Spit Racon, the point actually continues above water for about 1½ miles north of the Racon. The elevation near the Racon is 8 feet (2.4 m).

101 **Rose Spit** extends 7 miles NNE from Rose Point to Overfall Shoal at its outer end. The inner portion of the spit is covered with a few stunted bushes and grass-covered sand hills; it continues as a narrow, partly drying, partly submerged sand bank. The survey found that drying areas exist 3.5 miles NE of the Racon and a depth of less than 3 feet (0.9 m) is 0.5 mile farther NE. From about 4.5 miles NE of the Racon to Overfall Shoal depths are generally 23 to 46 feet (7 to 14 m). The least depth over **Overfall Shoal** is 9 feet (2.7 m). Because of dangerous **overfalls** the passage between the drying portion of Rose Spit and Overfall Shoal should not be attempted under any circumstances.

102 **Caution**. — Rose Spit and Overfall Shoal are fairly steep-to on their NW side; soundings may not indicate the danger in sufficient time to take avoiding action. In the shoal areas east of Rose Spit and Overfall Shoal sand waves form on the bottom and careful attention to soundings should be given in these areas. Heavy **overfalls** are encountered along the NW side of Rose Spit near the edge of the deep water. They have the appearance of breakers and occur during the full strength of the tidal streams, which attain 3½ kn between Rose Spit and Overfall Shoal.

103 **Tidal streams** in the vicinity of Rose Spit are described with those for Dixon Entrance at the beginning of this section.

104 Rose Spit radar beacon (**Racon**) (— — • —) is on the spit.

105 **Light buoys**. — Rose Point **light and bell buoy** "C26" *(791)*, about 3.25 miles north of Rose Spit Racon, is a starboard hand buoy; the upstream direction is when approaching from Dixon Entrance.

106 Rose Spit **light and whistle buoy** "CUT" *(790)*, NE of Overfall Shoal, is an east cardinal buoy.

107 Rose Spit is an **Ecological Reserve** and is bordered by Naikoon Park.

Dixon Entrance — East End

108 The east end of Dixon Entrance, east of a line drawn from Rose Spit to Cape Chacon, 33 miles NNW, has several shoals lying in the centre of the fairway and to the west of Dundas Islands. Named shoals in this group are Celestial Reef, West Devil Rock and McCulloch Rock. The approach to Hudson Bay Passage and the **pilot boarding station** off Triple Islands in Brown Passage lie between Rose Spit and Celestial Reef. Brown Passage, Hudson Bay Passage and their approaches are described in Chapter 4.

109 **Celestial Reef** *(54°31'N, 131°28'W)*, over which seas occasionally break, lies on the SE side of a bank and has three heads with 7, 10 and 53 feet (2.1, 3 and 16.2 m) over them. A 16 fathom (29.3 m) shoal is about 3.5 miles

NW of the north head and a 52 foot (15.8 m) shoal is 2 miles south. The bottom is very uneven in this area.

110 **West Devil Rock**, 10 miles NNW of Celestial Reef, dries 11 feet (3.4 m). A rock with less than 6 feet (2 m) over it is 0.5 mile north of West Devil Rock; seas break over this rock with a moderate swell. A shoal with a depth of 48 feet (14.6 m) over it is 2.5 miles SE of West Devil Rock.

111 **McCulloch Rock**, about 10 miles ENE of Celestial Reef, is a shoal pinnacle with a depth of 9 feet (2.7 m) over it. The bank on which McCulloch Rock is situated has several other pinnacle shoals on it.

112 **Barren Island** *(54°45'N, 131°21'W)*, 10 miles NE of Celestial Reef, is 30 feet (9 m) high.



113 Barren Island **light** *(763)* is shown at an elevation of 85 feet (25.9 m) from a skeleton tower fitted with a red and white diamond-shaped daymark.

114 **Cape Northumberland**, north of Barren Island, is the south extremity of **Duke Island**. **Mount Lazaro**, 1.8 miles NNW of Cape Northumberland, is a solitary mountain with a broad summit; it is the only part of Duke Island that can be seen from a distance. The remainder of Duke Island is generally low and heavily wooded with a number of scattered round-topped hills.

115 Rocks and reefs extend up to 7 miles off the SW shore of Duke Island. Avoid going inside a line joining Hassler Reef, West Rock, Club Rocks and East Island.



116 Extreme **magnetic disturbances** exist SE of Duke Island, in the south entrance to Revillagigedo Channel. In this vicinity the magnetic compass should not be relied upon within the area outlined in magenta on the chart.

117 **Hassler Reef**, about 8 miles west of Cape Northumberland, is an extensive shoal area. The reef is covered by heavy kelp in summer and has deep water close-to. A very irregular bottom extends 3 miles to the south of Hassler Reef; passage over this section is not recommended. A rocky shoal with 18 feet (5.5 m) over it is reported (1964) to lie about 2.5 miles SSW of Hassler Reef.

118 **West Rock**, 6 miles SW of Cape Northumberland, is 12 feet (3.7 m) high. A rock with 12 feet (3.7 m) over it is 0.6 mile south of West Rock.

119 **Club Rocks**, 2.8 miles south of Cape Northumberland, consist of two bare above-water rocks surrounded by reefs.

120 **Yellow Rocks**, 5.5 miles SE of Cape Northumberland, consist of two yellowish above-water rocks, the larger with some vegetation.

121 **East Island** is 5 miles east of Cape Northumberland.



122 East Island **light** *(US 21920)*, on the east side of the island, is shown at an elevation of 43 feet (13.1 m) from a skeleton tower fitted with a red and white diamond-shaped daymark. The light is obscured from 014° to 184°.

123 **Zayas Island** *(54°36'N, 131°04'W)* is flat-topped and wooded. The north coast of Zayas Island should not be approached within a distance of 1 mile. **Aranzazu Point**, the NW extremity of Zayas Island, is a low point fronted by extensive drying ledges.

124 **East Devil Rock**, 3.3 miles north of Zayas Island, is a pinnacle rock that dries 5 feet (1.5 m).

Chart 3959

125 **Jacinto Point** *(54°35'N, 131°04'W)* is the SW extremity of Zayas Island. Rocks that dry 6.1 and 1.8 m and shoal shoals extend 1 mile SW from the point. A rock 6 m high is 0.6 mile SW of Jacinto Point *(Chart 3800)*.



126 Jacinto Point **light** *(see LL 732)*, is on the south extremity of Zayas Island 0.6 mile east of Jacinto Point.

127 **Caamaño Passage** separates Zayas Island from the west side of Dundas Island. Drying ledges extend 0.3 mile from Zayas Island and shoal rocks are up to 0.7 mile off Dundas Island. Landing on the west coast of Dundas Island, except at Boat Harbour, is difficult because of the continuous heavy swell.

Chart 3960

128 **Boat Harbour** *(54°36'N, 130°56'W)*, 5 miles ENE of Jacinto Point light, is a well-sheltered inlet on the west coast of Dundas Island; it is only suitable for small craft. A rock, about 0.8 mile SW of Boat Harbour entrance, is 1 m high and two shoals with 4.9 and 6.7 m over them are close NNW and north of it.

129 **White Islets** *(54°38'N, 130°55'W)*, 0.5 mile off the NW side of Dundas Island, consist of several wooded islets.

130 **Arniston Point** is on the north coast of Dundas Island. A rock awash and two shoals are 0.6 mile north of Arniston Point.



131 **Goose Bay**, entered east of Arniston Point, offers shelter for small craft in the basin at its head. Two storage tanks are at the SW end of Goose Bay. A scow is moored east of the tanks (1980); mooring **floats** extend south from the scow.

132 A private **daybeacon** is on a drying reef about 0.9 mile SSE of Arniston Point.

133 **Directions**. — Take care to avoid the rock awash 0.5 mile north of Arniston Point. Local knowledge is advised for safe passage into the bay. The bay is entered east of the rocks with less than 2 m over them and east and close south of the drying reefs marked by the daybeacon, and north of the drying reefs off the north end of the island 36 m high.

134 **Gnarled Islands**, 1.5 miles ENE of Arniston Point, are fringed with drying ledges, drying and below-water rocks.

135 **Whitly Point**, the NE point of Dundas Island, has drying reefs extending 0.3 mile ENE from it. A rock with 6.4 m over it is 0.2 mile north of the point. **Slab Hill**, 0.9 mile south of Whitly Point, is a conspicuous flat-topped knob. Holliday Island with a chain of drying rocks extending NW from it is described in Chapter 4.

Chart 3909

136 **Brundige Inlet** is entered east of **Prospector Point** *(54°37'N, 130°51'W)*. **Fitch Island**, 1 mile SW of Prospector Point, has a rock that dries 2.4 m, 0.1 mile west of it. A shoal with 2.1 m over it, 0.6 mile SW of Fitch Island, lies in the middle of the fairway leading to the head of the inlet.

137 **Tides**. — Tidal differences for Brundige Inlet (Index No. 9333), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

138 **Anchorage** can be obtained in mid-channel NW of Fitch Island in 27 m. Anchorage for small craft can be obtained at the head of Brundige Inlet in 16 m.

Chart 3960

139 **Tree Point** *(54°48'N, 130°56'W)*, on the east side of the entrance to Revillagigedo Channel, is low, but has a steep-to shore.

140 Tree Point **light** *(762)* is shown at an elevation of 26.2 m from a white square tower. The light is obscured from 158° to 318°.

141 **Cape Fox**, 3.5 miles SE of Tree Point, is mountainous and terminates in remarkable high, white cliffs. **Harry Saddle**, 2 miles north of Cape Fox, is a conspicuous saddle-shaped mountain. **Fox Island** is 0.2 mile south of Cape Fox.

142 Boat Rock **light** *(US 21915)*, 2 miles NE of Cape Fox, is shown at an elevation of 38 feet (11.6 m) from a spindle. The light is obscured from 049° to 210°, through east and south.

143 The shoreline between Tree Point and Cape Fox is studded with numerous wooded islets, bare rocks and below-water rocks. This section of the coast should be given a berth of at least 0.5 mile.

144 **Lord Islands**, 2 miles SE of Cape Fox, consist of two groups of islands. The larger islands of each group are wooded. **Thistle Rock**, 0.5 mile west of the north group, is 2 m high. Several drying and below-water rocks lie 0.35 mile from all sides except the NW which is steep-to. Nakat Bay, north of Lord Islands, is described in *United States Coast Pilot 8*.

145 **Lord Rock**, 0.6 mile WSW of the south group of Lord Islands, is 3 m high. A shoal with a depth of 8.7 m over it is 0.35 mile SE of the rock.

146 Lord Rock **light** *(761)* is shown at an elevation of 11.6 m from a skeleton tower fitted with a red and white diamond-shaped daymark.

147 **Fleece Rock**, 1 mile east of Lord Rock, is 3 m high.

148 **Kanagunut Island**, 2 miles east of Lord Islands, is low and heavily wooded. **Garnet Point** is its south extremity.

149 **Haystack Island**, 2.5 miles east of Garnet Point, is conspicuous. The entrance to Tongass Passage, described later in this chapter, is on the west side of Haystack Island.

150 **Proctor Islands** are close east of Haystack Island and **Boston Islands** are 2 miles SE. Drying and below-water rocks lie between the two groups that form the Procter Islands. Drying reefs and below-water rocks are SW of Proctor Islands and above-water and drying rocks lie between Proctor and Boston Islands.

151 **Wales Island** east of the Proctor and Boston Islands has **Wales Point** at its SE extremity. **Entry Peak**, 0.8 mile north of Wales Point, has a sharp conspicuous summit. A mountain with a flat summit is 1.5 miles NW of Entry Peak.

152 **Tracy Island**, 1 mile WSW of Wales Point, lies in the entrance of a bay locally known as **Tracy Bay**. A rock 1 m high and a reef that dries 7.3 m are in the centre of the passage between Wales Point and Tracy Island.

153 **Anchorage** for small vessels can be found in Tracy Bay; it is sheltered from most winds except those from the south quadrant.

Charts 3800, 3959, 3960

154 **Directions**. — Because of several dangers and the strong, and in some areas uncertain, tidal streams in

Dixon Entrance, navigation at night or in thick weather is somewhat treacherous.

155 Approaching Dixon Entrance from SW, and if bound for the Triple Islands pilot boarding station, round the north side of Langara Island, giving it a berth of about 3 miles. Follow along the south side of Dixon Entrance and give a wide berth to Rose Spit and Overfall Shoal while at the same time ensuring that you do not get set too far north toward Celestial Reef; thence to the Triple Islands pilot boarding station in Brown Passage, described in Chapter 4.

156 If proceeding to the north part of Chatham Sound or Portland Inlet, and are exempt from compulsory pilotage requirements, the above directions should be followed until well clear of Rose Spit and Overfall Shoal to the south and Celestial Reef to the north. Once these shoals have been cleared, steer NE for Caamaño Passage, between Dundas and Zayas Islands, then round White Islets at a distance of about 1.5 miles and steer east, passing between Lord Rock and Gnarled Islands. If proceeding into Portland Inlet, steer a course to pass midway between Tracy Island and Hogan Island. If bound for the north end of Chatham Sound, proceed by way of Main Passage, west of Pointer Rocks, described in Chapter 4.

157 Approaching Dixon Entrance from NW, and if bound for the Triple Islands pilot boarding station, round the south side of Petrel Island, giving it a berth of about 3 miles, then steer direct for Brown Passage, making sure you are not set north toward Celestial Reef or south toward Rose Spit and Overfall Shoal.

158 Approaching Dixon Entrance from NW, and proceeding to the SE Alaska pilot boarding station in Clarence Strait, steer to pass about 3 miles south of Cape Muzon then alter course to pass about 4 miles south of Cape Chacon, rounding this cape at that distance, and proceed into Clarence Strait, following the directions prescribed in *United States Coast Pilot 8*.

159 Approaching Dixon Entrance from NW, and proceeding to Chatham Sound or Portland Inlet, steer to pass 3 miles south of Cape Muzon then alter course to pass about 4 miles south of Cape Chacon. When south of Cape Chacon, alter course to pass 3 miles north of West Devil Rock and when this danger is cleared steer courses to pass 1 mile south of Barren Island and midway between Lord Rock and Gnarled Islands, making sure you are not set south onto East Devil Rock. Thence, proceed into Chatham Sound or Portland Inlet as previously described.

Parry Passage and Approaches

Charts 3868, 3895

160 **Parry Passage** *(54°12'N, 133°05'W)* separates Langara Island from the NW end of Graham Island and has a least width of 0.3 mile through the fairway. Navigation of the passage in clear weather presents no difficulty but due regard should be given to the tidal streams, particularly at the east end.

161 **Tides**. — Tidal differences for Solide Passage (Index No. 9960), referenced on Langara Point, are given in the Tide Tables, Volume 7.



162 **Tidal streams** flood east and ebb west through Parry Passage. In the east and west approaches the tidal streams attain 2 kn. In the narrowest part of the passage, abreast the west end of Lucy Island, the flood stream increases to about 5 kn but the ebb stream seldom exceeds 3 kn.

163 Secondary current station Parry Passage (Index No. 8590), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

164 **Cape Knox**, at the SW entrance to Parry Passage, is the NW extremity of the narrow peninsula forming the north side of T'áalan Stl'áng, described in Chapter 8.



165 **Caution**. — Approaching Parry Passage from the south, take care not to mistake T'áalan Stl'áng for the entrance to Parry Passage, which is not apparent until after passing Cape Knox.

166 **Carew Rock** and **Turner Reef** lie about 1.5 miles SW of Cape Knox.

167 **Ocean Shoal**, 0.9 mile north of Cape Knox, lies in the west entrance of Parry Passage and has a least depth of 14.4 m. There is nearly always a heavy swell on the shoal and with a strong ebb tide combined with heavy weather it is reported to break.

168 **Lacy Island**, 2.4 miles north of Cape Knox at the NW entrance to Parry Passage, is bare and separated from the west extremity of Langara Island by foul ground. **Thrumb Islet**, 1.5 miles north of Lacy Island, is 20 m high with some bushes on it; drying and below-water rocks and a rock awash extend 0.4 mile WSW from it. **Lord Bight**, between Lacy Island and Thrumb Islet, is encumbered with foul ground.

169 **Rhodes Point**, 1.8 miles east of Lacy Island, has drying reefs extending south and west from it. **Fury Bay**, NW of Rhodes Point, is encumbered with dangers and exposed to the ocean swell; the swell breaks a considerable distance offshore in this locality.

Chart 3895

170 **Swanton Bank** *(54°12'N, 133°02'W)*, south of Rhodes Point and on the north side of the fairway through Parry Passage, lies in the entrance to Cloak Bay. **Harvey Rock**, on the north part of Swanton Bank, has a depth of 1.8 m over it. Kelp is usually present over the bank during summer and autumn. With a heavy SW sea and swell it breaks heavily and the rollers almost reach Hazardous Cove.

171 **Cloak Bay** is between Swanton Bank and Cox Island; it is best approached from the south, between the SE end of Swanton Bank and the west side of Iphigenia Point. **Cox Island** has precipitous sheer cliffs on its west and south sides; close-off these cliffs are some remarkable conglomerate rock pillars up to 38 m high. Shoal rocks, with 4 and 1.6 m over them, are 0.2 mile SW and west of Cox Island, respectively.



172 **Anchorage** can be obtained in calm settled weather SE of Swanton Bank in 26 m. From this anchorage the summit of Cox Island bears 044° and the extremity of the land near Iphigenia Point bears 147°. Anchorage can also be obtained off the entrance to Hazardous Cove, east of Harvey Rock, in 32 m. From this anchorage the summit of Cox Island bears 107° and the SW extremity of the land near Iphigenia Point bears 158°. Both anchorages are exposed to the west and are seldom free from the prevailing ocean swell.

173 **Hazardous Cove**, at the NE end of Cloak Bay, is entered between Cox Island and **Hart Point**, 0.5 mile north. Drying ledges fringe the coast in the vicinity of Hart Point. Rocks, 1 to 7 m high, are 0.3 mile SW of Hart Point near the outer end of these ledges.

174 **Sunday Reef**, in the entrance to Hazardous Cove, has a rock 1 m high on it and a rock that dries 3.5 m off its west end. The reef can be passed on either side but the passage on the south side is preferred.

175 **Kusgwai Passage**, on the east side of Cox Island, leads into the south end of Hazardous Cove. The passage is narrow and shallow with drying ledges on both sides.



176 **Anchorage** for small craft can be obtained in Hazardous Cove in 10 to 24 m. The best anchorage is 0.15 mile east of Sunday Reef with the summit of Cox Island bearing 194° and the summit of Lacy Island seen over Rhodes Point bearing about 283°. Be prepared to leave this anchorage immediately on a change of weather.

177 **Iphigenia Point**, at the SW end of Langara Island, is the south extremity of a steep rounded bluff. The south side of the bluff is steep-to, but close-off its west side are some remarkable rock pillars up to 29 m high.



178 Iphigenia Point (Langara Island) **light** *(806)* is shown at an elevation of 9.6 m from a skeleton tower.

179 **Meares Point**, on the south shore of Parry Passage 2 miles east of Cape Knox, is low and partially cleared. The coast between Cape Knox and Meares Point is rocky with occasional cliffs 15 to 30 m high; it is fringed with above-water, drying and below-water rocks extending up to 0.3 mile offshore. The prevailing ocean swell is felt as far as Meares Point and it is seldom that the coast can be approached in boats or any landing attempted. The former First Nation villages **Yaku** and **Kiusta** are SE of Meares Point; the sites are marked by a few totem poles.

180 **Chanal Reef** extends 0.3 mile north from Meares Point and is separated from it by a narrow, shallow channel. Rocks, 2 and 3 m high, are on the NE side of the reef. The reef is usually marked by large fields of kelp and is steep-to on its north side. Avoid the area within the 10 m line west of Chanal Reef; it has dense kelp and numerous drying rocks that break.

181 **Marchand Reef**, 0.5 mile SE of Meares Point, is a drying rock ledge on the south side of the fairway through Parry Passage. **Astrolabe Rock**, off the east end of Marchand Reef, dries 0.1 m.



182 **Henslung Cove**, on the south shore of Langara Island east of Iphigenia Point, has a small wharf on the west side and dolphins on the east side. Seasonal floating sports fishing lodges and a seasonal fuel barge are on the west side of the cove. **Submerged mooring buoys, chains and anchors are reported to foul the east side of the cove and vessels should not anchor. Beal Cove** is 0.3 mile east of Henslung Cove. These coves are busy with sport and commercial fishing vessels.

183 **Testlatlints Rock** is close to the coast of Langara Island, between Henslung and Beal Coves.

184 **Lucy Island**, on the north side of the fairway through Parry Passage, is densely wooded. A rock with 2.1 m over it and some drying rocks are 0.2 mile SW of the east extremity of the island, and a drying ledge with some above-water rocks on it and a rock with 1.3 m over it extend 0.3 mile east from Lucy Island.



185 Parry Passage **light** *(805)*, on the east extremity of Lucy Island, is shown at an elevation of 7.2 m from a skeleton tower.

186 **Solide Passage** separates Lucy Island from Langara Island and is bordered on both sides by drying rock ledges. The fairway through the passage is about 90 m wide and has a least depth of 5.2 m. **Alert Rock**, which dries 0.8 m, is on the south side of the fairway 0.2 mile SE of Holland Point. **Holland Point**, the SE extremity of Langara

Island, is fringed by drying ledges that extend 0.2 mile east from it. The abandoned site of the First Nation village **Dadens** is on **Village Point** on the north shore of Solide Passage.

187 **Tides**. — Tidal differences for Solide Passage (Index No. 9960), referenced on Langara Point, are given in the Tide Tables, Volume 7.



188 **Tidal streams** in Solide Passage attain a maximum of 2¼ kn on the flood and 2¾ kn on the ebb, both being free of eddies. Slack water occurs at the time of slack water in Parry Passage.

189 **Bruin Bay**, south of Lucy Island, is an indentation on the north side of Graham Island. A rock with 6.5 m over it is in the middle of the bay. Anchorage in the bay is not recommended as the flood tidal stream has eddies which cause considerable yawing.

190 **Gunia Point** is the south entrance point at the east end of Parry Passage.

191 **Douglas Rock**, which dries 0.9 m, together with other drying and below-water rocks is 0.3 mile west of Gunia Point. **Coneehaw Rock**, 0.4 mile ENE of Gunia Point, is 2 m high.

Chart 3868

192 **Egeria Bay** *(54°13'N, 132°59'W)*, 1.5 miles north of Holland Point, affords the best anchorage in the vicinity. The bay is sheltered from all except east winds, which if of any strength, raise a sea sufficiently heavy to render anchorage untenable. In summer and autumn months, kelp is visible growing in depths up to 8 fathoms (15 m) along the shore of Egeria Bay and south to Solide Passage.



193 **Anchorage** can be obtained in Egeria Bay in about 15 fathoms (27 m), mud bottom. From this anchorage the head of Egeria Bay bears about 287° and Cohoe Point 017°. Large vessels should anchor farther out in 18 fathoms (33 m) with the above-water rocks off Andrews Point open east of Cohoe Point.

194 **Pillar Bay** *(54°09'N, 132°55'W)*, between Gunia and Seath Points, affords a temporary stopping place during westerly and offshore winds. **Pillar Rock**, in the east part of the bay, is a remarkable column of sandstone and conglomerate rock, 95 feet (29 m) high, surmounted by bushes. It stands near the outer edge of a drying ledge.



195 **Anchorage** can be obtained in Pillar Bay in 13 fathoms (24 m) with Pillar Rock bearing about 152°, distant 0.75 mile. Small craft can find shelter behind some of the rocky points in the bay.

196 **Directions**. — Approaching Parry Passage from SW be careful not to mistake T'áalan Stl'áng for Parry Passage. When Lacy Island has been identified steer for it on a bearing of not less than 030° until Iphigenia Point light structure bears about 110°, then alter course to bring Iphigenia Point light structure ahead, bearing 113°. This course will lead midway between Ocean Shoal and Swanton Bank. On approaching Iphigenia Point, alter course to pass about 0.1 mile south of the point. When Iphigenia Point light structure is abaft the beam, alter course to bring it astern, bearing 316°, and maintain this course until Parry Passage light structure, on the east end of Lucy Island, bears 070°. A course with Gunia Point ahead, bearing 104°, should then be steered until Parry Passage light structure bears 000°, then set a course for the east end of Dixon Entrance, taking care to give adequate clearance to Douglas and Coneehaw Rocks. On approaching the west extremity of Lucy Island, give particular attention to the steering because strong tidal streams in this vicinity create eddies. Approaching Parry Passage from the NE, give the drying reefs extending east from Lucy Island a berth of not less than 0.3 mile and then follow the previous directions in reverse order.

Virago Sound

Charts 3892, 3895

197 **Virago Sound**, the approach to Naden Harbour, is entered between Cape Naden *(54°07'N, 132°35'W)* and Cape Edensaw, 5 miles ESE.

198 **Hanna Bay**, between Cape Naden and **Jorey Point**, has foul ground extending well offshore and is fronted by large fields of kelp growing in depths up to 11 m. Two rocks that dry 2.4 and 3 m lie centred in Hanna Bay about 0.6 mile offshore.

199 **Mazarredo Islands** lie on a drying stony ridge extending 0.7 mile east of Jorey Point; this ridge covers at about half tide. It has been reported that small vessels can find good anchorage close SSE of the islands. In bad weather, Naden Harbour provides more shelter.

200 The SE shore of Virago Sound, between Cape Edensaw and **Inskip Point**, 4 miles SW, is fringed with drying flats extending up to 0.4 mile offshore. Large fields of kelp generally front this shoreline.

Chart 3895

201 **Hussan Bay** *(54°04'N, 132°34'W)* is between Jorey Point and **Mary Point**, 2.5 miles south; extensive drying flats, fronted by drying rocks, sand bars and dense kelp fields line the shores.

202 **The Bar** extending WNW from Inskip Point toward the middle of Hussan Bay consists of stones and gravel; during summer and autumn it is covered in most parts with kelp. There is seldom any appreciable swell on The Bar. **Caution. — Depths in this vicinity are subject to change. It has been reported (2005) that depths near and across The Bar are shallower than charted. Least depth across The Bar may be as little as 1.5 m.**

203 **Hastings Reef**, which dries 0.2 m, is near the middle of The Bar.

204 **Hodgson Passage** is the channel leading over The Bar west of Hastings Reef. A least depth of 1.6 m lies 0.4 mile SSW of Hastings Reef.

205 **Smyth Passage** is the channel leading over The Bar east of Hastings Reef. The fairway through this passage is marked by *Smyth Passage* ***light buoy*** *C56 (see LL 802)*.

206 **Deepwater Point** and **George Point** are on the SE side of Alexandra Narrows. **Bain Point** is at the SW end of the narrows.

207 **Haswell Reef**, on the west side of Alexandra Narrows, consists of two detached ledges that dry 1 and 1.7 m. The east side of the north ledge is marked by a starboard hand **daybeacon**.

208 George Point **light** *(803)* is fitted with a port hand daymark.

209 **Alexandra Narrows** is about 0.1 mile wide in the fairway SE of Haswell Reef. The narrows is free from eddies but careful attention is required when rounding George Point.

210 **Tidal streams** in Alexandra Narrows attain a maximum of 2 kn on the flood and 2½ kn on the ebb. Secondary current station Alexandra Narrows (Index No. 8583), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

211 **Richard III Bank**, south of George Point, is on the east side of the fairway through Alexandra Narrows and dries 1.6 m. **Isabella Point** is east of the bank. It has been reported that good anchorage is available south of George Point but care must be taken to avoid private buoys. **Caution. — Depths in this vicinity are subject to change.**

Chart 3892

212 **Naden Harbour** *(54°00'N, 132°37'W)* is a spacious, well-sheltered harbour with general depths in its central part of 10 to 15 m. It affords good protected anchorage and shelter from all winds. Drying flats and marshy ground, backed by low, densely wooded land, border the whole harbour. Several sport fishing lodges with facilities on shore and floats protected by breakwaters are in the harbour.

213 **Craft Bay**, on the east side of Naden Harbour, is entered south of **Observatory Rock**. A **booming ground**, private **mooring buoys** and log slipways are on the SE shore of Craft Bay (1998) and **booming grounds** fill the cove east of Observatory Rock.

214 **Lignite Creek**, flowing into the SE side of the harbour, is marked by **Tee Island** on the drying flats in its entrance. A logging camp (1980) is SW of Tee Island.

215 **Naden River** and **Davidson Creek** flow into the head of the harbour. The mouth of Naden River is fronted by drying flats but the river is navigable by small craft at HW for about 2 miles. **Stanley Creek** flows into the SW corner of the harbour; it is fronted by drying flats that can only be crossed by small craft at or near HW. A **booming ground** with log slipways, a **log breakwater** and a sunken barge are in the mouth of Stanley Creek (1989).

216 **Wadsworth Ledge**, off **Colnett Point**, has three heads that dry 4.2, 2 and 1.7 m and a below-water rock with 0.6 m over it, 0.2 mile north.

217 **Kunlana Point**, **Fraser Point** and **Chittenden Point**, where there is a large logging camp (1985), are at the head of the harbour.

218 The abandoned whaling station Naden Harbour is on the west side of the harbour, about 2.4 miles SW of Bain Point near the mouth of **Germania Creek**. The only visible sign is a conspicuous concrete tower-like structure.

Charts 3892, 3895

219 **Anchorage** for vessels waiting to cross The Bar can be obtained east of Mazarredo Islands in Virago Sound, in about 11 m, with George Point light bearing 200° and Cape Naden bearing 320°. Small vessels can anchor closer to The Bar in the same depth with Mary Point in line with Bain Point bearing 209°, and the above-water rock NE of Mazarredo Islands in line with Cape Naden bearing 327°.

220 **Anchorage** in 10 to 20 m, mud bottom, can be obtained almost anywhere within Naden Harbour.

221 **Directions**. — When approaching Virago Sound, useful landmarks to the west are the distinctive summit at Klashwun Point and the highest part of Langara Island. Mazarredo Islands and the narrow opening of Alexandra Narrows only become visible as the entrance is approached.

222 If approaching from the west, pass about 1.5 miles north of Klashwun Point and 1 mile NE of Cape Naden then continue SE until George Point light bears 219°.

If approaching from the east, round Cape Edensaw at a distance of about 1 mile and steer for Mazarredo Islands until George Point light bears 219°.

223 The **wreck** of the fishing vessel *Pacific Pearl* is reported to have sunk in the vicinity of Cape Naden approximately 300 m NE from the shore. The 21 m vessel with least depth unknown sank in 2020 and may have drifted towards the shore. Mariners are advised to use caution when transiting the area.

224 Smyth Passage is the recommended channel for crossing The Bar. It is marked by a buoy.

225 Entering Naden Harbour by way of Smyth Passage, keep George Point light bearing 219°; this leads across The Bar. When Deepwater Point bears 180°, alter course toward the point and follow the trend of the SE shore between that point and George Point in order to avoid the east extremity of Haswell Reef.

226 After passing George Point, follow the west shore of Alexandra Narrows at a distance of about 0.15 mile until past the south extremity of Richard III Bank; then alter course for the selected anchorage in Naden Harbour.

Masset Harbour and Approaches

227 **Skonun Point** *(54°02'N, 132°03'W)* is fronted by a small cliff from which a drying rock ledge extends a short distance north. Drying rocks and dense kelp line the shore west of Entry Point.

228 **Conspicuous radio towers** near Skonun Point have red air obstruction **lights** and make a good landmark.

Chart 3895

229 **Entry Point** *(54°03'N, 132°11'W)*, 5 miles WNW of Skonun Point, is the east entrance point to Masset Harbour; it is a low, densely wooded, rounded promontory. **Estrado Lagoon** is on the NW side of Entry Point. **Venture Banks**, 3.4 miles NNE of Entry Point, have a least depth of 2.1 m over them and are the outermost dangers on the east side of the approach to Masset Harbour. The seas frequently break heavily on these banks, and being steep-to on the north side, soundings give little warning.

230 **Striae Islands** *(54°05'N, 132°15'W)* lie on an extensive drying flat SE of **Jacob Point**. The NW island is thickly wooded and makes a fair landmark when approaching Masset Harbour. The outer islet has a few straggly trees on it. Hidden Island, NW of Jacob Point, is described earlier in this chapter. **Otun River** flows into the small bight 0.5 mile south of Striae Islands; it is accessible to small craft near HW.

231 Striae Islands **light** *(798)*, on the east islet of the group, is shown at an elevation of 6.1 m from a skeleton tower.

232 **Masset Harbour** entered between Entry Point and **Westacott Point**, 2.3 miles NW, leads to Masset Sound and Masset Inlet. The entrance to Masset Harbour is difficult to identify if coming from the NE. In clear weather the radio towers at Skonun Point will be of assistance; otherwise the light structures at Wiah Point and Striae Islands, both on the west side of the entrance, are the only identifiable landmarks. The entrance is encumbered by Outer and Inner Bars.

233 **Davy Ledge**, 0.3 mile NE of Westacott Point, has two heads that dry 2.7 and 1.5 m. Shoal water extends well off the west shore of the entrance to Masset Harbour.

234 **Outer Bar** is on the east side of the entrance channel, 1.8 miles NE of Westacott Point. It is a narrow ridge of sand and gravel with a least depth of 2.1 m at its western end.

235 **Inner Bar** is a narrow ridge of gravel with a least depth of 4 m over it that extends 2.5 miles NNW of Entry Point.

236 **Troup Bank**, which dries in patches, extends 1.5 miles NNE from Entry Point.

237 **Light buoys**. — Masset Harbour **light and bell buoy** "C29" *(791.3)*, WNW of Outer Bar, is a port hand buoy.

238 Masset Harbour Entrance **light buoy** "C31" *(791.5)*, SSW of Inner Bar, is a port hand buoy.

239 Masset Harbour Entrance **range lights** *(792, 792.1)*, on the west side of Masset Harbour south of Entry Point, in line bearing 165½°, lead west of the two light buoys into the harbour. The lights are shown from skeleton towers fitted with range daymarks.

240 **Caution**. — Entrance to Masset Harbour is not recommended during the strength of the tidal streams. Northerly winds cause a heavy swell on the bars, which can last for several days; this should be kept in mind if the margin of draught is small.

241 **Tides**. — Tidal characteristics in this area are complex and tidal information given on *Chart 3895* should be treated as an approximation and used with caution. Masset (Index No. 9910) rather than Wiah Point, both in the Tide Tables, Volume 7, should be used when calculating depths in the entrance.

242 **Sturgess Bay**, between Westacott and Rooney Points, 4.3 miles SE, is shallow throughout and affords no anchorage.

243 **Susan Bank**, with two heads that dry 0.6 m, fronts Sturgess Bay and lies on the west side of the fairway in Masset Harbour. **Wimble Rocks**, about 1 mile SE of Susan Bank, dry 2.4 m.

244 **Rooney Point**, 2 miles SSE of Entry Point on the west side of the harbour, is low and wooded; it can usually be identified when nearing Striae Islands.



245 Rooney Point **light** *(793.3)*, 0.3 mile ENE of Rooney Point, is shown from a dolphin.

246 **Maast Island** and **Grassy Islet** lie SE of Rooney Point on an extensive drying bank that extends 0.8 mile SSE to **Crowell Point** *(Chart 3892)*.



247 An underwater obstruction with 25 m of water over it is located approximately 0.3 mile east of Maast Island.

248 **Old Masset**, 0.5 mile south of Entry Point, is an First Nation community.

249 Masset Harbour **daybeacon**, on a drying reef 1 mile SSE of Entry Point and close-off the NE side of Masset Harbour, has a port hand daymark.



250 Three **submarine pipelines** extend from the east shore between Old Masset and 1.5 miles SE.

251 **Dal K̲áahlii**, on the east side of Masset Harbour, is entered between **Dal Kún** and **Skaga Point**. A narrow channel with a depth of 1.5 m in the entrance leads to a boat basin with depths of 2.1 to 3 m. The remainder of Dal K̲áahlii, north of the boat basin, is filled with drying flats.



252 Dal K̲áahlii **light** *(793.5)*, on the south extremity of a drying spit extending from Dal Kún, is on a dolphin fitted with a port hand daymark.

253 The south side of the entrance to Dal K̲áahlii is marked by a **daybeacon** with a starboard hand daymark.

254 A **radio tower** with red air obstruction **lights** is about 0.9 mile east of Skaga Point *(Chart 3892)*.

255 The south end of Masset Harbour and the north end of Masset Sound is a **water aerodrome**.



256 **Anchorage** outside Inner Bar is not recommended; the bottom is generally hard shingle and gravel, the holding ground is not good, and the anchorage is fully exposed to northerly winds. Vessels usually anchor in the entrance to Masset Harbour, SW of Old Masset, in about 24 m; this anchorage is fully exposed to the strength of tidal streams and the holding ground is poor. Small vessels can obtain anchorage in the small bight on the east shore, south of Skaga Point. The depth here is about 11 m and swinging room is limited but it is out of the main strength of the tidal streams.

Charts 3892, 3895

257 **Directions**. — Approaching from NW, pass about 1 mile north of Wiah Point light and then steer to intersect Masset Harbour entrance range ENE of Jacob Point, giving the coast between Wiah and Jacob Points a berth of no less than 1 mile.

258 Caution is necessary when approaching Masset Harbour from NE; Wiah Point should not be brought to bear more than 263°, or the largest of Striae Islands more than 239°, in order to clear Venture Banks.

259 **Masset** is a community at the entrance to Dal K̲áahlii. It has a post office (V0T 1M0), RCMP detachment, a Canadian Forces Base, a hospital, lodges and cottages, a few stores and restaurants, a marine ways, a cannery and a church. There is radio and television reception. Diesel fuel and gasoline are obtainable. An asphalt airstrip, 1,524 m long and a heliport are NE of the community.

260 **Tides**. — Tidal differences for Masset (Index No. 9910), referenced on Bella Bella, are given in the Tide Tables, Volume 7.



261 **Wharves**. — The **public wharf**, 0.3 mile NW of Dal Kún, is 147 m long and has a berthing face of 66 m. A **fuel float**, 24.8 m long, is on the north side of the wharf. Fresh water is available at the float. **Caution. — It has been reported (2005) that strong currents can make coming alongside these floats very challenging. Slack water is only of a few minutes duration.**

262 A **cannery wharf**, north of the public wharf, is 98 m long with an L-shaped head 19 m long.

263 **Caution**. — Depths in the channel leading to the boat basin in Dal K̲áahlii are subject to change. It is reported (August 2007) that silting is occurring on the E side of the channel, and the W side of the channel should be favoured.

264 The **boat basin** inside Dal K̲áahlii, operated by the **Delkatla Slough Harbour Authority**, has three **public floats**, 152, 121 and 30 m long, with a depth of 2.1 m alongside. A **seaplane float** is on the east side of the boat basin.

265 **Communications**. — Scheduled air service to Sandspit and charter air service to other points operate from Masset water aerodrome and airstrip. Masset is connected by road to Port Clements, Juskatla, the Village of Queen Charlotte and Skidegate.

Masset Sound

Charts 3892, 3893

266 **Masset Sound** *(53°59'N, 132°08'W)* leads south from Masset Harbour into Masset Inlet and has a navigable width of about 0.3 mile, except in the vicinity of Cook Point, where the width is reduced by foul ground to less than 0.2 mile. The shores are lined with stones, boulders, mud and weeds.

267 **Tides**. — The tidal range decreases south of Masset and along the entire length of Masset Sound the large tide range is about 3 m. HW and LW at Nadu River, about 11 miles south of Masset, occur about 1 h 30 min later than at Masset.



268 **Tidal streams** in Masset Sound are generally always strong because of the large body of water in Masset Inlet and the relatively narrow passage of Masset Sound. They generally follow the trend of the sound and do not present any great difficulties, although caution is necessary when passing Cook Point. The ebb attains a maximum of 5½ kn and the flood 5 kn; duration of slack water is very brief, particularly at spring tides. Secondary current station Masset Sound (Index No. 8580), referenced on Prince Rupert, is given in the Tide Tables, Volume 7.

269 A **barge loading ramp**, mooring dolphins and a private **mooring buoy** are about 1.5 miles south of Skaga Point, on the east side of Masset Sound.

Chart 3893

270 **Griffith Point** *(53°56'N, 132°08'W)*, 4 miles south of Skaga Point, is steep-to. A shoal area, with a depth of 8.8 m, lies in mid-channel 1 mile SSE of Griffith Point. A **mooring buoy** is 0.5 mile SSE of the point (1980).

271 **Watun River**, 2 miles SSE of Griffith Point, has a drying bank in its entrance. A shallow bank, with a least depth of 7.2 m over it, projects from the west side of the sound abreast Watun River.

272 **Allan Point** is 5.5 miles south of Griffith Point. **Nadu River** enters Masset Sound 0.8 mile south of Allan Point. A rock with 9.8 m over it lies in mid-channel 0.7 mile SSW of Allan Point.

273 **Hogan Point**, 1.3 miles SSW of Allan Point, is the north extremity of **Kumdis Island**, which is separated from Graham Island by **Kumdis Slough**. Below-water rocks and shoal depths are on both sides of the channel between Hogan and Cook Points.

274 **Cub Island**, 2.5 miles SW of Hogan Point, is the outermost of a group of small islands lying on a drying ledge along the NW side of Kumdis Island.

275 **Foul ground**, with a rock that dries 1 m at its west extremity, extends west from the drying ledge on which Cub Island lies.

276 **Cook Point** is 0.5 mile NW of Cub Island. A drying spit extends east from the point.



277 Cook Point **light** *(794)*, on the outer end of the drying spit extending off Cook Point, is shown at an elevation of 4 m from a skeleton tower.

278 A **daybeacon**, with a port hand daymark, marks the foul ground extending from the east shore.

279 **Collison Point** is 1.5 miles SW of Cook Point. A log dump and **booming ground** are at Collison Point (1989). **Ship Island** is 1.8 miles SW of Collison Point. **Ship Kieta Island** is 0.1 mile west, and **Sloop Islet** 0.3 mile east, of Ship Island.



280 Sloop Islet **light** *(795)* is shown at an elevation of 5.1 m from a skeleton tower.

281 **Stubbs Rock**, 0.5 mile SW of Ship Island, dries 1.8 m. Below-water rocks lie between Stubbs Rock and Ship Island. Stubbs Rock starboard hand **light buoy** "C40" *(795.5)* is close SW of Stubbs Rock.

282 **Borrowman Shoals** consist of two extensive shoal areas on the SE side of the channel, SE of Ship Island. The shoals occupy nearly the whole of the east part of Masset Inlet. *Masset Inlet* ***light buoy*** *C39 (see LL 795.6)* marks the NW end of Borrowman Shoals.

Charts 3892, 3893

283 **Directions**. — After passing the settlement of Masset, maintain a mid-channel course until about 3 miles south of Crowell Point, then favour the east shore, taking care to give adequate clearance to the drying bank off Watun River. When Cook Point light structure bears 236° steer for it on that bearing until Collison Point is in line with the SE extremity of Ship Island, bearing 213°, then alter course and follow this leading line until Cub Island is abeam. When Cub Island is abeam alter course to pass Collison Point in mid-channel then alter course to pass about 0.25 mile SE of Sloop Islet, then alter course slightly to pass midway between the shoal water extending south from Sloop Islet and the shoal areas on the NW side of Borrowman Shoals; thence into Masset Inlet.

Masset Inlet

Chart 3893

284 **Masset Inlet** *(53°42'N, 132°20'W)* is encumbered in its central part by islands and shoals; the shore on both sides of the east end of the inlet is relatively low lying. The west end is deep and the shores rise steeply to elevations in excess of 610 m. Port Clements is at the SE end and Juus K̲áahlii is on the south side of Masset Inlet.

285 **Tides**. — Tidal differences in Masset Inlet, referenced on Bella Bella, are given for Port Clements (Index No. 9920) in the Tide Tables, Volume 7.

286 **Tidal streams** in Masset Inlet seldom exceed 1½ kn.

287 **Martin Point**, the south extremity of Kumdis Island, has a drying ledge, with several boulders on it, extending 0.5 mile south of it. Several private **mooring buoys** are in Kumdis Slough east of the point near the entrance to **Kumdis Bay**. A sports fishing lodge and its associated facilities are on the north entrance point to Kumdis Bay.

288 **Port Clements**, at the SE end of Masset Inlet, is a village at **Stewart Bay**. It has a post office (V0T 1R0), restaurants and motel. The village is connected by road to Masset, Juskatla and the Village of Queen Charlotte. Diesel fuel, gasoline, lubricants and groceries are obtainable. A fuel tank farm is on the NW side of the promontory.

289 A **submarine pipeline** (sewer outfall) extends offshore about 0.3 mile NE of the public wharf.

290 **Wharves**. — The **public wharf**, at the NW end of the promontory, extends 238 m NW from shore and is 15.2 m wide at its outer end; there is a depth of 5.2 m along the outer end of the wharf.

291 A **breakwater**, at the NE end of the promontory, extends 137 m NE from shore and then 53 m east. Port Clements breakwater **light** *(795.3)* is on the east end. The **public float** inside the breakwater, operated by the **Port Clements Harbour Authority**, has a depth of 3 m alongside.

PORT CLEMENTS (2025)



292 **Strathdang Kwun**, 1.6 miles SW of Port Clements, is the west entrance point to **Yakoun Bay**. **Yakoun River**, **Florence Creek** and **Cohoe Creek** flow into the head of the bay.

293 **Anchorage** in 13 m can be obtained 0.8 mile WNW of Strathdang Kwun.

294 **Ferguson Bay**, 2.5 miles west of Strathdang Kwun, is entered south of **Echinus Point**. A **rock-fill breakwater** extends 183 m east from Echinus Point. There is a **rock** with 1.2 m over it NE of the breakwater. Another **breakwater** extends 274 m NW from the south shore of Ferguson Bay; a **boom** joins the two breakwaters and the enclosed area is used for log storage (2025).

295 **Mackie Rock**, 1.5 miles NW of Echinus Point, dries 2.4 m. A **daybeacon** with a bifurcation/junction daymark, preferred channel to right, is on the rock.

296 **Cowley Islands** are 1.5 miles west of Mackie Rock. **Cowley Rock**, which dries 0.3 m, is 0.2 mile east and **Powell Island**, 6 m high, is 0.5 mile SW of Cowley Islands.

297 **Koutz Rock**, 0.8 mile SE of Cowley Islands, dries 0.1 m.

298 *Richards Island* ***light buoy*** *C41 (see LL 796.3)*, marks Koutz Rock. It is a port hand **buoy**.

299 **Ross Islet**, 1 mile SW of Powell Island, has a rock that dries 1.8 m close-off its NE side. **Yestalton Bay** is 0.5 mile SW of Ross Islet. Several drying rocks lie close offshore between Yestalton Bay and Makai Point, 1.9 miles east.

300 **Dawson Islands** *(53°43'N, 132°20'W)*, a group of islands and rocks, are in the middle of Masset Inlet.

301 Dawson Islands **light** *(796)*, on the SE island of the group, is shown at an elevation of 9.5 m from a skeleton tower.

302 **Kwaikans Island** is 1.5 miles west of Dawson Islands. Several drying and below-water rocks lie up to 0.7 mile east of Kwaikans Island.

303 **Anchorage** can be obtained in 34 m about midway between the NW point of Kwaikans Island and the mainland west of it.

304 A chain of islets, drying and below-water rocks extend from the west side of Kwaikans Island toward **Gray Island**. **Sinclair Rock**, which dries 2.7 m, is midway between Gray Island and the above-mentioned chain.

305 **McCreight Island** is 0.4 mile SW of Gray Island. The passage between these two islands is encumbered with an islet and a rock that dries 2.2 m. **McCreight Rock**, with a depth of 1.8 m over it, is 0.1 mile north of McCreight Island.

306 **Ain River** flows into the inlet NNW of Kwaikans Island. **Buckley Cove** and **Parker Point** are 1.5 and 2.7 miles SW of Ain River, and **McKay Range** rises to the west.

307 **Shannon Bay** is fronted by **Wathus Island**, **Wharton Island**, **Smyth Island**, **Simpson Island** and **Learmonth Island**. Drying and below-water rocks lie in the passage between Wathus and Wharton Islands; a rock with 0.9 m over it lies in the middle of this passage.

308 Learmonth Island **light** *(797)*, on a rock north of the island, is shown at an elevation of 6.4 m from a skeleton tower.

309 **Wiah Island** is on the west side of Shannon Bay. The passage south of the island is encumbered with drying and below-water rocks.

310 The charted booming ground and mooring buoys off the east shore of Shannon Bay have been removed.

311 A **wreck** is located at a depth of 19.2 m in the east side of Shannon Bay

312 **Directions**. — Approaching Shannon Bay from the east, the only passage recommended is west of Learmonth Island and thence between Wharton and Smyth Islands. Approaching Shannon Bay from the west, the passage between Wathus and Wiah Islands is free of dangers in mid-channel. The passage south of Wiah Island is encumbered with several dangers.

313 **Awun Bay**, west of Shannon Bay, is best approached north and west of Wathus Island. Several islets and drying reefs are close-off the west entrance point to the bay.

314 **Anchorage** can be obtained in the entrance to Awun Bay on a bank extending west from Wathus Island; the best position being about 0.6 mile NW of Wiah Island.

315 **McClinton Bay**, 1.5 miles west of Awun Bay, has a logging camp with a log dump and **booming ground** at its head (1985).

316 Two private **daybeacons** are on the west entrance point and two **daybeacons** are near the east entrance of McClinton Bay.

317 **Mutus Island** is in the entrance of Dinan Bay. The passage north of the island is obstructed by islets, drying reefs and a **booming ground** across it. Islets and drying reefs extend 0.5 mile SE, and a shoal spit extends 0.2 mile south, from Mutus Island; the south end of the spit is marked by a private **daybeacon** and starboard hand **buoy**.

318 A private **beacon range**, 0.3 mile west of Mutus Island, when in line bearing 307½°, leads through the channel south of Mutus Island into Dinan Bay.

319 **Dinan Bay** has a large logging camp and log storage area on its north side (1985). **Tatzun Creek** flows into the north side of Dinan Bay close west of Mutus Island.



320 **Anchorage** west of Mutus Island is well-sheltered from all directions but west. The bottom in the middle of the bay is flat, soft mud.

321 Prevailing winter **winds** are from the east or NE; strong winds from these directions make navigation difficult in the narrow entrance to Dinan Bay. Strong winds blow down from the mountains to the west.

Juus K̲áahlii

322 **Juus K̲áahlii** *(53°37'N, 132°26'W)* is entered through Juskatla Narrows on the south shore of Masset Inlet.

323 **Tides**. — Due to the shallow, narrow entrance of Juus K̲áahlii the tidal range and time differences inside the inlet differ from those in Masset Inlet. Tidal differences for Juskatla (Index No. 9927), referenced on Bella Bella, are given in the Tide Tables, Volume 7.

324 **Richards Island** *(53°41'N, 132°21'W)*, **Deasy Island**, **Fraser Island** and two small islands east of Fraser Island divide the entrance of Juus K̲áahlii into two channels. The channel east of Fraser and Deasy Islands is very shallow and encumbered with drying banks.

325 **Juskatla Narrows**, entered between **Makai Point** and Richards Island, leads west of Fraser and Deasy Islands. It is less than 0.1 mile wide in its narrowest part and a least depth of 1.8 m in the fairway is encountered WSW and SW of Deasy Island. A rock that dries 1.2 m is on the east side of the north entrance of Juskatla Narrows and drying banks and rocks are on the west side of the fairway, west of Deasy Island. Passage through Juskatla Narrows is best attempted at HW slack.



326 **Tidal streams** attain 6 to 9 kn through Juskatla Narrows and on the ebb there is much broken water. The ebb velocity can increase considerably when the rivers and creeks discharging into the inlet are in flood. The time of HW slack in Juskatla Narrows varies from 4 h 30 min to 5 hours after HW at Prince Rupert; LW slack varies from 5 h 15 min to 5 h 45 min after LW at Prince Rupert.

327 **Harrison Islands**, the largest of which is about 2 miles south of Juskatla Narrows, are a chain of islands extending NE to almost join **Harrison Reef**, a ridge of large drying boulders extending from the east shore. An islet 15 m high 0.5 mile SSW of Harrison Reef has a rock with less than 2 m over it 0.4 mile east of it.

328 **Cowhoe Bay** and **Mamin Bay**, in the east arm of Juus K̲áahlii, are separated by an extensive drying flat extending from the entrance of **Mamin River**.

329 **Mamin Islets** are close-off the drying flat. A rock that dries 0.3 m is 0.4 mile SW of the west Mamin Islet, on the SW side of the approach to Mamin Bay.



330 Mamin and Cowhoe Bays afford good **anchorage** almost anywhere within them.

331 **Juskatla** is a community on the east shore of Mamin Bay. It is connected by road to Port Clements and has a post office (V0T 1J0), a store and a fully equipped machine shop. A logging camp and **booming ground** are on the east side of Mamin Bay (1985).

332 **Stilique Bay** lies south of the main island of the Harrison Islands, about 2 miles west of Mamin Bay.

333 **Ohala Islets**, which are wooded, are 0.5 mile north and **Steilta Islets** are west of the largest Harrison Island.

334 **Seegay Islets**, SW of Steilta Islets, consist of three wooded islets. Islets together with drying and below-water rocks lie SE and SW of these islets; do not pass between them.

335 **Modeets Islands** are in mid-channel about 2 miles from the head of Juus K̲áahlii.

336 **Datlamen Creek** flows into the head of Juus K̲áahlii.

337 **Directions**. — Enter Juus K̲áahlii at HW slack and give Richards Island a wide berth until Juskatla Narrows is fully open, then steer slightly to west of mid-channel to avoid the drying rock off the west end of Fraser Island. After passing between Makai Point and the drying rock, steer a mid-channel course, until through the narrows, then favour Deasy Island to avoid the drying reefs on the west side of the fairway.

338 When past Deasy Island, and if bound for Juskatla, steer to pass midway between the two eastern islands of the Harrison Islands; one island is 56 m and the other 49 m high. When these two islands are cleared, pass 0.15 mile NE of the island 15 m high and 0.15 mile SW of Mamin Islets, thence to an anchorage in Mamin Bay.

339 Juskatla can also be approached by passing west and then south of Harrison Islands. After clearing Deasy Island, steer to pass midway between Harrison Islands and Ohala Islets, thence between Steilta Islets and Seegay Islets and south of the largest of Harrison Islands. Note the 6.4 m shoal 0.4 mile ENE of Seegay Islets and take care to

avoid the drying reefs on both sides of the channel south of Harrison Islands.

340 If bound for the head of Juus K̲áahlii, keep in mid-channel and pass on either side of Modeets Islands, but note the 4.3 m shoal east of the north Modeets Island.

Work Channel and Union Inlet

Charts 3960, 3963

341 **Work Channel** *(54°39'N, 130°26'W)* extends 28 miles SE along the NE side of the Tsimpsean Peninsula. The shores of Work Channel are generally steep-to and rise to mountains with elevations in excess of 914 m.

342 **Tides**. — Tidal differences in Work Channel, referenced on Prince Rupert, are given for Trail Bay (Index No. 9406) in the Tide Tables, Volume 7.

343 **Tidal streams** in Work Channel attain 3 to 4 kn. Considerable tide-rips, dangerous to small craft, are encountered in the vicinity of Sager Rock, and in the entrance of Work Channel.

344 **Hogan Island** is on the east side of the entrance of Work Channel. **John Point**, its north extremity, is low. **Father Point**, the west extremity, has a rock 1 m high close SW, surrounded by a drying ledge.

345 **Maskelyne Point**, the north extremity of **Maskelyne Island**, has a white cliff 0.2 mile SW which is 13 m high, prominent and surrounded by three dark cliffy rocks. Dudevoir Passage, on the south side of Maskelyne Island, is described in Chapter 4.

346 **Sager Rock**, 0.3 mile WNW of Maskelyne Point, has three peaks with a least depth of 5.8 m over them. Pass north and east of Sager Rock when entering Work Channel taking due caution, particularly when the flood tidal stream is running, to avoid being set on to the rocks off Father Point.

347 **Emma Passage** entered east of John Point is deep and unobstructed.

Chart 3963

348 **Union Inlet** *(54°39'N, 130°23'W)* is entered from Emma Passage, NE of **Emma Point**. The land on both sides of the inlet is high, rising to elevations in excess of 914 m, except on the south side near the entrance where the hills are comparatively low. A First Nations reserve is at the south end of the bay half way up the inlet.

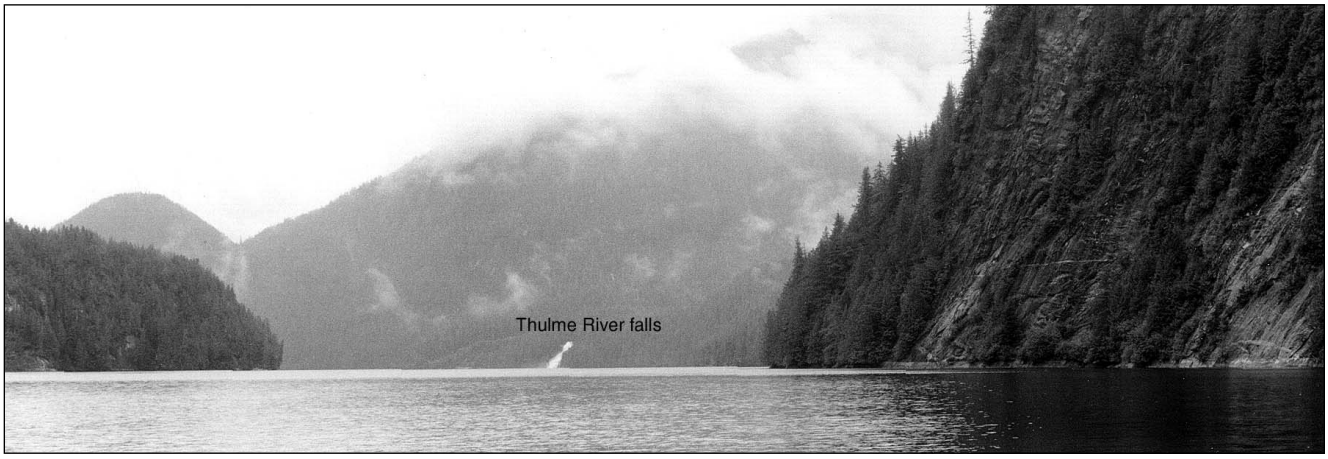
349 **Anchorage** can be obtained in Union Inlet 1.9 miles SE of Emma Point, about 0.1 mile off a mud flat. Depths in this anchorage are 33 to 48 m, mud bottom, but the holding ground is indifferent. Small vessels can anchor about 0.2 mile off the mud flats at the head of Union Inlet in 31 to 35 m, mud bottom.

350 **Paradise Passage** separates the SE side of Hogan Island from the mainland and connects Emma Passage to Work Channel. It is very narrow and only suitable for small craft; local knowledge is advised. The fairway leads on the east side of the rock that dries 5.5 m, 0.4 mile south of Emma Point.

351 **Tidal streams** in Paradise Passage attain up to 3 kn.

352 A First Nations reserve is on the SW side of Hogan Island, 0.5 mile NW of entrance to Paradise Passage. **Floats**

HEAD OF QUOTTOON INLET (1988)



are in the bay north of the reserve, 0.8 mile NW of entrance to Paradise Passage.

353 Temporary **anchorage** can be obtained in the north part of Work Channel, 1.3 miles SE of the south entrance to Paradise Passage, in 49 to 55 m, gravel bottom. The tidal streams are strong in this anchorage. First Nations reserves are on the east and west shores of the channel.

354 **Trail Bay**, 6 miles SE of Maskelyne Point, is entered between **Grace Point** and **Trounce Point**. **Zumtela Bay** is a small cove on the west side of Trail Bay.

355 **Anchorage** can be obtained in Trail Bay, 1 mile NW of Grace Point, in 40 m, sand and gravel bottom. Small craft can obtain well-sheltered anchorage in Zumtela Bay in 12 m, sand bottom, about 0.1 mile from shore.

356 **Worsfold Bay**, on the east side of Work Channel and 1.5 miles east of Grace Point, is deep and not suitable for anchorage. *Dolphins North Lodge*, a floating sports fishing lodge and its associated facilities are moored at the head of the bay. **Lama Point** forms the west side of the bay. **Pinnacle Rock**, which dries 6.4 m, is 0.2 mile SW of Lama Point.

357 **Eagle Bight**, 2.5 miles SE of Lama Point, is deep and not suitable for anchorage. A First Nations reserve is on the NE shore of the bight.

358 **Legace Bay**, 1.5 miles SE of Eagle Bight, has an island and two islets near its head, connected by drying ridges to the north and south shores. The lagoon east of these islands can be entered by small craft at or near HW.

359 **Anchorage** can be obtained in the outer part of Legace Bay in 40 m, sand and mud bottom.

360 **Grave Bay**, 1 mile SE of Legace Bay, is almost filled with drying flats. **Ensheshese River** flows into the head of the bay. A First Nations reserve is in the bay.

361 **Sarah Creek**, 2 miles SE of Grave Bay, is fronted by a drying flat of sand and stones. A First Nations reserve is at the creek.

362 **Quottoon Inlet**, 5 miles SE of Sarah Creek, is entered between **Reservation Point** and **Quottoon Point**. The shores of the inlet are bold, steep-to and backed by precipitous mountains. A remarkable high cliff is on the east shore at the entrance. First Nations reserves are close NW of Reservation Point and 2 miles NE of Reservation Point on the east side of the inlet.

363 **Quottoon Narrows**, 3.5 miles inside the entrance of Quottoon Inlet, narrows to 137 m abreast an island with shoal water extending 76 m off it. High cliffs overhang the east side of the narrows. When passing through the narrows, favour the east shore, which is steep-to. **Tidal streams** in Quottoon Narrows are strong. A First Nations reserve is in the cove close NE of the narrows.

364 The **Thulme River** enters the inlet on the east shore near the head and the **Toon River** enters the head of Quottoon Inlet. A conspicuous waterfall is at the mouth of Thulme River. A First Nations reserve is along the east side of Toon River.

365 **Anchorage** is reported to be available in the cove close NE of Quottoon Narrows.

366 **Bill Creek** and **Marion Creek** enter Work Channel 1.4 and 3.4 miles SE of Quottoon Point. First Nations reserves are at Bill Creek and Marion Creek.

367 **Lachmach River** flows into the south end of Work Channel over extensive drying flats that are steep-to. A gravel road along the south shore of the river leads to the Terrace highway. A gravel launching ramp is at the Work Channel end of this road. First Nations reserves are on the west and east side of the river mouth.

368 **Davies Bay**, at the head of Work Channel, is entered south of **Jane Point**. A rock, 1 m high, and another that dries 1.8 m lie close-off Jane Point. A First Nations reserve is on the west side of Davies Narrows.

369 **Davies Lagoon**, at the head of Davies Bay, has a very narrow entrance, which is obstructed by a bar that dries 2.7 m. Small craft can enter the lagoon at or near HW.

370 Small craft can obtain temporary **anchorage** on the east side of the head of Davies Bay. This anchorage is subject to strong tidal streams in and out of Davies Lagoon.

371 **Splitmountain Lake** is connected to the head of Davies Lagoon by a small stream. **Leverson Lake** discharges over some falls into the head of Splitmountain Lake.

Portland Inlet

Charts 3994, 3920

372 **Portland Inlet** *(54°41'N, 130°28'W)* leads about 22 miles NE from the east end of Dixon Entrance to its junction with Observatory Inlet and Portland Canal.

373 **Tides**. — Tidal differences in Portland Inlet, referenced on Prince Rupert, are given for Kumeon Bay (Index No. 9414), Ranger Islet (Index No. 9418) and Kincolith (Index No. 9422) in the Tide Tables, Volume 7.

Chart 3994

374 **Wales Passage** *(54°46'N, 130°26'W)*, between Wales and Pearse Islands, leads NW from Portland Inlet to Pearse Canal. The fairway is free of dangers. First Nations reserves are on the north point of Wales Island and on Pearse Island in the cove 1.1 miles north of the entrance to the passage.

375 **York Island** lies in the middle of the south entrance of Wales Passage.

376 **Manzanita Cove**, on the west side of the south entrance of Wales Passage, is entered north of **Swaine Point**; it affords **anchorage** for small vessels.

377 **Pearse Island** separates Portland Inlet from Pearse Canal.

378 **Crag Point**, 3.5 miles NE of York Island, has white cliffs.

379 **Pirate Point**, 2 miles NE of Crag Point, has three drying rocks close west of it, the highest of which dries 2.4 m. The bay on the west side of Pirate Point is too deep and exposed for satisfactory anchorage.

380 **Lizard Point**, 1.2 miles NE of Pirate Point, is prominent. **Lizard Cove**, west of the point, is too deep and exposed for satisfactory anchorage. The foreshore in the cove is sand and gravel.

381 *Lizard Point* **light** *(754)*, on the point, is shown at an elevation of 8.6 m from a white cylindrical tower with a red band on top.

382 **Flat Point** is 5.5 and **Portland Point** 8.5 miles NE of Lizard Point. The land west of Flat Point rises to 736 m and west of Portland Point rises to 660 m.

383 **Somerville Island** *(54°43'N, 130°20'W)* is on the SE side of the entrance to Portland Inlet; its coasts are generally bold and the land on its SE side rises very steeply. **Elliott Point** is the SW extremity of the island.

384 **Truro Island** is off the SW end of Somerville Island. **Truro Passage**, which is deep in the fairway, separates Truro Island from Somerville Island.

385 **Nob Islet**, 0.9 mile NE of Truro Island, has a remarkable white cliff a short distance south of it.

386 **Start Point**, the north extremity of Somerville Island, is bold and steep-to.

387 **Somerville Bay**, entered between Start Point and **Yakaskalui Point**, 0.5 mile SE, is sometimes used as a base for fishing operations during the salmon fishery.

388 **Anchorage** for small vessels can be obtained near the head of Somerville Bay in 22 m, sand.

389 **Steamer Passage** leads between Somerville Island and the mainland SE. A First Nations reserve is on the south side of Somerville Island, 2.4 miles NE of Elliot Point.

390 **Kumeon Bay** *(54°43'N, 130°15'W)*, on the south side of Steamer Passage, has a gravel drying bank on its west side extending 0.1 mile north into Steamer Passage. A First Nations reserve is on the east side of the bay.

391 **Anchorage** for small vessels, with fair holding ground of sand and mud, can be obtained in Kumeon Bay in about 22 m; take care to avoid the gravel drying bank described above.

392 **Spakels Point**, **Keemein Point** and **Welgeegenk Point** are NE of Kumeon Bay. A First Nations reserve is at Spakels Point.

393 **Kwinamass Bay** is at the north end and on the east side of Steamer Passage. **Gadu Point** is the south entrance point to the bay and drying flats, formed by the **Kwinamass River**, fill the major portion of the bay. Two cabins are on the east side of Gadu Point (1988).

394 **Khutzeymateen Inlet**, on the SE side of Steamer Passage, has mainly steep-to shores rising to high wooded mountains.

395 **Crow Lagoon**, 0.5 mile SSE of Keemein Point, has a drying flat extending across its entrance on which there is a **rock** that dries 1.5 m. Another **rock** that dries 2.1 m lies in the centre of its narrow entrance.

396 **Walskakul Shoal**, 4 miles SE of Keemein Point, lies in mid-channel west of **Walskakul Point** and has a depth of 14.1 m over it.

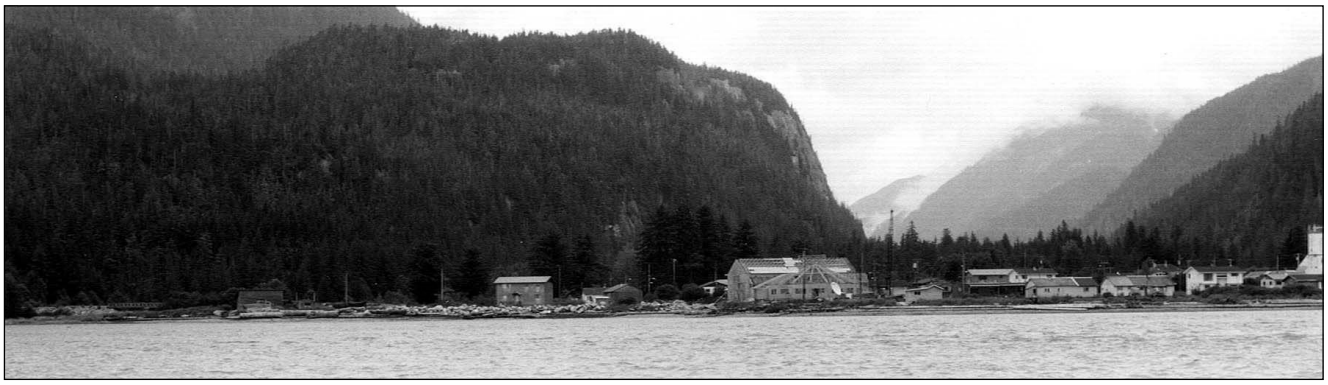
397 **Tsamspanaknok Bay**, 5 miles within and on the south side of Khutzeymateen Inlet, provides **anchorage** for small craft about 0.1 mile off the edge of the drying flat at the head of the bay. Shoal water projects from both sides of the bay, 0.4 mile from the head.

398 **McGregor Point**, a prominent headland, is marked by an abandoned daymark (1988).

399 **Khutzeymateen River**, 8 miles SE of McGregor Point, and **Larch Creek** flow into the head of Khutzeymateen Inlet over an extensive drying flat.

400 The K'tzim-a-deen (Khutzeymateen) group of protected areas includes ***Khutzeymateen Park*** (a.k.a. ***Khutzeymateen Grizzly Sanctuary***), *Khutzeymateen Inlet Conservancy (unnamed on the chart)* and *Khutzeymateen Inlet West Conservancy (unnamed on the chart). BC Parks*, the *Coast Tsimshian First Nations* and the *Gitsi'is Tribe* manage these areas. Visiting is restricted and a permit is required. All vessels must register at the K'tzim-a-deen Ranger Station, which is moored off the north shore close NW of Walskakul Point.

GINGOLX (KINCOLITH) WEST (1988)



GINGOLX (KINCOLITH) EAST (1988)



401 **Trefusis Point** *(54°51'N, 130°10'W)*, the south extremity of **Mylor Peninsula**, terminates in high, white cliffs. **Ranger Islet** is 0.3 mile south of Trefusis Point; two drying rocks lie between the point and the islet and shoals project SW and north from the islet.

402 **Nasoga Gulf** lies between the south end of Mylor Peninsula and the mainland. **Anchorage** can be obtained near the head of the gulf, about 0.2 mile from the north shore, in 18 to 33 m, gravel bottom.

Chart 3920

403 **Low Point** *(54°59'N, 130°00'W)*, the north extremity of Mylor Peninsula, is low and has foul ground extending 0.1 mile north from it.

404 **Arrandale**, close west of Low Point, is the site of a former cannery; only pilings remain.

405 **Ramsden Point** *(54°59'N, 130°06'W)*, at the north end of Portland Inlet, has a rock ledge that dries 4 m, 0.1 mile east of it.

406 *Ramsden Point* **light** *(755)*, on the point, is shown at an elevation of 7.1 m from an orange square tower.

Nass Bay

407 **Nass Bay**, entered between Low Point and **Nass Point**, 2 miles north, is the estuary of Nass River. Extensive mud and sand drying flats front the NE and east shores of Nass Bay. **Governors Bar** is the drying flat on the NE side of Nass Bay. **Ripple Tongue** is the west extremity of the drying flats projecting from the east shore of Nass Bay.

408 **Caution**. — Governors Bar and Ripple Tongue are subject to continual change, therefore caution must be observed when entering Nass and Iceberg Bays.

409 **Tides**. — Tidal differences for Kincolith (Index No. 9422) and Mill Bay (Index No. 9425), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

410 **Tidal streams** in Portland Inlet, abreast Nass Bay, attain a considerable rate on the south-going ebb stream, the blue inlet water being clearly defined when meeting the muddy water from Nass River. At the entrance of Nass Bay, the east-going flood stream attains 2 kn and the west-going ebb about 3 kn. Within Nass Bay there is a strong set toward the south shore on the ebb and in the opposite direction on the flood; an allowance of up to 10° is often required when entering Iceberg Bay to counteract these tidal streams.

411 **Bay Point** is 0.4 mile SE of Nass Point.

412 **Gingolx (Kincolith)**, 1.2 miles ESE of Bay Point at the mouth of **Ksi Gingolx (Kincolith River)**, is a community with a post office (V0V 1B0), two stores and a medical station with resident nurses. The church and a new building close west are conspicuous. Ksi Gingolx (Kincolith River) enters Nass Bay through the **Mission Valley**.

413 The waters of Nass Bay fronting the community are a **water aerodrome** known as Kincolith.

414 A **submarine pipeline** (sewer outfall) crosses Governors Bar in a SW direction from Gingolx (Kincolith).

415 A road leading from Gingolx (Kincolith) to the public wharf crosses a **bridge** with a vertical clearance of 1.7 m, near the mouth of the river.

416 The **public wharf**, midway between Gingolx (Kincolith) and Bay Point, has a berthing face of 39.5 m at its outer end with a depth of 5.5 m alongside. A **float**, 20 m long, is attached to the north side of the wharf. A 3 tonne crane is on the wharf.

417 **Caution**. — Tidal streams are strong alongside the public wharf. When a strong west wind coincides with an ebb tide choppy conditions exist alongside. A backeddy gives the effect when berthing of a flood current under most conditions of tide.

418 The **public float** at Gingolx (Kincolith) is usable only at certain stages of the tide; caution should be exercised in approaching it over Governors Bar due to the presence of snags.

419 Two **rock-mound breakwaters** close south of the public wharf protect a **small boat harbour** with two **floats** 45 and 22 m long joined at their north ends by a third **float** 12 m long. The depth alongside the floats is 1.8 m but silting is likely.

420 A **daybeacon** with a port hand daymark on a dolphin marks the NW side of the entrance to the boat harbour.

421 **Anchorage** in fine weather can be obtained about 0.8 mile SW of Gingolx (Kincolith) community, close west of Governors Bar, but caution must be exercised when approaching this anchorage because Governors Bar is fairly steep-to; do not let Landslip Mountain bear more than 198°. Depths in the anchorage are 18 to 27 m, mud bottom; Fort Point bears 090° and Landslip Mountain bears 198°.

422 **Fort Point**, 1.5 miles ESE of Kincolith, terminates in white cliffs. **Mill Bay**, 1 mile NE of Fort Point, is the site of an abandoned cannery. A logging camp and log dump are

ECHO COVE (1988)



at Mill Bay (1996). **Leading Point** is 2.6 miles east of Fort Point.

423 **Lights**. — Fort Point **light** *(755.4)* is shown at an elevation of 6.1 m from a skeleton tower with orange vertical stripes.

424 Mill Bay **light** *(755.6)*, on the north shore 1.1 miles NE of Fort Point, is shown at an elevation of 5.8 m from a skeleton tower with orange vertical stripes.

425 Leading Point **light** *(755.8)*, on the south shore 2.3 miles east of Fort Point, is shown at an elevation of 5.5 m from a skeleton tower with orange vertical stripes.

426 **Nass River** flows into the NE part of Nass Bay; its mouth is encumbered by numerous drying sand flats. The channels in Nass River are subject to annual changes caused by freshets; local knowledge is advised. The community of **Laxgalts'ap (Greenville)** is about 15 miles upstream from Gingolx (Kincolith) and the community of **New Aiyansh** is 28 miles farther upstream.

427 **Ice**. — Nass River is reported to freeze over down to its mouth during severe winters.

428 **Stevens Point** is 0.7 mile east of Low Point at the SW entrance to Nass Bay. **Landslip Mountain**, south of Stevens Point, rises to an elevation of 622 m and its north face is bare.

429 **Double Islets**, 1.5 miles SE of Stevens Point, are lightly wooded and connected to **Double Islet Point** by a gravel and boulder drying ledge.

430 Double Islets **light** *(755.2)*, on the NW islet, is shown at an elevation of 7.6 m from a skeleton tower.

431 **Mud Islands**, 1.7 miles ESE of Double Islets, are wooded and on the drying flats fronting **Welda Creek** and **Ksgyukwsa'a (Burton Creek)**. **Booming grounds** line the shore in this area.

432 **Iceberg Bay** is entered between Double Islets and **Jaques Point**, 1.3 miles south. Except in the entrance to the bay, depths are generally too great for satisfactory anchorage. The land at the head of the bay is swampy and fronted by a drying mud flat.

433 **Echo Cove**, on the east side of Iceberg Bay, is a **booming ground** (1995). **Clemas Point** is 1.2 miles west of Jaques Point. **Chambers Creek** flows into the head of the bay.

434 **Nass Harbour**, on the east side of Jaques Point, has an extensive drying sand flat at its head. A ruined jetty is on the east shore of the harbour and dolphins are at the head of the bay. The entire bay is a **booming ground** (1995) making it unavailable as an anchorage.

435 **Anchorage** can be obtained in the entrance to Iceberg Bay in about 9 m, mud bottom. From this anchorage Double Islets in line with Nass Point bear about 326° and the south side of the south Mud Island bears about 087°.

Observatory Inlet

Chart 3933

436 **Observatory Inlet** *(55°00'N, 130°02'W)*, entered between Ramsden and Nass Points, extends NE from the head of Portland Inlet for a distance of 27 miles to its junction with Alice Arm and Hastings Arm. Mountains, which attain elevations in excess of 4,000 feet (1,219 m) a few miles inland, line both sides of the inlet. **Ashington Range**, on the west side of the inlet, are the mountains along the peninsula which separates Observatory Inlet from Portland Canal. The shores in some parts of the inlet are low and wooded.

437 **Tides**. — Tidal differences in Observatory Inlet, referenced on Prince Rupert, are given for Salmon Cove (Index No. 9435), Granby Bay (Index No. 9443) and Alice Arm (Index No. 9448) in the Tide Tables, Volume 7.

438 **Tidal streams** in Observatory Inlet seldom exceed 2 kn with the greatest rates occurring during early summer when land drainage runoff is at its maximum. One to 2 kn can be encountered in the passages leading into Alice Arm, but in Sylvester and Granby Bays the rates are negligible. Tidal streams in Hastings Arm are very weak and during the freshet period nearly always set south with a marked overlay of fresh water.

439 **Mount Tomlinson**, 2.5 miles NE of Nass Point, is conspicuous.

440 The small bay on the east side of Observatory Inlet, 2.3 miles north of Nass Point, affords **anchorage** protected from down-inlet winds. Depths of 30 fathoms (55 m), sand bottom, lie about 0.3 mile from the head of the bay. A shoal, with a least depth of 5 feet (1.5 m), extends 0.3 mile SW from the north entrance point and a steep-to drying flat extends from the head of the bay. Local knowledge is advised before anchoring in this bay. A First Nations reserve is on the north shore of the bay.

441 *Observatory Inlet* **light** *(764)*, 10 miles NNE of Nass Point on a small island close-off the

west shore, is shown at an elevation of 14 feet (4.3 m) from an orange square tower.

442 **Salmon Cove**, 6.5 miles NNE of Observatory Inlet light, has a sand flat extending 0.2 mile from its south shore. **Anchorage** can be obtained in the entrance of Salmon Cove in depths of 31 to 35 fathoms (57 to 64 m), mud and stones.

443 **Dawkins Point** is on the east shore, opposite Salmon Cove. **Richards Point** is on the west shore 1.3 miles NNW of Dawkins Point. **Stagoo Creek**, 2.5 miles NE of Dawkins Point, has a wide mouth filled with drying flats.

444 *Richards Point* **light** *(765)*, on the point, is shown at an elevation of 20 feet (6.1 m) from an orange square tower.

Chart 3920

445 **Brooke Point** *(55°20'N, 129°45'W)* is the south extremity of **Brooke Island**. Conspicuous red cliffs are on the SW and SE sides of the point. **Mumford Cove** is on the west side of the island.

446 **Juggins Bay**, on the west side of Observatory Inlet opposite Brooke Island, has three reefs in its centre that dry 4.6, 0.9, and 1.5 m. The bay affords shelter for small craft but local knowledge is advised. Entrance to Juggins Bay is made between **Frank Point**, a low wooded point on the east side of the bay, and the 4.6 m drying reef in the entrance to the bay.

447 **Thomas Point**, 1.4 miles NE of Frank Point, is the south extremity of Larcom Island.

448 **Williams Point**, the north extremity of Brooke Island, has a rock spit that dries 6.4 m and shoal water extending north and NW from its west side.

449 **Brooke Shoal**, 0.3 mile north of Williams Point, dries 5.8 m.

450 *Brooke Shoal* **light** *(765.5)*, on the shoal, is shown at an elevation of 4.7 m from an orange square tower.

451 An islet about 0.5 mile NNW of Brooke Shoal and 0.2 mile off the Larcom Island coast has a rock with 1.2 m over it 0.1 mile SW and a rock that dries 2.1 m close north of it.

452 **Paddy Passage**, on the east side of Brooke Island, is narrowed at its north end to a navigable width of 0.4 mile by Perry Spit and Brooke Shoal.

453 A **magnetic anomaly**, of undetermined intensity, exists in Paddy Passage.

454 **Perry Spit**, at the north end and on the east side of Paddy Passage, is a gravel and stone drying spit extending 0.2 mile west from the SW end of **Perry Peninsula**.

Alice Arm

455 **Alice Arm**, at the north end of Observatory Inlet, has the settlements of Alice Arm and Kitsault at its head.

456 **Tides**. — Tidal differences for Alice Arm (Index No. 9448), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

457 The waters of the north end of Alice Arm, for approximately the last 3 miles, are a **water aerodrome**.

458 **Liddle Island** *(55°24'N, 129°42'W)* is in the entrance of Alice Arm. A chain of drying and below-water shoals extends 0.5 mile SSW from the west side of Liddle Island.

459 **Liddle Channel** leads between the south end of Liddle Island and the north end of Perry Peninsula. A rock with 1.8 m over it lies 0.25 mile off Perry Peninsula in the approach to Liddle Channel and a rock with 9.8 m over it lies on the west side of the fairway.

460 Liddle Island **light** *(765.7)*, on the SE end of Liddle Island, has two port hand daymarks facing south and north.

461 **Sophy Island**, close NE of Perry Peninsula, is surrounded by drying ledges. Two rocks that dry 2.4 and 0.3 m and a below-water rock with 2.7 m over it lie east of Sophy Island. **Hyde Rock**, close north of Sophy Island, dries 1.5 m.

462 Hyde Rock **light** *(766)* is shown at an elevation of 4.8 m from a skeleton tower.

463 **Perry Bay**, on the east side of Perry Peninsula, is obstructed in its entrance by a shoal spit extending about 0.3 mile WSW from its east entrance point and by the drying reef close east of Sophy Island. The navigable entrance, between these two shoal areas, is very narrow with a least depth of 5.5 m in the fairway.

464 **Anchorage** can be obtained in Perry Bay, about 0.2 mile SE of Sophy Island, in 24 m, mud bottom.

465 **Davies Passage**, between the north end of Liddle Island and **Davies Point**, is not recommended. **Davies Rock**, which dries 0.9 m, is in the middle of the passage.

466 **Eik Rock**, 0.8 mile NNE of Liddle Island and 0.2 mile off the west shore of Alice Arm, has 2.7 m over it. **Alice Rock**, 0.5 mile NNE of Eik Rock, has 1.5 m over it

and is slightly west of mid-channel; keep to the east shore of Alice Arm when passing Alice Rock.

467 **Hans Point**, 0.8 mile NNE of Alice Rock, has an extensive drying flat close east of it that extends 0.1 mile from shore.

468 Alice Arm **light** *(767)*, 0.4 mile south of Hans Point, is shown at an elevation of 5.7 m from a skeleton tower.

469 **Roundy Creek**, 5.7 miles east of Hans Point, flows into the south side of Alice Arm through an extensive drying flat that extends 0.1 mile into the arm.

470 **Pearson Point** is 0.6 mile north of Roundy Creek. Two rocks that dry 1.5 m are close offshore 0.2 mile north of Pearson Point.

471 Pearson Point **light** *(768)* is shown at an elevation of 5.2 m from a skeleton tower.

472 A **booming ground** is on the west side of Alice Arm, north of Pearson Point.

473 **Alice Arm locality**, on the west side of the mouth of the **Kitsault River**, has only one or two families that live here year round.

474 The **public wharf**, 1 mile NNE of Pearson Point and on the west side of Alice Arm, has a wharfhead, 46 m long, with a depth of 7.3 m alongside. A 3 tonne derrick is on the wharf. A 24.4 m long **float** is attached to the south side of the wharf; part of the float is reserved for aircraft.

475 Alice Arm wharf **light** *(768.2)*, on the wharf, is fitted with two port hand daymarks.

476 **Kitsault**, on the east side of Alice Arm about 0.7 mile ENE of Pearson Point, is a former mining community. The mine operation closed in 1983. All facilities are private and visitors are discouraged. A siren is on the gate at the float to alert the security staff to visitors. A private gravel road leads to Terrace, 130 kilometres SE.

477 A barge loading facility, a launching ramp, a seaplane ramp and a float with fresh water are on a filled area NE of the mouth of **Lime Creek**.

478 A **submarine pipeline** (sewer outfall) close NE of the floats extends 200 m offshore. A private **mooring buoy** is near the outer end of the pipeline. Another **submarine pipeline**, which discharged mine tailing, extends 83 m into the arm from a large black tank close-off a point 0.6 mile SSW of the mouth of Lime Creek. The outer end of the pipeline is at a depth of 50 m.

479 There are no recommended anchorages in the vicinity of Alice Arm or Kitsault. Small vessels can find temporary **anchorage** in about 27 m 0.3 mile NNE of Pearson Point, or about 0.15 mile ENE of the same point in 18 m; neither anchorage is recommended and the holding ground is poor.

480 **Directions**. — Enter Alice Arm by way of Liddle Channel and pass east of Alice Rock. Give the drying flats close east of Hans Point, off Roundy Creek and off Lime Creek a wide berth. The drying flats at the head of Alice Arm should be approached with caution; they extend 0.5 mile offshore and are steep-to.

ANYOX (2020)



Hastings Arm

Charts 3920, 3933

481 **Hastings Arm** is entered between **Bocking Peninsula** *(55°22'N, 129°47'W)* and Davies Point. **Larcom Island** lies in the entrance of Hastings Arm and divides it into two channels.

482 **Tides**. — Tidal differences for Granby Bay (Index No. 9443), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.



483 **Tidal streams** in Hastings Arm are very weak and during the freshet period nearly always set south with a marked overlay of fresh water. In Sylvester and Granby Bays they are negligible.

Chart 3920

484 **Aiskew Island** *(55°23'N, 129°46'W)* is connected to shore by a drying bank with drying rocks on it. **Aiskew Point** is the NE extremity of the island.

485 **Vadso Rocks**, a group of drying rocks, and **Vadso Island** lie between Aiskew Point and the SW side of Larcom Island. The channel between Aiskew Point and Vadso Rocks is 0.2 mile wide and deep.

486 **Strombeck Bay**, between the north side of Aiskew Island and **Fortier Point**, is encumbered with numerous drying and below-water rocks.



487 **Anchorage** can be obtained off the entrance of Strombeck Bay, about 0.2 mile west of Aiskew Point, in about 30 m.

488 **Sylvester Bay**, between Bocking Peninsula and **Granby Peninsula**, is entered between Fortier Point and **Cane Rock**. Cane Rock dries 3.7 m and a shoal with depths of 1.8 and 2.1 m over it extends 0.15 mile south from it. Numerous drying and below-water rocks encumber the SE part of Sylvester Bay.

489 **Larcom Lagoon**, in the SW part of Larcom Island, is entered 0.5 mile NE of Vadso Island through a narrow channel with a least depth of 0.3 m. A rock that dries 0.9 m lies on the north side of the entrance and several drying rocks lie within the lagoon. Local knowledge is advised to enter the lagoon.

490 **Forward Shoals**, with a least depth of 6.4 m over them, lie in the centre of the fairway between Granby Peninsula and Larcom Island about 1.5 miles north of Vadso Rocks.

491 **Granby Bay** is entered between **Granby Point** and **Johnson Point**, 0.6 mile NNE. **Anyox Rock**, 0.4 mile SE of Granby Point, dries 6.7 m and has rocks that dry 1.5, 0.9 and 5.2 m close north and south of it, respectively.

492 Drying flats extend from the shores of Granby Bay at **Isaac Creek**, **Rodgers Creek**, **Hidden Creek**, **Anyox Creek**, at **Bonanza Point** from **Bonanza Creek**, **Tauw Creek**, **Cascade Creek** and at the head of the bay.

493 **Graves Point**, 0.8 mile SW of Johnson Point, has a conspicuous chimney on it. Two more chimneys are on the south side of Anyox Creek.

494 **Anyox**, west of Graves Point, is the site of a copper smelter and mine that was abandoned in the late 1930's. Most of the buildings and wharves are in ruins and the roads overgrown. *True-Grit Abrasives* are mining the slag dump, south of **Smith Bluff**, of the silica ore exposing a conspicuous black face. A barge loading facility is in front of the slag dump.



495 Depths within Granby Bay are too great for satisfactory **anchorage**. Vessels up to 76 m long have obtained temporary anchorage 0.15 mile SW of Graves Point in about 66 m. Good anchorage for small vessels is reported to be close-off the slag dump in about 20 m.

496 **Stark Islet**, 1.2 miles ESE of Johnson Point, and **McGrath Island**, 0.9 mile north of Stark Islet, are connected to Larcom Island by drying flats.



497 An abandoned **submarine cable** crosses Hastings Arm from south of Johnson Point to Stark Islet and from the middle of the east shore of Larcom Island to the mainland.

498 **Carlson Islets** and **Doben Island** are west of the north end of Larcom Island. The passages on both sides of Doben Island are encumbered with drying and below-water rocks. Local knowledge is advised to navigate these passages.

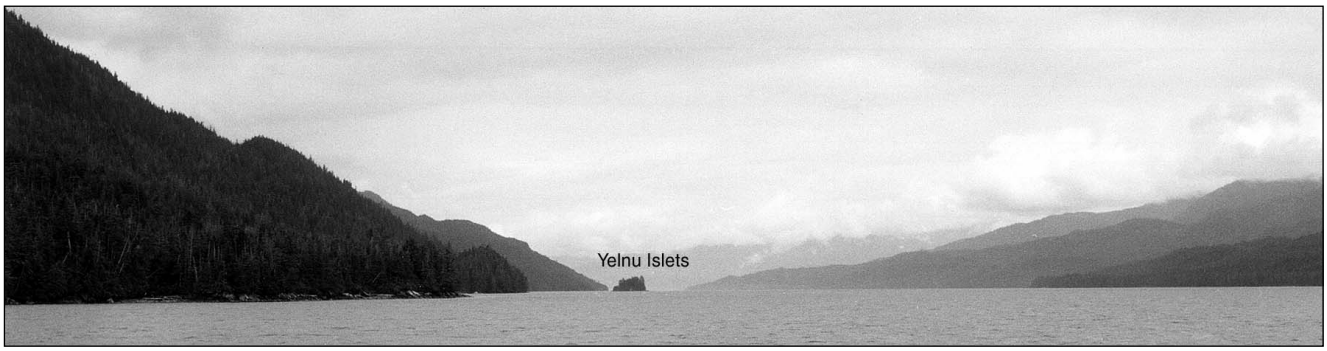
499 The passage on the east side of Larcom Island has drying and below-water rocks in places, but they are not more than 0.1 mile offshore.

500 **Larcom Point** is the north extremity of Larcom Island. **Guard Islet**, 0.2 mile east of Larcom Point, is connected to Larcom Island by a ridge of drying rocks and gravel. A rock that dries 1.8 m is 0.1 mile north of Larcom Point.

Chart 3933

501 **Carr Point** *(55°29'N, 129°45'W)* is 1.1 miles north of Larcom Point. **Campbell Ridge** is the ridge of mountains along the east side of Hastings Arm.

PEARSE CANAL LOOKING NE (1988)



502 **Olh Creek**, 4.2 miles north of Carr Point, has a drying sand and gravel bank extending 0.1 mile off its mouth.

503 **Kshwan River**, 4.5 miles north of Olh Creek, flows into the head of Hastings Arm across an extensive drying flat.

Tongass Passage

Chart 3960

504 **Tongass Passage** *(54°45'N, 130°38'W)* separates **Sitklan Island** from Wales Island and connects Dixon Entrance to the west end of Pearse Canal. It is entered between **Island Point**, the SE extremity of Sitklan Island, and Haystack Island. A **mooring buoy** is 0.5 mile north of Island Point.

505 The **International Boundary Line** runs down the centre of Tongass Passage.

506 **Bartlett Point** is at the north end of Tongass Passage. **Sitklan Passage**, 1 mile WNW of Bartlett Point, and **Fillmore Inlet**, entered about 2 miles NE of Bartlett Point, are described in *United States Coast Pilot 8*.

Pearse Canal

Charts 3960, 3994, 3933

507 **Pearse Canal** *(54°47'N, 130°35'W)* leads about 23 miles along the NW sides of Wales and Pearse Islands and connects Tongass Passage to Portland Canal. **Fillmore Island** and the mainland of Alaska form its NW side.

508 The SW end of the fairway through Pearse Canal, between Wales and Fillmore Islands, is encumbered with rocks and shoals; great care is required when navigating this portion of the fairway. The NE end of Pearse Canal between Pearse Island and the mainland of Alaska is deep in the fairway.

509 The **International Boundary Line** runs down the centre of Pearse Canal.

Chart 3960

510 **Phipp Point** *(54°47'N, 130°37'W)* is the NW extremity of Wales Island.

511 **Pearse Canal Island**, 0.7 mile NE of Phipp Point, lies in mid-channel and has shoals within 0.1 mile of its north and south sides.

512 Pearse Canal Island **light** *(753.5)* is shown at an elevation of 3.6 m from a skeleton tower.

513 **Male Point**, at the SE entrance to Fillmore Inlet, has several islets close south of it.

514 A treed islet with drying rocks close north and NE of it lies in the centre of the fairway between **Safa Islands**, which are mostly wooded, and Pearse Canal Island.

515 Several rocks, the westernmost of which dries 1.9 m, are 0.2 mile south of Safa Islands in the eastern entrance of **Wales Harbour**; follow along the SW shore of the harbour to avoid these rocks. At the head of the harbour are three arms; the west arm is shallow. A rock that dries 2.9 m lies close-off the point separating the centre and east arms and a rock that dries 1.1 m is in the centre of the east arm.

516 Wales Harbour affords good **anchorage** in 29 to 36 m, soft bottom and is reported to have good anchorage for small craft in the eastern arm.

517 Two bare islets, 2 and 3 m high, surrounded by drying reefs lie on the south side of the Pearse Canal fairway 1.2 miles east of Pearse Canal Island. **Danger**. — A rock with a depth of 2.2 m over it lies in the fairway of Pearse Canal near the entrance to Regina Cove.

518 **Regina Cove** is 2 miles NE of Safa Islands. Several drying rocks and shoals with 4.9 and 5.6 m over them lie close-off the SW shore of the cove.

519 **Anchorage** can be obtained in Regina Cove in 19 to 26 m, mud bottom, north of the above-mentioned shoals.

520 A cove on the NW side of Wales Island, 1 mile SE of Regina Cove, is the site of a sports fishing lodge with a float protected by two **log breakwaters**.

521 **Edward Passage**, on the east side of Fillmore Island, is described in *United States Coast Pilot 8*. Wales Passage is described earlier in this chapter.

Chart 3994

522 **Winter Inlet** *(54°49'N, 130°26'W)* affords secure **anchorage** for small craft; the holding ground is good and there is ample swinging room in the widest part of the inlet.

523 A wooded islet connected to shore by a drying flat and fronted by a drying reef lies on the west side of Winter Inlet, 1.3 miles inside the entrance. A rock with 14 feet (4.2 m) over it lies in the middle of the inlet.

524 **Ice** forms in Winter Inlet during the winter, making it unsafe for small craft shelter.

525 **Getukti Cliff** *(54°53'N, 130°24'W)*, 3 miles NE of Winter Inlet, is conspicuous from the south.

526 **Yelnu Islets** *(54°56'N, 130°20'W)*, 7 miles NE of Winter Inlet, are two wooded islets on the NW side of Pearse Canal which stand out prominently from north and south.

527 **Gwent Cove**, 0.6 mile north of Yelnu Islets, is the site of an abandoned cannery and wharf in ruins.

Charts 3994, 3933

528 **Hidden Inlet** *(54°57'N, 130°20'W)*, entered between Gwent Cove and **Hidden Point**, is of no value as an anchorage and can only be entered at slack water. The main body of the inlet is about 4 miles long; depths vary from 30 to 73 fathoms (55 to 134 m). The entrance is less than 450 feet (137 m) wide and has a depth of 15 feet (4.6 m).

529 **Tidal streams** set through the entrance of Hidden Inlet at 8 to 10 kn, forming swirls that extend well into Pearse Canal.

Chart 3933

530 **Blaine Point** *(55°02'N, 130°13'W)* is the NW entrance point of Pearse Canal. **Tree Point**, 1.5 miles east of Blaine Point, is the north extremity of Pearse Island.

Portland Canal

531 **Portland Canal** is a deep, narrow inlet extending 60 miles north from its junction with Portland Inlet and Pearse Canal. The towns of Stewart, B.C. and Hyder, Alaska, are at the head of the inlet. Both shores are bold and mountainous; in places the mountains rise to more than 6,000 feet (1,829 m) and their summits are always snow-clad. Numerous streams flow through wooded valleys into the inlet. The Bear and Salmon Rivers flow into the head of the inlet through low, wooded, swampy land; because of the discharge from these rivers the water at the head of the inlet is nearly fresh.

532 **Anchorages** in Portland Canal are few and indifferent; they are in Halibut Bay, Fords Cove, and at the head of the inlet off Stewart. Small craft can also obtain anchorage in Tombstone and Maple Bays.

533 **Tides**. — Tidal differences in Portland Canal, referenced on Prince Rupert, are given for Davis River (Index No. 9470) and Stewart (Index No. 9475) in the Tide Tables, Volume 7.

534 **Tidal streams** in Portland Canal have an estimated maximum of 2 kn on the flood and 3 kn on the ebb, diminishing toward the head of the inlet. The streams by the shore turn shortly after HW and LW.

535 **Winds** of gale force are reported to frequently blow down the inlet from the north during the winter months.

536 **Ice**, which is reported to be troublesome to small craft, forms at the head of Portland Canal during winter months.

537 The **International Boundary Line** runs down the middle of Pearse and Portland Canals.

538 Portland Canal is entered from Portland Inlet between **Stick Point** *(54°59'N, 130°09'W)* and Ramsden Point.

539 **Whiskey Bay** is 3.5 miles NNW of Stick Point at the north extremity of Pearse Island. A rock ledge that dries 8 feet (2.4 m) extends north from the east entrance point of the bay.

540 **Dogfish Bight**, 2 miles NE of Whiskey Bay, is useless as an anchorage. **Windy Island** is close-off its north entrance point. Several wooded islets are close offshore between Windy Island and **Spit Point**, 1.5 miles north. A **submarine cable** is laid across the entrance to a small cove 0.6 mile north of Windy Island. A tongue of sand that dries extends 0.3 mile south from Spit Point.

541 **Reef Island** is 1.3 miles west of Spit Point. Two coves, west of Reef Island, have sandy beaches and small craft can find shelter in them.

542 Reef Island **light** *(756)* is shown at an elevation of 19 feet (5.8 m) from a skeleton tower fitted with two red and white diamond-shaped daymarks. The light is obscured from 020°30' to 197°30'.

543 **Harrison Point**, 2.5 miles NNE of Reef Island, is high and bold. **Dickens Point**, 2.3 miles NE of Harrison Point, has a ledge of drying rocks extending a short distance from it. A black rock, close south of Dickens Point, is 8 feet (2.4 m) high.

544 **Sandfly Bay**, 1 mile WNW of Dickens Point, is useless as an anchorage; its head is filled with a drying flat. A drying rock and small islet lie close-off its east entrance point. **Fools Point** and **Petrel Point** are on the west side of the canal, north of Sandfly Bay.

545 **Stopford Point**, 3.5 miles NE of Dickens Point, is bold and conspicuous from south.

546 **Halibut Bay**, on the west side of Portland Canal, is entered between **Halibut Point** and **Astronomical Point**. Its shores are generally bold, but on each side near the entrance are sandy beaches with shoal water extending 240 feet (73 m) offshore, and low, grassy land, extending back for 300 feet (91 m). Near the head of the bay drying flats extend from the west shore nearly all the way across, leaving a narrow channel close to the east side, through which a depth of 5 feet (1.5 m) can be carried. The narrow basin north of this passage is only suitable for small craft and has a depth of 24 feet (7.3 m).

547 **Anchorage**, exposed to southerly winds, can be obtained in Halibut Bay and the holding ground inside the 10 fathom (18.3 m) line is good. Anchor in mid-channel about 0.3 mile within the entrance in 6 to 10 fathoms (11 to 18 m), mud bottom.

548 **Dent Bluff**, 2 miles NE of Halibut Bay, has a drying reef close-off it. **Mount Dent**, 1.8 miles ESE of Dent Bluff, rises to an elevation of 3,820 feet (1,164 m). **Logan Point** and **Azimuth Point** are 1.5 and 3 miles NE of Dent Bluff.

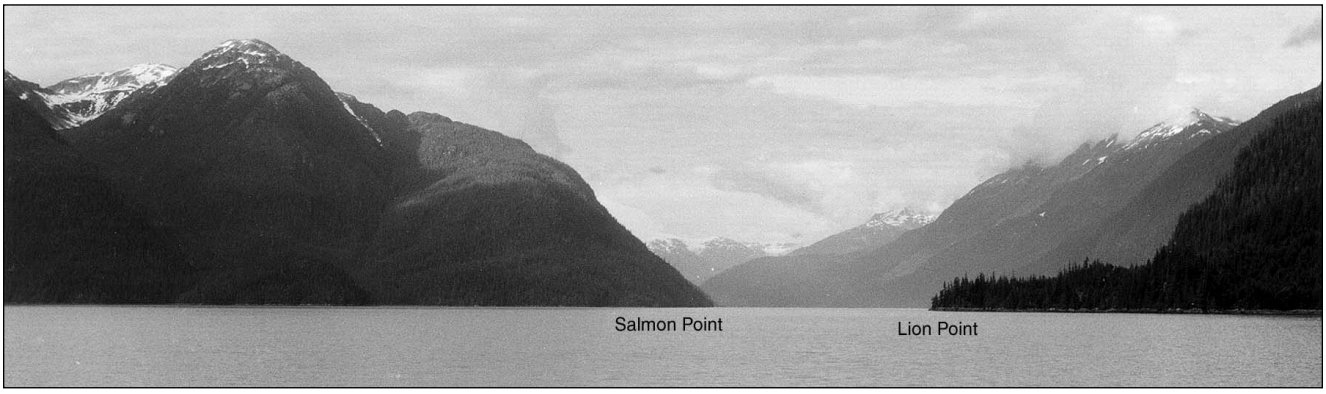
549 **Blunt Point**, 1 mile west of Logan Point, has drying reefs close-off it. **Camp Point**, 2 miles NE of Blunt Point, is wooded and precipitous.

550 **Hattie Island** *(55°17'N, 129°58'W)* lies nearly in mid-channel abreast Camp Point; being the same general colour as the high background it is not prominent from south.

551 Hattie Island **light** *(757)*, on the west side of the island, is shown at an elevation of 21 feet (6.4 m) from a skeleton tower. The light is visible from 336° through north and east to 171°.

552 **Belle Bay**, east of Hattie Island, does not afford anchorage. A floating cabin, owned by the Portland Canal Stewart Yacht Club, is 300 feet (91 m) offshore in the centre of the bay. Between Belle Bay and **Car Point**, 3.5 miles NW, there are several conspicuous landslides. **Rock Point**, 2 miles NW of Hattie Island, has a drying ledge extending from it.

HEAD OF PORTLAND CANAL (1988)



553 **Breezy Point**, 3 miles NNW of Rock Point, is conspicuous. **Bluff Point**, 2 miles NE of Breezy Point, terminates in a high, bold cliff.

554 **Tombstone Bay**, 3 miles north of Breezy Point, divides into two bights. Drying and below-water rocks are in the entrance of its south bight. A wooded valley extends SW from the head of the south bight. **Dome Peak**, 4.5 miles WSW of Tombstone Bay, is one of many snow-clad peaks in the area. A private float and some buildings are located at the head of the bight.



555 Temporary **anchorage** can be obtained, by small craft, near the head of the north bight of Tombstone Bay in 8 fathoms (15 m).

556 **Maple Bay**, NE of Tombstone Bay, and entered between **Columbia Point** and **Maple Point**, has two drying rocks in it. The bay has a moderately shelving foreshore of stones and gravel and is the site of a former mining camp; ruins of a jetty and the remains of a few houses are all that is left of the camp.



557 **Anchorage** for small craft can be obtained about 0.15 mile from the south shore of Maple Bay in 9 fathoms (16 m).

558 **Turn Point**, 1.4 miles NW of Maple Point, is high, bold and conspicuous. **Steep Point**, 5.5 miles NNW of Turn Point, is bold and steep-to.

559 **Swamp Point**, 3 miles north of Maple Point, is a low, wooded point, fronted by a drying sand flat formed by deposits from **Donahue Creek**. A number of piles are along the outer edge of the drying flat.

560 **Pirie Point**, 2 miles NW of Swamp Point, is high, bold and conspicuous. **Raw Point** is 2 miles farther north. **White Point**, 4 miles NNW of Pirie Point, has drying rocks on its south side and white cliffs about 0.5 mile north of it. **River Point** is WNW of White Point. **Bay Islet**, 2.5 miles north of White Point, is wooded and connected to the east shore by a drying ledge. A sports fishing lodge and float protected by a **floating breakwater** are in the bay close south of Bay Islet.

561 **Green Islets**, 1.3 miles north of Bay Islet, are two wooded islets; they are connected to shore by a drying ledge that extends a further 300 feet (91 m) north from them.



562 **Fords Cove**, east of Green Islets, affords fair shelter from south winds but none from north winds. The south part of the cove is shoal for about 450 feet (137 m) offshore. Old piles and an old **float** are all that remain of a former logging camp in Fords Cove (1997). A floating cabin, owned by the Portland Canal Stewart Yacht Club, is 300 feet (91 m) offshore in the centre of the bay.



563 A fair **anchorage** can be found in Fords Cove, about 0.2 mile from Green Islets and the same distance from the east shore, in 16 fathoms (29 m).

564 **Slab Point**, NW of Fords Cove, is slate-coloured. **Cliff Point** is 2.3 miles north of Slab Point.

565 **Blue Point**, 1.3 miles NNE of Cliff Point, has high, bold, blue-coloured cliffs. Two streams, close south of Blue Point, flow through a wooded valley; a sand spit extends 0.2 mile from their mouth. A house in ruins is close south of the stream mouth. **Miners Point** and **Round Point** are 1 and 3.5 miles north of Blue Point.

566 A floating cabin, owned by the Portland Canal Stewart Yacht Club, is 250 feet (75 m) offshore in the centre of the bay 0.6 mile south of Round Point. This is known locally as Helen Bay.

567 **Verdure Point** is SW of Round Point. A small cove with a sandy beach lies close north of the point. The **Davis River** flows into Portland Canal 0.6 mile NW of the point.

568 **Tides**. — Tidal differences for Davis River (Index No. 9470), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

569 **Glacier Point**, 4.5 miles NNE of Verdure Point, is the south extremity of a small peninsula on which there is a wooded hill, about 350 feet (107 m) high. **Engineers Point** is 1.3 miles SSE.

570 **Seal Rocks** are 0.8 mile NE of Glacier Point; the largest rock is about 3 feet (0.9 m) high. **British Point** is east, and **Yankee Point** NNE, of Seal Rocks. **Bulldog Creek** flows into Portland Canal 2 miles NE of Yankee Point.

Chart 3794

571 **Lion Point** *(55°53'N, 130°01'W)* is low with a grassy flat fronting it; it can be identified by the ruins of an old jetty.

572 **Marmot River**, south of Lions Point, enters Portland Canal across an extensive drying flat. A **booming ground** with dolphins lies along the SW edge of the drying flat.

573 **Marmot Bay**, on the north side of Lion Point, has the ruins of a pier in its NE part. Mooring dolphins and **booming grounds** are south of the ruins. **Salmon Point** is 1 mile west.

574 **Booming grounds** line the shore north of Marmot Bay.

575 The Bear and Salmon Rivers, which flow into the head of Portland Canal, are separated by the **Reverdy**

STEWART FLOATS (2017)



Mountains *(Chart 3933)*; the south peak, **Mount Dolly**, is conspicuous. The discolouration of water caused by the discharge from the Bear and Salmon Rivers extends as far south as Glacier Point.

576 **Bear River** flows through an extensive wooded flat. The delta at its mouth consists of marshland and steep-to mud flats, which cover at HW. **Caution**. — The mud flats are slowly extending.

577 A **causeway** extends 0.5 mile SSW from the west entrance point of Bear River and then 0.4 mile south to the outer end of the mud flat. Stewart World Port facility is on the south end of the causeway. It has a berthing length of 646 feet (197 m) with a mooring buoy fitted with a radar reflector located at the end of the facility. At the extreme south end of the causeway there is a **launching ramp** with dolphins on the west side of its approach. Drying areas extend up to 500 feet (152 m) south of the public ramp. A rip-rap river training wall close east of the ramp extends southward and is fitted with a radar reflector at the end. Red air obstruction **lights** are shown from hydro poles along the east side of the causeway. A large log dump is on the SW side of the causeway. The outer edge of the mud flats to the west has numerous dolphins and is an extensive log storage area.

578 **Salmon River**, on the west shore of Portland Canal, has extensive steep-to drying flats extending from its mouth. The east edge of the flats is marked by two port hand **buoys**. The southernmost of these buoys also marks the entrance channel to Hyder public floats. **Caution**. — Extensive silting is taking place at the mouth of the Salmon River.

579 **Eagle Point** is the east entrance point to Salmon River. A causeway and trestle, close east of Eagle Point,

extends from the community of Hyder to the extreme outer edge of the mud flats.

580 **Lights**. — Stewart **light** *(759)*, on the east side of Portland Canal 0.4 mile south of the drying flat at the head, is shown at an elevation of 15 feet (4.7 m) from a skeleton tower.

581 Stewart Dolphin West **light** *(760)*, 0.5 mile WNW of Stewart light, is shown from a mast on a dolphin.

582 Privately operated **lights** are on the SE and NW ends and on the wharfhead at the Stewart Bulk Terminal wharf.

583 **Stewart**, at the head of Portland Canal, is the northernmost deep-sea port in British Columbia. The principal industries are mining, logging and tourism. The municipality has a small hospital with resident doctor, a visiting dentist, an RCMP detachment, several stores and hotels, a pharmacy, a liquor store, a post office (V0T 1W0) and an airfield with an asphalt runway 3,900 feet (1,189 m) long.

584 **Customs** service is provided from Prince Rupert.

585 Portland Canal in the vicinity of Stewart is a **water aerodrome**.

586 **Ice** forms at the head of Portland Canal, in the vicinity of Stewart, from November to February; it is never heavy enough to stop shipping but can be troublesome to small craft.

587 **Tides**. — Tidal differences for Stewart (Index No. 9475), referenced on Prince Rupert, are given in the Tide Tables, Volume 7.

588 **Anchorage** can be obtained off Stewart in 25 to 30 fathoms (46 to 55 m) over a soft mud bottom that provides good holding ground. The anchorage is exposed to the north and south winds that frequently draw through Portland Canal. **Caution** is required approaching the anchorage because the drying flats to the north and west are steep-to and are covered except at the very lowest stages of the tide.

589 **Wharves**. — **Stewart Bulk Terminal wharf**, on the west shore about 1 mile south of the townsite, has a berthing length of 820 feet (250 m) and a least depth alongside of 35 feet (10.9 m). **Mooring buoys** are to the NW and SE. The wharf is equipped with a ship loader capable of handling copper concentrates at about 317 tonnes/hour.

590 The **public wharf** has been decommissioned by the District of Stewart. A **wreck** with a least depth of 17 feet (5.1 m) lies alongside.

591 The **public float**, operated by the **Stewart Harbour Authority**, has 150 feet (46 m) of berthing space with a depth of 16 feet (4.9 m). The east end of the float is reserved for aircraft. Power is laid on the floats and they are protected by **floating log breakwaters**. The Stewart Yacht Club has two **floats** attached to the south side of the public float.

592 **Supplies**. — Provisions and accommodation are available in the town. Fresh water is not available at any of the wharves or floats. Gasoline and diesel fuel can be obtained in town.

593 **Repair facilities**. — Small engine repairs are available in town.

594 **Communications**. — Stewart is connected by paved road to the main highway that connects Prince Rupert to Prince George. A gravel road also leads north to the Alaska Highway. Regular bus and air service is available. The airfield at Stewart, on the west bank of Bear River, has an asphalt runway.

595 **Hyder** is a community on the United States side of the boundary. It is connected by road to Stewart.

596 A causeway extends 2,100 feet (640 m) SE from the community of Hyder across the mud flats; a trestle extends a further 1,250 feet (381 m) from its outer end to the extreme edge of the mud flats. A **small craft float**, 150 feet (46 m) long, is at the outer end of the trestle. A survey in July 1985 showed depths as shoal as 3 feet (1 m) on the NW side and depths of 17 feet (5.3 m) on the SE side of the floats.

597 On the east side of the trestle, near its outer end, there is a rock-fill parking area, a gravel launching ramp and **small craft floats** with depths of 5 feet (1.6 m) alongside. A **floating log breakwater** is north of the floats.

Chapter 7

Haida Gwaii
East Coast



Haida Gwaii

Charts 3853, 3902, 3800

1 **Haida Gwaii**, an archipelago of about one hundred and fifty islands and islets, form the south side of Dixon Entrance and are separated from the mainland by Hecate Strait. The two largest islands are Graham Island, in the north, and Moresby Island, in the south. Elevations range from 200 or 300 feet (61 or 91 m) to nearly 4,000 feet (1,219 m), the greatest heights lying along the west shores of Moresby Island.

2 The main islands of Haida Gwaii are separated from each other by narrow passages in some places having fjord like appearance; Houston Stewart Channel, Skidegate Inlet and Channel are transverse to the main mountain axis. The narrowest, Skidegate Inlet, between Moresby and Graham Island, is navigable only by small vessels at HW slack.

3 A remarkable feature of the east coast of this group is that about midway, a marked change occurs. From the south extremity at Cape St. James north to Skidegate Inlet the whole shoreline is a maze of meandering inlets and sounds, all with bold rocky seaboards. Their waters are generally deep and as far north as Laskeek Bay, as is the sea to the east. From here, however, to the extreme NE tip of Graham Island the coastline is almost unbroken; low wooded banks appear, and the waters of the north part of Hecate Strait are comparatively shallow.

4 In this chapter, the east coast of Haida Gwaii is described.

5 **Gwaii Haanas National Park Reserve/ Haida Heritage Site** encompasses the south portion of Moresby Island and adjacent islands from south of the Tangil Peninsula on the east and Tasu Sound on the west. The annual number of visitors is limited; reservations, orientation and fees are required before entering the park. Haida Gwaii Watchmen are located at Anthony Island, Ellen Island, Huxley Island, Hotspring Island, Windy Bay, Tanu Island and Skedans Bay. For full information regarding visiting Gwaii Haanas National Park Reserve contact the

Gwaii Haanas National Marine
Conservation Area Reserve,
P.O. Box 37,
Village of Queen Charlotte, BC. V0T 1S0.

6 **Vessel Traffic Services (VTS).** — Hecate Strait is in *Sector 1* of the *Prince Rupert Traffic Zone* and the assigned frequency is 156.55 MHz, Channel 11.

7 A brief description of this Vessel Traffic Services (VTS) System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

8 The Calling-in Points in Hecate Strait are

9 *Calling-in Point No. 21*, called *Rose Spit/Seal Rocks*, is a line joining Rose Spit Racon and Seal Rocks light *(748)* and is a change line between *Sector 1* and *Sector 2* of the *Prince Rupert Traffic Zone*.

10 *Calling-in Point No. 28*, called *McInnes Island/ Cape St. James*, is a line joining McInnes Island light *(619)* and Cape St. James light *(770)*.

11 *Calling-in Point No. 30*, called *Bonilla Island/ Sandspit*, is a line from Bonilla Island Sector light *(734)* to Sandspit aeronautical beacon *(784)*.

12 *Calling-in Point No. 31*, called *Lawn Point*, is an arc of 3 miles radius from Lawn Point.

13 **Meteorological information** is available in the Appendices.

14 **Tides**. — Along the east coast of Haida Gwaii, tidal predictions are given for Queen Charlotte (Index No. 9850) in the Tide Tables, Volume 7.

15 Tidal differences for Cape St. James (Index No. 9502), referenced on Hunger Harbour; Copper Islands (Index No. 9724), Section Cove (Index No. 9733), Sedgwick Bay (Index No. 9753), Pacofi (Index No. 9775) and McCoy Cove (Index No. 9790), referenced on Rose Harbour, and Shingle Bay (Index No. 9808), referenced on Queen Charlotte, are given in the Tide Tables, Volume 7.

16 **Tidal streams**. — In general, the flood coming in from Dixon Entrance meets the flood coming up Hecate Strait from the south in the vicinity of Porcher Island. In late summer, mid July to mid September, they meet some 25 or 30 miles farther south.

17 At springs, or during bad weather, the tide-rips caused by the meeting of the streams are sometimes so great as to convey an appearance of broken water.

18 The flood stream through Dixon Entrance, on reaching the north end of Hecate Strait, divides at a point midway between Rose Spit and Dundas Island. Part of the current sets north past Dundas Island, no doubt because of the indraught toward Portland Inlet, and part turns SE into Hecate Strait; in winter the flood and ebb here are quite regular, but in late summer the flood greatly exceeds the ebb. In August, there can be 2½ to 3 kn of flood, with little appreciable ebb or only slack water.

19 Farther south, where the strait widens in the latitude of Porcher Island, the currents rarely exceed 1 kn in the central part of the strait. However, along the shore of Stephens Island, as far north as Butterworth Rocks, the strongest set is NW with the ebb, and the flood is hardly appreciable.

20 Off the south end of Haida Gwaii, the direction of the flood is NE and the ebb is SW.

21 Information from tidal stream observations in 1984 in Hecate Strait is given below.

22 The tidal stream 17 miles SE of Cape St. James is rotary clockwise. First of flood sets 290° at ¾ kn, maximum flood 025° at 1¼ kn, last of flood 105° at 1 kn and maximum ebb 200° at 1¼ kn. Maximum flood here is at HW Bella Bella, last of flood at 1 hour after LW Bella Bella.

23 Ten miles east of Kunghit Island first of flood sets 280° at 1½ kn, maximum flood 340° at 2½ kn, last of flood 075° at 1 kn, first of ebb 110° at 1¼ kn and maximum ebb 175° at 2¾ kn. Maximum flood here is 1 h 30 min before HW Bella Bella, maximum ebb 2 hours before LW Bella Bella.

24 About 8 miles east of Copper Islands the stream is rectilinear, maximum flood setting 335° at 1½ kn and maximum ebb 155° at 1½ kn.

25 In a position 097° 53 miles from Cape St. James maximum flood sets 010° at 1¼ kn, last of flood 090° at 1 kn, maximum ebb 210° at 1¾ kn and last of ebb 290° at 1 kn.

26 About 27 miles east of Sandspit maximum flood sets 330° at 1½ kn, maximum ebb 130° at 1 kn.

27 Fourteen miles SE of Sandspit maximum flood sets 340° at 1½ kn, maximum ebb 155° at 1¼ kn.

28 **Caution**. — About 16 hours after the passage of a storm through Queen Charlotte Sound, and where the wind veers from SE through SW to NW, the maximum currents at the south end of Hecate Strait will occur about 3 h 30 min after HW at Prince Rupert, and can remain out of phase for three or four days. The initial change of phase is usually accompanied by a surge of current about ½ kn greater than usual. This change in the phase of the currents is caused by a wind driven inertial current of period 15.4 hours and a starting velocity of 30 cm/sec. (0.6 kn). This current slowly decays over a three to four day period.

Kunghit Island — East Side

Chart 3825

29 **Kunghit Island** *(52°05'N, 131°05'W)* is the first land sighted when approaching Haida Gwaii from south. The island rises to 1,490 feet (454 m) near its south extremity, but its highest peak is in the NE part. The east coast of the island is bold and in many places bordered by steep cliffs.

30 **Cape St. James** *(51°56'N, 131°01'W)*, so named by Captain Dixon who rounded it in the *Queen Charlotte* on St. James Day, 1787, is the south extremity of **St. James Island**, which is close south of Kunghit Island. The island is saddle-shaped, bare and grassy; the south extremity of the south hummock is a vertical cliff about 100 feet (30 m) high. Heavy tide-rips are sometimes seen south of the cape. A heliport is on the cape.

31 Cape St. James **light** *(770)* is shown at an elevation of 315 feet (96 m) from a mast, with two white buildings in close proximity.

32 South Moresby Island ODAS **light buoy** "46147" *(769.5)* is 5 miles SW of Cape St. James in *51°49'42"N, 131°13'30"W*.

33 **Meteorological information** is available in the Appendices.

34 **Tides**. — Tidal differences for Cape St. James (Index No. 9502), referenced on Hunger Harbour, are given in the Tide Tables, Volume 7.

35 **Kerouard Islands** consist of two groups of islets and rocks, some bare and white, which extend 2.5 miles SE from Cape St. James. These islands are remarkable, standing boldly up with rounded tops, and vertical cliffs on all sides; the smaller rocks have the pillar-like form so frequently found when a rocky coast is exposed to the full sweep of a great ocean. Kerouard Islands are a protected area within the Gwaii Haanas National Park Reserve boundary. The islands are breeding places for innumerable sea birds and sea lions.

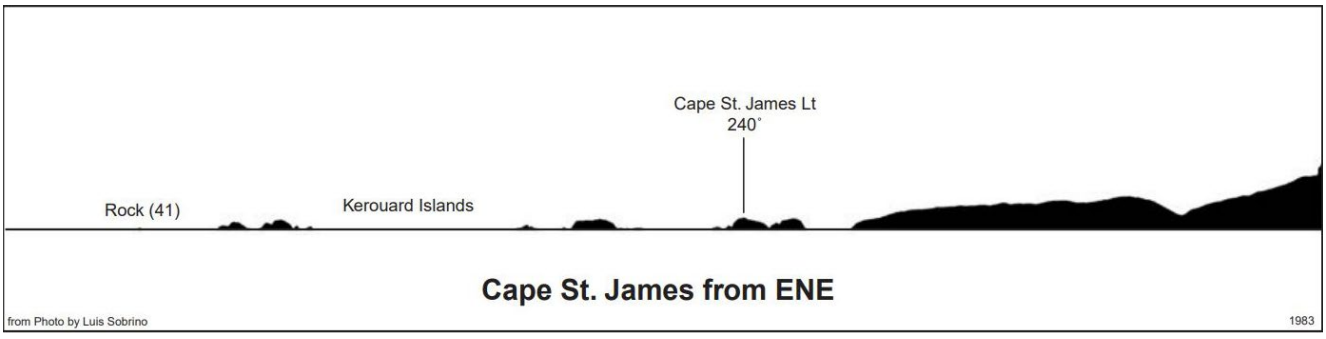
36 A deep passage, 0.8 mile wide, leads between the NW and SE groups, but it is only suitable for smaller vessels. Strong winds when blowing against the tidal stream cause a heavy sea in this passage. Tide-rips are sometimes seen south of the islands.

37 **Gray Rock** *(51°51'N, 130°56'W)*, with a depth of less than 6 feet (2 m) over it, is 3.5 miles SSE of the outermost of the Kerouard Islands. There are heavy **tide-rips** over the rock and the sea breaks over it with a moderate swell.

38 **Woodruff Bay**, between the south extremity of Kunghit Island and **Ballard Point** *(51°58'N, 131°00'W)*, has rugged north and south shores fringed with drying rocky ledges. An extensive sandy beach is at the head of the bay. A compact group of above-water rocks, surrounded by a drying rocky ledge, is about 0.1 mile off the north shore. The bay is otherwise free of dangers, and depths within it shallow gradually toward the head. Woodruff Bay affords shelter only from west winds, but there is always some surf at its head.

39 **Howe Bay**, on the north side of Ballard Point, and **Luxana Bay** are separated by a narrow peninsula of which **Annis Point** *(52°01'N, 130°59'W)* is the eastern extremity. An islet with drying and above-water rocks close north and south of it is 0.3 mile NE of Annis Point. **Treat Bay** is an indentation on the north side of Luxana Bay. The shores of these bays and of the peninsula are all rugged and in places are fringed with drying and below-water rocks that do not extend more than 0.15 mile offshore. Depths within the bays are moderate and shoal gradually toward their heads. Howe and Luxana Bays afford shelter from westerly winds, but are seldom free of swell. **Anchorage** can be obtained in either bay in 10 to 15 fathoms (18 to 27 m).

CAPE ST. JAMES FROM ENE (1983)



40 Close-off **Lyman Point** *(52°06'N, 130°56'W)* are two rocks, 4 and 8 feet (1.2 and 2.4 m) high, close together and surrounded by a drying reef. Close south of these rocks are some drying rocks. A rock that dries 15 feet (4.6 m) is close offshore 0.6 mile NW of Lyman Point.

Chart 3855

Heater Harbour and Approaches

41 **Prevost Point** *(52°06'N, 130°57'W)*, in the NE part of Kunghit Island, has **Gull Islet** connected to it by a drying rock ledge. A rock awash and a rock that dries 4 feet (1.2 m) are close north of Gull Point, the NE extremity of Gull Islet.

42 **Gull Banks** are between 0.4 and 1.5 miles NW of Gull Islet. A shoal with a depth of 35 feet (10.7 m), 1 mile north of Jenkins Point, is the least depth on the banks.

43 **Blackburn Peninsula** is about 1.7 miles west of Gull Islet. **Keeweenah Bay** and **Montserrat Bay** are separated by **Jenkins Point**. **Marshall Island** lies in the middle of Keeweenah Bay and a shoal with 5 fathoms (9.1 m) over it is in the middle of the entrance to Montserrat Bay.



44 **Anchorage** can be obtained in Keeweenah Bay, in 12 to 7 fathoms (21.6 to 12.8 m), SE of Marshall Island. Montserrat Bay is too deep for satisfactory anchorage except close to the head where small craft can obtain temporary anchorage.

45 **Rainy Islands** *(52°07'N, 130°59'W)*, consisting of four principal islands and some drying, above- and below-water rocks, lie in a chain extending NE of Blackburn Peninsula.

46 **Grant Bank**, between Rainy Islands and High Island, has **Christian Rock**, with 9 feet (2.7 m) over it, on its north side and **Germania Rock**, 18 feet (5.5 m) high, on its west side. Three shoals, with least depths of 16, 22 and 26 feet (4.9, 6.7 and 7.9 m), are within 0.3 mile north and NW of Blackburn Peninsula.

47 **Balcom Inlet** *(52°06'N, 131°00'W)* is divided into two arms by **Larsen Point**. Although depths within this inlet are suitable, it is not recommended for anchorage as strong winds from the SE and SW quadrants, often accompanied by "Williwaws", funnel down the valley at the head, causing violent yawing.

48 **High Island**, on the north side of the approach to Heater Harbour, is conspicuous from NE. A bare rock, 10 feet (3 m) high, is close north of the NW point of the island and a rock that dries 5 feet (1.5 m) and marked by kelp is close-off the NE shore. A boat passage between High Island and **Orion Point**, 0.2 mile SW, is contracted to a width of 0.1 mile by foul ground marked by kelp. A shoal with a least depth of 35 feet (10.7 m) is 0.5 mile NNW of Orion Point.

49 **Heater Harbour**, entered between Orion Point and **Gaowina Point**, has two small arms at its head, a great portion of which dries at LW.



50 **Anchorage** can be obtained in 11 to 13 fathoms (20 to 24 m), mud, in the basin forming the inner part of Heater Harbour. Small craft can obtain anchorage near the west end of the harbour.

51 Houston Stewart Channel, described in Chapter 8, is entered from the east between **Moore Head** and **Point Langford**.

52 **Haydon Rock** *(52°09'N, 131°02'W)* has a rock awash 0.2 mile NE with a rock that dries 5 feet (1.5 m) midway between them and a 21 foot (6.4 m) shoal 0.15 mile WNW.

53 **Langford Shoals**, with depths of 27, 30 and 36 feet (8.2, 9.1 and 11 m), lie up to 0.5 mile south of Point Langford. Another shoal with a least depth of 32 feet (9.8 m) is 0.5 mile east of the same point.

54 **Koya Point**, with a bare rock 16 feet (4.9 m) high close-off it and connected to shore by a drying ledge, is 1.6 miles NE of Point Langford. A rock that dries 10 feet (3 m) is 0.2 mile SW of Koya Point.



55 **Tidal streams**. — Heavy overfalls occur over the shoals south of Point Langford when strong winds oppose the flood stream.

Moresby Island — East Side

Charts 3853, 3894

56 The east side of **Moresby Island** is indented and fronted by islands of considerable size with passages between them. The interior of the island has many peaks, most of which are bare.

57 **Inshore route**. — From Houston Stewart Channel *(52°10'N, 131°03'W)*, at the south end of Moresby Island, there are 8 miles of open coastline before Skincuttle Inlet is reached. From Skincuttle Inlet *(52°20'N, 131°10'W)* small vessels can follow an inshore, moderately sheltered route as far north as Cumshewa Inlet *(53°03'N, 131°50'W)*. Moresby Camp at the head of Cumshewa Inlet has a gravel road leading north to Sandspit. This route can be used if it is necessary to proceed north for assistance when strong gales are blowing in Hecate Strait.

58 Two sections of the route, open to the weather, are in Juan Perez Sound and a short section between Logan and Dana Inlets. Two drying channels that must be navigated at or near HW are K̲'iid Xyangs K̲'iidaay in G̲aysiiG̲as K̲'iidsii at the south end and Louise Narrows in Carmichael Passage at the north end of the route.

59 The route leads from Skincuttle Inlet into G̲aysiiG̲as K̲'iidsii, then through Juan Perez Sound and Darwin Sound into Logan Inlet. From Logan Inlet the route follows Dana Inlet, Dana Passage and Selwyn Inlet into Carmichael Passage that leads into the west end of Cumshewa Inlet near Moresby Camp.

60 **Logging camps** (1997) where assistance can be obtained in an emergency are in Powrivco Bay, Sewell Inlet and Beattie Anchorage.

Chart 3809

Carpenter Bay and Approaches

61 **Benjamin Point** *(52°13'N, 131°00'W)* has a wooded islet close-off it and reefs extend 0.4 mile north, 0.15 mile east and 0.2 mile south of the promontory. An extensive kelp bed is in this locality. The small cove on the west side of the point is too exposed to provide satisfactory anchorage.

62 **Garcin Rocks**, 1.2 miles ESE of Benjamin Point, consist of three large, conspicuous, closely grouped islets, 42 to 48 feet (13 to 15 m) high, which with above-water, drying and below-water rocks form a reef 0.5 mile long.

63 Garcin Rocks **light** *(771)*, on the centre islet, is shown at an elevation of 64 feet (19.5 m) from a skeleton tower.

64 **Tidal streams** in the vicinity of Garcin Rocks flood north and ebb south at 1 to 4 kn, accompanied at times by considerable turbulence, particularly during spring tides.

65 **Huff Rock**, 0.9 mile NE of Benjamin Point, is 10 feet (3 m) high and bare; it is surrounded by foul ground which, on its SW side, extends about 0.4 mile and terminates in a rock that dries 4 feet (1.2 m). Kelp grows profusely on the foul ground during summer and autumn. A rock with less than 6 feet (2 m) over it and two 36 foot (11 m) shoals lie between Garcin Rocks and Benjamin Point.

66 **Langtry Island**, 1 mile north of Benjamin Point, is sparsely wooded and has two bare rocks, 10 and 21 feet (3 and 6.4 m) high close together, about 0.2 mile off its NW side. Numerous drying and below-water rocks extend up to 0.3 mile off the island.

67 **Caution**. — The inshore passage west of Garcin Rocks, Huff Rock, and Langtry Island has irregular depths and several drying and below-water rocks within it, and is subject to considerable tide-rips and eddies which are dangerous to small craft. Overfalls, which could be dangerous to small craft, form quickly with the wind opposing the tidal streams. Local knowledge is advised to navigate this passage.

68 **Goodwin Point** *(52°17'N, 131°05'W)*, at the north approach to Carpenter Bay, has **Goodwin Rock**, which is 13 feet (4 m) high and bare, about 0.8 mile east of it.

69 **Rankine Islands**, both wooded, are SE of Goodwin Point in the entrance to Carpenter Bay. Above-water, drying and below-water rocks fringe both islands and extend 0.6 mile north of the west island. Extensive kelp grows in this vicinity. **Note**. — Rankine Islands are a protected area within the boundaries of Gwaii Haanas National Park Reserve and are closed to the public.

70 **Oliver Rock**, 0.8 mile north of the west Rankine Island, is 4 feet (1.2 m) high.

71 The entrance to **Carpenter Bay** *(52°14'N, 131°03'W)*, between **Ingraham Point** and **Iron Point**, has several shallow areas, most notable the 17 foot (5.2 m) shoal 0.45 mile east and the rock awash 0.9 mile SSE of Iron Point with a 31 foot (9.4 m) shoal midway between them. A rocky drying ledge with two bare above-water rocks on it extends 0.2 mile off Ingraham Point. **Kiju Point**, on the south side of Carpenter Bay, separates **Koya Bay** and South Cove.

72 **South Cove** with irregular depths and several scattered drying and below-water rocks is suitable only for small craft. From the west entrance point of this cove, a rocky ledge with above-water and drying rocks on it extends 0.25 mile north.

73 **Dangers**. — Numerous detached dangers lie in Carpenter Bay. A rock with 22 feet (6.7 m) over it is 0.8 mile NW of Kiju Point. **Crowell Rock**, which dries 14 feet (4.3 m), lies in mid-channel 0.4 mile NE of **Hancock Point**. A rock with 13 feet (4 m) over it is 0.3 mile east of Crowell Rock and a rock with less than 6 feet (2 m) over it is 0.1 mile north of Crowell Rock. **Samuel Rock**, which is 12 feet (3.7 m) high, lies off a drying bank extending from the north shore. A rock that dries 9 feet (2.7 m) is 0.15 mile west of Samuel Rock. Some are marked by kelp. Two wooded islets are north of Hancock Point and the head of the bay is encumbered with islands, above-water, drying and below-water rocks.

74 **Fishing boundary markers** are on both sides of Carpenter Bay, 0.4 mile SE of Hancock Point and on the north shore, north of the point.

75 **Tidal streams** in Carpenter Bay are regular attaining 2 kn in the outer part decreasing to about 1 kn toward the head.

76 **Caution**. — Anchorage within Carpenter Bay is not recommended because of the numerous dangers in it combined with strong winds which, from the SE and SW quadrants, funnel through the valleys in the south shore.

Collison Bay

77 **Collison Bay** *(52°17'N, 131°07'W)*, entered north of Goodwin Point, becomes very narrow west of **Gona Point**. Depths in the entrance are uneven but within the bay the soundings are moderately deep and decrease gradually toward the head. Above-water and drying rocks extend 0.15 mile from the head of the bay. **Anchorage** is suitable only for small craft.

78 **Marion Rock**, which is 10 feet (3 m) high and bare, is on the south side of the entrance to Collison Bay.

79 A rock that dries 18 feet (5.5 m) lies in the fairway 0.3 mile west of Marion Rock. Two rocks that dry 2 and 12 feet (0.6 and 3.7 m) lie up to 0.1 mile off the SE shore SW of Marion Rock.

80 **Nest Islets**, the largest of which is wooded and the other with scrub growth, are near the middle of the entrance to Collison Bay. A wooded island with a rock 9 feet (2.7 m) high close south of it is 0.2 mile WSW of Nest Islets. The passage between this island and Nest Islets is deep and free of dangers. Another wooded island, connected to shore by a drying rocky ledge, is about 0.4 mile from the head of the bay close-off the north shore.

81 **Ikeda Cove** *(52°19'N, 131°08'W)* is entered between **Awaya Point** and **Ikeda Point**. A shoal with a depth of 29 feet (8.8 m) lies in the approach 0.2 mile east of Awaya Point. Drying rocks and banks extend a short distance off the east shore and 0.2 mile off the head of the cove. Some old piles line the west side of the river mouth at the head of the cove.

82 **Fishing boundary markers** are on both sides of the cove 0.3 mile inside the entrance.

83 **Anchorage** can be obtained in 6 to 7 fathoms (11 to 13 m) near the head of Ikeda Cove. During normal weather this anchorage is satisfactory, but a sharp watch is necessary during strong southerly gales, as the cove is subject to heavy squalls from the valley at its head, which cause considerable down draughts from the surrounding hills. The holding ground is reported to be good.

84 **Caution**. — During SE gales there is considerable turbulence, accompanied by heavy seas dangerous to small vessels, in the entrance to Ikeda Cove.

Skincuttle Inlet and Approaches

85 The entrance to **Skincuttle Inlet** *(52°20'N, 131°10'W)*, between **Deluge Point** and **Sk'yaaw Kun**, 3.8 miles NW, is divided by the Copper Islands. The passage north of these islands has a minimum width of 0.25 mile between the east extremity of the rocks extending from Pelican Point and the west islet of the group. The fairway on the south side of Copper Islands is about 1 mile wide between East Copper Island and New England Rocks.

86 Depths are irregular SE of East Copper Island and west of Deluge Point and a number of detached rocks and shoals are south and SW of Bolkus Islands.

87 **Tidal streams** in the vicinity of Ikeda Point, Joyce and New England Rocks and the Copper Islands attain a rate of up to about 3 kn, the flood flowing north and the ebb south. The turn of the tide takes place abruptly with virtually no slack water. Within the inlet the streams are irregular and decrease in strength toward the south end of G̲aysiiG̲as K̲'iidsii.

88 Swirls are frequently experienced between New England Rocks and the Copper Islands.

89 **Tides**. — Tidal differences for Copper Islands (Index No. 9724), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.

90 **Copper Islands** *(52°21'N, 131°12'W)* are a chain of five wooded islands and numerous islets and above- and below-water rocks, extending 3.3 miles east and ENE of Pelican Point. The named islands and islets are **East Copper Island**, **Jeffrey Island**, **George Island**, **Skincuttle Island**, **Slug Islet** and **Rock Islet**. An extensive drying rocky ledge on which there is an islet extends 0.3 mile south from Skincuttle Island; drying and below-water rocks lie between it and Slug Islet. A group of islets, surrounded by drying ledges and drying and below-water rocks close-off their SW side, extend about 0.3 mile SE from Rock Islet. Close south of Slug Islet there is a rock 12 feet (3.7 m) high connected to the islet by a drying ledge. Kelp grows profusely in the vicinity of the islands.

91 East Copper Island **light** *(772)* is shown at an elevation of 50 feet (15.2 m) from a white tower.

92 **Note**. — East Copper Island and Jeffrey Island are a protected area within the boundaries of Gwaii Haanas National Park Reserve and are closed to the public.

93 The east entrance to Skincuttle Inlet is encumbered with **Joyce Rocks** *(52°20'N, 131°08'W)*, a compact group of five bare rocks 12 to 27 feet (3.7 to 8.2 m) high, **New England Rocks**, consisting of two drying and one below-water rock, **Bishop Rock**, 3 feet (0.9 m) high and bare, and **Inner Low Rock**, 16 feet (4.9 m) high and bare. Shoal rocks are close to all the above-mentioned rocks and several shoals under 10 fathoms (18.3 m) are up to 1 mile north and NE of Joyce Rocks.

94 Port hand **buoy** "C3", fitted with a radar reflector, is 0.25 mile WNW of New England Rocks.

95 The passage north and west of the Copper Islands narrows to a width of 0.25 mile between the east extremity of the above- and below-water and drying rocks extending 0.5 mile east from **Pelican Point** and Rock Islet. A shoal with 25 feet (7.6 m) over it is situated 0.3 mile north of Skincuttle Island. Within 0.6 mile SE of Sk'yaaw Kun, there are several banks with depths from 34 to 60 feet (10.4 to 18.3 m). Numerous above-water and drying rocks lie up to 0.4 mile north of East Copper and Jeffrey Islands. Kelp grows profusely in this area.

96 A local **magnetic anomaly** has been reported in this vicinity.

97 A conspicuous cave is 0.1 mile SW of Sk'yaaw Kun. **Bluejay Cove** and **Pelican Cove** are shallow and have extensive drying rock ledges.

98 **Kingfisher Cove** is 0.5 mile west of Pelican Point. A rock, which dries 2 feet (0.6 m) and marked by kelp, is 0.18 mile off the west entrance point of the cove. **Fresh water** is available from a spring in the cove (1988).

99 **Swan Islands** *(52°20'N, 131°18'W)* consist of one large and two small islands and several islets and rocks.

100 **Swan Bay**, north of Swan Islands, is too exposed to SE winds for satisfactory anchorage. A cabin (1985) is on Burnaby Island, 0.2 mile west of Swan Islands.

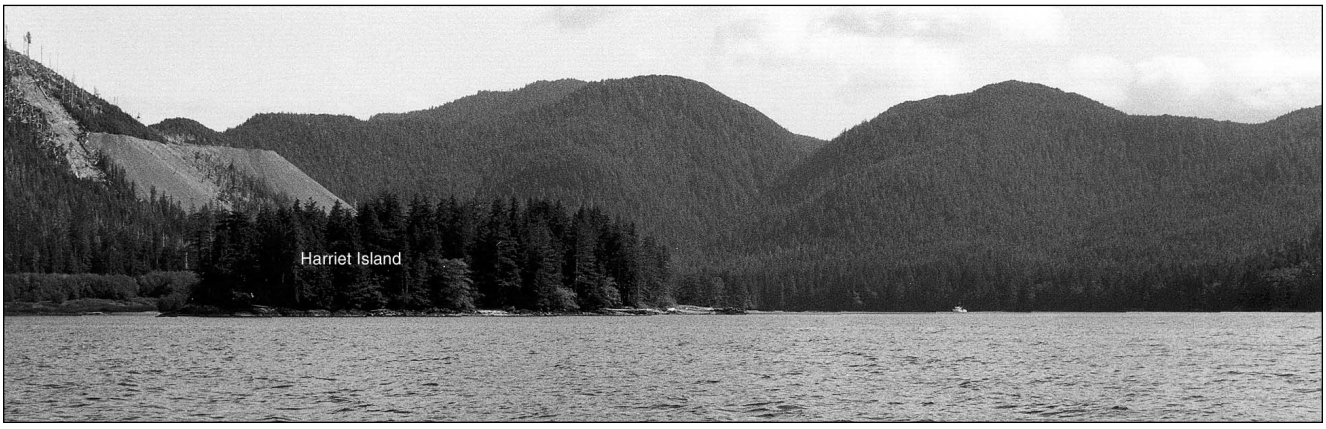
101 **Bolkus Islands** *(52°20'N, 131°16'W)*, consisting of one large island and several small islands, together with numerous small rocks and reefs, lie in the middle of Skincuttle Inlet east of **Smithe Point**, the south extremity of **Burnaby Island**. Foul ground, on which there are several drying and below-water rocks, extends 0.3 mile south from the west Bolkus Island, and shoal water extends up to 0.15 mile off the other shores of the islands. A reef, with a least depth of 13 feet (4 m) over it, is 0.4 mile north of the east extremity of Bolkus Island. The passage between these islands and the Swan Islands is free of dangers except for a drying rock, an islet and a shoal with 28 feet (8.5 m) over it extending 0.2 mile south of the westernmost Swan Island.

102 **Harriet Harbour** *(52°18'N, 131°13'W)*, on the south side of Skincuttle Inlet, is entered between **Funter Point** and **Jedway Point**. **Harriet Island**, in the middle of the entrance, is surrounded by a drying bank from which a drying spit extends about 0.13 mile SE. The island is not conspicuous as its colours blend into the high background. Harriet Harbour should be entered only by the channel west of Harriet Island. The harbour was formerly the site of a mining development. The ruins of a wharf and two piles of mine waste are on Funter Point. The side of the hill SE of Harriet Harbour is a conspicuous dark bare cliff. Roads and buildings along the east shore are completely overgrown with alder. A reservoir and some potentially dangerous deep shafts, hidden by the alder, are close south of Funter Point.

103 **Fishing boundary markers** are on Jedway Point and 0.8 mile NE of Funter Point.

104 Because of limited swinging space, Harriet Harbour should be used only by vessels up to 200 feet (61 m) long, which can obtain **anchorage** in about

ENTRANCE TO HARRIET HARBOUR (1985)



39 feet (12 m) in the middle of the harbour. The holding ground is good on a bottom of sand and mud.

105 **Caution**. — During strong southerly gales Harriet Harbour is subject to heavy squalls from the valley at its head which induce violent yawing. A slight swell enters the harbour with north to NE gales.

106 A local **magnetic anomaly** has been reported in the vicinity of Harriet Harbour.

107 **Kankidas Point**, 0.8 mile WSW of Jedway Point, has above-water and drying rocks lying close-off it and a shoal spit projecting 0.2 mile NW. A rock, with less than 6 feet (2 m) over it, is 0.13 mile offshore midway between this point and Jedway Point. Several shoals are up to 0.3 mile offshore between Jedway and Kankidas Points.

108 **Elswa Rock** *(52°19'N, 131°16'W)*, which dries 8 feet (2.4 m), lies almost in the middle of the passage south of Bolkus Islands. Port bifurcation **buoy** "CE" marks Elswa Rock. A shoal with 24 feet (7.3 m) over it is 0.2 mile ENE and a rock covered 20 feet (6.1 m) is 0.4 mile WSW of Elswa Rock.

109 **Bush Rock**, which is 15 feet (4.6 m) high with sparse scrub on its summit, is 0.8 mile SW of Elswa Rock and marks the west entrance to **Jedway Bay**. Rocks that dry 2 and 8 feet (0.6 and 2.4 m) lie between Bush Rock and the island south of it.

110 Bush Rock **light** *(771.7)* is shown at an elevation of 30 feet (9.1 m) from a skeleton tower.

111 A **fishing boundary marker** is on the east extremity of the island 0.7 mile SSE of Bush Rock.

112 Jedway Bay is recommended only as a temporary **anchorage** in fine weather for vessels up to 150 feet (46 m) long. Small craft can obtain anchorage in 5 to 6 fathoms (9 to 11 m) in the indentation on the east side of the bay, close south of Kankidas Point, or at the head of the bay, clear of the rock with less than 6 feet (2 m) over it.

113 A public **mooring buoy** is at the head of Jedway Bay.

114 A **fresh water** hose leads to the mooring buoy from a small spring halfway up the hillside (1985). It is reported that this hose is no longer working (1995).

115 **Huston Inlet** is entered between Bush Rock and **Huston Point** *(52°18'N, 131°18'W)*.

116 **Low Black Rock**, with a rock which dries 1 foot (0.3 m) close NE, is 0.5 mile NNE of Huston Point. **Boulder Island**, **Sea Pigeon Island** and **Green Rock**, which is grass-covered, lie in the outer part of Huston Inlet.

117 A **fishing boundary marker** is on Huston Point. Fishing boundary markers are on the east and west shores of Huston Inlet about 1.2 miles SE of Sea Pigeon Island.

118 A bank with above-water, drying and below-water rocks on it fills most of the area between Boulder Island and Low Black Rock. Boulder and Sea Pigeon Islands are fringed by rocks and ledges, and a reef with less than 6 feet (2 m) over it is 0.5 mile SE of Sea Pigeon Island. Shoals, drying and below-water rocks are up to 0.3 mile offshore at the head of the inlet.

119 **Anchorage** is available in about 12 fathoms (22 m) near the head of Huston Inlet. Small vessels can anchor in shallower depths nearer the head, but take care to avoid the shoals and rocks in the vicinity. **Caution**. — During SE gales heavy squalls from the valley at the head of the inlet can be expected.

120 **Slim Inlet** *(52°18'N, 131°19'W)* is only 300 feet (91 m) wide between the 3 fathom (5.5 m) lines and has a drying flat at its head. On the east side of the entrance, depths of 9 to 36 feet (2.7 to 11 m) extend up to 0.5 mile offshore; on the west side drying and below-water rocks extend 0.2 mile offshore.

121 **George Bay**, at the west end of Skincuttle Inlet, is almost filled with a drying mud flat, and its mouth is encumbered by reefs. Opposite the entrance to the bay, and almost midway between Huston Point and the south entrance to G̲aysiiG̲as K̲'iidsii, there are three shoals with depths of 30, 31 and 36 feet (9.1, 9.4 and 11 m) over them.

G̲aysiiG̲as K̲'iidsii

122 **G̲aysiiG̲as K̲'iidsii** *(52°20'N, 131°20'W)* leads north between Burnaby and Moresby Islands into Juan Perez Sound *(Chart 3808)*. The strait between its south entrance and K̲'iid Xyangs K̲'iidaay is encumbered with numerous drying and below-water rocks, most of them marked by kelp, and is suitable only for small craft, navigated with great caution.

123 A **fishing boundary marker** is on the east bank at the south end of K̲'iid Xyangs K̲'iidaay.

124 **Tidal streams**. — Limited observation in this area indicates the tidal streams are very irregular in both direction and strength and vary appreciably with spring and neap tides and weather conditions in Hecate Strait. Within K̲'iid Xyangs K̲'iidaay the streams are relatively weak and seldom exceed 1½ kn.

125 **Tangle Cove**, on the west side of the south entrance to G̲aysiiG̲as K̲'iidsii, is nearly filled with a drying mud flat. Two drying reefs, marked by kelp, are off the entrance and a rock that dries 10 feet (3 m) is in the entrance to the cove.

126 **Bag Harbour** *(52°21'N, 131°22'W)* affords sheltered **anchorage** to small craft over mud bottom in a basin near its head. A shoal with 18 feet (5.5 m) over it lies in the approach to the bay about 0.2 mile east of the entrance and a rock with less than 6 feet (2 m) over it lies 0.1 mile from the head.

127 **K̲'iid Xyangs K̲'iidaay** is known locally as **Burnaby Narrows**. The navigable channel dries, is about 0.3 mile long and has three sharp bends. From the south end the fairway leads NE from the west to east shores then turns sharply NW leading to the west shore where it follows the west shore for a short distance before turning sharply NE which course leads to the north end of the drying area. Vessels up to 70 feet (20 m) long with a draught of 9 feet (2.7 m) are reported to regularly use the narrows, however, local knowledge is advised. Passage should be made on a rising tide, at half tide or better, when most dangers can be seen. The bottom throughout the narrows is rock.

128 **Beacon ranges**. — Private daybeacon ranges (1985) mark the four ranges through K̲'iid Xyangs K̲'iidaay. Each set of beacon ranges consist of two white posts driven into the banks. At the south end the daybeacon range on the east bank marks the route NE leading from the west to east banks. Close north of the first range beacons a daybeacon range on the east bank marks the route leading NW from the east to west banks. Daybeacons to the north, on the west bank, mark the route leading north along the west bank. A set of daybeacon ranges on the west bank and another set on the east bank mark the range leading NE to the north end of the drying channel. **Note**. — It is reported (1995) that only two daybeacon ranges remain, one on each shore.

129 Two abandoned cabins are on the east shore at the north end of K̲'iid Xyangs K̲'iidaay. North of the drying bank, the channel widens and deepens gradually and is about 0.3 mile wide abreast **Dolomite Point** *(52°23'N, 131°22'W)*. A rock with 10 feet (3 m) over it is 0.2 mile north of Dolomite Point.

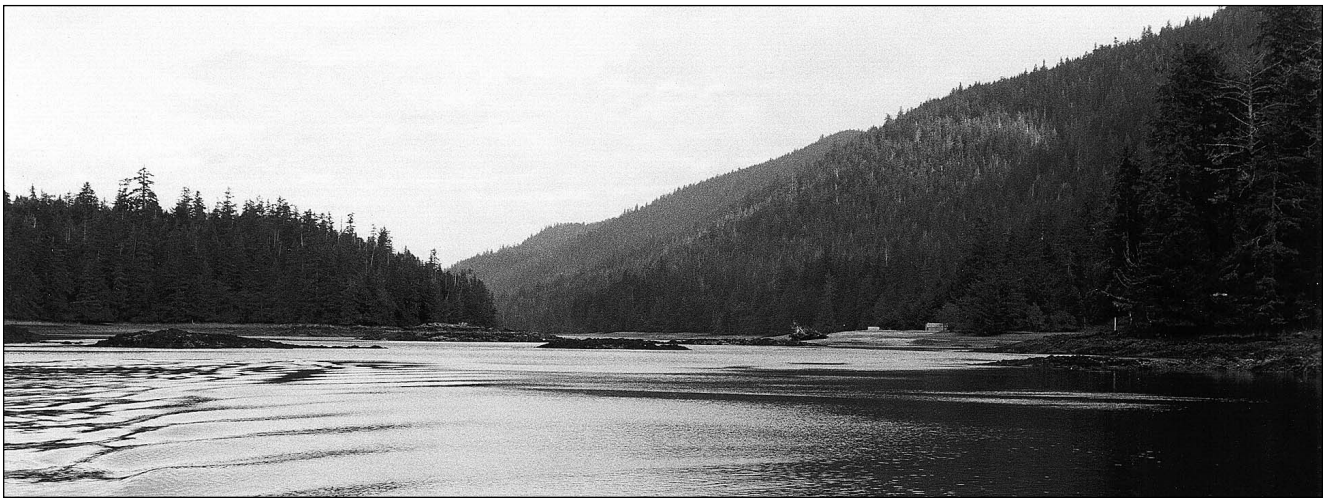
130 The entrance to **Island Bay**, west of Dolomite Point, is obstructed by several small islands and numerous above- and below-water rocks. Entry should only be effected west of these obstructions. The head of the bay is encumbered with several islets and rocks. The bottom is mainly mud, except near the islets at the head of the bay, where it is gravel and shells.

131 **Kat Island** is wooded and has islets and rocks extending 0.4 mile north of it. The passage on the west side of Kat Island is foul and should not be attempted.

132 **Limestone Rock** *(52°25'N, 131°23'W)*, which dries 8 feet (2.4 m), and a rock that dries 3 feet (0.9 m) are 0.8 mile east of **Wanderer Point**. **Nomad Islet** is connected to the point by a drying bank. A narrow passage, available to small craft, separates Nomad Islet from the south extremity of **Wanderer Island**.

133 **Centre Islet**, **Sels Islet** and **Park Island** lie east, west and north of Wanderer Island. **Haida Rock**, which is awash, is west of Wanderer Island and several drying

ENTRANCE TO K̲'IID XYANGS K̲'IIDAAY LOOKING NORTH (1985)



rocks lie up to 0.1 mile off the shores of Wanderer Island. A 25 foot (7.6 m) shoal lies in mid-channel NNW of Sels Islet and drying reefs extend from both Sels Islet and Park Island.

134 A **fishing boundary marker** is on the Moresby Island shore opposite the north end of Park Island.

135 **Skaat Harbour** is entered NW of Park Island. Islets and drying rocks are up to 0.2 mile off the shores at the head of the harbour.



136 **Anchorage** can be obtained in about 12 fathoms (22 m), generally mud bottom, west of Wanderer Island. Anchorage for medium sized vessels is available in 12 fathoms (22 m), mud, about 0.6 mile from the head of the harbour. Small vessels can anchor in shallower depths closer to shore. The anchorage at the head of the harbour provides the best shelter from all but northerly winds.

137 **Section Cove** *(52°25'N, 131°22'W)* is sheltered to the west by **Section Island**. The preferred channel leading into the cove from G̲aysiiG̲as K̲'iidsii leads between Koga Islet and Huxley Island. **Koga Islet** has shoal water extending ESE from its south end. A shoal ridge with a least depth of 18 feet (5.5. m) is in the middle of Section Cove. The NE entrance to the cove is obstructed by **Nakons Islet**, from which a reef with a rock with less than 6 feet (2 m) over it at its extremity extends 0.3 mile SE. A Haida Gwaii Watchmen basecamp is on the south end of Huxley Island.

138 **Tides**. — Tidal differences for Section Cove (Index No. 9733), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.



139 **Anchorage** can be obtained in Section Cove in 17 fathoms (31 m). A public **mooring buoy** is in the cove.

140 The north part of G̲aysiiG̲as K̲'iidsii, north of Wanderer Island, is deep and clear of dangers in the fairway.

Burnaby Island — East Side

141 The east coast of Burnaby Island features a large indentation, which has Gid G̲waa GyaaG̲a GawG̲a at its head. The shore is rugged and fringed with drying rocky ledges extending up to 0.1 mile offshore.

142 **Howay Island** *(52°23'N, 131°16'W)*, in the approach to Gid G̲waa GyaaG̲a GawG̲a, is wooded and has moderately steep-to shores that can be approached to about 0.1 mile.

143 **Sk'yaaw G̲awG̲a**, although free of off-lying dangers, is too deep and exposed for satisfactory anchorage.

144 **Rebecca Point** is the extremity of a peninsula, which is fringed with rocky ledges and drying, above- and below-water rocks up to 0.2 mile offshore. Extensive kelp is off the north shore. A shoal with 33 feet (10.1 m) over it is 0.4 mile north of the point.

145 **Gid G̲waa GyaaG̲a GawG̲a** is entered east of Rebecca Point. The shores on both sides of the inlet are generally rugged with above-water and drying rocks close offshore in places. About 1 mile SSW of Rebecca Point the fairway is obstructed by a group of islets and rocks; a passage, about 0.1 mile wide and suitable only for small vessels, exists on the NW side of the group.

146 **Fishing boundary markers** are on both sides of the inlet at the entrance and about 1 mile within.

Juan Perez Sound

Chart 3808

147 **Juan Perez Sound** *(52°31'N, 131°25'W)*, entered between Burnaby and Ramsay Islands, extends NW to Darwin Sound, which continues NW to join the inner ends of the long inlets extending west from Laskeek Bay *(Chart 3807)*.



148 **Tidal streams** at Scudder Point are irregular in both direction and strength, but up to 3 kn has been encountered. Wind direction and force appear to affect the rate considerably. Some turbulence can be expected in the vicinity of Scudder Point and overfalls have been encountered on the shallow banks lying 4 miles to the east.

149 Within the sound the tidal streams become regular and attain about 1 kn, the flood setting NW and the ebb SE.

150 Along the shore of Ramsay Island and in the passages NW of it, tidal streams are regular at about 1 kn.

151 **Tides**. — Tidal differences, referenced on Rose Harbour, are given for Section Cove (Index No. 9733) and Sedgwick Bay (Index No. 9753) in the Tide Tables, Volume 7.

152 **Scudder Point** *(52°27'N, 131°14'W)*, the NE extremity of Burnaby Island, is surrounded by drying rocky ledges and shoals extending up to 0.4 mile offshore. Several rocks that dry 2 to 12 feet (0.6 to 3.7 m) lie off the drying ledges and a rock that dries 3 feet (0.9 m) is 0.2 mile offshore 1 mile south of Scudder Point. Large masses of kelp lie off the ledges.

153 A considerable width of comparatively low land stretches back from Scudder Point with an open growth of large but gnarled spruce trees.

154 The north coast of Burnaby Island has several slight indentations and is fringed by drying rocky ledges separated by small beaches of coarse gravel.

155 Scudder Point **light** *(773)* is shown at an elevation of 18 feet (5.6 m) from a skeleton tower.

156 **Saw Reef**, 2 miles west of Scudder Point, is a large rocky patch that dries with several above-water heads on it, the highest of which is 4 feet (1.2 m) high.

157 **Off-lying banks** with least depths of 12 and 14 fathoms (22 and 26 m) lie between 3 and 4 miles NNE and east of Scudder Point *(Chart 3853)*.

158 **Alder Island** *(52°27'N, 131°19'W)* is wooded and nearly flat. A wooded islet, a rock 12 feet (3.7 m) high and three rocks that dry 12, 5 and 14 feet (3.7, 1.5 and 4.3 m) are up to 0.4 mile off the north shore. The passage south of Alder Island has shoal depths and should be used only by small craft.

159 **Huxley Island** is bold and remarkable, rising steeply from the beach on its east side. Several shoal areas with depths of 19 to 56 feet (5.8 to 17.1 m) are up to 0.5 mile off the east shore of the island. Close-off its NW point is a rock 3 feet (0.9 m) high with some drying rocks extending 0.1 mile SE of it.

160 **Arichika Island** is 0.6 mile off the NE extremity of Huxley Island. **Arichika Shoal**, 0.4 mile NW, has a least depth of 14 feet (4.3 m) over it. **Monument Rock**, midway between Arichika Shoal and Huxley Island, is bare and resembles a pillar; two drying rocks are close SE of it.

161 **All Alone Stone** *(52°29'N, 131°24'W)*, a dome-shaped wooded island, is steep-to, conspicuous and forms a good mark for entry into G̲aysiiG̲as K̲'iidsii. A detached rock, with 1 foot (0.3 m) over it, is about 300 feet (91 m) north of All Alone Stone.

162 **Werner Bay** *(52°29'N, 131°27'W)*, on the SW side of Juan Perez Sound, is between **Newberry Point** and **Werner Point**, 2.3 miles NW. Depths within the bay are irregular with shoals in the SE part.

163 **Newberry Cove**, west of Newberry Point, affords temporary **anchorage** for small vessels in about 17 fathoms (31 m).

164 **Matheson Inlet** is entered between **Abraham Point** and **Gottlob Point**. A shoal is on the east side of the entrance and the inlet is obstructed by a bar with 2 feet (0.5 m) over it 0.5 mile within the entrance. About 0.4 mile farther south the fairway is reduced to less than 300 feet (91 m) wide by drying banks on each side. The south portion of the inlet is filled with a drying flat on which is a rock 3 feet (1.0 m) high.

165 A private **mooring buoy** and ruins of a cabin are on the east shore 0.6 mile SW of Abraham Point. Matheson Inlet provides sheltered **anchorage** for small craft near its head.

166 **Fishing boundary markers** are on Gottlob and Abraham Points.

167 **Marshall Inlet** has a rock that dries 8 feet (2.4 m) and a 13-foot (4-m) shoal, both marked by kelp, in the middle of its entrance. The inlet can be entered either side of the rock and shoal. **Fishing boundary markers** are on both sides of the inlet, 0.8 mile inside the entrance.

168 Between Werner Point and Hutton Inlet, 2 miles NW, the coast is rugged and fringed with shoal water and drying reefs.

169 **Marco Island** is separated from Moresby Island by a passage, which is partially obstructed at its west end by an islet and drying rocks south and SW of it; the passage is suitable for small craft but **caution** is required. **Marco Rock** and extensive drying reefs are off the east end of Marco Island.

170 **Hutton Inlet** *(52°30'N, 131°33'W)*, entered between Marco Island and **Hutton Point**, has **Hutton Island** in the middle of its entrance. A shallow spit extending 0.2 mile north from Hutton Island has a rock that dries 14 feet (4.3 m) at its extremity. The passage on the SE side of the island is obstructed by islets and drying rocks. Close SW of Hutton Island the inlet narrows to less than 0.2 mile with shoal depths near mid-channel. **Fishing boundary markers** are on both sides of Hutton Inlet, about 0.3 mile SW of Hutton Island. **Anchorage** for small vessels can be obtained in about 7 fathoms (12.8 m), mud, 1 mile from the head of the inlet.

171 **Hoskins Islets**, with drying rocks between them, are 0.8 mile NW of Hutton Point.

172 A large bight is between **Hoskins Point** *(52°32'N, 131°34'W)* and **Darwin Point**, 2.4 miles NW. **Perez Shoal**, with a least depth of 13 feet (4.1 m) and usually marked by kelp, is 0.7 mile north of Hoskins Point; a 47 foot (14.3 m) shoal is 0.3 mile farther NE.

173 **Sivart Island** has drying and below-water rocks close north and SW of it. **Sivart Rock**, 0.4 mile SW, dries 10 feet (3 m) and a rock with 15 feet (4.6 m) over it lies midway between them. Two shoals with 35 and 34 feet (10.7 and 10.4 m) over them lie NW of Sivart Rock.

174 **Haswell Bay** is entered between Hoskins Point and Sivart Island. A detached rock with 29 feet (8.8 m) over it is 0.5 mile south of Sivart Island. The head of the bay is obstructed by an islet connected to shore by a drying bank. **Fresh water** is obtainable year round from the stream

1 mile SSW of Hoskins Point. The stream forms a small waterfall obscured by trees and is only visible when very close to shore. The best approach is on the north side of the stream where the shore is steep-to rock.

175 Haswell Bay affords good **anchorage** for small craft in 7 fathoms (12.8 m) near the head. Larger vessels can anchor in 12 to 16 fathoms (22 to 29 m) about 0.4 mile SSW of Sivart Island, but take care to avoid the dangers in the vicinity.

176 The approach to **De la Beche Inlet** *(52°32'N, 131°40'W)* has irregular depths and is encumbered with drying and below-water rocks in the passages north and south of **De la Beche Island**. A rock with 13 feet (4 m) over it and marked by kelp and a 28 foot (8.5 m) shoal lie near mid-channel north of the island. Entry should be attempted with caution and by small vessels only. The inlet is narrowest at its entrance where the fairway is reduced to about 0.1 mile wide by islets and drying and below-water rocks extending from the north side. The head of the inlet is narrow and foul.

177 **Skittagetan Lagoon** is on the NW side of the approach to the inlet. A rock with less than 6 feet (2 m) over it and a 33 foot (10.1 m) shoal lie in the approach and the entrance is very narrow and almost filled with drying rocks.

178 The entrance to **Sac Bay**, on the south side of the inlet, is very narrow and obstructed by drying, above- and below-water rocks at its entrance.

179 **Ramsay Island** *(52°34'N, 131°22'W)*, at the NE entrance to Juan Perez Sound, is densely wooded with two bold hills in its east part. The east and SE shores are fringed with drying reefs and detached rocks. Numerous above-water rocks are scattered on the drying reefs and the shore is fringed with dense kelp.

180 A bare islet, connected to shore by a drying reef, is about 1 mile north of **Yadus Point**, the east extremity of Ramsay Island. A rock with 17 feet (5.2 m) over it is about 0.25 mile NE of the bare islet. A bank, with a least depth of 34 feet (10.4 m), is 1.3 miles east of Yadus Point.

181 **Tatsung Rock**, 1 mile south of Yadus Point, is bare and has a shoal between it and shore with a least depth of 7 feet (2.2 m) over it. Close west of Tatsung Rock, an islet, drying, above-and below-water rocks extend 0.3 mile offshore.

182 A rock that dries 6 feet (1.8 m) is 0.1 mile south of **Crombie Point**, the south extremity of Ramsay Island. The south coast of Ramsay Island is high and rocky.

183 **Ramsay Passage** *(52°34'N, 131°25'W)* leads between Ramsay Island on the SE and House and Hotspring Islands on the NW. Shoal banks lie in the eastern approach; the shoalest, with 31 feet (9.4 m) over it, is 1.2 miles NW of **Andrew Point**, the north extremity of Ramsay Island. **Kloo Rock**, close-off Andrew Point, is 36 feet (11 m) high and bare. Two rocks, one that dries 4 feet (1.2 m) and the other covered less than 6 feet (2 m), are 0.4 mile east and 0.2 mile ESE, respectively, from Kloo Rock. The passage is obstructed by two shoal fingers extending northward from Ramsay Island. Rocks that dry 1 and 7 feet (0.3 and 2.1 m) and a rock with less than 6 feet (2 m) over it are at the north end of the east finger. A 33 foot (10.1 m) shoal is 0.2 mile NW in the middle of the passage. A rock with less than 6 feet (2 m) over it is 0.3 mile SSW of **Ramsay Point**, the west extremity of the island.

184 **Ramsay Rocks**, 0.9 mile west of Ramsay Point, consist of a rock 21 feet (6.4 m) high, a rock awash, and several drying rocks.

185 **Anchorage** in the coves on the SE side of Ramsay Passage is only suitable for small craft.

APPROACH TO RAMSAY PASSAGE LOOKING SW (1985)



LANDING BEACH AT HOTSPRING ISLAND (1985)



Public **mooring buoys** are in the cove on the east side of the promontory 1.3 miles SW of Andrew Point.

186 **Hotspring Island** and **House Island**, on the north side of Ramsay Passage, have numerous islets, above-water and drying rocks in their vicinity. A narrow passage, with a least depth of 4 feet (1.2 m) and some drying rocks, exists between the islands but is not recommended; it is reported that aircraft land in this passage. On the south side of Hotspring Island is the spring from which it derives its name. The landing beach on the south side near the springs is easily identified by the prominent cabins, which are change houses. One cabin serves as a shelter for a hot tub. Two main pools have been constructed, one hot and the other warm. There are also several tubs and a picnic area. The spring water has a slight smell of sulphuretted hydrogen and a barely perceptible saline taste. The site has been developed by Haida citizens who live in Skidegate. A Haida Gwaii Watchmen basecamp is on Hotspring Island. Boats usually land on the east side of the island, or in calm weather, on the beach on the south side of the island, immediately in front of the main pool and picnic site.

187 Vessels often anchor south of Hotspring Island; the holding ground is reported to be good, but it is exposed and encumbered with drying and below-water rocks.

188 The passage between Hotspring Island and **Murchison Island** *(52°35'N, 131°27'W)* is obstructed at the east end by above-water rocks on a drying reef and a rock with less than 6 feet (2 m) over it. The west end has a rock that dries 3 feet (0.9 m) surrounded by shoal water in mid-channel. Two shoals with 29 and 23 feet (8.8 and 7 m) over them are 0.2 mile off the west coast of Murchison Island.

189 **Faraday Island** is separated from Murchison Island by a passage blocked by above-water and drying rocks.

190 Public **mooring buoys** are in the cove on the NW side of Murchison Island, 0.5 mile west of the 473 foot (144 m) hill. This cove is best entered from the NE; a rock with less than 6 feet (2 m) over it is in the entrance.

191 **Faraday Passage**, between Faraday and Lyell Islands, is not recommended, except for small vessels. **Kogangas Rock**, which dries 4 feet (1.2 m), is in the middle of the west entrance of the passage. A reef with a least depth of 18 feet (5.5 m) over it lies in the middle of the east entrance. Two rocks with 12 and 13 feet (3.7 and 4 m) over them and marked by kelp are 0.15 mile offshore on the south side of the passage.

192 **Lyell Island** forms the north side of Juan Perez Sound, and is separated from Moresby Island by Darwin Sound. The island is composed of hilly land, rising abruptly from the shore, attaining elevations in excess of 2,000 feet (610 m) in its east part. It is densely wooded, and on the low land has some fine timber. The logged off slopes on the east side of the island make it conspicuous from Hecate Strait.

193 **Sedgwick Bay**, which indents the south side of Lyell Island, is deep and free of dangers but too exposed for secure anchorage as southerly winds draw directly up Juan Perez Sound. **Sedgwick Point** is at the west entrance. **Fishing boundary markers** are on both sides of the bay, about 1 mile NW of Sedgwick Point and Kogangas Rock. A logging road on the east side of the bay descends to the beach near a stream entrance, about 3 miles NW of

Kogangas Rock. Some bare logging slopes are on the east side of the bay.

194 **Tides**. — Tidal differences for Sedgwick Bay (Index No. 9753), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.

195 **Bischof Islands** *(52°35'N, 131°34'W)*, consisting of one large and several small islands, all wooded, together with numerous above-water and drying rocks, lie off **Richardson Point**, the SW extremity of Lyell Island. The largest island has a conspicuous dome-shaped hill, 285 feet (87 m) high, in its SW part. A 20 foot (8.8 m) shoal is 0.2 mile ESE of the southern island. The passage between Bischof Islands and Lyell Island is deep and free of dangers in the fairway.

196 **Beresford Inlet** is about 300 feet (91 m) wide with a rock that dries 2 feet (0.6 m) at its narrowest part, which is almost completely blocked by above-water and drying rocks. A rock, with 7 feet (2.1 m) over it and marked by kelp, is 0.3 mile SE of the east entrance point of Beresford Inlet. Entry should be attempted with caution, by small craft only, at or near HW.

197 **Tidal streams** attain 2 to 3 kn in the narrowest part of Beresford Inlet; slack water occurs about the times of HW and LW.

198 A **fishing boundary marker** is on the east shore of the inlet about 0.3 mile inside the entrance.

Darwin Sound

Charts 3808, 3807

199 **Darwin Sound** *(52°37'N, 131°40'W)*, entered between Darwin Point and Richardson Point, is bounded to the east by Lyell and Richardson Islands and to the west by Moresby Island. The sound extends about 13 miles NW. Its west side is indented by several inlets and coves. Navigation of the sound presents no difficulties and it can be used by deep draught vessels.

200 **Tidal streams**. — The flood stream flows up Darwin Sound from the south into the various inlets, and then east through Richardson and Logan Inlets. The ebb stream sets in the reverse manner. The tidal streams attain 2 kn in the fairway abreast Shuttle Island.

Chart 3808

201 **Fishing boundary markers** are on Darwin Point *(52°34'N, 131°37'W)* and Richardson Point.

202 Darwin Point **light** *(774)*, 0.7 mile NW of the point, is shown at an elevation of 42 feet (12.9 m) from a white tower, 43 feet (13 m) high.

203 **Stevenson Cove**, on the west side close within the entrance of the sound, is too deep and confined to provide satisfactory anchorage, except for small craft near the head. An islet is about 0.1 mile north of the east entrance point with a rock awash between it and the point.

204 **Kostan Inlet** *(52°35'N, 131°41'W)* is entered between **Kostan Point** and **Bigsby Point**. Foul ground extends 0.13 mile SE from Bigsby Point. A rock with 8 feet (2.4 m) over it lies in the middle of the fairway about 0.5 mile within the entrance; another rock, about 0.1 mile SE of the previously-described rock, has 6 feet (1.9 m) of water over it. The inlet narrows to about 100 feet (31 m) about 0.6 mile within the entrance, where the least depth is 5 feet (1.5 m). **Tidal streams** in the narrows attain 2 to 4 kn. Passage through the narrows is advised only for small craft at or near HW slack. Sheltered **anchorage** can be obtained in about 4 fathoms (7.3 m) off the sandy beach at the head of the inlet.

205 **Fishing boundary markers** are on Bigsby Point and on the south shore at the entrance to the inlet.

206 **Fresh water** can be obtained at HW from a stream flowing from a lake into the SW corner of an unnamed cove about 1 mile NW of Bigsby Point.

207 **Bigsby Inlet**, entered south of **Jeremiah Point**, extends between high, wooded mountains, precipitous in places. There are no dangers in the fairway but depths are too great for anchorage.

208 Two rocks with 39 and 36 feet (11.9 and 11 m) over them are 0.5 mile ESE and 0.4 mile NE of **Finger Point** in Darwin Sound.

Charts 3808, 3807

209 **Shuttle Island** *(52°40'N, 131°42'W)*, which is wooded, has a dome-shaped appearance from the south. There are navigable channels on both sides of the island. A rock that dries 2 feet (0.6 m) with rocks covered less than 6 feet (2 m) extend up to 0.35 mile off the south end of Shuttle Island. A 30 foot (9.1 m) shoal is 0.2 mile ESE of the SE point of the island.

210 **Hoya Passage**, on the west side of Shuttle Island, is narrowed to about 0.2 mile at its south end by two shoal rocks and again near its north end by a shoal and a drying rock, all on the west side of the fairway.

211 Public **mooring buoys** are in a cove on the west side of Hoya Passage, 0.5 mile within the north entrance. **Fresh water** is obtainable from two hoses, at a concrete float on the north side of the cove.

212 **Shuttle Passage**, on the east side of Shuttle Island, is preferable, as its fairway is wider. The least depth in the passage is 57 feet (17.4 m) over a small bank in the middle of the south entrance.

213 **Lyell Bay** *(52°39'N, 131°39'W)* is foul at the head. A scrub-covered islet about 20 feet (6.1 m) high, cone shaped and a good landmark is 0.25 mile NW of the west entrance point of the bay. An 18 foot (5.5 m) shoal marked by kelp is 0.1 mile farther NW. Shoals, with depths of 31 and 18 feet (9.4 and 5.5 m), lie in the entrance north of the west entrance point. The bay affords **anchorage** for small vessels in about 15 fathoms (27 m) about 0.5 mile from the head. This anchorage is not recommended during SE gales as the wind draws strongly through it from Beresford Inlet.

Chart 3807

214 **Topping Islands** *(52°40'N, 131°41'W)* have 15.5 m in the middle of the passage between them, and foul ground between the east island and the Lyell Island shore. A 10.4 m shoal is 0.2 mile NW of the west island. An unnamed island, with drying rocks close SE and NW of it, is on the east side of Shuttle Passage 0.5 mile NW of Topping Islands.

215 A rock 2 m high is 0.2 mile off the north point of Shuttle Island *(52°40'N, 131°42'W)* and a rock that dries 2.4 m lies between it and the point. A detached rock with 9.1 m over it is 0.3 mile farther north. A drying bank of boulders and shingle, with shoal water close around, projects 0.15 mile from the Lyell Island shore 0.9 mile NE from the north point of Shuttle Island.

216 **Shuttle Reef**, in the middle of Darwin Sound north of Shuttle Island, has above-water, drying and below-water rocks on or near it, some marked by kelp. The passages on both sides of the reef are clear of dangers.

217 **Echo Harbour** *(52°42'N, 131°46'W)* is entered between **Amur Point** and **Echo Point**. The harbour is backed by hills which, toward the head, rise to rugged mountains. A rock with 4.6 m over it is in the outer part of the entrance and a rock that dries 1.2 m is close-off Amur Point. The channel abreast Amur Point is about 91 m wide between abrupt rocky shores. At the head of the harbour there is a steep-to drying mud flat and a narrow grassy beach at the HW line. The harbour affords good **anchorage** for small vessels in about 14 m near the head; the bottom is soft mud and good holding ground.

218 **Gil Islet**, 0.5 mile NW of Echo Point, is wooded and connected to shore by a drying boulder bank. A drying bank with two rocks that dry 3 m on it extends about 137 m offshore, 0.25 mile SE of the islet.

219 **Klunkwoi Bay** is between **Bent Tree Point** *(52°43'N, 131°48'W)* and **Crescent Point**, 1.4 miles north. The former locality **Lockeport** is on the west side of the bay; all that remains are a few piles cut off near the LW mark.

220 A **fishing boundary marker** is on Bent Tree Point.

221 **Klunkwoi Rocks** consist of two rocks about 0.35 and 0.5 mile north of Bent Tree Point. The south rock dries 0.3 m and the north rock is 3 m high with a concrete base of a former daybeacon on it.

222 **Morgan Rock**, with less than 2 m over it, is 0.3 mile NE of Bent Tree Point and a rock that dries 1.5 m is close-off the point. **Commodore Rock**, 0.1 mile off the west shore of Klunkwoi Bay, has a depth of less than 2 m over it.

223 Klunkwoi Bay is best approached between Klunkwoi Rocks and the NW shore.

224 **McEchran Cove**, on the south side of Klunkwoi Bay, is encumbered by **Raven Island** and an unnamed island, with shoal water between them and the east shore, and also by rocks extending off the west shore close to the head. Reefs extend north and south from the unnamed island. McEchran Cove is not recommended as an anchorage.

225 **Anna Inlet**, at the head of Klunkwoi Bay, has an islet connected to the west shore by a drying bank in its entrance. The passage on the east side of this islet is about 61 m wide with a least depth in the fairway of 10.7 m. Sheltered **anchorage** for small craft is available near the head in about 15 m, mud bottom.

226 A **fishing boundary marker** is on the east entrance point to Anna Inlet.

227 **Crescent Inlet**, entered between Crescent Point *(52°45'N, 131°48'W)* and **Triumph Point**, lies between steep wooded mountains and has considerable stretches of beach. **Redtop Mountain**, 2.5 miles north of the head of Crescent Inlet, is partially bare and the most conspicuous peak in the vicinity. The inlet narrows considerably about 2.5 miles within the entrance. A mud flat with a stream flowing through it extends about 0.5 mile from the head of the inlet. **Anchorage** can be obtained in 12 to 16 m, mud bottom, in the basin SW of the narrows. Small craft can obtain anchorage in about 8 m about 0.1 mile NW of the mud flat at the head.

Lyell Island — East Side

Charts 3808, 3807

228 **Gogit Passage** *(52°40'N, 131°26'W)* separates a chain of small islands, about 5 miles long, from Lyell Island. The fairway is narrowed considerably by rocks and shoals. The passages between the islands of the chain should be used with caution only by small vessels.

Chart 3808

229 **Agglomerate Island** *(52°38'N, 131°25'W)* has islets, above-water, drying and below-water rocks lying off its south extremity. Three shoals, two with 20 feet (6.1 m) over them and the other with a depth of 26 feet (7.9 m), are off the west side of Agglomerate Island. The south end of Gogit Passage narrows to about 0.25 mile wide between these shoals and Agglomerate Island.

230 **Kawas Islets** have drying, above- and below-water rocks extending up to 0.2 mile off them.

231 **Tar Rock**, 0.5 mile north of Kawas Islets, is 10 feet (3 m) high and bare. A rock covered less than 6 feet (2 m) and marked by kelp is 0.1 mile SW of Tar Rock and two shoals with depths of 26 and 32 feet (7.9 and 9.8 m) lie 0.15 mile NE and 0.2 mile WSW, respectively, from it.

Charts 3808, 3807

232 **Tar Islands** *(52°40'N, 131°25'W)* so named from a report by First Nations that, on one of them, a tar-like substance oozes between stones on the beach. These islands and islets are a scattered group with numerous drying and below-water rocks between and up to 0.4 mile off them. The north and south islands of the group are wooded; the west extremity of the group is marked by a bare rock 13 feet (4 m) high and a rock that dries 10 feet (3 m). A bare rock islet, 38 feet (12 m) high, with drying and below-water rocks extending 0.2 mile NNW and south of it is about 0.5 mile west of the south Tar Island. Abeam this rock and extending eastward from Lyell Island is a wide shoal finger, with 5 to 6 fathoms (9 to 11 m) over it, which could afford temporary **anchorage** in fine weather. Several shoals with depths of 21 to 30 feet (6.4 to 9.1 m) are just to the north. Kelp grows profusely in this area.

Chart 3807

233 The coast of Lyell Island, from about 1 mile SW of **Gogit Point** *(52°41'N, 131°26'W)* to **Fuller Point**, is indented and fringed with rocky ledges and drying and below-water rocks on which masses of kelp are present during the summer. In several places, there are islets on the drying reefs. **Windy Bay** is encumbered with drying and below-water rocks and thick kelp. A Haida Gwaii Watchmen basecamp is in Windy Bay.

234 A group of three rocks, the highest of which dries 2.7 m, is 0.3 mile east of Gogit Point; the group can be passed on either side. A bank with a least depth of 9.4 m is about 0.7 mile ENE of Gogit Point.

235 **Skaga Island**, 1.9 miles east of Gogit Point, has a few stunted trees and some scrub on its summit and is steep-to on all sides.

236 **Tuft Islets**, three in number and connected by drying reefs, are 1 mile NW of Skaga Island. The south and highest islet has a few trees and some scrub on its summit; the remainder are bare.

237 **Flatfish Bank** *(52°43'N, 131°18'W) (Chart 3853)*, with a least depth of 39 fathoms (71 m), lies between 4 and 6 miles east of Fuller Point.

238 An unnamed promontory is 0.3 mile ESE of **Dodge Point** *(52°44'N, 131°29'W)*. A beach of shingle and boulders fringes the shore for about 1 mile SE of this promontory. Depths decrease gradually up to the beach, off which there is considerable kelp. A steep-to rock covered 6.7 m and marked by kelp, with a 6.7 m shoal 0.3 mile north, are 1.5 miles east of Dodge Point. A reef with a rock that dries 0.9 m in its middle extends 0.7 mile NE of Dodge Point. A rock, that dries 5.5 m and marked by kelp, is 0.8 mile west of Dodge Point and 0.3 mile offshore.

Laskeek Bay

239 **Laskeek Bay** is the wide indentation between Dodge Point and Vertical Point *(52°54'N, 131°37'W)*, 11 miles NNW. It is the approach to Atli, Richardson, Logan, Dana and Selwyn Inlets.

240 **Lost Islands**, 3.8 miles north of Dodge Point, consist of three islands, two of which are wooded, and several small islets and rocks. A rock that dries 0.3 m is close SE of the islands.

241 **Reef Island** *(52°52'N, 131°31'W)* is wooded and cliffy in places on its south side. Three fingers of islets, drying, above- and below-water rocks extend up to 0.6 mile SE from the SE shore.

242 **South Low Island**, 1.8 miles NW of Reef Island, has a rock 4 m high close-off its NW point, connected to it by a drying reef. A rock that dries 5.5 m is close north of the island.

Charts 3807, 3894

243 **Low Island** *(52°55'N, 131°32'W)* is wooded and has rocks that dry 5.8 and 5.5 m close-off its SE and east sides. The west side of the island is steep-to. An islet is close NW of Low Island, joined to it by a drying ridge.

244 *Low Island* **light** *(see LL 775)*, is on the islet close-off the north end of the island.

245 **Vertical Point** *(52°54'N, 131°37'W)* is a narrow peninsula projecting from the SE side of Louise Island. It is remarkable for the shape of the beds of limestone, in excess of 91 m thick, of which it is composed. **Limestone Islands** are NE of the point. The channel between the point and the islands is foul, and a **tide race** is formed in it by the south-going tidal stream.

246 A group of widely separated rocks that dry from 0.3 to 1.4 m, with below-water rocks in the close vicinity, lie in the middle of the passage between South Low Island and the east Limestone Island.

Chart 3807

247 **Kunga Island** *(52°46'N, 131°34'W)*, on the south side of Laskeek Bay, is a good landmark for making the entrance of the bay. Its shores are fringed with rocky reefs with detached rocks and shoal water up to 0.2 mile offshore. **Kelo Rocks** extend 0.25 mile from the SE point of Kunga Island. A ridge of above- and below-water rocks extends from the middle of the south side of the island. A detached rock, with 7.6 m over it, is 1.1 miles NE of Kelo Rocks.

248 **Nob Rock**, 5 m high, bare and steep-to, is about 0.9 mile NE of Kunga Island. From some directions it has the appearance of a submarine on the surface.

249 **Titul Island**, off the north shore of Kunga Island, has low limestone cliffs. A rock that dries 5.8 m is close-off the south point of the island.

250 **Klue Passage**, entered east of **Klue Point**, leads between Kunga Island and **Tanu Island**. **Tanu Rock**, on the west side of the passage, dries 0.9 m and has foul ground marked by kelp extending 0.15 mile north and SSE from it. About 0.3 mile SW of Tanu Rock, a rocky ledge with below-water rocks close-off it extends 0.1 mile off the shore of Tanu Island. A clearing, close by this ledge, was the site of the former First Nation village **Tanu**. The village, when abandoned in 1887, had numerous totem poles. A Haida Gwaii Watchmen basecamp is at the NE end of the island.

Atli Inlet

251 **Atli Inlet** *(52°43'N, 131°37'W)* is entered east of **Tsinga Point** and **Ustas Point**. An islet with a rock that dries 5.2 m close SE is just off Ustas Point.

252 **Powrivco Bay** is on the south side of the entrance to Atli Inlet. A shoal 6.7 m deep, marked by kelp, is on the east side of the entrance. Foul ground, consisting of cables from former logging operations, is reported near the head of the bay. **Anchorage is not recommended.**

253 **Beljay Bay**, the west arm of Atli Inlet, is entered between **Powrivco Point** and **Beljay Point**.

254 A conspicuous landslide is on the north side of the inlet abreast Beljay Point. **Fishing boundary markers** are on Powrivco Point and on the point 0.8 mile SE.

255 **Takelley Cove** is the head of Atli Inlet.

256 Vessels of moderate size can obtain **anchorage** in Takelley Cove in about 42 m, mud, about 0.2 mile from the head, or in Beljay Bay in about 46 m, about 0.25 mile from the head. Anchorage in Powrivco Bay is not recommended as there is insufficient swinging space where depths are suitable.

Richardson Inlet

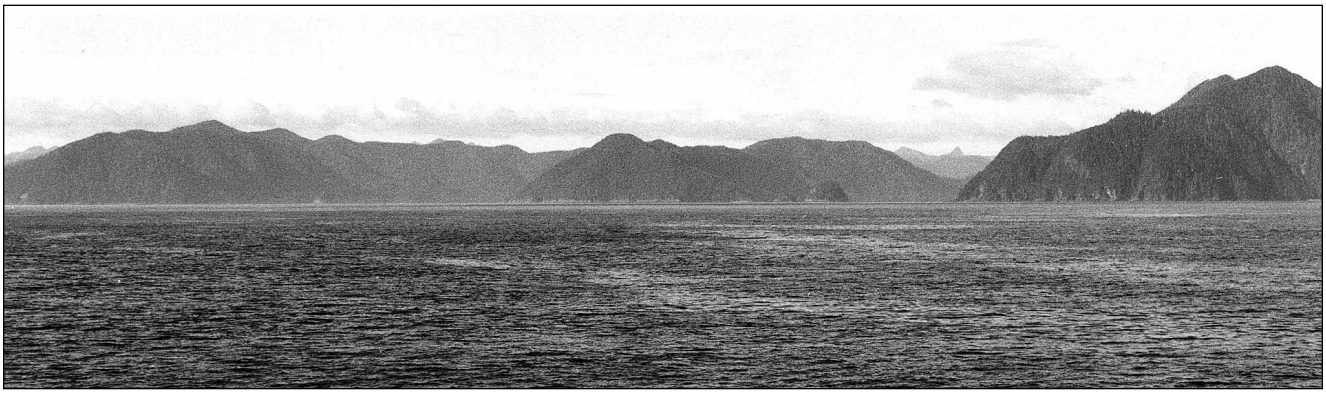
257 **Richardson Inlet** *(52°44'N, 131°40'W)* entered between Tsinga Point and Kelo Rocks leads 5 miles west between Kunga and Tanu Islands on the north and the NW part of Lyell Island on the south. **Richardson Island** is at its western end. At **Skudas Point** and **Tanu Point**, the inlet separates into two passages leading to Darwin Sound and Logan Inlet.

258 **Kul Rocks** are 1 mile inside the entrance and 0.5 mile off the south shore. They consist of two large above-water rocks and some drying and below-water rocks. The highest rock has a few stunted trees and some scrub on its summit. **Stansung Islets**, close SW, extend 0.3 mile from the south shore. **Dog Island**, 0.5 mile farther west, is wooded. A rock 1 m high is 0.1 mile off the north shore and 1.3 miles west of Klue Point.

259 **Richardson Passage** leads SW from Richardson Inlet between Lyell and Richardson Islands into Darwin Sound. An islet and a rock that dries 5.5 m, NW of **Lyell Point**, narrow the passage to less than 0.1 mile wide. The passage should be used only by small craft. **Tidal streams** of considerable strength are encountered in the narrow portion of the passage. **Fishing boundary markers** are on Lyell Point and the south extremity of Richardson Island.

260 **Tanu Passage** leads between Richardson and Tanu Islands into Logan Inlet; it is deep and free of dangers in the fairway. The NE shore between Tanu Point and **Stalkungi Cove**, 1.8 miles NW, is fringed with boulders and shingle extending up to 91 m offshore. Stalkungi Cove is free of dangers within it, but a rock that dries 5.2 m is close south

APPROACH TO DANA AND LOGAN INLETS LOOKING SW (1985)



ENTRANCE TO LOGAN INLET (1985)



of the west entrance point. **Stalkungi Point** is the north entrance point of Tanu Passage.

Logan Inlet

261 **Logan Inlet** *(52°47'N, 131°40'W)*, on the north side of Tanu Island, connects with Darwin Sound between Triumph Point and **Kwun Point**, the north extremity of Richardson Island. **Flower Pot Island**, in the east entrance to Logan Inlet, has a dome-shaped summit and is a conspicuous landmark when approaching from seaward. Take care not to mistake it for Helmet Island in the entrance to Dana Inlet. A rock that dries 0.9 m and a 9.8-m shoal are 0.2 mile east and another 9.8-m shoal is 0.3 mile SE of Flower Pot Island. An islet, from which a drying ledge extends nearly 0.1 mile NW, is close-off the south shore 1.4 miles WSW from Flower Pot Island. When entering the inlet pass north of Flower Pot Island and keep in mid-channel.

Dana Inlet

262 **Dana Inlet** *(52°48'N, 131°43'W)*, entered north of **Porter Head**, the east end of **Tangil Peninsula**, is bounded on the north by **Talunkwan Island**. The inlet leads to Dana Passage and Selwyn Inlet. The shores are high and bold, and the fairway is deep with gradual shallowing at its west end.

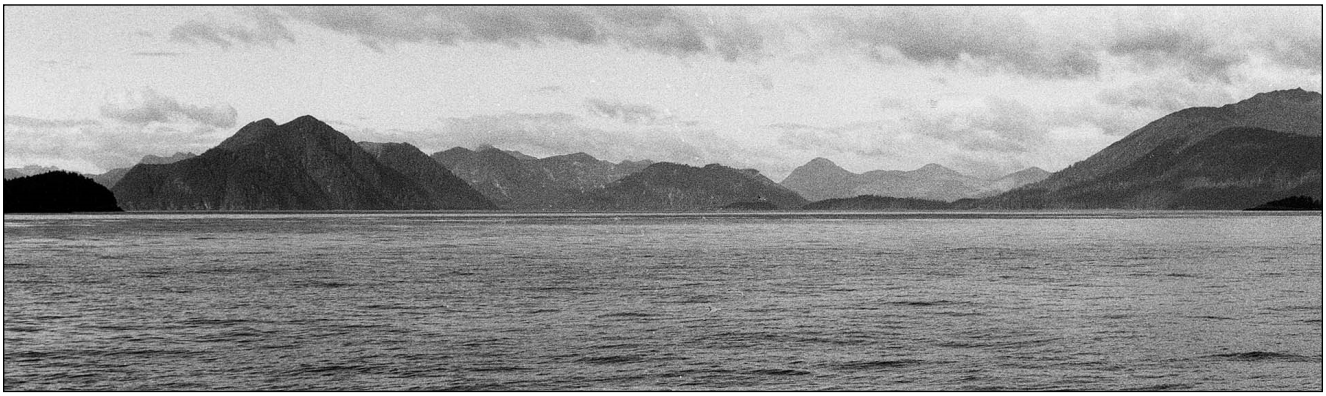
263 **Helmet Island** and the islet close SE of it are both dome-shaped and make conspicuous landmarks when approaching Dana or Logan Inlets. Take care not to mistake this island for Flower Pot Island, as from most points of view the narrow passage between Helmet Island and the islet is not seen. **Dwight Rock**, with a depth of 5.2 m, is on the north side of the fairway, near the entrance; a large kelp patch covers the area. **McGee Point**, 2.8 miles WSW, is the south extremity of Talunkwan Island.

264 **Dana Passage** *(52°50'N, 131°50'W)* leads from Dana Inlet between Talunkwan and Moresby Islands into the SW part of Selwyn Inlet. The fairway has a minimum width of about 91 m with a least depth of 9.1 m. **Beatrice**

ENTRANCE TO DANA INLET (1985)



APPROACH TO SELWYN INLET LOOKING SW (1985)



Shoal, with a least depth of 3.7 m over it, is almost in mid-channel at the north end of the passage and is connected to the south shore by shoal water. Apart from this shoal there are no dangers in the fairway, and the passage can be navigated by small vessels by keeping in mid-channel until the south shore of Pacofi Bay begins to open up, then favour the east shore to pass east of Beatrice Shoal. The passage is best navigated at or near HW.

Selwyn Inlet

Charts 3807, 3894

265 **Selwyn Inlet**, entered north of **Heming Head** *(52°50'N, 131°39'W)*, trends 6 miles west to **Kilmington Point**, on its north side, then NW to join Carmichael Passage, which leads into Cumshewa Inlet.

266 **Tides**. — Tidal differences for Pacofi Bay (Index No. 9775), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.

Chart 3807

267 The coast of Louise Island between Vertical Point *(53°54'N, 131°37'W)* and **Nelson Point**, 2 miles SW, is rugged and irregular, with numerous drying and below-water rocks close offshore. A rock with 8.2 m over it and marked by kelp is 0.3 mile NE of Nelson Point. The head of the bay entered west of Vertical Point is foul.

268 **Breaker Bay**, south of Nelson Point, is too exposed to SE to provide satisfactory anchorage. A detached reef with 10.4 m over it is in the north part of the bay and numerous drying rocks are in the south part of the bay.

269 **Haswell Island** *(52°52'N, 131°41'W)*, the north entrance point of Selwyn Inlet, is joined to **Dass Point** by a shoal ridge. Shoal depths extend 0.1 mile off the north, NE and SE sides of the island. **Kingsway Rock**, which is 10 m high and bare, and a rock covered less than 2 m, marked by kelp, are about 0.5 mile east of Haswell Island. A 6.1 m shoal, marked by kelp, is 0.2 mile south of Kingsway Rock.

270 *Haswell Island* **light** *(see LL 776)*, is on the south extremity of the island.

271 **Procter Rocks** *(52°52'N, 131°45'W)* consist of an above-water rock, drying and below-water rocks extending 0.25 mile east from **Harbridge Point**, the north extremity of Talunkwan Island.

Chart 3811

272 **Thurston Harbour** *(52°50'N, 131°44'W)* is sheltered to the north by a peninsula of which **Thompson Point** is the SE extremity. A rock that dries 2 feet (0.6 m) is 0.6 mile from the head, close-off a drying bank extending 0.1 mile from the south shore.

273 Good **anchorage** can be obtained in about 16 fathoms (29 m), mud, about 0.25 mile SE of Thompson Point, or in about 13 fathoms (24 m), 0.2 mile SW of the same point. Small craft can anchor in about 10 fathoms (18.3 m) 0.5 mile west of Thompson Point.

274 **Rockfish Harbour** *(52°53'N, 131°48'W)*, entered north of **Alfred Point** on the south side of Louise Island, is sheltered to the south by comparatively low land. Rocky ledges extend a short distance from both sides of the entrance, and foul ground, with rocks above and below water, extends a short distance from Alfred Point. The shores of the harbour are fringed with sand and shingle beaches which, on the north side near the head, extend up to 450 feet (137 m) offshore. Low, light coloured cliffs on the north side make a good landmark for identifying the harbour entrance.

275 Small vessels can obtain **anchorage** in Rockfish Harbour in 9 to 12 fathoms (16 to 22 m) about 0.5 mile from the head. It is not recommended except as a fair weather anchorage.

Chart 3807

276 Between Alfred Point and Kilmington Point, about 1.5 miles SW, drying and below-water rocks are within 0.1 mile of the shore.

277 The SW arm of Selwyn Inlet *(52°51'N, 131°50'W)* is entered SE of **Selwyn Point**. A rock with less than 2 m over it is 0.8 mile SE of Selwyn Point, close-off the NW part of Talunkwan Island.

278 *Selwyn Point* **light** *(see LL 777)* is on the point.

279 **Cecil Cove** is entered 0.5 mile SW of Selwyn Point. A 6.7 m shoal is on the south side of the entrance to the cove. **Fishing boundary markers** are on both shores at the entrance to Cecil Cove.

280 **Anchorage** for small craft is obtainable in 11 to 13 m near the drying flat fronting **Big Goose Creek**.

Chart 3811

281 **Pacofi Bay** is entered south of **Alford Point** *(52°51'N, 131°52'W)*. A rock that dries 15 feet (4.6 m) lies 0.1 mile ENE of Alford Point. A drying ledge with **Alford Rock** on it extends east from the point. **Swinburne Islet** is close offshore on a drying bank about 0.2 mile SW of Alford Point. Both the north and south shores of the bay are fringed with boulder drying banks up to 300 feet (91 m) offshore. At the head, a stream flows through a drying flat with scattered boulders, which extends about 0.15 mile offshore and covers at half tide.

282 **Fishing boundary markers** are on both shores at the entrance to Pacofi Bay.

283 **McConnachie Shoal**, with a least depth of 17 feet (5.2 m) over it, lies near the middle of Pacofi Bay and can be passed on either side but the passage to the north is recommended. A shoal, close-off the shore to the SSE, has a least depth of 12 feet (3.7 m).

284 **Amur Rock**, with less than 6 feet (2 m) over it, **Locke Shoal**, with a rock that dries 1 foot (0.3 m) at its SW end, and a rock with 3 fathoms (5.5 m) over it, almost fill the south side of Pacofi Bay near the head. A narrow passage south of Locke Shoal leads to the site of the abandoned settlement **Pacofi** where a fishing lodge is now located.

285 **Tides**. — Tidal differences for Pacofi Bay (Index No. 9775), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.

286 **Anchorage** can be obtained in Pacofi Bay about 0.15 mile off the drying flat at the head in 9 to 12 fathoms (17 to 22 m), with the SE side of Swinburne Islet in line with Alford Point, bearing 042°, and the extremity of the land on the SW side of the entrance of Dana Passage bearing 097°.

Chart 3807

287 The NW arm of Selwyn Inlet is entered between Kilmington Point *(52°52'N, 131°49'W)* and Selwyn Point 1 mile east.

288 **Trotter Bay**, 1.8 miles NW of Selwyn Point, has an 8.5 m shoal in its south approach, a rock with less than 2 m over it in the middle of its entrance and a drying bank at its head. The bay is suitable only for small craft. An abandoned log dump is on the south side of the bay.

289 A **fishing boundary marker** is on the north entrance point to Trotter Bay.

290 **Selwyn Rocks** *(52°54'N, 131°52'W)*, a reef of drying and below-water rocks, are on the east side of the

fairway. **Traynor Creek** flows into the bay close SE of Selwyn Rocks.

Chart 3894

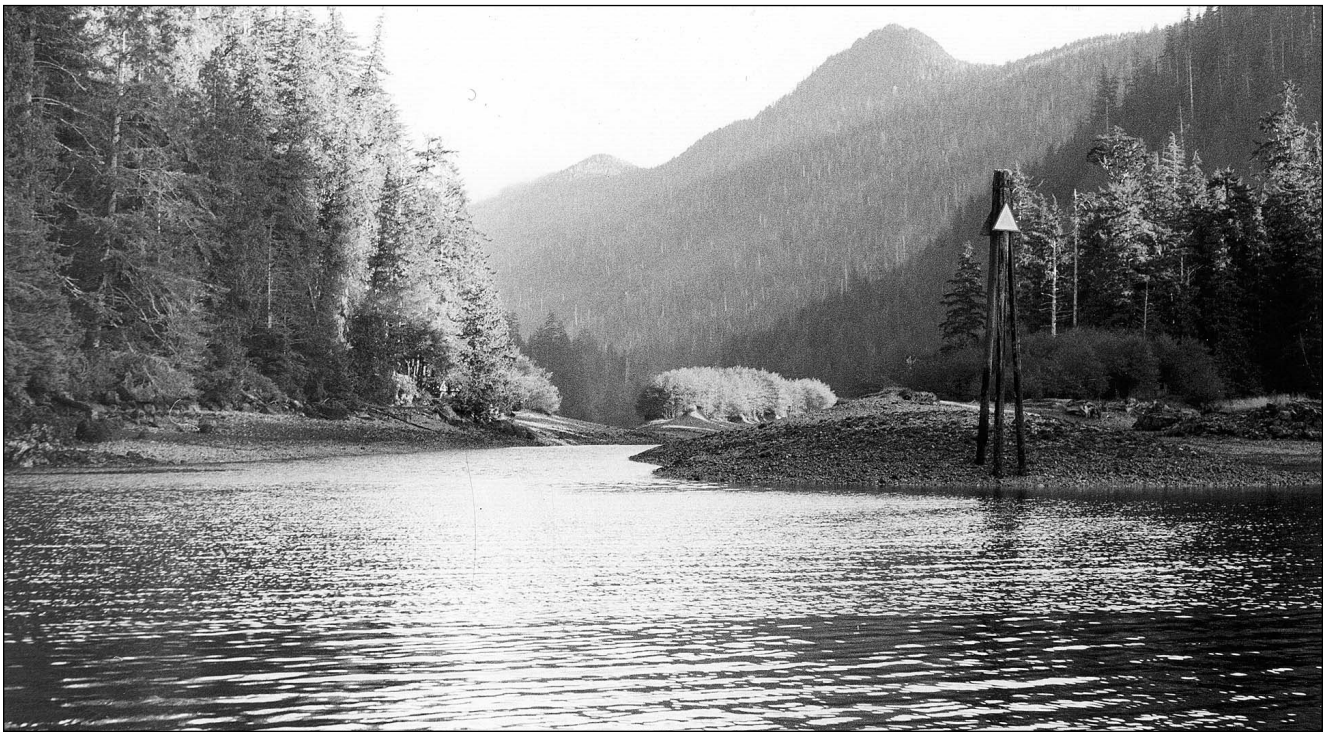
291 **Sewell Inlet** *(52°53'N, 131°57'W)* is entered south of **Sewell Point**. Both shores are fringed with shallow water and beaches of shingle and boulders that extend up to 91 m offshore. At the head, the inlet narrows to 0.2 mile wide between a drying shingle spit projecting from a low point on the north shore and a drying mud bank, with a low wooded islet on it, extending from the south shore. A shoal with 6.4 m over it is near the middle of the inlet. **Sewell Logging Camp**, on the south side of the inlet near the head, has a **wharf** and **float** protected by a **breakwater** (1985). There is a post office (V0T 1V0), a school, recreation centre and telephone facilities. No fresh water or fuel is available, except for emergencies. Three oil tanks are conspicuous. A logging road across Moresby Island connects the camp with the head of Newcombe Inlet in Tasu Sound on the west coast. Transportation is by water through Louise Narrows to Moresby Camp in Gillatt Arm and then by road to Sandspit. A private **mooring buoy** lies at the head of the inlet, however, this area is a **booming ground** generally filled with logbooms.

292 **Anchorage** in 27 to 30 m, mud, can be obtained in the middle of the fairway about 1 mile from the head.

293 **Lagoon Inlet** *(52°56'N, 131°55'W)* is approached north of Sewell Point. A rock with 7 m over it is 0.3 mile north of Sewell Point. The shores of the inlet are fringed with shingle and boulder beaches. Two shoals with depths of 8.5 and 5.5 m over them lie in the middle of the inlet near the head. A very narrow obstructed passage about 1.5 miles within the entrance leads to a lagoon with an extensive drying flat at its head. **Tidal rapids** are formed in the narrows and entry to the lagoon should be effected only by small craft at HW slack, which occurs at about the same time as HW at Prince Rupert. A rock 2 m high, with a drying rock close WNW, are 0.2 mile ESE of the narrows. The ruins of an abandoned cannery are in a small bight south of the entrance to the lagoon at the mouth of **Dass Creek**.

294 Lagoon Inlet affords **anchorage** in 48 m, mud, about 0.5 mile within the entrance, or in 29 m, mud, about 0.3 mile east of the cannery ruins. Small craft can obtain anchorage within the lagoon in 12 to 18 m but caution should be observed as heavy squalls can be expected from the valley at the head during periods of bad weather.

LOUISE NARROWS SOUTH ENTRANCE (1985)



LOUISE NARROWS LOOKING NORTH (NEAR NORTH END) (1985)



Carmichael Passage

295 **Carmichael Passage** leads from the north end of Selwyn Inlet to the west end of Cumshewa Inlet between mountains rising steeply from its shores. Vessels up to 24 m long drawing 3.7 m use the passage, but local knowledge is advised.

296 In the south approach to the passage, a rock with 4.3 m over it is 0.1 mile off the east entrance point, and a rock that dries 2.2 m is on the west side of the fairway, 0.3 mile NW. A rock, 2.4 m high, on the east side of the fairway, is connected to the drying bank at the south entrance to Louise Narrows. About 1 mile north of the narrows the fairway is reduced to less than 0.1 mile wide, first by a gravel bank protruding from the west shore and then by a rock, 1.7 m high, connected to the east shore by a drying bank. A detached rock that dries 0.2 m is close SW of this islet. North of this restriction the passage widens and deepens gradually toward its junction with Cumshewa Inlet.

297 A **fishing boundary marker** is on the Moresby Island shore at the south end of Carmichael Passage.

298 **Louise Narrows** *(52°57'N, 131°54'W)*, the narrow drying section of Carmichael Passage, is about 0.8 mile long. Except for a dredged channel, the narrows is filled with shingle and stones that dry as much as 2.3 m. This channel passes east of the wooded islet inside the narrows. At HW the west side of this islet could be mistaken as a passage. Bends in the channel obscure vision of approaching traffic.

299 A **dredged channel** 12 m wide was made in 1967 and redredged in 1981 with depths in the vicinity subject to change due to silting. The channel is reported to be reduced to 9 m wide (1997). The least depth is 0.3 m, abeam the wooded islet. The optimum time to transit Louise Narrows is on the rising tide when the top of the drying banks are just visible and the edge of the channel is well defined.

300 **Tidal streams**. — The flood stream enters Carmichael Passage from north and south and flows at a comparatively low rate until the drying bank in Louise Narrows is covered. After this, due to a slight hydraulic gradient, the flow is entirely south up to 3 kn, gradually decreasing as HW slack is approached. With the falling tide the stream flows north until the bank in Louise Narrows uncovers, after which there is a slight stream north of the bank but very little south of it.

301 A starboard hand **daybeacon** is at the south entrance to Louise Narrows. A port hand **daybeacon**, on the north end of the wooded islet midway through the narrows,

faces southbound traffic only. The upstream direction for aids to navigation is when proceeding north.

302 **Mabbs Islet**, close-off the NW point of Louise Island, is steep-to. A rock with 11.7 m over it is in mid-channel 0.2 mile SW of the islet, and a drying rocky ledge extends about 0.2 mile north from the south side of an indentation about 0.8 mile SSE and a 3.9 m shoal is 0.4 mile west. A rock with a depth of 1.5 m over it is 0.1 mile NNE of Mabbs Islet.

303 **Nedden Island** is 0.6 mile SSE of **Barge Point**. A rock 1.8 m high is close-off its north side, and a rock that dries 4.5 m is close west of its south extremity. Between Barge Point and a position about 0.5 mile south several drying rocks are up to 0.2 mile offshore. A rock with 3.4 m over it is 0.3 mile SW and a rock with 4.2 m over it is 0.3 mile north of Nedden Island.

Cumshewa Inlet and Approach

304 **Louise Island** *(53°00'N, 131°40'W)* is mountainous. The bare logging slopes on its east side are conspicuous from Hecate Strait. In the SE part of the island **Mount Carl**, elevation 937 m, and **Mount Kermode**, a steep bare pinnacle on the west side, are conspicuous. An unnamed peak, 1,015 m high, is about 1 mile WNW of Mount Carl.

305 **Offshore bank**. — An extensive bank *(53°00'N, 131°27'W)* with a least depth of 12.8 m over a bottom of rock, gravel and shells, lies in the approach to **Cumshewa Inlet**. Several shoals with depths between 16.5 and 18.3 m are within 3 miles east and SE of the bank.

306 **Skedans Islands** *(52°57'N, 131°34'W)* have above-water rocks and shallow water between them. A rock that dries 2.7 m is 0.4 mile ESE off the south Skedans Island and a rock with 4.4 m over it is 0.4 mile SW of the islands. A navigable passage, 0.3 mile wide, leads between the west island and the islet SSE of Skedans Point through which the **tidal streams** form a race.

307 **Skedans Bay**, SE of Skedans Islands, has an extensive drying ledge with three above-water rocks on it projecting from its north shore. An islet, 71 m high, is on the south side of a sandy beach at the head of the bay. Several rocks that dry from 0.9 to 3.3 m lie up to 0.4 mile east from this islet and two rocks that dry 1.4 and 2.2 m are 0.5 mile NE of the islet. Numerous below-water rocks marked by kelp lie in the approaches to Skedans Bay. A large waterfall, visible for some distance, marks the location where **Skedans Creek** enters the bay.

308 **Skedans Point** *(52°58'N, 131°36'W)* forms the south entrance point of Cumshewa Inlet. It is a high bluff, with an elevation of about 31 m, connected to Louise Island by a narrow neck of low land. The point is surrounded by a drying rock ledge. Islets and drying rocks lie offshore south and SW of the point. The abandoned First Nation village **Skedans** is west of the point. Few remains of the village are visible. A Haida Gwaii Watchmen basecamp is at Skedans.

309 **Cumshewa Island**, close-off **Cumshewa Head** *(53°02'N, 131°36'W)*, is conspicuous from north. Shoal water with two rocks that dry 5 and 2.2 m projects 0.3 mile off the SE part of Cumshewa Head.

310 **Cumshewa Rocks** are a widely scattered group of rocks lying between 0.4 and 0.9 mile SE of Cumshewa Island. The centre rock is 1 m high and the others dry 0.7, 3 and 2.3 m. Several shoals, marked by kelp, lie on a ridge across the entrance to Cumshewa Inlet between Cumshewa Head and Skedans Point.

311 **Kingui Island** is connected to the south shore of Cumshewa Head by a narrow ridge of boulders that dries at LW. Foul ground, with a rock that dries 3 m on it, extends 0.15 mile south and SE of the island.

312 Kingui Island **light** *(778)*, on the SW extremity of the island, is shown at an elevation of 7.8 m from a skeleton tower.

313 **Girard Point** *(53°00'N, 131°40'W)*, on the south side of the inlet, is low and sandy.

314 **Fairbairn Shoals**, a 2 mile wide shoal finger, extends northward from the vicinity of Girard Point to within 0.5 mile of the north shore of the inlet. These shoals, on which there is a rock that dries 2.2 m, are covered with thick kelp in summer and autumn. **McLean Shoal**, at the north extremity of Fairbairn Shoals, has a depth of 2.4 m over it.

315 **Haans Islet**, 0.2 mile NW of McLean Shoal, is connected by a drying bank to the north shore abreast the abandoned First Nation village **Cumshewa**. No visible trace of the settlement remains. A rock that dries 0.7 m, close south of Haans Islet, narrows the channel between it and McLean Shoal to about 0.15 mile; the least depth in this channel is 25.2 m.

316 **McCoy Cove**, east of Haans Islet, has a drying bank extending 0.2 mile from its head with rocks that dry 0.9 and 1.3 m, 0.2 mile further off. The cove offers temporary **anchorage**, in fine weather, at its entrance on the edge of the tidal stream.

317 **Tides**. — Tidal differences for McCoy Cove (Index No. 9790), referenced on Rose Harbour, are given in the Tide Tables, Volume 7.

318 **Tidal streams** between Haans Islet and McLean Shoal attain 3 kn on the flood and 2 kn on the ebb.

319 **Lights. — Buoys**. — Starboard hand **buoy** "C8" is on the north side of the fairway 0.5 mile WNW of Kingui Island.

320 Port hand **buoy** "C7" marks McLean Shoal.

321 *Haans Islet* **light** *(see LL 780)*, is on a drying ledge south of the islet.

322 McCoy Cove Sector **light** *(779)* is on the east side of the cove. The white sector indicates the preferred channel between Haans Islet and McLean Shoal.

323 **Davies Shoal**, with a least depth of 6 m, is in the middle of the inlet west of Fairbairn Shoals. Thick kelp is present over the shoal during summer and autumn.

324 **McLellan Island** is connected to the north shore by a drying bank. Shallow water extends up to 0.3 mile off the island. Between McCoy Cove and McLellan Island the land rises gradually to a summit 417 m high.

325 **Kitson Point** is on the south side of Cumshewa Inlet SW of McLellan Island. A drying flat, SE of the point, extends about 0.25 mile offshore; it fronts a small bight into which **Mathers Creek** flows. Shallow depths between this flat and a position about 1 mile SE extend up to 0.4 mile offshore; dense kelp is present during summer and autumn.

326 Between Kitson Point and **Renner Point**, a bold point 3.5 miles west, the shore is steep-to.

327 **Beattie Anchorage** is about 1.3 miles SW of Renner Point. Two islets, the highest with an elevation of 8 m, and a rock that dries 4.7 m lie close-off the south side of the bay. Beattie Anchorage has a logging camp with a **booming ground** marked by **buoys** connected by cables on the bottom. Small craft can find good shelter at the head of the anchorage, south of the islets.

328 A **submarine pipeline** (sewer outfall) extends from the east part of the bay.

329 **Conglomerate Point** *(53°04'N, 131°51'W)* rises abruptly to the summit of a small hill, 98 m high, which provides identification. Between this point and McLellan Island there are several small bays with sand and gravel beaches and shallow water extending up to 0.25 mile offshore.

330 **Duval Rock**, with 0.9 m over it, is 1.3 miles WSW of Conglomerate Point. Two rocks, both 1 m high, and shoal water lie between Duval Rock and the shore NW. **Dawson Cove**, about 1 mile west of the rock, has a reef that dries 2.4 m in its centre. Temporary **anchorage** in fine weather can be obtained in 18 to 29 m off the entrance to the cove.

331 **Oliver Islet** *(53°02'N, 131°56'W)* is wooded and appears as a tall narrow column with a dome-shaped summit when viewed from east of Renner Point. A rock that dries 4.1 m is 0.15 mile west of the islet.

332 **Newcombe Peak**, 1.5 miles SW of Barge Point, is a bare rocky pinnacle that makes a good landmark.

333 **Gillatt Arm**, entered north of Barge Point, has high land on its south side. A drying gravel spit projects 0.2 mile from shore about 0.5 mile NW of Barge Point. **Davey Islets** are the outermost of several islets connected to the north shore by drying banks. A rock with less than 0.9 m over it and two rocks that dry 3.7 m are up to 0.3 mile west of Davey Islets.

334 **Aero**, on the north side of Gillatt Arm, is an abandoned logging camp. The ruins of a wharf are all that remain. The remains of another wharf are onshore 0.3 mile NW of Davey Islets.

335 **Marine farm** facilities are on the north side of the point 1.2 miles WNW of Davey Islets (1986).

336 **Gordon Cove**, on the south side of the head of the arm, has **Braverman Creek** flowing into it. North of the cove **Pallant Creek** flows into a bay filled by an extensive mud flat.

337 Gillatt Arm affords **anchorage** in about 25 m, mud, in mid-channel about 0.5 mile from the head. A private **mooring buoy**, used by log barges, is near the head.

338 Small craft can obtain **anchorage** with good shelter in the middle of Gordon Cove in 10 m, mud.

339 **Moresby Camp**, at the head of Gillatt Arm, although unoccupied (1988) is a base for supplying logging camps south of Louise Narrows. A gravel road connects it to Sandspit and there is a large shed in disrepair, a large parking lot and several picnic tables. A causeway extending along the north side of the drying flats north of Gordon Cove has a large float with an approach ramp on its north side. The camp **float** has a notice (1988) stating "Use at own risk". A logging road crosses Moresby Island from Moresby Camp to Peel Inlet on the west coast.

340 A rock, with 5.5 m over it, is 0.1 mile offshore in the approach to Moresby Camp.

Cumshewa Inlet to Spit Point

Charts 3894, 3890

341 Between Cumshewa Head *(53°02'N, 131°36'W)* and Spit Point, 16 miles NNW, the land is densely wooded,

low and fringed with beaches. Near Cumshewa Head the beaches are almost entirely composed of boulders, but toward Spit Point they show more gravel and sand.

342 **Depths**. — With the change in character of the land, shallow water extends farther offshore, the 10 m line running close-off Cumshewa Head and 5 miles off Spit Point.

343 Mariners are advised to exercise **caution** when navigating within the 10 m line north of Cumshewa Head as uncharted shoals may exist; the bottom consists of shingle and boulders and is subject to change after winter gales.

344 **Gray Point**, 5 miles NNW of Cumshewa Island, is low; a boulder beach with a flat islet, 3 m high, at its extremity extends nearly 0.3 mile from the point. Depths of less than 5 m lie within 1 mile of the point and kelp grows profusely in the shallow water off it and along the coast south and west.

345 **Gray Bay**, on the west side of Gray Point, has a sandy beach extending up to 0.4 mile from shore with depths less than 5 m almost 1 mile off it.

Chart 3890

346 **Sheldens Bay** *(53°10'N, 131°45'W)* is the south part of a large bight entered north of an unnamed point with a large boulder bank and numerous detached drying and below-water rocks surrounding it. **Dogfish Bay** and an unnamed bay, both of which dry, indent the south shore of Sheldens Bay.

347 **Copper Bay**, west of Sheldens Bay, is so named because of several copper mines, which were once worked in this area. It is filled with a drying flat through which flows **Copper Creek**. A rock pillar 19 m high is on the north side of the bay, near an old mine shaft.

348 **Dangers**. — A rock awash surrounded by several large boulders with depths less than 2 m over them, as well as numerous shoals, with depths of 2.1 to 4.6 m, lie in the approaches to Copper and Sheldens Bays. Isolated uncharted boulders may exist.

349 **Caution**. — Anchorage on the flats off Copper Bay is not recommended because of the rocks and shoals.

350 **Cape Chroustcheff**, 3.5 miles north of Copper Bay, is low, dark in appearance and conspicuous from the SE; it should not be passed nearer than 6 miles except by small craft, with **caution**.

351 **Spit Point** *(53°16'N, 131°49'W)*, the south entrance point of Skidegate Inlet, is low, wooded and composed of sand deposits. A sand spit that dries 0.6 m at its north end extends 2.5 miles north and NW of Spit Point; the south half is steep-to on its west side. Depths of less than 5 m extend 3.5 miles east and ESE of the point.

352 Sandspit Aeronautical Beacon **light** *(784)* is shown from a tower at Sandspit Airport. This beacon is activated only during poor visibility. To activate call Prince Rupert Coast Guard Radio (VAJ).

353 **Radiobeacons**. — Sandspit radiobeacon, 2 miles SSE of Cape Chroustcheff, is a continuously operating radiobeacon.

354 Sandspit Differential Global Position System (DGPS) transmitter is 1 mile NW of Cape Chroustcheff. *See Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

355 Numerous towers with red air obstruction **lights** are at the Sandspit Airport.

Skidegate Inlet

Charts 3890, 3891

356 **Skidegate Inlet** *(53°16'N, 131°55'W)*, entered between Spit Point and **Dead Tree Point**, 7 miles NW, and Skidegate Channel, which is narrow and shallow, separate Moresby and Graham Islands. The shores of the entrance are fringed by beaches, but within the inlet the land is high and densely wooded on both sides. On the north side of the inlet **Slatechuck Mountain** *(53°16'N, 132°14'W)*, with twin peaks, is conspicuous, as is **Turner Peak**, on the north side of Skidegate Channel 6 miles south of Slatechuck Mountain.

357 **Tides**. — Tidal predictions for Queen Charlotte (Index No. 9850) and tidal differences for Shingle Bay (Index No. 9808), referenced on Queen Charlotte, are given in the Tide Tables, Volume 7.

Chart 3890

358 The approach to Skidegate Inlet lies between an extensive shallow bar, with depths of less than 5 m, extending parallel to the coast for 10 miles north from Spit Point *(53°16'N, 131°49'W)* to nearly abreast Lawn Point, on Graham Island, where there is a shallow bar. The approach from seaward across this bar is marked by a sector light close south of Lawn Point. A buoyed channel leads southward between the offshore bar and the shallow water fronting the coast of Graham Island. Shallow draught vessels frequently cross the bar, at or near HW, close north of the drying bank extending from Spit Point.

APPROACH TO SKIDEGATE INLET (1985)



359 **Bar Rocks**, 7 miles north of Spit Point, dry 0.4 and 1.9 m and are the only detached drying feature on the entrance bar. The sea sometimes breaks on these rocks. Several widely separated depths of less than 3 m lie on the bar between these rocks and Spit Point but depths are subject to change caused by wave action.

360 **Tidal streams**. — In general, the flood stream from the south meets that from Dixon Entrance between Lawn Point and Cape Ball, 18 miles north, the position varying with the season of the year and weather conditions.

361 The flood stream from the south flows generally north until about 3 miles north of Spit Point, where it gradually turns NW and west toward Dead Tree Point; it then turns abruptly south into the fairway. At Lawn Point the flood sets slightly toward the coast.

362 On the flats east of Dead Tree Point and in the vicinity of Lawn Point up to 1¾ kn can be expected, increasing to 2 or 3 kn in the fairway abreast Dead Tree Point.

363 The ebb stream, in general, follows a direction approximately the reverse of the flood, but some increase in rate can be expected when the land drainage runoff from the mountains to the west is at its maximum.

364 **Lawn Point** *(53°26'N, 131°55'W)* is, in general, green with a sandy cliff. About 0.55 mile south of the point and nearly 0.1 mile off the foot of the cliff, there is a large black boulder 6 m high. **Lawn Hill**, about 1.3 miles SSW of Lawn Point, is 171 m high and has **Lawn Creek** on its south side.

365 Between Lawn Creek and **Chinukundl Creek**, about 5 miles south, the land is low, flat and wooded, but farther south it rises gradually. A shallow bank with depths less than 3 m up to 1 mile offshore lies along the coast from **Halibut Bight** *(53°23'N, 131°55'W)* for about 4 miles southward with numerous drying rocks just off the LW line. The shore between Lawn Point and Rooney Bay is fringed by a drying bank, covered with boulders, which extends up to 0.4 mile offshore. Between 1 and 3 miles north of Rooney Bay, there is a large logged off area on which second growth timber is visible.

366 Lawn Point Sector **light** *(787.5)* is shown from a skeleton tower with white rectangular slat work daymark.

367 Dead Tree Point **radiobeacon**, 0.7 mile SW of Dead Tree Point, is a continuously operating radiobeacon. *See Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

368 The channel between Lawn Point and a position 1 mile south of Dead Tree Point is marked on the west side by Lawn Point **light and whistle buoy** "C16" *(787)*, Lawn Point **light and bell buoy** "C18" *(786)*, and starboard hand **buoys** "C14" and "C20". The east side of the south end of the narrow part of the channel is marked by Dead Tree Point **light and whistle buoy** "C19" *(785)*.

369 **Shingle Bay** *(53°15'N, 131°52'W)*, on the south side of the entrance to Skidegate Inlet, lies between Spit Point and **Onward Point**, known locally as **Welcome Point** 3.8 miles WSW. Its shores are for the most part fringed by a shingle beach extending up to 0.3 mile offshore.

370 **Tides**. — Tidal differences for Shingle Bay (Index No. 9808), referenced on Queen Charlotte, are given in the Tide Tables, Volume 7.

371 A **submarine cable area** (power) crosses Skidegate Inlet from Onward Point WNW to Graham Island. A second **cable area**, reported to be abandoned telegraph cables, runs between Kwuna and Image Points. A

submarine cable (telephone) is laid from west of Kwuna Point to Haida Point.

372 **Gillatt Island**, 3.4 m high and covered with low vegetation, is near the west end of Shingle Bay, about 0.5 mile offshore. It is connected to shore by a drying bank.

373 Gillatt Island **light** *(783)*, on the west end of the islet, is shown at an elevation of 7.1 m from a white tower.

374 **Sandspit**, on the SE shore of Shingle Bay, has a post office (V0T 1T0), bank, grocery and liquor stores, and accommodations. A nurse is in Sandspit; doctors, dentists and the hospital are in the Village of Daajing Giids.

375 A **boat harbour** protected by a **rock breakwater** is 1.5 miles east of Gillatt Island, east of the mouth of **Haans Creek**. The harbour is entered by a channel dredged to 3 m in 1997. The harbour can accommodate vessels to 30.5 m long and has a float reserved for aircraft. For detailed information see sandspitharbour.ca.

376 Coast Guard has a **year-round rescue unit** based in the boat harbour. It is equipped with a 14 m search and rescue vessel and a rigid hull inflatable, telephone 250 637-5331. For emergencies please contact the Joint Rescue Coordination Centre at 1 800 567-5111 or 1 250 413-8933.

377 A privately operated **light** is on the outer end of the breakwater and **daybeacons** with a starboard hand and a port hand daymark mark the entrance to the dredged channel.

378 **Meteorological information** is available in the Appendices.

379 **Communications**. — The airport at Sandspit has scheduled services to Vancouver and Prince Rupert; charter services are available. Sandspit is connected by road to Alliford Bay from where there is an automobile and passenger ferry to Skidegate. A paved highway connects Skidegate to the Village of Queen Charlotte and Masset.

380 Vessels can obtain **anchorage** in Shingle Bay about 0.3 mile off the public wharf in about 36 m, or at the head of the bay about 0.4 mile offshore, in about 35 m. Strong morning westerly winds are experienced during summer months and the anchorage and public wharf are exposed to them. Small vessels can anchor closer inshore.

381 **Rooney Bay** *(53°16'N, 131°59'W)* is a bight at the south end of the east coast of Graham Island into which **Slarkedus Creek** flows. Its shores are, for the most part, fringed by a drying bank of shingle and boulders extending about 0.2 mile offshore. Boulders that dry 2.6 and 1 m and a rock with a depth of 3.2 m over it and marked by kelp lie at the north entrance to the bay, and extend 0.3 mile offshore.

382 A **submarine pipeline** (sewer outfall) extends, from an outfall sign, in a ESE direction passing close north of the shoal at the north entrance to the bay. Another **submarine pipeline** extends 0.15 mile offshore about 0.5 mile further south.

383 **Anchorage** can be obtained in Rooney Bay but it is somewhat exposed.

384 **Skidegate** is the First Nation community on the shore of Rooney Bay. The church spire, charted toward the north end of the community, has been removed.

385 **Torrens Island** has a rock that dries 0.4 m and covered by kelp close south and a rock with 9.4 m over it about 0.2 mile SSW.

386 **Jewell Island** has a drying shelf off its north and west coasts and a rock with 1.2 m over it close SE. The passage between the island and shore can be used by small vessels.

387 **Skidegate Landing** is a locality at the SE extremity of Graham Island, in a cove between **Image Point** and **Haida Point**. A rock that dries 0.1 m and marked by kelp is about 0.1 mile south of Haida Point with shallow water to the east and between it and shore. A conspicuous microwave tower 28 m high is on Haida Point.

388 A privately owned **light**, fitted with a radar reflector, is shown from the SW side of the B.C. Ferry berth.

389 **Ferries**. — B.C. Ferries operate ferry service to Alliford Bay. The B.C. Ferry Corporation operates a scheduled car and passenger ferry service between Skidegate and Prince Rupert.

390 **Kwuna Point** *(53°13'N, 131°59'W)* is on the south side of Skidegate Inlet. A chain of drying and above- and below-water rocks extends about 0.4 mile NW of the point. At the outer end of the chain is a rock with a depth of 0.9 m over it.

391 **Flowery Islet** is 0.6 mile NW of Kwuna Point. Close-off its NW and east sides are rocks that dry 1.2 to 7.5 m with shallow water surrounding them. A rock with a depth of 9.8 m is 0.35 mile NE.

392 Flowery Islet **light** *(781)*, on the highest point of the island, is shown at an elevation of 7.2 m from a skeleton tower.

393 A narrow shoal area, 0.3 mile long, in the approach to Alliford Bay, has **Bush Island**, 2 m high, on the north end and **Bare Rocks** that dry 0.5 to 7.5 m, on the south end. This shoal area can be passed on either side when entering

Alliford Bay but the passage on the NE side is most frequently used.

394 **Transit Island**, on the west side of Alliford Bay, is wooded, dome-shaped and connected to shore by a drying bank on which there are several islets. A rock with a depth of 2.6 m is 0.1 mile off the north end of Transit Island.

395 **Alliford Bay** *(53°13'N, 132°00'W)* is fronted by an islet and some above-water rocks on its NE side and in the extreme SW corner there are islets and rocks. Shoals with depth of 0.7, 6.4 and 8.3 m are close east of the NE end of Transit Island. The south and SE shores are fringed with sand and mud flats, extending up to 0.1 mile offshore, with rocky outcrops in places. **Oliver Point** projects from the south shore of the bay. The SE portion of the bay is a **booming ground** marked by several private **mooring buoys**. On the east side, at the head of the bay, are the buildings connected with the logging operation.

396 Alliford Bay is a **water aerodrome**.

397 **Lights**. — Kwuna Point **light** *(see LL 782)*, is on rocks NW of a ruined dock.

398 Alliford Bay **light** *(782.1)*, on the island 0.3 mile south of Kwuna Point, is shown at an elevation of 3.7 m from a white tower.

399 A privately operated **light** fitted with a radar reflector is on an outer dolphin at the ferry landing.

400 Well-sheltered **anchorage** can be obtained almost anywhere within Alliford Bay; the best position for a large vessel is in the middle of the bay in about 15 m, mud. Small vessels can anchor closer inshore. **Caution**. — It is reported that these anchorages are fouled by old logging cables.

401 **Transportation**. — Alliford Bay is connected by road with Sandspit where air transportation to the mainland is available; ferry service operates to Skidegate Landing.

402 **Maude Island** *(53°12'N, 132°04'W)* has **Robber Island** connected to its NE shore by a drying flat. Rocks that dry 1.2 m are close south of Robber Island. Rocks that dry 1.2 and 1 m are close NE of **Belle Point**, the north extremity of Maude Island.

403 **Bearskin Bay** is between the north shore of Skidegate Inlet and Maude Island. **Lina Island**, at the west end of the bay, is separated from the north shore by a drying passage, the narrowest part named **Lina Narrows**. A **submarine pipeline** (water) is laid between the 36 m high islet and the east extremity of Lina Island. The north shore of Bearskin Bay is fringed by a drying mud flat, with some rock outcrops.

404 **Tides**. — Tidal predictions for Queen Charlotte (Index No. 9850) are given in the Tide Tables, Volume 7.

405 Bearskin Bay is a **water aerodrome** known as Village of Queen Charlotte.

406 **Maple Island** is about 0.35 mile south of **Smith Point**. A rock that dries 7.4 m, close east of the island, is connected to it by a drying bank. A shoal area with a least depth of 3.9 m is 0.1 mile NNE of the rock.

407 **Gooden Island** and **Roderick Island**, both wooded and surrounded by drying banks, are west of Maple Island. A reef that dries 2.9 m is 0.1 mile SSW of Gooden Island and a rock with 4.8 m over it is 0.28 mile SSE of the east point of Roderick Island.

408 **Booming grounds** with **mooring buoys** and boomsticks are south and west of Roderick Island.

409 **Robertson Island** is connected to the north shore by a drying flat with some above-water and drying rocks on it.

410 A **submarine pipeline** (sewer outfall) extends about 0.8 mile SE from Smith Point. A **submarine cable** and an overhead cable, vertical clearance of 9.9 m, cross the drying flat from Robertson Island to the point NW.

411 The **Village of Daajing Giids**, the principal settlement in Skidegate Inlet, is on the north shore of Bearskin Bay. Facilities include a post office (V0T 1S0), an RCMP detachment, several stores, hotels, restaurants, a liquor store, a hospital with resident physicians and a dentist. A fisheries patrol vessel is based here.

412 **Wharf. — Floats**. — A **private wharf**, with a berthing length of 59.4 m at its head and depths alongside of 4.9 to 7 m, extends south from **Beattie Point**, at the east end of the settlement. A **float**, 12 m long for the use of small craft, is attached to the north side of the head of the wharf.

413 A **floating breakwater** extends about 183 m west from the center of the west end of the public wharf and is marked at its west extremity by the *Queen Charlotte Breakwater* **light** *(782.7)*, which is fitted with a radar reflector and starboard hand daymark. The breakwater protects a **boat harbour** to the north with three **public floats** with a total length of about 260 m connected to a pier at the southern end of a causeway. A **seaplane float**, about 24 m long, extends from the outer end of the west float. Power is available on the floats. **Fresh water** is obtainable. There is a fuel dock 100 m west of the main marina open from 4 to 8 pm every day. Diesel is available here. For more information contact 250-559-4650.

414 **Communications**. — A paved highway connects the Village of Queen Charlotte to Skidegate Landing and Masset.

415 **Caution**. — Vessels leaving the public wharf should keep SW of a line joining the head of the wharf with the NE side of Maple Island to avoid the shoal water and the drying reef 0.1 mile east of the wharf. A rock that dries 0.4 m is 0.15 mile west of the wharf.

416 Vessels of moderate draught can obtain **anchorage** in 7 to 9 m, mud, about 0.2 mile south of the public wharf. Anchorage for deep draught vessels can be obtained in 29 m about 0.5 mile south of Maple and Gooden Islands.

417 **Maude Channel** *(53°13'N, 132°06'W)* leads from Bearskin Bay to Kagan Bay and Long Inlet. **Balch Islands** and numerous drying and below-water rocks and shoals encumber the east end of the channel. A narrow but deep channel lies along the Maude Island shore.

418 **Fleury Island** is connected to Lina Island by a drying bank. A rock that dries 2.4 m is 0.15 mile south and a rock awash is 0.45 mile ESE of Lina Island. **Withered Point** is the SW extremity of Lina Island. A rock that dries 1.2 m is 0.25 mile SSE of Withered Point.

419 Sheltered **anchorage** can be obtained in less than 20 m about 0.6 mile SE of Withered Point.

Chart 3891

420 **Kagan Bay** *(53°13'N, 132°12'W)* and its entrance, at the west end of Maude Channel, are encumbered with islands, rocks and shoals. Access to the bay is confined to narrow passages suitable only for small vessels.

421 **Tree Islet**, 13 m high, is 1 mile south of Withered Point. Two rocks that dry 2.6 m lie midway between the islet and the western extremity of Maude Island. A drying rocky ledge extends almost 0.1 mile NW of Tree Islet. A shoal with 9.9 m over it lies midway between Tree Islet and Angle Island.

422 **Angle Island**, **Claudet Island**, **Burnt Island**, **Noble Rock** and **Meyer Island** are the named features of a chain of islands, islets, drying rocks and shoals leading NW from Tree Islet into the head of Kagan Bay. A deep water channel leads between this chain and Lina Island but it is narrowed by an islet, drying and below-water rocks up to 0.25 mile NE of Claudet Island and numerous drying rocks and shoals up to 0.4 mile off **Dyer Point**, the west extremity of Lina Island. **Weed Rock**, 1 m high, is 0.35 mile NW of Dyer Point. Drying rocks fill the area between Angle and Claudet Islands. Narrow passages with shallow bars exist between all other adjacent named features and this chain.

423 A **booming ground** and log dump is NE of Meyer Island.

424 **Legace Island** is 1.1 miles west of Burnt Island. A shoal ridge extends 0.2 mile ENE from the north end of the island. **Danube Rock**, which dries 1.2 m, is 0.3 mile north of the island.

425 Rocks that dry 0.4 m and shoal depths of 3.8 and 4.5 m lie in the passage between the SW point of Legace Island and **Canoe Point**. A rock that dries 4 m is close NE of Canoe Point. **Christie Bay**, entered south of Canoe Point, is shallow and has wooded islets at its west entrance. Small craft can obtain sheltered **anchorage** with good holding.

426 **Treble Island**, about 0.4 mile NNW of Canoe Point, has two rocks covered 1.9 and 3.9 m off its NW extremity and several islets on a drying flat between it and the NW shore of Kagan Bay. **Slatechuck Creek** flows onto the drying flat. A quarry, a few miles within the entrance, is where the First Nations obtained a dark shale material for making their carvings.

427 **Hallet Island**, 3 m high, is south of Slatechuck Creek. Two rocks that dry 2 and 7.2 m are south of Hallet Island and a rock with 2.7 m over it is 0.2 mile SE of the island.

428 **Anchor Cove** is a small indentation between **Random Point** and **Pier Point**.

429 Small vessels can obtain **anchorage** in 12 m, 0.2 mile NE of Treble Island, or off Anchor Cove in about 10 m. Good anchorage is also available in 13 m about 0.5 mile south and SW from Burnt Island.

430 **Long Inlet** *(53°13'N, 132°18'W)* is entered between **Anthracite Point** and **Scalus Island**.

431 **Sandstone Islands**, a scattered group of islands and drying rocks, lie south of Anthracite Point. **Gust Island**, close NW, has two reefs that dry 4 and 5.7 m close west of it on a shoal ridge connected to the north shore of the inlet. These islands divide the entrance to Long Inlet into three narrow passages, each of which have depths less than 6 m in mid-channel. **Saltspring Bay**, SE of Sandstone Island, and **Gosset Bay**, between Anthracite Point and **Josette Point**, are filled with drying flats.

432 **Berry Islands**, 1 m high, and rocks that dry 1.2 and 5.2 m are about 0.2 mile off the SW shore of the inlet, on a large drying bank connected to shore.

433 A rock with a depth of 2.5 m over it is near mid-channel 0.3 mile north of Berry Islands.

434 The west shore south of **Young Point** has shoal water and several drying rocks and a 4.7 m shoal close offshore.

435 Northwest of Young Point, Long Inlet is deep and steep-to with an extensive drying bank at its head.

Skidegate Channel and Approach

Chart 3890

436 The approach to Skidegate Channel *(53°12'N, 132°02'W)*, south of Maude and Sandilands Islands, is deep and free of dangers as far as the middle of the south coast of Sandilands Island.

437 **Lillihorn Island** *(53°11'N, 132°02'W)* is wooded, steep sided and a drying rock shelf extends NE from it. **Macmillan Creek** flows onto a drying flat 0.4 mile south of the island. A finger of shoal water, with a rock that dries 1.8 m at its extremity, extends NW from **Whiteaves Bay** close north of the creek.

438 **Sandilands Island** is connected to the SW point of Maude Island at LW. The east side of the island is fringed with islets and drying rocks extending 0.25 mile offshore. A rock with 4.8 m over it is 0.5 mile NE of the island. Shallow depths extend nearly 0.2 mile off the west side; a rock with 0.8 m over it is close-off the SW point.

439 A well-sheltered **anchorage**, clear of the tidal streams, is available in 30 m NE of the island. To clear the 4.8 m shoal close north of the group of drying rocks keep the SE and north extremities of Sandilands Island bearing 180° and 270°, respectively.

440 **South Bay**, south of Sandilands Island, has a drying flat in its SW part at the mouth of **Deena Creek**. A similar flat is off its SE shore. A 9.6 m shoal is in the middle of the bay. **Anchorage** can be obtained in South Bay in 27 m.

441 South Bay **light** *(782.3)*, on an islet at the east end of the bay, is shown at an elevation of 3.6 m from a skeleton tower.

442 A **booming ground** with several private **mooring buoys** fills the bay inshore of South Bay light (1988).

443 Sandilands Island **daybeacon**, on a drying rock south of the island, is fitted with a bifurcation/junction daymark, preferred channel to the left.

444 An 8.2 m shoal is in mid-channel 0.45 mile west of the daybeacon.

445 A passage, which is narrow and shallow at its north end, leads west of Sandilands and Maude Islands, providing a convenient route for small vessels from Skidegate Channel to Kagan and Bearskin Bays, by way of Maude Channel. On the east side of the north end of the passage, NE of **Leonide Point**, a rock that dries 2.3 m is marked by starboard hand **buoy** "C22".

446 A **booming ground** is in the bay 0.5 mile south of Leonide Point (1988).

Chart 3891

Skidegate Channel

447 **Skidegate Channel** *(53°10'N, 132°09'W)* has shores which, for the most part, rise steeply to mountain tops a short distance inland on each side. East Narrows, the central portion of Skidegate Channel, is narrow and winding with strong tidal streams. Although this very shallow narrows is navigated regularly at HW by fishing vessels with ample power, drawing up to 3 m, it is recommended only for mariners with local knowledge. West Narrows, although shallow, is deeper, less winding and has weaker tidal streams than East Narrows.

448 **Caution.** — Skidegate Channel is narrow and winding with strong **tidal streams**. It is shallow, especially in the eastern and central portions and best navigated only with significant local knowledge and at higher water levels. Siltation, dredging and deposition may produce drying flats in some areas at lower water levels. Aids to navigation have been placed to provide the safest channel at higher water levels. Mariners are advised to exercise extreme **caution** when navigating in this area.

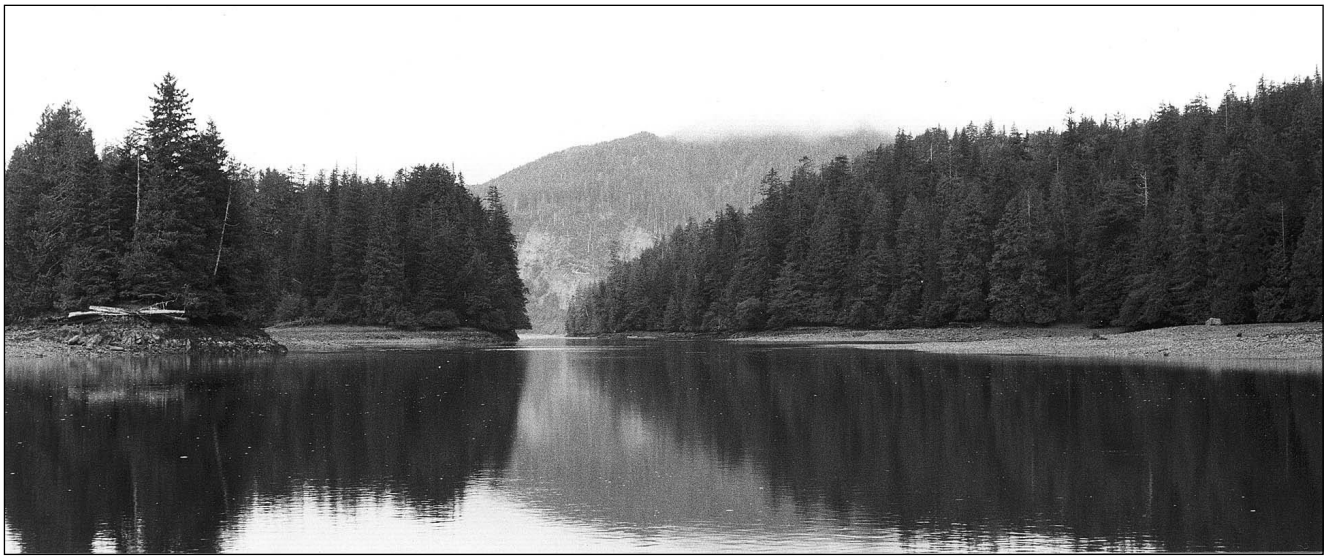
449 **Tides**. — There is a great difference in tide range between the east and west portions of Skidegate Channel. At Queen Charlotte, to the east of East Narrows, the range on a large tide is 7.8 m, but at Trounce Inlet, to the west of East Narrows, it is only 4.5 m. Therefore, the levels to which the tide rises above datum at various positions in East and West Narrows are much less than at Queen Charlotte (*see table on chart*). The times of HW at the positions in the table are up to 1 hour later than at Queen Charlotte.

450 Tidal predictions for Queen Charlotte (Index No. 9850), and tidal differences for Armentières Channel (Index No. 9605) and Trounce Inlet (Index No. 9625), referenced on Hunger Harbour (Index No. 9570), are given in the Tide Tables, Volume 7.

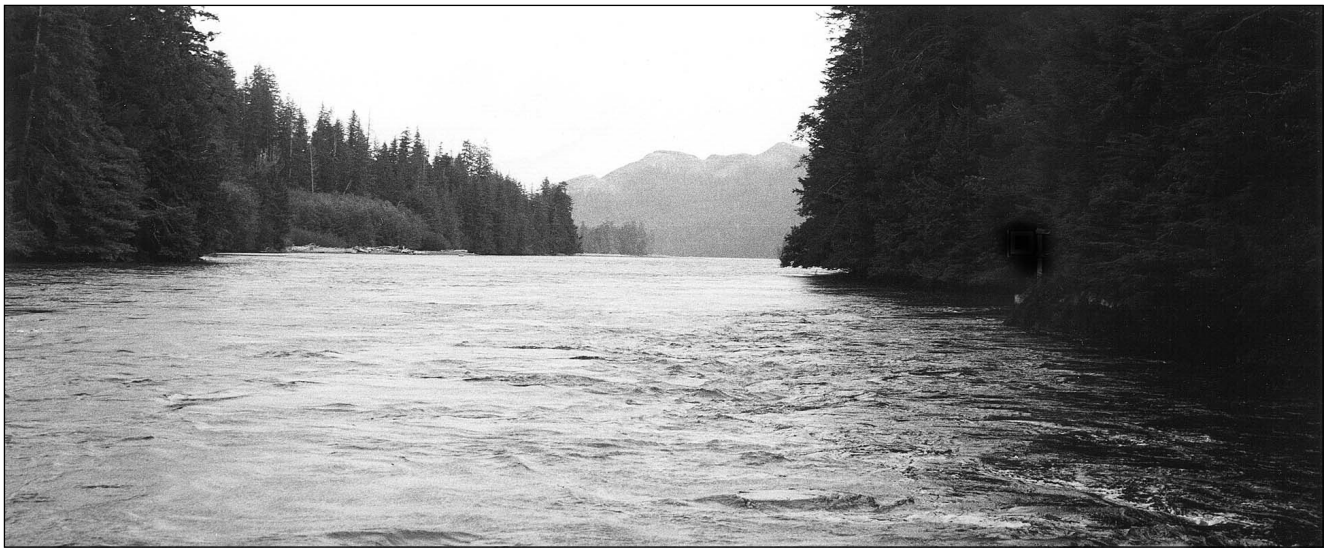
451 **Tidal streams**. — The differences between the water levels at the east and west ends of Skidegate Channel at HW and LW create strong currents: there is a strong west current in conjunction with HW, and a weaker east current near LW. These currents are strongest in the narrow channel near McLellan Point, where they can attain 7 kn.

452 **Navigation of East Narrows**. — Because of the narrow and tortuous fairway through East Narrows and the strong currents, particularly near McLellan Point, vessels with low power are advised to navigate the narrows so as to pass McLellan Point at or near slack water. However, because slack water near McLellan Point occurs 3 to 3.5 hours after HW or LW at Queen Charlotte (*see* slack water note on chart), the depth of the water through East

McLELLAN POINT LOOKING WEST (1985)



NARROWS WEST OF McLELLAN POINT LOOKING EAST (1985)

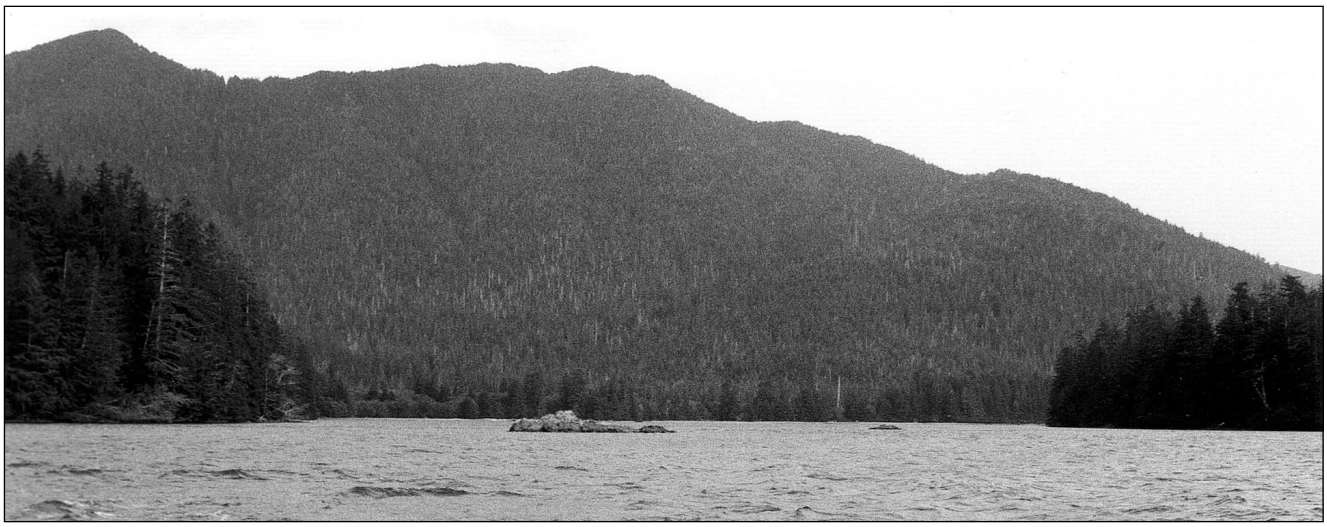


Narrows will decrease considerably between HW and the following slack water, thus limiting the draught at which a vessel can pass through safely. Accordingly, Masters of low powered vessels are strongly advised to navigate East Narrows only at or near the slack water preceding a HW at Queen Charlotte.

453 **Fishing boundary markers** are on both shores 2.5 miles west of Sandilands Island. A **booming ground** and log dumps are on the north shore west of the marker.

454 The navigable channel narrows west of the fishing boundary markers. Drying rocks and shoal water extend into the channel from both shores. Drying rocks and shoals, marked by a **daybeacon** with a port hand daymark, lie in mid-channel 3.25 miles WSW of Sandilands Island.

WEST NARROWS (WEST ENTRANCE) LOOKING NNE (1985)



455 **East Narrows** has extensive drying banks, with drying rocks in places, extending from its shores. The fairway is narrow and tortuous but well marked with beacon ranges. The least depth in the fairway lies 0.25 mile west of Mid Beacon. Two rocks with 1.6 and 0.9 m over them lie in the fairway close west and a shoal area with a least depth of 1.1 m lies in mid-channel 0.4 mile west of **McLellan Point**. A drying ledge with an islet on it is connected to the south shore SE of the shoal area.

456 **Note**. — The upstream direction for aids to navigation in East and West Narrows is when proceeding west.

457 **Beacons. — Beacon Ranges**. — The channel through East Narrows is marked by daybeacons and beacon ranges. Because of silting and dredging, aids to navigation may be changed to indicate the best channel. Charted aid to navigation data may not be up to date. Notices to Mariners and Navigational Warnings should be consulted.

458 **Trounce Inlet** *(53°10'N, 132°19'W)* is deep and free of dangers. The head of the inlet affords **anchorage** for small vessels in 14 to 18 m about 0.1 mile off a drying mud flat, which is steep-to.

459 **Tides**. — Tidal differences for Trounce Inlet (Index No. 9625), referenced on Hunger Harbour, are given in the Tide Tables, Volume 7.

460 **West Narrows** is very narrow where it leads past **Downie Island**. An extensive drying flat, with two wooded islets on it, extends from the north shore. A boulder, with a least depth of 0.7 metres, is in the middle of the channel 0.6 mile ENE off the NE extremity of Downie Island. Two rocks that dry 0.9 and 0.4 m are on the south of the channel further west. The westernmost of the two wooded islets on the north side of the channel provides a good clearing mark for these dangers.

461 Two drying gravel patches are 0.1 mile NNW of Downie Island and a drying spit extends off the NW side of the island. A drying reef, with an above-water rock at each end, is off the SW extremity of Downie Island.

462 **Fishing boundary markers** are on each shore at both the east and west entrances to West Narrows.

463 **Beacons**. — A **daybeacon** with a port hand daymark on a dolphin is 0.15 mile north of the NE extremity of Downie Island and another port hand **daybeacon** is 0.15 mile west of the north side of Downie Island.

464 A **daybeacon** with a starboard hand daymark is on the west shore of West Narrows abreast the north side of Downie Island.

465 A **daybeacon** with a port hand daymark is on the south end of the mid channel reef in the west entrance to West Narrows.

466 The bay SE of Downie Island is very shallow and filled with kelp during summer and autumn. A rock that dries 0.4 m lies between this bay and a deeper bay to the south. **Anchorage** for small craft can be obtained in about 25 m in the south bay. A shoal finger, with a rock that dries 1 m on it, is covered with kelp and extends from the south shore west of the anchorage.

467 Skidegate Channel, west of Downie Island, is described in Chapter 8.

Skidegate Inlet to Rose Point

Charts 3902, 3800

468 The coast between Lawn Point *(53°26'N, 131°55'W)* and Rose Point, the NE extremity of **Graham Island**, is fronted by the shoal flats of **Dogfish Banks** and should be approached with caution. There are no harbours or protected coves for small craft along this coast. The beach is composed mainly of gravel or stones as far as Tlell; beyond this it is mainly sandy as far as Rose Point. For a considerable distance along the coast north of Lawn Point there are cliffs of clay and sand which, between Tlell and about 7 miles north of Cape Ball, rise to heights between 200 and 400 feet (61 and 122 m). Farther north the coast is bordered by sand hills covered with coarse vegetation; behind these are woods, in some places burnt, interspersed with patches of swampy land.

Chart 3902

469 **Depths**. — Between Lawn Point *(53°26'N, 131°55'W)* and Cape Ball, 17 miles north, depths of less than 6 fathoms (11 m) extend up to 6.5 miles offshore and depths of less than 10 fathoms (18.3 m) exist up to 24 miles offshore. There is evidence of sand ridges in this area, which change position and depth due to severe weather conditions. **Caution** is advised when navigating in this vicinity.

470 The entrance of **Tlell River** is about 11 miles north of Lawn Point. From its mouth, the river runs nearly parallel to the coast for almost 4 miles, separated from the sea by a low swampy strip of land about 0.5 mile wide. Numerous drying and below-water rocks lie within a 4 mile radius of Tlell River.

471 **Tlell**, about 2 miles south of the mouth of Tlell River, has a post office (V0T 1Y0). The road from the Village of Queen Charlotte to Port Clements and Masset passes through the community.

472 A **submarine cable** (fibre-optic) extends from Tlell, east across Hecate Strait, to Bonilla Island.

Chart 3800

473 **Cape Ball** *(53°43'N, 131°53'W)* has some conspicuous sand cliffs, 420 feet (128 m) high, about 1 mile north of it. **Tidal streams** in the vicinity of the cape are irregular.

474 Drying gravel patches together with numerous boulders that dry from 1 to 3 feet (0.3 to 0.9 m) extend 2 miles east and SE of Cape Ball.

475 **Coast**. — The mouth of the **Oeanda River** *(53°57'N, 131°43'W)* is about 15 miles NNE of Cape Ball. Close to the coast nearly 6 miles north of the river mouth is **Argonaut Hill**, flat-topped and wooded to its summit. This hill, and a group of somewhat lower hills within 4 miles of it, are the only features on an otherwise low and featureless portion of the coast. **Fife Point**, 3.5 miles NNE of Argonaut Hill, can only be distinguished by **Swan Hill**, 230 feet (70 m) high and thickly wooded, which rises above it. From Fife Point to Rose Point the coast is low and featureless.

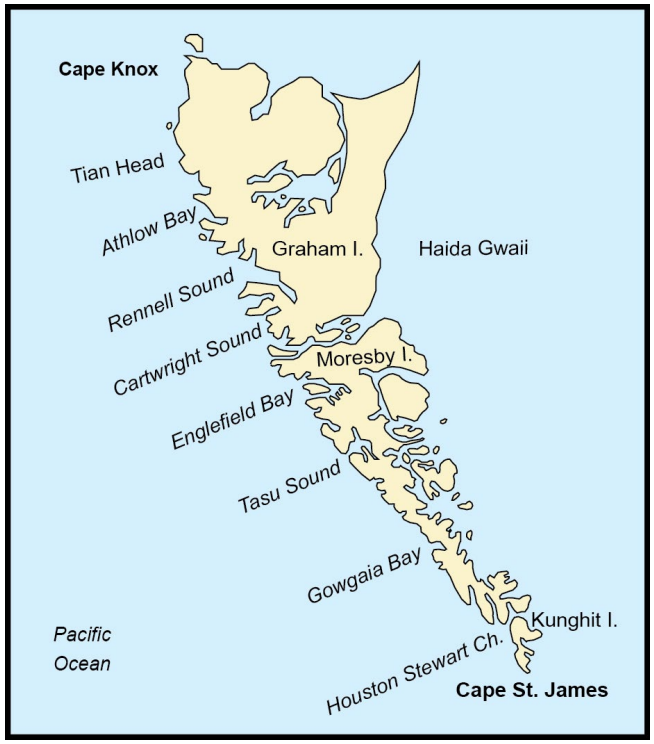
476 The shoal waters of Dogfish Bank extend well offshore north to Rose Spit and Overfall Shoal. Many depths of less than 5 fathoms (9 m) lie on ridges, running north and south, scattered over the bank and up to 9 miles offshore.

477 **Anchorage**, well-sheltered from westerly winds with good holding ground, is available in 7 fathoms (13 m) about 2 miles east of Rose Point, abreast the end of the trees.

478 Rose Point, Rose Spit and Overfall Shoal, and the tidal streams in this vicinity are described in Chapter 6.

Chapter 8

Haida Gwaii
West Coast



General

Charts 3853, 3854, 3868

1 The west coast of Haida Gwaii is rugged and indented with many inlets, some of which penetrate a considerable distance inland. The coast is generally mountainous and rises to heights in excess of 1,700 feet (518 m) a short distance inland. Mountain ranges and peaks over 3,000 feet (914 m) in elevation, some of which are conspicuous, are farther inland. The entrances to many of the inlets, with the background of high land and with the sea breaking round them, are not distinguishable at night from the remainder of the coast, even in fine weather and bright moonlight.

2 **Surveys. — Caution**. — On the west coast of Haida Gwaii the larger inlets have been surveyed, but many of the smaller inlets have not been examined or have been only partially surveyed. Large stretches of the outer coast have not been surveyed inside a distance of 1 or 2 miles. Unsurveyed areas are inadvisable to enter without local knowledge.

3 **Depths**. — Off the west coast, from Cape St. James *(51°56'N, 131°01'W)* to Rennell Sound, 110 miles NW, depths are quite uniform. The 100-fathom (183-m) line lies about 1 to 3 miles offshore, and a short distance farther off the bottom falls rapidly to great depths. About 10 miles off the entrance to Rennell Sound there are areas of less than 100 fathoms (183 m). North of Rennell Sound the 100-fathom (183-m) line of the coastal bank gradually increases in distance from the coast, passing about 2 miles off Hippa Island, about 14 miles WNW of Frederick Island *(53°56'N, 133°10'W)* and then closing the coast to pass about 2.5 miles west of Langara Island.

4 For information on the continental margin west of Haida Gwaii *see* Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

5 A **Voluntary Protection Zone** for Shipping on the western shore of Haida Gwaii has been in effect since September 1, 2020. In the Voluntary Protection Zone, commercial vessels of 500 gross tonnage or greater are requested to observe a minimum distance of 50 nautical miles from the western shore of Haida Gwaii with the following exemptions:

- Cruise vessels, which are asked to observe a minimum distance of 12 nm distance from shore.
- Vessels transiting from Alaska to British Columbia or Washington State or vice versa, through the Voluntary Protection Zone are asked to observe a distance of at least 25 nm from shore.
- No minimum distance is required for tugs or barges (including pushing and towing alongside) or vessels engaged in commercial fishing.
- Vessels to which this bulletin applies are not required to observe requested minimum distances if doing so may compromise navigational, vessel, passenger or cargo safety.

For more information on the Voluntary Protection Zone project, visit haidagwaii-vpz.ca or see monthly *Notice to Mariners Section 1*.

6 **Gwaii Haanas National Park Reserve/ Haida Heritage Site** encompasses the south portion of Moresby Island and adjacent islands from south of the Tangil Peninsula on the east and Tasu Sound on the west. The annual number of visitors is limited; reservations, orientation and fees are required before entering the park. Haida Gwaii Watchmen are located at Anthony Island, Ellen Island, Huxley Island, Hotspring Island, Windy Bay, Tanu Island and Skedans Bay. For full information regarding visiting Gwaii Haanas National Park Reserve contact

Gwaii Haanas National Marine Conservation Area Reserve,
P.O. Box 37,
Village of Queen Charlotte, B.C. V0T 1S0.

7 **Vessel Traffic Services (VTS)**. — The west coast of Haida Gwaii is in *Sector 1* of the *Prince Rupert Traffic Zone* and the assigned frequency is 156.55 MHz, Channel 11.

8 A brief description of this Vessel Traffic Services System is given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*; full details are given in *Radio Aids to Marine Navigation (Pacific and Western Arctic)*.

9 The Calling-in Points are

10 *Calling Point No. 25*, called *Cape Knox*, is a line extending 270° from Cape Knox to the limit of the Territorial Sea.

11 *Calling-in Point No. 26*, called *Tasu Sound*, is a line extending 220° from Davidson Point light *(809)* to the limit of the Territorial Sea. Mariners shall report at Davidson Point when entering/exiting Tasu Sound.

12 *Calling-in Point No. 27*, called *Cape St. James*, is a line extending 220° from Cape St. James light *(770)* to the limit of the Territorial Sea.

13 *Calling-in Point No. 35*, called *Triangle Island*, is a line extending 220° from Triangle Island to the limit of the Territorial Sea; it is for changing from the *Prince Rupert Traffic Zone* to the *Tofino Traffic Zone*.

14 **Tides**. — Along the west coast of Haida Gwaii tidal predictions for Hunger Harbour (Index No. 9570), Rose Harbour (Index No. 9713), and Langara Point (Index No. 9964) are given in the Tide Tables, Volume 7.

15 Tidal differences for Cape St. James (Index No. 9502), Gordon Islands (Index No. 9512), Armentières Channel (Index No. 9605), Trounce Inlet (Index No. 9625), referenced on Hunger Harbour, and Shields Bay (Index No. 9650) and Port Louis (Index No. 9671), referenced on Langara Point, are given in the Tide Tables, Volume 7.

16 **Tidal streams and currents**. — The following information is from tidal stream observations made in 1984.

17 The tidal stream 4 miles WNW of Cape St. James is rotary clockwise. First of flood sets 280° at ¼ kn, maximum flood 015° at 1 kn, maximum ebb 140° at 2 kn and last of ebb 215° at ½ kn.

18 In position 300°, 6 miles, from Nagas Point the tidal stream is rectilinear, flooding 340° at up to 1½ kn and ebbing 145° at up to 1 kn. Two miles to the SW the stream floods 325° at up to 1 kn and ebbs 145° at up to 1½ kn.

19 The tidal stream about 3 miles off Kitgoro Point is rotary clockwise with maximum flood 330° at 1¼ kn, last of flood 040° at ¼ kn, maximum ebb 155° at 1 kn and last of ebb 245° at ¼ kn. Three miles farther offshore maximum flood sets 310° at 1½ kn, last of flood 050° at ½ kn, maximum ebb 145° at 1½ kn and last of ebb 230° at 1 kn.

20 About 12 miles WSW of Kitgoro Point maximum flood is 300° at ¾ kn and maximum ebb 135° at 1 kn.

21 About 8 miles off Athlow Bay maximum flood is 340° at 1 kn and maximum ebb 155° at ½ kn.

22 About 7 miles west of White Point maximum flood is 030° at 1¼ kn and maximum ebb 220° at 1 kn. About 14 miles off White Point the stream is rotary clockwise with first of flood 290° at 1 kn, maximum flood 020° at 2 kn, first of ebb 120° at 1 kn and maximum ebb 215° at 2 kn. Maximum flood here is 1 hour after LW Prince Rupert, turn to ebb 1 hour before HW Prince Rupert.

23 The **non-tidal current** sets NW along the west coast of Haida Gwaii at about ½ kn during normal weather, increasing to 1 or 1½ kn with strong SE

gales. This current will generally accentuate the flood stream and conversely affect the ebb.

24 **Meteorological information** is available in the Appendices.

Chart 3000

25 **Offshore banks**. — A depth of 13 fathoms (24.3 m) has been found on a sharp pinnacle on **Bowie Seamount** *(53°18'N, 135°40'W)*, about 100 miles west of Graham Island. **Hodgkins Seamount**, a bank with a least known depth of 326 fathoms (596 m), lies with its shallowest part about 19 miles NW of Bowie Seamount. These banks rise sharply from the depths surrounding them.

26 **Caution**. — During heavy weather it would be prudent to give Bowie Seamount a wide berth; wave studies indicate that shallow water effects can be experienced near seamounts at these depths.

27 Moresby Island ODAS **light buoy** "46208" *(812)* is in *52°30'54"N, 132°41'30"W* about 26 miles SW of Tasu Sound.

28 **Winds**. — From about October 1 to the latter part of December the prevailing winds are from the SE and east, and are frequently of gale force, accompanied by heavy rainfall. From the latter part of December to February in most years, the change to offshore winds from the NW or north and NE occurs. During February, March and April, the prevailing winds are from SE and east. During May there are generally westerly winds, while during June, July, August and September, the more usual winds are from the south, SW and west. No fixed rules can be applied, as strong SE or NW breezes can occur in any season. NE winds during summer months are rare. A description of localized winds known as "Williwaws", are given in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast* and wind information for Cape St. James is given in the Appendices.

29 **Caution**. — Although a number of well-enclosed **anchorages** are available in various inlets on the west coast of Haida Gwaii, these are subject during strong SE gales to violent squalls from the valleys leading into them and, although no heavy seas are raised, the force of the squalls induces violent yawing. A sharp lookout should therefore be kept to guard against dragging.

Kunghit Island — West side

Chart 3825

30 Cape St. James *(51°56'N, 131°01'W)* and the off-lying islands and dangers are described in Chapter 7.

31 From 1 to 2 miles SE of **Barber Point** *(52°00'N, 131°06'W)*, in the SW part of Kunghit Island, the coast is fronted by foul ground extending 0.5 mile offshore.

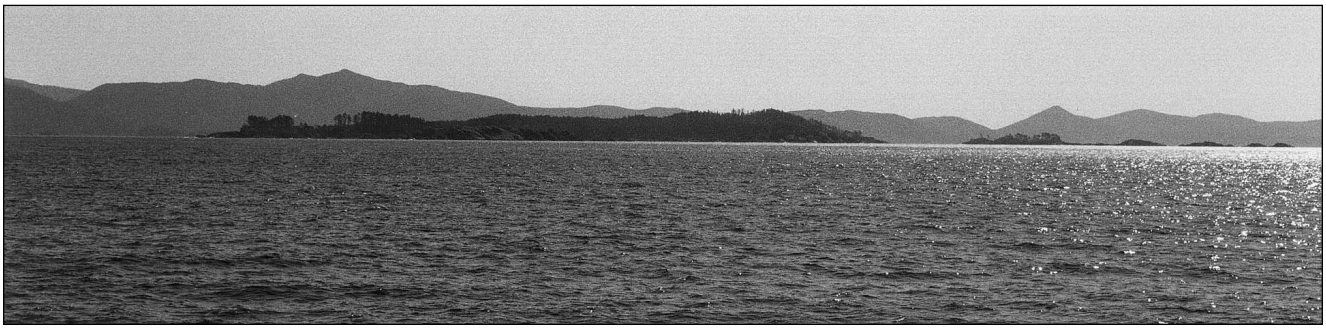
32 **Gilbert Bay** is entered north of Barber Point. **Bowles Point** is the west extremity of a small island 2 miles NNW of Gilbert Bay.

Houston Stewart Channel and Louscoone Inlet — South Approach

33 **Anthony Island** *(52°06'N, 131°13'W)*, 335 feet (102 m) high with some white cliffs on its west side, is on the west side of the approach to Houston Stewart Channel and Louscoone Inlet. On the east side of the island are a few totem poles marking the site of a former First Nations village. A group of islets, some of which are sparsely wooded, together with drying, above- and below-water rocks, extends up to 1.3 miles south and SW of the island. A similar group of islets and rocks lie up to 0.6 mile off the north coast.

34 **Note**. — Anthony Island and the surrounding islets are a protected area within the boundaries of Gwaii Haanas

ANTHONY ISLAND LOOKING SE (1985)



National Park Reserve. A Haida Gwaii Watchmen basecamp is on Anthony Island.

Chart 3855

35 **Gordon Islands** *(52°06'N, 131°09'W)*, a compact group of mostly wooded islands fringed with kelp, are on the east side of the approach to Houston Stewart Channel, about 0.5 mile off **Arnold Point**. Foul ground, marked by kelp, with above-water and drying rocks on it, extends 0.25 mile NW of the islands. A least depth of 8 fathoms (14.6 m) lies in the fairway between Gordon Islands and the west side of Kunghit Island, but depths under 6 fathoms (11 m) extend 0.25 mile south of Arnold Point.

36 Vessels of moderate length can obtain **anchorage** in about 15 fathoms (27 m), 0.38 mile WNW of Arnold Point. The swinging space is somewhat restricted but the holding ground is good and the anchorage well-sheltered from southerly winds. However, strong northerly or NW winds in opposition to a strong flood tide render it untenable.

37 **Ibbertson Banks**, over which there is a least depth of 9 fathoms (16.5 m), are 0.8 mile west of Gordon Islands.

38 **Flatrock Island**, 0.7 mile NW of the Gordon Islands, is bare with a flat summit and has shoal depths extending east and west of it. A bare rock, 16 feet (4.9 m) high, is about 0.1 mile south of **Cape Fanny**, the south extremity of Moresby Island.

39 *Flatrock Island* **light** *(see LL 769)* is on the island.

40 **MacLeod Shoal**, 0.5 mile west of Flatrock Island, has a least depth of 37 feet (11.3 m) over it, is steep-to and marked by kelp.

Houston Stewart Channel

41 **Houston Stewart Channel** *(52°09'N, 131°07'W)* is entered from south between Gordon Islands and Cape Fanny; on both sides of the entrance the shores are bold, densely wooded and the country in the vicinity is mountainous.

42 **Foul ground**, on which are several drying and below-water rocks marked by kelp, lies along the west shore about 1 mile NE of Cape Fanny. **Washington Rock**, 3 feet (0.9 m) high, with a rock covered less than 6 feet (2 m) off its NW side are off the east shore 1.3 miles north of Arnold Point.

43 The fairway is otherwise clear of dangers as far north as **Catherine Point** and **Hornby Point** where the channel turns east to join Hecate Strait.

44 Several below-water rocks are in and near the middle of the channel NE of Hornby Point. Kelp is present on most rocks during summer and autumn but is frequently drawn below the surface by the strength of the tidal streams.

45 **Tidal streams** in the east arm of Houston Stewart Channel reach 5 kn.

46 **Tides**. — Tidal predictions for Rose Harbour (Index No. 9713), and tidal differences for Gordon Islands (Index No. 9512), referenced on Hunger Harbour, are given in the Tide Tables, Volume 7.

47 **Ross Island**, on the east side of the entrance to Rose Inlet, is connected to Moresby Island by a drying flat. A shoal with 23 feet (7 m) over it is 0.1 mile south of the SW extremity of Ross Island. Two shoals, each with a depth of 30 feet (9.1 m), are in mid-channel 0.3 mile NNE of Hornby Point.

48 **Ellen Island** *(52°09'N, 131°06'W)* is about 0.6 mile ENE of Hornby Point. Midway between the island and point a wooded islet lies close-off the south shore with foul ground between it and the point.

49 *Hornby Point* **light** *(see LL 768.6)* is 0.3 mile west of Ellen Island.

50 A narrow boat passage, leading between Ellen Island and the south shore, is encumbered with drying and below-water rocks.

51 A bank, with depths of less than 36 feet (11 m), extends 0.15 mile NW from Ellen Island. Near the outer edge of the bank is a rock with 12 feet (3.7 m) over it.

52 **Quadra Rocks** consist of two rocks in mid-channel NNE of Hornby Point light. The north rock is awash and the south one has a depth of less than 6 feet (2 m) over it. A rock with 14 feet (4.3 m) over it is 0.1 mile NE, a 15-foot (4.6-m) shoal is 0.15 mile west and a rock with 24 feet (7.3 m) over it is 0.1 mile SSE of Quadra Rocks. Depths under 6 fathoms (11 m) extend up to 0.2 mile west, north and NE of Quadra Rocks.

53 **Trevan Rock**, north of Ellen Island, dries 10 feet (3 m). A **daybeacon** with a bifurcation/junction daymark, preferred channel to the right, is on the rock. Shoal water extends as far as 0.1 mile from the rock and detached shoals are WNW and NE of the rock.

54 **Gaudin Passage** leads between Ellen Island and the bank extending NW from it on the south, and Quadra Rocks and Trevan Rock, to the north. The fairway through the west end of the passage is less than 0.1 mile wide between the south Quadra Rock and the 24-foot (7.3-m)

shoal SSE. When the tidal streams are running, Quadra Rocks are marked by tide-rips and overfalls, and when kelp is present, it is visible at slack water.

55 **Annette Island**, **Fairfax Island** and some drying and below-water rocks lie up to 0.3 mile off the south shore 0.5 mile east of Ellen Island. The passage between these islands can be used by small craft but local knowledge is advised.

56 **Rose Harbour** *(52°09'N, 131°05'W)* is entered between Ellen Island and the rocks that dry 10 and 4 feet (3 and 1.2 m), 0.4 mile east. Numerous above-water and drying rocks are in its SW part. A drying bank with an island at its NW extremity fills the SE part. Two guesthouses, the ruins of a whaling station and public **mooring buoys** with fenders are at the head of the harbour.

57 Vessels up to 250 feet (76 m) long can obtain **anchorage** in about 14 fathoms (26 m), out of the strength of the tidal streams, in the outer part of Rose Harbour, 0.2 mile east of Ellen Island. North to NE gales funnel down a valley and into the anchorage.

58 **Charles Islands**, with some drying and below-water rocks extending 0.15 mile SE from them, are off the south shore east of Annette Island. The passage south of Charles Islands is encumbered with below-water rocks, but can be used by small craft.

59 **Forsyth Point** is on the north shore NNE of Annette Island. **Raspberry Cove**, 0.6 mile NW, has a stream flowing into it and is fronted by drying rocks. A campsite with toilets is situated to the west of the creek running into Raspberry Cove. A rock, with less than 6 feet (2 m) over it, is 0.3 mile WNW of Forsyth Point. A rock that dries 11 feet (3.4 m) surrounded by shoal water is 0.35 mile east of Forsyth Point.

60 **Rose Inlet** *(52°11'N, 131°08'W)* rises boldly along the west shore south of Pincher Rocks and has no dangers beyond 0.1 mile from shore. The east shore, although high, is fringed with drying sand banks and has depths under 3 fathoms (5.5 m) extending up to 0.25 mile offshore. Beyond **Kendrick Point** the inlet contracts in width and is encumbered with drying, above- and below-water rocks, and some wooded islets. The head of the inlet is separated from South Cove in Carpenter Bay, to the NE, by a neck of low wooded land. The land on the north and west sides of the head is mountainous, whilst that on its east side is low. **Sedmond Creek**, a small stream, flows into the head of the inlet.

61 A **fishing boundary marker** is on the west side of Rose Inlet, 0.8 mile NW of Ross Island.

62 **Rocks**. — **Denny Rocks**, the largest of which dries 14 feet (4.3 m), lie on a shoal area with depths less than 6 fathoms (11 m) projecting 0.35 mile off the east side of the entrance to Rose Inlet. A rock with less than 6 feet (2 m) over it is 0.1 mile SW of Denny Rocks. Two rocks that dry 5 feet and 1 foot (1.5 and 0.3 m) are 0.2 mile off the east shore 0.6 mile north of Ross Island. A rock with 13 feet (4 m) over it and marked by kelp is 0.25 mile farther north.

63 **Pincher Rocks**, in mid-channel SW of Kendrick Point, are the outermost of the numerous drying and below-water rocks that almost fill the head of Rose Inlet. Shoal depths extend almost 0.2 mile south of Pincher Rocks.

64 **Anchorage** can be obtained in 8 to 10 fathoms (15 to 18 m) in the middle of Rose Inlet 0.8 mile north of Denny Rocks. North to NE gales funnel down the valley at the head of the inlet creating rough seas.

65 **Caution**. — Because of the strong tidal streams and numerous dangers that lie in the portion of Houston Stewart Channel, lying to the east of Hornby Point, it should be taken only by vessels less than 200 feet (61 m) in length, and not more than 20 feet (6.1 m) draught, during daylight and at slack water.

Louscoone Inlet

Chart 3857

66 **Louscoone Inlet** *(52°10'N, 131°14'W)* is entered between Cape Fanny and **Louscoone Point**. About 5 miles north of Cape Fanny, on the east side of the inlet, a bare summit, 2,155 feet (657 m) high, conspicuous from SW, is a convenient mark by which to identify the approach to Houston Stewart Channel and Louscoone Inlet; two other bare summits *(Chart 3853)*, 2,240 and 2,290 feet (683 and 698 m) high, are about 1 and 1.3 miles, respectively, farther NNW. The inlet is generally deep with gradual shallowing toward the head where there is a drying mud flat.

67 **Adam Rocks** *(52°07'N, 131°14'W)*, consisting of a group of above- and below-water rocks, lie midway between the islets off the NW coast of Anthony Island and Louscoone Point. The passages north and south of Adam Rocks are scattered with shoal rocks and not recommended. The largest rock is scrub-covered; the remainder are bare.

68 **Tidal stream**. — A strong tidal stream runs through the channel between Adam Rocks and Anthony Island.

69 **Tuga Point**, on the west shore of Louscoone Inlet, is steep-to and is 1.6 miles north of Louscoone Point; between them is a bight which is fronted by a small island and above-water and drying rocks to about 0.15 mile offshore. The remainder of the west shore of the inlet is

comparatively steep-to and clear of off-lying dangers, except near the head.

70 Close-off the east shore 0.55 mile WNW of Cape Fanny is a sparsely wooded islet with a rock awash between it and shore. Farther NW two above-water rocks are within 0.1 mile of the shore.

71 **Ninstints Point** is on the east side of the inlet about 1.3 miles NW of Cape Fanny. Rocks that dry 1 and 11 feet (0.3 and 3.4 m) and shoal water extend almost 0.13 mile off the point, and the bays to the north and SE are shoal and filled with drying and below-water rocks.

72 **Small Cove**, east of **Crooked Point**, is encumbered with drying rocks in its entrance and an above-water rock near its head. A group of islets and rocks lies within 0.15 mile of the east shore off the north entrance point of the cove.

73 **Etches Point** is low and has two rocks that dry 6 and 14 feet (1.8 and 4.3 m) close-off it. **Cadman Point**, 1.1 miles north, has a drying ledge, with a rock 1 foot (0.3 m) high on it, extending from its south side. A rock that dries 4 feet (1.2 m) lies close-off the SW point of the ledge.

74 In the bight between Etches and Cadman Points are low, wooded islands, several islets and drying rocks. The south island has a rock that dries 9 feet (2.7 m) close west of its south extremity and two others that dry 7 and 8 feet (2.1 and 2.4 m) within 300 feet (91 m) of its NW side. The north island is fronted by a chain of rocks that dry from 1 to 15 feet (0.3 to 4.6 m) about 0.1 mile off its west side and a rock, with less than 6 feet (2 m) over it, is close-off its NW extremity. A chain of islets connected to one another by drying rock ledges and to the shore by a sand bank, which dries, extends about 0.3 mile north from Cadman Point terminating in two rocks that dry 1 and 3 feet (0.3 and 0.9 m).

75 **Anchorage** for small vessels, mud bottom and protected from north and south winds, can be obtained in the small basin between the two larger islands lying between Etches and Cadman Points. A public **mooring buoy** with fenders is in the basin.

76 **Skindaskun Island** *(52°12'N, 131°14'W)*, low and wooded, is joined to the east shore of the inlet by a drying sand bank. A compact group of rocks, the highest of which dries 6 feet (1.8 m), is 0.18 mile north of the NW point of the island and detached shoals with depths under 6 fathoms (11 m) are 0.3 mile south of its SE point.

77 **Head Rock**, which dries 13 feet (4 m), is near mid-channel 1 mile NW of Skindaskun Island. NW of Head Rock the inlet narrows gradually to its head, with numerous drying and below-water rocks and beaches of sand and stones fringing the shores on each side. Shoal water lies up to 0.2 mile from the west shore and there are several mid-channel shoals of less than 6 fathoms (11 m).

78 **Fishing boundary markers** are on both shores of Louscoone Inlet, abreast Head Rock.

79 Indifferent **anchorage** can be obtained in 16 fathoms (29 m) about 0.25 mile south of Head Rock, or in 17 fathoms (31 m) about 0.55 mile NNW of the NW point of Skindaskun Island. Small vessels can obtain **anchorage** in 13 fathoms (24 m) about 0.5 mile NW of Head Rock. **Anchorage** for small craft is available in 3 to 4 fathoms (5.5 to 7.3 m) about 0.2 mile from the edge of the drying flat at the head of the inlet. North to NE gales funnel down the valley at the head of Louscoone Inlet making anchorage in the open inlet uncomfortable.

80 An islet, 38 feet (12 m) high, is 0.3 mile off the SW extremity *(52°07'N, 131°16'W)* of the peninsula forming the west side of Louscoone Inlet. Shoals covered less than 6 fathoms (11 m) surround the islet.

Chart 3853

81 The coast between the islet *(52°07'N, 131°16'W)* and Cape Freeman, 2.4 miles NW, is bold and indented with no known dangers more than 1 mile offshore.

Flamingo Inlet

Chart 3858

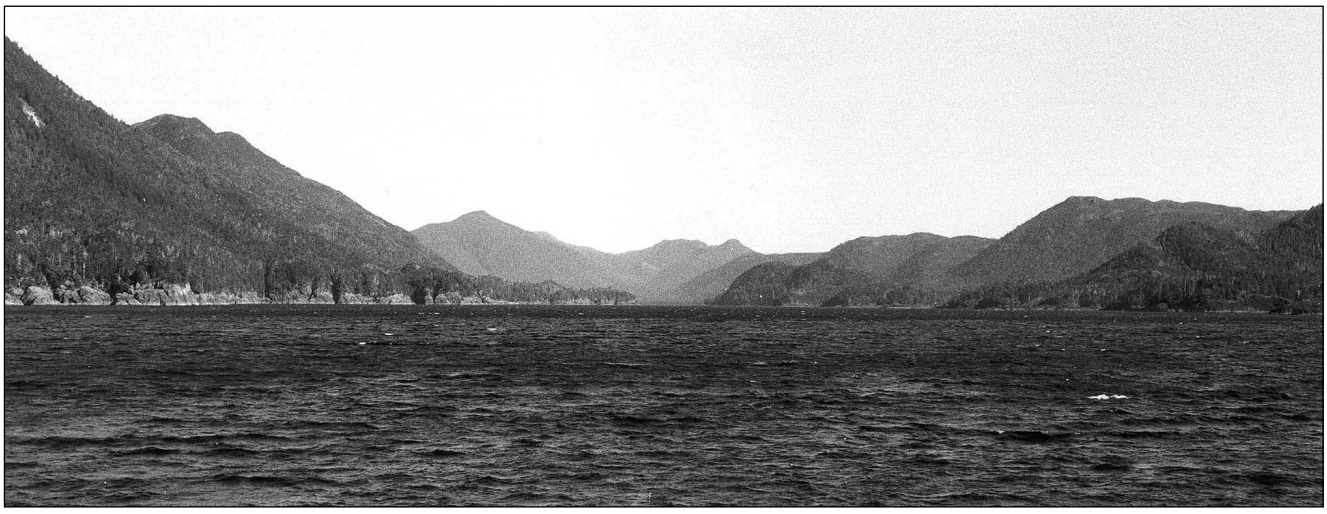
82 **Flamingo Inlet** is entered east of **Nagas Point** *(52°11'N, 131°22'W)*. Its west shore is bold and comparatively steep-to; the east shore, south of Staki Point, is lower and indented. Off-lying rocks, most of which are marked by kelp, narrow the south part of the entrance to a width of about 0.3 mile. Several dangers lie in the approach, some a considerable distance offshore. The inshore areas of Flamingo Inlet, south of Staki Bay, have not been completely sounded and local knowledge is advised before entering.

83 **Nagas Rocks**, with above-water and drying rocks close by, are on the west side of the fairway 0.3 mile SE of Nagas Point. A rock that dries 10 feet (3 m) is 0.25 mile north of Nagas Rocks.

84 **Cape Freeman**, about 2.8 miles SE of Nagas Point, is the SW point of a low, wooded and indented promontory. Numerous islets and rocks are within 0.4 mile of the south side of the promontory.

85 **Billington Rocks**, consisting of an above-water rock 1 foot (0.3 m) high, another that dries 2 feet (0.6 m) and other rocks awash and below-water, are 1.3 miles NNW

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of Cape Freeman. **Henderson Rocks** are two bare rocks 28 and 5 feet (8.5 and 1.5 m) high 0.4 mile NW. Several rocks, drying, below-water and awash, are within 0.1 mile south and east of the east rock.

86 **Snub Point**, the east entrance point of Flamingo Inlet, is fronted by several bare islets and drying rocks. Between this point and Henderson Rocks there are several scattered rocks that dry from 1 to 14 feet (0.3 to 4.3 m).

87 **Anvil Cove**, entered 0.5 mile north of Snub Point, has not been surveyed. A chain of above-water rocks extends west from the SE entrance point of the cove, and an island with drying banks on either side of it fills its NW part.

88 **Anvil Rock**,10 feet (3 m) high and bare, is on the east side of the fairway west of Anvil Cove. Two detached shoals, both marked by kelp, are 0.3 mile SSW and 0.45 mile SSE from Anvil Rock.

89 **Short Inlet**, entered NNE of Anvil Rock, is too narrow and confined to provide any anchorage; it has not been surveyed.

90 **Sargison Reef**, consisting of two rocks that dry 8 and 15 feet (2.4 and 4.6 m) and others with less than 6 feet (2 m) over them, is on the east side of the fairway west of Short Inlet. A rock with a depth of 26 feet (7.8 m) over it is 0.1 mile SSE of the reef.

91 **Sperm Bay**, 0.8 mile north of Sargison Reef, has a wooded island and rocks that dry 1 foot (0.3 m) in its entrance and a wooded island is connected to its west shore by a drying bank. The bay has not been sounded but it is reported that small craft can obtain **anchorage** off a bluff in its NW part.

92 A 33-foot (10.1-m) shoal lies in the middle of the fairway 0.3 mile SSW of **Staki Point** *(52°14'N, 131°21'W)*.

93 **Staki Bay**, at the head of the inlet, has depths in the fairway of 4 to 10 fathoms (7.3 to 18.3 m) but is encumbered with shoals and foul ground. A **fishing boundary marker** is on the east shore 0.5 mile NE of Staki Point.

94 Vessels up to 200 feet (61 m) long can obtain **anchorage** in 8 fathoms (15 m) in mid-channel 0.5 mile north of Staki Point; take care to clear the shoals extending NNW from Staki Point, and note the 19-foot (5.8-m) shoal close NNW of this berth. Anchorage for small vessels is available in 4 fathoms (7.3 m), 0.2 mile south of the drying flat at the head of the inlet, and there is good shelter for small craft off the edge of the drying flat that fringes the SE corner of Staki Bay. Local knowledge is advised before attempting any of these anchorages.

Chart 3853

95 The coast from Nagas Point to **McLean Fraser Point** *(52°13'N, 131°25'W)*, and beyond to Gowgaia Bay, is irregular and drying rocks extend up to 0.2 mile offshore. **Tide-rips** occur off McLean Fraser Point. The bays and inshore areas along this coast have not been surveyed, and should not be approached within 1 mile.

96 **Wells Cove**, the northerly of the bays, is encumbered with islets and rocks, and a reef extends about 0.4 mile SW from its north entrance point.

97 Several depths of 102 to 121 fathoms (187 to 221 m) are reported to lie 8 miles south and west of Nagas Point.

Chart 3864

98 **Gowgaia Bay** *(52°25'N, 131°35'W)* is entered between Nangwai Islands on the north and Gowdas Islands on the south. The shores on the north side of the entrance and on both sides of the head of the bay rise fairly steeply to hills more than 1,200 feet (366 m) in elevation; elsewhere the land is lower. Depths within the bay are generally less than 35 fathoms (64 m), with a few deeper soundings in places, and gradual shallowing toward the head.

99 **Gowdas Islands**, both wooded, together with some above-water and drying rocks, extend about 0.5 mile off the south side of the entrance to the bay. The bay between these islands and **Gowgaia Point** *(52°24'N, 131°35'W)* is not completely surveyed and too exposed to have any value as an anchorage.



100 *Gowgaia Point* **light** *(see LL 811.9)* is on the point.

101 **Gowdas Rocks**, the largest of which is 19 feet (5.8 m) high, are about 0.5 mile west of Gowdas Islands; two rocks that dry 13 feet (4 m) are about 0.3 mile SSE of the rocks.

102 **Nangwai Islands** are two wooded islands on the north side of the entrance to Gowgaia Bay. A reef that terminates in rocks that dry 7 to 11 feet (2.1 to 3.4 m) extends about 0.2 mile SSW from the southern island. At or near HW, the extremity of this reef can usually be identified by breakers.

103 **Nangwai Rock**, which dries 8 feet (2.4 m), is 0.4 mile east of the south extremity of Nangwai Islands. The fairway lies between this rock and a 5-fathom (9.1-m) depth 0.15 mile north of Gowgaia Point. Between Nangwai Rock and the north shore are two wooded islands, several islets and numerous rocks and shoals.

104 **Commander Point**, 1 mile ENE of Gowgaia Point, is steep-to and can be approached safely to a distance of about 300 feet (91 m).

105 **Goski Islet**, sparsely wooded, light grey in colour and steep-to on its SW side, is off the east entrance point of **Goski Bay**, with shoal depths of 9 to 18 feet (2.7 to 5.5 m) between it and the point. Two shoals with least depths of 27 and 33 feet (8.2 and 10.1 m) are 0.2 mile NW and 0.25 mile north from the islet.

106 The NE arm of Goski Bay has a wooded islet in the middle of its entrance with a drying rocky ledge and sandy spit extending north from it. Depths on either side of the spit are shallow and drying rocks lie off its east side. The north half of the arm dries. A wooded islet close-off the west entrance point of this arm is connected to shore by a broad drying rocky ledge that dries. An islet 15 feet (4.6 m) high, with some grass and scrub on its summit, is 0.13 mile off the west shore of Goski Bay. Although depths in Goski Bay are suitable, it is not recommended as an anchorage except during north or NW winds.

107 **Yakulanas Point**, which is comparatively steep-to, is 0.8 mile east of Commander Point; between them lies **Soulsby Cove**, whose shore is fringed with rocky ledges interspersed with sandy beaches. There are no off-lying dangers in the cove.

108 **Yakulanas Bay**, which occupies the head of Gowgaia Bay, has a shoal with a least depth of 25 feet (7.6 m), 0.2 mile off its east shore and a rocky ledge projecting about 0.1 mile from the east shore near the head.



109 **Anchorage** can be obtained in Soulsby Cove in 10 to 15 fathoms (18.3 to 27 m) about 0.3 mile west of Yakulanas Point. Yakulanas Bay provides anchorage in about 23 fathoms (42 m), 0.75 mile east of Yakulanas Point, or in 19 fathoms (35 m), 0.6 mile from the head of the bay. During strong SE gales, Gowgaia Bay is subject to heavy squalls that funnel down the valleys leading into it. Under these circumstances, the anchorage in Soulsby Cove affords the best shelter.

Chart 3853



110 **Coast. — Surveys. — Caution**. — Between Gowgaia Bay *(52°25'N, 131°35'W)* and Tasu Sound, 27 miles NW, the coast is rugged and irregular with numerous coves and inlets. The inshore waters and inlets have not been surveyed and local knowledge is advised before entering.

111 A small cove *(52°27'N, 131°38'W)* 2.3 miles NNW of Nangwai Islands has some rocks, which break, in the middle of its entrance; this cove does not afford shelter. About 0.5 mile NW of the entrance of the cove there is a low flat point, and 1 mile farther north an islet lies off the entrance of another cove which is encumbered with rocks in its entrance and is of no use as a harbour. Three miles farther NW there is a conspicuous cone-shaped islet, 490 feet (149 m) high, forming the west side of a broad cove with a boulder beach and a salt lagoon on its east side. The cove is open to the SE and there is shoal water inside the entrance. A high pinnacle rock is between the west entrance point of the cove and the islet. A low rocky point is 1 mile SE of Mike Inlet.



112 The entrance to **Mike Inlet** *(52°32'N, 131°48'W)* is about 0.2 mile wide between a steep bluff on the SE and a shelving point on the NW side. A bare

islet is close within the entrance with some above-water rocks about 0.1 mile ENE; passages exist on both sides of the islet and rocks, that on the NW side being the better. A wooded islet is near the head of the inlet. The surrounding land is high, and about 0.9 mile ESE of the inlet there is a conspicuous bare peak with an elevation of 2,830 feet (863 m). During bad weather, the inlet is subject to heavy squalls. **Anchorage** can be obtained by small craft near the head in 16 to 25 fathoms (29 to 46 m); local knowledge is advised.

113 About mid-way between Mike Inlet and Barry Inlet, 2.5 miles NW, is an indentation that has some low rocks on its west side extending 300 feet (91 m) offshore.

114 **Barry Inlet** *(52°34'N, 131°51'W)* is entered between a low rocky point on the SE and a sloping point on the NW side. Inside the entrance on the south side there is a high, bare, granite bluff. A depth of 13 fathoms (23.8 m) lies just inside the entrance and 22 fathoms (40 m) close to the bluff. The inlet is winding and there is a sandy beach at the head from which a flat extends 300 feet (91 m). The land surrounding the inlet is generally high and rises steeply from the head to bare high mountains. The NW shore is partially wooded. **Anchorage** can be obtained by small craft on the NW side of Barry Inlet opposite the bluff.

115 Between Barry Inlet and Pocket Inlet, 4 miles NW, the coast is rugged and indented, and there are high cliffs; many of the points have pinnacle rocks lying close offshore.

116 **Murray Cove**, 2 miles NW of Barry Inlet, has a high and remarkable pinnacle rock close-off its SE entrance point. The cove, which has a boulder beach at its head, affords no shelter as it is exposed to the SW.

117 The entrance to **Pocket Inlet** *(52°37'N, 131°54'W)* is about 0.1 mile wide between a low, bare ridge about 200 feet (61 m) high on the SE and rather higher land on the NW side. There are no known dangers in the inlet but, like the others along this stretch, it has not been surveyed. The land surrounding the inlet is high, with no trees other than scrub. On the north side of the entrance is a summit, 1,835 feet (559 m) high, with a conspicuous white scar.

118 Between Pocket Inlet and the entrance to Sunday Inlet, 2 miles NW, the coast is rugged with high cliffs and large detached pinnacle rocks. A cove with a sandy beach on the NW side, about 0.5 mile NW of the entrance of Pocket Inlet, is too exposed to afford any shelter. A drying rock about 1 mile NW of the cove, 0.35 mile offshore, usually breaks at HW in a moderate sea.

119 **Kwoon Cove**, entered north of a low point with a bare above-water or drying islet 0.2 mile SW of it, is too exposed for shelter.

120 The entrance to **Sunday Inlet** *(52°39'N, 131°56'W)* is about 0.2 mile wide, with a high rounded point on the south side and a sloping point on the north.

121 **Rocks**. — Two drying rocks are in the middle of the approach to Sunday Inlet. A rock that breaks at half tide is about 0.2 mile ENE of the NW entrance point.

122 About 0.8 mile inside the entrance, Sunday Inlet narrows to about 200 feet (61 m) between a low flat rock on the SE side and an islet on the NW side, with a deep channel in the middle. **Anchorage** can be obtained by small craft, in about 15 fathoms (27 m), in the entrance to a small cove, on the south side, at the head of the inlet. A creek flows into the inlet 0.5 mile NE of the anchorage. Nothing is known of the inlet that extends north from the mouth of Sunday Inlet.

123 **San Christoval Range** are the bare and rugged peaks rising to more than 3,000 feet (914 m) a short distance inland between Barry and Sunday Inlets. The highest peak, about 1.5 miles north of the head of Barry Inlet, has an elevation of 3,505 feet (1,068 m).

124 Between Sunday Inlet and the entrance to Tasu Sound, about 8 miles NW, there are several bays, none of which afford shelter. Midway between Sunday Inlet and Tasu Sound, and about 0.8 mile inland, **Mount De la Touche** rises to 3,685 feet (1,123 m) with a sharp, bare, conspicuous summit.

Tasu Sound

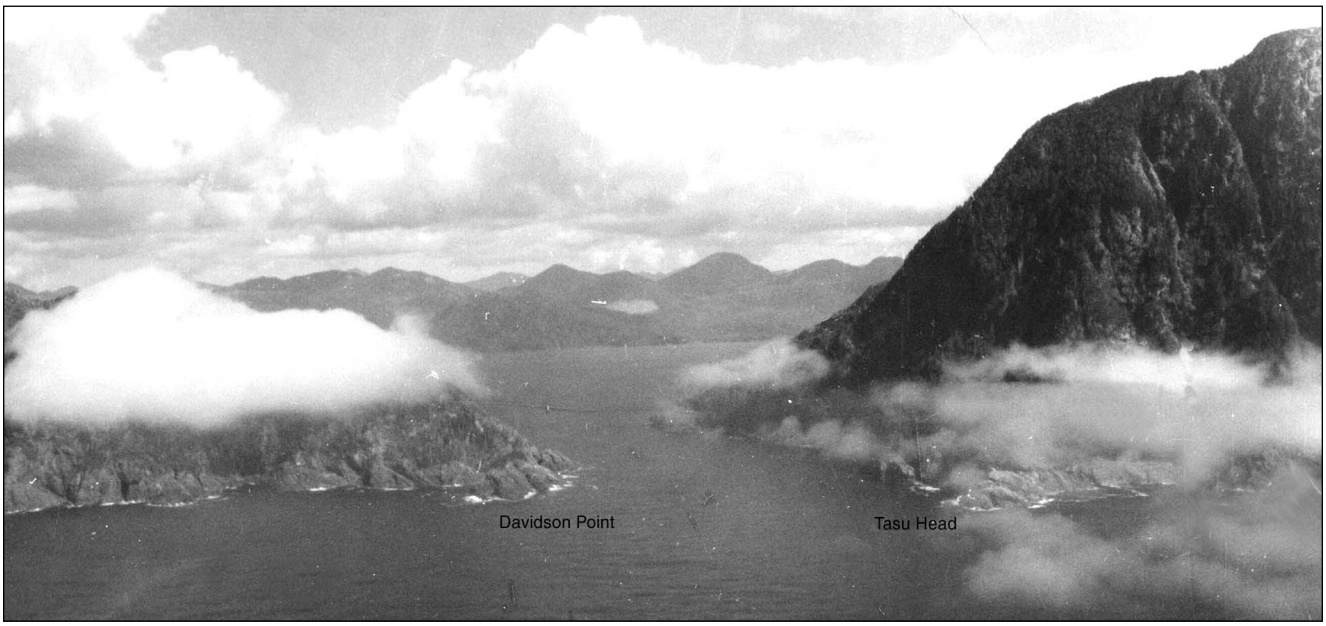
Chart 3859

125 From the offing the entrance to **Tasu Sound** *(52°44'N, 132°07'W)* is difficult to detect, but in clear weather Mount De la Touche, described above, is an excellent landmark by which it can be identified. The sound is entered between **Tasu Head** and **Davidson Point**, about 0.4 mile NW, and then by **Tasu Narrows**, a narrow, deep channel about 1 mile long with a least width of 0.28 mile. A swell, heavy at times, is usually present in the entrance, but this is spent before reaching the north end of the narrows. Within the narrows the sound expands into an extensive basin from which several inlets and bays extend, some providing good anchorage.

126 **Meteorological information** for Tasu Sound is given in the Appendices.

127 **Pilotage** is compulsory. The nearest boarding station is off Triple Islands but special arrangements can be made for the pilot to board off Tasu Sound by helicopter if the ship is suitable. For information

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on obtaining a pilot, *see* Pilotage in Sailing Directions booklet *PAC 200 — General Information, Pacific Coast*.

128 **Customs**. — The nearest port of entry is Prince Rupert.

129 **Tidal streams**. — Observations show that with a range of 13 feet (4 m) at Tofino, a maximum velocity of 1¾ kn can be expected on the flood and 1½ kn on the ebb. Maximum flood and ebb are reached about 2 h 30 min before HW and LW, respectively. Lower velocities can be expected with smaller tide ranges.

130 The times of slack water are somewhat indefinite. Velocities of less than ½ kn were observed from about the time of local LW to about 1 h 30 min after. On the turn to ebb, less than ½ kn occurred from the time of local HW to about 1 hour after. Strong winds affect velocities and the times of slack water.

131 On the seaward approach to Tasu Narrows, the current tends to set toward and away from the narrows rather than parallel to the Haida Gwaii coast.

132 **Tides**. — Tidal predictions in Tasu Sound are given for Hunger Harbour (Index No. 9570) in the Tide Tables, Volume 7.

133 The best **anchorage** in Tasu Sound for small vessels and small craft is in Two Mountain Bay.

134 **Islets. — Rocks**. — The SE shore of the entrance is cliffy and steep-to; a small rocky islet is close west of Tasu Head, the SW entrance point. The NW shore is also cliffy, but is fringed with drying and below-water rocks. A small, wooded islet is close to the west shore at the north end of the narrows.

135 *Davidson Point* **light** *(see LL 809)* is on the point.

136 *Tasu Sound* **light** *(see LL 810)* is on the east side at the north end of the narrows.

137 **Lomgon Bay**, the first indentation within the narrows on the NW side of the sound, is encumbered by **Lomgon Islets** and several scattered rocks, drying and below-water, which render it useless as an anchorage.

138 **Horn Island** *(52°46'N, 132°03'W)*, which is wooded, is 0.4 mile west of **Magneson Point**. The island is connected to shore by a reef of above-water and drying rocks. A shoal area with a least depth of 12 feet (3.7 m) is 0.2 mile east of its north point.

139 **Horn Rock**, 0.5 mile north of Magneson Point, is 8 feet (2.4 m) high and bare, with drying and below-water rocks close to it.

140 **Reid Point**, 1.1 miles NE of Horn Rock, is the north extremity of a narrow peninsula.

141 **Gowing Island** is on the SW side of the entrance of **Fairfax Inlet**, which is deep throughout and useless as an anchorage. Two drying rocks and a shoal rock are within

0.1 mile of the NE side of the island. A rock-fill causeway crosses the channel west of Gowing Island.

142 Wesfrob Mines, on Magneson Point, shipped its last cargo of iron and copper concentrate in 1984. The marine facilities are in ruins.

143 **Hunger Harbour**, on the south side of Gowing Island, is too deep for satisfactory anchorage and the bottom is reported to be fouled by abandoned cables. **Fresh water** is obtainable from a stream on the west side of the harbour.

144 **Newcombe Inlet**, on the north side of Tasu Sound, is entered east of **Shearer Point**. **Shearer Rock**, 0.2 mile SE of Shearer Point, has 18 feet (5.5 m) over it and is marked by kelp. **Ariel Rock**, 7 feet (2.1 m) high, and a rock that dries 15 feet (4.6 m) close south of it lie in the middle of the channel close within the entrance to the inlet. Shoals, marked by kelp, are 0.2 mile north and 0.5 mile west of Ariel Rock.

145 **Winnifred Rocks**, which dry from 1 to 9 feet (0.3 to 2.7 m), are 0.4 mile ESE of Ariel Rock. A shoal with a least depth of 25 feet (7.6 m) is 0.15 mile south. Drying rocks fringe the east shore north of the rocks.

146 The inlet is generally deep in the fairway but narrows to a width of 0.25 mile between **Blunt Point**, on the east shore, and some above-water and drying rocks extending about 0.1 mile offshore from **McAlmond Point**, on the opposite side of the inlet.

147 **Tasu Creek** flows into the eastern of two bays at the head of the inlet; this bay has rocks on either side of its entrance. The west bay is free of off-lying dangers.

148 Logging roads, which follow both east and west shores of Newcombe Inlet, branch east at the head of the inlet, crossing Moresby Island and ending at Sewell Camp on Sewell Inlet.

149 Vessels can obtain **anchorage** at the head of Newcombe Inlet in 11 to 18 fathoms (20 to 33 m), 0.2 mile SW of the point separating the two bays, or in 23 fathoms (42 m), 0.3 mile ESE of the same point.

150 **Two Mountain Bay**, on the north side of Tasu Sound 1.3 miles east of Winnifred Rocks, is entered NE of **Flyaway Islet**, which is joined to a narrow peninsula to the NW by a drying ledge. A reef with rocks that dry 7 and 13 feet (2.1 and 4 m) on it extends about 450 feet (137 m) east from the east extremity of Flyaway Islet, and about 300 feet (91 m) farther SE there is a detached rock that dries 3 feet (0.9 m). A rock with a depth of 9 feet (2.7 m) over it lies in the middle of the entrance to Two Mountain Bay. Within the bay, a wooded islet is close-off the north side, west of the mouth of **Edwards Creek**.

151 Small vessels can obtain good sheltered **anchorage** in Two Mountain Bay, in about 13 fathoms (24 m), west of the wooded islet on its north side.

152 **Barrier Bay**, in the NE part of Tasu Sound, has a drying, steep-to sand bank extending off its east side.

153 **Wester Point** is the NW extremity of **Botany Island**. Passages on both sides of the island lead into **Botany Inlet**, but these are encumbered with rocks at their south ends and can only be used by small craft.

154 **Wilson Bay**, on the east side of Botany Island, is generally deep with gradual shallowing toward a drying sand and gravel bank at its head. **Wilson Islet** is on the west side of the bay.

155 **Rocks**. — **Amethyst Rock**, with a depth of 9 feet (2.7 m) over it, is about 0.7 mile ENE of Wester Point; between the rock and the point are four shoals with depths of 21 to 33 feet (6.4 to 10.1 m). A 20 foot (6.0 m) shoal is 0.2 mile NNE of Amethyst Rock. A rock with less than 6 feet (2 m) over it is 0.18 mile NNW of Wilson Islet. A reef with rocky islets on it, a rock awash, and drying rocks extend up to 0.2 mile off a point on the south shore, SSE of Wilson Islet. A wooded islet, with a 21-foot (6.4-m) shoal 0.2 mile SSE, is on the east side of Wilson Bay, abreast Wilson Islet.

156 **Anchorage** can be obtained in about 19 fathoms (35 m) at the head of Wilson Bay but fierce squalls sweep down from the mountains.

157 **Directions**. — Caution is necessary when entering Tasu Sound during strong westerly winds as the heavy swell is liable to cause a vessel to yaw. A mid-channel course should be kept through Tasu Narrows until abreast Tasu Sound light, after which a course should be steered for a position about midway between Horn Rock and Shearer Point.

158 A small vessel entering Two Mountain Bay should round the 3-foot (0.9-m) drying rock SE of Flyaway Islet at a prudent distance, and then steer to pass NE of the rock covered 9 feet (2.7 m) lying in the middle of the entrance.

Chart 3854

159 **Surveys. — Caution**. — The coastal waters, bays and inlets between Tasu Sound *(52°44'N, 132°07'W)* and Englefield Bay, 15 miles NW, have not been surveyed and local knowledge is advised before entering.

160 The narrow inlet entered 0.5 mile NW of Davidson Point, the north entrance point of Tasu Sound, has drying rocks charted in its entrance but nothing is known of depths within it.

161 **Portland Bay**, entered about 1.8 miles SE of **Chads Point** *(52°48'N, 132°14'W)*, has a waterfall at its head. Between this bay and the entrance to Kootenay Inlet, the mountains rise to high bare summits. **Mount Russ** has an elevation of 3,010 feet (917 m).

162 An island, 0.5 mile north of **Kootenay Point**, is at the south entrance point of **Kootenay Inlet** *(52°52'N, 132°15'W)*. A shoal that breaks is close-off this island. In the middle of the entrance to the inlet there are two islets about 0.1 mile apart with the fairway lying east of them. Farther in are some reefs, partially above-water, in the middle of the channel. A narrow channel, about 1 mile long, leads into an inner harbour with depths of 8 to 10 fathoms (14.6 to 18.3 m) over the greater part of it. An arm leads north from the main inlet but its entrance is encumbered with islets. No attempt should be made to enter Kootenay Inlet in a heavy sea.

163 **Bottle Inlet** *(52°54'N, 132°19'W)*, entered north of **Bottle Point**, is only 150 feet (46 m) wide between kelp extending about 60 feet (18 m) from both sides. A depth of 40 fathoms (73 m) lies just outside its mouth. Inside, the inlet widens gradually and appears to be clear of dangers. The land on both sides is high and bare, with some timber at the heads of the arms where the land is low.

Englefield Bay

Chart 3865

164 **Surveys. — Caution**. — Some of the waters covered by *Chart 3865* are unsurveyed or only partially surveyed and local knowledge is advised before entering.

165 **Antiquary Bay** is 0.8 mile SE of **Cape Henry** *(52°56'N, 132°22'W)*. Nothing is known of the depths within it.

166 **Englefield Bay** *(52°59'N, 132°25'W)* is between Cape Henry and **Annesley Point**, 7.5 miles to the NW. **Hibben Island** fills the east part of the bay.

167 A group of above-water rocks lie on a reef close west of Cape Henry. **Denham Point**, 1.3 miles north, has a group of islets within 0.25 mile west of it.

168 **Denham Shoals** is an area of irregular bottom extending up to 2.8 miles offshore between Cape Henry and Denham Point. At the west end there is a 12-foot (3.7-m) shoal which is the outermost danger; between this shoal and the coast is a rock with less than 6 feet (2 m) over it and several shoals of 4 to 6 fathoms (7.3 to 11 m).

169 **Moresby Islets**, a group of islets and rocks, are 1.2 miles north of Denham Point.

170 **Pay Bay** is on the west side of Hibben Island, sheltered by **Cape Kuper**, **Luxmoore Island** and **Rogers Island**.

171 **Augustus Rock**, with drying and below-water rocks extending about 0.15 mile west of it, is 0.65 mile south of **Bone Point**, the west extremity of Hibben Island.

172 **Lihou Island** is 0.6 mile west of Bone Point. Two above-water rocks and a 6-fathom (11-m) shoal are 0.3 mile south and above-water rocks extend 0.2 mile from the NW extremity of the island.

173 **Carswell Island**, **Helgesen Island**, **Saunders Island**, **Willie Island** and several islets lie up to 1 mile off the north side of Englefield Bay. **Note**. — This area is mainly unsurveyed. A rock with less than 6 feet (2 m) over it is 0.3 mile SSW and a 6-fathom (11-m) shoal lies 0.2 mile east of Willie Island. A ledge with 30 feet (9.1 m) over its extremity extends 0.1 mile south from Carswell Island. Deep channels are west, north and east of Lihou Island, but care is necessary to avoid the dangers.

174 **Kaisun Harbour** *(53°02'N, 132°28'W)*, which has not been surveyed, is north of Saunders Island. The entrance channel, which is about 240 feet (73 m) wide, lies between the two bare islets lying west of Saunders Island. Kelp grows nearly all over the harbour and in the entrance. Vessels should not attempt to enter when a heavy sea is running, and when approaching from the NW should keep 0.5 mile offshore before turning toward the entrance. Good **anchorage** can be obtained in Kaisun Harbour in 17 fathoms (31 m), mud; local knowledge is advised.

175 **Boomchain Bay**, NE of Helgesen Island, has not been surveyed; some above-water and drying rocks lie almost in the middle of the channel between the west entrance point of the bay and a wooded islet close NE of Helgesen Island.

Moore Channel and Adjacent Inlets

176 **Moore Channel** *(52°58'N, 132°18'W)* has not been surveyed, but a line of track soundings in mid-channel indicates deep water except on the north side of the fairway, 1 mile east of **Archer Point**, where a spit with a depth of 11 fathoms (20.1 m) near its outer end extends about 0.3 mile south from Hibben Island.

177 Two rocks that dry 11 and 4 feet (3.4 and 1.2 m) are on the north side of the entrance 0.5 mile west of **Freshfield Point**.

178 **Hewlett Bay**, on the south side of Moore Channel opposite Freshfield Point, is entered east of an islet lying

close offshore. A rock that dries 4 feet (1.2 m) is close NW of this islet.

179 **Roe Point** projects from the south side of the channel, 1.5 miles east of Hewlett Bay.

180 **Douglas Inlet** entered between **Herbert Head** and **Bell Point**, 1 mile east, has not been surveyed. **Leslie Point** and **McNutt Point** are 1.5 and 2 miles inside the inlet.

181 **Josling Point** is at the extremity of **Josling Peninsula**.

182 **Mitchell Inlet** is entered between **Work Point** and **Macneill Point**, 0.85 mile east. The inlet, which has not been completely surveyed and may have uncharted dangers, is backed by precipitous and densely wooded hills.

183 Rocks with less than 6 feet (2 m) over them (position doubtful) are charted close west of Macneill Point and along the shore SE of the point. Rocks with 8 and 9 fathoms (14.6 and 16.5 m) over them are 0.2 mile NW of Macneill Point. **Thorn Rock**, with less than 6 feet (2 m) over it, is close NW of **Una Point**.

184 **Sansum Island** *(52°57'N, 132°09'W)*, which is wooded, lies in the approach to Thetis Anchorage, SE of **Niven Point**.

185 **Thetis Anchorage** has a sandy beach at its head. A rock, with less than 6 feet (2 m) over it, (position approximate) is reported (1981) to lie in the middle of Thetis Anchorage. Squalls, frequently accompanied by rain, blow over the hills with considerable force. **Anchorage** can be obtained about 0.5 mile SE of Sansum Island; pass on the SW side of the island where the channel is deep.

186 **Baylee Bluff** is on Hibben Island north of Work Point.

187 **Sangster Point**, the east extremity of Hibben Island, is bold and can be approached safely to a distance of 0.1 mile on its north side. Shoal water fringes the east shore of the point.

188 **Mudge Inlet**, similar in appearance to Mitchell Inlet, is entered between **Recovery Point** and **Colton Point**.

189 **Foul ground**. — A chain of drying, above- and below-water rocks, about 0.5 mile long, is about 0.1 mile off the south shore west of Recovery Point.

190 **Colton Islet**, close within the entrance, has an apparently deep passage on its west side. The inlet has not been fully examined and may have uncharted dangers. A small vessel can obtain **anchorage** in 18 fathoms (33 m) about 0.2 mile from the head of the inlet.

191 **Winds**. — The high land on both sides of Mitchell and Mudge Inlets influences the direction of the wind, which usually blows directly through them; during periods of bad weather, violent squalls can be expected.

192 **Leopold Islands** *(52°59'N, 132°10'W)* are a group of wooded islets with drying and below-water rocks close by. A rock, with less than 6 feet (2 m) over it, is at the west end of the group, 0.5 mile NE of Sangster Point.

193 **Peel Point**, 0.55 mile ESE of Leopold Islands, has a reef of drying rocks projecting 0.18 mile west from it.

194 **Peel Inlet** is entered between Leopold Islands and Peel Point. An islet, about 100 feet (31 m) high, is close-off the south shore about 0.9 mile within the entrance; close SE of this islet the inlet contracts to less than 0.2 mile wide with shallow depths on its north side. A rock with less than 6 feet (2 m) over it lies in the middle of the fairway 0.3 mile east of the islet described above. From this rock, SE to **Laing Point**, the inlet is encumbered by several islets and rocks with a drying sand bank extending more than 0.1 mile from the east shore. The SE end of the inlet has not been surveyed. A logging road on the east side of Peel Inlet, near the entrance, leads across Moresby Island to Moresby Camp at the head of Cumshewa Inlet. Moresby Camp is connected by road to Sandspit.

Inskip Channel and Security Inlet

195 **Inskip Channel** *(53°01'N, 132°19'W)*, entered south of **Fairlie Point**, leads north of Hibben Island and is not completely surveyed and may have uncharted dangers.

196 **Baylee Bay** 1.2 miles ENE of Fairlie Point with **Instructor Island** in its entrance has not been surveyed.

197 A 34-foot (10.4-m) shoal is on the south side of the channel 0.4 mile WNW of **Susan Sturgis Point**. **Hastings Point** is 3 miles east and a 12-fathom (21.9-m) shoal area is in the middle of the fairway 0.4 mile SW of the point.

198 **Security Inlet** *(53°03'N, 132°19'W)*, approached either north or east of Lihou Island, is entered north of **Percy Point**. **Mackenzie Cove**, which is unsurveyed, **Bland Point** and **Kennedy Point** are features in the outer part of the inlet.

199 **Security Cove** has creeks fronted by extensive mud flats in its NW and NE parts. A rock awash is in the NE part of the cove, close-off the north shore. Good, well-sheltered **anchorage** can be obtained in 6 fathoms (11 m) in the middle of Security Cove, about 0.5 mile ENE of **Security Point**.

Chart 3854

200 From Annesley Point *(53°02'N, 132°30'W)* past **Kitgoro Point** to Buck Point, 5 miles NW, the coast is rugged, with a few islets and rocks close offshore.

201 **Kitgoro Inlet**, which is unsurveyed, has a narrow, shallow channel leading into it, suitable only for small craft entering in fine weather. Local knowledge is advised. Kelp patches extend up to 0.15 mile offshore along the inlet.

Chart 3891

202 **Buck Point** *(53°06'N, 132°34'W)* is high and bold. Drying rocks extend 0.2 mile west from the point, and a reef, on which there are rocks with less than 2 m over them, is NNW of the point and 0.2 mile offshore.

203 **Buck Channel** leads south of **Chaatl Island** and is connected to Armentières Channel by **Chaatl Narrows**. This narrows dries over a distance of about 1 mile, but small craft can pass through at about half tide.

204 The west side of Chaatl Island is fringed by foul ground extending up to 0.15 mile offshore with kelp patches extending for a considerable distance. An islet with a flat summit and a few trees on it is on the north side of the entrance, with some rocks between it and the shore NE.

205 **Directions**. — Buck Channel has not been surveyed and should only be used with the aid of local knowledge. Vessels approaching Buck Channel should keep well over toward the north side until 0.5 mile from the islet with a flat summit, and then should close the south shore and follow it as far as the islet; then keep in mid-channel.

Cartwright Sound

206 **Cartwright Sound** *(53°12'N, 132°40'W)* is between Tcenakun Point and Hunter Point, 7.8 miles NW. The bare summit of **Mount La Pérouse** is conspicuous from seaward.

207 **Tcenakun Point** *(53°09'N, 132°35'W)* is the NW extremity of Chaatl Island. Shoal depths of 15 and 12.8 m lie on a bank of irregular depths extending about 2 miles WNW of the point. Above-water and drying rocks are close-off the point and shoal depths of less than 9 m are up to 0.8 mile to the west.

208 *Tcenakun Point* **light** *(see LL 808)*, on the north side of the point, is fitted with a **Racon (— — •)**.

209 **Marble Island**, centred in the entrance to Cartwright Sound, is 4 miles NW of Tcenakun Point. A reef of rocks with less than 2 m over them extends about 0.4 mile NW of the island, and a shoal with a least depth of 11.9 m, and marked by kelp during summer months, is 0.8 mile farther NW.

210 *Marble Island* **light** *(see LL 807.6)* is on the west side of the island.

211 **Marble Rock**, which is 6 m high, white and bare, is 0.3 mile SW of Marble Island. A 9.1-m shoal is close NW of the rock. **Gagi Rock**, which is bare, is 0.4 mile NE of Marble Island.

212 **Hunter Point** *(53°15'N, 132°43'W)* is low, wooded and fringed on all sides by foul ground. Large beds of kelp extend about 0.65 mile WSW and 0.4 mile south of the point. A rock that dries 0.9 m is near the SW extremity and a rock that dries 2.7 m is south of this foul ground.

213 **Skidegate Channel**, at the SE end of Cartwright Sound, leads between Moresby and Graham Islands and is entered north of Tcenakun Point. The channel connects Cartwright Sound to Skidegate Inlet. Skidegate Channel east of Downie Island is described in Chapter 7.

214 **Newton Point** *(53°09'N, 132°30'W)* has a rock 10 m high close west of it.

215 **Dawson Inlet** is entered between Newton Point and **Mercer Point**. A 9-m shoal is close-off Mercer Point. A reef of above-water and drying rocks lies in mid-channel, 1.2 miles within the entrance.

216 A kelp covered shelf of shoal water extends from the west shore past mid-channel in the narrows 1.5 miles north of Mercer Point. **Fishing boundary markers** are close inside the entrance and on both shores of Dawson Inlet at this narrows. **Booming grounds** are on the east shore of the inlet.

217 On the east shore, 0.5 mile further north is a cabin on a float with a **fresh water** hose fed by a nearby stream (1985).

218 **Dawson Harbour**, which extends east from Dawson Inlet, is too deep for good anchorage. **Yovanovich Bight** is on the north side at the head of the harbour. A **fresh water** hose is on a logboom, which is connected to shore (1985).

219 **Georgianna Point** and **Exact Point** are 1 and 3.5 miles ESE of Newton Point.

220 **Armentières Channel** extends south to Chaatl Narrows, at the head of Buck Channel. A rock with 2.8 m over it is 0.1 mile NNW of **Demariscove Point**, the east entrance point of the channel. **Fishing boundary markers** are on both shores of the channel, close inside the entrance.

221 **Tides**. — Tidal differences for Armentières Channel (Index No. 9605), referenced on Hunger Harbour, are given in the Tide Tables, Volume 7.

222 Small vessels can obtain good **anchorage** in the middle of Armentières Channel in 42 m, 0.3 mile from the entrance, or farther south in 33 m.

223 **Tana Bay** *(53°11'N, 132°39'W)* is entered between **Tana Point** and **Ells Point**. A shoal area with a least depth

of 2.8 m is 0.5 mile WSW of Ells Point and a 7.3-m shoal is near the middle of the bay. Numerous drying and below-water rocks are at the head of the bay. **Gudal Bay** north of Tana Bay has **Stiu Rock** and a rock with less than 2 m over it centred in its entrance. **Gudal Creek** flows into the head of the bay. Both bays are open to seaward and do not afford anchorage.

224 **Van Inlet**, in the NE part of Cartwright Sound and entered between **Van Point** and **Stiu Point**, has high land on either side. Apart from the entrance and a line of reconnaissance soundings in mid-channel the inlet has not been surveyed. A rock that dries 2.4 m is on the west side of the entrance off Van Point, and a 6.4-m shoal is on the east side about 0.25 mile SW of Stiu Point, with foul ground and kelp between them. About 0.3 mile within the entrance, a shoal area with rocks on it lies in mid-channel. At the west end of this shoal is a rock 1 m high. The better channel appears to be between this rock and the NW side of the inlet. Small vessels can obtain **anchorage** in about 22 m off a flat at the head of Van Inlet; local knowledge is advised. A **booming ground** is on the north shore (1988) at the head of the inlet.

Chart 3869

225 Between Hunter Point and **Fame Point** *(53°17'N, 132°42'W)*, 2 miles NNE, the shore is fringed by foul ground and kelp extending up to 0.6 mile offshore. **Kano Inlet** is entered between Fame Point and **Kindakun Point**, which is low, featureless and has a rocky ledge with several bare islets on it projecting about 0.33 mile WSW. A rock with less than 6 feet (2 m) over it is 0.2 mile farther SW. **Kindakun Rock** 2 feet (0.6 m) high and a rock covered less than 6 feet (2 m), 0.3 mile north of it, are 1 mile west of Kindakun Point.

226 *Kindakun Point* **light** *(see LL 807.7)* is on an islet close-off the point.

227 **Cadman Island**, joined to the south shore of Kano Inlet at LW, has some islets north and west of it. A rock with 14 feet (4.3 m) over it is 0.1 mile NW of the north islet.

Chart 3860

228 **Carew Bay** *(53°18'N, 132°38'W)* is entered between Cadman Island and **Kano Point**. Above-water and drying rocks extend 0.13 mile west of Kano Point. Sunken mooring buoys and chains have been reported (October 2004), in vicinity of the anchorage at the head of Carew Bay.

229 **Givenchy Anchorage** is at the head of Kano Inlet. On the west side of the approach an area of foul ground, in which there are islets and rocks, extends 0.25 mile offshore. The anchorage is entered east of the wooded islet 215 feet (66 m) high. The fairway at the entrance is reduced to about 300 feet (91 m) wide by a drying reef projecting from the east shore. The passage on the west side of the islet is obstructed by rocks.

230 A berth about 0.3 mile north of the wooded islet in the entrance to Givenchy Anchorage affords good anchorage in about 21 fathoms (38 m). Small vessels can obtain well-sheltered anchorage in about 12 fathoms (22 m) in Givenchy Anchorage about 0.25 mile from the head.

Rennell Sound

Chart 3869

231 **Rennell Sound** is entered between Kindakun Point and **Kunakun Point** *(53°28'N, 132°54'W)*. Its shores are wooded and backed by mountains rising to high peaks. Rennell Sound, with Shields Bay at its SE end, affords the most accessible shelter for larger vessels on the west coast of Haida Gwaii, and the physical features of its approach render it more easily identified than most of the other sounds and inlets along this coast.

232 *Kunakun Point* **light** *(see LL 807.5)* is on the point.

233 Hippa Island *(53°32'N, 132°58'W)*, 4 miles NW of Kunakun Point, and **Mount Emmons**, which rises above **Cone Head**, on the south side of the sound 4 miles NNE of Kindakun Point, are conspicuous features. Mount Emmons has a pyramidal peak, which appears symmetrical from all directions except north.

234 **Freeman Rock**, on which the sea breaks occasionally, is on the north side of the entrance to Rennell Sound, 2.3 miles SW of Kunakun Point.

235 **Rennell Reef**, consisting of a rock that dries 5 feet (1.5 m) with shoals close north and south, is 1.3 miles NW of Cone Head, with a deep channel between.

236 **Gospel Island** *(53°23'N, 132°35'W)* has foul ground, in which there are above-water, drying and below-water rocks, extending 0.5 mile NW from it. A shoal with 27 feet (8.2 m) over it is 1.3 miles west of the west extremity of Gospel Island with a 36-foot (11-m) shoal between them; a shoal finger extends 0.3 mile SE from the NE end of the island. Vessels can pass either north or south of these dangers.

237 **Gospel Point**, 2 miles east of Gospel Island, is steep-to. A bight north of the point has two coves with sandy beaches on which the sea breaks heavily during

strong westerly winds. A similar cove is close south of the point. A rock that dries 14 feet (4.3 m) is 1.1 miles NW of Gospel Point and below-water rocks with depths of 10 and 18 feet (3 and 5.5 m) over them are 0.3 mile SSW. A 24-foot (7.3-m) shoal is 0.4 mile north of Gospel Point.

Chart 3860

238 **Shields Bay** *(53°20'N, 132°27'W)* has **Richardson Head**, which is bold and steep-to, on its west side about 1 mile within the entrance. **Clonard Bay**, on the south side of Richardson Head, is fringed by a beach of boulders extending up to 0.1 mile offshore; otherwise, it is free of dangers.

239 **Tides**. — Tidal differences for Shields Bay (Index No. 9650), referenced on Langara Point, are given in the Tide Tables, Volume 7.

240 **Shields Island** is in the inner part of Shields Bay with its south extremity connected to shore by a drying reef. **Clapp Islands** extend SE from the SE extremity of the island.

241 **Shields Rock**, which dries 14 feet (4.3 m), is 0.7 mile west of **Dawson Head**, the NE point of Shields Island; two rocks, one with a depth of 8 feet (2.4 m) over it and the other with less than 6 feet (2 m) over it, are 0.1 mile SE and 0.2 mile south of Shields Rock. A 39-foot (11.9-m) shoal is 0.3 mile NNW of Dawson Head.

242 **Ells Bay**, SW of Shields Island, has **Ells Rocks** in the middle of its entrance with deep passages on either side.

243 **MacKenzie Passage**, on the east and south sides of the Clapp Islands, leads into **Clapp Basin**, at the head of Shields Bay. A drying bank on the south side of the passage restricts the fairway to a width of about 350 feet (107 m). A rock that dries 8 feet (2.4 m) is at the north extremity of a shoal ridge extending north from the NE entrance point of MacKenzie Passage. **Rockrun Creek** and **Shields Creek** flow into a bight lying east of the drying rock.

244 Logging activities can be encountered in Shields Bay. A logging road leads across Graham Island from the head of Shields Bay and connects with the road between the Village of Queen Charlotte and Masset.

245 **Anchorage** can be obtained in Clonard Bay in about 15 fathoms (27.4 m) or in Ells Bay in about 23 fathoms (42 m). Small vessels can obtain well-sheltered anchorage in about 9 fathoms (16.5 m) in the middle of Clapp Basin, but caution should be observed when rounding the south end of Clapp Islands.

Seal and Tartu Inlets

246 **Seal Inlet** *(53°29'N, 132°45'W)*, entered between **Skwakadanee Point** and **Seal Point**, has high land on both sides. The entrance is encumbered with drying and below-water rocks extending 0.85 mile west and WNW of Seal Point, with a deep channel between their west extremity and other below-water rocks lying within 0.4 mile east and NE of Skwakadanee Point. **Caution** is advised.

247 A microwave **tower** *(53°29'N, 132°50'W) (Chart 3869)* is 1 mile north of Skwakadanee Point.

248 **Lauder Island**, connected by a drying bank to a small promontory projecting from the north shore, lies within the entrance on the north side of the fairway. A rock that dries 17 feet (5.2 m) is 0.33 mile SW from the south extremity of Lauder Island, with drying and below-water rocks between it and the island.

249 An islet, 145 feet (44 m) high, is close within the east side of the entrance. Above-water, drying and below-water rocks, between 0.6 and 0.9 mile NE, lie up to 0.25 mile offshore. The head of the inlet is encumbered with several islets and a drying flat. Depths within Seal Inlet are too great for anchorage, except for small craft, at the head.

250 **Tartu Inlet** is entered between **Tartu Point** *(53°27'N, 132°42'W)* and **Clonard Point**. A 27-foot (8.2-m) shoal lies almost midway between the entrance points, and foul ground exists 0.25 mile south of Clonard Point and fringes the shore ESE of the point for 1.5 miles. An islet 15 feet (4.6 m) high, with a rock covered less than 6 feet (2 m) close SE, is close-off the west shore of the inlet 2 miles within the entrance. A drying rock (position approximate) is reported (1986) to lie close-off the west shore 1.4 miles north of the 15-foot (4.6-m) island. A **booming ground** and logging camp, on the east side of the head of the inlet, is reported (1985) to be closed with only a watchman remaining; telephone service may be available.

251 Small vessels can obtain **anchorage** in about 13 fathoms (24 m), 1.2 miles from the head of the inlet.

Charts 3869, 3860

252 The coastal waters between Kunakun Point *(53°28'N, 132°54'W)* and **Skelu Point**, 3 miles NNW, are unsurveyed and local knowledge is advised. From Kunakun Point to the south entrance point of **Skelu Bay** the coast is, for the most part, high and rugged, with shoals and kelp patches extending up to 0.5 mile from it. **Sadler Island** is off the south entrance point of Skelu Bay with foul ground

between them. Skelu Bay is unsuitable for anchorage as it is fully exposed west and SW.

Hippa Island — Hippa Passage

Chart 3860

253 From south, the outer end of **Hippa Island** *(53°32'N, 132°58'W)* appears as a low point and the inner end high and bold, but from a position near Frederick Island, 26 miles north, the island appears high and bold. There are high cliffs at the east end of the south side of the island. Foul ground surrounds Hippa Island. **Quequitz Reefs**, an area of drying and below-water rocks, are west of Hippa Island and a shoal finger extends NW from the islets off the NW end of the island.

254 *Hippa Island* **light** *(see LL 807.4)* is on the NW side of the island.

255 Hippa Island and the north shore of Nesto Inlet are within the boundaries of an **Ecological Reserve**.

256 **Hippa Passage** can be entered east or north of Hippa Island. A conspicuous rock pinnacle, 115 feet (35 m) high, is on the east side of the south entrance.

257 A rock, 23 feet (7 m) high, lies in the middle of the fairway in the south entrance of the passage, 0.5 mile SSE of **Hippa Point**. A rock with a depth of 23 feet (7 m) over it is 0.5 mile west of the last-mentioned rock, with drying and below-water rocks between them.

258 **Hippa Rocks**, consisting of two above-water rocks, 31 and 20 feet (9.4 and 6.1 m) high, and several drying and below-water rocks, lie in the middle of the NW entrance to Hippa Passage.

259 **Marchand Point** *(53°34'N, 132°59'W)* is low and a reef, terminating in a rock awash, extends 0.28 mile NW. Foul ground, extending about 0.15 mile offshore, fringes the coast for about 0.5 mile SE of the point.

260 A shoal ridge with below-water rocks on it and a rock covered 21 feet (6.4 m) at its south extremity extends from the north side of Hippa Passage just off the entrance to Nesto Inlet.

261 About 0.7 mile south of the south entrance point of **Nesto Inlet**, is an islet, 145 feet (44 m) high, with drying rocks off its north end and connected to shore by a drying ridge. A rock, with less than 6 feet (2 m) over it, and a 14-foot (4.3-m) shoal are 0.2 mile NNW of the islet. The north shore of Nesto Inlet is encumbered with islets and drying and below-water rocks from the middle to the head of the inlet. Depths within Nesto Inlet are too great for anchorage, but small craft can find shelter off the gravel beach at the head of the inlet, clear of the rocks mentioned above.

262 Between Marchand Point and **Selvesen Point**, 1.8 miles north, is an exposed bay with a shoal, marked by kelp, in the middle of its entrance. A rock, 10 feet (3 m) high, 0.65 mile SW of Selvesen Point, is the south end of a reef which extends about 1.3 miles north, terminating in two rocks with less 6 feet (2 m) over them; this reef has not been examined.

Athlow Bay

Chart 3869

263 **Athlow Bay** *(53°38'N, 133°00'W)* is unsurveyed except for a few lines of track soundings; local knowledge is advised before entering. **Hosu Cove**, encumbered with islets and rocks, is in the NE part of the bay; the south shore of this cove is formed by a peninsula of which **Gillan Point** is the SW extremity.

264 **Selvesen Island**, a wooded island, is close to the coast north of Selvesen Point; a rock that dries 13 feet (4 m) is 0.4 mile north of the island. A large kelp bed covers the reef with a rock awash on it lying offshore to the west of Selvesen Point and Selvesen Island. **Flamingo Rock**, with less than 6 feet (2 m) over it and which breaks in heavy weather, is in the middle of the entrance to Athlow Bay.

265 **Hughes Point**, high and cliffy with some drying rocks close-off it, is 1 mile ENE of Selvesen Island. A detached rock that dries 3 feet (0.9 m) is 0.25 mile NE of the point.

Chart 3863

266 **Surveys. — Caution**. — The waters covered by *Chart 3863* are not completely surveyed and uncharted dangers may exist.

267 **Port Chanal** is entered between Hughes Point and **Barry Island** *(53°37'N, 132°56'W)*, which has a 33-foot (10.1-m) shoal 0.1 mile off its west side. **Freeman Island**, in the middle of the entrance, has a rock that dries 3 feet (0.9 m) and shoals with depths of 9 and 15 feet (2.7 and 4.6 m) extending about 0.2 mile north from **Notch Point**, its north extremity. The passage into Port Chanal leads north of Freeman Island. There is, apparently, deep water in mid-channel to the anchorage about 1 mile from the head of the inlet.

268 Port Chanal and the surrounding area is an **Ecological Reserve**.

269 **Celestial Bluff** is east of Freeman Island. **Cameron Range**, a conspicuous range of mountains, is on the north side of Port Chanal.

270 **Mallard Rock**, 6 feet (1.8 m) high, is 0.1 mile NW of a point on the south side of the channel, 1.3 miles from the head of the port. Shoals with depths of 18 to 34 feet (5.5 to 10.4 m) lie up to 0.15 mile NNE of Mallard Rock.

271 **Chanal Rock**, 4 feet (1.2 m) high, is off the SE shore, 0.6 mile from the head of the inlet; drying rocks extend ENE of Chanal Rock to a flat fringing the SE shore. A shallow spit with depths of less than 6 fathoms (11 m) over it extends off the north shore, WNW of Chanal Rock. A rock with less than 6 feet (2 m) over it is near the south extremity of a reef north of Chanal Rock.

272 **Empire Anchorage** *(53°35'N, 132°54'W)*, on the south side of the channel SE of Freeman Island, is a bay encumbered with drying rocks at the head. A rocky ledge is parallel to the east shore of the bay and joined to it by a drying gravel flat. **Mount Hobbs** is close east of Empire Anchorage.

273 Empire Anchorage provides only temporary **anchorage** for small vessels in about 21 fathoms (38 m) in the middle of its entrance.

274 Good sheltered **anchorage** can be obtained in about 22 fathoms (40 m) about 1 mile from the head of Port Chanal. Small craft can obtain anchorage in about 30 feet (9.1 m), 0.1 mile off the edge of the flats at the head of the port.

275 **Goose Cove**, SE of Freeman Island, is unsurveyed.

Charts 3869, 3811

276 **Coast**. — Between the north entrance point of Athlow Bay *(53°40'N, 133°00'W)* and Louis Point, 2 miles NW, the land is low and the coast rocky and irregular. **Dangers**. — Three rocks (position approximate) with less than 6 feet (2 m) over them lie up to 1.6 miles SSW and SW of Louis Point. The SW rock breaks heavily in a moderate sea.

Port Louis

Chart 3811

277 **Louis Point** *(53°42'N, 133°02'W)* is the north extremity of an islet connected to Graham Island by a drying ledge.

278 **Louis Rocks**, consisting of two heads 1 and 6 feet (0.3 and 1.8 m) high, are on a drying reef 0.6 mile WNW of Louis Point. Several shoals and drying rocks lie between Louis Rocks and Louis Point.

279 **Taylor Shoal**, 1 mile NNE of Louis Point, is a rocky bank with two shallow areas on it with least depths of 10 and 13 feet (3 and 4 m). A shoal with a least depth of 18 feet (5.5 m) lies nearly midway between the south end of Taylor Shoal and some islets to the south. These shoals, all of which break in a westerly swell, are on the west side of the fairway leading to Kiokathli Inlet.

280 **Brock Islands** and **Mackenzie Island**, which is connected to the shore SE by a drying bank, are on the east side of the approach to Kiokathli Inlet. A shoal with 21 feet (6.4 m) over it is in the middle of the approach, WSW of Brock Islands, and reefs extend 300 feet (91 m) west and north of the north end of Mackenzie Island.

281 **Kiokathli Inlet** widens south of Mackenzie Island into a basin encumbered in its centre by shoals with a least depth of 19 feet (5.8 m) over them.

282 Between Mackenzie Island and **Ogilvie Island**, 0.15 mile NE, is the entrance to an inlet which is encumbered in its west half by foul ground. A drying rock is reported (1986) to lie in the middle of this inlet, SSW of the east end of Ogilvie Island.

283 **Solide Islands** are 1.5 miles ENE of Louis Point in the middle of the approach to Port Louis. Banks with depths under 6 fathoms (11 m) extend 0.12 mile NNW and ENE from the NW island. Two rocks that dry 6 feet (1.8 m) lie within 0.15 mile of the east and NE sides of the SE island.

284 **Port Louis** *(53°42'N, 132°57'W)* is entered through a channel leading south of **Chanal Point** and **Turner Point**. The bay between these points has several islets and foul ground in its east part.

285 **Tides**. — Tidal differences for Port Louis (Index No. 9671), referenced on Langara Point, are given in the Tide Tables, Volume 7.

286 **Newington Rock**, which dries 4 feet (1.2 m), has deep water close south of it and is on the north side of the approach channel. **Barnes Shoal**, with a least depth of less than 6 feet (2 m), is on the south side of the channel.

287 **Queen Island**, on the west side of Port Louis, has a drying reef extending about 450 feet (137 m) north of it. A detached shoal area with a least depth of 19 feet (5.8 m) is near mid-channel. Depths of 3 to 9 fathoms (5.5 to 16.5 m) exist between Queen Island and Barnes Shoal. Two shoal areas, 0.15 mile SE of Queen Island, have least depths of less than 6 feet (2 m) and 21 feet (6.4 m).

288 **Tingley Cove**, the south extension of Port Louis, is encumbered in its entrance by foul ground on which are the **Pip Islets**.

289 **Rocks**. — A drying rock (position approximate) 50 feet (15 m) in diameter was reported (1980) to lie 0.1 mile NW of Pip Islets. A rock awash (position approximate) lies SE of Pip Islets, midway between a shoal ledge extending from the islets and a drying spit projecting from the shore to the SE. In addition to this rock, shoal water has been found to extend across this passage. For vessels entering Tingley Cove, the passage between Pip Islets and **Alured Point** is recommended, but caution is necessary as uncharted rocks may exist.

290 **Virgalias Cove**, **Coates Creek** and **Steel Creek** are at the head of Port Louis. A shoal, with two heads with less than 6 feet (2 m) over them, is in the approach to Virgalias Cove.

291 **Anchorage** can be obtained in the middle of Port Louis, in about 14 fathoms (25.6 m), mud.

292 About 0.5 mile NW of Chanal Point, an island is connected to Graham Island by a drying bank. Foul ground extends about 0.1 mile and a shoal ridge is 0.2 mile NW of the island. An island connected to the shore by a drying bank is 1 mile farther north. Between these two islands, foul ground with thick kelp overlaying it extends up to 0.35 mile offshore.

Otard Bay and Approaches

293 **Otard Bay** *(53°45'N, 133°01'W)* is entered between **McIntosh Point** and **Beavis Point**, 0.9 mile west.

294 **Benson Rock**, with a depth of less than 6 feet (2 m) over it, lies on a large shoal area, 0.9 mile SSW of Beavis Point. Two shoals, with depths of 14 and 27 feet (4.3 and 8.2 m), are 0.1 mile WNW and 0.25 mile SSW, respectively, from Benson Rock. These shoals are steep-to on their east and west sides.

295 **Beavis Islets**, close south of Beavis Point, are connected to the point by a drying reef. A shoal with a depth of 36 feet (11 m) is 0.25 mile east of Beavis Islets, and foul ground, on which there are some above-water and drying rocks, extends 0.2 mile WNW from the islets.

296 **Thomas Rock**, which dries 10 feet (3 m), is 0.28 mile west of McIntosh Point. Shoal water lies all around the rock except the south side, which is steep-to. A 9-foot (2.7-m) shoal is 0.15 mile west and depths of less than 18 feet (5.5 m) are the same distance east of Thomas Rock. A detached shoal with 18 feet (5.5 m) over it is 0.2 mile SE of Thomas Rock.

297 **Anchorage** can be obtained about 0.4 mile from the head of Otard Bay in 33 feet (10.1 m), sand, but a considerable sea rolls in with SE and SW gales.

298 **Tian Bay** *(53°46'N, 133°04'W)* is entered between Beavis Point and the **Tian Islets**, 1.7 miles west. A rock 4 feet (1.2 m) high is 0.25 mile SE of the south islet, with a 29-foot (8.8-m) shoal north of it and a shoal of similar depth about 0.2 mile west. A detached shoal with 25 feet (7.6 m) over it is 0.2 mile ENE of the north Tian Islet. A group of drying rocks is 0.2 mile off the east shore of Tian Bay, 0.7 mile NW of Beavis Point.

Tian Head to Cape Knox

Chart 3868

299 **Caution**. — Recent surveys (2018) have found shoaler depths than charted and horizontal discrepancies of up to 656 feet (200 m) along the west coast of Graham Island.

300 **Tian Head** *(53°47'N, 133°07'W)* is a prominent point with a conspicuous wooded summit 500 feet (153 m) high 0.7 mile NE of it. **Tian Rock**, 25 feet (7.6 m) high, is 0.3 mile SW of Tian Head, with shoal water, a rock that dries 2 feet (0.6 m) and a drying reef between them. A detached 36-foot (11-m) shoal is 1.1 miles west, and a rock that dries 1 foot (0.3 m) is 1.3 miles NW of Tian Head.

301 **Joseph Rocks**, 2 miles NNW of Tian Head, are 31 feet (9.4 m) high and have submerged reefs extending about 0.15 mile NW and SE and shoals lying within 0.4 mile all around. A rock with less than 6 feet (2 m) over it and several shoals with depths from 15 to 36 feet (4.6 to 11 m), some marked by kelp, lie between 1 and 2 miles west and NW of Joseph Rocks. A rock with 15 feet (4.6 m) over it is in the approach to Ingraham Bay, 1 mile north of Joseph Rocks.

302 **Ingraham Bay** *(53°49'N, 133°07'W)* has a sandy beach at its head. A rock that dries 11 feet (3.4 m) is on the north side of the entrance to the bay and shoals with depths of 24 to 36 feet (7.3 to 11 m) lie in the middle of the entrance.

303 Between Ingraham Bay and **Kennecott Point**, about 5 miles NNW, the coast is rocky and irregular. Its south part is steep-to but within 1.8 miles of Kennecott Point it is fronted by rocky ledges extending nearly 0.4 mile offshore at the foot of some cliffs 30 feet (9.1 m) high. **Cave Creek** flows into the sea about 1 mile north of Ingraham

Bay. **Omega Mountain** rises to a conspicuous summit, 1,220 feet (372 m) high, 1 mile east of Kennecott Point and on the south side of an extensive valley extending SE from the head of Peril Bay.

304 **Frederick Island** *(53°56'N, 133°11'W)* is densely wooded with rocky coasts. **Ellis Point** is its south extremity. In clear weather the island is conspicuous from the west approach to Parry Passage, about 15 miles north, appearing as a part of Graham Island. A rock with less than 6 feet (2 m) over it is 0.15 mile SW of a bare rocky islet close south of Ellis Point. A rock, with 18 feet (5.5 m) over it and marked by kelp, with deep water close all around is 1.5 miles SW of Ellis Point; the sea breaks heavily over this rock. From **Hope Point**, the NW extremity of the island, a rocky ledge with an islet on it projects nearly 0.2 mile west. A group of above-water rocks, the outermost of which is 25 feet (7.6 m) high, extends about 0.2 mile north from **Dalton Point**, the NE extremity of Frederick Island; uneven depths of less than 6 fathoms (11 m) extend about 0.4 mile farther north and NE.

305 *Frederick Island* **light** *(see LL 807.2)* is on Hope Point.

306 **Morgan Point**, east of Frederick Island, rises steeply to a summit of 440 feet (134 m) a short distance inland. **Beehive Hill**, to the south, is conspicuous.

307 **Peril Bay** is entered from north between Frederick and Morgan Points. The south entrance is used only by small craft, as there are mid-channel depths of less than 2 fathoms (3.7 m). Local knowledge is advised.

308 **Boussole Rock** is 1.5 miles NW of Morgan Point on the north side of the approach to Peril Bay. Boussole Rock has a depth of 18 feet over it and two shoals with depths of 27 and 33 feet (8.2 and 10.1 m) lie within 0.25 mile NE and SE of it. The water is deep on the seaward side of this shoal area and it breaks heavily in a moderate swell.

309 Temporary **anchorage** is obtainable in Peril Bay for vessels of moderate draught in about 33 feet (10.1 m), sand, in a position with Morgan Point in line with Conspicuous Cone bearing 038°, and the rocky point under Beehive Hill bearing 097°. This anchorage, which should be used with caution, is protected from most directions, but with strong west or NW winds, the swell, which is nearly always present, becomes heavy and a vessel should be prepared to leave.

310 **Directions**. — A vessel from the north bound for the anchorage in Peril Bay should pass about 1.5 miles west of La Pérouse Reef and then steer with Hope Point ahead, bearing 170°. When the north extremity of Morgan Point bears about 115°, alter course to bring that point ahead, bearing 112°, to pass about midway between Dalton Point and Boussole Rock. When Omega Mountain bears 154°, steer for it on that bearing which will lead to the anchorage. A vessel from south proceeding to Peril Bay should, after clearing the 18-foot (5.5-m) rock SW of Ellis Point, round Hope Point at a distance of about 0.5 mile and then steer a course with Conspicuous Cone ahead, bearing 065°, until the north extremity of Morgan Point bears 112°; then follow the latter part of the directions given above.

311 There is no harbour or landing place between Peril Bay and Cape Knox, the NW point of Graham Island.

312 **Tidal streams** offshore between Frederick Island and Parry Passage are not strong, seldom attaining more than 1 kn.

313 **Haines Creek** flows into a small bight on the east side of Morgan Point; it is difficult to access by boat, except at HW in calm weather.

314 Islets, drying rocks and shoal water lie up to 1 mile offshore between Morgan Point and **White Point** *(54°00'N, 133°07'W)*, which has conspicuous white cliffs near it.

315 **La Pérouse Reef**, 2 miles WNW of White Point, dries 8 to 9 feet (2.4 to 2.7 m) and is the outermost danger between Frederick Island and Cape Knox. Foul ground extends 0.3 mile NE of the reef; the west side of the reef is steep-to, but it should be given a wide berth. Breakers are charted 1.3 miles to the south. Between the reef and White Point, and as far south along the coast as Boussole Rock, there are numerous below-water rocks over which the sea generally breaks, so that even small craft should pass to seaward of La Pérouse Reef.

316 **Conspicuous Cone** and **Pivot Mountain** rise 1.8 miles SE and 4.5 miles ENE of White Point. The latter mountain is somewhat detached from the others, and is easy to identify from the NE part of Dixon Entrance. A microwave **tower** is on Pivot Mountain.

317 Between White Point and **Sadler Point** *(54°06'N, 133°06'W)*, 6 miles north, is **Beresford Bay**, which is fringed by foul ground and thick kelp; it is of no use as an anchorage. **Hana Koot Creek** flows into the south part of the bay east of White Point. **Beresford Creek** flows into the SE part of the bay 0.6 mile NNE of **Pyramid Hill**. **Caswell Point** and **Fleurieu Point** are two projections on the east side of Beresford Bay. **Sialun Bay**, close south of Sadler Point, has a rock 10 feet (3 m) high in its middle and **Sialun Creek** at its head.

318 **Lauder Point** is 1.2 miles north of Sadler Point, and **Newcombe Hill**, which is conspicuous, rises about 1.3 miles farther NE. Several rocks, above water, drying and awash, on which the sea breaks heavily, extend up to 1.5 miles offshore between Sadler Point and Newcombe

Hill. **Gatenby Rock**, which is awash and usually breaking, is the outermost of these dangers.

319 The coast from Sadler Point to T'áalan Stl'áng, 4 miles NNE, is formed of precipitous cliffs.

320 **T'áalan Stl'áng**, which is free of dangers, is on the south side of a peninsula whose NW extremity is **Cape Knox**. A heavy swell is always present in the bay making it unsuitable as an anchorage, even in fine weather.

321 The islet, 100 feet (30.5 m) high, at the head of T'áalan Stl'áng is an **Ecological Reserve**.

322 Dixon Entrance including Parry Passage, Carew Rock, Turner Reef and the passage between them and Cape Knox are described in Chapter 6.



323 Attention is directed to the **caution** in Chapter 6 regarding the approach to Parry Passage from south in thick weather.

Trip Plan

Adapted from Transport Canada Publication TP 511E.

Fill out a trip plan for every boating trip you take and file it with a responsible person. Upon arrival at your destination, be sure to close (or deactivate) the trip plan. Forgetting to do so can result in an unwarranted search for you.

Trip Plan

Owner Information

Name: _____

Address: _____

Telephone Number: _____ Emergency Contact Number: _____

Boat Information

Boat Name: _____ Licence or Registration Number: _____

Sail: _____ Power: _____ Length: _____
Type: _____

Colour _____ Hull: _____ Deck: _____ Cabin: _____

Engine Type: _____ Distinguishing Features: _____

Communications

Radio Channels Monitored: HF: VHF: MF:

MMSI (Maritime Mobile Service Identity) Number: _____

Satellite or Cellular Telephone Number: _____

Safety Equipment on Board

Lifejackets *(include number)*: _____

Liferafts: _____ Dinghy or Small Boat *(include colour)*: _____

Flares *(include number and type)*: _____

Other Safety Equipment: _____

Trip Details — Update These Details Every Trip

Date of Departure: _____ Time of Departure: _____

Leaving From: _____ Heading To: _____

Proposed Route: _____ Estimated Date and Time of Arrival: _____

Stopover Point: _____ Number of People on Board: _____

Search and Rescue Telephone Number: _____

The responsible person should contact the nearest Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC) if the vessel becomes overdue.

Act smart and call early in case of emergency. The sooner you call, the sooner help will arrive.

JRCC Victoria (British Columbia and Yukon) 1-800-567-5111
+1-250-413-8933 (Satellite, Local or out of area)
727 (Cellular)
+1-250-413-8932 (fax)
jrccvictoria@sarnet.dnd.ca (Email)

JRCC Trenton (Great Lakes and Arctic) 1-800-267-7270
+1-613-965-3870 (Satellite, Local or Out of Area)
+1-613-965-7279 (fax)
jrcctrenton@sarnet.dnd.ca (Email)

MRSC Québec (Quebec Region) 1-800-463-4393
+1-418-648-3599 (Satellite, Local or out of area)
+1-418-648-3614 (fax)
mrscqbc@dfo-mpo.gc.ca (Email)

JRCC Halifax (Maritimes Region) 1-800-565-1582
+1-902-427-8200 (Satellite, Local or out of area)
+1-902-427-2114 (fax)
jrcchalifax@sarnet.dnd.ca (Email)

MRSC St. John's (Newfoundland and Labrador Region) 1-800-563-2444
+1-709-772-5151 (Satellite, Local or out of area)
+1-709-772-2224 (fax)
mrscsj@sarnet.dnd.ca (Email)

MCTS Trip Plan Service

Marine Communications and Traffic Services Centres provide a trip plan processing and alerting service. Mariners are encouraged to file Trip Plans with a responsible person. In circumstances where this is not possible, Trip Plans may be filed with any MCTS Centre by telephone or marine radio only. Should a vessel on a Trip Plan fail to arrive at its destination as expected, procedures will be initiated which may escalate to a full search and rescue effort. Participation in this program is voluntary.

See Canadian Radio Aids to Marine Navigation.

Other References

Information for the Protection of Killer Whales:
https://www.pac.dfo-mpo.gc.ca/fm-gp/mammals-mammiferes/whales-baleines/srkw-measures-mesures-ers-eng.html

Pacific Pilotage Authority:
https://www.ppa.gc.ca/

Meteorological data:
https://www.canada.ca/en/services/environment/weather.html

Marine Forecasts and Warnings for Canada:
https://weather.gc.ca/marine/index_e.html

Current Predictions (Data Viewer by DFO - MSDI Dynamic Current Layer):
Visit https://search.open.canada.ca/opendata/ and search for “MSDI Dynamic Current Layer”

Customs:
https://www.cbsa-asfc.gc.ca/travel-voyage/pb-pp-eng.html

SAR:
Search and rescue (ccg-gcc.gc.ca)

Distances: Inside Passage — Prince Rupert to Cape Caution via Grenville, Princess Royal and Seaforth Channels, Lama Passage, Fitz Hugh Sound

Prince Rupert													
72	Sainty Point												
100	28	Butedale											
121	49	67	Kitimat										
158	58	65	57	Kemano									
135	63	35	102	104	Boat Bluff								
161	89	61	126	128	26	Susan Rock							
180	108	80	147	145	45	20	Bella Bella						
190	118	90	157	155	55	30	10	Pointer Island (E end Lama Pass.)					
210	138	110	167	176	63	50	30	20	Ocean Falls				
255	183	165	213	211	119	86	61	56	54	Bella Coola via Burke Channel			
203	131	103	181	179	68	42	23	12	33	56	Namu		
222	150	122	189	191	87	61	42	32	51	66	20	Safety Cove	
232	160	132	199	201	98	71	52	42	61	86	30	10	Dugout Rocks
245	173	145	212	214	110	84	65	55	74	99	43	23	13 Cape Caution-078° 2.2 miles

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

Distances: Prince Rupert to Portland and Observatory Inlets and the Head of Alice and Hastings Arms

Prince Rupert							
19	Lucy Islands						
37	19	Pointer Rocks					
39	20	5	Port Simpson				
67	49	30	33	Kincolith			
92	74	55	58	27	Brook Shoal Light		
103	85	66	69	37	11	Alice Arm	
95	77	58	61	29	5	16	Anyox
107	89	70	73	42	15	26	19 Head of Hastings Arm

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

Distances: Prince Rupert to Stewart via Portland Inlet and Canal

Prince Rupert				
65	Ramsden Point Light			
87	22	Hattie Island Light		
111	46	24	Cliff Point	
128	63	41	17	Stewart

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

U.S. PORTS

Prince Rupert to Ketchikan .....131 miles
Ketchikan to Skagway .....276 miles

Distances: Prince Rupert to Langara Point via Brown Passage

Prince Rupert					
13	Rachel Islands				
27	14	Triple Islands			
49	36	22	Rose Spit Buoy		
81	64	50	23	Masset Bar	
99	86	72	50	33	Langara Point

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

Distances: Prince Rupert to Haida Gwaii

Prince Rupert					
9	Holland Rocks				
28	19	Seal Rocks			
80	71	52	Lawn Point Buoy		
91	81	63	11	Sandspit	
99	89	71	19	8	Queen Charlotte

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

Distances: Prince Rupert to East Coast of Haida Gwaii

Prince Rupert							
9	Holland Rocks						
28	19	Seal Rocks					
95	86	67	Cumshewa Head				
99	90	71	11	Reef Island			
122	113	94	38	27	Scudder Point		
128	119	100	44	33	6	Copper Islands	
136	127	108	56	45	18	12	Garcin Rocks
158	149	130	73	62	35	29	17	Cape St. James

The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

Distances: West Coast Haida Gwaii Cape St. James to Langara Point

Cape St. James							
14	Anthony Island						
39	25	Gowgaia Bay (entrance)					
67	53	28	Tasu Sound (entrance)				
101	87	62	34	Marble Island			
126	112	87	59	25	Hippa Island		
151	137	112	84	50	25	Frederick Island	
172	158	133	105	71	46	21	Langara Point

N.B. 3 to 5 miles offshore
The distances are approximate and expressed to the nearest even nautical mile.
They are based on the most frequently used tracks which may not be suitable for all vessels.

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