

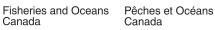
# **ATL 108**

## Canadian Sailing Directions

Gulf of St. Lawrence (Southwest Portion)

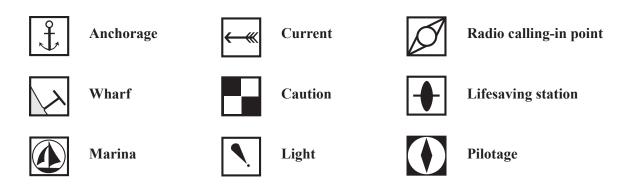








## **Pictograph legend**



## 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: <u>chsinfo@dfo-mpo.gc.ca</u>.

## **IMPORTANT NOTICE**

The Canadian Hydrographic Service no longer produces hard copies of its publications.

Updates are published in Notices to Mariners at <u>notmar.gc.ca</u> and on the Canadian Hydrographic Service website at <u>charts.gc.ca</u>

## **REPRODUCTION FOR PERSONAL USE**

This digital publication - as published in <u>charts.gc.ca</u> - may be printed or reproduced in any format, without charge or further permission, provided that it is for non-commercial purposes, i.e. not for sale or any profit whatsoever.

To be used for navigation, the reproduction must be an unaltered, true copy of the publication found in <u>charts.gc.ca</u>, and kept up-to-date at all times.

## **REPRODUCTION FOR COMMERCIAL PURPOSES**

This publication shall not be printed or otherwise reproduced in whole or in part for commercial purposes (i.e. in the purpose of sale or any profit whatsoever, as opposed to personal use), without prior written permission from the Canadian Hydrographic Service.

For full terms and conditions, visit <u>charts.gc.ca</u> or email <u>chsinfo@dfo-mpo.gc.ca</u>.

Published under the authority of the Canadian Hydrographic Service Fisheries and Oceans Canada 200 Kent Street, Ottawa, Ontario, Canada, K1A 0E6

© Her Majesty the Queen in Right of Canada, 2022 Catalogue No. Fs74-50E-PDF ISSN 2816-475X Ottawa

## **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 <u>charts.gc.ca</u> to download the most recent version of this volume, with all current changes already incorporated.

The table below lists the changes that have been applied to this volume of Sailing Directions. This record of changes will be maintained for the current calendar year only.

Chapter / Paragraph	Description of Change

	Preface	IV
	Explanatory Notes	V
	Abbreviations	VII
CHAPTER 1	NW Coast of Cape Breton Island, St. Georges Bay and East and	
	North Coasts of Prince Edward Island	
	Cape Breton Island — NW Coast	1-1
	St. Georges Bay — Canso Canal	1-6
	East Side of St. Georges Bay	1-9
	South Side of St. Georges Bay	1-11
	West Side of St. Georges Bay	1-14
	Prince Edward Island — East Coast	1-15
	Georgetown Harbour	
	Georgetown Harbour Prince Edward Island — North Coast	
	Alberton Harbour	1-54
CHAPTER 2	Îles de la Madeleine	
	Îles de la Madeleine	2-1
	Îles de la Madeleine — East Coast	2-3
	Îles de la Madeleine — South and West Coasts	2-9
	Îles de la Madeleine — NW and North Shores	2-13
CHAPTER 3	Northumberland Strait	
	Confederation Bridge	3-1
	Cape George to Pictou Harbour	3-3
	Pictou to Cape Tormentine	
	Cape Bear to Charlottetown	3-18
	Charlottetown to Summerside	3-22
	Summerside to North Cape	
	Cape Tormentine to Point Escuminac	3-30
CULADTED 4	Gulf of St. Lawrence — West Shore	
CHAPTER 4		
	Point Escuminac to Cape Gaspé	4-1
	Miramichi Bay	4-1
	Miramichi River	
	Miramichi Bay to Miscou Island	4-6
	Chaleur Bay	4-10
	Chaleur Bay — South Shore — Miscou to Heron Island	
	Chaleur Bay — North Shore — Cap d'Espoir to Eel River	
	Port de Chandler	4-21
	Port de Carleton	
	Restigouche River — Miguasha to Campbellton	4-30
	Cap d'Espoir to Cap Gaspé	4-31
	Baie de Gaspé	4-33
	Port de Gaspé	4-35
APPENDICES	Sail Plan	A-1
	Guidelines For Navigation Under The Confederation Bridge	A-3
	Metric Conversion Table	
	Search and Rescue	
	Meteorological Table	
	Distance Tables	
	Table of Marina Facilities	
	Forillon National Park	
	Index	I-1

his First Edition of *Sailing Directions, ATL 108 — Gulf of St. Lawrence (Southwest Portion),* 2006, has been compiled from Canadian Government and other information sources. 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.

General information for the Atlantic Coast is grouped within one booklet, *Sailing Directions, ATL 100 — General Information, Atlantic Coast,* 2007. It contains navigational information and a brief description of the main port facilities as well as geographic, oceanographic and atmospheric characteristics.

The detailed description of the geographical areas is given in a series of volumes and booklets. Their limits are printed on the back cover of the booklets. The appropriate descriptive booklet(s) should be consulted in conjunction with the *ATL 100 — General Information* booklet.

The photographs are by Fisheries and Oceans Canada, Bedford Institute of Oceanography, Dartmouth, Nova Scotia. The photograph for the Port of Belledune is courtesy of the Port of Belledune.

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

## Remarks

**Buoys** are 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*, refer to the largest scale Canadian chart. Occasionally a smaller scale chart may be quoted where its use is more appropriate.

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

**Names** have been taken from the most authoritative source. Where an obsolete name still appears on the chart or is of local usage, it is given in brackets following the official name.

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

## Units and terminology used in this booklet

Latitude and longitude given in brackets are approximate, and are intended to facilitate reference to the chart quoted.

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

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

**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 is equal to 1,852 m (6,076 ft).

**Speeds** are expressed in knots, which mean 1 nautical mile per hour.

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

**Elevations** and **vertical clearances** are given above Higher High Water, Large Tides. In non-tidal waters they are referred to chart datum.

**Heights** of objects, distinct from elevations, refer to the heights of the structures above the ground. A statement, "a hill 18 m high", is occasionally used when there could be no confusion and in this case the reference will signify an elevation.

The List of Lights, Buoys and Fog Signals number is shown **in brackets** after the navigational aid (light, leading lights, buoy). The expression "seasonal" indicates that it is operational for a certain period during the year; mariners should consult the List of Lights, Buoys and Fog Signals to determine the period of operation. The expression "private" means that the navigational aid is privately maintained; it will not necessarily be mentioned in the List of Lights, Buoys and Fog Signals and its characteristics may change without issuance of a Notice to Shipping.

**Time**, unless otherwise stated, is expressed in local standard or daylight time. For the waters described in this booklet, local time is Atlantic Standard Time (AST Z+4).

**Deadweight tonnage** and **masses** are expressed in metric tonnes. The kilogram is used to describe relatively small masses.

**Public wharf** is a wharf that is available for public use, though certain fees may be charged by local authorities. It may be shown as "Government wharf" or "Govt Whf" on older charts.

**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.

The expression "**small craft**" refers to pleasure craft and small vessels with shallow draught.

**Diagrams** are large scale cartographic representations of harbours, wharves, anchorages, or marinas.

**Pictographs** 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.

## **References to other publications:**

## **Canadian Hydrographic Service**

- Catalogue of Nautical Charts and Publications (Atlantic Coast)
- 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 and Eastern Arctic)
- Annual Edition of Notices to Mariners

Cinto	
°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
0	degree (plane angle)
,	minute (plane angle)
<b>D</b> !	
Directio	ns
Ν	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 Oce
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 Tra
NAD	North American Datum
No.	number

## Units °C cm

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
М	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

## NW Coast of Cape Breton Island, St. Georges Bay and East and North Coasts of Prince Edward Island



#### Chart 4022

From **Cape St. Lawrence**  $(47^{\circ}03'N, 60^{\circ}36'W)$  to Black Point, a distance of 73 miles, the coast is high with long stretches of precipitous cliffs rising a short distance inland to a ridge with summits of 1,500 feet (457 m). The cliffs are notched at intervals by ravines and gullys where a few small rivers and streams enter the sea. The *Cabot Trail*, a road through the highlands of Cape Breton, follows the coast closely for much of this distance. Small fishing villages and settlements are scattered thinly along the shore, and there are a few small shallow harbours, the largest being Chéticamp, midway along this coast.

2 The steepness of the cliffs is repeated in the generally deep water offshore, with shallow water and rocks confined to within 0.5 mile of the shore, except near the few islands, river mouths, and areas where the sea and weather have eroded cliffs. There are few suitable areas for boat landings, and then only in good weather.

3 Ample offing should be allowed on this coast, particularly in autumn and early winter, when the prevailing NW winds cause a heavy onshore sea and swell.

4 **Current and tidal streams**. — There is a general set towards this coast at most times. The streams are inconstant and irregular in rate and direction, and do not normally exceed 1 knot in summer.

4.1 The hourly surface currents forecasts for the Gulf of St. Lawrence are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours.

## Chart 4464

**S** Cape St. Lawrence to Chéticamp Harbour. — Pleasant Bay (46°50'N, 60°48'W) is situated about 10 miles SW of Cape St. Lawrence. The harbour is entered between two stone breakwaters 131 feet (40 m) apart. A light is shown from a mast at the outer end of each breakwater (860.6, 860.9). A light (860.8) is shown from the shore, on the northeast side of the entrance to the inner harbour, from a white tower with a red band at the top. Fairway light and bell **buoy** VC (*860.5*) is moored 0.7 mile NW of this light. **Leading lights** (*861, 861.1*) bear 143<sup>1</sup>/<sub>2</sub>° in the approach and are shown from white daymarks with red stripes.

<sup>6</sup> There are reported depths of 6 to 7 feet (1.8 to 2.4 m) in mid channel in the entrance. The entrance sometimes is impassible during strong NW winds. The harbour is often quite busy during the crab fishery, which is usually held in July and August.

From the north side of the inner harbour, an L-shaped Public wharf extends 135 feet (41 m) to an outer end 100 feet (30 m) long. There is a least depth of 6 feet (1.8 m) along the outer face. A marginal wharf, 200 feet (60 m) long, extends along the shore to the east. There is a least depth of 5 feet (1.5 m) alongside. Fresh water, gravity fed, is available at the east end of this wharf. Another marginal wharf, 150 feet (46 m) long, extends to the west. There is a least depth of 2 feet (0.6 m) alongside. These wharves have a concrete deck. Adjacent to this, on the south side of the harbour, are floating docks with a total length of 330 feet (100 m). There is a least depth of 2 feet (0.6 m) alongside.

8 On the east side of the inner harbour is a wharf 150 feet (46 m) long with a least depth of 2 feet (0.6 m) alongside. Tour boats operate from this wharf. **Pleasant Bay** has a population of about 300.

### Chart 4449

9 Jerome Ledge, with 0.6 m over it, and Caveau Shoals, with 3.4 m, lie on the NE side of the entrance to Chéticamp Harbour.

**Chéticamp Island** is joined to the mainland by a narrow beach of sand and shingle at the south end. The coast of the island is a high cliff which is constantly undermined by the sea. The east side of the island, bordering Chéticamp Harbour, is low and grassy. A **light** (867) is shown at an elevation of 22 m, from a white tower 13.3 m high, with a red upper part, on **Enragée Point** (46°39'N, 61°02'W), the NW point of the island.

11 **Chéticamp Harbour**, between Chéticamp Island and the mainland, is suitable as an anchorage for small vessels. The harbour is subject to silting and depths may be shallower than those charted. The limiting depth in the channel is 4.6 m. The harbour is normally open from mid April to early January. **Ice** usually forms about the middle of January and has been known to restrict navigation until mid May. The population of Chéticamp is about 800.

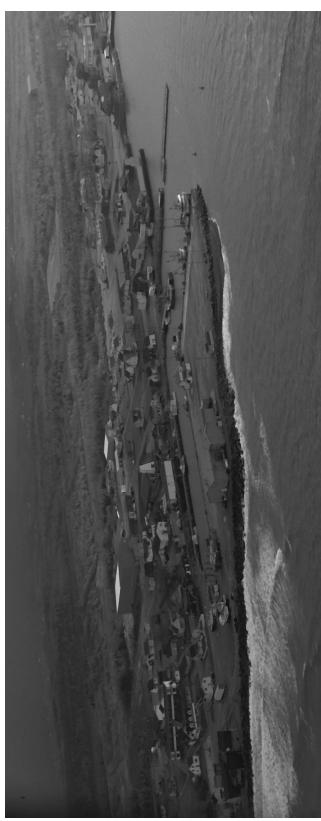
12 Leading lights (862, 863) bear 108° in the approach to the harbour north of Chéticamp Island. The lights are shown from white daymarks with red stripes on Caveau Point. Mariners are cautioned not to use the towers remaining from an old set of leading lights as beacons or ranges.

13 On the east side of the inner channel, there is a basin which is managed by the *Harbour Authority* of *Cheticamp*. A marine railway lies at the head of the basin. A marginal wharf, 100 m long, with depths of 2.7 to 5.2 m alongside, extends west from the north entrance into the basin. A floating breakwater-wharf, 70 m long, lies close south of the basin. Only the north face is available for use, and it is restricted to vessels not greater than 13 m in length. There are depths of 2.4 to 7.4 m alongside. A fish plant wharf



## CHÉTICAMP ISLAND LIGHT (2005)

1-3



## CHÉTICAMP — FISHERMAN'S HARBOUR (2005)

lies close south. It has an outer face 50 m long with a depth of 3.7 m alongside.

15 Quai du phare Marina is located 0.2 mile south of the fisherman's basin. An L-shaped wharf extends 30 m from the shore to an outer end 23 m long. There is a least depth of 2.1 m along the outer face, and 2.4 m along the inside face. There are public washrooms. A light tower, no longer in use, is situated at the head of the wharf.

16 Le Quai Mathieu is located a further 0.2 mile to the south. The wharf face is 21 m long with depths of 0.5 to 1.4 m alongside. There is a visitors' centre and washrooms. The sector light (above-noted) lies close inshore from this wharf. A crib, in disrepair, formally used for oil shipments, is located off the face of this wharf. Caution is necessary in this area.

17 A T-shaped Public wharf extends about 85 m from the east shore, about 0.15 mile north of the **conspicuous** church. The outer end is 60 m long and 10 m wide with a least depth of 4.6 m alongside. The deck of the wharf, concrete, has an elevation of 1.8 m. The wharf is flood-lit.

18 The most sheltered **anchorage** is off the Public wharf in 7.3 m, but there is little swinging room. Small craft can anchor anywhere in the inner harbour in good holding ground. Anchorage is not safe in strong north or NE winds. A **wreck** lies close off the west shore at a depth of 0.3 m, opposite the Public wharf.

19 **La Pointe** is the SSW extremity of Chéticamp Island. An L-shaped Public wharf forms a sheltered basin to the NE of La Pointe. The basin is 49 m wide with depths of 1 to 2.3 m. A small breakwater, south of the wharf, gives additional protection. A **light** (868) is shown from a mast on the outer end of the wharf.

20 The **anchorage** in the bay east of La Pointe is open to the south and west and is not considered safe after August. The holding ground is loose sand and gravel.

## Chart 4463

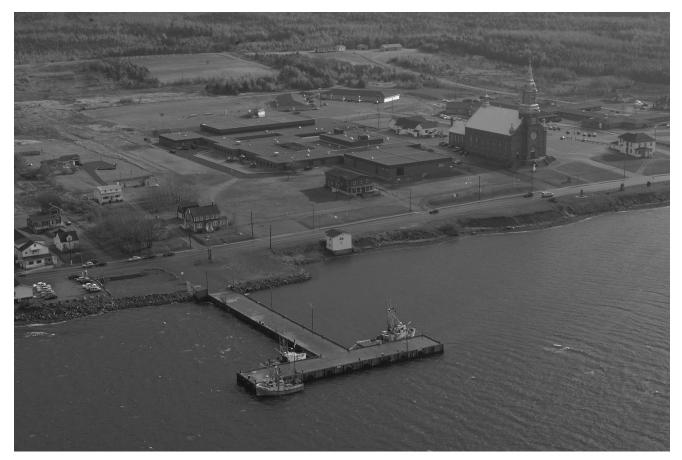
A tower, elevation 1,553 feet (473 m) and marked by red **lights**, is situated 3.2 miles SE of La Pointe.

## Chart 4449

22 **Grand Étang Harbour** (46°33'N, 61°03'W), protected by two rock breakwaters, is a secure harbour for small craft, 3.1 miles south of La Pointe. Due to continuous silting, depths in the harbour and approaches are subject to change. **Leading lights** (869, 870) bear 130<sup>1</sup>/<sub>2</sub>° in the approach and are shown from white daymarks with red stripes on the NE side of the harbour. A **light** (868.6) is shown from a mast on the outer end of the SW pier.

23 There are three Public wharves on the SW side of the harbour. The north wharf is 55 m long with depths of 1.6 to 1.4 m alongside. The south wharf is L-shaped,

## CHÉTICAMP — PUBLIC WHARF (2005)



65 m long, with an outer end 15 m long and a depth of 1.3 m alongside. A third wharf, 55 m long, has an outer end 22 m long with a depth of 1 m at the outer end. The former fish plant wharf, 29 m long at the face, is situated close to the NW; it has been declared unsafe and it is no longer in use. A cause-way and bridge span the head of the harbour; the bridge has a vertical clearance of 2 m. The population of **Grand Étang** is about 350.

### Chart 4449

24 **Margaree Harbour** (46°27'N, 61°07'W) is a shallow basin formed by the expanded and partially drying mouth of the **Margaree River**. The entrance is protected by breakwaters on each side. Due to silting, depths in the harbour and approaches are subject to change, and navigation should not be attempted without the latest local information. **Lights** (873.2, 873.21) are shown from masts on the outer ends of each breakwater. A bridge with a vertical clearance of 2.7 m crosses the Margaree River 0.5 mile above the entrance.

25 **Leading lights** (872, 873) bear 166<sup>1/2°</sup> in the approach, and are shown from white structures with red stripes on the SW side of the river mouth. Inside the entrance, a shallow **buoyed** channel leads to a basin in the NE part of the harbour inside of a long rocky spit. The Public wharf (*Harbour Authority of Margaree Harbour*) has a face 48 m long with depths of 1.2 to 2.4 m alongside. Marginal wharves are built to the NE and SW. A floating wharf, with depths of 0.9 to 1.5 m at the outer end, extends from the NE marginal wharf. The settlement of Margaree Harbour has a population of about 70.

26 **Whale Cove** is a small bight located 1 mile SSW of the entrance to Margaree Harbour, giving good shelter in moderate weather. The head of the bight is a fine sandy beach.

## Chart 4463

**Margaree Island (Sea Wolf Island)**, 8 miles SW of Margaree Harbour, of stratified sandstone, precipitous and with stunted trees, is about 260 feet (79 m) in elevation. The shore is bordered by submerged rocks. Swell rolls completely around the island, and there is also a

### **INVERNESS HARBOUR — ENTRANCE** (2005)



strong tidal flow in the vicinity of the island, and between it and the mainland. Anchorage in the area is insecure with poor holding ground. Between the island and the mainland, depths run from 5 to 12 fathoms (9 to 22 m), with rock bottom and occasional sand and gravel. A **light** (874) is shown from a white tower 27 feet (8.2 m) high on the summit of the island  $(46^{\circ}21'N, 61^{\circ}16'W)$ .

28 Close SE of **Marsh Point**, which lies 3.4 miles south of Margaree Island light, there is a breakwater-wharf 430 feet (131 m) long, with depths of 2 to 5 feet (0.6 to 1.5 m) at the SE face. This wharf and the skidway at its inner end were in a state of disrepair in 2002, and only used by local fishermen during lobster season.

29 The settlement of **Inverness**, population of about 1,700, is situated 7.5 miles SSW of Margaree Island. The twin domes of a church are **conspicuous**. **McIsaac Pond (Inverness Harbour)** is a small craft basin connected to the sea by a channel 60 feet (18 m) wide between two breakwaters. A **light** (874.1) is shown at the outer end of the north breakwater. **Leading lights** (874.2, 874.3), bearing 124° through the channel, are shown from white daymarks with red stripes. There is a least depth of 7 feet (2.1 m) on the range leading into the basin.

30 A T-shaped Public wharf *(Harbour Authority of Inverness)* extends 168 feet (51 m) from the north

side of McIsaac Pond. The outer face, 170 feet  $(52 \text{ m}) \log$ , had a least depth of 6 feet (1.8 m) in 2002. The T-end has a deck elevation of 6 feet (1.8 m). Adjoining the shore is a marginal wharf with a face 145 feet  $(44 \text{ m}) \log$ , having a least depth of 3 feet (1 m); this wharf is used for landing and fuelling by local fishermen. Several floats, totaling 150 feet (46 m) in length, lead into the harbour at the west end. There are depths of 3 to 6 feet (0.9 to 1.8 m) along the other faces.

### Chart 4462

**Cape Mabou (Mabou Highlands)** rises to an elevation of 1,000 feet (304 m) south of Inverness and continues to the Mabou River at **Green Point**. Scars of clay and gypsum are visible from the cape in this area, while the remainder of the coast is precipitous.

32 At Finlay Point ( $46^{\circ}08'N$ ,  $61^{\circ}28'W$ ), there is a shallow dredged channel 70 feet (21 m) wide between two breakwaters that leads into a small boat basin (*Harbour Authority of Finlay Point*). There is a reported depth of 5 feet (1.5 m) in mid channel. A Public breakwater-wharf, which dries alongside, extends 261 feet (80 m) along the east side of the west breakwater. A second wharf extends 290 feet (88 m) east along the head of the basin. There are depths of 1 to 4 feet (0.3 to 1.2 m) alongside.

## **INVERNESS HARBOUR** (2005)



## Chart 4448

33 **Mabou Harbour**, at the mouth of **Mabou River**, is entered through a channel with a depth of about 2 feet (0.6 m). Fairway light **buoy** VJ (874.51) is moored off the entrance, 0.4 mile SW of Green Point. The entrance is between two low capes of sand and grass. From the entrance to as far as a highway bridge 3.5 miles upstream, the harbour resembles a shallow lake. Currents in the entrance are noticeable at half-tide. The bridge has a vertical clearance of 7 feet (2.1 m). There is protected small craft **anchorage** anywhere in the harbour. Silting occurs in the harbour and depths should be checked with the latest local information. The communities of **Mabou Harbour Mouth**, **Mabou Harbour** and **Mabou** have a population of about 460.

A Public wharf, close inside the entrance on the north side, consists of a basin protected by two wharves. The outer face, 105 feet (32 m) long, has depths of 4 to 10 feet (1.2 to 3 m) alongside. Along the basin faces is a least depth of 5 feet (1.5 m) (2002). A **light** (876) is shown from a white tower, 37 feet (11 m) high, on the inner end of this wharf.

A Public floating wharf 100 feet (30 m) long extends from the north side of the bridge, parallel to the Mabou River. There is a least depth of 6 feet (1.8 m) alongside.

## St. Georges Bay — Canso Canal

## Charts 4462, 4302

36 The entrance to **St. Georges Bay** lies between **Black Point** ( $46^{\circ}02'N$ ,  $61^{\circ}33'W$ ), the NW point of Cape Breton Island, and **Cape George**, nearly 18 miles to the SW. Cape George is a precipitous headland rising to an elevation of 600 feet (183 m). A **light** (892) is shown from a white tower, 45 feet (14 m) high, on Cape George. Starboard hand light and bell **buoy** VU2 (891.5) is moored close NE of the cape.

The main shipping channel through the bay leads into the **Strait of Canso** at the south end of the bay. The strait is deep and without dangers. The **Canso Canal** allows for shipping between the Gulf of St. Lawrence and the Atlantic coast of Nova Scotia through the **Canso Causeway**.

For vessels entering or leaving St. Georges Bay, a compulsory traffic separation scheme is in effect. For details, consult the annual edition of *Canadian Notices to Mariners*.
39 Pilotage is compulsory in the Strait of Canso area within a line drawn from Cape Jack to Low Point in St. Georges Bay, and from Green Island to Fox Island in Chedabucto Bay, south of the causeway.

#### FINLAY POINT HARBOUR (2005)



40 Masters of vessels requesting a pilot must report via any coastal radio station their ETA to Pilots Cape Breton, 12 hours before arrival at the pilot boarding station which is in position  $45^{\circ}41'42''N$ ,  $61^{\circ}28'18''W$ .

41 The master of a vessel that is to depart or move within the compulsory pilotage area must report to Pilots Cape Breton 4 hours before the ETD.

42 Overhead power **cables**, with a minimum clearance of 134 feet (41 m), span the strait 0.9 mile NW of the causeway. Quick flashing **lights**, visible for several miles in St. Georges Bay, are shown from the **towers** on both shores. A **submarine cable** also crosses the strait close south of the overhead cables. A second **submarine cable** extends 0.25 mile from the Cape Breton Island shore, close NW of the canal entrance. A third **submarine cable** traverses the Strait of Canso, close NW of the causeway.

43 Two radio **towers**, with an elevation of 219 feet (67 m), marked by red lights, are situated 2.1 miles NNW of the Canso lock.

45 From St. Georges Bay, two sets of **leading lights** mark the approach to the canal. The outer lights (697, 698), in line bearing 144°, are shown from white daymarks with red stripes from towers situated on the causeway, and to the SE of Cape Porcupine, south of the causeway. 46 The inner lights (701, 702), in line bearing  $131\frac{1}{2}^\circ$ , are shown from white daymarks with red stripes situated at the north end of the lock.

47 **Canso Causeway and navigation lock**. — The stone-fill causeway carries a highway, railway tracks and overhead power cables. The overhead **cables** cross the lock with a clearance of 141 feet (43 m).

48 The Canso lock, at the east end of the illuminated causeway, is 820 feet (250 m) long and 80 feet (24.4 m) wide. A swing bridge crosses the south approach to the lock. A *traffic light (700.5)* on the bridge operates as follows: flashing red indicates preparation of bridge opening and bridge in motion; fixed red indicates bridge is fully closed; fixed white indicates bridge is fully open. A mooring berth, 700 feet (213 m) long, extends from the outer end of the north approach wall, and a similar berth, 651 feet (198 m) long, joins

Chart 4302

## CAPE GEORGE LIGHT (2005)



the outer end of the south approach wall. A **light** is shown on a mast on the outer end of each mooring berth (700, 703).

Ships with a draft not greater than 28 feet (8.5 m) and not more than 735 feet (224 m) in length may proceed, in accordance with the *Canal Regulations*, through the lock 7 days a week, 24 hours a day, during the navigation season. Vessels with a draft greater than 28 feet (8.5 m) and not more than 30 feet (9.1 m) may proceed through the lock when tidal conditions are favourable, in the opinion of the Canal Superintendent.

50 The Canso lock is closed to navigation during the winter months. The lock usually closes in January and opens in early April. The times of closing and opening are announced in *Notices to Mariners* or *Notices to Shipping*.

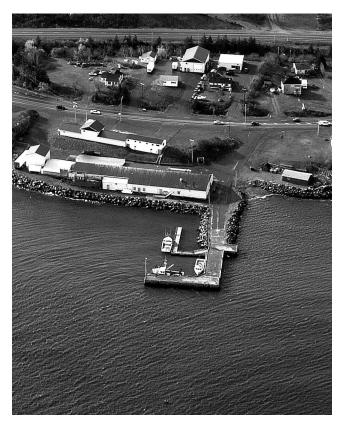
51 Vessels shall enter the lock on the green signal light or on the instructions from the lockmaster, and shall leave the lock on the lockmaster's instructions. The lockmaster shall be contacted on VHF channel 11 (156.55 MHz) when 0.5 mile from the lock. The signal lights are shown at each end of the lock.

## CANSO CANAL — FROM THE NORTH (2005)



1-9

#### **AULDS COVE** (2005)



52 Vessels over 100 feet (30.5 m) in length shall place an adequate number of linesmen ashore before the bow of the vessel enters the lock to ensure that the ship will be under control while entering and manoeuvring in the lock. At the discretion of the lockmaster, ships over 502 feet (153 m) in length may require three linesmen.

53 Canal linesmen are not provided. If a vessel is unable to place linesmen ashore, experienced linesmen will be provided on request to the lockmaster at least 6 hours prior to arrival at the canal approach. This service will be provided at the vessel's expense, payable in Canadian or U.S. currency before the vessel leaves the dock. These linesmen are not canal employees, and the responsibility for their safety and the service provided lies with the vessel.

Aulds Cove is situated on the west side of the Strait of Canso, 0.6 mile NW of the causeway. There is a Public wharf extending 100 feet (30 m) to an outer end 100 feet (30 m) wide. The north side of the stem has depths of 3 to 9 feet (0.9 to 2.7 m), and the south side 6 to 8 feet (1.8 to 2.4 m). The outer end has depths of 7 to 9 feet (2.1 to 2.7 m), and the inside face 6 feet (1.8 m). A floating dock is attached to the south side of the stem; it has a south face 82 feet (25 m) long and a least depth of 4 feet (1.2 m) alongside. Poor shelter is reported during north seas and swells.

## East Side of St. Georges Bay

#### Chart 4462

55 Between **Heffernan Point**  $(45^{\circ}42'N, 61^{\circ}28'W)$  and **Long Point**, 6.5 miles north, shallow water does not extend more than 0.5 mile from the shore, and there are no detached dangers. The land is high, and 0.5 mile inland, it rises to the summit of a ridge 850 feet (259 m) high which parallels the coast as far as Long Point. The only prominent feature along this stretch of coast is the spire of the church at **Creignish**.

From Long Point to **Emerson Point (Big Rorys Point)**, 7.5 miles north, shoal water with detached rocks and boulders fringe the coast to a distance of 2 miles offshore. **Judique Shoals**, off **Campbell Point**, with a least depth of 6 feet (1.8 m), form part of this foul area. **Judique Bank**, a rocky area with a least depth of 28 feet (8.5 m), lies 2.5 miles NW of Judique Shoals.

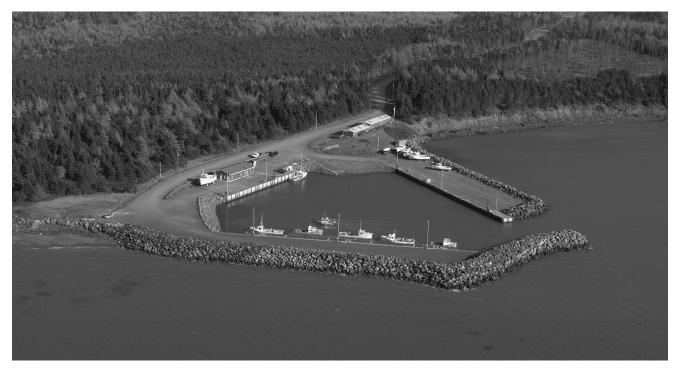
57 At **Judique South**, there is a small boat basin protected on the seaward side by a boulder breakwater and on the south side by an L-shaped Public wharf, 150 feet (46 m) long. The entrance channel, 82 feet (25 m) wide, has a depth of 1 foot (0.3 m). A **light** (882) is shown at an elevation of 24 feet (7.3 m) from a red and white rectangular daymark at the outer end of the wharf. Three wharf faces, each about 100 feet (30 m) long, form the east side of the basin. A fourth wharf, 62 feet (19 m) long, joins the north face. There are depths of 3 to 6 feet (0.9 to 1.8 m) alongside the wharves.

58 There is a Public harbour protected by two breakwaters close south of **Kate Point** (Harbour Authority of Maryville). There is a reported depth of 5 feet (1.5 m) in the entrance. A concrete decked wharf on the north side of the harbour is 200 feet (61 m) long with depths of 1 to 4 feet (0.3 to 1.2 m) alongside. The wharf is flood-lit and power is available. A floating dock 275 feet (84 m) long lies on the west side of the harbour inside the rock breakwater; there is a least depth of 6 feet (1.8 m) alongside. The wharf on the east side is 300 feet (91 m) long with a least depth of 3 feet (0.9 m) alongside.

## Chart 4448

59 Henry Island  $(45^{\circ}59'N, 61^{\circ}36'W)$ , 2.5 miles off the Cape Breton coast, presents eroding cliffs along most of its shore. These cliffs are 100 feet (30 m) high on the west side. There are some small coves and sandy beaches on the east side. Shallow water extends some distance from **Fishery Point**, its SE extremity. A **light** (881) is shown from

## MARYVILLE HARBOUR (2005)



a red and white vertically striped tower, 39 feet (12 m) high, on the summit of the island.

60 **Port Hood Island**, 0.9 mile NE of Henry Island, is surrounded by cliffs except for a sandy beach at the head of a bay on its east side, off which a church on the island is prominent. Gypsum cliffs and detached ragged rock formations are noteworthy at the NW end of the island.

61 **Port Hood** is the only harbour along this part of Cape Breton Island to offer some shelter for small vessels. It is sheltered from the west by Port Hood Island, Henry Island, and the reefs between them, and a breakwater joining Port Hood Island to the mainland gives some protection from NW swell. The breakwater is partly submerged at high water.

62 **Spithead**, on the SE side of Port Hood Island, and **Dean Shoal**, on the east side of the harbour, narrow the entrance but provide some protection from SW swell. Sustained south or SW gales send in a heavy swell. There are depths of 18 to 35 feet (5.5 to 10.7 m) in the **anchorage**, sand and mud, but the area is small and swinging room restricted. 63 The settlement of **Port Hood**, population of about 700, is situated on the east side of the harbour. The red church is **conspicuous**. A smaller white church, with a spire, is situated 0.15 mile further south. The brick courthouse is prominent.

A T-shaped wharf, in a state of disrepair in 2002, extends 590 feet (180 m) from the shore at Port

Hood. The outer face, 246 feet (75 m) long, has no berth. The inside face is used by residents who live on Port Hood Island.

## HENRY ISLAND LIGHT (2005)



1-11

65 A breakwater extends south from **Smith Point** on Port Hood Island. A boat basin, enclosed by three faces of total length 492 feet (150 m), and depths of 3 to 6 feet (0.9 to 1.8 m) alongside, is situated inside the breakwater. A wharf close west of the breakwater is in a state of disrepair. A **light** (877) is shown from a red and white daymark at the outer end of the breakwater.

66 At **Murphy Pond** (Harbour Authority of Murphy Pond), north of the Port Hood breakwater, there is a boat basin for fishing craft which is protected by two breakwaters. **Lights** (876.8, 876.9) are shown at the outer ends of each breakwater. The wharf face on the east side is 110 feet (34 m) long, a ramp 40 feet (12 m) wide lies to the south of the wharf face. The north face totals 590 feet (180 m) in length, including two sides of an adjoining pier. On the west side, the marginal wharf is 210 feet (64 m) long. A floating wharf, with a total length of 220 feet (67 m), adjoins the west breakwater. There is a reported depth of 6 feet (1.8 m) throughout the basin. Fresh water and electricity are available.

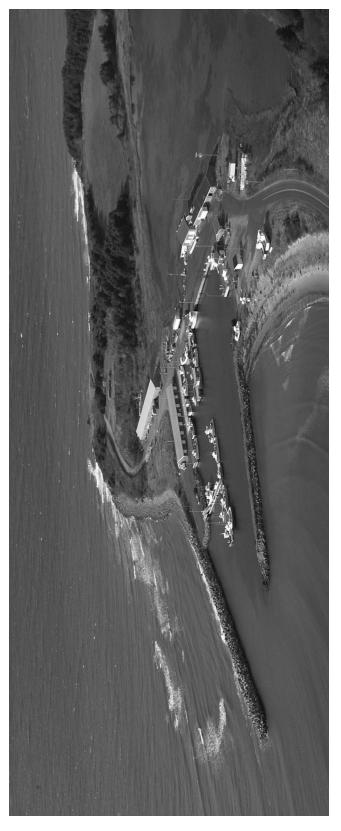
Little Judique Harbour lies just 67 north of Cape Susan (Domhnull Ruadhs Head) to the SE of Henry Island. There is a sheltered small craft harbour that is entered between two breakwaters. The channel has a width of 36 feet (11 m) and there is a depth of only 3 feet (0.9 m) in the approach. A light (881.1) is shown from a mast at the outer end of the north breakwater. A Public wharf with a face 910 feet (274 m) long extends along the south side to a highway bridge; there are depths of 2 to 6 feet (0.6 to 1.8 m) alongside. A floating wharf on the north side is 110 feet (34 m) long with depths of 1 to 6 feet (0.9 to 1.8 m) alongside. Adjacent to this is a ramp and small boat haulout and storage area. A sector light (881.3) is shown from a red and white daymark at the inner end of the south breakwater. The white sector indicates the preferred approach.

## South Side of St. Georges Bay

## Chart 4302

**68 Havre Boucher**  $(45^{\circ}41'N, 61^{\circ}32'W)$ , about 1.5 miles west of the entrance to the Strait of Canso, is a small and shallow harbour for smaller vessels. The harbour has easy access and offers good shelter. The entrance is narrow, but there is a least depth of 6 feet (1.8 m) along the range. **Leading lights** (884, 885) bear  $194\frac{1}{2}^{\circ}$  in the entrance channel, which is also marked by **buoys**. The lights are shown from white towers with red stripes, situated on the SW shore of the harbour. The west entrance point is a low bank of stones and small rocks.





## HAVRE BOUCHER — ENTRANCE (2005)



## HAVRE BOUCHER (2005)



1-13

69 The deepest water in the **anchorage** is 12 feet (3.7 m) in fair holding ground. The Public wharf is 120 feet (38 m) long with a T-end 205 feet (62 m) long. There are depths of 8 to 11 feet (2.4 to 3.4 m) along the outer face, and 5 to 11 feet (1.5 to 3.4 m) along the inside faces. There is no berth along the stem. Electricity is available. The community of **Havre Boucher** has a population of about 500.

## Chart 4447

70 **Cape Jack**  $(45^{\circ}42'N, 61^{\circ}34'W)$  is a prominent headland with a 60 foot (18 m) red sandstone cliff facing seaward. The breakwater at **Breens Pond**, SW of the cape, has very little water around it. It is about 400 feet (122 m) long.

**Jack Shoal** extends 1 mile north of Cape Jack and should be given a wide berth in any weather. *North Canso light (883)* is obscured over Jack Shoal, and by keeping the light open, the shoal is cleared by more than 1 mile. Starboard hand light and bell **buoy** VU4 *(886)* is moored 1.3 miles NE of the drying portion of the shoal.

72 **Little Tracadie Harbour (Linwood Harbour)**, small and shallow, with a drying bar across its narrow entrance, lies between **Cape Blue**, of limestone, and **Barrio Head**, a cliff of red sandstone.

73Tracadie Harbour, enclosed by DeloreyIsland (Tracadie Big Island), has a narrow entrance

that had a least depth of 3 feet (0.9 m) in mid channel. The harbour has many small coves and islets. A breakwater extends from the east side of the entrance at **Barrios Beach**. A **light** (887) is shown at an elevation of 50 feet (15 m) from a mast 27 feet (8.3 m) high, with a red and white daymark, situated near the inner end of the breakwater. A **conspicuous** church lies on the south shore of the harbour at the village of **Tracadie**. **Middle Head**, the north tip of Delorey Island, presents a bold seaward face. An overhead cable, height unknown, crosses the harbour entrance.

T4 The Public wharf at Barrios Beach, 100 feet (30 m) long and 20 feet (6 m) wide, has a depth of 3 feet (0.9 m) along its three faces. The deck has an elevation of 6 feet (1.8 m). A marginal wharf, close to the north, has a face 95 feet long with a depth of 3 feet (0.9 m) alongside.

A private wharf, 123 feet (37 m) long and 20 feet (6 m) wide, is located on the west shore of the harbour, about 1.3 miles WSW of the breakwater. There are depths of 4 feet (1.2 m) along the south face and 5 feet (1.5 m) along the north face.

76 **Bowman Head** lies 2.5 miles west of Barrio Head, and from it, **Bowman Bank** covers a large area extending 2.3 miles NW from the shore.

**Pomquet Island**  $(45^{\circ}39'N, 61^{\circ}45'W)$ is wooded, 49 feet (15 m) high, and composed of red sandstone. A drying reef extends off the east side and



## POMQUET ISLAND (2005)

## BAYFIELD HARBOUR (Nov. 2005)



curves to the south towards **Pomquet Point**, leaving a narrow boat channel between the island and the point. A **light** (888) is shown from a white square tower on the NE end of the island. **Pomquet Road**, the bight formed to the SE, is partially sheltered by the island and reefs, and by a breakwater 615 feet (187 m) long, extending from Pomquet Point, but any anchorage is exposed to NE gales. The best **anchorage** is in 24 feet (7.3 m), sand, with the south end of the island bearing 353°, 0.5 mile distant.

A boat harbour at **Bayfield**, on the west side of Pomquet Road, is formed by two rock breakwaters. A **light** (888.5) is shown from a mast at the outside end of the north breakwater. A wharf 320 feet (98 m) long lies along the inside face of the south breakwater. An outer end of this wharf is 60 feet (18 m) long. There are depths of 5 to 7 feet (1.5 to 2.1 m) alongside. Across the head of the harbour is a floating wharf, 220 feet (67 m) long, with a least depth of 7 feet (2.1 m) alongside. A ramp, 20 feet (6.1 m) wide, lies adjacent to this.

79 **Pomquet Harbour**, entered 1 mile west of Pomquet Island, is very shallow and navigable only by small craft. The shifting sand bar across its narrow entrance has a depth of only 2 feet (0.6 m).

80 **Monk Head**, 3.7 miles WNW of Pomquet Island, is a **conspicuous** cliff of white gypsum 45 feet (14 m) high.

Antigonish Harbour  $(45^{\circ}41'N, 61^{\circ}53'W)$  is an extensive shallow estuary that is entered through a narrow channel separating **Dunn Beach** and **Mahoney Beach**. Because of silting, depths in the approach to and inside the harbour are subject to change. The entrance has a limiting depth of only 3 feet (0.9 m). The flow in the entrance seldom exceeds 2 knots, except during the spring run-off.

Inside the harbour, the extensive mud flat surrounding **Captain Island** separates the channel which is marked by **buoys**. One channel leads west and the main channel trends SE and continues SW for 4 miles. The shores are broken into many coves and there are several islets.

#### Chart 4462

The town of **Antigonish**, population 4,754 in 2001, lies at the head of the SW arm of Antigonish Harbour, 6.5 miles from the harbour mouth.

## West Side of St. Georges Bay

**Ogdens Pond**  $(46^{\circ}43'N, 61^{\circ}53'W)$ , 1.5 miles north of the entrance to Antigonish Harbour, is separated from the bay by a bar through which there is a narrow boat channel with a depth of about 1.5 feet (0.4 m). There are depths of 10 feet (3 m) in the pond. There are **conspicuous** white cliffs close north of the entrance to the pond.

85 **McIsaac Rock (MacIsaacs Rock)** lies nearly 0.3 mile offshore, 1 mile NE of Ogden Pond. There is a depth of 12 feet (3.7 m) over it and it is sometimes marked by breakers.

#### Chart 4404

**Note: 1 Cribbean Head (Cribbons Point)**, a **conspicuous** cliff formed of sedimentary rock, is situated 7 miles south of Cape George. A **light** (890.2) is shown at an elevation of 67 feet (20 m) from a skeleton mast on the cliff. The harbour is protected by two rock breakwaters. In 2002, there were depths of 5 feet (1.5 m) in the harbour. The Public wharf lies inside the east breakwater. It is 269 feet (82 m) long with an outer end 184 feet (56 m) long. A light (890), having a triangular red daymark, is shown from a skeleton mast on the outer end of the wharf. A *marina* with several floating finger piers has been established on the west side of the harbour.

Ballantynes Cove lies on the south side of Cape George. The harbour is enclosed by two rock breakwaters leaving a channel 120 feet (37 m) wide between them. The L-shaped Public wharf is 532 feet (162 m) long with a spur extending 125 feet (38 m) from the east breakwater. There are depths of 4 to 10 feet (1.2 to 3 m) along the west face and 7 to 10 feet (2.1 to 3 m) along the

Chart 4446

CRIBBONS POINT HARBOUR (Nov. 2005)



spur faces. A light (891) is shown from a skeleton mast 16 feet (4.8 m) high on the outer end of the wharf. Floating piers are located inside the west breakwater, totaling 220 feet (67 m) in length. There is a depth of 6 feet (1.8 m) in this area.

Ballantynes Cove has an active fishery, and the wharf 88 is frequently used by yachtsmen. The Bluefin Tuna Interpretive Centre is located in a building near the head of the wharf. Washrooms, showers and laundry facilities, and the Harbour Master's Office are housed in the same building. Fresh water and electricity are available throughout the harbour.

## Prince Edward Island — East Coast

#### Charts 4023, 4403

89 East Point (46°27'N, 61°58'W) is a red sandstone cliff 30 to 60 feet (9 to 18 m) high. Tide rips are frequently present off the point.

There is good anchorage, in northerly winds, 90 to the SW of East Point as far as South Lake, a distance of 5 miles, with moderate depths and red sand bottom. North and NW of the point, the holding ground is either loose or rocky.

91

East Point light (943) is shown from a white octagonal tower 64 feet (19 m) high, with a red peak. East cardinal light and whistle buoy NDN (942) is moored 1.7 miles NE of East Point.

Milne Bank covers a large area to the south of East 92 Point. The bottom is of sandstone, thinly covered in places with red sand, with a least depth of 32 feet (9.8 m). The east edge of the bank is steep-to and tide rips are frequently seen when the tidal stream is flowing to the SW. In strong NE gales, the sea can be very heavy.

The tidal streams set very strongly towards 93 and over the reef off East Point, and attain a rate of 2.5 knots between the north end of Milne Bank and East Point.

### Chart 4403

94 *East Point to Durell Point.* — *The Canadian Coast* Guard has completed a review of the marine aids to navigation system in the harbours and waterways between East Point to Durell Point.

95 The visual aids to navigation in these waters are designed to support the safe movement of marine craft until visibility is reduced to five (5) miles. When visibility drops below 5 nautical miles, mariners should reduce speed, exercise caution and ensure safe navigation by using on-board electronic navigation systems.

(Canadian Coast Guard, 2001) From East Point to Basin Head, 8 miles to the SW, 96 the coast is formed of sand hills and beaches. South Lake is

## BALLANTYNES COVE (Nov. 2005)



## EAST POINT LIGHT (2005)



a narrow, shallow pond inside the sand dunes, with a drying outlet. Cliffs commence at **Basin Head**.

97 **Basin Head Harbour**  $(46^{\circ}23'N, 62^{\circ}07'W)$  is protected by wooden breakwaters 38 feet (11.6 m) apart. A sandbar across the entrance impedes entry, which can only be attempted at high water by boats not exceeding 3 foot (0.9 m) draft. A foot bridge with clearance of 13 feet (4 m) connects the breakwaters, which have a least depth of 3 feet (0.9 m) along the inside faces. Beneath the bridge in mid-channel, there is a depth of 4 feet (1.2 m). Currents on the outflow from the basin are very strong. The surrounding area and beaches are a Provincial Park and a Fisheries Museum complex.

98 **Shallop Rock**, drying, lies on a reef extending 0.4 mile south from **Red Point**. From this point to **Colville Bay**, the coast is free of detached shoals, and the 10 fathom (18.3 m) line runs parallel to the shore, about 0.5 mile off. Colville Bay, at the mouth of the **Souris River**, provides good **anchorage** with offshore winds.

#### Chart 4419

**Souris Harbour** (46°21'N, 62°15'W), on the east side of Colville Bay, is protected by a breakwater which extends about 1,700 feet (518 m) from **Knight Point**. It is a Public Harbour, administered by the Department of Transport. Souris is considered the best harbour on the east side of Prince Edward Island.

100 The town of **Souris**, population 1,248 in 2001, is a fishing, farming and commercial centre for northeastern Prince Edward Island. A **ferry** operates to Îles de la Madeleine from

April to December. To the NE of Knight Point are two large buildings that are used as food processing plants. The water tower, 0.7 mile north of Knight Point, is prominent.

101 **Pilotage** is available but not compulsory. Masters of vessels requiring a pilot should report via any coastal radio station their ETA to Pilots Souris, 12 hours before arrival, at the pilot boarding station. The station is located 2.6 miles SSE of **Swanton Point**, the east entrance point to Colville Bay.

102 The master of a vessel that is to depart or make a move and requires a pilot must report 6 hours prior to the ETD.

103 **Lights.** — A light (947) is shown at an elevation of 86 feet (26 m) from a white square tower, 47 feet (14 m) high, with a red peak, situated close SE of the inner end of the breakwater at Knight Point.

104 A light (948) is shown from a square skeleton tower 30 feet (9 m) high on the outer end of the breakwater.

105 Fairway light and whistle **buoy** NA (946) is moored 1 mile SW of Swanton Point.

106 Wharves. — The Public wharf, 800 feet (244 m) long and 140 feet (43 m) wide, lies close inside the breakwater. The shipping berth, 600 feet (183 m) long on the north side of the wharf, had a depth of 20 feet (6.1 m) alongside in 2001. There were depths of 16 to 18 feet (4.9 to 5.5 m) along the south side. The elevation of the deck of the wharf is 7 feet (2.1 m).

107 The *Eastpack* wharf, north of the Public wharf, is 300 feet (91 m) long and 105 feet (32 m) wide at the outer face. There are depths of 10 to 14 feet (3 to 4.3 m) along the south

1-17

## SOURIS HARBOUR (2005)



north face. A 112 Rollo Bay has

face, and 4 to 11 feet (1.2 to 3.4 m) along the north face. A marginal wharf joins the Eastpack wharf and the Public wharf. There are depths of 10 to 14 feet (3 to 4.3 m) alongside. There are two boat haulouts and a storage adjacent to the marginal wharf.

A small craft basin, enclosing depths of 4 to 8 feet (1.2 to 2.4 m), is situated north of Eastpack wharf. The ferry terminal has two wharves to the NW of the basin. There are depths of 13 to 19 feet (4 to 5.8 m) alongside.

109 All the wharves are lighted and fresh water and electricity are available. Fuel and diesel are available at dockside, and minor repairs can be affected.

110 Lifeboat station. — Canadian Coast Guard lifeboat *Souris* (call sign VO2652) is stationed at Souris and operates within a 50 mile radius from its base. The vessel is operational from about May 1 to November 30. All distress situations should be communicated to JRCC Halifax via the nearest coastal radio station or by any other available means.

#### Chart 4403

111 Between **Souris Head** ( $46^{\circ}20'N$ ,  $62^{\circ}17'W$ ), a wooded bluff, and **Spry Point**, 7 miles to the SW, there are several bays separated by sharp steep headlands and points of red sandstone. **Rollo Bay** has depths of 7 fathoms (12.8 m) over sand, and is a poor anchorage with onshore winds. There are lesser depths on the west side of the bay because of silting from the **Fortune River**.

Fortune Bay, an expansion of the Fortune River inside projecting sand spits and breakwaters, is suitable for small craft and can be navigated as far as Fortune Bridge, 2 miles upstream. The river is reported to be deep and clear of obstructions beyond a bar close inside the entrance.

The entrance is narrow between two wharves, with a depth of 11 feet (3.4 m) reported in mid channel. A breakwater, in disrepair, extends east from the north wharf. The approach channel, marked by **buoys**, has a reported depth of 5 feet (1.5 m). Fortune Bay provides good shelter from all but persistent NE winds, which make the approach difficult.

115 The north wharf at the entrance is 70 feet (21 m) long at the face but has no berth. On the south side, two L-shaped wharves form a boat basin. The east wharf has a face 115 feet (35 m) long with a least depth of 4 feet (1.2 m) on either side. The east face of the basin dries, as does the south face, 220 feet (67 m) long. The west L-shaped wharf has an outer face 135 feet (41 m) long with a least depth of 4 feet (1.2 m) on either side. The west face of the basin has a face 150 feet (46 m) long with depths of 4 to 7 feet (1.2 to)



## FORTUNE BAY (2005)

2.1 m) alongside. This facility is lighted, water and electricity are available.

116 **Howe Bay**, the shallow indentation SW of Rollo Bay, is entered between **Howe Point** and **Durell Point**.

#### Charts 4935, 4403

117 Annandale To Graham Pond. — The Canadian Coast Guard has completed a review of the marine aids to navigation system between Annandale to Graham Pond. This includes the harbours and waterways of Graham Pond, Sturgeon Bay, Montague River, Georgetown Harbour, Cardigan River, Launching Pond and Annandale Harbour.

118 The visual aids to navigation in these waters are designed to support the safe movement of marine craft until visibility is reduced to five (5) miles. When visibility drops below 5 nautical miles, mariners should reduce speed, exercise caution and ensure safe navigation by using on-board electronic navigation systems.

(Canadian Coast Guard, 2001)

#### Chart 4935

Boughton River, which flows into Boughton 119 Bay, expands inside projecting points to form a shallow harbour. Sand bars build up outside the entrance and sand partly fills the bay. Spry Point, the east entrance point to the bay, has a few detached rocks. A narrow **buoyed** channel, suitable only for vessels drawing less than 3 feet (0.9 m), leads into the harbour. The channel is subject to silting. A sector light (949.5) is shown from a white square tower having a red and white daymark, on the north side of the entrance. The white sector indicates the preferred approach. A fairway light buoy (948.5) is moored 1.9 miles SE of Banks Point. The harbour is reported to have easy access except during SE swells. Boughton River, west of Annandale to Poplar Point, is mostly occupied by aquaculture facilities which impede safe navigation.

120 The community of **Annandale** is situated adjacent to **Banks Point** at the north entrance to the harbour. A small boat harbour has several wharf faces. The Public wharf, facing south, is 110 feet (46 m) long with a least depth of 4 feet (1.2 m) alongside. There is a boat basin on the east side of the wharf. A rock breakwater extends west and south from the stem of the wharf to form a second boat basin with an entrance 66 feet (20 m) wide. A **light** (950.3), with a green and white daymark, is shown from a mast on the outer end of the breakwater. The basin on the east side, and the wharves to the west side have depths of 2 to 4 feet (0.6 to 1.2 m). Electricity and fresh water are available.

121 A Public wharf at **Chapel Point**, on the south shore nearly 3 miles above Annandale, is used primarily to service aquaculture. The wharf extends 250 feet (76 m) from the shore

#### LAUNCHING POND (2005)



to an outer end 45 feet (13.7 m) long and 27 feet (8.3 m) wide, with a least depth of 2 feet (0.6 m) at the outer face.

**122 Launching Pond**  $(46^{\circ}11'N, 62^{\circ}25'W)$ , 2.2 miles south of Annandale, is a shallow draft fishing harbour entered by a narrow channel between two breakwaters. The entrance channel is subject to silting and there is a depth of 4 feet (1.2 m) inside the basin. **Lights** (951, 951.2)are shown at the outer end of each breakwater from square skeleton towers. The breakwaters are lighted, and electricity, fresh water, gasoline and diesel are available.

Boughton Island is joined to the mainland by a sand bar, and surrounded by drying mud banks and ledges. Boughton Point, at the SE end, is a cliff of red sandstone 30 feet (9 m) high. Boughton Ledge, with some rocks above water at its outer end, extends 0.6 mile from the east side of the island.

124 **Cardigan Bay** is 3 miles wide at its entrance between Boughton Point and **Panmure Head**, the NE point of **Panmure Island**, which lies on the SW side of the bay. The bay offers good **anchorage** with offshore winds in 6 to 10 fathoms (11 to 18 m), mud bottom.

Panmure Island is partly wooded and there are cliffs of red sandstone 40 feet (12 m) high along its NE coast. A grassy sand bar joins Panmure Head to **Smith Point**, on the mainland. **Panmure Ledge**, with a depth of 5 feet (1.5 m) at its outer end, extends 0.6 mile east from Panmure Head.

**1**26 Fairway light **buoy** NH (952.5) is moored 0.9 mile NE of Panmure Head. A **light** (953) is shown at an elevation of 82 feet (25 m) from a white tower with a red peak, on Panmure Head.

PANMURE ISLAND LIGHT (2005)



128 Cardigan Point (Burnt Point) divides Cardigan Bay into the Cardigan River, which flows into the head of the bay on the NW side, Georgetown Harbour, to the east and at the confluence of Brudenell River and Montague River, and Livingstone Bay, Sturgeon Bay, and St. Marys Bay, to the south.

129 Cardigan River. — MacPhee Shoal and Maitland Flat on each side constrict the river mouth, but there is a buoyed channel with a least depth of 18 feet (5.5 m) for 5 miles above Cardigan Point, and small craft can proceed another 2 miles as far as the bridge at the village of Cardigan, population 382 in 2001. Aquaculture facilities are located along the shores of Cardigan River between Ferry Point and Cardigan, and caution should be exercised in navigation.

130 At Cardigan, on the south shore, the Cardigan Marina wharf is 130 feet (41 m) long at the face with alongside depths of 6 feet (1.8 m) at the outside corner. The corner of the wharf adjacent to the bridge dries. There are strong currents beneath the bridge. On the east side of the bridge are several small craft floating docks having depths of 7 feet (2.1 m). Fuel and provisions are available nearby.

## **Georgetown Harbour**

Panmure Spit extends NW from Billhook Point, the 131 NW end of Panmure Island. Cardigan Shoal, on the north side of the approach, projects south from Cardigan Point. There is a channel 0.2 mile wide between these dangers. St. Andrew Point (Wightmans Point) is on the south side of the approach

to Georgetown Harbour. The buildings of East Isle Shipyard are conspicuous from seaward.

Thrumcap Spit protects the harbour on the SE side 132 and forms a bay, bounded on the west side by Gaudin Point and its projecting sand spit. Knoll Shoal, at a depth of 9 feet (2.7 m), is situated south of Thrumcap Spit; it is marked by a buoy.

Pilotage is available but not compulsory. 133 Masters of vessels requiring a pilot should report via any coastal radio station their ETA to Pilots Georgetown, 12 hours before arrival at the pilot boarding station, which is located 5.2 miles east of Panmure Head.

The master of a vessel that is to depart or make a 134 move and requires a pilot must report 6 hours prior to the ETD.

Wharves. — Georgetown Marine Terminal is 135 985 feet (300 m) long and 135 feet (41 m) wide. The berth on the east side, 575 feet (175 m) from the outer end, had depths of 13 to 26 feet (6.1 to 7.9 m) alongside in 2001. The elevation of the deck of the wharf is about 5 feet (1.5 m). Fresh water, fuel and electricity are available.

136 The Queens Wharf (fishermans wharf) extends 575 feet (175 m) to a depth of 8 feet (2.4 m) at its outer end. An L-shaped wharf extends 225 feet (68.6 m) east from the Queens Wharf, having an L-end 125 feet (38 m) long. This creates sheltered berthing space along the faces of the wharf, and on a series of floating wharves close to shore.

East Isle Shipyard carries out steel and aluminum 137 ship building, ship repair and refit, and other heavy industrial fabrication. The company is part of Irving Shipbuilding Inc. Ships to 46 feet (14 m) in length are constructed and there is a 680 tonne marine railway.

The town of Georgetown had a population of 721 138 in 2001.

Ĵ There is **anchorage** between Cardigan Shoal 139 and Knoll Shoal in depths of 26 to 29 feet (8 to 9 m), mud. The best anchorage is between Thrumcap Spit and Gaudin Point Spit, in about 30 feet (9 m), with the outer end of Fisherman's wharf in line with the church tower, good holding ground. There is good anchorage upstream near Brudenell Point. The rate of the tidal stream is less than 1 knot.

Brudenell River and Montague River unite 140 at Brudenell Point. Brudenell River is navigable as far as Brudenell Islet, 1.3 miles above the mouth, and small craft can navigate as far as the head of the tide, about 3 miles farther upstream. Rodd Marina operates from Brudenell *Resort*, to the west of Brudenell Islet. A floating wharf with several finger slips extends 465 feet (142 m) from the shore, with depths of 4 to 6 feet (1.2 to 1.8 m). Electricity and fresh water are available.

141

Lower Montague, a settlement of about 530 people, is situated on the south side

## **GEORGETOWN HARBOUR** (2005)



of the Montague River near its mouth. There is a Public wharf with an outer end 80 feet (24 m) wide and a depth of 9 feet (2.7 m) alongside. The sides of the wharf, 130 feet (40 m) long, have depths of 1 to 9 feet (0.3 to 2.7 m) alongside. A **light** (957) is shown from a mast on the NE corner of the wharf. Electricity is available on the wharf.

142 **Montague**, population of 1,945 in 2001, is a town situated on both sides of the Montague River 4 miles upstream of Brudenell Point. Montague is a fishing, farming and commercial centre for southeastern Prince Edward Island. Provisions and several services are available.

143 The east Public wharf had a face 340 feet (104 m) long with a least depth of 9 feet (2.7 m) alongside in 2002. The west Public wharf, 160 feet (49 m) long at the face, had a least depth of 7 feet (2.1 m) alongside in 2002.

144 The *Montague Marina* has several floating finger piers opposite to the Public wharves. The outer end of the west portion has depths of 9 to 13 feet (2.8 to 4.3 m), the middle and east portions have 9 feet (2.7 m). Fresh water and electricity are available dockside. There are showers in the nearby Visitor Information Centre.

145 Several **aquaculture** facilities are located along the shores of Georgetown Harbour, Brudenell River and Montague River and **caution** should be exercised in navigation. Many small craft anchorages may not be accessible.

146 **Livingstone Bay**, **Sturgeon Bay** and **St. Marys Bay** have a common entrance between Panmure Spit and **Grave Point** to the west. The entrance is narrow and shoals rapidly from a depth of 30 to 11 feet (9.1 to 3.4 m) in places.

147 An **aquaculture** facility is situated off **White Point**, at the head of the entrance channel, and also in the centre of St. Marys Bay.

A wharf on the south side of Sturgeon Bay extends to an outer end 60 feet (18 m) long and 60 feet (18 m) wide at the outer face, with a depth of 2 feet (0.6 m) alongside. A wharf with a face 195 feet (58 m) long adjoins the east bank of the **Sturgeon River**, close north of the highway bridge. The extreme outer ends dry alongside, but the remaining part has a depth of 2 feet (0.6 m). The approach channel is marked by stakes and the wharf is used by shallow draft fishing vessels.

149 Between Smith Point and Terras Point (Cape Sharp) ( $46^{\circ}06'N$ ,  $62^{\circ}26'W$ ), a shoal extends about 0.6 mile offshore. Graham Ledge, situated about 0.6 mile SE of Terras Point, has a least depth of 5 feet (1.6 m). Fairway light buoy NP (958.5) is moored on the east side of Graham Ledge.

**Graham Pond** is a shallow draft fishermen's harbour that is entered between breakwaters 33 feet (10 m) apart. **Lights** (959, 960) are shown from skeleton towers at the outer end of each breakwater. There are

#### MONTAGUE (Nov.2005)



depths of 1 to 4 feet (0.3 to 1.2 m) alongside the wharves inside the pond.

151 *Murray Harbour.* — The Canadian Coast Guard has completed a review of the marine **aids to navigation** system for Murray Harbour.

152 The visual aids to navigation in these waters are designed to support the safe movement of marine craft until visibility is reduced to five (5) miles. When visibility drops below 5 nautical miles, mariners should reduce speed, exercise caution and ensure safe navigation by using on-board electronic navigation systems.

(Canadian Coast Guard, 2001) 153 **Murray Harbour** is formed by the confluence of five rivers which expand into a partially drying shallow basin containing five wooded islands joined together by drying mud flats. **Poverty Beach** is a sand spit extending south from **Irvings Cape** for over 1.5 miles to the entrance channel between **Sable Point** and **Beach Point**, a grassy spit projecting from the south side. A breakwater extending south from Irvings Cape is in ruins. A church spire at Murray Harbour North, 0.7 mile WNW of Irvings Cape, is **conspicuous**.

154 A sand bar, with a least depth of 7 feet (2.1 m) in the channel through it, extends to seaward for over 1 mile from the entrance. This channel is sometimes impassable in easterly winds because of the line of breakers which may extend from Irvings Cape to **Murray Head**.

155 Clay and sandstone cliffs, about 40 feet (12 m) high, run west from Murray Head towards Beach Point, and south towards **Cape Bear** (46°00'N, 62°28'W), the SE point of Prince Edward Island. 156 Cape Bear **light** (971) is shown at an elevation of 55 feet (16.7 m) from a skeleton tower 27 feet (8.3 m) high, having a red daymark with a white stripe.

157 **Bear Reef**, of sandstone and large stones, extends east from the coast between Murray Head and Cape Bear. East cardinal light **buoy** NN (970.4) is moored 1 mile NE of Cape Bear, close east of Bear Reef.

158 Leading lights (964, 965), at the entrance to Murray Harbour, lead 234° over the bar and through the channel to within 900 feet (274 m) of Beach Point. The front light is shown from a white square tower with a red stripe on Beach Point. The rear light is shown from a similar tower on **Penny Point**. Fairway light **buoy** NM (961) is moored 1.3 miles NE of Beach Point.

159 **Caution**. — Due to continuous silting, depths in Murray Harbour are subject to change and aids to navigation may be moved to mark the best channel. **Anchorage** in the harbour is only suitable during fine weather as the holding ground, though mud, is reported to be poor. The **tidal streams** run at a rate of 2 knots off Beach Point.

160 Wharves. — Inside the harbour entrance, on the south shore, two L-shaped breakwater wharves enclose a fisherman's basin with continuous wharf frontage along the inside faces. Sheds stand on both breakwaters and fish plants lie on the south side of the basin. The inside face of the east breakwater is 170 feet (52 m) long with a depth of 7 feet (2.1 m) alongside. A **light** (967) is shown from a skeleton tower at the outer end of this breakwater. The inside face of the west breakwater is 270 feet (82 m) long with a depth of 5 feet (1.5 m) alongside. Between the breakwaters,

1-23

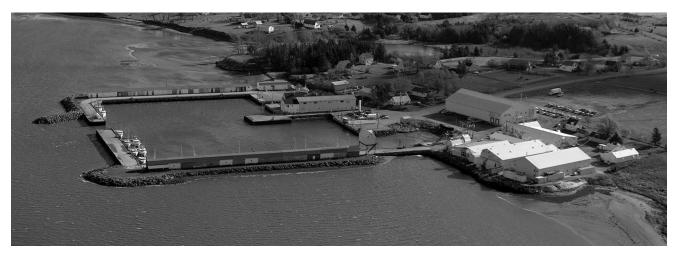
## CAPE BEAR LIGHT (2005)



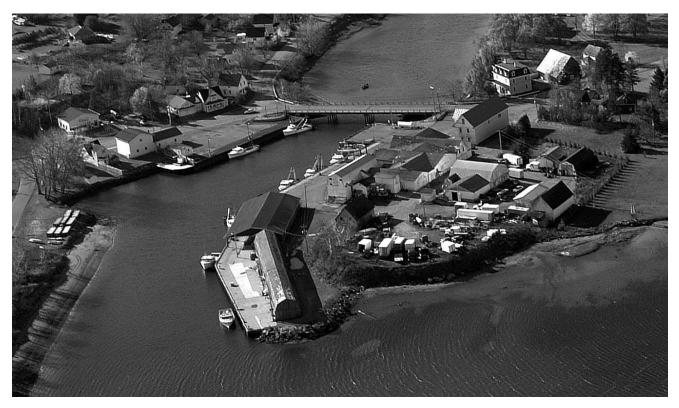
the channel has a reported depth of 8 feet (2.4 m). The basin is lighted and fresh water, fuel and electricity are available. 161 **Murray Harbour**, population 357 in 2001, is a village at the head of navigation on the South River, 2.4 miles above Beach Point, and 1 mile above **Machons Point**. A dredged channel, about 100 feet (30 m) wide, in two courses, leads to the Public wharf. Leading lights (969.5, 969.6), in line bearing  $233\frac{1}{2}^{\circ}$ , are situated to the west of the village. Both lights are shown from white daymarks with red stripes.

162 The Public wharf at Murray Harbour, on the NW side of the channel, is in four parts parallel to

## MURRAY HARBOUR — BEACH POINT (2005)



#### MURRAY HARBOUR (Nov.2005)



the stream: 72, 240, 180 and 200 feet (22, 73, 55 and 61 m) in length. The outer part dries at the extreme east end, and the remaining parts have depths of 2 to 8 feet (0.6 to 2.4 m) alongside. Fresh water and electricity are available. The wharf on the opposite shore is 200 feet (61 m) long with alongside depths of 3 feet (0.9 m) near the bridge, to 8 feet (2.4 m) at the east end.

163 An L-shaped Public wharf, situated 0.3 mile SW of Machons Point, has a pier 110 feet (34 m) long, extending to a depth of 4 feet (1.2 m) at the outer end. The face along the shore is 160 feet (49 m) long with depths of 1 to 5 feet (0.3 to 1.5 m) alongside. Fresh water and electricity are available. 164 **Murray River** is a village, population 435 in 2001, at the head of navigation on the Murray River. A Public wharf with a face 210 feet (64 m) long is situated on the south shore at the village. There are depths of 6 feet (1.8 m) along the centre part of the wharf, but the east end dries and near the bridge there is a depth of 2 feet (0.6 m). **Aquaculture** facilities are located along the shores of the Murray River and **caution** should be exercised in navigation.

165 The **Mink River** and the **Greek River** are situated on the north side of the basin. *Cahoon Wharf*, near the head of navigation on Greek River, is L-shaped with an outer end 50 feet (15 m) long and a depth of 4 feet (1.2 m) alongside. 166 Clows Wharf, opposite the mouth of Greek River, has an outer end 38 feet (12 m) long and a depth of 6 feet (1.8 m) alongside. The adjoining wharf has an outer end 35 feet (11 m) wide and depths of 1 to 3 feet (0.3 to 0.9 m) alongside. Several private moorings are located off the outer ends of these wharves. Fresh water and electricity available.

## Chart 4403

167 **Fishermans Bank**  $(46^{\circ}01'N, 62^{\circ}16'W)$ , centred 8 miles east of Murray Head, is of sandstone thinly covered with stones, gravel and broken shells. The general depth over the bank is 6 to 9 fathoms (11 to 16.5 m), but there is a least depth of 4 fathoms (7.3 m).

## Prince Edward Island — North Coast

## Chart 4023

168 From East Point to North Cape, the north shore forms a bight. The harbours are small and shallow, with narrow entrances through sand bars which become impassable in a heavy sea. All harbour entrances break in a moderate sea and in some areas it becomes impossible to locate the best

## MURRAY RIVER (Nov.2005)



channel. With few exceptions, **anchorage** is poor along this coast. The bottom is of red sandstone, thinly covered in places with sand and gravel, making for poor holding ground.

169 The channels through the bars are likely to be blocked or shifted by storms. Leading lights may be shifted without notice and buoys moved or lifted. The latest local information should be checked before crossing the bars or entering the harbours along this coast.

170 Between **East Point** (46°27'N, 61°58'W) and St. Peters Bay, 32 miles west, the coast is formed of red sandstone cliffs, with occasional short stretches of sandy beach at the mouths of small streams. Shallow water extends about 0.5 mile offshore, with the 10 fathom (18 m) line generally about 1 mile from the shore. The bottom is sandstone.

171 **North Lake**, 4 miles west of East Point, is a fisherman's harbour with an entrance channel 45 feet (14 m) wide between breakwaters. Piers extend along both sides of the channel into North Lake, which are joined by a road bridge near the inner end. The piers are lighted and electricity is available.

**Leading lights** (1039, 1039.1), in line bearing  $204\frac{1}{2}^{\circ}$ , are shown from white daymarks with red stripes in the approach to North Lake. The front light is situated on the outer end of the east breakwater. A **light** (1039.5) is shown from a square skeleton tower situated on the end of the west breakwater. Port hand light and bell **buoy** JA1 (1038) is moored about 1 mile NE of the entrance to North Lake.

Naufrage Harbour, 19 miles west of East Point, is a small boat basin entered between breakwaters 40 feet (12 m) apart, with a reported depth of 5 feet (1.5 m) inside the basin. A road bridge, with a vertical clearance of 11 feet (3.4 m), crosses the entrance close within the breakwaters.

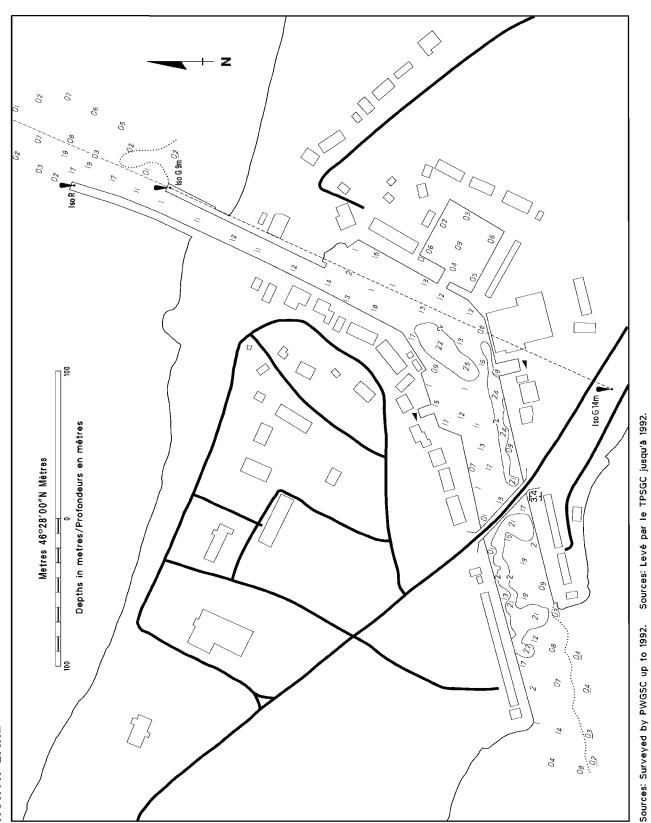
A light (1042) is shown at an elevation of 97 feet (30 m) from a white tower 47 feet (14 m) high, situated on **Shipwreck Point**, close west of the entrance to the harbour ( $46^{\circ}28'N$ ,  $62^{\circ}25'W$ ).

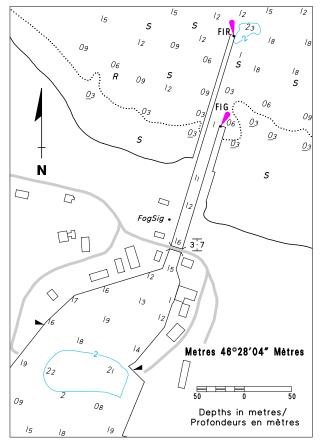
175 A light (1040.2) is shown from a mast, having a green, white and black daymark, on the outer end of the east breakwater. A light (1040.5) is shown from a skeleton tower on the outer end of the west breakwater. Fairway light **buoy** JC (1040.05) is moored about 1 mile NE of Shipwreck Point.

#### Chart 4425

**St. Peters Bay**, 14 miles west of Shipwreck Point, is approached over a sand bar with a depth in the channel of less than 8 feet (2.4 m), and entered between encroaching grassy sand spits which leave a narrow, shifting channel with less than 4 feet (1.2 m) in some parts. The channel takes a sharp turn to the east immediately inside the entrance. **Tidal streams** in the entrance run 3 to 4 knots maximum.







## **NAUFRAGE** Scale 1:4 000 Échelle

Sources: Surveyed by CHS and PWGSC up to 2001. Sources: Levé par le SHC et par le TPSGC jusqu'à 2001.

177 Within the entrance, the bay trends ESE for 7 miles. The village of **St. Peters**, population 267 in 2001, is situated at the head of the bay. Four rivers and some smaller streams flow into the bay. **Aquaculture** sites are located in the inner sections of the bay, and are marked at each corner with a yellow cautionary buoy.

Fairway light **buoy** JD (1043.1) is moored about 0.5 mile north of the entrance to St. Peters Bay. Owing to changing conditions within the entrance, the channel buoys may be moved to indicate the best channel. Local knowledge and the latest information are essential to enter this bay safely.

179 Two breakwaters enclose a boat basin 600 feet (183 m) long and 400 feet (122 m) wide, with a depth of 4 feet (1.2 m), at **Red Head**. The wharves are lighted and electricity, fresh water, diesel and gasoline are available. A **light** (1046.5) is shown from a mast on the outer end of the east breakwater.

**Savage Harbour** (46°26'N, 62°50'W) is situated 3.5 miles west of St. Peters Bay. There is a retaining wall on the east side of the entrance. A **light** (1047)

is shown from a skeleton tower with a red and white daymark on the outer end of the retaining wall. Fairway light **buoy** JE (1046.81) is moored 0.8 mile NNE of the light.

181 Savage Harbour is mostly entered at high water during fair weather. Once inside, the harbour offers fairly good shelter from north winds, however, SE to SW winds create choppy waters. Owing to changing conditions, buoys may be moved to mark the best channel in the entrance.

182 There is a Public wharf on the west side of the harbour, 0.5 mile inside the entrance. The face parallel to the shore is 240 feet (73 m) long with a depth of 4 feet (1.2 m) alongside. A pier extends 200 feet (61 m) from the east side of this wharf to a depth of 4 feet (1.2 m). The wharf is lighted and electricity, fresh water, diesel and gasoline are available.

**Tracadie Bay**, about 8 miles west of Savage Harbour, lies at the west end of a range of sand hills 50 to 60 feet (15 to 18 m) high. A shifting sand bar extends for 0.5 mile from the entrance, with depths of 3 to 5 feet (0.9 to 1.5 m) in a channel less than 300 feet (91 m) wide through the bar. Fair weather and recent knowledge of the condition of the channel are necessary to cross the bar safely. The maximum rate of the **tidal streams** in the entrance is about 2 knots.

Inside the entrance, the channel trends sharply to the east, close to the outer sand spit, with drying flats on the south side extending eastward for over 1 mile. Beyond these flats, the bay deepens to about 12 feet (3.7 m) and expands to a width of 2 miles. **Aquaculture**, in the form of mussel farming, occupies a good portion of this part of the bay. **Winter River** is a branch of the harbour extending to the west.

Fairway light **buoy** JH (1047.1) is moored 1.2 miles north of the entrance into Tracadie Bay. The channel is **buoyed**, but owing to changing conditions, the buoys may be moved to mark the best water.

186 A U-shaped Public wharf lies on the west side of the harbour, about 0.9 mile SW of the entrance. The outer face, 200 feet (61 m) long, has depths of 10 feet (3 m) alongside, except near the NE corner where there is 5 feet (1.5 m) alongside. The north face of the wharf is 150 feet (46 m) long with depths of 2 to 8 feet (0.6 to 2.4 m) alongside. Good shelter is reported at this facility. Fresh water, electricity, diesel and gasoline are available.

187 **Cape Stanhope**  $(46^{\circ}26'N, 63^{\circ}09'W)$  lies 4.2 miles west of the entrance to Tracadie Bay. A **light** (1051) is shown at an elevation of 33 feet (10 m) from a red and white square tower, 27 feet (8.2 m) high, on the cape. A **fog signal** of one blast every 30 seconds is sounded from a horn on the lighttower; the horn points 005°. Fairway light **buoy** JJ (1050.05) is moored 1.1 miles NNE of the light.

188 **Covehead Bay**, entered between Cape Stanhope and **Cove Head**, is navigable only by small craft as the depth in the entrance is 2 feet (0.6 m). A highway bridge with a clear-

ance of 9 feet (2.7 m) crosses the entrance. A **light** (1053.5) is shown at an elevation of 28 feet (8.5 m) from a mast on the highway bridge.

189 Close inside the bridge, on the east side, are two small wharves.

### Chart 4023

190 **Coast.** — The coast between Cape Stanhope and **Orby Head** ( $46^{\circ}30'N$ ,  $63^{\circ}20'W$ ), a red sandstone headland 120 feet (37 m) high, forms a bight where the 3 fathom (5.5 m) line is seldom less than 0.8 mile off the shore.

### Chart 4467

191 **Rustico Bay and New London Bay.** — The Canadian Coast Guard has completed a review of the marine **aids to navigation** system for Rustico Bay and New London Bay. This includes the harbours and waterways of Rustico, Hunter River, French River, Southwest River, New London Bay and Stanley River.

192 The visual aids to navigation in these waters are designed to support the safe movement of marine craft until visibility is reduced to five (5) miles. When visibility drops below 5 nautical miles, mariners should reduce speed, exercise caution and ensure safe navigation by using on-board electronic navigation systems.

*(Canadian Coast Guard, 2001)* 193 **Rustico Bay** is entered at the west end of **Rustico** Island over a shifting sand bar through which there is frequent dredging. Local knowledge is necessary to enter this bay safely as there are many sand bars and eel grass patches. The bay branches into several rivers and small creeks.

**194 Lights**. — Two breakwaters extend from the west side of the harbour entrance. A **light** (1055) is shown from a skeleton tower at the outer end of the north breakwater, which is L-shaped. A **light** (1057) is shown on the SE corner of the inner breakwater from a square skeleton tower. A **light** (1056) is shown from a white tower situated close to the shore along the bight formed by the two breakwaters. Fairway light **buoy** JK (1054) is moored 0.7 mile NE of the outer breakwater.

195 There are a few small wharves, stages and sheds on the beach at **North Rustico Harbour**, situated close NW of the inner breakwater. The small boat basin at the NW side of the harbour is reported to have hazardous underwater wharf pilings; **caution** is advised.

196 The village of **North Rustico**, population of about 650, lies 0.8 mile west of the harbour entrance. Along the north shore, there is a wharf with a continuous berth 1,750 feet (533 m) long. A pier extends from the east end of the wharf, and a **light** (1057.5) is shown from a skeleton tower at the outer end of this pier. There are reported depths of 4 feet (1.2 m) in this area. **Aquaculture** operations are located on the **Hunter River**, south of North Rustico.

New London Bay, 6 miles west of Orby Head, lies at the west end of a long range of sand hills about 55 feet (17 m) high. The entrance to the bay, about 0.2 mile wide, is obstructed by a shifting sand bar with a depth over it of about 5 feet (1.5 m). Breakwaters protect the entrance on the east side. A **light** (1060.01) is shown at an elevation of 12 m from a square white tower on the corner of a building. The light structure is situated on the western shore, inside the entrance to the bay. Fairway light **buoy** JM (1058) is moored 1.2 miles NE of the light.

198 The Hope, Stanley, Southwest and French Rivers discharge into the bay, and are navigable for short distances by small craft. Some channels in New London Bay are marked with buoys, others by stakes. Aquaculture operations are located along the shores of the bay, caution is advised.

A wharf is situated on the south shore of the French River at **South Landing**. On the north shore, at the head of the river, there is a wharf with a depth of 5 feet (1.5 m) at the outer face.

A wharf parallels the highway bridge at the settlement of **New London**, 2 miles above the mouth of the Southwest River. It is 220 feet (67 m) long with a depth of 4 feet (1.2 m) on the SW side.

201 The settlement of **Stanley Bridge** lies about 1 mile above the mouth of the Stanley River. There is a wharf extending about 175 feet (53 m) along the edge of the river channel with a depth of 4 feet (1.2 m) alongside.

### Chart 4023

**Cape Tryon** ( $46^{\circ}32'N$ ,  $63^{\circ}30'W$ ), 7 miles west of Orby Head, is a **conspicuous** cliff of red sandstone 110 feet (33 m) high. A **light** (1061) is shown at an elevation of 115 feet (35 m) from a white square tower on the cape.

### Chart 4491

203 Malpeque Bay, about 8 miles west of Cape Tryon, is entered through Ship Channel, between Profitts Point (Cape Aylesbury) and Billhook Island. Malpeque Bay contains several islands, and many rivers and creeks flow into it. 204 Ship Channel is obstructed by a bar which extends 3.5 miles east from Billhook Island, with depths of 10 feet (3 m) in the fairway of the buoyed channel. In bad weather, all signs of the channel are obliterated by heavy breakers. The bottom is of sandstone, thinly and unevenly covered with sand. The channel deepens inside the bar, but the depths are very uneven and there are shoals on each side of the fairway. The channel shifts, and the latest local information is essential for safe entry. In Ship Channel, the **tidal flow** is from 1 to 2 knots. The streams are strongest just inside Malpeque Harbour and

1-29

off **Royalty Point**. Farther in the bay, the streams are much weaker and seldom reach a rate of 1 knot.

Fairway light **buoy** JP (1065.05) is moored 2.25 miles ENE of Profitts Point (Cape Aylesbury). The approach to Malpeque Bay is **buoyed**.

208 Malpeque Harbour has sufficient room and depth for **anchorage**. The bar outside prevents the sea from entering, and Horseshoe Shoals shelter the anchorage from the west. There are depths of 18 to 60 feet (5.5 to 18.3 m) and good holding ground of sand and clay.

**Darnley Basin** is a small boat harbour to the SE of Ship Channel. The entrance channel is through **Darnley Spit** into the basin. A **buoyed** channel leads west from the basin to a small boat harbour at the head of a cove 0.4 mile south of Royalty Point. A channel continues from the south end of the basin, beneath a bridge with a vertical clearance of 13 feet (4 m), to a T-shaped Public wharf close east of **Burial Point**. There are depths of 4 to 6 feet (1.2 to 1.8 m) alongside. A **light** (1071.2) is shown at an elevation of 15 feet (4.6 m) from the centre of the bridge span. The settlement of **Malpeque**, situated to the SW of Burial Point, is one of the oldest on Prince Edward Island.

The Public wharf at **Bentinck Cove**, to the west of the south shore of Malpeque Bay, has a reported depth of 6 feet (1.8 m) at the outer end.

211 The **Ellis River** flows into the SW side of Malpeque Bay. Two small wharves lie on the south bank of the river, one close SW of **Black Point**, and the other 2 miles SW of Black Point.

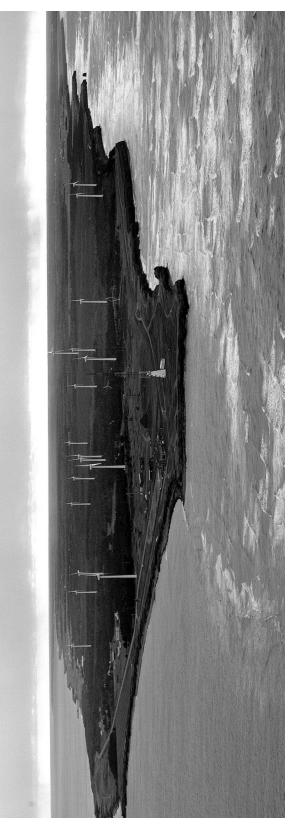
212 **Lennox Island**, a First Nation, lies on the NW side of Malpeque Bay. A bridge, vertical clearance of 8 feet (2.4 m), crosses **Lennox Channel**, joining the island to **Sharp Point**. A Public wharf is situated on the south side of the channel, close west of **Oyster Point**. A wharf extends from the south side of Lennox Island; a prominent white church and spire is situated close NE of the wharf.

213 The **Goodwood River** extends west and NW from Sharp Point. An **aquaculture** facility is located near the head of the river. An L-shaped Public wharf extends from the west side of the river to a depth of 3 feet (0.9 m) near the settlement of **Bideford**.

214 **Coast**. — The coast between Billhook Island and the entrance to Cascumpeque Bay, 18 miles NW, is formed of sand dunes and beaches. **The Narrows**, an inside passage with very little water, drying in places, connects Malpeque and Cascumpeque Bays. There are entrances through the sand dunes at **Conway Inlet (Hardys Channel)** and **Palmer Inlet**. Fairway light **buoy** JS (1071.35) is moored about 0.8 mile ENE of the Conway Inlet entrance.

Little Channel, leading to Conway Cove from Conway Inlet, has depths of only 2 to 3 feet (0.6 to 0.9 m). A small boat basin is located on the north side of the channel.

# NORTH CAPE (2005)



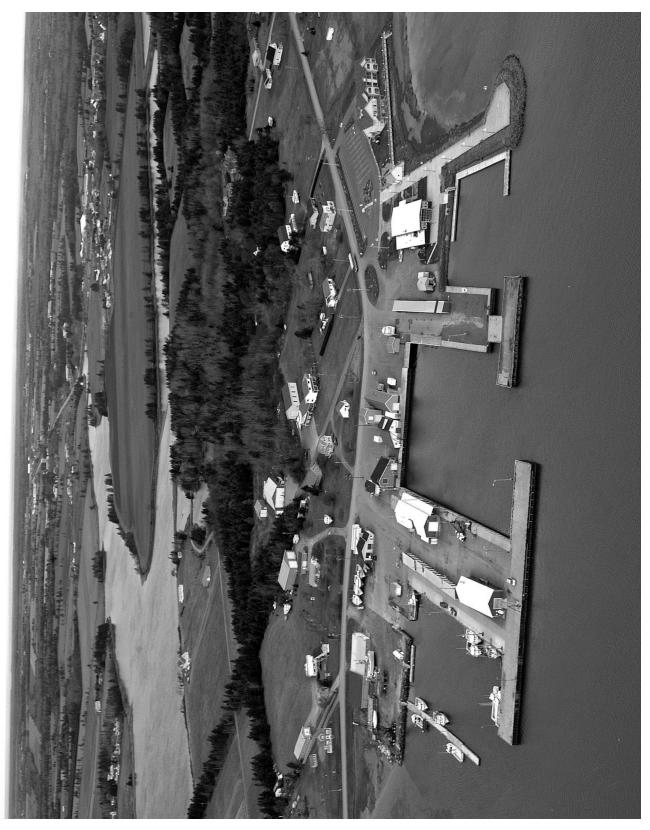
1-31

# ALBERTON HARBOUR — ENTRANCE (2005)

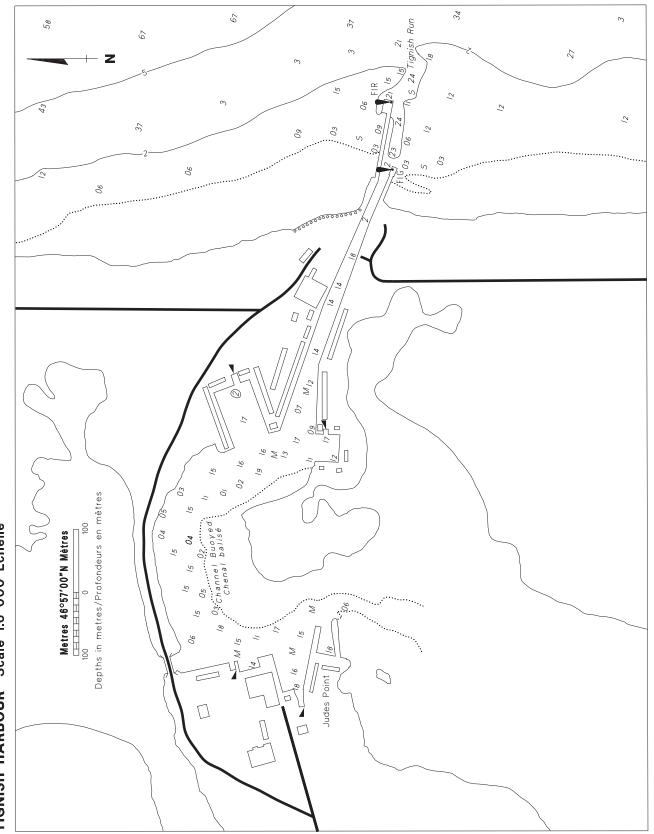




# ALBERTON HARBOUR (2005)







TIGNISH HARBOUR Scale 1:6 000 Échelle

# **Alberton Harbour**

### Chart 4492

Alberton Harbour, at the north end of Cascumpeque Bay, just inside the entrance channel, is well sheltered and has fair anchorage depths for small vessels. The entrance is obstructed by a sand bar and is subject to considerable silting. As the channel through the bar constantly shifts, the leading lights and buoys may be moved to mark the best channel and the latest local knowledge is essential to enter this harbour safely. Inside the entrance, a clear channel trends SW for 1 mile, and then turns south between Savage Island and Cascumpeque Point.

217 Mariners are **cautioned** that under certain conditions of tide and weather, the entrance channel becomes impossible to navigate because of breakers. The normal maximum rate of the **tidal streams** in the entrance is 1.5 knots, but in certain conditions they can exceed 4 knots. **1**218 **Leading lights** mark the channel in the entrance and to the wharves in Alberton Harbour at **Northport**. Fairway light **buoy** JV (1075.05) is moored 1.7 miles ESE of the channel entrance.

Lights (1081, 1082) are in line bearing 245°. The front light is a white daymark with a red stripe situated on the roof of a shed near the outer end of the Public wharf. The rear light is a white tower with a red stripe situated on the shore close to the west.

 $\underbrace{1}_{221}$  In fine weather, there is temporary **anchorage** off the outer bar in about 36 feet (11 m), sand. The anchorage in the channel within the entrance is secure, but confined, in about 18 to 30 feet (5.5 to 9.1 m) of water.

222 The T-shaped Public wharf at Northport extends 404 feet (123 m) from the shore to an outer end 328 feet (100 m) long with depths of 6 to 16 feet (1.8 to 4.9 m) alongside. A T-shaped wharf, 126 feet (38 m) long, with depths of 8 to 10 feet (2.4 to 3 m) alongside, is situated close to the NE.



# TIGNISH HARBOUR (2005)

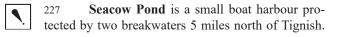
Alberton, population 1,115 in 2001, is a town on the north side of the harbour. There is a small hospital in the town.

224 Cascumpeque Bay is very shallow, with a maximum depth of 16 feet (4.9 m) in the centre surrounded by large areas of very shallow water and drying flats. Several rivers, navigable for some distance by boats, indent the bay. The deepest of these is **Foxley River**, with a channel of depths 10 to 37 feet (3 to 11.3 m), extending about 2 miles upstream from the mouth. On the south side of **Gordon Point**, near the mouth of the river, a T-shaped Public wharf extends 230 feet (70 m) from the shore to an outer end 31 feet (9.4 m) long with depths of 2 and 3 feet (0.6 and 0.9 m) alongside. A breakwater close to the east is in disrepair.

### Chart 4023

225 **Cape Kildare**  $(46^{\circ}53'N, 63^{\circ}59'W)$  is a cliff of red sandstone 30 feet (9 m) high. The surrounding land is red and topped with clumps of trees. There are no other high sand hills north of Alberton Harbour.

**C Tignish Harbour**, 4.5 miles north of Cape Kildare, at the mouth of the **Tignish River**, is protected at the entrance by long breakwaters on each side. A **light** (1083) is shown from a square skeleton tower at the outer end of the north breakwater. Starboard hand light **buoy** JX2 (1084.5) is moored about 1 mile SE of the harbour entrance.



There is a depth of about 3 feet (0.9 m) in the entrance.

A light (1084.7) is shown from a square skeleton tower on

the outer end of the south breakwater. A privately maintained

light (1036.1) is shown from the north breakwater.



228 **North Cape**  $(47^{\circ}03'N, 64^{\circ}00'W)$  is a low red cliff with reefs and shallow water extending north and

east. Irregular depths continue north, terminating in North

Cape Reef, 4.5 miles off, and with a depth of 32 feet (9.8 m).

A light (1036) is shown at an elevation of 80 feet (24 m) from

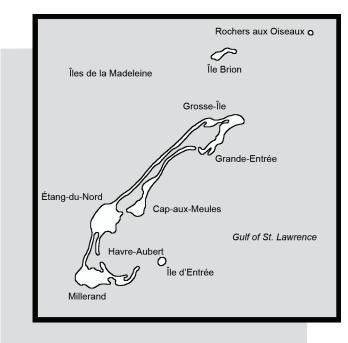
a white octagonal tower 64 feet (19.5 m) high, situated on the

cape. North cardinal light and bell buoy DS (1037) is moored

1.5 miles north of the cape.

A radio tower, elevation 271 feet (83 m), marked

by lights, and several wind turbines stand on North Cape.



# Îles de la Madeleine

# Îles de la Madeleine

### Charts 4002, 4022, 4023, 4024, 4950

1 **Îles de la Madeleine** form a regional county municipality of Québec. They include the municipalities of Cap-aux-Meules, Fatima, Grande-Entrée, Grosse-Île, Havreaux-Maisons, L'Étang-du-Nord and L'Île-du-Havre-Aubert. 2 The main group of islands, located about 50 miles NW of Cape St. Lawrence, consists of a few rugged islands linked by a double string of sandy ridges and beaches containing shallow ponds, which can be entered through narrow channels. Île d'Entrée ( $47^{\circ}17'N$ ,  $61^{\circ}42'W$ ) is the only exception and is also the highest island of the group of which it is isolated.

The sand bars that link the main group of islands rise at places only a few meters above the sea, while they form relatively high sand hills at other places. Sandy ridges, 90 to185 m offshore, run parallel to the shore. Usually, they are covered by 2.7 to 3.7 m of water, with depths between the ridges and the shore varying from 5.5 to 7.3 m.

4 The central part of the islands forms hills rising to a rounded summit, often in the shape of a dome of 61 to 170 m in elevation. The islands are partially wooded, but the trees are stunted. The parts that are not covered by trees are grassy. On the mainland, the climate is not as harsh as in Quebec, but summers are cool and humid. Rain and mist are common.

5 In fine weather, the red of the cliffs, the green of the trees and of the grass, the blue of the sky and the yellow of the sand form a noticeable contrast in colours, quite typical and different of any other part of the Gulf of St. Lawrence. In bad weather, the appearance is also very noticeable because one can distinguish the isolated hills and cliffs through the rain and mist, which seem to be linked by the long string of breakers that hide the sand bars. In fall, foggy weather and easterly gales are predominant.

6 Fishing and tourism drive the island's economy. Several laws and regulations, of which the *Fisheries Act*, the *Species at Risk Act*, the *Oceans Act*, the *Navigable Waters Protection Act* and the *Canadian Environmental Assessment Act*, protect the fish habitat and oversees the transfer of ballast water, dredging activities, dumping at sea, back filling and the construction or removal of infrastructures. The mariner must get the information on the necessary permits and on how to complete the duties.

6.1 **Deballasting**. — Vessels bound for the Îles de la Madeleine, moored or anchored, must comply with the *Ballast Water Control and Management Regulations*. It is forbidden to anyone to deposit or allow the deposit of noxious products in waters containing fish that would alter, degrade or destroy the fish habitat.

6.2 The Department of Fisheries and Oceans has determined that ballast water taken from:

- 1. any waters located west of  $068^{\circ}W$ ,
- 2. any waters located within 10 miles of the Canadian shoreline,

may contain noxious products in such quantities or concentration that they would alter, degrade or destroy fish habitat in the Îles de la Madeleine archipelago. Only ballast water taken in areas not included in the above may be discharged into Lagune de la Grande Entrée or within 10 miles of the Îles de la Madeleine archipelago (protected waters).

6.3 All vessels planning to de-ballast into the protected waters defined above shall, at least three days ahead, provide a fully completed ballast water reporting form by e-mail to: atlanticballastwater@tc.gc.ca. No release of ballast water into this protected zone may take place until authorized by a *Transport Canada* representative.

6.4 Any person or vessel that contravenes these provisions, concerning the discharge of deleterious substances in waters frequented by fish, is liable to severe fines.

7 There is a scheduled **ferry** for passengers and vehicles, linking Souris (Prince Edward Island) to Cap-aux-Meules. Seasonal **ferries** for passengers and road vehicles link Montreal, Gaspé, Chandler to Cap-aux-Meules.

and direction of the **tidal streams** around the Îles de la Madeleine vary a lot. They are influenced by Gulf of St. Lawrence's currents and winds.

9 A few miles off Île Brion and Rochers aux Oiseaux, north of the main group, the **current** usually sets to the SE, but the flood current can be felt between the main islands of the group and Île Brion. This flood current sets to the NW and breaks up into two currents at Pointe de l'Est, with Pointe Old-Harry and the **shoals** off it, which deviates the current to the SW, towards Île d'Entrée, nearly causing a slack in the bay between Île de la Grande Entrée and Cap le Moine-Qui-Prie (Cap Alright), as well as in the Baie de Plaisance.

10 The other part of the **tidal stream** sets north of Île Brion, going from Pointe de l'Est to Gros Cap (on Île du Havre Aubert). The main part of the current sets SW, while the other part flows along the south shore of Île du Havre Aubert and meets the current coming from Pointe de l'Est. The currents join and turn gradually while mixing with the generally weak flood currents which set to the west.

In On the SE side of the islands, the ebb current flows strongly out of the ponds and of Baie de Plaisance, between Dune Sandy Hook and Île d'Entrée; it sets to the west along the south shore of Île du Havre Aubert, goes around it and then sets to the NE along the north shore of the islands, between Gros Cap and Pointe de l'Est. Then, the ebb current sets to the NE on the sandy ridge lying about 1.2 miles NNE off Pointe de l'Est, where it meets with the main current which sets to the SE and which goes around the north side of the islands.

12 These conditions seem to be the rule and occur repeatedly in fine weather, with occasional interruptions. The speed of these **currents** rarely reach 1 knot, except close to the shore and around the points. The ebb current is usually stronger than the flood current and the westerly winds increase its speed, while the speed of the flood is increased by easterly winds. However, the meeting of the ebb currents added to the shallow depths and easterly winds cause a heavy and breaking sea.

12.1 The hourly surface currents forecasts for the Gulf of St. Lawrence are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours.

13 The **tidal range** is about 0.9 m during spring tides and about 0.6 m during neap tides. On the west shore of the islands, the tide occurs almost always in daytime.

For more information on **water levels**, mariners should consult the *Canadian Tide and Current Tables* and the table mentioned on the charts. In addition, a network of digital water level gauges has been installed along the St. Lawrence River; the system, called SINECO (Coastal and Ocean Water Level Information System), allows the mariners to obtain instantaneous water levels at different sites, as well as the forecast for the next few days. The most recent information on water levels can be obtained by contacting the MCTS centres by VHF radio, by calling the automated information service at 1-877-775-0790 or on the Web site at www.charts.gc.ca.

16 During winter, **buoys** are removed and some are replaced by spar buoys. For information on the positioning and removing of buoys, consult the radio broadcast and/or written *Notices to Shipping*.

Îles de la Madeleine — East Coast

Chart 4950

17 **Île de l'Est**, the NE island of this group, shows a conspicuous isolated hill  $(47^{\circ}37'N, 61^{\circ}28'W)$ , also known as **Cap Nord-Est**, which rises to cliffs 62 m in elevation. From a distance, one could mistake this point as the NE end of the group of islands, because the land on the east of the point is much lower.

Pointe de l'Est  $(47^{\circ}37'N, 61^{\circ}23'W)$ , low and sandy, is the east end of Île de l'Est and has several shallow ponds. There are a few sand hills on the cape and some others, more inland, reach higher elevations and extend into a range.

19 *Pointe de l'Est National Wildlife Reserve* (Environment Canada) is located in this area and access regulations apply.

20 A sand bar, covered by 4 m of water, lies about 1 mile south of Pointe de l'Est. East cardinal light **buoy** YY (1480) is moored 2.4 miles east of Pointe de l'Est; it is equipped with a **racon** (---•).

21 **Récif Doyle (Doyle Reef)**, formed by pinnacles, is situated 6.3 miles ESE of Pointe de l'Est and is covered by 6.9 m of water. It very seldom breaks, except by gales.

23 The breakwater-wharf situated on the north side of Pointe Old-Harry is in ruins. Submerged stony blocks in the harbours entrance and inner part have been reported. The hamlet of **Old-Harry** is located in this area.

24 **Haut-fond Clark**, covered with 4.9 m of water, lies 8.5 miles SE of Pointe Old-Harry.

25 Les Colombines, located SE of Île de la Grande Entrée, is an area of rocky pinnacles and small shallow areas covered sometimes by as little as 1.1 m of water.
 26 Starboard hand light buoy Y8 (1481) is moored off Les Colombines, 3.2 miles SSE off Pointe Old-Harry.

**Banc Goodwin (Goodwin Shoal)**, covered by 5.8 m of water, is located 6.6 miles SSE of Pointe Old-Harry.

Chart 4954

Havre de la Grande Entrée is the largest of the inner ponds, extending to the SW as far as Île du Cap aux Meules.

The village of **Grande-Entrée** (population of 692 in 2000) is located on the east side of the entrance of Havre de la Grande Entrée. There is a post office and a medical clinic. Provisions and potable water are available.

30 The charted depths are obtained by recurrent dredging. Due to continual silting and to the shifting sandy shoals, mariners should expect to find at some places less water than charted and should be **very cautious** when entering into the harbour. The flood current, a good visibility and fine weather conditions are essential to reach the harbour. **Pilotage** is available, but not compulsory in Havre de la Grande Entrée. The **leading lights** and the **buoys** can be moved in order to mark the channel to follow.

Landmark. — • Two conspicuous towers, used for mining, 40 m high with red lights, are situated 0.6 mile north of the *Mines Seleine (Grosse-Île)* wharf; they are visible from the harbour's entrance approaches.

32 A light (1484) with a fluorescent-orange daymark and a black stripe, shown on a mast, is on the cape. Close NW of the light, there is a spoil ground area.



**OLD-HARRY** (2000)

# HAVRE DE LA GRANDE ENTRÉE (2000)



34 Grosse Île sector light (1485.5) is privately maintained and is situated on the southern part of the island; the white sector covers an arc of 10 minutes and is centered on the bearing 034°04'; it allows to go through Chenal de la Grande Entrée, passing immediately to the west of Île du Chenal.

35 The depths and the width of the channel leading to the *Mines Seleine (Grosse-Île)* wharf can vary considerably due to continual silting. Mariners should expect to find at some places less water than charted. For recent informations, contact the harbour authorities of *Mines Saleine* or the sales office in Montréal.

36 The **leading lights** (1486, 1486, 1) of the northern dune, bearing 287°, are situated at about 0.5 mile west of *Mines Seleine (Grosse-Île)* wharf and is privately maintained.

A causeway and catwalk link *Mines* Seleine (Grosse-Île) wharf with the shore; the 380 m long and 10 m wide catwalk is used primarily for loading de-icing salt. A total of 1.4 M tonnes was shipped in 2000. An abandoned **submarine cable** links the wharf's inner end to **Île Seleine**.

38 A **Public wharf**, 122 m long and partially in ruins, is situated on **Pointe de la Grande Entrée**; a fish plant is located adjacent to the wharf. There is a **launching ramp**. Two mooring basins are entered close east of the wharf. (See *Grande-Entrée* diagram)

40 Several **marine farms**, marked by yellow cautionary **buoys**, are situated in Havre de la Grande Entrée; mariners are advised to exercise caution in this area.

Chart 4950



# MINES SELEINE (2000)

41 **Île Shag**  $(47^{\circ}29'N, 61^{\circ}42'W)$  is a small limestone island, 18 m in height, lying near the shore about 7 miles SW of Île de la Grande Entrée.

42 **Landmark**. — • A **windmill** with a red light stands close to the shore, 1.8 miles WSW of Île Shag.

43 **Buttes Pelées**, on **Île du Havre aux Maisons**, about 11 miles SW of Île de la Grande Entrée, are conspicuous; they form cliffs which, on the east side, rise to an elevation of 108 m and are greyish-white with a reddish aspect at their foot.

44 A rock-filled **jetty**, extending the shore for 135 m in an eastward direction, is situated at **Dune-du-Sud**.

45 A decommissioned lighthouse, shown from a white tower with a red upper part, is situated on **Cap le Moine-Qui-Prie (Cap Alright)** ( $47^{\circ}23'N$ ,  $61^{\circ}46'W$ ), the SE end of Île du Havre aux Maisons.

46 **Landmark**. — • **Butte Ronde** is a conspicuous hill of 102 m in elevation; a cross on its top stands close north of Cap le Moine-Qui-Prie.

47 **Offshore dangers.** — **Récif Alright**, made of rocky pinnacles and covered by at least 2.1 m of water,

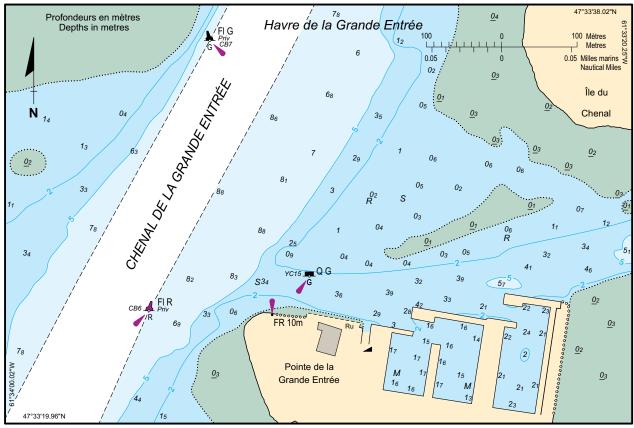
# GRANDE-ENTRÉE Échelle 1:5 000 Scale

extends as far as about 4 miles east of Île du Havre aux Maisons; starboard hand light **buoy** Y12 *(1487)* is moored close east of the reef.

48 **La Perle**, a **reef** lying about 8 miles ESE of Cap le Moine-Qui-Prie, consists of **rocks** which are covered by at least 2.9 m of water. It is dangerous to get too close, because it breaks strongly, even with a moderate sea. Starboard hand light **buoy** Y16 (*1512*) is moored on the reef's east side.

49 Several **marine farms** are situated NE of Récif La Perle and south of Cap Alright. These marine farms are marked by yellow cautionary **buoys**; mariners are advised to exercise caution in this area.

50 **Pointe Basse** is situated 0.7 mile west of Cap le Moine-Qui-Prie. A 105 m long and 1.6 m high **wharf** extends from the point. The wharf's outer face is protected by a rock-fill and extends into a 140 m long breakwater. There is also a spur wharf pointing into a NE-SW direction. A 175 m long breakwater and a launching ramp are situated west of these two wharves. A **light** (1495.5) marks the outer end of the west breakwater. (See the **Pointe-Basse** diagram)



SOURCES: Levé par le SHC en 2013, gouvernementale 2003-2020 et non-gouvernementale en 2009-2016 SOURCES: Surveyed by CHS in 2013, governmental 2003-2020 and non-governmental in 2009-2016

# POINTE-BASSE (2000)



52 On the diagram, the charted depths in the dredged areas were obtained from periodical dredging. Due to **continuous silting**, mariners must be aware of shoal depths in certain areas. It is recommended to obtain depth confirmation from the local authorities.

52.1 There are artificial submerged **reefs**, with depths of 2.1 m, located 0.9 mile WSW of Pointe-Basse wharf

Chart 4955

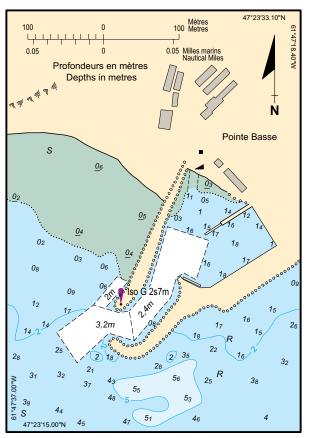
53 Havre aux Maisons is situated on the west end of Île du Havre aux Maisons. The harbour is entered through a narrow **channel**; the **buoys** marking the channel can be moved at any time in order to indicate the best channel. Because of the continuous silting, the limiting depth in the harbour may be less in some places.

A fixed highway bridge, with a 54 vertical clearance of 6.3 m, spans the harbour. The channel under the bridge is marked by lights and leads into Lagune du Havre aux Maisons. There are piles under the bridge, west of the channel. Overhead cables, with a least vertical clearance of 5.9 m, are 0.2 mile upstream of the bridge. Anchorage is prohibited on either side of the overhead cable area due to submarine cables crossing the channel. A crib is on the west side of the channel immediately downstream of the overhead cables. An outfall pipe extends from the shore just upstream from the overhead cables; a submerged crib, with a depth of 8.4 m, is at the outer end of the outfall pipe. Another submerged crib, with a depth of 5.9 m, is 50 m NNW of the previous crib. A crib in ruins, drying 1 m, is on the west shore immediately upstream from the overhead cables.

**55** Inside Lagune du Havre aux **Maisons** and near **Pointe** à **Mounette** there are **wharves**, a **marina** (Club nautique du Chenal), launching ramps and a fish plant. The wharves

are partially in ruins. See the Appendix for marina facilities.

# POINTE-BASSE Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1984-2018, gouvernementale en 2000-2019 et non gouvernementale en 2014-2017

SOURCES: Surveyed by CHS in 1984-2018, governmental in 2000-2019 and non-governmental in 2014-2017

### HAVRE-AUX-MAISONS (2000)



56 A small harbour, formed by two **breakwaters**, is situated at **Fatima**, NNW of **Pointe à Richard** (47°24'N, 61°52'W). The harbour provides shelter to the **wharf Quai du Cap-Vert**, a **marina** and a **launching ramp**. A **buoyed channel** that leads through Lagune du Havre aux Maisons gives access to the facilities. Fuel is available.

57 There are several **marine farms** in Lagune du Havre aux Maisons. These marine farms are marked by yellow cautionary **buoys**; mariners are advised to exercise caution in these areas.

# Chart 4956

<sup>58</sup> **Île du Cap aux Meules** is situated close SW of Île du Havre aux Maisons. The coast of the island shows cliffs on several places and rises more or less evenly to a conspicuous peak, **Butte du Vent**, at its centre. **Cap aux Meules** is a conspicuous grey point situated towards the centre of the island's east coast; it has an elevation of 45 m near its SE end.

# CAP-AUX-MEULES (2000)

59 Landmarks. —• Towers with red lights, conspicuous from seaward, are situated 0.6 mile north of Cap aux Meules.
60 There is a hospital and a post office in the village of Cap-aux-Meules (population of 1,661 in 2000). Provisions and potable water are available. Ferries for cars and passengers link the island to Île d'Entrée, Souris (Prince Edward Island) and the mainland. There is also a ferry terminal.

**N (b)**  $f_{0}^{61}$  Havre de Cap-aux-Meules is open year round and has, in its NE part, a large basin protected by wharves and a breakwater. Pilotage services are available upon request. Leading lights (1497, 1498), in line bearing 330°, with fluorescent-red daymarks with a black band, are situated on the jetty, which is SE oriented. A light (1496.5), shown from a tower, marks the end of the breakwater.

62 The north, west and south sides of the basin are fringed by **wharves**. Mariners must refer to the current



chart to know the depths along the wharves. The NE part of the harbour has two jetties used for the ferries; a dolphin is linked to the jetty situated to the west. In the north part of the harbour, there is a **launching ramp** and a 7 m wide **slipway** equipped with a 100 tonne capacity travel-lift. Electricity, fresh water and diesel are available on the wharves. The bulk of the handled goods consists of oil products and miscellaneous cargoes.

A seasonal floating wharf, used as a landing pier for 62.1 cruise ships' shuttles, is attached to the spur wharf in the SW part of the basin.

A 89 m long wharf equipped with a 63 **Ro-Ro ramp** is situated on the south side of the harbour. The jetty which extends towards the SE is 180 m long. The wharf's heights are 1.8 m (south wharf), 2.3 m (jetty extending to the SE), 2.6 m (ferry wharf in the north of the basin) and 1.3 m for the other wharves. An outfall pipe extends 82 m from the shore, close to the east breakwater's inner end.

Cathodic protection to control corrosion 64 has been installed at the commercial wharf at Cap-aux-Meules and at the jetties used for the ferries. When mooring to this wharf, some operational procedures must be followed to prevent damage to vessels. For information and guidelines, contact the Harbour Master at (418) 986-3785 or (418) 937-7635.

Havre de Cap-aux-Meules 65 has also a second basin in the SW part which is protected by breakwaters. There is also a 150 m long public wharf equipped with pontoons which forms the north side of this basin. A marina (Club nautique de Cap-aux-Meules) is situated in the SE part. Refer to the Appendix for marina facilities. A light (1498.5), shown from a tower, marks the SW end of the south breakwater, at the entrance of the second basin.

A Canadian Coast Guard seasonal rescue 66 station operates from Cap-aux-Meules. Requests for assistance can be addressed at any time to the Marine Rescue Sub-Centre (MRSC Québec) via the MCTS centres by VHF radio on channel 16 (156.8 MHz) or on 2,182 kHz or by telephone 1 800 463-4393. The owners of specific cell phones can also dial \*16 which will establish a direct contact with the closest MCTS. It should be noted that it is not possible for the Canadian Coast Guard to trace the origin of calls for those using their cellular phone and that some areas do not have cellular coverage.

Ice. — Shore-fast ice begins to form usually about 67 mid-December and its concentration increases in the approaches to Havre de Cap-aux-Meules, a month later. Usually, the ice cover decreases to a mere tenths about mid-April and this whole area is clear of ice around mid-May.

Chart 4950

Pointe de l'Échouerie is situated 1.5 miles SSW of 68 Cap-aux-Meules.

Landmarks. — • Le Gros Cap, the SE end of Île 69 du Cap aux Meules, forms a steep ledge of 18 m in height. • A tower with red lights stands 2 miles WNW of Gros Cap. Île du Havre Aubert is the SW island of the 70 

group and is linked to Île du Cap aux Meules by two sand ridges which shelter a large and shallow pond.

Landmarks. — • A conspicuous microwave tower, 71 227 m in elevation and with red lights, stands almost in the middle of the island. • Les Demoiselles (47°14'N, 61°52'W) designate two rounded hills of 69 m and 82 m in elevation, which form good landmarks when approaching Havre Aubert from the NE. The north face of the tallest of the two hills shows dark red cliffs. • An illuminated cross dominates the hill situated 0.2 mile east of Les Demoiselles.

### Chart 4957

Baie de Plaisance, which can be 72 entered between Île du Havre Aubert and Île du Cap aux Meules, is the best roadstead of the Îles de la Madeleine and also the only one where vessels can find a shelter during the summer months; easterly gales are very uncommon during this period. However, with easterly gales, a moored vessel can, in this bay and at any given moment, be at great danger; mariners should be extremely cautious.

The best mooring berth is with Cap Gridley 73 Ů (47°14'N, 61°50'W) bearing SSW, at 0.7 mile and in depths of 7.3 m with a sandy clay bottom. The point, which shows grey limestone cliffs on its NE part, forms the NW part of the entrance of Havre Aubert. Larger vessels can anchor further offshore in 9 m depths.

Artificial submerged reefs, with depths of 73.1 4.4 m, are placed 1.4 miles NW of Cap Gridley. Their purpose is to enhance the marine environment by improving the marine productivity and biodiversity.

Ruins of a wharf, extending 160 m from the 74 shore, are situated close west of Pointe Shea.

Havre Aubert is entered between Cap Gridley and the drying sand flats to the SE.

The very narrow **channel** leading into the harbour is marked by buoys. A seasonal sector light (1505.5) is situated on the south side of the harbour near Pointe à Fox. The white sector leads into the harbour approach channel. The wharf situated 95 m south of Cap Gridley is rock-filled and is now a jetty.

75

**\**.

The municipality of Havre-Aubert (population 76 of 2,443 in 2000) has a medical clinic and a post office. Provisions and potable water are available.

The commercial fishing wharf, 182 m in 77 length and 1.4 m high fringes the entrance channel.

# HAVRE-AUBERT (2000)



A small basin with a depth of 1.2 m (2015) is adjacent to the commercial fishing wharf; it has a launching ramp. Another wharf, 68 m in length, fitted with water and power outlets, forms the NW side of the basin. Due to continual silting, mariners must expect to find at some places less water than charted.

77.1 A cathodic protection system to control corrosion is in operation at the commercial fishing wharf. When berthing at this wharf operating procedures must be observed to prevent damage to vessels.

79

A marina (Club nautique Les plaisanciers du Havre) has a jetty

of 111 m in length and is situated in the NW part of the harbour. Refer to the Appendix for marina facilities. The entrance channel to the jetty is (privately) marked and offers a depth of 1.1 m (1994).

Ice. — Shore-fast ice begins to form usually 80 about mid-December and its concentration increases in the approaches to Havre Aubert a month later. Usually, the ice cover decreases to a mere tenths around mid-April and this whole area is clear of ice about mid-May.

### Chart 4950

**Île d'Entrée** (47°17′N, 61°42′W) is the highest 81 island of the Archipel des Îles de la Madeleine and the only isolated one where people live. It reaches an elevation of 169 m and shows red cliffs of 107 m in height on the NE point and of 122 m on the SE point. La Cormorandière is a red limestone rock, close off the island's NE shore.

82 A decommissioned lighthouse, shown from a white tower with a red upper part, is placed on the island's south side.

83

Another light (1511), shown from a tower, dominates the cliff on the island's NE end.

The village of **Île-d'Entrée** (population of 175 in 84 2000) is situated on the west side of the island. There is a post office and a medical centre. A seasonal ferry service for passengers links the island to Île du Cap aux Meules.

Two breakwaters form a harbour 85 close to the village. A public wharf, protected by a breakwater to the SW, has a 90 m long east face of which the ferry uses the first 38 metres at its north end. There are also floating docks and a slipway. Seasonal lights (1510.3 and 1510.6), placed on the end of each breakwater, mark the entrance to the harbour. (See the *Île d'Entrée* diagram)

On the diagram, the charted depths in the 86 dredged areas were obtained from periodical dredging. Due to continuous silting, mariners must be aware of shoal depths in certain areas. It is recommended to obtain depth confirmation from the local authorities.

87 La Passe, with a depth of 4.2 m (2012), is a narrow buoyed channel between Île du Havre Aubert and Île d'Entrée. An abandoned submarine cable extends from the public wharf at Île-d'Entrée and the NE end of **Dune Sandy Hook** (47°16'N, 61°47'W).

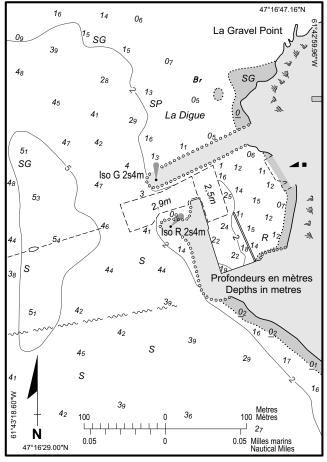
# les de la Madeleine — South and West Coasts

The south coast of Île du Havre Aubert, between 88 Dune Sandy Hook and the pond called Le Bassin, situated at about 5 miles WSW, is formed by dunes and beaches with shoal waters which extend as far as 0.5 to 1 mile from the shore. The shore rises and becomes steep, 1.5 miles west of the entrance of Le Bassin.

# L'ÎLE-D'ENTRÉE (2000)



# L'ÎLE-D'ENTRÉE Échelle 1:5 000 Scale



SOURCES: Levé SHC en 1985-2013 et SPAC en 2000-2017 et secteur privé en 2014

SOURCES: Surveyed CHS in 1985-2013 and PSPC in 2000-2017 and private sector in 2014

<sup>89</sup> A decommissioned lighthouse, shown from a white tower with a red upper part, stands on **Cap du Sud**  $(47^{\circ}13'N, 61^{\circ}58'W)$ .

90 There is a **fish farm**, marked by yellow cautionary **buoys**, within Le Bassin.

91 A mooring, off the entrance of Le Bassin, offers a shelter from winds from the NW sector to the NE sector, through the north, with a sand bottom and depths varying between 10 and 15 m.

92 Anse à la Cabane is a small bight between Cap du Sud and Le Gros Cap, 1.4 miles to the west. It offers a safe mooring with NE winds; the best mooring berth is in the middle of the bay and at roughly 0.8 mile from the shore, with depths of 10 to 15 m, sand bottom.

93 A fishermen's harbour is situated in L'Anse-à-la-Cabane (Millerand), close NW of Cap du Sud. The L-shaped public wharf, 103 m by 135 m, extends to the SE into a breakwater. Another breakwater protects the SE side of the harbour; the two breakwaters are 59 m apart. There is a launching ramp at the wharf. (See the L'Anse-à-la-Cabane diagram)

93.1 On the diagram, the charted depths in the dredged areas were obtained from periodical dredging. Due to **continuous silting**, mariners must be aware of shoal depths in certain areas. It is recommended to obtain depth confirmation from the local authorities.

• A light (1499.3), shown from a tower, stands on the end of the breakwater situated to the SE. A seasonal light (1499.35) is shown from a mast on the end of the breakwater adjacent to the wharf.

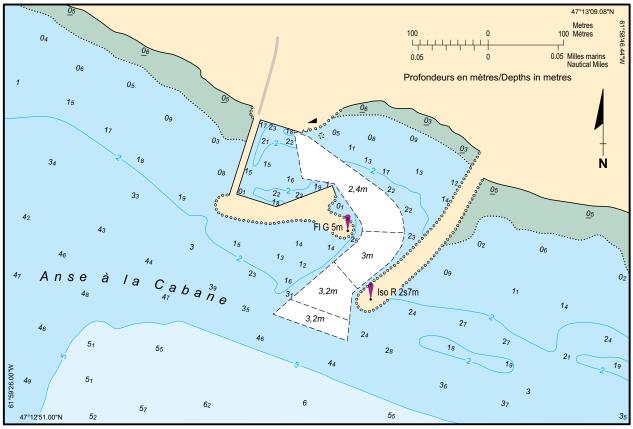
95 **Le Fond Georges** is a **shoal** covered by 16.6 m of water and situated 16.1 miles south of Île d'Entrée.

96 **Le Corps-Mort** is an island situated about 7.5 miles west of Île du Havre Aubert; it is rocky, steep and

# L'ANSE-À-LA-CABANE (MILLERAND) (2000)



L'ANSE-À-LA-CABANE Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1985-2017, gouvernementale en 1997-2019 et non-gouvernementale en 2015-2016 SOURCES: Surveyed by CHS in 1985-2017, governmental in 1997-2019 and non-governmental in 2015-2016

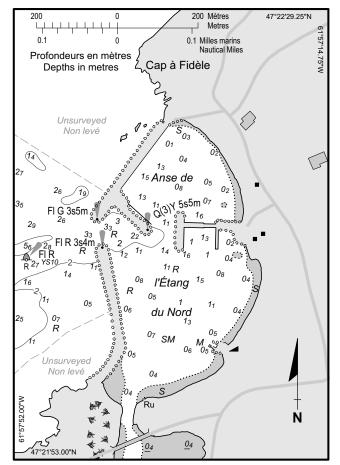
has the shape of a pyramid when seen from the west, while when seen from the north or south, it looks like a horizontal human body. 97 A **reef** extends 1 mile SE from its east end. Soundings give little warning as to the presence of the island, for the depths remain rather regular up to its

2-11

# L'ÉTANG-DU-NORD (2000)



# L'ETANG-DU-NORD Echelle 1:10 000 Scale



SOURCES : Levé par le SHC en 1983-2012, SPAC en 2002-2009 et le secteur privé en 2014-2015 SOURCES: Surveyed by CHS in 1983-2012, PSPC in 2002-2009 and private sector in 2014-2015

approaches. An area of **shoals**, covered by 15.9 m of water, is situated 5.1 miles SSW of Corps-Mort.

98 West coast of Île du Havre Aubert. — The shore between Gros Cap and Étang du Ouest is made of red cliffs rising to an elevation of 30 m. Shoal waters extend as far as 0.5 mile off this part of the coast and the bottom is uneven. The ruins of two jetties extend from the shore about 2.1 miles NNW of Gros Cap.

99 West coast of Île du Cap aux Meules. — Île aux Goélands is situated close off the SW end of Île du Cap aux Meules; it is small and rocky, rising to an elevation of 19 m. Cap à Savage, close NE of Île aux Goélands, is steep and rocky. An above-water wreck and submerged ruins are situated close to the cape's end.

**Anse de l'Étang du Nord** is entered between Cap à Savage and **Cap à Fidèle**, 0.5 mile north. Three breakwaters protect the cove. One of the breakwaters extends perpendicularly 120 m SE from the north breakwater. **Lights** (1491.1, 1491.2 and 1491.3), shown from towers, mark the end of each breakwater. The municipality of **L'Étang-du-Nord** (population of 3,087 in 2000) has a post office.

101 L'Étang-du-Nord has a marina (Marina L'Étang-du-Nord), a launching ramp protected by a crib and two public wharves. Refer to the Appendix for marina facilities. The first wharf is 215 m long and 1 m high and is situated along the north breakwater; in 2015, it offered depths varying from 0.1 to 1.5 m alongside. A floating wharf, 70 m long, is situated along the breakwater extending in a SE direction. The other wharf — L-shaped and 123 m by 73 m — has depths (2015) which vary from 0.2 to 1.3 m; its rock filled outer end protects the wharf. A 54 m long spur extends towards the centre of the L-shaped wharf. (See L'Étang-du-Nord diagram)

102 Light **buoys** mark the approaches to Anse de L'Étang-du-Nord.

### POINTE-AUX-LOUPS (2000)



103 A decommissioned lighthouse, shown from a white tower with a red upper part, stands on Cap du Phare (47°23'N, 61°58'W). Submarine telecommunication cables extends between the shores of this area and L'Anse-à-Beaufils. Mariners must refer to the chart to know their location and to avoid anchoring in their vicinity.
 104 Offshore dangers. — Récifs du Cheval Blanc, situated at some 5 miles west of Île aux Goélands, is a group of pinnacles of about 183 m in diameter and covered by at least 3.4 m of water, on which the sea breaks.
 105 Pierre du Gros Cap, 4 miles NW of Cap du

Phare, is a **reef** with a least depth of 6.2 m, breaking only in heavy weather.

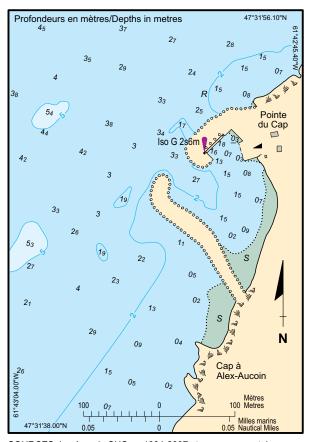
# Îles de la Madeleine — NW and North Shores

106 Between Cap du Phare and **Cap de l'Hôpital**, situated 3.3 miles to the NE, the shore of Île du Cap aux Meules is rocky and, as a whole, shows red limestone cliffs. A breakwater of 90 m in length extends from the vicinity of Anse de l'Hôpital towards the sea. A **wreck** emerges 4.7 miles NE of Cap de l'Hôpital, on Plage de l'Hôpital.

107 The coast between Cap de l'Hôpital and **Île aux Loups**, situated about 10 miles NE, is formed by dunes and sandy beaches. Île aux Loups shows limestone cliffs.

108 Île aux Loups has a public breakwater-wharf, 46 m in length, equipped with a slipway. South of the wharf, there is a 190 m long breakwater, extending NW. A light (1491.5), shown from a mast, is on the north breakwater. (See the *Pointe-aux-Loups* diagram)

# POINTE-AUX-LOUPS Échelle 1:5 000 Scale

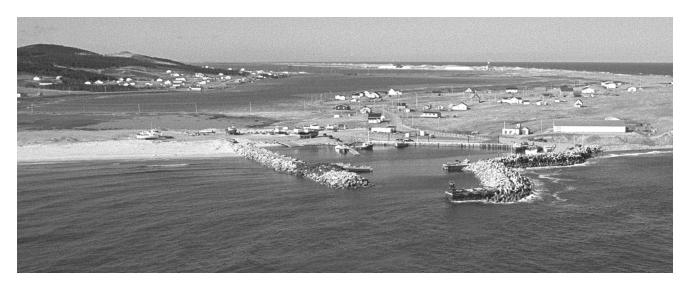


SOURCES: Levé par le SHC en 1984-2007 et gouvernementale en 1992-2018 SOURCES: Surveyed by CHS in 1984-2007 and governmental in 1992-2018

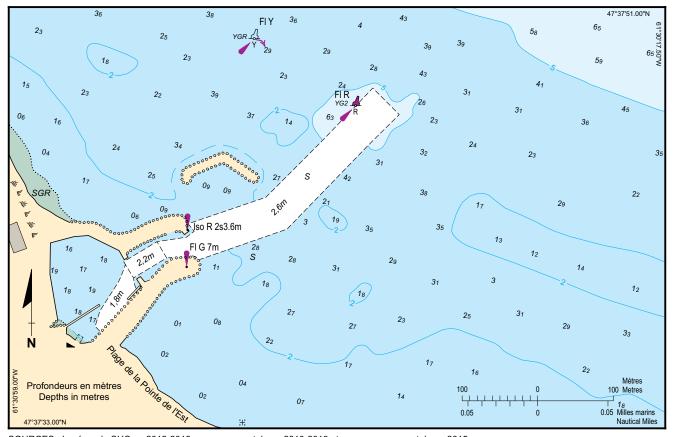
2-13



# **GROSSE-ÎLE-NORD (LESLIE)** (2000)



# GROSSE-ÎLE-NORD Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 2012-2019, gouvernementale en 2010-2019 et non gouvernementale en 2015 SOURCES: Surveyed by CHS in 2012-2019, governmental in 2010-2019 and non-governmental in 2015

108.1 Due to **continuous silting**, mariners should expect to find less water in some places. For the latest information on depths, it is recommended to check with the appropriate local authority.

109 The shore between Île aux Loups and **Cap du Dauphin**, the north end of **La Grosse Île**, situated 9.5 miles NE, extends into several dunes and sandy beaches. Cap du Dauphin forms a steep bluff. However, the highest point of this area is the SW end of Grosse Île, with 93 m in elevation.

110 **Récif Glawson (Glawson Patch)**, with 11.2 m of water over it, is situated 5.3 miles west of Cap du Dauphin, at the east end of a **rocky shoal**.

111 **Landmarks**. — • Two 40 m high conspicuous **towers**, used for mining and fitted with red lights, stand 1.4 miles WSW of Cap du Dauphin; they can be seen from any direction, north and west of La Grosse Île.

112 The **Grosse-Île-Nord (Leslie)** harbour is protected by two breakwaters and is situated on the east side of Cap du Dauphin. In the north part of the harbour, there is a 100 m long **wharf**, floating docks and a **launching ramp**. A **light** (1481.6) marks the end of the south breakwater. A second **light** (1481.3) marks the outer end of the north breakwater. A breakwater, not attached to the shore, is 121 m NNE of the entrance of the harbour. Cautionary light **buoy** YGR (1481.2) is moored just to the north of the previously-mentioned breakwater. Starboard hand light **buoy** YG2 (1481.1) is moored at the entrance of the dredged area leading to the harbour. (See the **Grosse-Île-Nord** diagram)

113 On the diagram, the charted depths in the dredged areas were obtained from periodical dredging. Due to **continuous silting**, mariners must be aware of shoal depths in certain areas. It is recommended to obtain depth confirmation from the local authorities.

114 The shore between Cap du Dauphin and Pointe de l'Est makes a curve over a distance of 6 miles and is formed by dunes and sandy beaches. With NE winds, the sea raises and the waves break, making navigation in this area hazardous. East of Cap du Dauphin, there is an **anchorage** sheltered from south winds, with a good holding ground and sand bottom. 115 **Île Brion**  $(47^{\circ}47'N, 61^{\circ}28'W)$ , situated 9 miles north of the main group of islands, is made of layers of red limestone, red clay and grey limestone. The rock forming the cliffs projecting over a large part of the shore is soft and brittle. The sea and bad weather have formed caves in the cliffs. The peninsula at the east extremity is joined by a thin drying sandy run.

The island is partly covered by stunted trees. The upper lands also show a large green area. The cliffs on the north side of the island are much higher than those on the south side, which is indented by several smaller coves. The island's highest point is situated in the NE part. Île Brion is an ecological reserve and an access regulation applies to this protected area.

117 A light (1479), shown from a white tower, stands on Cap Noddy, the island's west end.

118 When winds blow from the north, there is an **anchorage** 1 mile off the shore in the roadstead situated SE of Île Brion with a depth of 10 m, sand bottom. In fine weather and when the wind blows from the south, there is an **anchorage** off the bay indenting the island's north shore.

**Rochers aux Oiseaux** is a group of two rocks situated 10.5 miles ENE off Île Brion; they are made of red limestone which undergoes erosion by the sea. Generally speaking, the cliffs around the rocks rise vertically. Northern Gannets and other seabirds nest on each of the ridges and in each crack in the cliffs. The *Rochers-aux-Oiseaux Migratory Bird Sanctuary* (Environment Canada) is also located in this area and access is regulated.

120 **Rocher aux Oiseaux**, 40 m high, is the SE rock of the group. **Rocher aux Margaulx** is smaller and not as high; it is divided into three mounds linked to each other by their base. Breakers form about midway between the two rocks.



121 A light (1478), shown from a tower, stands on Rocher aux Oiseaux (47°50'N, 61°09'W).

122 A **rocky shoal** extends between Île Brion and Rochers aux Oiseaux. Even though the least depth he shoal is 10.3 m a swell appears over this ridge and

over the shoal is 10.3 m, a swell appears over this ridge and groundings have occurred. Mariners are advised not to sail over the shoal.

2-15



# **Confederation Bridge**

# Chart 4023

Northumberland Strait separates Prince Edward Island from the coast of Nova Scotia and New Brunswick, and is about 160 miles long. The navigable breadth of the narrowest part, **Abegweit Passage**, off Cape Tormentine  $(46^{\circ}08'N, 63^{\circ}46'W)$ , is 5.5 miles.

1.1 The hourly surface currents forecasts for the Gulf of St. Lawrence are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours.

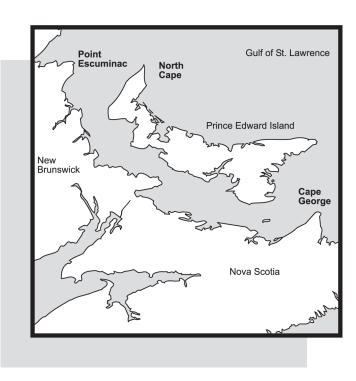
2 Dense **fogs** seldom occur in Northumberland Strait. The prevailing SW wind of summer loses much of its moisture in passing over the land of Nova Scotia and becomes a warm dry wind off its northern coast.

The Northumberland Strait Anchorage Regulations prohibit anchorage in a 2 mile wide area crossing the strait to safeguard submarine power cables. The limits of the area extend from the vicinity of Cape Bruin, New Brunswick (46°11'N, 63°59'W), to Seacow Head, P.E.I.

4 Mariners are requested to exercise **caution** when navigating near the ferry crossing between Caribou Harbour and Wood Island. Ferries, when either approaching or leaving a terminal and when operating at reduced speeds, are not as manoeuvrable as other vessels. Vessels fitted with radiotelephone should make use of bridge-to-bridge communications in compliance with good navigational practices.

5 The **Confederation Bridge** crosses the Northumberland Strait joining Jourimain Island, New Brunswick, and Borden Point, Prince Edward Island, 6.9 nautical miles distant. The *Northumberland Strait Vessel Traffic Services Zone* has been established to facilitate traffic through the Northumberland Strait. For additional information, consult the *Annual Edition of Canadian Notices to Mariners*.

6 The bridge is composed of 44 concrete navigation spans. Pier 1 is the easternmost above water on the Prince Edward Island side, and Pier 44 is the westernmost above water on the New Brunswick side.



# **CONFEDERATION BRIDGE** (2005)



3-2

7 For important information concerning navigation in the approaches to and under the Confederation Bridge, consult *The Confederation Bridge Navigation* Guidelines in the Appendix at the end of this book.

8 It has been reported that during summer, in the early evening and early morning, the piers of the Confederation Bridge become surrounded by fog across its entire length. In the evening, bridge superstructure could cool quicker than the surrounding air and heat would be conducted away from the piers to cool the surrounding air to below the dew point. In the morning, the bridge could take longer to heat in the upper levels and conduct heat away from the piers to cool the surrounding air to below the dew point.

# Cape George to Pictou Harbour

### Chart 4404

9 The coast between Cape George and Merigomish Harbour, 27 miles SW, is bold and free of off-lying dangers. The land rises to a ridge 2 to 3 miles inland and reaches a summit of 1,100 feet (335 m), 3.5 miles south of Arisaig Point. 10 There is a Public wharf at the community of **Livingstone Cove**, 3.5 miles west of Cape George. The east face of the outer section, 70 feet (21 m) long, has a least depth of 4 feet (1.2 m) alongside. The east face of the inner section, 170 feet (52 m) long, has depths up to 6 feet (1.8 m) alongside. The adjoining marginal wharf has depths up to 2 feet (0.6 m) alongside. There are shoaler depths in the approach. Livingstone Cove offers no shelter during westerly winds and only fair shelter from northerly winds. A **light** (*892.5*) is shown from a mast on the outer end of the wharf.

11 **Malignant Cove**, 10 miles SW of Cape George, has a small stream at its head, and is a good landing place for boats. **Sugarloaf Hill**, 644 feet (196 m) high, lies 1 mile inland. **Frenchmans Barn** is a conspicuous rock formation 2 miles SW of **Dunn Point**, the SW point of Malignant Cove.

12 There is a small boat harbour on the west side of **Arisaig Point**, 2.6 miles SW of Dunn Point. A breakwater 481 feet (147 m) long, extending from the point,



# LIVINGSTON COVE (2005)

has berthing space on its east side in depths of 2 to 4 feet (0.6 to 1.2 m). A **light** (894.1) is shown from a skeleton tower, with a green and white square daymark, on the southern end of the breakwater. A second breakwater extends 280 feet (85 m) from the shore on the SE side of the harbour. A marginal wharf, 95 feet (29 m) long, and a ramp, 24 feet (7.3 m) wide, lie between the two breakwaters. There is a depth of 2 feet (0.6 m) alongside the marginal wharf. A **light** (894.2) is shown from a mast, with a red and white triangular daymark, on the SW corner of the wharf.

13 A Public wharf, 305 feet (93 m) long and 20 feet (6 m) wide, with depths of 2 to 3 feet (0.6 to 0.9 m), is situated close east of the outer breakwater. The white steeple of the church at the community of **Arisaig** is **conspicuous**.

**I** At the community of **Baileys Brook**, 5.4 miles SW of Arisaig Point, two breakwaters, 120 feet (37 m) apart, form a very active fishing harbour. Sand bars sometimes obstruct the entrance. The east breakwater, 635 feet (194 m) long, has an L-end 150 feet (46 m) in length. The east face of the breakwater is a Public wharf with a berth 630 feet (192 m) long and depths of 2 to 4 feet (0.6 to 1.2 m) alongside. A **light** (896) is shown from a mast on the outer end of the east breakwater. A **light** (896.1) is shown from a mast on the outer end of the west breakwater. Another **light** (895) is shown from a red and white rectangular daymark, situated on the shore near the wharf.

Chart 4445

**Big Merigomish Island**, 150 feet (46 m) high, is composed of clay and sandstone with thin seams of coal visible at **Coal Point**, where the cliffs are 35 feet (11 m) high. A sand dune 2.5 miles long connects the east end of the island to the mainland.

16 The entrance to Merigomish Harbour (45°39'N, 62°27'W) lies at the west end of Merigomish Island, between Kings Head and Merigomish Point. The buoyed channel between the shoal banks is only 700 feet (213 m) wide and, at the entrance to the inner harbour between Savage Point and Dulse Rocks, it narrows to 300 feet (91 m). The tidal streams at this point frequently run at a rate of 5 knots, but within the harbour, the rate is generally less than 1.5 knots.

The harbour extends 5 miles to the east within 17 Big Merigomish Island, and also 4 miles SW up a bay containing many islands, coves and precipitous headlands. Several small streams enter the harbour. Good small craft anchorage is available in the harbour, however, there are a few aquaculture sites. A submarine cable crosses the harbour to Big Merigomish Island, 1.7 miles east of Savage Point. French River is navigable for boats through a narrow marked channel as far as the bridge at the community of Merigomish. A T-shaped Public wharf is situated 0.3 mile 18 NE of Savage Point. A marked channel, narrow and shallow, leads from abreast of Savage Point to the wharf. The outer face is 80 feet (24 m) long with a least depth of 4 feet (1.2 m) alongside. A floating section, 55 feet (17 m) long,



### BAILEYS BROOK WHARF (2005)

extends from the east end of the wharf. It has a least depth of 5 feet (1.5 m) alongside.

19 A wharf, 110 feet (45 m) long and 29 feet (8.8 m)wide, with a depth of 2 feet (0.6 m) at the outer end, is situated 0.4 mile SSE of **Hardwood Point**. There is no berth on the north side, while the inner portion dries. The wharf is used by the *Merigomish Boaters Association*.

Little Harbour, 3 miles west of Merigomish Harbour, is entered between **Roy Island** and **Black Point** and is only suitable for small boats. Narrow, intricate channels lead through drying flats into shallow inner basins with only a few small pools where the depths are from 6 to 10 feet (1.8 to 3 m). Several **aquaculture** sites are reported to be established in the harbour. **Roy Ledge**, a rocky shoal with a least depth of 11 feet (3.4 m), lies 0.3 mile north of Roy Island.

### Chart 4404

21 Between Little Harbour and the entrance to Pictou Harbour, the coast is lower and shoal water extends farther offshore. **Roaring Bull Point** presents a low cliff to seaward, marked by a conspicuous red patch. A reef of sandstone extends 0.3 mile NE from the point and terminates in a rock drying 4 feet (1.2 m). **Chance Harbour**, to the east of the point, is nearly dry at low water.

22 A Public wharf used by fishing vessels is situated at the point close west of Roaring Bull Point. The wharf is 291 feet (89 m) long and 20 feet (6 m) wide with depths of 3 to 4 feet (0.9 to 1.2 m) along the south face. The deck has an elevation of 4 feet (1.2 m).

#### Charts 4938, 4404

23 **Mackenzie Head**, 2 miles west of Roaring Bull Point, is a sharp pointed cliff of clay and sandstone 40 feet (12 m) high. **Mackenzie Shoal** is a rocky bank with a least depth of 14 feet (4.3 m), extending from 0.6 to 0.8 mile NE of Mackenzie Head. Vessels should not pass south of this shoal.

24 **Pictou Road**, between Mackenzie Head and **Logans Point**, although open to NE winds, affords good **anchorage** in 30 feet (9.1 m), clay and mud, 1 mile north of Mackenzie Head.

25 **Macdonald Reef** extends 0.4 mile east of Logans Point, with a rock drying 1 foot (0.3 m) near its outer edge. The 3 fathom (5.5 m) line runs almost parallel to the coast, about 0.35 mile offshore to **Cole Point**, a clay and sandstone cliff 30 feet (9.1 m) high, from which **Cole Reef** extends 0.4 mile.

### Chart 4938

26 **Pictou Harbour** is entered from Pictou Road between **Lowdens Beach** and **Lighthouse Beach**. About 2 miles inside the entrance, the harbour expands into three arms, the mouths of East, Middle, and West Rivers. A causeway blocks the entrance to the West and Middle Rivers. The harbour is usually closed by **ice** from the beginning of January to mid April.

<sup>27</sup> Pictou Harbour is a Public Harbour administered by the Department of Transport. The harbour includes all navigable waters west of a line joining Roaring Bull Point  $(45^{\circ}40'48''N, 62^{\circ}34'30''W)$  to Logans Point  $(45^{\circ}42'54''N, 62^{\circ}38'20''W)$ ; (chart 4404).

The town of **Pictou**, population 3,875 in 2001, stands on the north shore of the harbour and on the slope of a ridge rising to 200 feet (61 m). A spur of this ridge forms **Battery Point**. The most **conspicuous** building is the Catholic church, of red brick with a spire, situated near the summit of a hill east of the town. A large blue water tower is also conspicuous. A very tall chimney, marked with strobe lights, has been constructed at the power plant in the vicinity of Stonehouse Point and is reported to be visible from seaward.

The least **depth** in the channel, over the bar, is 22 feet (6.7 m). Within the bar, depths of 30 to 45 feet (9.1 to 13.7 m) extend nearly to the causeway.

Leading lights (903, 904), in line 30 bearing 262°, lead over the bar. Each light is shown from a white pyramidal tower with a red stripe, and are situated on the north shore about 0.7 mile west of Lighthouse Beach. A light (906) is shown from a white daymark with a red stripe near Battery Point. A light (906.4) is shown from a square skeleton tower with a red and white daymark at the NW end of Lighthouse Beach. The leading lights are remotely activated by VHF Radio. To activate: depress radio microphone switch 5 times within 5 seconds, on VHF channel 65A (156.275 MHz). The lights will activate for 30 minutes, and if additional time is required, this procedure can be repeated.Fairway light buoy SJ (900.5) is moored 1.4 miles east of Cole Point.

**Pilotage** is available but not compulsory. As the channel over the bar is only 400 feet (122 m) wide, with **tidal streams** sometimes attaining a rate of 2.5 knots, pilotage is recommended for those without local knowledge. Within the harbour, tidal streams of about 0.5 knot can be expected.

32 Masters of vessels requiring a pilot should report via any coastal radio station their ETA to Pilots Pictou, 12 hours before arrival at the pilot boarding station. The station is located 1.8 miles NNE of Roaring Bull Point *(chart 4404)*.

The master of a vessel that is to depart or make a move and requires a pilot must report 4 hours prior to the ETD.

A wharf, (Pier C), is 650 feet (198 m) long with depths of 22 to 27 feet (6.7 to 8.2 m) along the east side and 21 to 33 feet (6.4 to 10.1 m) along the outer 450 foot (137 m) length of the west side. There is a freight shed on the wharf. Pier C is operated as a Public port and is privately operated by *Straitline Stevedoring Ltd.*, *Pictou*, *N.S.* 

# PICTOU HARBOUR — ENTRANCE (2005)



3-6

PICTOU HARBOUR (2005)



Pier B, next westward, has a depth of 17 feet (5.2 m) at the outer end and 8 to 11 feet (2.4 to 3.4 m) along the sides.
West of Pier B are several wharves in a state of disrepair.

At **Pictou Landing**, on the south side of the harbour, there is an L-shaped wharf extending 185 feet (56 m) from the shore to an outer end 105 feet (32 m) long. The outer face has depths of 8 to 15 feet (2.4 to 4.6 m) alongside and 13 feet (4 m) along the inside face of the outer end. Ruins of an old wharf lie close westward.

38 **Submarine cables** cross the harbour close north of **Seaview Point** to the opposite shore near **Moodie Point**, and from close west of Pier B to **Christie Point**. Another cable is laid from the outer end of Lighthouse Beach to a position near Moodie Point.

39 **Marine railway.** — *Irving Shipbuilding Inc.* operates a ship repair facility at Battery Point. The marine railway has a capacity of 3,000 tonnes. The east wharf is the load-out wharf and the west wharf is the outfit wharf. The outfit wharf is 700 feet (213 m) long with a limiting depth of 13 feet (4 m) alongside.

40 The usual **anchorage** is to the east of the Pictou wharves in 30 to 40 feet (9.1 to 12.2 m), mud. Anchorage is **prohibited** in the area within a radius of 1,000 feet (305 m) from the inner end of the marine railway.

41 **Supplies**. — Water and diesel oil are available at the quay. A fresh water line is laid onto Pier C; electrical power is available. Provisions and fuel are easily obtained in the town.

42 Small craft facilities. — At Campbell Point, 0.35 mile NE of Battery Point, there is a marina which is entered between two breakwaters about 75 feet (23 m) apart. There is a depth of about 5 feet (1.5 m) in the entrance and 6 feet (1.8 m) alongside the floating wharves. Haulout services, repairs, gasoline, marine hardware, fresh water and limited overnight berthing are available.

43 *Hector Quay Visitor's Marina* operates in summer at the west end of Pictou Harbour. There are 25 berths with a reported minimum depth of 8 feet (2.4 m). There is also water and power, showers and laundry, and a pump-out. Fuel and provisions are available nearby. A **light** (906.6), privately maintained, is shown at the outer end of the floating pier.

44 The **East River** is navigable from Pictou to New Glasgow, a distance of 6.5 miles, and is entered close east of **Abercrombie Point**. The narrow channel is marked by leading lights and buoys which may be moved to suit the conditions prevailing.

The channel from the river entrance to Trenton, a distance of 4.5 miles, is in three long reaches which avoid many of the curves and bends in the stream. The charted depth in the first two reaches, as far as **Stonehouse Point**, is 11 feet (3.4 m), and 10 feet (3 m) in the third reach. Silting

takes place and local information should be obtained before navigating the river. **Aquaculture** sites are reported to exist in the shallow areas outside the main channel.

A large power plant is situated on Stonehouse Point. A causeway and lift bridge cross the river at the point. Close above the bridge, power cables, with a vertical clearance of 69 feet (21 m), cross the channel.

47 **Norway Point** is located to the west of the Pictou wharves. Starboard hand light **buoy** SJ20 (908.3) lies 0.5 mile SE of Norway Point and marks the entrance to a narrow channel in the first reach of the river. The second reach, marked by **buoys**, trends toward a location just north of Stonehouse Point, where the third reach begins. The river is **buoyed** as far as Trenton.

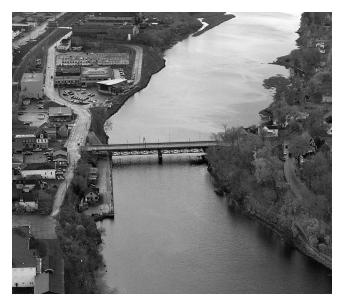
48 Both **Trenton**, population 2,798 in 2001, and **New Glasgow**, population 9,432 in 2001, are towns having several factories. A submerged **pipeline** ends in the channel about 300 feet (91 m) SSW of the close south end of Trenton.

49 *Riverfront Marina* operates from the wharf at New Glasgow, which is situated just below the bridge. The wharf is nearly 600 feet (183 m) long with a depth of 7 feet (2.1 m) alongside. Several floating piers adjoin to the north having a least depth of 5 feet (1.5 m). A nearby visitor centre has showers and washrooms. Electricity, pump-out and garbage disposal are available.

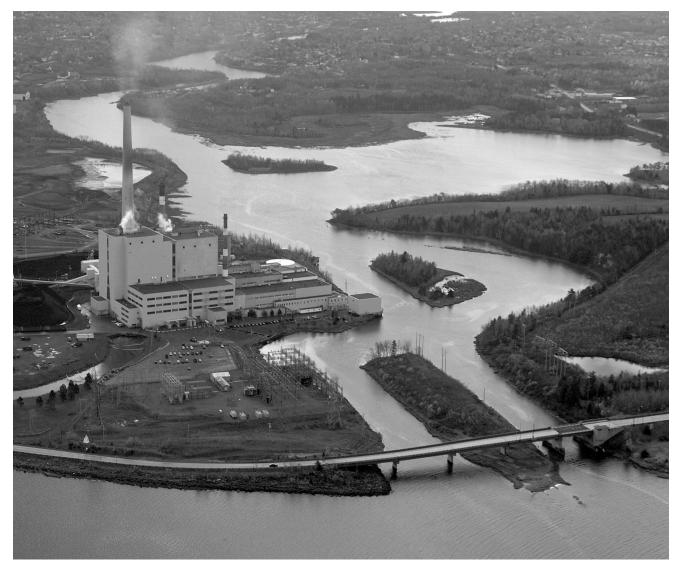
# Pictou to Cape Tormentine

Chart 4404

# EAST RIVER — NEW GLASGOW (Nov. 2005)



# EAST RIVER — STONEHOUSE POINT (2005)



<sup>50</sup> **Pictou Island**, nearly 8 miles NE of the entrance to Pictou Harbour, is composed of clay and sandstone and is 150 feet (46 m) high near its centre. The north side is wooded and the coast is formed of low cliffs. A **submarine cable** runs from **Roger Point**, low and sandy, to **Widow Point**, on the mainland. A reef extends 0.5 mile from **Seal Point**, the east extremity of the island. Deep water lies north and south of this reef and vessels should not pass close on either side, especially with a flood or west-going stream. **Pictou Banks** extend from the west end of Pictou Island for three-quarters of the distance across the channel towards the mainland. Pictou Island has a population of about 45.

51 **Lights.** — A light *(899.5)* is shown from a skeleton tower with a red and white banded daymark

on the SE point of the island. A light (897) is shown from a similar tower on West Point.

52 A detached breakwater lies about 0.3 mile SW of Seal Point.

53 A wharf, protected by two breakwaters, is situated on the south side of the island, about 1 mile from West Point. It is 126 feet (38 m) long with a depth of 6 feet (1.8 m) at the outer end. There is very little water in the basin between the breakwaters. On the outer end of the west breakwater, a light (898) is shown from a pipe swing pole and on the east breakwater another light (898.5) is shown, also from a pipe swing pole. A third light (899) is shown at an elevation of 32 fett (10 m) from a white tower, situated close NW of the west breakwater.

# PICTOU ISLAND — WHARF (2005)



#### Chart 4483

54 Middle Grounds, a chain of rocky patches with a least depth of 2.6 m, cover a part of Pictou Banks about midway between West End (West Point), Pictou Island and Gull Point, the NE end of Caribou Island. A wreck with 7.9 m over it lies 1 mile west of Middle Grounds. The superstructure has been removed and it lies in an east-west direction. The maximum height of the wreck above the seabed is 3 m. A light (918) (45°46'N, 62°41'W) is shown from a white square tower, 12.6 m high, on Gull Point. Caribou Channel lies between the SW end of 55 Pictou Banks and the reefs extending from Munroes Island and Caribou Island. Caribou Harbour is situated between Caribou Island and Munroes Island on its north side. A dredged channel, subject to continual silting, lies between Caribou Island and Munroes Island and is used by a ferry service to Prince Edward Island. The ferries operate between May and November.

The inner, dredged channel is **buoyed**, with the depth reported to be maintained at 4.6 m. Starboard hand light and bell **buoy** SP2 (919) is moored about 0.7 mile NNE of Gull Point. Port hand light and bell **buoy** SS1 (913) is moored 0.45 mile north of Munroes Island; a **racon**  $(--- \cdot)$  operates from this buoy.

57 The ferry terminal at **Caribou** consists of two ferry berths, with wharves having an elevation of 3.2 m. *Fisherman's Wharf* extends 70 m from the east side of the ferry terminal; this wharf is 6 m wide and has a least depth of 1.2 m alongside. There is a least depth of 0.9 m alongside the wharves in the basin close to the south. Boats can secure to the ferry wharf for a distance of 30 m to the north of Fisherman's wharf where there is a least depth of 2.1 m.

### Chart 4405

The **coast** between **Caribou West Gully** and Cape John, 15 miles west, is nearly straight and unbroken, with shallow water extending 0.4 mile off it. Low cliffs of clay and sandstone, with a maximum elevation of 50 feet (15 m), predominate. There is good landing for boats in fine weather. 59 **Toney River**, population of about 100, is an active shallow draft fishing harbour 5 miles west of Caribou West Gully. The inner harbour is entered between two breakwaters which extend north from two Public piers. Between these piers, the channel is 39 feet (12 m) wide with a depth of 3 feet (0.9 m).

# CARIBOU HARBOUR (2005)



60 The west breakwater, rock, is the longer breakwater. A **light** (919.7) is shown from a mast on the outer end of the west pier. Port hand light **buoy** SU1 (919.6) is moored 0.25 mile north of the wharf.

61 The inner harbour has a concrete pier on its east side, and several floating piers on the west side. There is a launching ramp at the head of the harbour.

62 **MacDonalds Cove** is a small bight with a sandy bottom, 4 miles west of Toney River. A sand beach extends along the length of the cove. An L-shaped concrete breakwater extends from the west side of the cove. This breakwater is in disrepair and no longer in use, however, it provides some shelter from the NW for small boats.

63 **Skinners Cove**, 3.5 miles east of Cape John, is a shallow draft fishing harbour protected by two breakwaters 46 feet (14 m) apart, with a depth of 1 foot (0.3 m) between them. A **light** (920.1) is shown from a skeleton tower, having a red and white daymark, on the outer end of the west breakwater.

# Chart 4497

64 **Cape John**  $(45^{\circ}48'N, 63^{\circ}08'W)$ , with steep sandstone cliffs 12 to 15 m high, is the east entrance point to **Amet Sound**, which affords good anchorage for vessels of moderate size. The entrance is divided by Amet Island Shoals and Waugh Shoal into three passages. John Bay, Brule Harbour, Barachois Harbour and Tatamagouche Bay all lie at the inner end of the sound. The passages into the sound are complicated by erratic tidal streams.

65 **Amet Island** presents sandstone cliffs on every side. It is flat and grassy on top, about 6 m high, and is constantly diminishing in size from erosion. Reefs and shoals surround the island. **Amet Island Shoals** extend 4 miles east, and 2 miles SE of the island, and there are depths of 0.3 m, 1 mile from the island. **Eastern Peak**, at a depth of 4.3 m, lies 3 miles NE of the light. A **light** (921) is shown from a square skeleton tower, 6.7 m high, near the centre of the island. The SE edge of Amet Island Shoals is marked by starboard hand light **buoy** UA2 (920.5).

66 **Waugh Shoal**, 2 miles WNW of Amet Island, is a rocky bank with a least depth of 3.4 m towards the north, steep-to part of the shoal.

67 **Saddle Island**, wooded and low, is joined at low water to the north side of **Malagash Point**, the west entrance point of Amet Sound. **Washball Reef** runs out 1 mile from the east end of the island, with **Washball Rock**, awash, 0.4 mile from the island.

68 **John Bay** is clear of detached shoals. The head of the bay is encumbered by sandy shoals, drying out 1 mile at the mouth of **River John**. A bar across the river mouth has a depth of 0.3 m, and a channel leads as far as the bridge at the settlement of **River John**, population of about 320. There is a breakwater and an L-shaped Public wharf on the east side of **Reef Point**, 0.5 mile south of Cape John. The wharf is 107 m long with an outer end 61 m long. The outer face of the L-end is a rock breakwater. The inside face has depths of 1.2 m alongside. A launching ramp lies at the inner end of the wharf, between it and the breakwater close to the west.

69 **Brule Harbour**, on the SE side of Brule Point, is shallow with the greater part consisting of drying mud flats and weeds. **Weatherbies Spit**, and the drying flats extending 0.5 mile SE from the spit, provide some protection for small craft. All that remains of the wharf at **Brule** are above water pilings.

70 **Brule Shoals**, 1 mile north of **Weatherbies Point**, with a least depth of 2.7 m, parallel the shore for 1 mile.

71 **Barachois Harbour** is entered between **Peninsula Point** and **Chambers Point** by a narrow channel with a depth of about 4 m. **Jollimore Reef**, drying 0.6 m at the outer end, extends 0.3 mile NW from Peninsula Point. **Middleground Shoal**, with a least depth of 1.5 m, lies in the entrance to the harbour. The harbour contracts to a very narrow channel about 1 mile south of Chambers Point, with depths of 0.2 to 2.4 m, and turns SE near a highway bridge. A small Public wharf lies on the west side of the channel below the bridge.

72 Sunrise Shore Marina has been constructed on the south shore of Barachois Harbour at **Waldegrave**, close east of the highway bridge. A man-made harbour has been dredged to a reported depth of 2.1 m. There are 65 small craft berths, boat storage and launching facilities. The area is lighted. Fuel, water and electricity are available. The entrance channel is about 15 m wide with a reported depth of only 0.6 m. Arriving or departing 3 hours from high or low tide is recommended.

73 **Tatamagouche Bay** affords good **anchorage** with soft mud bottom everywhere for shallow draft vessels. The head of the bay shoals rapidly and **McNabs Bay** is nearly all dry.

**Corner** has an L-end 82 m long. There is a depth of 0.6 m in the basin formed by the wharf. A **light** (921.1) is shown from a square skeleton tower on the SE corner of the wharf.

75 **Waughs River** is approached through a very narrow channel through drying mud flats. There is reported to be a depth of 1.5 m as far as the bend of the river near the town of **Tatamagouche**. The channel is **buoyed**.

76 **Coast.** — **Treen Bluff**, 1.5 miles west of Saddle Island, is a low cliff, with **Treen Reef** extending 0.5 mile north from it to a depth of 3.1 m. **Gravois Point**, 2.5 miles west of Treen Bluff, is the highest part of the clay and sandstone cliffs in the vicinity. Chart 4402

77 **Wallace Harbour**, at the mouth of the **Wallace River**, has depths of 14 to 30 feet (4.3 to 9.1 m) in a narrow channel between drying mud flats. In the outer approach, the channel is **buoyed** for a passage south of **Oak Island Bar**, with a depth of 9 feet (2.7 m), sand, and then NW through **Ship Bar**, to enter **Ship Channel**. Fairway light **buoy** UH (921.3) is moored 1 mile east of Oak Island Bar.

<sup>79</sup> Within the harbour, drying flats of stiff, red clay lie on each side of the channel. The land on the south shore rises gradually to the summit of a 400 foot (122 m) high ridge. A drying middle ground, 0.5 mile west of **Palmer Point**, further narrows the channel width to 300 feet (91 m). From nearly abreast of the middle ground, a narrow channel leads south and east through the drying flats of **Lazy Bay**, which has gypsum cliffs 30 feet (9.1 m) high at its head. A **conspicuous** abandoned lighthouse stands on the north shore of Wallace Harbour, about 0.6 mile WNW of Palmer Point.

80 There is an L-shaped Public wharf at the settlement of **Wallace** on the south side of the harbour. There is a least depth of 11 feet (3.4 m) along the 140 foot (43 m) outer face. A **light** (925.1) is shown from a square skeleton tower on the outer end of this wharf. A bridge, with a vertical clearance of 13 feet (4 m), crosses the river at **Betts Point**, 0.5 mile west of the wharf. Wallace has a population of about 250.

Anchorage is available, 18 to 36 feet (5.5 to 11 m), mud, inside the harbour entrance close west of Palmer Point, where the channel is 750 feet (229 m) wide. Fairly safe anchorage may be found in 19 to 27 feet (5.8 to 8.2 m), mud, west of the buoy, off **Horton Bank**.

82 **Fox Harbour**, between Mullins Point and **Mackenzie Point**, consists of a channel through drying flats of red clay and weeds. The entrance is obstructed by a bar with a depth of 4 feet (1.2 m).

# Charts 4405, 4406

The **coast** between Mackenzie Point and **Pugwash Point** ( $45^{\circ}52'N$ ,  $63^{\circ}41'W$ ) is unbroken and composed of clay and sandstone cliffs about 50 feet (15 m) high, rising inland to a ridge 150 feet (46 m) in height.

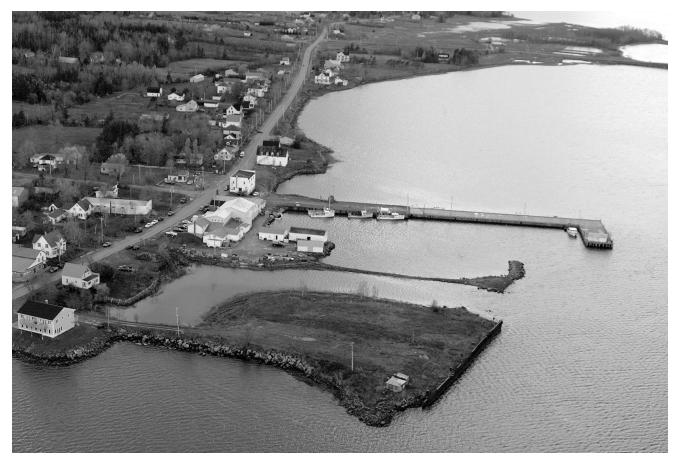
Chart 4498

CHAPTER 3 Northumberland Strait

BARACHOIS HARBOUR (Nov. 2005)

# 3-13

# WALLACE HARBOUR (2005)



**Pugwash Road**, at the confluence of **Pugwash River** and **River Philip**, lies between Pugwash Point and **Lewis Head**. Reefs extending from both points reduce the usable area of the road and caution is necessary in the approach. **Pugwash Reef** dries out for nearly 0.5 mile from Pugwash Point. **Lewis Reef** runs north 3 miles from Lewis Head, with patches of 10 to 17 feet (3 to 5.2 m) near the outer end. **Ballast Ground**, 2.5 miles NE of Lewis Head, has patches with 11 and 12 feet (3.4 and 3.7 m); the east edge of the shoal is marked by starboard hand light **buoy** UK2 (925.2). **Fishing Point** is 0.4 mile SW of Pugwash Point. A radio **tower**, about 330 feet (101 m) in elevation, is situated about 2.5 miles SSW of this light.

The channel from Pugwash Road into the harbour is marked by **leading lights** and **buoys**. Mariners are **cautioned** that due to shifting sand, the depths in the approaches to Pugwash Harbour may vary considerably from those shown on the chart. There is frequent dredging in Pugwash Road.

86 The outer leading lights (939, 940), in line bearing 205°, are shown from white daymarks with red stripes, situated in the vicinity of **Bergeman Point**.

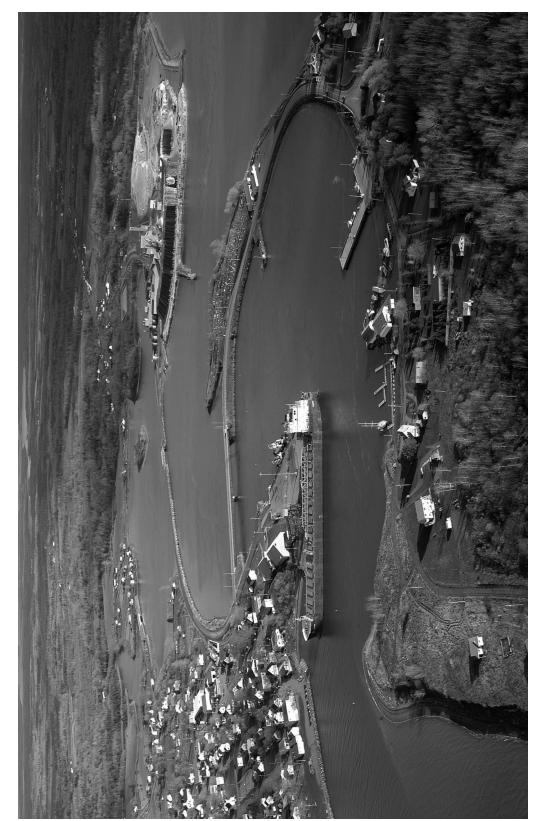
 $160\frac{1}{2}^{\circ}$ , lead through Pugwash Road. These are shown from white daymarks with red stripes, situated on the south shore of Pugwash Road, midway between **Fox Point** and **Biglow Point**.

Lights (931, 932), in line bearing 086<sup>1</sup>/<sub>2</sub>°, lead across **Pugwash Bar**. These are shown from white daymarks with orange stripes, situated on the east shore of Pugwash Road, close north of **Steven Point**.

Lights (935, 936), in line bearing  $350\frac{1}{2}^{\circ}$ , lead into the entrance to Pugwash River. These are shown from white daymarks with red stripes and are situated to the east of Fishing Point.

90 **Pugwash Harbour**, in the entrance to Pugwash River, is small but sheltered. The channel is difficult and the **tidal streams** run up to 2 knots in the entrance. Just within **Page Point** is a small basin formed by the bend of the river where currents can run up to 4.5 knots. The navigation season is from April to December.

91 **Pilotage** is compulsory. Masters of vessels bound for Pugwash shall report via any coastal radio



PUGWASH HARBOUR (Nov. 2005)

station their ETA to Pilots Pugwash, 12 hours before arrival at the pilot boarding station, which is situated 2 miles north of Pugwash Point.

The master of a ship that is to depart or move within the compulsory pilotage area must report to Pilots Pugwash 4 hours before the ETD.

93 **Pugwash**, population of about 760, lies on the east side of the harbour. There is a small hospital in the village. *The Canadian Salt Company Wharf* at **Oxley Point** is 478 feet (146 m) long on the west face, with a depth of 22 feet (6.7 m) alongside. The south face, 489 feet (149 m) long, has a depth of 22 feet (6.7 m) alongside, however, depths of 9 feet (2.7 m) lie 130 and 270 feet (40 and 76 m) off the east corner. The deck of the wharf has an elevation of 8 feet (2.4 m). A conveyor loading tower is **conspicuous** from the approaches to the harbour. Fresh water can be obtained by tank truck. Fuel and diesel are available. Tug assistance is obtained from local fishermen.

Fishermans wharf, 200 feet (61 m) long and 40 feet (12 m) wide, with a reported depth of 21 feet (6.4 m) at the outer end, lies opposite to the Public wharf. The wharf has a deck elevation of 4 feet (1.2 m).

A **bridge** with a vertical clearance of 12 feet (3.7 m) crosses Pugwash River, east of the Public wharf. Several rock cribs of a former bridge extend across the river close west of the bridge. The least depth over the cribs is 1 foot (0.3 m). A channel, 60 feet (18 m) wide and with a depth of 16 feet (4.9 m), leads between two cribs about 300 feet (91 m) south of the old bridge abutment on the north side of the river. Boats can proceed upstream for several miles above the bridge.

96 *Pugwash Yacht Club* lies to the south of the Salt Mine Wharf near **Chapel Point**.

**River Philip** is obstructed by a drying bar of sand and stones, leaving a narrow tortuous channel on its south side, close north of Rocky Ledge, with depths of 4 feet (1.2 m) or less in places. The channel from **Philip Bar** to Port Philip is marked by buoys at some of the essential points. Boats can ascend the river for about 9 miles. The river discharges little water, except at the freshet.

98 A bridge, with a vertical clearance of 9 feet (2.7 m), crosses the river at **Port Philip**. Underwater obstructions from an old bridge are situated close downstream of the bridge. These are not marked and make the channel hazardous; local knowledge is essential.

Chart 4406

99 There is a Public wharf at **Northport**, on the **Shinimicas River**, near the river mouth. The wharf, which is situated adjacent to the highway bridge, has a total length of 280 feet (85 m). The south portion, 135 feet (41 m) long, has depths of 2 to 3 feet (0.6 to 0.9 m) alongside. In 2000, the north end of the north portion was dry alongside. The

bridge has a vertical clearance of 3 feet (0.9 m). The narrow channel through mud flats is buoyed, and has a reported depth of 1 foot (0.3 m). Fairway light **buoy** UP (940.3) is moored 0.23 mile NE of the entrance to the channel.

Baie Verte, between Coldspring Head and Indian Point, 9 miles north, is completely open to east winds. Aggermore Rock, with 17 feet (5.2 m) over it, lies 4 miles NNE of Coldspring Head. Laurent Shoal, with depths of 16 feet (4.9 m), lies close NW of Aggermore Rock.

101 **Spear Shoal**, of sand and sandstone, lies 2 miles south of Indian Point, with **Heart Shoal** extending west of Spear Shoal. Both have least depths of 8 feet (2.4 m).

**Tidnish River** enters the bay on the south side, 7.5 miles west of Coldspring Head. There is a narrow boat channel, with depths of 2 to 7 feet (0.6 to 2.1 m), through flats of mud and weeds. Starboard hand light **buoy** XA2 (1085) marks the entrance to the channel, and the channel is marked by stakes as far as the bridge, about 2 miles above the entrance. On the east bank, about 0.4 mile below the bridge, there is a boat launching area.

**Gaspereau River** flows into the head of the bay on the north side. Fort Monckton Point  $(46^{\circ}03'N, 64^{\circ}04'W)$  is situated at the west entrance to the river. There is a depth of 2 feet (0.6 m) in the boat channel to the railway bridge at **Port Elgin**, population of about 450. There is a Public wharf 234 feet (71 m) long, parallel to the channel on the north bank, with a depth of 2 feet (0.6 m) alongside, situated about 1.2 miles from the entrance to the channel. The railway bridge has a clearance of 4 feet (1.2 m). Small boats can proceed as far as another bridge 1,000 feet (305 m) further upstream.

## Chart 4905

104 **Cape Tormentine**  $(49^{\circ}07'N, 63^{\circ}46'W)$  is the site of an abandoned terminal of the discontinued ferry service to Prince Edward Island, situated at the village of Cape Tormentine.

**Tormentine Reef** lies 2.7 miles east of Indian Point and part of it dries. **Rock Reef**, an extensive rocky area, lies between Tormentine Reef and Indian Point. Port hand light and bell **buoy** X5 *(1089)* is moored 3.7 miles east of Cape Tormentine.

The ferry terminal pier extends about 0.4 mile from the shore and then divides into two arms which form a docking basin. Two detached breakwaters, each 0.1 mile long, lie in a NNE/SSW direction, about 0.1 mile SE of the outer ends of the pier arms.

A light (1091.5) is shown from a square skeleton tower at the NE end of the outer breakwater. A light (1090) is shown from a white square tower having a white daymark with a red vertical stripe at the outer end of

CHAPTER 3 Northumberland Strait

# CAPE TORMENTINE (2005)



the outer pier. Another **light** (1094) is shown from a mast on the outer end of the inner pier.

108 A Public wharf, 91 m long, extends at right angles from the inner arm of the ferry docking basin. The wharf has a depth of 1.2 m alongside. A breakwater, situated close to the south, forms a basin for small craft. A **light** (1094.6) is shown from a square skeleton tower on the outer end of this breakwater.

109 **Submarine cables** are laid across Northumberland Strait between the ferry terminal and Amherst Cove. Vessels are cautioned against anchoring near these cables.

# Cape Bear to Charlottetown

#### Chart 4404

110 **North side of Northumberland Strait**. — The south coast of Prince Edward Island, from Cape Bear to Wood Islands, is formed of sandstone cliffs, in some places 40 to 50 feet (12 to 15 m) high. There are few beaches or landings and no harbours along this very exposed stretch of coast.

#### Charts 4405, 4483

N 111 Wood Islands are separated by the dredged channel leading to the ferry terminal. They present sandstone cliffs to seaward, and the west island is joined to the main coast by a long sand bar with dunes upon it. A light (976) is shown at an elevation of 72 feet (22 m) from a white square tower 52 feet (16 m) high on the south side of the island.

The terminal for the Wood Islands-Caribou ferry lies in the enclosure between the islands and the connecting sand bar and road. Guard piers, each 600 feet (183 m) long, protect the entrance channel which is 200 feet (61 m) wide. **Lights** (975, 975.1) are shown from square skeleton towers with red and white rectangular daymarks at the outer ends of the guard piers. Starboard hand light **buoy** NS2 (972.5) is moored about 1,000 feet (305 m) south of the east guard pier.

113 The approach to the ferry dock is 480 feet (146 m) wide and dredged to a limiting depth of 14 feet (4.3 m). There are two ferry berths. On the east side of the ferry wharf, there is a small craft harbour with wharves having depths of 4 to 12 feet (1.2 to 3.7 m) alongside. This is the preferred fishing harbour on the SE part of Prince Edward Island. Fresh water is available. The community of Wood Islands has a population of about 200.

114 Two **submarine cables** (telecommunication) are laid across Northumberland Strait between Wood Islands and Caribou West Gully, Nova Scotia.

#### WOOD ISLANDS LIGHT (2005)



There is good **anchorage** in NW winds within 1 mile east of Wood Islands in depths of 18 to 54 feet (5.5 to 16.5 m).

#### Chart 4405

116 Indian Rocks (45°56'N, 62°47'W) lie parallel to the coast between Wood Islands and Bell Point, 3.3 miles further west, with their south edge being 1.5 miles offshore. The water is deep close south of these rocks, and breakers and rips are almost always present on the drying part. **Tidal streams** in deep water close outside Indian Rocks frequently run at 3 knots. Starboard hand light and whistle **buoy** N8 (977) is moored 2 miles SW of Indian Rocks.

117 The channel between Indian Rocks and the shoal water inshore is 0.5 mile wide, but depths are irregular and tidal streams strong and it should only be used by small craft.

**Bell Point** is a sandstone cliff 32 feet (10 m) high. **Bell Point Reef** extends 0.7 mile south of the point. The outer edge of the reef is steep-to and should be given a wide berth.

Belle River, 1 mile NW of Bell Point, has a small tidal harbour with a drying bar at the mouth. There are breakwaters on each side of the entrance. There are small wharves in the harbour with depths of 1 to 4 feet (0.3 to 1.2 m) at the outer ends.

120 **Stewart Point** lies close west of Belle River and, from it, **Rifleman Reef** extends 2 miles SW. The soundings off Rifleman Reef are very irregular and deep water close to

CHAPTER 3 Northumberland Strait

# WOOD ISLANDS (2005)



it gives no warning of the presence of the reef. It should be given ample clearance.

121 **Flat River**, 2.5 miles NW of Stewart Point, is only suitable for small boats. Shoal water extends 1 mile SW from **Jenyns Point**, the SE entrance point of Flat River.

#### Chart 4466

122 **Pinette River**  $(46^{\circ}03'N, 62^{\circ}56'W)$  is obstructed by **Pinette Shoals**, which extend 2 miles SW from **Pinette Point**. The river has a dangerous bar at its entrance, which dries in places. There is a channel over this bar with a reported depth of 5 feet (1.5 m). Considerable silting has been reported in the approaches to the river; local knowledge is essential.

123 **Pond Point** is on the shore north of the entrance to Pinette River. The channel upriver is **buoyed**.

Next McAuley Wharf, about 1 mile above Pinette Point, has depths of 3 to 7 feet (0.9 to 2.1 m) along its east side, which is 275 feet (84 m) long. A wharf is situated on the south side of the bridge at Selkirk Point, near the settlement of Pinette. The west face, parallel to the channel, is 125 feet (38 m) long with depths of 4 to 10 feet (1.2 to 3 m) alongside. The east face is 100 feet (30 m) long with depths of 2 to 7 feet (0.6 to 2.1 m) alongside. The bridge between these wharves has a clearance of 4 feet (1.2 m). 125 **Hillsborough Bay**, 7 miles wide at the entrance, between **Prim Point** on the SE side and **St. Peters Island** to the west, opens into a broad expanse of water with many shoals and rocks. The NE part of the bay is seldom used by shipping, except for local fishermen, and its navigation should not be attempted without local knowledge.

126 A deep channel leads from the middle of the bay to Charlottetown, the principal harbour and capital of Prince Edward Island.

**East side of Hillsborough Bay**. — Prim Point presents low sandstone cliffs 10 to 15 feet (3 to 4.5 m) in height to seaward. **Prim Reefs** extend 2.5 miles west from the point. A **light** (983) is shown from a white circular tower 60 feet (18 m) high on Prim Point ( $46^{\circ}03'N$ ,  $63^{\circ}02'W$ ). Starboard hand light **buoy** C2 (984) is moored off the west end of the reefs.

128 **Orwell Bay**, the SE arm of Hillsborough Bay, leads to **Orwell River**, **Vernon River** and **Seal River**. From **Cameron Island**, near the north side of Prim Point, the drying shorebank increases in width until it stretches halfway across Orwell Bay.

129 Boats can ascend Vernon River, through a channel marked by stakes, as far as **Vernon Bridge**, where there is a Public wharf 125 feet (38 m) long with a





least depth of 2 feet (0.6 m) at the face. There is a staked boat channel up Orwell River for more than 1 mile.

130 **Pownal Bay** is shallow and exposed to west winds. A large part of it dries, but there is some shelter for small craft near its head.

131 **Governors Island**, in the middle of Hillsborough Bay, low and partly wooded, is surrounded by shoals, reefs and foul ground. **Governors Shoal** extends SW from the island for 2.5 miles, with many rocks and hazards. A submerged crib, with 1 foot (0.3 m) over it, lies 1 mile SW of the island, and **Fitzroy Rock**, with 20 feet (6.1 m) over it, lies nearly 2 miles SW of the south point of Governors Island.

**Squaw Bay**, NE of Governors Island, provides good **anchorage** for small vessels, in depths of 9 to 15 feet (2.7 to 4.6 m), mud. Several radio **towers** are situated to the NNW of **Squaw Point**.

133 West side of Hillsborough Bay. — St. Peters Island is of moderate height and fronted on the east side by cliffs of red clay and sandstone 35 feet (11 m) high. The central part of the island is wooded. St. Peters Shoals extend up to 2 miles off the island and St. Peters Island Bar, drying 1 to 4 feet (0.3 to 1.2 m), joins the island to Rice Point to the NW. St. Peters Spit dries for over 1 mile from the NE end of the island. The spit is marked by east cardinal light buoy CJB (983.5). The unlighted south cardinal buoy CJA is moored to the south of St. Peters Island. A light (1007) is shown at an elevation of 66 feet (20 m) from a white tower with a red upper part on the SE side of the island.

**St. Peters Road**, to the north of the island, is sheltered by the island and spit, but with depths of 9 to 15 feet (2.7 to 4.6 m) it is only suitable as a small vessel **anchorage**. A spire 0.2 mile inland from **Bacon Point**, on the north shore, is **conspicuous**.

**Bacon Cove**, at the SW end of St. Peters Road, dries at low water. A **buoyed** channel, dredged to a reported depth of 4 feet (1.2 m), leads to *Nine Mile Creek Wharf*, an L-shaped Public wharf on the south side of the cove. The wharf has an outer end 130 feet (40 m) long with depths of 1 to 3 feet (0.3 to 0.9 m) alongside. A **light** (1006) is shown from a square skeleton tower on the outer end of the wharf.

#### Charts 4460, 4466

136 **Charlottetown**, the principal port and capital of Prince Edward Island, possesses a fine natural landlocked harbour, situated at the confluence of three rivers: **Hillsborough River**, **North River** and **West River**. The city, population 58,358 in 2001, has beautiful parks and fine public buildings, and is built mainly to the west of Hillsborough River, at its junction with North River. The principal exports are agricultural products. There is a Customs Office in Charlottetown. 137 **Outer approaches.** — The channel leading through Hillsborough Bay to Charlottetown is in two reaches. The outer reach is 0.3 mile wide with a least depth of 36 feet (11 m) in the vicinity of Fitzroy Rock. The remainder of the fairway is wider and deeper.

138 Three sets of **leading lights** (991, 992) mark the channel into Charlottetown. Lights in line bearing  $019\frac{1}{2}^{\circ}$  are shown from red towers with black stripes at **Haszard Point**, to the west of Squaw Point. Starboard hand light **buoy** C4 (989) is moored SW of Fitzroy Rock, close east of the line of these lights.

139 **Leading lights** (994, 995), in line bearing 337°, are shown from the east shore of North River at **Brighton Beach** and lead between **Spithead** and **Squaw Shoal**. The front light is shown from a square tower with a red daymark and the rear light from a white tower with a red stripe.

140 **Pilotage** is compulsory. Masters of vessels bound for Charlottetown must report via any coastal radio station their ETA to Pilots Charlottetown at least 12 hours before arrival at the pilot boarding station, which is located 5.3 miles SW of Prim Point.

141 The master of a vessel that is to depart or move within the compulsory pilotage area must report to Pilots Charlottetown 6 hours before the ETD.

#### Chart 4460

**142** Inner approaches. — The entrance to the harbour, between Seatrout Point and Blockhouse Point, is reduced to a navigable width of 0.2 mile by steep-to shoals extending from both shores. A light (993) is shown at an elevation of 56 feet (17 m) from a white square tower 40 feet (12 m) high, on Blockhouse Point.

143 The channel leads between **Battery Point**, on the east, and **Canceaux Point**, on the west side, into the broad basin of Charlottetown Harbour. Leading lights (996, 997), in line bearing  $197\frac{1}{2}^{\circ}$ , are shown from white towers with red stripes at **Warren Cove**, and as a back-range, lead toward the waterfront.

tidal streams run at a rate of 2.5 knots at the entrance to the harbour and 1.7 knots off the wharves. The streams continue about 15 minutes after high and low water on the shore.

145 The twin steeples of the Cathedral are **conspicuous** and easily identified. Two other spires are also prominent. A chimney, elevation 208 feet (63 m) and with red lights, is conspicuous. A radio tower, elevation 262 feet (80 m) and also with red lights, is situated 0.8 mile west of Blockhouse Point. The hotel adjacent to the Canadian Coast Guard base is very prominent.

56 feet (7.6 to 17.1 m) in the area where the three rivers meet. The usual anchorage is off the wharves where

## BLOCKHOUSE POINT LIGHT (2005)



the channel is more than 0.2 mile wide with depths of 40 to 60 feet (12.2 to 18.3 m).

147 Wharves. — The Charlottetown Marine Terminal is 790 feet (240 m) long with an outer face 600 feet (183 m) long with depths of 39 to 42 feet (11.8 to 13 m) alongside. Water and oil pipelines are laid onto the wharf.

148 Mariners are advised that the two mooring buoys adjacent to the east and west sides of the Charlottetown Marine Terminal are used for mooring purposes only, and not winching. It is recommended that all cruise ships over 500 feet (152 m) length overall that use the south side berth of the terminal use the services of a tug no less than 1200 B.H.P., to assist in berthing and holding the ship to the berth when necessary during strong winds.

149 Mooring dolphins have been placed at the outer end of a Public park, to the SW of the marine terminal. There are depths of 26 feet (7.9 m) in the berth, which is used for small vessels.

The Canadian Coast Guard marine depot wharf is 350 feet (107 m) long and 300 feet (91 m) wide with a depth of 32 feet (9.8 m) at the outer face.

151 A **marina** is situated between the oil berth and the Coast Guard wharf. There are 150 berths alongside floating piers with reported depths of 4 to 17 feet (1.2 to 5.2 m) alongside. Vessels of up to 70 feet (21 m) in length may be accommodated. Full marina services, including fuel, pump-out, showers and laundry are available. The *Charlottetown Yacht Club* is situated close west of the Coast Guard wharf. There are several floating wharves with depths of 2 to 15 feet (0.6 to 4.9 m) alongside.

152 **Services.** — Fuel, fresh water and provisions are easily obtained. Small repairs can be made by local machine

shops. Air service is available from Charlottetown Airport, which is located 4 miles north of the waterfront.

153 **River navigation**. — Hillsborough River is navigable for small vessels for several miles above the bridge at Charlottetown. There is a vertical clearance of 13 feet (4 m) under the bridge. North River and West River are obstructed by causeways about 3 miles above their entrances into the harbour. There is a passage for small craft through the causeways. In West River, the passage is only useable at high water slack. With a rising and falling tide, dangerous tide rips can develop.

# Charlottetown to Summerside

#### Charts 4405, 4406

154 **Coast.** — From St. Peters Island to **Black Point**, 9 miles WNW, the coast is unbroken, except for the small indentation of **Canoe Cove**. The ruins of a detached breakwater, which dries 3 feet (0.9 m), lie at the entrance to the cove. Small boats can obtain some shelter. A **conspicuous** television tower, elevation 1,070 feet (328 m) and with red **lights**, is situated 4 miles NNW of Canoe Cove.

155 **Inman Rock**, with a least depth of 4 feet (1.2 m), and **Inman Reef**, with 21 feet (6.4 m), lie 0.8 mile SW and 1.5 miles SSE of Black Point.

Victoria Harbour  $(46^{\circ}12'N, 63^{\circ}29'W)$  is a small shallow anchorage off the mouth of Westmorland River. The harbour is entered between **Brocklesby Head**, situated 2.4 miles WNW of Black Point, and **Tryon Shoals**. Tryon Shoals dry for over 1.5 miles from the shore. The 3 fathom (5.5 m) line lies 2 miles south of **Tryon Head**. Starboard hand light **buoy** N14 (1014) is moored south of Tryon Shoals, 2.5 miles south of **Birch Point**.

157 The village of Victoria, population 119 in 2001, is situated at the mouth of the river. There is a Public wharf 400 feet (122 m) long with depths of 4 to 6 feet (1.2 to 1.8 m) along the east face and 5 to 8 feet (1.5 to 2.4 m) along the west face. A **light** (1008.2) is shown from a mast, having a green, white and black daymark, on the outer end of the wharf.

158 A causeway and bridge span the Westmorland River about 350 feet (107 m) east of the wharf. The bridge has a clearance of 6 feet (1.8 m). A public beach is located 0.2 mile SE of the bridge.

159 The approach to Victoria Harbour is marked by **buoys**. Fairway light **buoy** NX (1009.11) is moored 1 mile south of **Cameron Point**. A beach, comprised of mud and sand, lies on the eastern side of the approach; the NE extent of Tryon Shoals lies on the western side. Both the beach and shoals are submerged at high tide.

CHAPTER 3 Northumberland Strait

# **CHARLOTTETOWN HARBOUR** (2005)



## VICTORIA HARBOUR (2005)



160 Victoria Harbour is entered east of **Pauls Bluff**, through a narrow, **buoyed** channel. Owing to changing channel conditions, the buoys may be moved to suit the best channel. A tower, resembling a light structure is situated in the village of Victoria.

161 **Tidal streams** in the anchorage are weak and irregular, but sometimes reach 1.5 knots for short periods along the edge of the shoals and in the entrance.

162 Between Tryon Head and **Bells Point**, 4.5 miles west, the coast is indented by three drying coves separated by bluff points.

#### Chart 4905

163 **Port Borden** is the site of an abandoned terminal for the discontinued ferry service between New Brunswick and Prince Edward Island. The adjacent town of **Borden-Carleton** had a population of 798 in 2001. The harbour is formed by a pier extending SE from **Borden Point**.

164 A breakwater attached to the outer end of the pier runs for 122 m in a SW direction. A **light** (1017.5) is shown from a white tower on the outer end of this pier. A detached breakwater, running in a NE-SW direction, lies 0.1 mile SE of the outer end of the pier. A **light** (1015) is shown from a red and white daymark with a red triangle in its centre, at the SW end of the breakwater.

165 A Public wharf, 230 m long with an L-end 18 m long with a depth of 1.3 m alongside, is situated on the north side of the harbour.

#### Charts 4406, 4905

**Coast.** — Between Borden Point and **Seacow Head**, a low flat point, 6 miles NW, the coast is indented with several coves divided by points of red sandstone and clay cliffs. There is **anchorage** for small craft, with offshore winds, in fine weather outside of the area described below. A **light** (1018) is shown at an elevation of 88 feet (27 m) from a white tower 60 feet (18 m) high, on Seacow Head.

**Prohibited anchorage area**. — A privately maintained **light** is shown from two masts, with a **no anchorage** symbol, on the shore of a cove 1 mile east of Seacow Head  $(46^{\circ}1'N, 63^{\circ}49'W)$ . See the information at the beginning of this chapter.

168 **Bedeque Bay**, shallow and open, contains Summerside Harbour and Sunbury Cove. Shallow water extends across the mouth of the bay from Seacow Head and continues along the coast to Cape Egmont, 15 miles dis-

CHAPTER 3 Northumberland Strait

# PORT BORDEN (2005)



tant. Miscouche Point, a peninsula extending into the bay on the north coast, is fronted by the extensive Miscouche Bank, which dries for nearly 1.5 miles south of the point. A radio tower, with red lights, is situated on the east side of Miscouche Point.

Chart 4459

The approaches to Summerside Harbour lie 169 Ŀ between the east end of Miscouche Bank and the shoals extending from the east side of Bedeque Bay off Salutation Cove. There is safe summer anchorage in 6 m, sand and clay, but open to southerly winds. The shoals and land on both east and west sides of the anchorage prevent heavy seas when the winds are from other directions. Fairway light **buoy** DE (1018.3) is moored 2 miles NW of Seacow Head. Port hand light buoy DE1 (1018.18) is moored 2.44 miles SW of MacCallums Point.

170 MacCallums Point, 3.5 miles north of Seacow Head, is faced by sandstone cliffs 8 m high. The land rises to 15 m inland. Two abandoned lighthouses are on the SE side of the point; the NW structure has a private residence constructed close to it and the SE structure is surrounded by large trees.

A breakwater extends from MacCallums Point 171 to the outer end of Indian Spit. A light (1020) is shown from a white octagonal tower 12.9 m high, on a circular stone pier at the outer end of the breakwater ( $46^{\circ}23'N$ ,  $63^{\circ}49'W$ ).

172 Summerside Harbour is entered through a narrow dredged and buoyed channel which commences about 0.8 mile west of MacCallums Point and leads NE and ENE into the harbour. The channel is reported to be maintained to a depth of 6.7 m. Due to continuous silting, the depths in Summerside Harbour are subject to change, and aids to navigation may be moved to mark the best channel.

Summerside, population 16,200 in 2001, is built 173 on the north side of the harbour. The principal exports are agricultural and fish products. Customs services are available. Navigation is year round with icebreaker support.

Pilotage is available but not compulsory. 174 Masters of vessels requiring a pilot shall report via any coastal radio station their ETA to Pilots Summerside 12 hours before arrival at the pilot boarding station, which is situated about 3 miles west of Seacow Head.

The master of a vessel that is to depart or move and 175 requires a pilot must report to Pilots Summerside 6 hours before the ETD.

Leading lights (1018.1, 1018.2), in line bear-176 ing 029°, are used in the outer approach. Both lights are shown from white daymarks with red stripes, situated on the north shore of Bedeque Bay, west of the town. The second range (1021, 1022), bearing 072°, is used in the main channel. The front light is shown from a white daymark with a red stripe on the roof of a shed on the Public wharf. The rear light is shown from a white square tower, 20 m high, with a red stripe, situated on the shore.

The red building of the Summerside Tax Centre 177 is a prominent landmark. To the east of this building is a conspicuous red and white checkered water tank, which is situated 1.2 miles north of the Public wharf. A conspicuous red and white tower, 38 m high, marked by red lights, is located on the top of a building about 0.1 mile north of Queen's wharf. A radio mast, elevation 76 m, marked by red lights, is located nearly 2 miles ENE of Queen's wharf.

178 The Public wharf is 350 m long. There are reported depths of 5.2 to 7.5 m alongside. The elevation of the deck of the wharf is 1.2 m. A water main is laid onto the wharf. There is a heated shed.

179 Holman wharf, 135 m long and 22 m wide, has depths from 1.5 to 2.4 m along the outer 90 m length on its east side. The approach depth is 2 m, but there is a depth of 1.9 m 50 m east of the outer end of the wharf.

180 Queen's wharf lies close west of Holman wharf. There is a least depth of 0.6 m along the east side of the wharf.

181 The Summerside Yacht Club lies close east of the Public wharf. A breakwater gives good shelter for small craft in depths of 0.6 to 3 m along several floating piers. A light (1022.5) is shown at an elevation of 5.3 m from a red and white rectangular daymark, with a red triangle in its centre, on the outer end of the breakwater. The Summerside

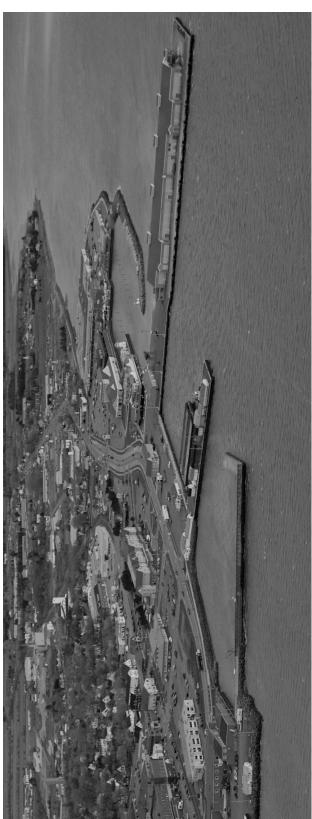
Yacht club operates a full service marina, and monitors VHF channels 16 and 68.

Fuel and diesel oil can be obtained by tank truck. 182 Fresh provisions are readily available.

## SUMMERSIDE HARBOUR — INDIAN SPIT (2005)



#### SUMMERSIDE HARBOUR (2005)



**Ice.** — The average thickness attained by level shore-fast ice at Summerside is 56 cm with a record maximum thickness of 73 cm (1977). Break-up normally begins during the first week of April with the harbour clear of ice by the fourth week of April. Freeze-up usually begins after the middle of December with a solid ice cover forming before the end of the month. Two to five weeks variation in break-up and freeze-up can occur.

The harbour channel turns to the SE just off the Public wharf and a narrow channel over 5.8 m deep extends for 1.5 miles, between **Holman Island** and **McDonald Point**, towards the shallow mouth of **Dunk River**. **Wilmot River** dries at its mouth on the east side of Summerside Harbour.

# Summerside to North Cape

#### Charts 4406, 4905

185 **Sunbury Cove** nearly dries, leaving only a narrow channel through the flats, suitable only for small boats. The twin spires of Miscouche church are **conspicous** from the cove.

186 **Coast**. — From the west point of Bedeque Bay to Cape Egmont, shoal water extends off the coast for 1.2 miles to the 3 fathom (5.5 m) line. **Fifteen Point** is identified by the **conspicuous** twin spires at Mount Carmel, close to the point. The ruins of a breakwater, drying 3 feet (0.9 m), lie about 0.1 mile offshore and 0.5 mile west of Fifteen Point.

**Cape Egmont** is a prominent sandstone cliff 50 feet (15 m) high. A **light** (1024) is shown at an elevation of 65 feet (19.8 m) from a white square tower 41 feet (12.4 m) high on the cape ( $46^{\circ}24'N$ ,  $64^{\circ}08'W$ ).

#### Chart 4905

188 **Egmont Bank**, a narrow ridge of fine red sand with a least depth of 7.3 m, commences 4 miles SW of Cape Egmont and extends 3 miles to the NW. There is a channel with depths of 11.9 to 15.5 m between it and the cape. **Conspicuous** microwave towers, elevations of about 69 m and marked by red lights, are situated 5 miles NE of Cape Egmont.

**Egmont Bay**, between Cape Egmont and West Point, is an open bight 17 miles across. There is good **anchorage** with offshore winds, but vessels should not approach inside the 10 m line. The twin domed towers and black roof of the church at **St. Jacques**, 5 miles north of Cape Egmont, are **conspicuous** from seaward.

wharf 160 m long. A breakwater extends south from the end of the wharf for 138 m. A **light** (1025.5) is shown

## CAPE EGMONT LIGHT (2005)



from a mast on the outer end of this breakwater. A second breakwater extends to the west for 122 m from the shore, forming an enclosed boat basin with depths of 0.6 to 1.2 m. A **light** (1025) is shown from a square skeleton tower on the outer end of this breakwater.

191 **Canoe Gully**, entered 1.5 miles north of **Red Head**, is a narrow, shallow channel between sand bars which leads to a boat basin at the mouth of **Haldimand River**. Rapid silting takes place and the depth in Canoe Gully is only 0.3 m. Inside the boat basin, there are reported depths of 0.3 to 1.2 m between two L-shaped Public wharves. Starboard hand light **buoy** DH2 (1023.1) is moored off the entrance to Canoe Gully.

192 The channel is **buoyed** within Canoe Gully, leading to the wharves. A **light** (1027.31) is shown from a mast, having a green and white daymark, on the outer end of the outer Public wharf.

193 Enmore River and Percival River flow into the head of Egmont Bay. They are approached by very narrow, intricate channels through partly drying flats of sand, clay and oyster beds, extending 1.5 miles from the shore. These rivers are tidal for about 5 miles between low marshy banks. The streams have depths of 0.9 to 2.1 m and the channels are marked. Fairway light **buoy** DJ (1027.45) is moored off the entrance to the rivers. The channel is buoyed west of **Moores Point**. There is a Public wharf with a depth of 0.6 m at the end, situated to the SW of Moores Point.

194 The entrances of **Brae River** and **Wolfe Inlet**, on the north shore of Egmont Bay, are obstructed by drying sand bars.

#### Charts 4905, 4906

195 **West Point** consists of sand hills 3.7 m high. A **light** (*1029*) is shown from a square tower with black

and white bands, 20.7 m high, on the sand beach at West Point  $(46^{\circ}37'N, 64^{\circ}23'W)$ .

196 West Spit, of sand over sandstone, covered in places with only a few metres of water, runs 3.5 miles NW from West Point. It nearly joins West Reef, a narrow rocky ridge with a least depth of 5.5 m, lying 3.5 miles offshore at its north end. The narrow passage between West Reef and West Spit should not be attempted as the soundings are irregular and the tidal streams strong, sometimes reaching a rate of 2.5 knots. The streams cause a heavy sea when running against the wind. Starboard hand light and whistle **buoy** D8 (1030) is moored on the west side of the reef.

A breakwater and pier extend from the shore east of West Point and form a boat harbour with a depth of 1.2 m. A **light** (1028.2), having a red and white daymark with a green square in the center, is shown from a square skeleton tower on the outer end of the wharf.

## Chart 4906

198 **NW coast of Prince Edward Island**. — From **Cape Wolfe**, 6 miles north of West Point, the coast trends NE for 27 miles to North Cape. Red clay and sandstone cliffs, with stretches of sandy beaches, prevail along this shore. It is prudent to remain to seaward of the 20 m line when passing along this stretch of the coast.

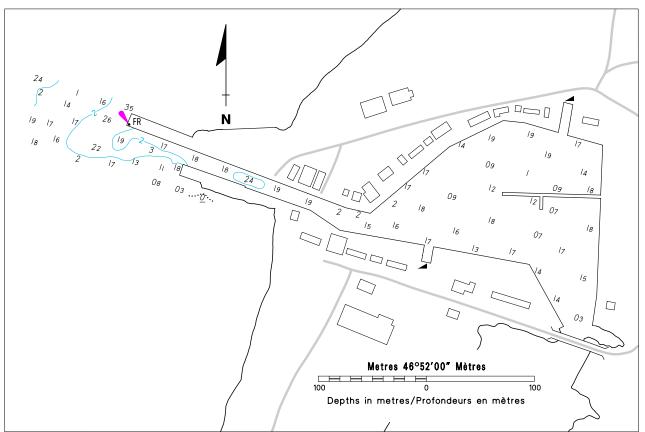
199 There are few ponds and shallow inlets where boats can obtain shelter, but they are entered through narrow, nearly drying channels in the sandy beaches which shift in heavy weather and sometimes are completely blocked.

At **Howards Cove**, near **Seal Point**, 1.5 miles NE of Cape Wolfe, there are two

## WEST POINT LIGHT (2005)







MIMINEGASH HARBOUR Scale 1:3 500 Échelle

Sources: Surveyed by PWGSC up to 2001. Sources: levé par le TPSGC jusqu'à 2001.

breakwaters forming a small boat harbour. There is a least depth of 1.2 m in the harbour entrance and 0.6 to 1.2 m along the faces of the wharves inside the harbour. A **light** (1032) is shown at an elevation of 14 m from a white tower with a red peak, situated on the shore behind the head of the harbour. A **light** (1031) is shown from a square skeleton tower, with a red and white daymark having a red triangle in its centre, on the outer end of the south breakwater.

201

Miminegash Pond, 12 miles NE

of Cape Wolfe, has breakwaters protecting its entrance channel. **Miminegash Reef**, a nearly drying ledge of rocks, runs parallel to and 0.5 mile off the shore at the entrance to the pond. A **light** (1033.5), shown from a skeleton tower having green and white daymarks, is at the outer end of the north breakwater. The reef is marked by an east cardinal light **buoy** DPB (1032.35) and a south cardinal light **buoy** DPA (1032.45). **Lights** (1033, 1034), in line bearing 173°, lead between the shore and the reef in the entrance. Both lights are shown from white daymarks with red stripes; the front light is shown at the outer end of the north breakwater. Fairway light **buoy** DP (1032.05) is moored on the range to the north of Miminegash Reef.

202 A boat basin is situated at **Skinners Pond**, about 6.5 miles NE of Miminegash Pond. A **light** (1035.5) is shown from a mast on the north breakwater; another **light** (1035) is shown from a mast on the outer end of the south pier.

## Cape Tormentine to Point Escuminac

#### Charts 4406, 4905

203 **Jourimain Island**, joined to the mainland by sand bars and marshes, appears as two islands when seen from a distance. Marshes and drying flats bisect the island. The tower of a disused light, white, octagonal and 51 feet (15.5 m) high, is situated on **Cape Jourimain** at the NE end of the island ( $46^{\circ}09'N$ ,  $63^{\circ}48'W$ ).

#### SKINNERS POND (2005)



The SE end of **Sand Reef** lies 1 mile NE of the outer pier of the former Cape Tormentine ferry terminal. The reef extends NW from this point for 2 miles to **Jourimain Rocks**, with less than 6 feet (1.8 m) over them. The area between Jourimain Rocks and Cape Jourimain is very shallow and foul.

205 **Gunning Point** is the north tip of Jourimain Island. Jourimain Shoal, a patch drying 1 foot (0.3 m), lies 0.8 mile NW of Gunning Point.

206 There is a Public breakwater-wharf 4.5 miles west of Gunning Point, at **Botsford**, but there is a depth of only 1 foot (0.3 m) at the south face of the irregularly shaped structure which is 760 feet (232 m) long. At the inner east end, there is a boat slip and a marginal wharf 130 feet (39.6 m) long. A **light** (1097) is shown from a square skeleton tower on the outer end of the breakwater.

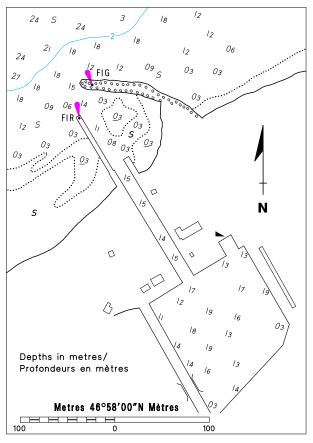
207 **Prohibited anchorage area**. — A privately maintained **light** is shown from two masts, with a **no anchorage** symbol, on the shore near **Murray Corner** (46°10′N, 63°57′W). See the information at the beginning of this chapter.

208 **Little Shemogue Harbour** is completely filled with drying flats, except for a narrow boat channel leading to a boat haulout slip located on the eastern side of the harbour. There is extensive aquaculture occurring at the head of Little Shemogue Harbour.

#### Chart 4905

209 **Shemogue Harbour**, mostly filled with drying mud flats, has a narrow buoyed shallow channel leading to a boat anchorage.

#### SKINNERS POND Scale 1:4 000 Échelle



Sources: Surveyed by CHS up to 1961 and by PWGSC up to 2001. Sources: Levé par le SHC jusqu'à 1961 et par le TPSGC jusqu'à 2001.

**Cap.** 210 At the community of **Petit-Cap.** 2 miles NW of the entrance to Shemogue Harbour, there is an irregular shaped Public breakwater-wharf, 253 m long. At the outer part, formed by two L-ends, is a U-shaped basin with a depth of about 1.5 m. The outer L-end is 57 m long. There are two boat haulout slips in the basin. **Lights** (1099.5, 1100) are shown from square skeleton towers on the outer ends of the breakwaters.

211 **Cap Pelé**  $(46^{\circ}14'N, 64^{\circ}16'W)$ , 4.5 miles WNW of Petit-Cap, is 12 m high. The settlement of **Bas-Cap-Pelé**, part of the village of **Cap Pelé**, population 2,266 in 2001, is located at the cape. A church tower in the village, 1.5 miles SW of the cape, is **conspicuous** from seaward.

212 At Cap Pelé, there is a Public breakwater-wharf with a U-shaped outer end. The main stem is 175 m long with two outer sides 65 and 46 m in length. A boat haulout is situated at the inner end of the breakwater-wharf. A **light** (1101) is shown on the shore south of the breakwater-wharf, from a square skeleton tower with a red and white daymark. Another **light** (1100.5) is shown from a square skeleton tower on the outer end of the breakwater-wharf.

213 L'Aboiteau, a pond, lies 1.5 miles west of Cap-Pelé. The channel in the approach, and in the entrance between two breakwaters, is 11 m wide, and has a least depth of 1.5 m. The west breakwater is 85 m long. The east breakwater is 42 m long. Its south end joins a protection wall which follows the shore to the east. Public wharves are situated along the east side of the pond and have depths of 1.2 m and less alongside. The west side of the pond dries. A light (*1102*) is shown from a square skeleton tower on the outer end of the east breakwater.

214 There is a Public wharf at **Robichaud**, between the mouths of two small rivers which enter the sea about 1 mile east of **Pointe aux Bouleaux**. This wharf is about 0.1 mile in length with an L-end 105 m long with a depth of 1.3 m along the inner face. The wharf is protected by a rock **breakwater**. A **light** (1103) is shown from a pipe swing pole, having a red and white daymark, on the western edge of the wharf. Another **light** (1103.5) is shown from a mast on the eastern extremity of the wharf. A small boat haulout is located on the west side of the wharf. There is a second wharf, 76 m long with a depth of 1.5 m, on the east side of **Kouchibouguac River**, adjacent to the highway bridge.

#### Charts 4905, 4909

215 **Shediac Bay**  $(46^{\circ}16'N, 64^{\circ}30'W)$  is shallow, with depths of 6 m in most of the area of the bay. It is only suitable for small draft vessels. **Shediac Island** occupies much of the bay. The passage west of the island has very little depth, with only 0.3 m of water in the narrowest part. There are staked oyster beds in the passage.

216 **Shediac River** flows into the bay west of Shediac Island. A staked channel leads to a small wharf situated close east of a highway bridge crossing the river at **Shediac Bridge**. There is a reported depth of 2.1 m alongside the wharf. A yacht club is located near the wharf.

217 **Shediac Harbour** has a least depth of 3.8 m between **Pointe du Chêne**, on the mainland, and **Snake Point**, the south end of Shediac Island. The head of the harbour, south of Shediac Island, has depths of 1.5 to 3 m in the centre, with good **anchorage** and shelter for small craft. Shediac Harbour is generally closed by ice from the first week of December to early April.

**Shoals.** — **Medea Rock**, at a depth of 2.1 m, lies about 2 miles NE of Pointe du Chêne. **Zephyr Rock**, 1 mile east of Medea Rock, has 2.4 m over it. **Chêne Bank** extends 1.1 miles north from Pointe du Chêne. The best approach is from the north by following the leading lights, and buoys lead through the best channel. Medea Rock and the shoals south of it make the approach from the east dangerous, except for small craft.

Lights (1107, 1108), in line bearing 190<sup>1</sup>/<sub>2</sub>°, 221 lead through the north channel. These are shown from white square towers with red stripes, situated on the north part of Pointe du Chêne. Fairway light and bell buoy XN (1105) is moored at the outer end of the north channel, on the alignment of these lights, 2.5 miles from the front light. Leading beacons, situated near the south end of Shediac Island, lead from the south end of the north channel to the inner channel. **Caution**. — Lights, beacons and buoys may 222 be moved to suit changing conditions. The channel is only 0.1 mile wide off the NW edge of Chêne Bank, where course is altered to the alignment of the Shediac Harbour leading lights. The deeper part of the harbour is unsafe in NE gales experienced in autumn and swells may also enter the harbour at high water in a NE summer storm.

#### Chart 4909

223 Wharves. — The Public wharf at the village of **Pointe-du-Chêne** has an outer face 150 m long with depths of 3.3 to 5.2 m alongside. The elevation of the wharf deck is 0.9 m. Southwest Pier, with an earth deck, extends from the south side of the Public wharf. Submerged and above water ruins extend more than 30 m off the outer end of the pier.

224 A boat basin, protected by the Public wharf and entered through a narrow gap between boulder breakwaters on the north side, has depths of 0.8 to 2.5 m. Inside this basin, *Pointe du Chêne Yacht Club* operates a **marina**. There are 125 berths, and full marina services are available. A boat haulout is located on the west side of the basin. A **light** (*1110.5*), shown from a skeleton tower having a red and white daymark, is situated on the north end of the Public wharf. A **light** (*1111.1*) is shown from a skeleton tower on the outer end of the breakwater extending east from the Public wharf.

225 A channel, dredged to a depth of 1.5 m, leads to a boat basin and Public wharf at the town of **Shediac**, population 4,892 in 2001, 1 mile SW of Pointe-du-Chêne. The boat basin is protected by an L-shaped boulder breakwater, elevation 2.4 m, and a sunken barge close off the outer end of the Public wharf. A **light** (1111.5) is shown from a square skeleton tower on the outer end of the breakwater. The Public wharf has a depth of 0.9 m on its west side. *Shediac Bay Yacht Club* and **marina** operates from the basin. There are 200 berths for small craft.

226 **Cap de Caissie** (46°19'N, 64°31'W) is situated on the north side of Shediac Bay, about 2.5 miles NNE of Shediac Island. **Grande Digue Bank**, with a least depth of 3.7 m, extends 2 miles NE from Cap de Caissie. A **light** (1113) is shown from a white tower, 13.6 m high, on the cape.



# SHEDIAC HARBOUR - POINTE-DU-CHÊNE (Nov. 2005)

CHAPTER 3 Northumberland Strait

SHEDIAC BAY MARINA (Nov. 2005)



 $\underbrace{ 227 \quad A \text{ boat harbour is situated about } 0.4 \text{ mile south of Cap de Caissie. The opening into the basin is 16 m wide between two breakwaters about 0.1 mile long. A$ **light**(1112) is shown from a square skeleton tower on the outer end of the north breakwater. There are depths of 0.3 to 1.5 m along the inside faces of the north and south wharves. A boat slip, 6.7 m wide, is located adjacent to the north breakwater.

228 **Cocagne Harbour**  $(46^{\circ}23'N, 64^{\circ}33'W)$  is very shallow and suitable only for small craft; local knowledge is essential. The harbour is sheltered by **Cocagne Island** and a series of sand bars, partly dry at low water, which stretch from the north end of the island to the mainland. The island is 18 m high and wooded. Starboard hand light **buoy** XT2 (*1115*) is moored 1.5 miles NE of the island.

229 Leading lights (1116, 1117) bear 219<sup>1</sup>/<sub>2</sub>° in the entrance channel. The front light is a white square tower with a red stripe, and the rear light has a white daymark with a red stripe. These are situated on the south side of the mouth of **Cocagne River**. A bridge, with a vertical clearance of 2.5 m, crosses the river at the head of the harbour. The river is navigable for boats several miles upstream

The settlement of **Cap-de-Cocagne** is situated on the peninsula on the east side of the harbour. An L-shaped wharf forms a small boat basin having depths of 0.6 to 1.6 m, situated almost 1 mile SW of **Pointe aux Renards**. A **light** (*1114*) is shown from a skeleton tower with a red and white daymark having a green square in its centre, on the south end of the wharf.

231 The settlement of **Côte d'Or** is situated on the west side of the harbour. There is a Public wharf extending 46 m from shore with an outer end 12 m wide and a depth of 1.1 m alongside.

232 A **marina** is situated on the north side of the Cocagne River, close upstream of the highway bridge. An L-shaped breakwater, protecting the marina, extends 145 m from the shore, with an L-end 192 m long.

**Buctouche Outer Bar** extends 7 miles north from abreast of Cocagne Island, parallel to the coast. Depths run from 3 to 5.8 m. **North Patch** is at the NE end.

234 The settlement of **Cormierville** is situated 1 mile NW of Cocagne Island. A T-shaped Public wharf, with an outer end 72 m long, extends from the shore. A small finger pier is situated close inside of the outer face. There are depths of 0.9 to 1.4 m alongside these wharves. The channel leading to the wharf has a depth of 0.6 m. A **light** (*1118.5*) is shown from a square skeleton tower on the wharf.

235 **Dune de Buctouche**, a partially grass covered narrow isthmus of sand and clay, extends 5.5 miles in a SE direction from the mainland, north of the mouth of **Buctouche River**, and forms a shallow bay inside it. Much of this bay is filled with extensive flats of mud and eel grass which nearly dries at low water. This bar is subject to continual change due to the action of sea and wind. **Buctouche Road**, within Buctouche Outer Bar, is only 0.6 mile across at its widest and deepest part, where a depth of 6 m can be found. In spite of some shelter from seaward provided by Buctouche Outer Bar, it is a very exposed **anchorage**.

**2**36 A **light** (1122) is shown from a white tower, 11.4 m high, on the south end of the isthmus ( $46^{\circ}28'N$ ,  $64^{\circ}37'W$ ). East Cardinal light **buoy** XVA (1119.2) is located 0.8 mile ESE of the light.

237 **Saint-Thomas-de-Kent** is a settlement on the SE side of the entrance to Buctouche Harbour. An L-shaped Public wharf is situated at **Crossman Point**. It extends 126 m from the shore to an outer face 109 m long with a depth of 0.9 m alongside. A **light** (*1119.5*) is shown from a square skeleton tower on the outer end of the wharf.

**Buctouche Harbour and River**. — South of the end of Dune de Buctouche, there is a narrow channel leading through the shoals to the town of **Buctouche**, population 2,426 in 2001, about 5 miles from the entrance. A red and white banded water tower, 62 m high, is situated in the town and is prominent from seaward. A church, with a spire having an elevation of 53 m, is situated close west of the Public wharf. Oil tanks are located near the shore, 0.4 mile NE of the church. A **hospital** is located at **Sainte-Anne-de-Kent**, about 5 miles from Buctouche.

241 A **buoyed** channel leads through **Baie de Buctouche** to Buctouche Harbour, west of Dune de Buctouche. **Dixon Point** is on the south side of Buctouche Harbour, **Pointe à Jérôme** is on the north side. The inner channel is as narrow as 30 m; **caution** is advised. Attention must also be paid to the numerous aquaculture installations which line Buctouche Harbour.

242 A Public wharf 67 m long with a depth of 6.7 m alongside is situated on the north side of the **Buctouche River**, just below the highway bridge. The elevation of the deck of the wharf is 1.2 m. At the south end, there is a boat launching ramp.

243 Buctouche Marina lies on the north side of the harbour, 0.4 mile NE of the highway bridge. A breakwater protects several finger piers.

Chart 4905

244 **Saint-Édouard-de-Kent** is a community situated about 6 miles NW of Dune de Buctouche. An L-shaped breakwater-wharf encloses a boat basin with depths of 1.2 m. A **light** (*1126*) is shown from a mast on the outer end of the wharf.

Kent, affords shelter to boats in the shallow river mouth.

#### **DUNE DE BUCTOUCHE** (2005)



Breakwaters, 12 m apart, form the entrance into the river, where there is a depth of 1.1 m. A **light** (1127) is shown from a mast on the outer end of the north breakwater. A second **light** (1127.2) is shown from a mast having a port hand daymark, on the outer end of the south breakwater.

246 On the south shore below the highway bridge, a small wharf 30 m long parallels the stream. The depth in the channel and alongside the wharf is about 0.9 m. Two marginal wharves, one on each side of the river, are situated below the bridge.

#### Chart 4909

**Richibucto Cape**  $(46^{\circ}40'N, 64^{\circ}43'W)$  is a sandstone and clay cliff 9 m high, situated 13 miles north of Dune de Buctouche. A **light** (1128) is shown from a white square tower, 10.5 m high, on the cape.

At Richibucto Cape, there is a small boat harbour with an entrance 23 m wide at the SE corner of the breakwaters enclosing the basin. A **light** (1129) is shown from a mast on the outer SE end of the breakwater. The basin is divided into two parts by a centre pier 61 m long. There are depths of 1.3 to 1.8 m in the basin. Gasoline and diesel fuel are available and a boat ramp is situated at the inner end of the harbour. Silting occurs in the harbour and approach channel, and local knowledge is advisable.

249 **Richibucto River** enters Northumberland Strait 4 miles NW of Richibucto Cape. The entrance, **Richibucto Gully**, lies between two sand spits, **North Richibucto Dune** and **South Richibucto Beach**, each several miles in length and with sand dunes over 9 m high. The **buoyed** channel over **Richibucto Bar** is narrow and shifts with the action of gales and ice. Local knowledge is essential and local pilots are available. Fairway light and bell **buoy** Q (*1131*) is moored 2 miles from the entrance to Richibucto River.

250 Within the entrance, **Richibucto Harbour** widens into an expanse of nearly drying mud and weeds. On the north side, a shallow bay leads to lagoons lying within North Richibucto Dune, and on the south side, within South Richibucto Beach, is a similar bay with **Indian Island** dividing the two.

**Richibucto**, a town with a population of 1,341 in 2001, is situated on the west side of the river, 3.5 miles from the entrance. The buoyed channel leading to the wharves from the entrance is intricate and marked by **leading lights**. Owing to changing conditions, the leading lights and buoys are moved to mark the best channel.

252 The first range (1142, 1143) is shown from red daymarks with white stripes on the west side of North Richibucto Dune. The lights in line bear 046°.



# **BUCTOUCHE HARBOUR** (2005)



#### **BUCTOUCHE MARINA** (2005)



253 The second range (1145, 1146) is shown from red daymarks with white stripes on the west side of South Richibucto Beach. The lights in line bear  $065\frac{1}{2}^{\circ}$ .

The third range (1151, 1152) is shown from white daymarks with red stripes from the town of Richibucto. The lights in line bear  $227\frac{1}{2}^{\circ}$ .

255 The Public wharf at Richibucto is 229 m long at the outer face, parallel to the channel, with depths of 4.3 to 6.2 m alongside. The elevation of the deck is 2.1 m. A **light** (*1152.5*) is shown from a mast having a green, white and black daymark, at the north end of the wharf. Inside the wharf is a boat basin with depths of 0.7 to 2.1 m.

Forbes wharf, a Public wharf used by fisherman, is situated close south of the above wharf. It extends 135 m from the shore to an outer end 40 m wide. There are depths of 1.4 m along the north face, 3.8 m at the outer end, and 1.5 m along the south face. A boat haulout and a ramp are located on the south side. Fresh water is available.

257 A narrow channel, buoyed in places, leads through **Northwest Branch** of Richibucto Harbour. **Pointe de l'Église** extends from the south shore. A **marina** is operated from a small craft basin formed between a breakwater and a small L-shaped wharf, situated on the west side of the point. The entrance to the basin has a limiting depth of 1.2 m. There are several small finger jetties.

#### Chart 4906

258 **Coast**. — Between Richibucto Gully and **Pointe de Pruche**, almost 16 miles to the north, the water is shallow and foul for a considerable distance offshore. The coast is low, with sand bars and beaches enclosing extensive shallow lagoons, through which rivers flow. NE gales send a heavy swell to the shore.

259 **Kouchibouguacis River** discharges into **Baie de Saint-Louis**. **Goulet de Terre-Noire** is the main entrance to the lagoon from seaward. **Buoys** mark the channel, but the depth over the bar and into the lagoon is variable, with less than 0.9 m in places.

At **Cap-de-Saint-Louis**, about 1.5 miles up the Kouchibouguacis River, there is a small craft basin that is used by shallow draft fishing vessels.

261 **Kouchibouguac River**, after flowing for more than 1 mile through an extensive nearly drying lagoon named **Kouchibouguac Bay**, enters the sea through sand bars at **Little Gully**. The sand bar at the entrance, with a depth of about 0.5 m, frequently shifts in easterly gales. The channel is at all times narrow and intricate, and should not be RICHIBUCTO HARBOUR — ENTRANCE (2005)



CHAPTER 3 Northumberland Strait

# RICHIBUCTO (2005)



## **RICHIBUCTO CAPE** (2005)



attempted without local knowledge. It is reported that there may be unmarked underwater rocks in the channel through Kouchibouguac Bay; **caution** is advised.

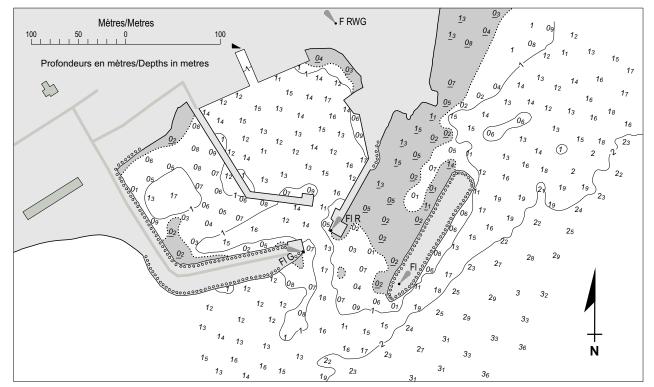
On the north side of the river, at the entrance to the lagoon, there is a Public wharf extending 103 m from the shore to an outer end 24 m long with a reported depth of 1.2 m alongside. Another Public Public wharf is situated on the south side of the river close below the highway bridge. The structure extends 76 m from the shore and the L-end is 78 m long.

There is a shallow harbour for small boats at Rivière 263 au Portage, about 5 miles SW of Pointe de Pruche. The channel into the lagoon at the river mouth has a depth of 0.4 m. 264 At the settlement of Pointe-Sapin, 1 mile SW of Pointe de Pruche, there is a harbour for fishing boats. The entrance into the basin between two breakwaters is 21 m wide. A detached breakwater is located about 76 m to the south of the east breakwater. A light (1161.2) is shown from a skeleton tower at the outer end of the east breakwater. A light (1162.3) is shown from a skeleton tower at the outer end of the western breakwater. Another light (1159.5) is shown at an elevation of 8.8 m from a skeleton tower, situated on the SW end of the detached breakwater.

A sector **light** (1159.6) is shown from a skeleton tower to the NE of the Pointe-Sapin harbour. The white sector indicates the preferred approach. 266 The church at the village is **conspicuous**.

267 **Coast**. — The coast between Pointe de Pruche and Point Escuminac, 6 miles to the north, is low, and shallow water extends some distance from it. **Sapin Ledge**, with a least depth of 3.7 m, lies 2 miles east of Pointe de Pruche. Port hand light **buoy** X25 (*1161.5*) is moored east of the ledge.

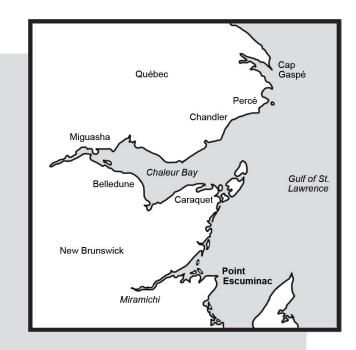
3-41



## POINTE-SAPIN Échelle 1:4 000 Scale

Sources : Levés effectués par TPSGC jusqu'en 2012. Sources: Surveyed by PWGSC up to 2012.

# Gulf of St. Lawrence — West Shore Point Escuminac to Cap Gaspé



# Miramichi Bay

#### Charts 4024, 4911, 4912

Miramichi Bay, 14 miles wide at the entrance, is separated from Miramichi Inner Bay by a chain of low, sandy and partly wooded islands which stretch across the bay in a broken curve from south to north shores. Miramichi Bar, of sand, extends off these islands to a maximum distance of 3 miles seaward, with very little water over it in places. From the outer bar, narrow and shifting channels wind 26 miles through the inner bay and Miramichi River to the ports of Chatham and Newcastle.

2 **Tides and tidal streams**. — Because of the shallow nature of the bay, estuary and river, local weather conditions normally cause the actual water levels to differ from those predicted in the *Canadian Tide and Current Tables* by more than 0.5 m. Differences of more than 1 m sometimes occur.

The streams have a rate of 1 to 1.5 knots in the outer bay, but this increases in the narrows between the islands to 2 to 3.5 knots or more, and both the rate and direction are greatly affected by winds.

**Pilotage** is compulsory in all navigable waters within a line drawn from Pointe Morin  $(47^{\circ}13'N, 65^{\circ}06'W)$  to the north end of Portage Island, then on a bearing of 114° to  $47^{\circ}07'30''N$ ,  $64^{\circ}47'W$ , and then on a bearing of 191° to Point Escuminac light.

5 Between April 16 and December 10, masters of vessels bound for ports within the compulsory pilotage area must report via any coastal radio station their ETA to Pilots Miramichi at least 12 hours before arrival at the pilot boarding station, which is located 3 miles NNE of Point Escuminac.

<sup>6</sup> Between December 11 and April 15, pilots for Miramichi board at the southern Strait of Canso boarding station in position  $45^{\circ}24'N$ ,  $61^{\circ}01'W$ . Masters of vessels must report their ETA to Pilots Cape Breton at least 24 hours before arrival at the pilot boarding station.

7 The master of a vessel that is to depart or move within the compulsory pilotage area must report to Pilots Miramichi 4 hours before the ETD.

8 **Caution**. — Due to increased infilling, buoys may not provide the degree of accuracy required by mariners navigating the Miramichi channel. Various *Notices*  *to Shipping* are in effect regarding depths in the area. Further commercial usage of this channel in its current condition is solely at the discretion of vessel masters who are requested to exercise extreme caution and monitor for the issuance of new *Notships*.

9 **Ice**. — Miramichi Bay and Miramichi River are open to navigation all year round, however, ice may hinder navigation during the winter months. Icebreaker assistance is available if required.

10 **Caution**. — Canadian Armed Forces air to air firing area CYD 705 lies off the north approach to Miramichi Bay. For other details, consult the annual edition of *Canadian Notices to Mariners*.

Buoys and leading lights may be moved or altered to suit the changing conditions in the channels. Silting takes place in the fairway and depths may vary from those shown on the chart.

11.1 **Aquaculture**. — The waters in and around Miramichi Bay, as well as its coves and shorelines, sustain many aquaculture operations. Mariners are cautioned that these can present surface dangers and underwater hazards, both of which can result in fouling.

#### Chart 4911

12 South shore of the outer bay. — Point Escuminac  $(47^{\circ}04'N, 64^{\circ}48'W)$  is a low sandstone cliff, wooded on top. Escuminac Reef extends north and east from the point.

13 Point Escuminac **light** (*1163*) is shown from a white hexagonal tower, 22.4 m high. The light is obscured between the bearings of 110° and 120°. A **fog signal** of two blasts every minute is sounded from a horn situated close to the light. Port hand light and bell **buoy** X31 (*1162*) is moored 2.8 miles north of Point Escuminac.

14 The village of **Escuminac** has a boat harbour formed by breakwaters. A **light** (*1165.9*) is shown from a skeleton tower at the western end of the outer breakwater. A second **light** (*1165.8*) is shown from the end of a pier located close south of the outer breakwater.

15 **Huckleberry Gully**, the main entrance to **Baie Sainte-Anne**, lies 6 miles west of Point Escuminac between **Huckleberry Island**, 10 m high and partly wooded, and **Preston Beach**. The channel is marked by **buoys** and has a least depth of 0.3 m. The channels within Baie Sainte-Anne are staked or buoyed, but they are narrow, shallow and intricate.

16 There is a Public wharf at the community of **Baie-Sainte-Anne**, on the SE side of the bay, extending to a depth of 1.1 m. The twin spires of the church in the community are **conspicuous**.

17 A Public wharf, with a depth of 1.5 m alongside, is situated at the highway bridge at the mouth of **Eel River**, at the south end of Baie Sainte-Anne.

18 There is an L-shaped Public wharf at the settlement of **Hardwicke** near the NW side of Baie Sainte-Anne. It is situated close below the highway bridge crossing the **French River**. The outer face is 56 m long and 10 m wide with a depth of 0.9 m alongside.

19 Ship Channel is the deepest passage leading to Miramichi Inner Bay. The dredged channel, marked by **buoys** and **leading lights**, passes between Miramichi Bar and **Fox Island**. The Lump is a shoal at the SE end of the channel. Spit Shoal extends from the NW end of Fox Island.

20 **Portage Island Channel** joins the north part of Ship Channel. **Leading lights**, in line bearing  $243\frac{1}{2}^{\circ}$ , are shown from white daymarks with red stripes on the north end of Fox Island (1176, 1176.1). There is a least depth of 2.8 m on this range. A **racon** (— — •) operates from the rear light of this range. Fairway light buoy ME (1173.91) is moored 3.2 miles ENE of the front light of the range.

Leading lights. — Ship Channel is entered at its south end over **Outer Bar**. Fox Island South leading lights (1170.5, 1170.6), in line bearing  $248\frac{1}{2}^{\circ}$  and shown from red daymarks with black stripes on the south end of the island, mark this approach.

23 **Navigation beacons** are situated on the southern end of **Portage Island**.

#### Charts 4911, 4912

24 **Miramichi Inner Bay.** — Channels. — The main entrance to the inner bay leads between Fox Island and Portage Island and follows across **Horse Shoe Bar** and **Grand Dune Flats**, towards the estuary of Miramichi River. **Oak Channel** and **Sheldrake Channel** lead into the river. A yellow steel **pile**, elevation 4 m, is situated 0.2 mile west of the north end of Fox Island.

Grand Dune Outer leading lights (1187, 1187.1), bearing 102°, and Grand Dune Flats leading lights (1196, 1197), bearing 282°, are in coincidence through the Grand Dune Flats channel. The Grand Dune Flats lights are situated on the mainland west of **Grand Dune Island**. The front light of the Grand Dune Outer range is situated on a pier south of the NW end of Fox Island. The rear light is situated in the centre of the island. All lights are shown from red daymarks with black stripes.

27 South shore of Inner Miramichi Bay. — Bay du Vin provides good anchorage for small vessels, in 5.6 m, mud, west of Bay du Vin Island. An obstruction, a wooden pile with a depth of 4 m over it, lies 1.6 miles NW of the SW end of the island.

**Bay du Vin Harbour**, on the south side of Bay du Vin Island, is sheltered from all winds, and the small **anchorage** area is deep. Strong **tidal streams**, with a rate at times in excess of 4.5 knots, flow

4-3

through the harbour. **Gardiner Spit**, of sand, extends north from **Point Gardiner** into the harbour.

29 A sector **light** (1191) is shown at an elevation of 8.5 m from a skeleton tower with a red and white rectangular daymark, situated on the south side of the island opposite Point Gardiner. The white sector indicates the preferred channel from the SW.

Chart 4912

30 **Bay du Vin River**, in the SE corner of the bay, has depths of 1.2 to 1.8 m in the entrance. There is a Public wharf with a depth of 0.9 m alongside, at the bridge about 0.5 mile above the river mouth.

31 **Black River** flows into the SW corner of the bay. A narrow and twisting channel, marked by stakes, has a depth of about 1.8 m as far as a bridge which is no longer in use.

## **Miramichi River**

32 The passage to Miramichi River from Miramichi Inner Bay continues through Middle Ground and Oak Channel. A maximum speed limit of 7 knots is in effect for the Miramichi River above port hand light buoy M37 (1199), which is moored south of Oak Point (47°07'N, 65°16'W).

33 Anchorage grounds are scarce for large vessels because of the narrow channel in most parts of the river. Good anchorage grounds lie off the SW part of Portage Island in Miramichi Inner Bay. Vessels should wait in this anchorage for good weather before proceeding inward or outward.

34 Leading lights. — Moody Point range lights (1198.8, 1198.9), in line bearing 257<sup>1</sup>/<sub>2</sub>°, are shown from red daymarks with black stripes, situated on the north shore near Moody Point.

35 Oak Channel range lights (1200, 1201), in line bearing 223°, are shown from red daymarks with black stripes, situated on the south side of the river west of **Napan Bay**.

36 Oak Point range lights (*1202.5, 1202.6*), astern bearing 024°, are shown from red daymarks with black stripes, situated on the north shore in the vicinity of Oak Point.

37 **Grant Beach** range lights (*1207, 1208*), in line bearing 278°, lead through Sheldrake Channel. Both lights are shown from red daymarks with black stripes, situated on the north shore.

Lower Newcastle range lights (1209.5, 1209.6), in line bearing  $256\frac{1}{2}^{\circ}$ , are shown from red daymarks with black stripes, situated on the north shore.

39 **St. Andrews Bank** range lights (*1208.8, 1208.9*), in line bearing 248°, are shown from red daymarks with black stripes.

40 **Leggett Shoal** range lights (1209.7, 1209.8), in line astern bearing  $043\frac{1}{2}^{\circ}$ , are shown from red daymarks with black stripes, situated on the north shore near Lower Newcastle.

41 **Millbank** leading lights (1212.5, 1212.6), in line bearing 252½°, are shown from red daymarks with black stripes, situated on the north shore of the river, NW of Middle Island.

42 **Middle Island** is joined to the south shore by a causeway, and restricts the channel to the north side of the river.

43 **Overhead cable**. —An overhead high voltage power transmission line, clearance 41 m, crosses the river at Middle Island. For safety reasons, a vessel passing under this cable must maintain a clearance of at least 3.7 m. The support towers, marked by red lights, are **conspicuous**.

44 The wharf at **St. Andrews Point** has a pierhead 78 m long, with a depth at the face of 0.6 to 0.9 m. The ruins of a former wharf lie to the west of it.

There is a privately owned T-shaped wharf on the north shore below **Millbank**, with a least depth of 5.8 m along the 105 m outer face. The elevation of the deck of the wharf is 1.2 m.

46 The community of **Chatham** stretches along the south bank of the river, commencing above Middle Island and extending along the shore for about 1.5 miles. There is sufficient channel width off the town for **anchorage**.

47 **Tidal streams**. — The average duration of the flood tide at Chatham is 5 hours 45 minutes, and the ebb, 6 hours 40 minutes. The average rate of the flood stream is 1 knot, and that of the ebb, 2 knots. At times the rate may be greater.

48 **Bridge**. — A bridge with a vertical clearance of 35 m crosses the river 1.7 miles upstream of Middle Island. The width between supporting piers on each side of the channel is 152 m. The channel under the span is marked by **lights**. The supporting piers are marked by **lights** (1215.5, 1215.6). A **submarine cable** is laid across the river, close upstream of the bridge.

49 Wharves. — The New Brunswick Power Corporation oil wharf, 0.5 mile SW of Middle Island, has a depth of 6.4 m alongside the berth. Behind the wharf are three oil storage tanks. The power house has a **conspicuous** chimney marked with red **lights**.

50 A Public wharf at Chatham, 0.4 mile upstream of the Power Corporation wharf, has a berth 170 m long, with a least depth of 7 m alongside. The wharf deck has an elevation of 1.8 m. There is a shed on the wharf.

MIRAMICHI RIVER — SHIPPING CHANNEL (2005)

Station Wharf Marina, 0.9 mile upstream of 51 the Power Corporation wharf, has a wharf face 136 m long with a least depth of 6.7 m alongside. There are several finger piers.

Diesel and bunker fuel, and fresh water are available, 52 and fresh provisions are plentiful.

Miramichi River above Chatham. — Wright 53 Bank, commencing just above the bridge and extending upstream for about 2 miles in the centre of the river, separates the river into two channels. The deeper, buoyed channel lies on the south side of the river.

A wharf used for shipping cement is situated 0.4 mile 54 SW of the bridge. It is 67 m long with a least depth of 5.7 m alongside. The elevation of the deck of the wharf is 0.9 m, and an elevated conveyor runs onto it.

The Eagle Forest Products wharf is situated on the 55 south side of the river, 1.1 miles SW of the bridge. It is 104 m long with depths of 5.5 to 7.3 m alongside. The elevation of the deck of the wharf is 1.5 m.

The Miramichi Boating and Yacht Club lies on 56 the north side of the river, at **Douglastown**. There is a small craft harbour formed within the ruins of an old wharf with 30 berths and a reported depth of 2 m within the harbour.

On the north bank of the river, at the western end of 57 Wright Bank, is the indentation of French Fort Cove. Close SW is the city of Newcastle.

The Morrissey Bridge has a swing span allowing a 58 channel width of 24.4 m. Department of Transport regulations prohibit passage through the opening for all vessels with a gross tonnage in excess of 160 tons, except against the tidal stream. The bridge has a vertical clearance of 2.4 m when closed. A submarine cable and an overhead power cable, vertical clearance of 30 m, cross the river close south of the bridge. For safety reasons, a vessel passing under this cable must maintain a clearance of at least 3.7 m. Close south of the bridge, there is a T-shaped floating wharf with an outer face 9.8 m long and a launching ramp.

A highway bridge, with a clearance of 6 m, 59 crosses the river at Strawberry Point, 0.4 mile south of the Morrissey Bridge. This bridge and the Morrissey Bridge restrict navigation on the Miramichi River south of Newcastle to very small recreational craft.

The Newcastle Marine Terminal, situated close below the Morrissey Bridge, has a length of 310 m and a least depth of 8 m alongside; depths of less than 8 m are situated along the south 30 m face of the wharf. A depth of 4 m lies close off the north end of the wharf. The deck has an elevation of 2 m. A wooden retaining wall, with a least depth of 6.5 m extends 58 m south from the wharf. Several conspicuous oil tanks stand adjacent to this wall. The Newcastle Marine Terminal is operated by the Miramichi Port Committee.



4-5



#### MIRAMICHI — CHATHAM MARINE TERMINAL AND STATION WHARF MARINA (Nov. 2005)

61 The **Northwest Miramichi River** and the **Southwest Miramichi River**, separated by **Beaubears Island**, are extensions of the river south of Morrissey Bridge. Both rivers are marked by **buoys**.

A forest products wharf, on Southwest Miramichi River, is the only serviceable wharf of any size above Morrisey Bridge. It is 215 m long with a least depth of 5.8 m alongside. The elevation of the deck of the wharf is 1.8 m. A warehouse and storage tank stand adjacent to the wharf. The channel to the wharf has a least depth of 4.6 m, but this should be checked with local authorities. A **submerged outfall pipeline** extends into the channel from the north end of the wharf.

#### Charts 4911, 4912

63 North shore of Miramichi Bay. — Neguac Beach commences as drying sand bars 0.5 mile north of the tip of Portage Island, and becomes a low island of sand dunes extending to the mainland, enclosing the partly drying Neguac Bay.

64 **Portage Gully**, with a shallow buoyed channel, leads between Portage Island and the sand bars of Neguac Beach into Miramichi Inner Bay and Neguac Bay. In places the channel depth is less than 1.8 m. 65 The **wharf** at **Lower Neguac** is 30 m long. A **breakwater**, 150 m long, protects the wharf to the east, and there is a **launching ramp** situated at its inner end. The depth in the approach is about 1.4 m. A **light** (1229.2), shown from a mast having a red and white daymark, is at the outer end of the breakwater.

**A** boat haulout is located on the south side of the main stem. A light (1229) is shown from a red and white rectangular daymark, with a red triangle in its centre, on the outer end of the wharf.

67 **Conspicuous objects.** — The church spires at Neguac and **Burnt Church Point** are conspicuous. A **radio tower**, elevation 165 m and marked by red **lights**, is situated 1.4 miles NW of Neguac.

68 **Burnt Church** wharf is situated 1.25 miles SW of Burnt Church Point. The usable outer section is about 103 m long with an L-end 62 m long. A **light** (1228) is shown from a square skeleton tower on the outer end of the wharf.

## MIRAMICHI BOATING AND YACHT CLUB (Nov. 2005)



# Miramichi Bay to Miscou Island

## Chart 4024

69 This stretch of the coast, 50 miles long, is low and wooded, with sand bars and beaches, often enclosing shallow lagoons through which rivers flow to the sea. The entrances to these lagoons and rivers are narrow, shallow and sometimes blocked by shifting sand bars. They afford shelter to boats, but there are no ports or harbours for larger ships. Shoal water extends a considerable distance from the coast, but there are no detached shoals.

69.1 The hourly surface currents forecasts for the Gulf of St. Lawrence are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours.

## Charts 4906, 4024

Tabusintac Bay ( $47^{\circ}21'N$ ,  $64^{\circ}57'W$ ) is enclosed by sand dunes and beaches. The shape and position of the sand bars off the bay are subject to continual change. A channel leads into the bay, however, it often becomes sand blocked and has a limiting depth of 0.3 m, as of 2014. Starboard hand light and bell **buoy** TA2 (*1238*) is moored south of the entrance. **Tabusintac River** flows into the bay, and depths in the staked channel leading to it increase to as much as 5.5 to 9.1 m. The channel is narrow and intricate, and suitable only for small boats; local knowledge is essential.

71 The **tidal stream** flows 10 miles up the Tabusintac River, which runs through undulating country with occasional steep banks of sandstone up to 30 m high.

72 At McEacherns Point  $(47^{\circ}20'N, 64^{\circ}58'W)$ , on the north side of the river near the mouth, there is a small craft basin between two Public wharves. The entrance is 18 m wide. The north wharf, L-shaped, has an outer end 55 m long. The south wharf is dog-legged and 94 m long. Gasoline pumps are located near the inner end of the south wharf. A light (1238.7) is shown from a square skeleton tower at the SE corner of the wharf.

At the community of **Tabusintac**, 2 miles above the river mouth, there is a wharf 27 m long with depths of 1.5 to 4.6 m alongside.

4-7



# MIRAMICHI — NEWCASTLE MARINE TERMINAL (2005)

There is a small L-shaped wharf at **Bayshore**  $(47^{\circ}23'N, 64^{\circ}56'W)$ , on the west side of Tabusintac Bay, about 2 miles NNE of the river entrance.

75 The entrance channel to **Big Tracadie River**  $(47^{\circ}29'N, 64^{\circ}52'W)$  is used by local fishing boats. A **light** (1239) is shown from a mast on the south side of the entrance.

At **Val Comeau**, there are two Public wharves on the south bank of the Big Tracadie River. The main wharf is T-shaped with an outer face 89 m long. A **light** (1239.8) is shown from a skeleton tower on the outer end of this wharf. A marginal wharf close to the west is 56 m long.

**Baie de Tracadie**, separated from the sea by long sandy beaches, is shallow and nearly dry in parts. The entrance channel, through **Tracadie Gully**, is buoyed. At the town of **Tracadie-Sheila**, population 4,724 in 2001, there is a Public wharf with an outer end 55 m long and a depth of 1.5 m alongside. A **light** (1244.9) is shown from a skeleton tower on the wharf. A church with twin spires stands in the town. Water towers stand close north and south of the church.

78 The entrances and channels to Val Comeau and Tracadie are used by local fishermen. The sand bars and shallow channels shift with every storm. No attempt should be made to enter either gully without recent knowledge of conditions.

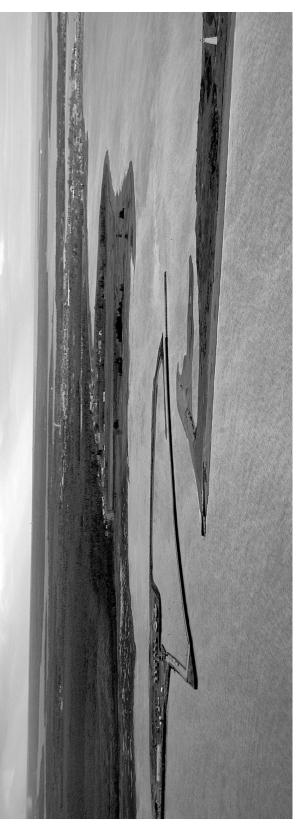
#### Chart 4486

Pokemouche Gully  $(47^{\circ}40'N)$ , 79  $64^{\circ}47'W$ ) is about 0.1 mile wide between sand bars. The shifting sand generally leaves a narrow channel with a depth of 1 foot (0.3 m) into the gully, and depths of 3 to 4 feet (0.9 to 1.2 m) further in; the channel is marked by buoys. Local knowledge of prevailing conditions is essential. At Inkerman, within Baie de Pokemouche, there is an L-shaped Public wharf situated on the east side of the river close downstream of the highway bridge crossing the **Pokemouche River**. The wharf is 255 feet (69 m) long with an outer face 55 feet (17 m) in length. A light (1246.8) is shown from a pipe swing pole on the outer end of the wharf. A wharf, 100 feet (30 m) long with a 80 depth of 5 feet (1.5 m) at the outer end, is situated at Petit-Pokemouche Gully, 2 miles NNE of Pokemouche Gully.

#### Chart 4920

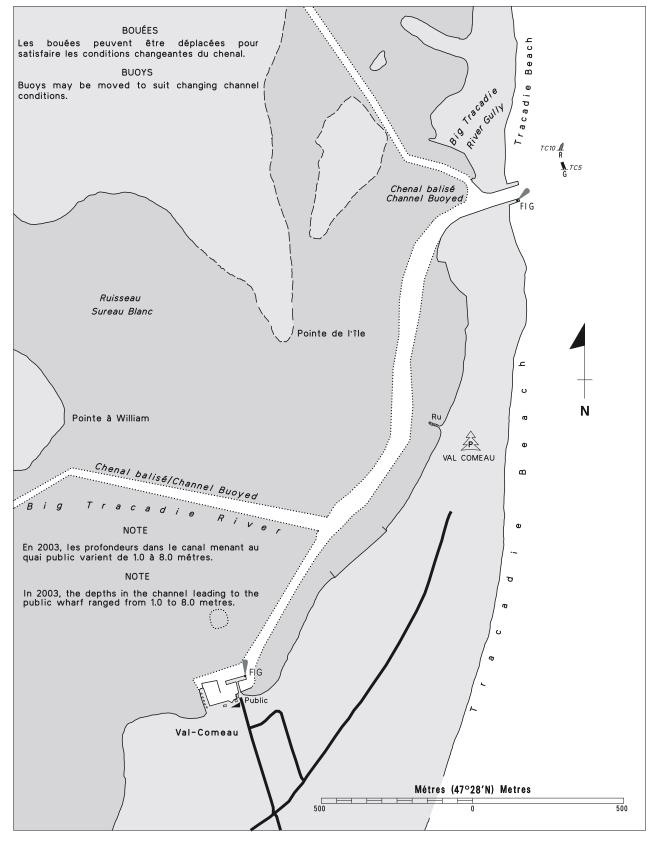
81 **Shippegan Gully**, the south entrance to **Shippegan Harbour** and Baie de Shippegan, has a partly drying sand bar which shifts in heavy gales, but there is a dredged channel for small craft. Breakwaters have been constructed to improve the channel. Local knowledge is recommended to enter the gully.

#### SHIPPEGAN GULLY (2005)



4-9

# VAL COMEAU Échelle 1:12 500 Scale



Sources: Levé par le TPC en 2003 et SHC en 2004. Sources: Surveyed by PWC in 2003 and CHS in 2004.

82 A light (1254) is shown from a tower 16.1 m high, situated on the beach to the NE of the entrance to the gully. A light (1250.5), having a port-hand daymark, is shown from a mast at the south end of the west breakwater. Fairway light and bell **buoy** TJ (1248) is moored about 0.8 mile SE of the entrance to the gully. A racon (• —) operates from this buoy. The approach and the channel within are marked by **buoys**, but owing to changing conditions, they may be moved to mark the best channel.

83 Inside the curved breakwater, there is a marginal wharf and a launching ramp. There is a charted depth of 0.3 m in the channel leading to the wharf.

**Kottem 1:** 84 **Tidal streams.** — The flood stream sets south, the ebb stream north, and the turn of the flow occurs at about half tide in Shippegan Harbour. Slack water normally lasts for 10 minutes. The flood is somewhat stronger than the ebb, with the maximum rate in either direction being about 5 knots at spring tides in the south entrance.

#### Charts 4486, 4913

<sup>85</sup> Île Lamèque. — east side. — Rocky patches, with depths of little more than 12 feet (3.7 m) over them, extend to 1 mile off some parts of this shore, and breakers occur to about 1.5 miles offshore in bad weather. Miscou Island is situated close north of Île Lamèque, separated from it by narrow channels. Wilson Bank extends about 2.5 miles offshore from the east side of Miscou Island.

#### Chart 4913



86 The village of **Sainte-Mariesur-Mer** is situated 5.5 miles NE of Shippegan

Gully. A boat basin for fishing craft, about 91 by 145 m, is protected on the north and east sides by an L-shaped breakwater, and on the south side by a pier. The entrance is 17 m wide. There are reported depths of 0.6 to 1.5 m in the basin. A **light** (1262), having a red and white daymark, is shown from a skeleton tower on the outer end of the breakwater. Another **light** (1262.3) is shown from a skeleton tower on the west side of the harbour. A boat haulout is situated at the inner end of the south pier.

**Fox Dens Gully**, situated 12.5 miles NE of Shippegan Gully, separates **Fox Dens Beach** from Île Lamèque, and is a shallow entrance used by local fishermen into Miscou Harbour. A **light** (1262.8) is shown at an elevation of 4.5 m from a square skeleton tower on the south end of Fox Dens Beach. A narrow channel runs 0.4 mile south to an L-shaped Public wharf at the SE corner of Miscou Harbour. The channel is used by small boats only, and has a limiting depth of 0.2 m. The wharf is 138 m long and 38 m wide at the outer end with a depth of 1.2 m alongside. A **light** (1262.9) is shown from a skeleton tower on the outer end of the wharf. A marginal wharf, boat haulout and another wharf are situated adjacent to the wharf. This area is subject to rapid silting.

88 **Miscou Gully**, 1.5 miles north of Fox Dens Gully, separates Fox Dens Beach from Miscou Island, but the entrance is very shallow and is reported to be unnavigable.

#### Chart 4486

89 **Birch Point**, the NE end of Miscou Island, is a sandstone face about 10 feet (3 m) high, with trees growing out to the point.

90 A light (1264.7) is shown at an elevation of 82 feet (25 m) from a white octagonal tower 80 feet (24.4 m) high, on Birch Point. A racon ( $- \cdot -$ ) operates from this light.

91 **Northwest Miscou Point**, with a grassy sand hill marking it, is fronted by shoals extending for 3 miles to the 5 fathom (9.1 m) line. The north end of Miscou Island is fronted by steep sandy beaches. West cardinal light and whistle **buoy** EB (*1265*) is moored about 1 mile NW of Northwest Miscou Point.

92 **Miscou Banks** extend for 22 miles NE of Miscou Island. The shoalest part of the banks lies NE of Birch Point. 92.1 An ODAS **light buoy** *(number 1037.6)*, marked IML-6, is moored 27 miles ENE of Shippegan Gully and 44 miles north of North Cape (Prince Edward Island).

### **Chaleur Bay**

93 **Chaleur Bay**, the largest bay in the Gulf of St. Lawrence, is deep and free of detached shoals, except near its shores. It gradually becomes shallow towards the east end of the bay.

The bay is named and noted for its milder climate in comparison with the weather outside in adjacent parts of the gulf. Fogs, which are frequent outside the bay, seldom enter far into the west of the bay, though rain and mist will accompany easterly gales.

The south shore is generally low, but there are 100 feet (30 m) high cliffs between Caraquet and Bathurst. The north shore, with a range of hills running parallel to the coast, just a few miles inland, has summits exceeding 1,700 feet (518 m) in elevation. The main features of both shores are the red cliffs of sandstone and shale, with intervening sandy beaches.

96 **Tidal streams** are regular within the bay, and the rate seldom amounts to 1 knot. Off the mouth of the bay, the streams are erratic both in rate and direction, especially over the Miscou Banks. The tidal range is of about 2.9 m during spring tides and of about 1.4 m during neap tides. For more information on the water levels, see the *Canadian Tides and Current Tables* and the tidal table on the charts.

4-11

Moreover, a network of digital recorders is posted along the St. Lawrence Gulf and River; this network, called *SINECO* (Coastal and oceanic water level information network), gives real time access to the water levels at various sites, as well as to predictions for the coming days. The most recent information on water levels can be obtained at the *MCTS* over the VHF, or by phoning the automated information service at 1 877 775-0790, or by visiting the Web site at www.charts. gc.ca.

96.1 The hourly surface currents forecasts for the Gulf of St. Lawrence are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours. 97 During winter, **buoys** are removed and some are replaced by spar buoys; please refer to the radio and/or published *Notices to Shipping* for more information on the mooring and removal of buoys.

# Chaleur Bay — South Shore — Miscou to Heron Island

#### Chart 4913

98 **Miscou Flat**, of sandstone, with less than 5.5 m over it 2 miles offshore, extends west of Miscou Island.

99 **Shippegan Flat**, of sandstone, partially and thinly covered with sand, has a least depth of 0.9 m over it. It extends 5 miles west from **Black Point**, the NW extremity of Île Lamèque. A **light** (1275) is shown at an elevation of 17.7 m from a skeleton tower with a red and white rectangular daymark on Black Point.

100 **Miscou Harbour** is entered from the west through **Miscou Channel**, which is less than 0.2 mile wide at one part. The **buoyed** channel lies between steep-to shoals. **Submarine cables** cross the harbour entrance.

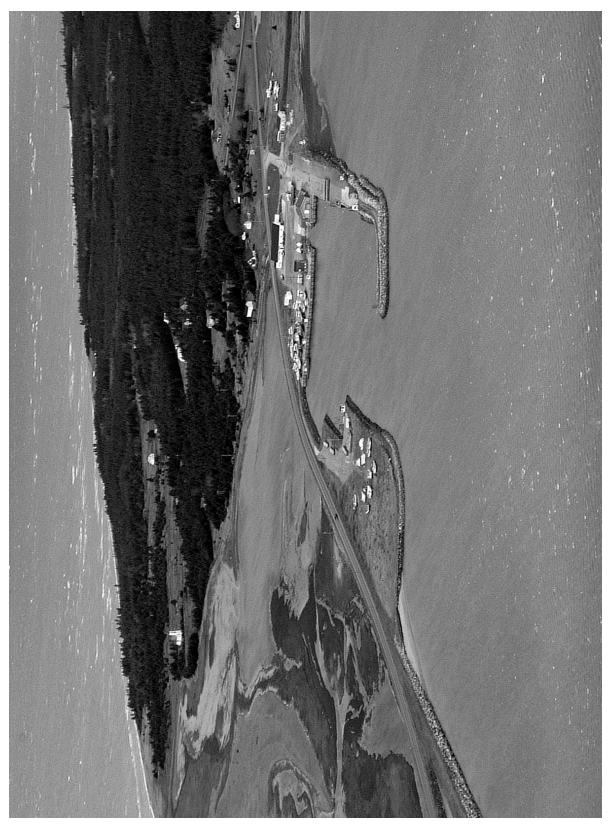
101 Fairway light **buoy** EA (1267) marks the approach to the channel. The harbour is entered by passing under the Miscou Island Bridge, which joins the communities of Little Shippegan and Miscou Harbour. The bridge has a centre navigation span of 161 m, with a charted elevation of 16 m. Owing to changing conditions, the buoys may be moved to mark the best channel into the harbour.

Lose east of **Harper Point**, the Miscou Harbour Public wharf extends 275 m from the shore. It is 12 m wide at the outer face with a depth 1.2 m at the outer end. A ramp is located on the wharf. A **light** (1274.2) is shown from a skeleton tower on the outer end of the wharf. A boat storage and service area is located on the west side of the wharf near its inner end.

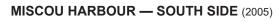
#### MISCOU CHANNEL — FROM THE WEST (2005)

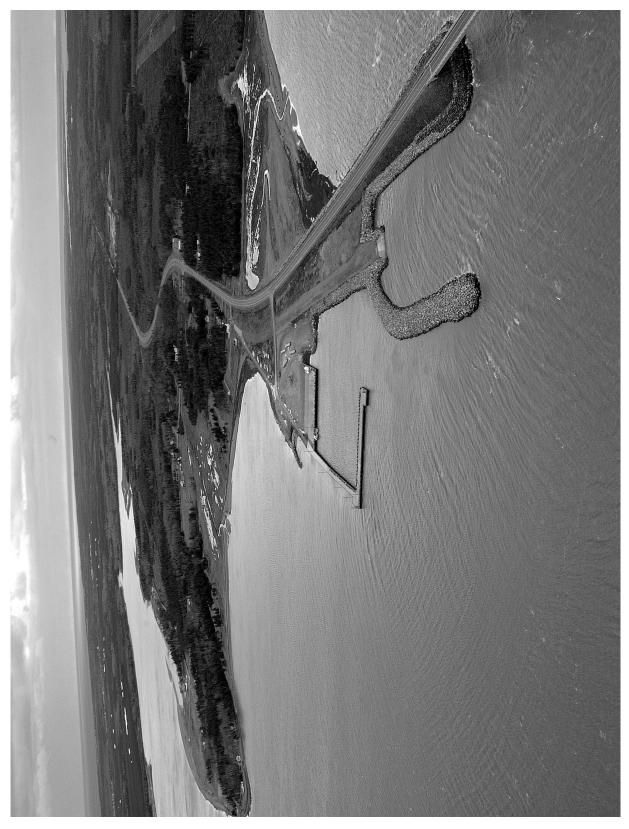


MISCOU HARBOUR — NORTH SIDE (2005)



4-13





The wharf on the opposite shore 103 at Little Shippegan has 0.6 m of water at the outer end. A light (1273.5), with a green and white square daymark, is shown from a mast on the outer corner of the wharf.

Petite-Rivière-de-l'Île lies in a small drying 104 bay 1.3 miles SW of Black Point. A Public wharf, with an outer face 87 m long, is situated near the mouth of the bay. Local knowledge is necessary to navigate the shallow channel through the drying flats to reach this wharf.

Shippegan Channel, leading to Baie de Shippegan 105 from the north, is deep, but the buoyed passage is narrow between the steep-to shoals, and there are several turns, marked by leading lights. Smaller bays and inlets branch off from Baie de Shippegan, and Shippegan Harbour and the town of Shippagan lie at the head. Owing to changing conditions, the leading lights and buoys may be moved to mark the best channel. There may be less water than charted, local knowledge is recommended. Baie de Shippegan and Shippegan Channel are frozen over between the middle of December and the middle of April.

106 Fairway light and whistle buoy EG (1276.2) is moored on the alignment of the outer range, 5 miles to seaward of the front light. A **racon** (— •) operates from this buoy. A conspicuous tower, elevation 94 m and marked by 107 red lights, is situated on the east side of the channel, 2 miles SW of Petite-Rivière-de-l'Île.

Leading lights. — The outer range (1277, 108 1278), in line bearing 151°, is shown from black daymarks with red stripes, situated on the north side of Pointe de Petite-Lamèque. This range leads over the edge of the shoal on the west side of Shippegan Channel, with a least depth of 7.6 m.

Pointe à Marcelle leading lights (1283, 1283.1), in 109 line bearing 194°, are shown from black daymarks with red stripes, on the SE end of Pokesudie Island.

110 A navigation beacon is situated on Pointe à Peinture.

Pointe à Bernache range leads through the central 111 part of Baie de Shippegan. The lights (1286.3, 1286.4), in line bearing 1791/2°, are shown from black daymarks with red stripes, situated NW of the town of Shippagan.

Shippegan Harbour West Entrance range (1287, 112 1288), in line bearing 1541/2°, leads into the harbour. The front light is shown from a white daymark with a red stripe on the outer end of the centre wharf at the town, the rear light is shown from a similar tower near the west end of the causeway. Chart 4920

113 Shippagan, a town of 2,872 in 2001, has cold storage and fish plants, and a peat moss plant. A water tower, elevation 29 m, is conspicuous. A church spire has an elevation of 25 m. A chimney, elevation 20 m, is situated adjacent to the small craft basin. Two oil storage tanks, elevation 17 m, are situated to the SSW of the chimney.

114 A causeway connects Île Lamèque to the mainland close south of the wharves. A lift bridge in the causeway has a raised clearance of 12 m and a horizontal opening of 17.8 m. Abandoned submarine cables cross Shippegan Harbour close south of the causeway.

115 Wharves. — Three L-shaped wharves extending from the shore west of the bridge form two basins. The entrance to the north basin is about 52 m wide, and the entrance to the south basin, about 45 m wide. An ice plant stands on the centre wharf. A marginal wharf, between the centre and north wharves, is 146 m long with a depth of 3.2 m alongside. There is a depth of 2.7 m at the outer end of the south wharf. A light (1291.5) is shown from the outer end of the north wharf.

Lifeboat station. — Canadian Coast Guard 116 lifeboat Shippegan (call sign CG 2389) is stationed at a wharf adjacent to the SW side of the causeway. It operates within a 50 mile radius from its base and is operational from about May 1 to November 30. All distress situations and calls for assistance should be communicated to JRCC Halifax via the nearest coastal radio station or by any other available means.

A marina is operated by Centre Marin 117 Shippagan from the basin north of the north wharf. There are 100 berths, showers, laundry and dining facilities. The entrance channel to the marina has reported depths as shoal as 0.4 m, and depths of 0.4 m can be found in the basin.



118 Savoy Landing is situated at the NE end of the causeway. On the west side of the causeway is a wharf 150 m long with a depth of 1.4 m at the outer end. A light (1292) is shown from a square skeleton tower on the outer end of the wharf. A marine railway for small vessels is situated south of the causeway.

#### Chart 4913

119 Baie de Petite-Lamèque, on the NE side of Baie de Shippegan, is shallow but there is anchorage off the mouth. 120 Baie de Lamèque, the NE arm of Baie de Shippegan, south of Baie de Petite-Lamèque, is a good harbour in all winds. The town of Lamèque, population 1,580 in 2001, is situated at the head of the bay. A conspicuous orange water tower, 47 m in elevation, is situated about 1 mile NE of the harbour.

Chart 4920

CHAPTER 4 Gulf of St. Lawrence — West Shore Point Escuminac to Cap Gaspé

## 4-15

## SHIPPAGAN (2005)



122 A channel leads through Baie de Lamèque into a basin.

**Note:** 123 The harbour at Lamèque consists of two basins formed by three wharves. A breakwater extends SW from the outer face of the north wharf; a **light** (1301) is shown from a mast having a green, white and black daymark, at the outer end of the breakwater. The south basin has berths 100 m long on its south and east sides, with depths of 5.5 m alongside. A **light** (1296.1) is shown from a mast having a red and white daymark, on the east side of the entrance to the south basin. The north basin has berths with depths of 2.9 to 4.2 m alongside. A fish processing plant lies adjacent to the north side of the north basin. A boat haulout ramp is located close south of the south wharf.

Chart 4913

124 **Saint-Simon Inlet**, on the west side of Baie de Shippegan and south of Pokesudie Island, affords sheltered **anchorage** in 6 to 9 m. There is a Public wharf on the south side of **Baie Saint-Simon-Nord** with a depth of 1.2 m at the outer end.

125 **Caraquet Harbour** extends along the south shore of Chaleur Bay, west of Pokesudie Island. The harbour is well sheltered, protected from the north by **Caraquet Island** and its surrounding shoals, and the drying sands extending SE from **Pointe de Maisonnette**, 3 miles west of Caraquet Island. **Baie de Caraquet**, enclosed by Pointe de Maisonnette, is wide but shallow. In 2001, the town of **Caraquet** had a population of 4,442, and the village of **Bas-Caraquet** had a population of 1,689.

**Pilotage** is available but not compulsory. Masters of vessels requiring a pilot should report via any coastal radio station their ETA to Pilots Caraquet, 12 hours before arrival at the pilot boarding station which is located 5 miles north of Pokesudie Island.

127 The master of a vessel that is to depart or make a move and requires a pilot must report 4 hours prior to the ETD. 128 **Ice**. — The average thickness attained by undisturbed fast ice is 78 cm, with a record maximum of 92 cm measured in 1977. Ice begins to develop across the approaches usually during the later half of December and clears during the first week of April.

**Caraquet Channel**, the east entrance channel, is narrow and crooked between the steep edges of **Caraquet Shoal** and **Pokesudie Shoal**, but it is **buoyed** and marked by **leading lights**, and has a least depth of 5.3 m until abeam the east end of Caraquet Island. A second entrance channel, though shallow, lies close west of Caraquet Island. It is also buoyed and marked by leading lights. A **light** (*1322*) is shown at a height of 20.1 m from a white rectangular daymark on the west end of Caraquet Island.

130 **Fisherman Ledge**, 2.5 miles north of Caraquet Island, consists of rock and stones with a least depth of 3.7 m near the middle. **Fisherman Channel**, between this ledge and the shoals and ledges extending from Caraquet Island, has charted depths of 7.6 to 12.5 m, but should not be used by vessels of any size.

Leading lights. — The outer range (1310, 1311), in line bearing 227°, is situated to the east of **Stoke Point**. The front light is shown from a white square tower having a red stripe; the rear light is shown from a skeleton tower having a red and white daymark.

The middle range (1313.2, 1313.3), in line bearing 244°, is shown from red daymarks with white stripes, situated near **Pointe d'Herbe**. A **water tower**, elevation 66 m and marked by red lights, stands 0.3 mile SSE of the rear light of this range.

133 Stoke Point range (1314.2, 1314.3) leads 094° from the west entrance, and is shown from red daymarks with white stripes at Stoke Point.

Pointe à Brideau range (1319.2, 1319.3) leads 248° from the west entrance, and is shown from white daymarks with red stripes on the point.

#### Chart 4920

Wharves. — At Bas-Caraquet, near Stoke 135 Point, there is a Public breakwater-wharf extending 300 m from the shore to an outer end 35 m long, with depths of 3.3 to 4.3 m along the inside face. A marine service centre and marine railway are situated close west of the breakwater-wharf. The buildings to the south are reported to be conspicuous from seaward. Close west of the marine railway, there is a Public wharf 250 m long with an L-end and a spur extending to the west. The L-end is 46 m long with depths of 3.9 m along the outer face and 3.5 m along the inner face. The Public wharf at Middle Caraquet, together 136 with a breakwater extending from its outer L-end, and a breakwater to the east form a basin for small craft where a marina operates. There is a depth of 2.2 m in the entrance, but there are shallower depths inside the basin. Lights (1314, 1314.1) are shown from towers on the outer ends of each breakwater. At Caraquet, the east and west wharves form two 137

basins having depths of 1.9 to 5.9 m. An oil/gasoline pipeline is laid onto the Public wharf (Young wharf), the centre wharf. Oil tanks, a cold storage plant and an ice plant are located at the inner end of Young wharf, which is 270 m long. At the inner end of the east basin, there is a privately owned slipway. **Lights** (1319, 1319.1) are shown from square skeleton towers at the outer ends of the entrance to each basin. A breakwater at the west end of the west basin extends to Pointe à Brideau.

Chart 4913

CHAPTER 4 Gulf of St. Lawrence — West Shore Point Escuminac to Cap Gaspé

## **LAMÈQUE** (2005)



## 4-17

At Pointe de Maisonnette, the Public wharf 138 is 247 m long with an L-end 21 m long and a depth of 1.2 m alongside.

Chart 4486

Coast. — Low sand hills extend along the 139 coast from Pointe de Maisonnette for 3 miles to the west. Sandstone cliffs, about 100 feet (30 m) high, then commence and continue for the next 25 miles to Bathurst Harbour. A light (1324) is shown at a height of 43 feet (13.1 m) from a square skeleton tower at the north extremity of Pointe Maisonnette (47°50'N, 65°00'W).

At Anse-Bleue, 4 miles west of 140 Pointe de Maisonnette, there is an L-shaped breakwater-wharf with a stem 710 feet (217 m) long. Leading lights (1325, 1325.1), in line bearing 195°, are shown in the approach from white daymarks with red stripes. An L-shaped end, with reported depths of 2 to 4 feet (0.6 to 1.2 m) alongside, extends from the stem. A light (1325.5) is shown from a skeleton tower at the outer end of the extension. A boat ramp is located at the inner end of the breakwater on the west side. A light (1325.4) is shown from the outer end of this breakwater.

Grande-Anse, a fishing village of popula-141 tion 853 in 2001, is situated 8 miles west of Pointe de Maisonnette. The green church spire, elevation 198 feet (60 m), is very conspicuous. A breakwater forms a small boat harbour, leaving a narrow opening between it and the wharf. There is a reported depth of 4 feet (1.2 m) in the harbour. Oil tanks are situated close SW of the church.

On the west side of Grindstone 142 Point (47°45'N, 65°22'W), 8.4 miles SW of Grande-Anse, at Stonehaven, there is a small harbour. It is formed by a breakwater 512 feet (156 m) long, with an L-end 256 feet (78 m) long extending west, and a Public wharf 229 feet (70 m) long on the west side. There is a reported depth of 10 feet (3 m) at the outer end of the wharf. A light (1328) is shown from a skeleton tower, a hill above the wharf. A light (1328.5) is shown from a skeleton tower situated on the breakwater. A boat haulout is located adjacent to the inner end of the breakwater.

143 Nepisiguit Bay is a deep open bight, 17 miles wide at its mouth, between Grindstone Point and Pointe Verte. Bathurst Harbour lies at the head of the bay. Fish traps may extend up to 0.5 mile offshore along the coast between Grindstone Point and Bathurst Harbour. Miller **Brook** is a small fishing harbour, accessible through a narrow channel between two breakwaters. It is situated in the community of Salmon Beach, about 4 miles east of the entrance to Bathurst Harbour.



144 Bathurst Harbour, at the mouth of Nepisiguit River, is entered through a narrow channel dredged in the bar extending 1.5 miles to seaward of the river mouth, between Carron Point and Youghall Point. Within the entrance there is an extensive basin, but much of it dries at low water, except for the channels of three rivers which unite below Bathurst. The city of Bathurst, population 12,924 in 2001, is situated on the point of land dividing Nepisiguit River from Middle River. A public park and beach are situated at Youghall Point. A marina with full services operates from Youghall Point. It is reported that privately maintained leading lights are shown from white daymarks with orange stripes in the approach to the marina basin.

145 Pilotage is available but not compulsory. Masters of vessels requiring a pilot should report via any coastal radio station their ETA to Pilots Bathurst, 12 hours before arrival at the pilot boarding station. The station is located 3.6 miles north of the light at Salmon Beach (chart 4486).

146 The master of a vessel that is to depart or make a move and requires a pilot must report 4 hours prior to the ETD.

147 Tidal streams in the main channel run at a rate of about 2 knots, and over the bar setting fairly in and out at about 1.5 knots.

The navigation season is from mid April to 148 early December.

149 The channel into Bathurst is marked by buoys which are moved as necessary. Owing to continuous silting, depths in the channel are subject to change; there may be less water than shown on the chart. Mariners should not attempt to enter without local knowledge.

151 The wharf at Bathurst, on the east side of the Nepisiquit River, has an outer face 123 m long. In 2000, there were depths of 2.4 m, at its north end, to 3 m, at its south end, alongside. This wharf is operated by the MI'K MAG Port of Bathurst. The Smurfit-Stone wharf, on the west side, has an outer face 150 m long with a least depth of 3.8 m alongside. Several towers, oil tanks and chimneys are situated at Bathurst.

#### Chart 4486

152 **Coast**. — The west shore of Nepisiguit Bay, from Youghall Point to Pointe Rochette, 8.5 miles NNW, is low. Houses are built along this shore, which is a combination of low-lying rocks and sandy beaches. A conspicuous illuminated cross, elevation 146 feet (44 m), is situated on a church at the village of Beresford, 4.4 miles NW of Youghall Point.

Chart 4920



The boat basin at Pointe Rochette (47°47'N, 65°42'W) is formed by an L-shaped

Chart 4920

4-19

**breakwater-wharf** 190 m long, and an L-end 110 m long. A **light** (1339) is shown from a skeleton tower at the outer end of the breakwater-wharf. A small breakwater extends 50 m from the western side of the basin to form an entrance 45 m wide. A **light** (1339.2) is shown from a mast having a green, white and black daymark, on the outer end of the small breakwater. Depths ranging from 0.4 to 1.7 m are found within the basin, and there is a **launching ramp** at the NW corner.

154 The illuminated cross on the church at the village of **Petit-Rocher**, population 1,966 in 2001, is **conspicuous**.

#### Chart 4486

**N** 155 An enclosed harbour is situated at the village of **Pointe-Verte**, population 1,041 in 2001, 5.2 miles NNW of Petit-Rocher. The basin is formed by an L-shaped breakwater-wharf, and an inner L-shaped wharf, with a passage between them 75 feet (23 m) wide. The basin has depths of 2 to 4 feet (0.6 to 1.2 m). A rock breakwater lies off the north side of the breakwater-wharf. A **light** (1339.8) is shown from a skeleton tower on the outer end of this breakwater. A **light** (1340) is shown from a skeleton tower on the NW corner of the inner wharf.

#### Chart 4920

156 The **Port of Belledune** is an artificial harbour operated by Belledune Port Authority. It is contained by a breakwater and three marine terminals. In 2004, 91 ships called at the port, which handled 2.15 million tonnes of bulk cargo.

157 Any ship approaching the waters of the Belledune Port Authority must follow certain guidelines before dropping anchor or mooring within this zone. Any vessel wishing to enter the waters of the Port of Belledune must provide detailed information to obtain a traffic clearance. The information includes the name of the ship, port of registry, the names of the owner, master and agent of the ship, the ship's draught, gross tonnage, a description of the goods to be loaded or unloaded, and any other information requested by the Port Authority.

158 The booklet *Port Information and Advice to Masters* is available from the Belledune Port Authority.

**159** The harbour is approached from the NE in Chaleur Bay and entered between **Belledune Point** ( $47^{\circ}54'N$ ,  $65^{\circ}51'W$ ) and the outer end of the breakwater 0.4 mile NW. A **light** (1340.1) is shown from a white structure on Belledune Point. Another **light** (1340.2) is shown from a white daymark with an orange square on the outer end of the breakwater. There are privately maintained sector **lights** within the harbour. The port maintains radio communication on VHF channels 16 and 65A - USA (156.8 and 156.275 MHz.). 160 The approach channel has a width of about 145 m and a reported depth of 11.6 m. It is recommended that fully laden bulk carriers restrict their safe arrival draft to 12.6 m and berth at high tide (dock water density is 1018 to 1025).

**Pilotage** is not compulsory but recommended. The users of shipping services at the Port of Belledune require non-Canadian vessels to use the services of a licensed pilot. The port has restrictions for docking in certain wind conditions and may require a vessel to use the services of a tug, which is available. The pilot boat meets arriving vessels between 1.5 and 2 miles NE of the breakwater. There are designated **anchorages** 1.5 and 3 miles NE of the breakwater in 27 and 33 m, in good holding ground, hard mud, but with little shelter. The prevailing winds are from the NW and the harbour offers good shelter.

162 The port is open to shipping all the year and is ice free most winters. Prevailing easterly winds bring pack ice into Chaleur Bay, making the approaches to Belledune difficult at times with heavy and rafted ice.

The NB Power coal wharf and the 163 Falconbridge wharf lie on the south side of the breakwater. The coal wharf, situated to seaward, is 307 m long, 28 m wide, and has reported depths of 14.4 to 14.8 m alongside. The Falconbridge wharf is 155 m long, 15 m wide, with a reported depth of 11.1 m alongside. A third wharf, the M.D. Young terminal wharf, lies on the south side of the harbour. It is 455 m long, 100 m wide, and has reported depths of 9.9 to 11.5 m alongside. An orange and white private mooring buoy (1.83 m by 3.05 m), equipped with a flashing yellow light is established during the open water season in position 47°54'37.5"N and 65°50'16.8"W, approximately 125 metres east of the M.D. Young terminal wharf. (Characteristics of the light: Flash 0.5 sec, Eclipse 3.5 seconds.) A light blue-coloured buoyant mooring hawser (marked with one fluorescent buoy) remains permanently attached to the release hook of the buoy while in position. It extends about 137 metres to the furthest easterly mooring bitt at the crib section 9 of the wharf apron. The buoy is used when a bow or stern extends beyond the east end of the berth, especially with winds from between NE

#### PORT DE BELLEDUNE (2005)



and SE. The wharves are serviced by road, rail (M.D. Young), conveyors and pipelines.

Water, bunker and diesel oil can be supplied by tank 164 truck. Minor repairs can be made. Belledune had a population of 1,923 in 2001.

#### Chart 4486

A conspicuous power station and two chimneys are 165 located on the shore 1.5 miles west of Belledune Point.

166 Coast. — The shoal water area bordering the coast increases in width west of Belledune Point, and extends over 1 mile from shore off the entrance to Jacquet River. The shoal water area narrows again off Black Point, and then surrounds Heron Island (48°00'N, 66°10'W).

Heron Island is wooded, moderately high, and 167 its NE coast consists of red sandstone cliffs about 40 feet (12 m) high.

There is a small fishing wharf located 0.2 mile from 168 the entrance to the Jaquet River. The wharf, which dries alongside, is situated on the west side of the river, just below the railway bridge.

169 Heron Channel, between Heron Island and the mainland, is narrow and shallow. The channel is intricate and is used only by small craft. Heron Rock, at a depth of 4 feet (1.2 m), lies in the middle of the east entrance.

170 There is an L-shaped Public wharf at the west end of West Point Island, on the south side of Heron Channel, 1.9 miles ESE of Pointe La Roche. The wharf is 248 feet (76 m) long, with an outer end 65 feet (19 m) long and a depth of 5 feet (1.5 m)

alongside. A light (1340.8) is shown from a skeleton tower on the outer end of the wharf. A causeway connects the island to the mainland. Wharf ruins extend from the shore close west of the mouth of the Benjamin River.

### Chaleur Bay — North Shore — Cap d'Espoir to Eel River

#### Chart 4485

Cap d'Espoir (48°25'N, 64°19'W) consists of 171 red sandstone cliffs about 50 feet (15 m) high, with the land behind it rising to high ridges. A narrow shoal extends SE from the cape for nearly 2 miles. Haut-fond Leander, with a depth of 15 feet (4.6 m) and on which the sea breaks in strong winds, lies about 1.5 miles offshore and is the shallowest depth on the bank. All vessels, except small crafts, should pass south of this bank.



Cap d'Espoir light (1403) is shown from a 172 white tower on the end of the cape.

### Chart 4921



173 The harbour of Sainte-Thérèse-de-Gaspé (Petite-Rivière-Est) is situated 3 miles west of Cap d'Espoir. The harbour's

entrance is protected on its south side by a breakwater and 30 m further and on its north side, by a breakwater-wharf. Two seasonal lights stand on the end of the south section of



## SAINTE-THÉRÈSE-DE-GASPÉ (2000)

the breakwater. The first light stands above the breakwater rocks (1401.5), and the second light is shown from a crib stretching northward, at the marina entrance (1401.4).

174 Inside the harbour, there are two mooring basins and a **launching ramp** for small craft. Refer to the existing chart for depths inside the harbour. A crib, with a depth of 2.1 m, is on the north side of the floating dock situated at the head of the basin. The crib is about 10 m from the outer end of the floating dock. Charted depths from dredged areas are obtained from periodic dredgings. Due to **continuous silting**, mariners should expect to find less water in some places. For the latest information on depths, it is recommended to check with the appropriate local authority.

176 **Grande-Rivière** (population of 3,888 in 2000) is a fishing centre, situated 7 miles west of Cap d'Espoir. A breakwater protects the mouth of the river which is subject to silting.

At Pointe Verte there is a fishing harbour protected by two breakwaters with a 58 m wide entrance. Seasonal lights (1399, 1399.2) are shown on the end of each breakwater. There is an L-shaped wharf, 294 m long and 75 m wide, with depths of 2.4 to 3.5 m (2017) alongside. Floating wharves and a launching ramp are situated in the north part of the basin.

**Water intakes**, with 6.4 m of water over their ends, extend close SE of the south breakwater.

Chart 4485

#### **GRANDE-RIVIÈRE** (2000)

180 **Landmarks**. — • An illuminated cross is situated about 0.8 mile NNW of Pointe Verte. • The church situated near the mouth of Grande Rivière is conspicuous.

181 A rocky **shoal** extends from the shore for 0.9 mile, 2.6 miles east of the village of **Pabos**, which is situated between Grande-Rivière and Chandler. There are two artificial **reefs**, one with a depth of 3.7 m, located on the rocky shoal  $(48^{\circ}22'N, 64^{\circ}33'W)$  and the other, with a depth of 5.8 m, 1.1 miles WNW of the first reef.

### Port de Chandler

#### Chart 4921

182 The town of **Chandler**  $(48^{\circ}21'N, 64^{\circ}40'W)$ , with a population of 9,161 in 2002, is situated 15 miles WSW of Cap d'Espoir. The town has a hospital.

183 **Landmarks**. — • The pier and the cupola of the church are conspicuous.

**N I**84 A **light** (1393) is shown from a tower on **Île Dupuis** which is surrounded by reefs. **Leading lights** (1395, 1396), in line bearing 321°, having fluorescent-orange daymarks with a black stripe, are situated on the shore, NNW of Île Dupuis. The range marks the approaches of Port de Chandler and lead between Île Dupuis and the wharf.



### MARINA DU VIEUX PORT DE CHANDLER (2000)



185 Two submerged **wrecks** lie close SE of Île Dupuis. Two **outfalls**, respectively at 91 m and 0.4 mile SW of the front range light, extend 0.1 mile from the shore.

188 There is a 458 m long crescentshaped breakwater 0.5 mile east of Île Dupuis light. A wharf in ruins, extending from the outer end of the breakwater, was closed and barricaded in 2016 for safety reasons. A **light** (1392.7) is shown from a tower on the outer end of the wharf

**Chandler**). See the Appendix for the available commodities. A private **light** (*1394*) stands on the end of the jetty and a starboard **daybeacon** (private) stands on the breakwater.

Chart 4486

191 Close west of **Pointe du Grand Pabos** and about 3 miles SW of Chandler, there is a small cove affording shelter to small crafts.

192 Landmarks. — • A conspicuous radio tower, with red lights, stands on Pointe du Grand Pabos.

#### Chart 4921

**193** At **Newport Point**, hamlet situated 1.5 miles SW of Pointe du Grand Pabos, there is a **wharf** protected by two breakwaters. A **light** *(1389)* is shown from a tower on **Pointe de Newport**, east of the harbour entrance.

194 Newport Point **leading lights** (1390, 1391) seasonal —, in line bearing 342°, are shown from fluorescent-orange daymarks with a black stripe leading into the harbour approach. The front light is on the outer end of a wharf, in the west entrance, while the rear light stands close to the inner end of the fish plant wharf. The depth on the range line is 4 m (2009). The fairway **light** and bell *buoy* "Newpo" (1388) is moored 0.5 mile SSE of the front range light.

195 The NE side of the fish plant **wharf** is 40 m long, with a depth of 4.2 m (2009); the SE side of the wharf is 64 m long and has a depth of 4.7 m (2009). Another **wharf**, protected by the west breakwater, is 149 m long and has a depth of 4 m (2009).

196 The L-shaped fisherman's **wharf**, 125 m long and 30 m wide, extends from the north shore of the harbour; there is a depth (2009) of 1.6 m alongside the outer end of the wharf. There is a crane on the wharf. A marine service centre and a storage area are situated north of this wharf.

#### Chart 4486

197 A former fishermen's harbour, no longer maintained, is in the mouth of the river, at the hamlet called **Les Îlots-de-Newport**, 1.8 miles NNE of Pointe Noire. 198 The mouth of the river is protected by breakwaters, while further upstream, wharves in disrepair fringe the banks of the river, leaving a 36 feet (11 m) wide passage. On the west bank, there is a fish processing plant, adjacent to a **wharf** which is partially filled with rocks.

199 In this harbour, the depths vary between 3 and 6 feet (0.8 and 1.8 m), but due to silting, they can be less than those charted. The NE part of this harbour, close below of the **fixed highway bridge**, has been filled with rocks. Moreover, mooring is prohibited along all the docks of the river's east bank.

**NEWPORT POINT (2000)** 



200 An **outfall**, covered by 9 feet (2.7 m) of water on its end, extends 410 feet (125 m) from the shore to the south, about 985 feet (300 m) from the harbour entrance. A rocky **shoal**, with a depth of 1 foot (0.2 m), lies 515 feet (157 m) SSE of the river entrance, and two islets lie 0.5 mile south of this entrance.

201 **Pointe au Maquereau**, 5.5 miles south of Pointe de Newport, is steep, dark and wooded, showing craggy rocks rising steeply to a height of 200 feet (61 m).

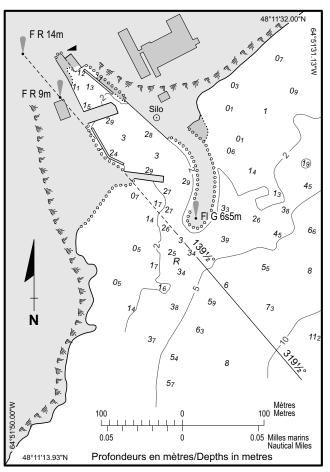
202 **Pointe Reddish**, of red limestone, sometimes appears to be an island. Close NE of the point, the mouth of the **Ruisseau Chapados** shelters the fishing harbour of **Gascons**; the narrow entrance to the harbour is protected by a wharf on the west side and by a breakwater on the east side. There are **wharves**, floating docks, a **launching ramp** and water and power outlets. (See the *Gascons* diagram.)

**Leading lights** (1382, 1382.1), in line bearing  $319\frac{1}{2}^{\circ}$ , are shown from fluorescent-orange daymarks with a black stripe in the approach of the harbour. A seasonal **light** (1383) is shown from a tower on the south end of the breakwater.

205 Due to silting in the harbour entrance, the depths can be less than those shown on the Diagram. 206 **Landmarks**. — • Two **towers**, 948 feet (289 m) in elevation and with red lights, stand 1.6 miles NNW of Pointe Reddish.

207 The mouth of Rivière de l'Anse à la Barbe is 1.2 miles west of Pointe Reddish. It shelters the fishing harbour of Gascons-Ouest. On the west part, there is a 489 feet (149 m) long **wharf** with depths (2020) between 1 and 7 feet (0.3 and 2 m). The river entrance is protected by breakwaters, 43 feet (13 m) apart.

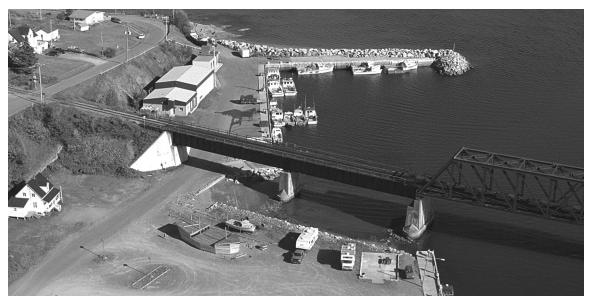
GASCONS Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 2011-2017 et par SPAC en 1986-1996 SOURCES: Surveyed by CHS in 2011-2017 and by PSPC in 1986-1996

## 4-23

#### PORT-DANIEL (2000)



#### Chart 4921

**Pointe du Sud-Ouest** (Pointe de l'Ouest). **Port-Daniel**, opened to the east, is entered between **Pointe La Vieille** and **Pointe du Sud-Ouest** (Pointe de l'Ouest). **Port-Daniel** has a population of 3,036 (2000). The bay provides good shelter from all winds, except between south and east, which cause a strong swell, and affords good **anchorage** in 10.1 m, mud. A **light** (1379) is shown from a white tower on Pointe du Sud-Ouest (48°09'N, 64°57'W).

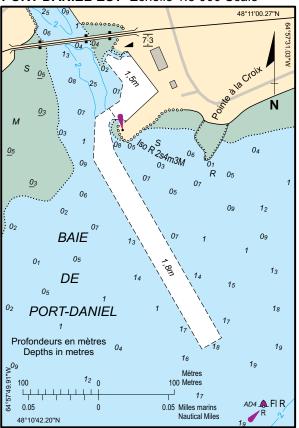
**E N 210 Rivière Port-Daniel** flows slowly into the bay's northern part, through a big **mud bank** and a drying bar. On the east side of the river mouth, at **Port-Daniel-Est**, an L-shaped breakwater **wharf** shelters a small craft basin. A seasonal **light** (1379.5) stands on the SW end of the wharf. The wharf is 126 m long; there is a **launching ramp** on the north end (see the **Port-Daniel-Est** Diagram).

**211** A fixed railway bridge, vertical clearance of 7.3 m, and a fixed highway bridge, vertical clearance of 2.0 m, cross the river mouth. Close below the highway bridge, there is an overhead cable with a vertical clearance of 7.3 m.

212 Charted depths from dredged areas shown on the diagram are obtained from periodic dredgings. Due to **continuous silting**, mariners should expect to find less water in some places. For the latest information on depths, it is recommended to check with the appropriate local authority. An **outfall** extends 244 m from the shore, at the mouth of Ruisseau Castilloux. The end of the outfall is covered by 2 m of water.

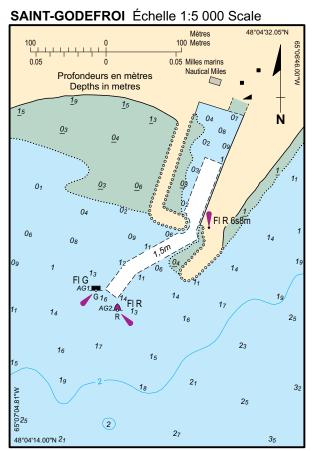
212.1 The McInnis Cement Marine Terminal in **Anse à la Loutre** extends 445 m from the shore. The

#### PORT-DANIEL-EST Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1980, 2011, 2014-2019 SOURCES: Surveyed by CHS in 1980, 2011, 2014-2019





SOURCES: Levé par le SHC en 2011-2019 et non gouvernementale en 2006

SOURCES: Surveyed by CHS in 2011-2019 and non-governmental in  $2006 \end{tabular}$ 

330 m long berthing length of the terminal is comprised of pillars connected by a catwalk with the transhipment tower situated on the central pillar. A ferrying tunnel supported by towers connects the berthing length to well illuminated facilities on shore. Depths along the terminal range between 12.2 and 14 m.

#### Chart 4486

213 **Colline de Port-Daniel**, 1.5 miles SW of Pointe du Sud-Ouest (Pointe de l'Ouest), is 400 feet (122 m) high and the highest land on the shoreline along this coast.

215 **Pointe Smith** lies 4.5 miles further to the SW. The faces of the wharf at **Shigawake**, population of 392 (2000), lying close west of the point and 269 feet (82 m) in length, are fronted by rocks and form a pier. A spur wharf, in bad condition and linked to its outer end, extends to the west.

216 The breakwater-wharf at Saint-Godefroi, population of 488 in 2000, is situated on the SW side of Pointe Trachy, 2 miles SW of Pointe Smith. There is a second breakwater, close west of the breakwater-wharf; the passage between is 14 m wide. A light (1376), shown from a tower, stands close to the end of the wharf. There is a launching ramp in the northern part of the basin (see the Saint-Godefroi Diagram).

217 Depths from the dredged areas shown on the diagram are obtained from periodic dredgings. Due to **continuous silting**, mariners should expect to find less water at some places. For the latest information on depths, it is recommended to check with the appropriate local authority.

217.1 Artificial submerged **reefs** are placed in various locations between Pointe Smith and Pointe de Paspébiac. Their purpose is to enhance the marine



## PASPÉBIAC (2000)

environment by improving the marine productivity and biodiversity.

The mouth of the two rivers is situated 1 mile SW of Pointe Trachy.

#### Chart 4921

219 **Pointe de Paspébiac**  $(48^{\circ}01'N, 65^{\circ}15'W)$  is the extremity of a triangular sand and shingle beach, which encloses a shallow, partially drying lagoon. An outlet from the lagoon, near its NE end, allows small crafts to enter at high water.

220 Starboard hand light **buoy** AP2 (1373) is moored on the SW side of the sand spit extending from the point.

Landmarks. — • Two radio towers, 125 m in elevation and marked by red lights, are situated on the **mud** flats in the lagoon.

222 There is a fishing harbour at the municipality of **Paspébiac** with a population of 3198 in 2011. The commercial fishing harbour is protected by a breakwater to the west and by a public wharf - of irregular shape - to the east. There is a breakwater at the outer end of the wharf allowing an entrance of about 90 m wide. A cathodic protection system to control corrosion is in operation on the north section of the wharf that is owned by Small Craft Harbours, Fisheries and Oceans Canada. When berthing at this wharf operating procedures must be observed to prevent damage to vessels. The south section of the wharf, owned by Transport Canada, is not equipped with a cathodic protection system. Fishermen use the floating wharves that are north of the wharf; the wharves have a total length of 112 m. There is a marina (Marina de Paspébiac) NW of the wharf. For further information on facilities see the Appendix. Inside the harbour depths range between 2.2 and 5.1 m (2016). Water, power and a **launching ramp** are available in the harbour.

223 **Lights** (1373.3, 1374), shown from towers situated on the outer ends of the public wharf and breakwater, mark the entrance to the basin.



Two water intake **pipelines** extend close east from the public wharf.

**Pointe de New Carlisle**, 3.2 miles west of Pointe de Paspébiac, is sandy and wooded. Shoal water extends some distance off the point and along the coast in a westward direction.

Landmark. — • A micro-wave tower, elevation 107 m and marked by red lights, is situated nearly 0.3 mile north of Pointe de New Carlisle.

227 The best **anchorage** in **Baie de Paspébiac** is in about 10 m, clay, 1 mile west of Pointe de Paspébiac. The shelter is good, except from winds between west and SE through south; SW winds send in a considerable swell, but the holding ground is very good.

228 A **fish farm**, which is marked by yellow cautionary **buoys**, is situated in Baie de Paspébiac; mariners should proceed with caution when navigating in this area.

#### Chart 4486

229 **Pointe Bonaventure**, 5 miles west of Pointe de New Carlisle, is a low red sandstone cliff.

231 Several perpendicular jetties have been built along the north shore of Chaleur Bay in order to prevent erosion.

Chart 4921

232 Havre de Beaubassin, 2.2 miles NW of Pointe Bonaventure, is a small craft harbour at the mouth of Rivière Bonaventure. Charted depths from





# 4-27

#### BLACK CAPE (2000)



dredged areas are obtained from periodic dredgings. Due to **continuous silting**, mariners should expect to find less water in areas up to 300 m offshore the SSW end of the breakwater. For the latest information on depths, it is recommended to check with the appropriate local authority.

**C** 233 **Leading lights** (1369, 1369, 1), in line bearing  $010^\circ$ , are shown from fluorescent-orange daymarks with a black stripe in the approach. A disused lighthouse is situated just SW of the front light.

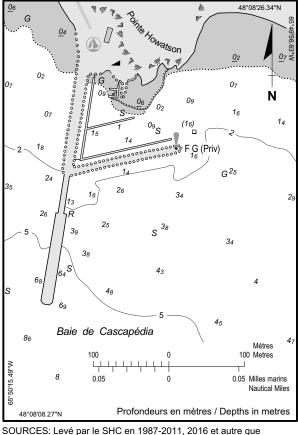
234 In the harbour, there is a 275 m long wooden wharf, a launching ramp and a marina (Marina de Bonaventure). Refer to the Appendix for marina commodities.

Chart 4486

235 **Ruisseau-Leblanc** is a community situated 8 miles WNW of Pointe Bonaventure. There is a former fishing harbour which is protected by a **breakwater** in the east part of the harbour and by a breakwater-wharf in the south part. Silting occurs in the harbour. There is a damaged launching ramp. The breakwater-wharf is in **ruins** and access is prohibited.

236 Due to **silting**, mariners should contact the local users for depth information. Mariners are advised to exercise **caution** when navigating in the area.

237 A wreck, covered by 38 feet (11.6 m) of water and used for diving purposes, lies 0.5 mile SSW of the wharf at Ruisseau-Leblanc. The diving site is marked by a private diving **buoy**. There is, in Caplan, an **outfall** extending



# NEW RICHMOND Échelle 1:5000 Scale

gouvernementale en 2002. SOURCES: Surveyed by CHS in 1987-2011, 2016 and non governmental in 2002.

about 820 feet (250 m) offshore and parallel to the east side of the rock embedded wharf.

237.1 The ruins of a former wharf, approximately 400 m east of the mouth of Rivière Caplan, extend perpendicularly from the shore for about 300 m. There may be boulders present and depths may be less than charted. **Caution** is advised.

238 At the mouth of **Rivière Caplan**, 13.4 miles WNW of Pointe Bonaventure, there is a 131 feet (40 m) long wooden wharf; its seaward end is made of rocks. Local knowledge is required to access the river channel which leads to the wharf. There is a **launching ramp**.

239 There is a wharf at New Richmond, in the vicinity of Black Cape. This 325 m long wharf on piles is situated on Pointe Howatson, 1.3 miles NW of Caps Noirs.

240 There is a **marina** (New Richmond Yacht Club), protected by a breakwater which lies perpendicular to the wharf, in a basin on the east side of

### CARLETON (2000)



the wharf. See the Appendix for the available commodities. There is also a **launching ramp**. A private **light** stands on the east end of the breakwater.

240.1 Due to **continuous silting**, mariners should expect to find less water at some places. For the latest information on depths, it is recommended to check with the appropriate local authority. A **crib**, with 1.6 m over it, lies about 20 m NE of the breakwater.

241 **Landmarks**. — • **Tanks**, conspicuous from seaward, are located north of the wharf. • A radio **tower** with red lights stands on a hill, ENE of the wharf.

#### Chart 4486



An **outfall** pipe extends 0.5 mile from the shore, 0.2 mile west of the wharf at Black Cape.

**Baie de Cascapédia** is shallow and **Rivière Cascapédia**, flowing into its head through drying mud and sand flats, can only be entered by small crafts. **Cribs** in ruins lie in the mouth of the river. A 102 feet (31 m) long floating dock, where small crafts can moor, is situated on the south side of the mouth of **Petite Rivière Cascapédia**.

244 As part of the Hortus Project, artificial submarine **reefs** have been dumped in six different areas located SW of the city of New Richmond. The goal of this dumping is to enhance the marine environment by improving productivity and marine biodiversity in the eastern part of Baie Cascapédia. 245 Les **Caps de Maria**, on the west side of Baie de Cascapédia, is a steep 143 feet (44 m) high bank. **Pointe Tracadigache** is a triangular sand bar enclosing a drying lagoon, with a sand spit extending 0.5 mile southward from the point. A private **light** (1365) is shown from a red and white tower situated on the point.

Landmarks. — • Conspicuous towers and an oratory stand on the top of Mont Saint-Joseph, 2.9 miles NNE of Pointe Tracadigache.

**Baie Tracadigache** is bordered with shoals.

248 There are several **fish farms** in Baie de Cascapédia and Baie Tracadigache. Generally, they are marked with yellow cautionary **buoys**; mariners should proceed with caution when navigating in this area. Unmarked artificial **reefs** have also been dumped close to Pointe Tracadigache.

## Port de Carleton

#### Chart 4921

247

249 The city of **Carleton-Saint-Omer**, with a population of 4,267 (2000), is situated about 1 mile north of Pointe Tracadigache. There is a hospital in the area.

250 The Carleton-sur-Mer **public wharf** is administered by *Fisheries and Oceans Canada* in partnership with the *Town of Carleton-sur-Mer*. The inside depths of the harbour are between 0.4 m on the N side and 5.2 m on the SE side (2019). There is a crib with a depth

4-29

of 4 m in the middle of the harbour. There are floating docks there. The harbour is protected at the SE by a **breakwater** and at the SW by another **breakwater** attached to the wharf. A **light** stands on the end of this breakwater. This light operates at night only. These facilities are managed by the *Harbour Authority of Carleton-sur-Mer*.

251 The basin has a marina (*Club nautique de Carleton*) and a launching ramp. Refer to the Appendix for marina commodities.

252 The *migrating bird sanctuary of Saint-Omer* (Environment Canada) is located in this area; access regulations apply.

Chart 4486

253 There is good anchorage in 30 to 40 feet (9.1 to 12.2 m), mud, 1 mile west of Pointe Tracadigache. There is also good anchorage in about 25 feet (7.6 m), mud, 3 miles west of the west end of Heron Island, and about 1.5 miles north of the mouth of **Charlo River**.

**Eel Bay** lies south of **Inch Arran Point**, the south entrance point to the **Restigouche River**. The **Eel River** flows

#### MIGUASHA (2000)

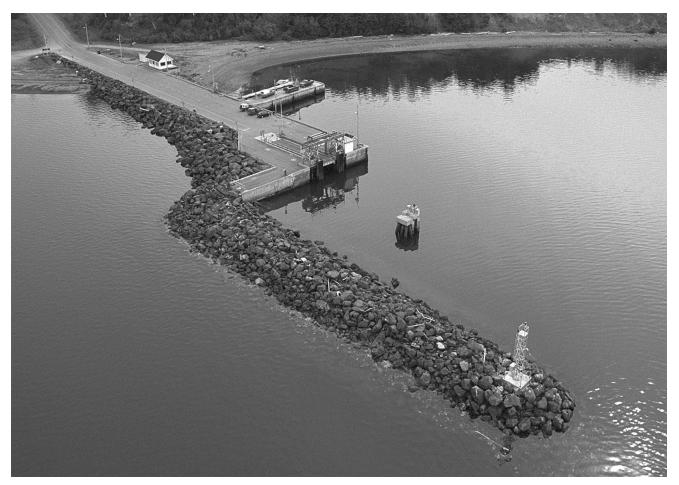
into the bay through a marshy lagoon. A sewer outfall pipeline extends into the east shore of the bay.

255 **Conspicuous objects.** — Two chimneys, elevation 564 and 292 feet (172 and 89 m), are situated on the east side of Eel Bay, 0.9 mile SW of Inch Arran Point. Several oil tanks lie close west of these chimneys. A chimney, elevation 177 feet (54 m), lies 0.4 mile west of Inch Arran Point.

### Restigouche River — Miguasha to Campbellton

#### Chart 4426

**Bonamy Rocks**  $(48^{\circ}03'N, 66^{\circ}21'W)$  extend almost 0.5 mile east of the point south of Inch Arran Point. They are steep, high and broken. **Banc de Miguasha**, of sand and



stones, extends 1 mile SW from **Pointe de Miguasha**, on the east side of the river mouth.

**Pilotage** for Restigouche River is compulsory. Masters of vessels must report via any coastal radio station their ETA to Pilots Dalhousie at least 12 hours before arrival at the pilot boarding station, which is located about 4 miles east of Inch Arran Point *(chart 4486)*.

The master of a vessel that is to depart or move within the compulsory pilotage area must report to Pilots Dalhousie 4 hours before the ETD.

**Dalhousie Harbour** is a Public Harbour. The town of **Dalhousie** had a population of 3,975 in 2001. There is a large pulp and paper plant in the town. The city of **Campbellton**, population 7,798 in 2001, is situated on the south shore of the river, 14 miles upstream from Dalhousie. **Customs** services are available at Dalhousie. Restigouche River is open to navigation all year round, however, ice may hinder navigation during the winter months. Icebreaker assistance is available if required.

260 The maximum rate of the **tidal streams** in the river mouth is about 2 knots. The river and harbours within it are subject to continuous silting, and there may be less water than shown on the chart. Dredging is carried out periodically in Dalhousie Harbour.

261 The outer **leading lights** (1343, 1343.1), in line bearing 287°, are shown at Inch Arran Point. The front light is a white tower with a red stripe, the rear light is shown from a white daymark with a red stripe.

262 The Marine Terminal at Dalhousie (East Wharf) is situated 0.7 mile NW of Inch Arran Point. It is 630 feet (192 m) long with two mooring dolphins 250 and 500 feet (76 and 152 m) east of the wharf, to allow for a berth 1115 feet (340 m) in length. In 2004, the depth alongside was 30 feet (9.1 m). The elevation of the deck of the wharf is 6 feet (1.8 m). The wharf is adapted for roll-on, roll-off operations, and is used mostly for paper shipments. **Leading lights** (1343.7, 1343.8), in line bearing 268°, are shown from white daymarks with red stripes, and lead into this wharf. A **light** (1343.6) is shown from a red and white rectangular daymark on the east end of the wharf.

Middle Ground, of sand and stones, and with a least charted depth of 2 feet (0.6 m), lies on the north side of the channel to the north the marine terminal. A light (1344) is shown on the north side of the terminal at an elevation of 74 feet (22.6 m) from a skeleton tower having a red, white and black rectangular daymark. Another light (1345) is shown from a skeleton tower, having a green, white and black daymark. The light is situated on a point of land which is located along Dalhousie Harbour, between the east and west marine terminals.

Dalhousie Public Wharf (West Wharf), 600 feet (183 m) long, lies at the west end of the harbour. Mooring dolphins allow for a berth 1,110 feet (335 m) in length. In 2004, the depth alongside was 35 feet (10.7 m). The wharf is served by railway tracks, electricity, an oil pipeline and fresh water, and is mostly used for bulk cargo. A booming ground is located between this wharf and the disused Bowater Paper Company wharf 0.3 mile to the east.

265 Dalhousie Regional Marina operates from a facility to the SW of the Public wharf. There are several floating piers. Fuel oil, diesel oil and stores can be obtained in Dalhousie.

The settlement of **Miguasha-Ouest** is situated on the north shore of Rivière Ristigouche, NNE of Dalhousie. The wharf, in ruins, is closed to navigation and berthing is prohibited; vessels are not to approach the wharf within 65.6 feet (20 m).



### L'ANSE-À-BEAUFILS (2000)

#### **PERCÉ** (2000)



267 A 262-foot (80-m) long **breakwater** shelters the former ferry docking area. There is a dolphin 49 feet (15 m) east of the breakwater.

The channel between Dalhousie and Campbellton is wide and deep for the first 5 miles, but then narrows and shoals gradually. The channel is marked by **buoys**; between **Pointe au Chêne** and Campbellton, it is no longer maintained by dredging.

270 The wharf at Campbellton is 1,450 feet (442 m) long. There is a depth of 10 feet (3 m) situated 10 feet (3 m) off the north face, 75 feet (23 m) from the east end. Minor engine and hull repairs can be undertaken in Campbellton.

271 A **fixed highway bridge** crosses the river, linking Campbellton (NB) to Pointe-à-la-Croix (QC). Only small crafts can navigate above the bridge. A **launching ramp** and floating docks are situated just above the bridge, on the north shore.

## Cap d'Espoir to Cap Gaspé

Chart 4921

272 There is a harbour at **L'Anse-à-Beaufils**, about 3 miles north of Cap d'Espoir. This harbour is made of a basin and of a **public wharf** which are protected on the south by a curved breakwater. The entrance to the harbour is situated on the NE side and is 25 m wide.

273 The channel leading into the harbour is dredged to 3 m. For the first 150 m alongside the wharf there is a depth of 2.2 m (2020), decreasing to 1.2 to 1.6 m at the extremity of the basin. In the vicinity of the floating wharves SW of the wharf, the depth is 1.5 m. 273.1 Charted depths from dredged areas are obtained from periodic dredgings. Due to **continuous silting**, mariners should expect to find less water in some places. For the latest information on depths, it is recommended to check with the appropriate local authority.

274 There is a **marina**, managed by the local Port Authority, in the basin. See the Appendix for the available commodities. A **launching ramp** is situated close of the inner wharf. A catwalk, immediately below the **fixed highway bridge**, has a vertical clearance of 4.1 m. Due to silting, the mariners should ask the local users about the available depths.

275 Artificial **reefs** are located at 0.9 and 1.4 miles north of Cap d'Espoir (48°25'N, 64°19'W), and 0.8 and 1 mile ENE of L'Anse-à-Beaufils. Mariners will avoid anchoring in this area. There are also submarine telecommunication **cables** that run between the shores of L'Anse-à-Beaufils and an area located north of L'Étang-du-Nord (at the Îles de la Madeleine). Mariners must refer to the appropriate chart to know their position and to avoid anchoring in their area.

#### Chart 4485

**Île Bonaventure**  $(48^{\circ}30'N, 64^{\circ}10'W)$  is about 450 feet (137 m) in elevation, with steep red sandstone cliffs 250 feet (76 m) high in places. Numerous seabirds nest on ledges and fissures in the cliffs. The passage between the island and the mainland is clear, but heavy swells frequently roll through it and around the island.

277 There is a **wharf**, with a radar reflector, on the WNW side of the island. The migrating bird sanctuary of *Île Bonaventure and Rocher Percé* (Environment Canada) and the *Île Bonaventure and Rocher Percé National Park* (Parcs Québec) are located in this area; access regulations apply.

#### **MAL-BAY** (2000)



**Baie de Percé**, situated NW of Île Bonaventure, is formed by **Cap Blanc** and **Rocher Percé**. Rocher Percé is noted for its vertical cliffs, 289 feet (88 m) high, for a large cleavage in its SE end and for the hole which goes through the rock.

**Percé** (population of 3,993 in 2000) has a **wharf** which extends in a SE direction. The wharf is closed to navigation and berthing is prohibited unless a Notice to Shipping is issued regarding a status change. A **light** (*1409*) is shown from a tower on the outer end of the wharf.

280 There are artificial **reefs** in the following locations: 0.3 mile north of Cap Blanc with a least depth of 6.3 m, and 0.4 mile SW of Cap Blanc with a least depth of 5.6 m. Mariners are cautioned against anchoring

near the reefs. **Récif de Percé**, with a few rocks drying 3 feet (0.9 m), extends 0.4 mile SE from the shore, at the wharf; there is also a rocky islet, 3 feet (1 m) in elevation.

281 Landmarks. — • Mont Sainte-Anne rises to an elevation of 1,230 feet (375 m), 1 mile inland from Percé.
• Several towers stand on top of the mountain.

282 La Malbaie, opened to the east, is bordered by a wide gravel and sand beach at its head, enclosing a shallow lagoon. The south shore of the bay, between Rocher Percé and a position about 1 mile NW of **Pointe des Cannes de Roches**, rises in a perpendicular cliff over 650 feet (198 m) high. The north shore is composed intermittently of low sandstone cliffs and occasional beaches.



#### L'ANSE-À-BRILLANT (2000)

An outfall pipe, 427 feet (130 m) in length and 283 covered by 4 feet (1.2 m) of water at its end, extends from Cap Barré.

Barachois is a village situated on the 284 shore, at the NW end of the bay. The entrance to the lagoon is in the north side and small crafts can pass under a fixed railway bridge, which has a vertical clearance of 24 feet (7.5 m). There is a landing pier in the lagoon with a depth of about 3 feet (0.9 m) along its 691 feet (232 m)long face.

Chart 4921

In the settlement of Mal-Bay, on the north 285 shore of La Malbaie, there is a public breakwater-wharf; floating wharves, with a total length of 170 m, are on the north side of the wharf with depths of 1.3 to 3.5 m alongside. A launching ramp is NE of the inner end of the wharf. A seasonal light (1410) is on the breakwater.

The anchorage off Mal-Bay is not 286 recommended because of frequent SE gales, preceded by fog, and usually accompanied by heavy seas.

Chart 4485

Pointe Saint-Pierre, the south entrance point 287 of Baie de Gaspé, is low, with a number of white houses on it. **Île Plate** is a low sandstone island lying 0.4 mile off Pointe Saint-Pierre (48°38'N, 64°09'W). A light (1412), shown from a tower with fluorescent-orange rectangular daymarks, stands on the island.

A depth of 13.6 m lies 1 mile SE of Cap Gaspé. 288 A shallow area with a depth of 25.3 m, situated 5 miles SE of Cap Gaspé, forms the NW part of Banc des Américains. Banc des Américains extends 10 miles to the SE where there is a depth of 13.3 m. Tide rips occur occasionally at these locations

An ODAS light buoy IML-11 (1412.5) is moored 288.1 1 mile SE of Banc des Américains.

288.2 The Bancs-des-Américains Marine Protected Area (MPA) extends from Île Bonaventure to near Cap Gaspé and eastward for more than 18 miles. The MPA includes Banc des Américains. Restrictions apply to this MPA and are described in the Banc-des-Américains MPA Regulations. For more information, please visit the Fisheries and Oceans Canada website at www.dfo-mpo.gc.ca.

## Baie de Gaspé

Baie de Gaspé extends over 17 miles and 289 Ĵ has a harbour and an excellent roadstead in its NW end. The SW shore of the bay, from Pointe Saint-Pierre to Douglastown, 12 miles up the bay, presents a succession of precipitous headlands with cliffs rising to a height of 150 feet (46 m).

290 Meteorological observations for Gaspé are made at the airport and don't always apply to the conditions prevailing in the Baie de Gaspé.

 $\langle \rangle$ 

291

Anse à Brillant, 7.5 miles NW of Pointe Saint-Pierre, shelters a fishing harbour

and a fish processing plant. The harbour is fringed by two wooden wharves with an overall length of 890 feet (270 m). The access to these wharves, of which some are in ruins, is prohibited.

The 39-foot (12-m) wide entrance of the fishing 292 harbour has depths (2020) of 4 feet (1.2 m). Two breakwaters, which extend in a NE direction, form the entrance. Then, the first 262 feet (80 m) within the harbour, there are depths (2020) of 2 to 6 feet (0.6 to 1.8 m). Depths in the harbour are subject to change due to continuous silting.

Anse à Brillant leading lights (1414, 1415), in 293 line bearing 205°, are shown from fluorescent-orange daymarks with a black stripe in the outer approach. A starboard light **buoy** "BR2" (1413.1) is moored 0.5 mile from the shore, NNE of the fishing harbour.



GASPÉ (POINTE DE SANDY BEACH) (2000)

## PORT DE GASPÉ (2000)



294 The **roadstead** off Douglastown is extensive and offers **anchorages** in depths of 35 to 60 feet (11 to 18 m), sand and clay bottom. SE winds send in a heavy swell, but shelter is good in other winds.

294.1 A **fish farming area**, defined by cautionary yellow **buoys**, is situated 1.4 miles SE of Cap Haldimand and 1 mile north of the anchorage.

295 The area of **Douglastown**, joined to the city of Gaspé, is situated on the south side of the mouth of **Rivière Saint-Jean**. A narrow channel leads under the **fixed railway bridge** which crosses the mouth of the river.

**Cap Gaspé**, the north entrance point of Baie de Gaspé, is a limestone headland at the extremity of the narrow peninsula of **Presqu'île de Forillon**. Cliffs rise to a height of 600 feet (183 m) on the NE side of the peninsula. Cap Gaspé dips to the SW and the cliffs are lower on this side.

297 A rocky area extends the south end of Cap Gaspé, in a SE direction. A **shoal**, with a depth of 45 feet (13.6 m), is situated 1 mile SE of Cap Gaspé. There is also an extensive rocky **shoal**, with a depth of 85 feet (26 m), 5 miles SE of Cap Gaspé and forming the NW part of Banc des Américains. **Tide rips** occur at times.

298 Presqu'île de Forillon is part of Forillon National Park of Canada. Regulations apply both to the access and to the use of the premises. For more information, see the summary in the Appendix or contact the Forillon National Park of Canada at 122 boulevard Gaspé, Gaspé, QC, G4X 1A9, tel.: 418 368-5505.

**\** 

299 Cap Gaspé **light** (1426) is shown from a white tower on the south end of the cape ( $48^{\circ}45'N$ ,  $64^{\circ}10'W$ ).

300 The NE shore of Baie de Gaspé is steep-to and free of detached shoals as far as Rocher Seal, 7 miles NW of Cap Gaspé.



302 At Grande-Grave (Grande-Grève),3.6 miles NW of Cap Gaspé, there is a small

harbour with a **wharf** protected by breakwaters. A **light** (1421) is shown from a tower on the outer end of the wharf.

303 There are depths between 3 and 8 feet (1 and 2.6 m) in the inner harbour (1993). There is a **launch-ing ramp**. Local knowledge is required because there may be **shoals** in the entrance **channel** and along the wharf. These premises are operated by Parks Canada; for regulations, contact the authorities.

304 **Landmark**. — A **tower** with red lights stands on a hill, 2.8 miles NNW of Grande-Grave.

**Solution** 305 **Gros cap aux Os** is situated 7.6 miles NW of Cap Gaspé. A **light** (1420.5) is shown from a tower on the cape. **Rocher Seal**, with 4 feet (1.2 m) of water over it, lies 0.8 mile ESE of the cape. A **wreck** lies 0.2 mile SE of the cape.

## Port de Gaspé

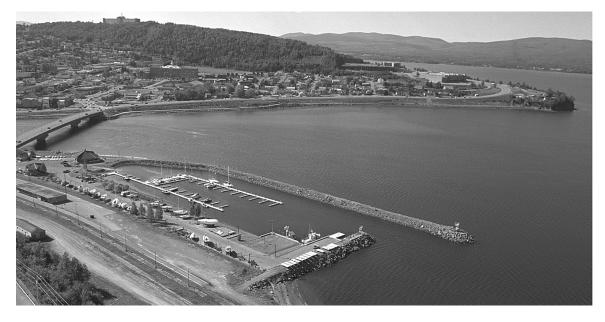
#### Chart 4416

**Havre de Gaspé** is located west of the natural breakwater formed by **Pointe de Sandy Beach**, low and linked to Barre de Sandy Beach by a drying flat. The harbour is about 4.5 miles long for an average width of 1 mile, with mud bottom covered by 11 to 20 m of water; the harbour is a safe roadstead.

307 The NW and SW basins are extensions of the harbour. Ice forms around December 15<sup>th</sup> in the harbour. **Pilotage** is not compulsory in **Port de Gaspé**.

308 Other Fish farms, with yellow cautionary **buoys** and lateral **buoys**, lie year round in the NW basin.

MARINA DE GASPÉ (2000)



**Note:** 309 There is a narrow passage leading through shoals extending from Pointe de Sandy Beach and those situated east of **Pointe de Penouille**; the passage is 0.3 mile wide. The **leading lights** (1419.6, 1419.7), in line bearing  $307\frac{1}{2}^{\circ}$  and fluorescent-orange daymarks with a black stripe, stand on the low **Presqu'île de Penouille**. The rear light has a **racon** (— — •). This alignment leads through the middle of the passage; at the end of this passage, an important change of course is necessary.

in the narrow passage and in the inner harbour, as they are influenced by local winds and of the flow of the upstream streams.

311 The **Port de Gaspé** is situated on the south side of the harbour, near the hamlet of **Sandy Beach**, and is operated by the *Société portuaire du Bas-Saint-Laurent et de la Gaspésie*; the harbour master has an office on site, telephone: 418-368-6679 or 418-360-5123 (24/7). The port is open all year; *Canadian Coast Guard* icebreakers ensure access during the winter. The wharf is 231 m long and 34 m wide. For the depths, refer to the charts. The wharf is 2.1 m high. Water and fuel are also available.

312 **Landmarks**. — • There are many oil **tanks** in the vicinity of the wharf.

313 A cathodic protection system is installed on the public wharf at Sandy Beach. For further information on the guidelines to follow, mariners should contact the Harbour master at: 418 368-6679. 314 West of the public wharf, there is an **outfall** pipe extending 142 m from the shore. The end of this outfall is covered by 10.6 m of water.

315 South of the public wharf, there are ruins of a slipway and an abandoned **pipeline** joining the wharf to shore. There is a **shipyard** (*Chantier naval Forillon*) at about 200 m south of the public wharf. This shipyard has an 800 t capacity slipway with a 200 t transfer system and a shop.

316 **Banc de Lourdes** is an area of shoal water extending nearly 0.5 mile NW of **Pointe de Lourdes**. **Bassin du Sud-Ouest** is entered between Pointe de Lourdes and **Pointe Jacques-Cartier**. A **fixed highway bridge**, vertical clearance 6.1 m, crosses the narrows at the entrance of the basin. Two abandoned **submarine cables** cross the narrows close above the bridge.

317 Bassin du Sud-Ouest extends 1.2 miles upstream the fixed bridge. There are depths of 5 to 15 m, mud bottom. A **submarine pipeline** is laid across Bassin du Sud-Ouest, about 0.9 mile SW of the bridge.

318 The city of **Gaspé** had a population of 16,517 in 2000. The airport offers scheduled flights and the city has a hospital. West of the bridge, there is a **wharf** in ruins. A **marina** (*Marina de Gaspé*), protected by breakwaters, is located on the south shore, close east of the bridge. An 81 m long floating dock, belonging to the marina, is situated close of the inner end of the north breakwater. Refer to the Appendix for the available services.

319 Privately maintained **lights** (1417.4, 1417.5) are shown from towers on the outer end of each breakwater.

320 **Remark**. — Please refer to the booklet ATL 110 — Cap Whittle/Cap Gaspé to Les Escoumins and Anticosti Island for the description of the Gulf of St. Lawrence above Cap Gaspé.

# Sail Plan

Adapted from Transport Canada Publication TP 511E.

Fill out a sail 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 sail plan. Forgetting to do so can result in an unwarranted search for you.

Sail Plan	
Owner Information	
Name:	
Address:	
	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: MMSI (Maritime Mobile Service Identity) N	
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N	Number:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour):	Number:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type):	Number:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type):	Jumber:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type): Other Safety Equipment: <b>Trip Details — Update These Det</b>	Jumber:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type): Other Safety Equipment: <b>Trip Details — Update These Det</b> Date of Departure:	Jumber:
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: <b>Safety Equipment on Board</b> Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type): Other Safety Equipment: <b>Trip Details — Update These Det</b> Date of Departure:	Jumber:     Dinghy or Small Boat   (include colour):
Radio Channels Monitored: MMSI (Maritime Mobile Service Identity) N Satellite or Cellular Telephone Number: Safety Equipment on Board Lifejackets and PFD's <i>(include number)</i> : Liferafts (include type and colour): Flares (include number and type): Other Safety Equipment: Trip Details — Update These Det Date of Departure: Leaving From: Proposed Route:	Jumber:     Dinghy or Small Boat   (include colour):

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) <u>mrscqbc@dfo-mpo.gc.ca</u> (Email)

### JRCC Halifax (Maritimes Region) 1-800-565-1582 +1-902-427-8200 (Satellite, Local or out of area)

+1-902-427-8200 (Satellite, Local of 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 Sail Plan Service**

Marine Communications and Traffic Services Centres provide a sail plan processing and alerting service. Mariners are encouraged to file Sail Plans with a responsible person. In circumstances where this is not possible, Sail Plans may be filed with any MCTS Centre by telephone or marine radio only. Should a vessel on a Sail 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*.

## **Guidelines For Navigation Under The Confederation Bridge**

## MARINE SAFETY TRANSPORT CANADA ATLANTIC REGION 01 DECEMBER 2003

## Table of Contents

- 1.0 Introduction
- 2.0 Short Title
- 3.0 Definitions
- 4.0 Application
- 5.0 General Guidelines for All Vessels
- 6.0 Navigation Guidelines for Vessels Over 1,500 GRT
- 7.0 Navigation Guidelines for Vessels 1,500 GRT and Under Transiting the Near Shore Navigation Channels
- 8.0 Temporary Instructions and Prohibitions
- Annex

## **1.0 Introduction**

1.1 The Confederation Bridge (the Bridge) provides a road transportation link between Canada's mainland and the island province of Prince Edward Island pursuant to the **Prince Edward Island Terms of Union**. The Northumberland Strait (the Strait) is a navigable body of water and the Bridge was built in accordance with permits issued pursuant to provisions of the **Navigable Waters Protection Act**, which preserves the navigation rights of vessels that have traditionally used these waters.

1.2 Vessels of over 1,500 Gross Register Tonnage (GRT) are required to utilize the central navigation channel. Local vessels, 1,500 GRT and under, that are engaged in local traffic, may utilize the designated "near shore" navigation channels located on either side of the Strait.

1.3 The Bridge has been designed to meet a government prescribed Safety Index of 4.25 - this is also known as the Beta (b) factor. The Safety Index is affected by the frequency, speed and displacement of the vessels that use the Strait.

1.4 The central navigation channel, as defined in 3.1, is a *compulsory pilotage zone* pursuant to regulations made under the Pilotage Act. These regulations became effective on 1 October 1997. Pilotage is compulsory for all foreign vessels and for all Canadian vessels over 1,500 GRT, as defined in the Atlantic Pilotage Authority Regulations.

1.5 The Northumberland Strait is a body of water that is subject to seasonal ice conditions and, because of the presence of the Bridge, vessels are not able to utilize the "shore leads" within ten miles on each side of the Bridge and must use the designated central navigation channel. In order to protect both the ship and the pier from damage due to allisions, the transiting vessel will require icebreaker support for the transit under the Bridge and ten (10) nautical miles each side. In order to avoid dangerous situations developing, Transport Canada (TC) and the Department of Fisheries and Oceans through the Canadian Coast Guard (CCG) may declare the Northumberland Strait an active ice control zone and, when conditions warrant, prohibit entry of vessels into the Strait pending the arrival of an icebreaker escort.

1.6 Traffic in the Northumberland Strait in the area of the Bridge is regulated by the Vessel Traffic Services Zones Regulations.

1.7 When the Strait is declared an active ice zone and ice is present in the navigation channel the transiting vessel must be escorted by a suitably sized icebreaker.

1.8 Any inquiries or comments on these guidelines should be addressed to:

Regional Director, Marine Transport Canada Atlantic Region 45 Alderney Drive PO Box 1013 Dartmouth, N.S. B2Y 4K2

Telephone: (902) 426-2060 Fax: (902) 426-6092

## 2.0 Short Title

These guidelines may be cited by the short title "The Confederation Bridge Navigation Guidelines".

## 3.0 Definitions

3.1 For the purpose of these Guidelines:

"Central navigation channel" is located between pier P21 located at position 46<sup>0</sup> 12' 38.99" N, 63<sup>0</sup> 45' 04.02" W and pier P22 located at position 46<sup>0</sup> 12' 32.85" N, 63<sup>0</sup> 45' 11.62" W. These piers are identified on each side by fairway buoys, RACONs, daybeacons, red and green pier lights, centre span lights and sector lights. Details can be found in Annex 1 of these Guidelines, CCG publication *List of Lights, Buoys and Fog Signals* and on Canadian chart number 4406.

3.2 "Local traffic" and "local vessels" make reference to any vessels under 1,500 GRT operating from ports located in the Northumberland Strait Area.

## 4.0 Application

4.1 The Confederation Bridge Navigation Guidelines apply to all vessels intending to transit under the bridge or navigating in its proximity.

4.2 These guidelines are not intended to replace any applicable regulations pursuant to the Canada Shipping Act. However, they are intended to bridge the gap and provide specific recommendations promoting increased safety of shipping and protection of life, property and the marine environment.

4.2 The effective date for implementation of the guidelines is 1 December 2003

## 5.0 General Guidelines for All Vessels

5.1 No vessel should transit the Bridge in inclement weather or ice conditions, which prejudice its navigability to such an extent that it is unable to fully control and maintain its course, speed, and directional stability during the transit.

5.2 No vessel should transit the Bridge in conditions of reduced visibility of less than ten (10) vessel lengths.

5.3 No person should navigate or operate any vessel in a manner that is dangerous to any person, property, that vessel, or any other vessel, having regard to all circumstances, including nature and condition of the waters being navigated, and use that is or might reasonably be expected to be made in those waters.

5.4 Navigation may be prohibited or limited for periods when the Strait is declared to be an active ice control zone by TC/CCG. All vessels seeking transit under the Bridge when ice is present in Northumberland Strait must check with CCG Ice Operations by contacting Northumberland Traffic or Ecareg Canada.

5.5 When the Strait is declared an active ice control zone and ice is present in the navigation channel the vessel must be escorted by a suitably sized icebreaker for the transit under the bridge and for ten (10) nautical miles each side.

5.6 No vessel over 500 GRT, solely propelled by sail, should transit the Bridge.

5.7 All vessels should comply with the Vessel Traffic Services Zones Regulations.

5.8 All vessels of 20 metres or more in length should maintain a continuous listening watch on channel 16 and channel 12 VHF between East Point and West Point, Prince Edward Island.

5.9 In addition to the reports made pursuant to the Vessel Traffic Services Zones Regulations, vessels subject to the regulations should, when intending to proceed within five (5) nautical miles of the Bridge, also report to Northumberland Traffic:

- ETA fairway buoy.

- Draft, displacement in tons, air draft and name of local agent if not registered in Canada.

- When the vessel has an accident or a malfunction of its machinery, equipment or a deficiency in its crewing that may impair its safe navigation.

- Where an obstruction or other hazard is identified in the navigation channel.

- In the case of a towing vessel, where the towing vessel is having or anticipating difficulty in controlling its tow.

5.10 Towing vessels:

Should not drop anchor or anchor its tows in such a manner that they may swing across the central navigation channel.

Should not, when engaged in arranging its tow, obstruct the navigation of other vessels.

Should shorten its towing arrangement to the shortest extent possible without compromising safety. When the towline exceeds 75 metres a suitably sized tug should be secured to the stern of the last vessel being towed.

## 6.0 Navigation Guidelines for Vessels Over 1,500 GRT

6.1 The navigation route for vessels over 1,500 GRT transiting the Confederation Bridge is through the central navigation channel.

6.2 Vessels should approach and follow the course line extending between the two Strait Crossing fairway buoys (private) light list numbers *1017.7* and *1017.75.* 

6.3 The waters five (5) nautical miles either side of the Bridge are designated as an area of alternating one way traffic for vessels having a tonnage in excess of 1,500 GRT. Except in emergencies or if required during ice breaking operations no such vessel should overtake another such vessel, meet such another vessel, "come about" or anchor within one quarter (1/4) mile either side of the centerline of the central navigation channel.

6.4 Restrictions for vessels transiting the central navigation channel:

6.4.1 Maximum Displacement

Passenger vessels: 33,500 long tons Cargo vessels: 47,000 long tons

6.4.2 Maximum Speed

Passenger vessels: 11 knots over the ground within two (2) nautical miles of the Bridge

Cargo vessels: 8 knots over the ground within two (2) nautical miles of the Bridge

The speed of a vessel transiting may be increased:

when the bow is under the span and the vessel is on track, or

when circumstances demand, in order to maintain steerage of the vessel to keep it on track

6.4.3 Maximum air draft (higher high water, large tides): 48 metres

# 7.0 Navigation Guidelines for Vessels 1,500 GRT and Under – Transiting the Near Shore Navigation Channels

7.1 Local vessels 1,500 GRT and under, that are engaged in local traffic, may utilize the designated "near shore" navigation channels located on either side of the Strait.

7.2 The near shore navigation channels are designated between piers P3 and P4, P4 and P5, P42 and P43, P43 and P44. Piers are located as follows:

P3) 46<sup>0</sup> 14' 33.29" N, 63<sup>0</sup> 42' 53.76" W P4) 46<sup>0</sup> 14' 26.92" N, 63<sup>0</sup> 43' 00.96" W P5) 46<sup>0</sup> 14' 20.55" N, 63<sup>0</sup> 43' 08.16" W

P42) 46<sup>0</sup> 10' 36.07" N, 63<sup>0</sup> 47' 53.11" W P43) 46<sup>0</sup> 10' 30.16" N, 63<sup>0</sup> 48' 01.09" W P44) 46<sup>0</sup> 10' 24.23" N, 63<sup>0</sup> 48' 09.02" W

7.3 Restriction for vessels transiting the near shore channels:

7.3.1 Maximum Speed over ground: 11 knots

7.3.2 Maximum air draft (higher high water, large tides): 28 metres

## 8.0 Temporary Instructions and Prohibitions

8.1 Notwithstanding anything in these Guidelines where, in the opinion of the Regional Director, Marine, compliance would be impossible, impracticable or unsafe, or would cause a risk of pollution because of route obstructions, a casualty, an accident on the bridge, the weather, ice conditions, water levels, or other unforeseen or temporary circumstances, the Regional Director, Marine may instruct vessels to proceed in a certain manner or by a certain route, or to anchor in a certain place or prohibit vessels from proceeding or anchoring.

8.2 Special requests to transit under the Confederation Bridge by vessels not conforming to these guidelines must be submitted in writing to the Regional Director, Marine at least thirty (30) days before the planned transit. This submission must contain the following:

- Name of vessel
- IMO number
- Displacement tonnage
- Maximum air draught
- Maximum breadth
- · Maximum draught
- Name of local agent if not registered in Canada

The Regional Director, Marine may require additional information and/or arrangements before transit is permitted.

# **APPENDICES**

# **Metric Conversion Table**

metres	feet	fathoms
0.1		
0.2		
0.3	1	
0.4		
0.5	2	
0.6 0.7	2	
0.7		
0.9	3	
1.0	3.28	
1.1		
1.2	4	
1.3		
1.4		
1.5	5	
1.6		
1.7	0	1
1.8	6	1
1.9 2.0		
2.0	7	
2.1	1	
2.3		
2.4	8	
2.5	-	
2.6		
2.7	9	
2.8		
2.9		
3.0	10	
3.1		
3.2		
3.3 3.4	11	
3.4		
3.6		
3.7	12	2
3.8		
3.9		
4.0	13	
4.1		
4.2		
4.3	14	
4.4 4.5		
4.5	15	
4.0	15	
4.8		
4.9	16	
5.0	.0	

metres	feet	fathoms
5.1		
5.2	17	
5.3		
5.4		
5.5	18	3
5.6		
5.7		
5.8	19	
5.9		
6.0		
6.1	20	
6.4	21	
6.7	22	
7.0	23	
7.3	24	4
7.6	25	
7.9	26	
8.2	27	
8.5	28	
8.8	29	
9.1	30	5
9.8	32	
10.4	34	-
11.0	36	6
11.6	38	
12.2	40	
13.4	44	0
14.6	48	8
15.8	52 50	
17.1	56	10
18.3	60	10
21.3 24.4	70 80	
24.4	90	15
36.6	120	20
45.7	120	20 25
<b>50</b>	<b>164</b>	25
55	180	30
64	210	35
73	240	40
91	300	50
100	328	00
110	360	75
150	492	82
183	600	100
200	656	
250	820	
274	900	150
366	1200	200
549	1800	300

# SEARCH AND RESCUE

In eastern Canada, **Search and Rescue (SAR)** operations are conducted from the **Joint Rescue Coordination Centre** at Halifax (**JRCC Halifax**). The Canadian Forces and the Canadian Coast Guard maintain a continuous watch at JRCC Halifax with all agencies involved in Search and Rescue operations. JRCC Halifax has direct communication with the United States Rescue Centres in Boston and Norfolk, and functions with these centres to provide Search and Rescue coverage to the entire eastern seaboard of North America.

A Marine Rescue Sub-Centre (MRSC) is located in Québec City. The Centre initiates the necessary response measure during SAR incidents in their surrounding waters.

All distress situations and requests for assistance should be directed to JRCC Halifax via the nearest Canadian Coast Guard Marine Communications and Traffic Services Centre (MCTS) or by any other available means.

All Canadian Government ships and aircraft are available for Search and Rescue duties when required, as are all Canadian registered ships in accordance with the Canada Shipping Act.

In the Gulf of St. Lawrence, the Canadian Coast Guard operates **lifeboat stations** at Souris and Summerside, Prince Edward Island, and Shippagan, New Brunswick.

The **Canadian Coast Guard Auxiliary** is a volunteer organization of fishermen and recreational boaters that assists in SAR operations, and also in the promotion of boating safety. Members display a Coast Guard Auxiliary pennant from their vessels.

When necessary, **SAR Helicopters** and **Fixed Wing Aircraft** are deployed to assist in SAR operations. These are capable of dropping inflatable liferafts, survival equipment and pumps, and helicopters are equipped with a rescue hoist and can deploy rescue specialist personnel and metal stretchers for evacuation operations.

When a helicopter is deployed, all instructions from JRCC Halifax and/or the pilot should be carefully obeyed. SAR helicopters have effectively carried out airlift rescues in winds of up to 60 knots. A surface visibility of at least  $\frac{1}{2}$  mile is required to conduct an effective search by helicopter, and 1 mile by fixed wing aircraft.

When evacuation of personnel by helicopter is planned, prepare a suitable hoisting area, preferably aft, with a minimum radius of 15 m if possible. Booms, flagstaffs, stays, running rigging, antenna wires, etc., must be removed and stowed. At night, light the pick-up area, but shade the lights so as not to blind the pilot. When the helicopter arrive, turn the vessel 30 – 40 degrees to the right of the wind (wind on the port bow) and maintain a slow speed forward. Allow the basket or stretcher from the helicopter to touch the deck before handling to avoid static shock. Do not secure any line from the helicopter to your vessel. Attempt to contact the aircraft on channel 16 VHF (156.8 MHz), 2182 kHz, or on channel 9 GRS (citizen's band).

**AMVER** (the Automated Mutual Vessel Rescue System is operated by the United States Coast Guard. It is an international program which provides important aid to SAR efforts in offshore areas of the world. On the east coast of Canada, merchant vessels that wish to report to AMVER may address their message to **AMVER HALIFAX** through any Canadian Coast Guard Marine Communications and Traffic Services Centre (MCTS) free of charge.

It is wise for small craft operators to prepare a **sailing plan** before starting on a trip and to leave it with a responsible adult, or to advise any Canadian Coast Guard Marine Communications and Traffic Services Centre (MCTS). A checking-in procedure by telephone or radiotelephone for each point specifically identified in the plan is highly recommended. This could prevent a needless alert that could initiate a comprehensive air and marine search.

#### **Meteorological Data for**

CHARLOTTETOWN.	PRINCE	EDWARD	ISLAND -	- 46° 17'N, 63° 08'W
CHARLOT IETO WIN,	INNUL	ED WARD	ISLAND -	- +0 1/ 11,05 00 11

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	YEAR
Temperature														
Daily Maximum Temperature	°C	-3.0	-3.2	0.6	6.2	13.4	19.4	23.0	22.3	17.9	12.0	6.2	-0.2	9.6
Daily Minimum Temperature	°C	-11.2	-11.6	-6.8	-1.6	3.6	9.5	13.7	13.3	9.1	4.2	-0.5	-7.6	1.2
Average Daily Temperature	°C	-7.1	-7.5	-3.1	2.3	8.5	14.5	18.3	17.8	13.5	8.1	2.9	-3.9	5.4
Extreme Maximum Temperature	°C	11.7	13.3	16.1	22.2	31.2	32.2	33.9	34.4	29.4	23.3	18.9	16.7	34.4
Extreme Minimum Temperature	°C	-27.8	-27.8	-23.9	-12.2	-6.7	-1.1	4.4	4.4	-0.6	-6.7	-14.9	-28.1	-28.1
Precipitation														
Total	mm	116.8	97.4	95.3	81.8	83.6	79.9	84.3	88.1	86.3	106.4	120.5	129.0	1169.4
Maximum in 24 hours	mm	74.4	53.1	44.2	58.7	53.3	53.3	70.0	76.7	56.1	106.4	52.3	57.2	106.4
Days with														
Rain		7	4	6	10	14	12	12	12	12	14	13	8	124
Snow		15	13	12	6	1	0	0	0	0	1	5	15	68
Precipitation		18	15	16	13	14	12	12	12	12	14	16	20	174
Fog		4	3	6	5	5	4	4	3	2	4	3	4	47
Thunder		0	0	0	0	0	1	2	2	0	0	0	0	5
Mean Sea Level Pressure	kPa	101.1	101.1	101.1	101.2	101.4	101.3	101.3	101.4	101.6	101.5	101.4	101.2	101.3
Relative Humidity	кга %	82	80	81	78	75	77	79	79	79	80	83	84	80
5														
Cloud Amount Scale	0-10	7.4	6.8	6.7	6.9	6.8	6.7	6.1	6.4	5.8	6.4	7.8	7.5	6.8
Wind														
% of Observations from	N	11.1	11.8	17.3	18.8	16.3	11.8	8.9	9.6	12.1	12.1	10.4	10.2	12.5
	NE	8.2	8.7	11.1	11.7	9.4	8.6	6.1	6.0	7.0	7.9	7.5	6.1	8.1
	Е	7.4	7.8	7.6	7.9	7.5	6.1	4.7	4.4	4.6	5.7	6.9	6.1	6.3
	SE	5.9	6.6	6.1	7.8	8.2	7.1	5.9	5.1	5.1	5.6	7.2	6.4	6.4
	S	8.3	8.4	9.8	10.9	15.4	17.0	19.1	13.9	12.7	11.3	11.0	8.9	12.0
	SW	12	12.0	11.2	12.7	17.8	26.3	30.0	27.6	22.8	19.2	13.0	12.6	18.0
	W	32	28.7	19.2	15.3	13.6	15.1	17.6	21.6	21.6	25.4	28.7	32.8	22.6
	NW	14.4	14.5	14.5	12.2	8.8	5.4	6.0	7.7	10.5	10.9	12.3	13.8	10.9
	Calm	2.6	3.3	3.2	2.7	2.9	2.6	3.7	4.1	3.6	2.9	3.0	3.1	3.1
Mean Wind Speed	knots	11.9	11.2	11.7	10.7	10.2	9.7	8.7	8.6	9.3	10.3	11.0	11.6	10.4
Maximum Gust Speed	knots	77	71	70	65	63	52	70	47	65	96	63	74	96
	Île	du Cap a	ux Mei	ules, Qu	iébec —	– 47° 23	3'N, 61°	52'W						
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Temperature														
Daily Maximum Temperature	°C	-3.0	-4.2	-1.2	2.9	8.9	15.0	19.5	19.6	15.6	10.2	5.2	-0.1	7.4
Daily Minimum Temperature	°C	-8.6	-10.3	-6.7	-1.9	2.6	8.2	13.5	14.1	10.2	5.0	0.4	-5.2	1.8
Average Daily Temperature	°C	-5.8	-7.3	-4.0	0.5	5.8	11.6	16.5	16.9	12.9	7.6	2.8	-2.7	4.6
Extreme Maximum Temperature	°C	8.9	7.8	10.6	16.7	25.0	28.9	31.1	30.6	28.3	20.0	16.1	10.6	31.1
Extreme Minimum Temperature	°C	-25.5	-27.2	-26.1	-12.8	-6.1	0.0	5.0	3.9	1.1	-5.6	-12.8	-24.4	-27.2
Precipitation														
Total	mm	88.5	67.5	70.7	65.1	63.2	56.4	62.9	78.9	71.1	84.3	98.0	100.3	907.5
Maximum in 24 hours	mm	60.7	43.9	97.5	42.9	48.3	59.2	62.0	76.2	97.3	60.4	54.1	68.8	97.5
Days with														
Rain		6	4	5	8	12	10	10	11	11	13	12	7	109
Snow		15	12	11	6	12	0	0	0	0	13	4	13	63
		13	12	15		12	10	10	11	11	14	4 15	15	162
Precipitation		4			12	12	9	7	4	3	14 4	15	4	
Fog Thundar		4	3 0	6 0	8 0	0	· · ·	2	4	3 0	4	5	4	68
Thunder Maan San Lawal Prossure	kPa	100.9	101.0	101.0	101.2	101.3	1 101.3	101.3	101.3	101.5	101.4	101.2	101.0	5 101.2
Mean Sea Level Pressure	67a 0/	100.9	101.0	101.0	101.2	101.5	101.5	101.5	101.5 91	101.5	101.4	02	101.0	02

Relative Humidity Cloud Amount Scale

% of Observations from

Mean Wind Speed

Maximum Gust Speed

Wind

% 0-10

Ν

Е

SE

S SW

W

NW

Calm

knots

knots

NE

83

8.7

11.5

5.0

4.9

6.3

8.9 13.2 27.3

22.3

0.6

19.8

68

84

7.8

12.6

6.7 5.5 6.7

9.1

12.4 25.0

21.5

0.4

18.0

70

86

7.1

13.5

6.3

6.7 7.9

12.9 12.2 17.3

21.5 0.5

18.3

68

83

6.9

10.4

5.1

9.0

9.6

22.6 18.8 13.8

10.4

0.3

14.7

60

86 7.2

14.4

7.1

10.9

11.2

11.6

9.9 14.8

19.5

0.5

15.9

57

83 7.1

13.9

7.0

11.0

11.4

17.3 11.5 13.7

16.5

0.6

15.1

58

84

6.5

6.6 2.5

4.8

10.1

24.4 23.4

16.5

11.3

0.6

13.8

82

81

6.4

9.5

5.1

5.9

8.9

16.8

21.6 17.7

14.8 0.7

13.9

52

80

6.3

12.5

6.1

5.3 5.7 14.4

18.3 19.2

18.1

0.4

15.4

57

80

7.0

13.4

4.5 5.5 7.5

12.4 15.9 21.0

20.1

0.7

17.6

65

83

8.6

12.8

7.1

6.1

7.3

10.9

11.9 22.3

21.0

0.6

18.7

68

84

9.0

12.8

6.9

5.7

8.7

8.5 11.4 23.6

21.8

0.6

20.4

79

83

7.4

12.0

5.8 6.7. 8.3

14.2

15.0 19.4

18.1

0.5

16.8

82

## Distances from Charlottetown, Prince Edward Island, to:

		Via Cabot Strait	Via Strait of Canso
Baltimore, Maryland (U.S.A.)			1,142
Belledune, New Brunswick	221		,
Bristol (England)			2,428
Boston, Massachusetts (U.S.A.)			617
Canso Canal (Strait of Canso, Nova Scotia)	101		
Cape Town (South Africa)			6,529
Cherbourg (France)			2,494
Colon (Panama)			2,503
Dalhousie, New Brunswick			241
Digby, Nova Scotia			511
Gaspé, Québec	217		
Gibralter			2,669
Grassy Bay (Bermuda)			935
Havana (Cuba)			1,834
Halifax, Nova Scotia			266
Jacksonville, Florida (U.S.A.)			1,470
Key West, Florida (U.S.A)			1,788
Kingston (Jamaica)			2,003
Lewisporte, Newfoundland	649		
Lisbon (Portugal)			2,421
Liverpool (England)			2,461
Liverpool, Nova Scotia			0 7 4 0
London (England)	700		2,710
Montréal, Québec	708		4 504
Nassau (Bahamas)			1,581
New London, Connecticut (U.S.A.)			697
Newport, Rhode Island (U.S.A.)			622
New York, New York (U.S.A.)			824
Philadelphia, Pennsylvania (U.S.A.)	50		973
Pictou, Nova Scotia	59		677
Portland, Maine (U.S.A.)	570		577
Québec, Québec	570 404		
Rimouski, Québec			
St. George's Harbour, Newfoundland	269		E00
Saint John, New Brunswick St. John's, Newfoundland		537	528
Saint-Pierre (Saint-Pierre and Miquelon, France)		338	
San Juan (Puerto Rico)		330	1,761
Savannah, Georgia (U.S.A.)			1,384
Southampton (England)			2,529
Sydney, Nova Scotia		216	2,529
Yarmouth, Nova Scotia		210	414
ramouth, nova ocolia			414

All distances are in nautical miles and by the most direct route unless otherwise noted.

# Distances from Dalhousie, New Brunswick, to:

		Via Cabot Strait	Via Strait of Canso
Boston, Massachusetts (U.S.A.)			799
Bristol (England) (via Strait of Belle Isle)	2,444		
Charleston, South Carolina (U.S.A.)	,		1,490
Charlottetown, Prince Edward Island	241		
Cherbourg (France)		2,597	
Colon (Panama)	2,685		
Digby, Nova Scotia			693
Gaspé, Québec	131		
Gibralter		2,773	
Grassy Bay (Bermuda)			1,117
Havana (Cuba)	2,016		
Halifax, Nova Scotia			448
Jacksonville, Florida (U.S.A.)			1,652
Key West, Florida (U.S.A)			1,955
Kingston (Jamaica)	2,185		
Lewisporte, Newfoundland (via Strait of Belle Isle)	651		
Lisbon (Portugal)		2,529	
Liverpool (England)		2,564	
London (England)		2,813	
Montréal, Québec	611		
Nassau (Bahamas)	070		1,763
New London, Connecticut (U.S.A.)	879		
Newport, Rhode Island (U.S.A.)	844		
New York, New York (U.S.A.)	1,006		
Philadelphia, Pennsylvania (U.S.A.)	1,155		
Pictou, Nova Scotia	278		
Ponta Delgada (Azores)	1,874		750
Portland, Maine (U.S.A.)			759
Port Hawkesbury, Nova Scotia	0.400		286
Port of Spain (Trinidad)	2,402		
Rimouski, Québec St. George's Harbour, Newfoundland	318 320		
Sint John, New Brunswick	320		710
St. John's, Newfoundland		631	710
Saint-Pierre (Saint-Pierre and Miquelon, France)		431	
San Juan (Puerto Rico)		431	1,943
Savannah, Georgia (U.S.A.)			1,566
Southampton (England)		2,632	1,500
Sydney, Nova Scotia		323	
Yarmouth, Nova Scotia		525	618
			010

All distances are in nautical miles and by the most direct route unless otherwise noted.

#### Table of marina facilities

|--|

|--|

CHAPTER 2																		
Club nautique de Cap-aux-Meules Cap-aux-Meules	418-986-6950	75	10		•		G/D	•		•	•	•	•	T/S	•		68	•
Club nautique Les Plaisanciers du Havre Havre-Aubert	418-937-5283	65	15	•			G/D	•		•	•	•	•	T/S	•		68	•
Club nautique du Chenal Havre-aux-Maisons	418-969-2615	90	10				Del.	•		•	•	•	•	T/S				•
Marina L'Étang-du-Nord L'Étang-du-Nord	418-986-2922	50	6	•				•		•	•	•	•	т				•
CHAPTER 4																		
Marina de Bonaventure Bonaventure	418-534-2222	60	15					•		•	•	•	•	T/S	•			•
Club nautique de Carleton Carleton	418-364-7663	50	10	•				•	•	•	•	•	•	T/S				•
Marina du Vieux-Port de Chandler Chandler	418-689-2444	48	10				G/D	•			•	•	•	T/S	•			•
Marina de Gaspé Gaspé	418-368-1288	100	40		•	•	G/D	•	•	•	•	•	•	T/S	•	•	68	•
L'Anse-à-Beaufils (Port Authority)	418-783-2470	30	10	•			G/D		•		•	•	•	T/S	•			•
Club nautique de New Richmond New Richmond	418-392-6881	28	2					•				•	•	T/S	•			•
Marina de Paspébiac Paspébiac	418-752-3400	25	15									•	•				68	•
Information has been supplied by the marina operator.				G D	Gas Diese			N P	Naph Propa			M H	Mech Hull	nanic		T S	Toilet Showe	ər

Del. Delivered

# **Forillon National Park**

# Information on the use of harbours and wharves

The Forillon National Park has two harbours, a wharf and a floating dock. The harbour at Cap-des-Rosiers-Est is located on the north side of Péninsule de la Gaspésie. The harbour at Grande-Grève and the wharf at Anse-aux-Sauvages are situated in Baie de Gaspé.

Boaters have access to the wharf at Anse-aux-Sauvages at all times and for unlimited duration. However, the wharf is very small, with little protection.

On the other hand, they can use the wharves at Grande-Grève and Cap-des-Rosiers-Est with a berthing permit, which is available on site. Fresh water is available and the facilities are illuminated at night. There is a public telephone at Grande-Grève.

During the summer season, from mid-June to Labor Day, visitors can obtain additional information at the reception areas or by telephone at (418) 368-5505.

# **Summary of Regulations**

It is prohibited to:

- Feed the animals;
- Have camp fires on the beach;
- Hunt, trap or harrass wildlife;
- Fish in fresh waters;
- Have firearms in your possession;
- Pick, mutilate or destroy flora or other natural components;
- To litter;
- Use a personal watercraft within the limits of the park.

Domestic animals are to be kept on a leash.

Permits are required for camping within the limits of the park.

Enquire when the diving is permitted.

Other regulations are posted on notice boards throughout the park.

# **Gulf of St. Lawrence Protection of the North Atlantic Right Whales**

Due to the changing migratory habits of North Atlantic right whales and their increasing presence in the Gulf of St. Lawrence, the *Government of Canada* has implemented seasonal speed restrictions in certain defined areas. These restrictions consist of a combination of a static zone and dynamic areas of speed reduction.

These measures will be in effect on a seasonal basis and subject to change. Refer to the complete Notice in Notices to Mariners, Section 1, for exact periods of implementation of these measures. After the lifting of the mandatory speed limits, vessels are encouraged to voluntarily reduce their speed over the ground so as not to exceed 10.0 knots when the presence of North Atlantic right whales is confirmed and in so far as maritime conditions permit the safe operation of their vessel at this speed.

### **Static Protected Area**

Within this **static zone** a ground speed restriction will be imposed for vessels 20 m or longer to a maximum of 10 knots when travelling in the western Gulf of St. Lawrence. The speed restriction zone may be changed as the whales migrate through the area. See the complete Notice in Notices to Mariners, Section 1, for the coordinates of the static zone.

#### Temporary speed restriction in shipping lanes

Within these **dynamic areas**, vessels may operate at a safe operating speed for as long as the *Government* of *Canada* has not confirmed the presence of whales in these areas. When right whales are spotted in one of these dynamic areas, vessels of 20 m or more in length will receive a Notice to Shipping (NOTSHIP) and will have to reduce their ground speed to 10.0 knots or less as they navigate the sector in question. Refer to the complete Notice in Notices to Mariners, Section 1 for dynamic zones coordinates.

Speed restrictions in dynamic areas will be in effect for a period of 15 days from the date of application. This period can be extended if the presence of whales continues. The implementation of the zones and speed reduction areas will be announced through the NOTSHP broadcasts.

# **NOTSHIP Broadcasts**

The *Canadian Coast Guard (CCG)* continues to promulgate valid NOTSHIPs through radio broadcasts on various terrestrial systems and also online at http://www.ccg-gcc.gc.ca/navigating-hub. Mariners must ensure that they have the correct and up-to-date information on the protection of North Atlantic right whales in all Notices to Mariners (NOTMAR) and NOTSHIPs.

### Aids to navigation

In addition, CCG is testing the use of virtual AIS aids to navigation (AIS AtoN), NOTMAR 819(T)/2016 refers, which will notify automatically a mariner of a dynamic sector that is subject to a speed reduction. Each dynamic sector will be delimited by four virtual AIS AtoN which will be displayed on ship's navigation equipment such as: ECDIS, ECS, RADAR, Minimum Keyboard Display, Electronic Nautical Charts. The virtual aids AIS AtoN will be broadcasted only when speed reduction is in effect in one or more sector. The mariner is required to select the virtual AIS AtoN symbol to view a message such as: SectA1 Spd Lim 10 kt. This message refers to a speed reduction in effect for a specific sector. As this system continues to be in the testing phase, it is not the primary means of communicating with the mariner.

### Conformity and application of the law

Failure to comply with mandatory speed restrictions could lead to enforcement action and subject to fines ranging from CAN\$6,000 to CAN\$25,000. If vessels appear to have violated the speed restriction, *Transport Canada Marine Safety* Inspectors will review all information provided through AIS and seek information from the master.

Exemptions to the speed restrictions will not be granted in advance; however, factors such as navigation to ensure vessel safety, weather conditions, and responding to emergencies, will be reviewed and considered.

# To report whales in distress

Mariners are requested to report all observations of entangled, dead, or injured whales to the nearest *CCG Marine Communication and Traffic Services* Centre; or as follows:

For the southern Gulf of St. Lawrence region: Marine Animal Response Society at 1-866-567-6277 For Newfoundland and Labrador: Whale Release and Strandings at 1-888-895-3003 For the Quebec sector: Marine Mammal Emergencies at 1-877-722-5346

Sightings of live, free-swimming whales should be reported by phone to 1-902-440-8611 or 1-844-800-8568 or by email: XMARWHALESIGHTINGS@DFO.

Abegweit Passage, C3/P1 Abercrombie Point, C3/P44 Aboiteau, L', C3/P213 Aggermore Rock, C3/P100 Alberton, C1/P223 Alberton Harbour, C1/P216 Alright, Cap, C2/P45 Alright, Récif, C2/P47 Américains, Banc des, C4/P288 Amet Island, C3/P65 Amet Island Shoals, C3/P65 Amet Sound, C3/P64 Annandale, C1/P120 Anse-Bleue, C4/P140 Antigonish, C1/P83 Antigonish Harbour, C1/P81 Arisaig Point, C3/P12 Aubert, Havre, C2/P75 Aulds Cove, C1/P54 Aylesbury, Cape, C1/P203 Bacon Cove, C3/P135 Baie-Sainte-Anne, C4/P16 Baileys Brook, C3/P14 Ballantynes Cove, C1/P87 Ballast Ground, C3/P84 Banks Point, C1/P120 Barachois, C4/P284 Barachois Harbour, C3/P71 Barrio Head, C1/P72 Barrios Beach, C1/P73 Bas-Cap-Pelé, C3/P211 Bas-Caraquet, C4/P125 Basin Head, C1/P96 Basin Head Harbour, C1/P97 Basse, Pointe, C2/P50 Bassin, Le, C2/P88 Bathurst, C4/P144 Bathurst Harbour, C4/P144 Battery Point, C3/P143 Bay du Vin Harbour, C4/P28 Bay du Vin Island, C4/P27 Bay du Vin River, C4/P30 Bayfield, C1/P78 Bayshore, C4/P74 Beach Point, C1/P153 Bear, Cape, C1/P155 Bear Reef. C1/P157 Beaubassin, Havre de, C4/P232 Beaubassin, Pointe de, C4/P232 Beaubears Island, C4/P61 Bedeque Bay, C3/P168 Belledune, Port of, C4/P156 Belledune Point, C4/P159 Belle River, C3/P119 Bell Point, C3/P118 Bell Point Reef, C3/P118 Bells Point, C3/P162 Benjamin River, C4/P170 Bentinck Cove, C1/P210 Beresford, C4/P152 Bergeman Point, C3/P86 Bernache, Pointe à, C4/P111 Betts Point, C3/P80 Bideford, C1/P213 Biglow Point, C3/P87 Big Merigomish Island, C3/P15 Big Tracadie River, C4/P75

Billhook Island, C1/P203 Billhook Point, C1/P131 Birch Point, C3/P156 Birch Point, C4/P89 Black Cape, C4/P239 Black Point (Baie des Chaleurs), C4/P166 Black Point (Île Lamèque), C4/P99 Black Point (Little Harbour), C3/P20 Black Point (Malpeque Bay), C1/P211 Black Point (St. Georges Bay), C1/P36 Black Point (Victoria Harbour), C3/P154 Black River, C4/P31 Blanc, Cap, C4/P278 Blockhouse Point, C3/P142 Blue, Cape, C1/P72 Blue Sea Corner, C3/P74 Bonamy Rocks, C4/P256 Bonaventure, Île, C4/P276 Bonaventure, Pointe, C4/P229 Bonaventure, Rivière, C4/P232 Borden Point, C3/P163 Borden-Carleton, C3/P163 Botsford, C3/P206 Boucher, Havre, C1/P68 Boughton Bay, C1/P119 Boughton Island, C1/P123 Boughton Ledge, C1/P123 Boughton Point, C1/P123 Boughton River, C1/P119 Bouleaux, Pointe aux, C3/P214 Bowman Bank, C1/P76 Bowman Head, C1/P76 Brae River, C3/P194 Breens Pond, C1/P70 Brideau, Pointe à, C4/P134 Brighton Beach, C3/P139 Brillant, Anse à, C4/P291 Brion, Île, C2/P115 Brocklesby Head, C3/P156 Brudenell Islet, C1/P140 Brudenell Point, C1/P140 Brudenell River, C1/P128 Brule Harbour, C3/P69 Brule Shoals, C3/P70 Buctouche, C3/P238 Buctouche, Baie de, C3/P241 Buctouche, Dune de, C3/P235 Buctouche Harbour, C3/P238 Buctouche Outer Bar, C3/P233 Buctouche River, C3/P235 Buctouche River, C3/P242 Buctouche Road, C3/P235 Burial Point, C1/P209 Burnt Church, C4/P68 Burnt Church Point, C4/P67 Burnt Point, C1/P128 **C**abane, Anse à la, C2/P92 Caissie, Cap de, C3/P226 Cameron Island, C3/P128 Cameron Point, C3/P159 Campbell Point, C1/P56 Campbell Point, C3/P42 Campbellton, C4/P259 Canceaux Point, C3/P143 Cannes de Roches, Pointe des, C4/P282

Canoe Cove, C3/P154

Canoe Gully, C3/P191

Canso, Strait of, C1/P37

Canso Canal, C1/P37 Canso Causeway, C1/P37 Canso Causeway, C1/P47 Cap-aux-Meules, C2/P60 Cap aux Meules, Île du, C2/P58 Cap-de-Cocagne, C3/P230 Cap-de-Saint-Louis, C3/P260 Caplan, Rivière, C4/P238 Cap Pelé, C3/P211 Captain Island, C1/P82 Caraquet, C4/P125 Caraquet, Baie de, C4/P125 Caraquet Channel, C4/P129 Caraquet Harbour, C4/P125 Caraquet Island, C4/P125 Caraquet Shoal, C4/P129 Cardigan, C1/P129 Cardigan Bay, C1/P124 Cardigan Point, C1/P128 Cardigan River, C1/P128 Cardigan Shoal, C1/P131 Caribou, C3/P57 Caribou Channel, C3/P55 Caribou Harbour, C3/P55 Caribou Island, C3/P54 Caribou West Gully, C3/P58 Carleton-Saint-Omer, C4/P249 Carron Point, C4/P144 Cascapédia, Baie de, C4/P243 Cascapédia, Petite Rivière, C4/P243 Cascapédia, Rivière, C4/P243 Cascumpeque Bay, C1/P216 Cascumpeque Point, C1/P216 Caveau Point, C1/P12 Caveau Shoals, C1/P9 Chaleur Bay, C4/P93 Chambers Point, C3/P71 Chance Harbour, C3/P21 Chandler, C4/P182 Chapados, Ruisseau, C4/P202 Chapel Point (Boughton River), C1/P121 Chapel Point (Pugwash Harbour), C3/P96 Charlo River, C4/P253 Charlottetown, C3/P136 Chatham, C4/P46 Chedabucto Bay, C1/P39 Chenal, Île du, C2/P34 Chêne, Pointe du, C3/P217 Chêne Bank, C3/P220 Chéticamp Harbour, C1/P11 Chéticamp Island, C1/P10 Cheval Blanc, Récifs du, C2/P104 Chockpish, Rivière, C3/P245 Christie Point, C3/P38 Clark, Haut-fond, C2/P24 Coal Point, C3/P15 Cocagne Harbour, C3/P228 Cocagne Island, C3/P228 Cocagne River, C3/P229 Coldspring Head, C3/P100 Cole Point, C3/P25 Cole Reef, C3/P25 Colombines, Les, C2/P25 Colville Bay, C1/P98 Confederation Bridge, C3/P5 Conway Cove, C1/P215 Conway Inlet, C1/P214 Cormierville, C3/P234 Cormorandière, La, C2/P81

Corps-Mort, Le, C2/P96 Côte d'Or, C3/P231 Creignish, C1/P55 Cribbean Head, C1/P86 Cribbons Point, C1/P86 Crossman Point, C3/P237

Dalhousie, C4/P259 Dalhousie Harbour, C4/P259 Darnley Basin, C1/P209 Dauphin, Cap du, C2/P109 Dean Shoal, C1/P62 Delorey Island, C1/P73 Demoiselles, Les, C2/P71 Dixon Point, C3/P241 Domhnull Ruadhs Head, C1/P67 Douglastown (Gaspé), C4/P295 Douglastown (Miramichi), C4/P56 Doyle, Récif, C2/P21 Dulse Rocks, C3/P16 Dune-du-Sud, C2/P44 Dunk River, C3/P184 Dunn Beach, C1/P81 Dunn Point, C3/P11 Dupuis, Île, C4/P184 Durell Point, C1/P116

Eastern Peak, C3/P65 East Point, C1/P89 East Point, C1/P170 East River, C3/P44 Échouerie, Pointe de l', C2/P68 Eel Bay, C4/P254 Eel River (Miramichi Bay), C4/P17 Eel River (Restigouche River), C4/P254 Église, Pointe de l', C3/P257 Egmont, Cape, C3/P187 Egmont Bank, C3/P188 Egmont Bay, C3/P189 Ellis River, C1/P211 Emerson Point, C1/P56 Enmore River, C3/P193 Enragée Point, C1/P10 Entrée, Île d', C2/P81 Escuminac, C4/P14 Escuminac, Point, C4/P12 Escuminac Reef, C4/P12 Espoir, Cap d', C4/P171 Est, Île de l', C2/P17 Est, Pointe de l', C2/P18 Étang du Nord, Anse de l', C2/P100

Fatima, C2/P56 Ferry Point, C1/P129 Fidèle, Cap à, C2/P100 Fifteen Point, C3/P186 Finlay Point, C1/P32 Fisherman Channel, C4/P130 Fisherman Ledge, C4/P130 Fishermans Bank, C1/P167 Fisherv Point, C1/P59 Fishing Cove, C3/P190 Fishing Point, C3/P84 Fitzroy Rock, C3/P131 Flat River, C3/P121 Fond Georges, Le, C2/P95 Forillon, Presqu'île de, C4/P296 Fort Monckton Point, C3/P103 Fortune Bay, C1/P113

Fortune Bridge, C1/P113 Fortune River, C1/P112 Fox Dens Beach, C4/P87 Fox Dens Gully, C4/P87 Fox Harbour, C3/P82 Fox Island, C4/P19 Foxley River, C1/P224 Fox Point, C3/P87 French Fort Cove, C4/P57 Frenchmans Barn, C3/P11 French River (Merigomish Harbour), C3/P17 French River (Miramichi Bay), C4/P18 Gardiner, Point, C4/P28 Gardiner Spit, C4/P28 Gascons, C4/P202 Gaspé, C4/P318 Gaspé, Baie de, C4/P289 Gaspé, Cap, C4/P296 Gaspé, Havre de, C4/P306 Gaspé, Port de, C4/P307 Gaspereau River, C3/P103 George, Cape, C1/P36 George, Cape, C3/P9 Georgetown, C1/P138 Georgetown Harbour, C1/P128 Glawson, Récif, C2/P110 Goélands, Île aux, C2/P99 Goodwin, Banc, C2/P27 Goodwood River, C1/P213 Gordon Point, C1/P224 Governors Island, C3/P131 Governors Shoal, C3/P131 Graham Ledge, C1/P149 Graham Pond, C1/P150 Grand Dune Flats, C4/P24 Grand Dune Island, C4/P26 Grande-Anse, C4/P141 Grande Digue Bank, C3/P226 Grande-Entrée, C2/P29 Grande Entrée, Chenal de la, C2/P34 Grande Entrée, Havre de la, C2/P28 Grande Entrée, Île de la, C2/P22 Grande Entrée, Pointe de la, C2/P38 Grande-Grave, C4/P302 Grande-Rivière, C4/P176 Grand Étang, C1/P23 Grand Étang Harbour, C1/P22 Grand Pabos, Pointe du, C4/P191 Grant Beach, C4/P37 Grave Point, C1/P146 Greek River, C1/P165 Green Point, C1/P31 Gridley, Cap, C2/P73 Grindstone Point, C4/P142 Gros Cap, Le (on Île du Cap aux Meules), C2/P69 Gros Cap, Le (on Île du Havre Aubert), C2/P92 Gros Cap, Pierre du, C2/P105 Grosse Île, La, C2/P109 Grosse-Île-Nord, C2/P112 Gull Point, C3/P54 Gunning Point, C3/P205

Haldimand River, C3/P191 Hardwicke, C4/P18 Hardwood Point, C3/P19

Hardys Channel, C1/P214 Harper Point, C4/P102 Haszard Point, C3/P138 Havre-Aubert, C2/P76 Havre Aubert, Île du, C2/P70 Havre aux Maisons, Île du, C2/P43 Havre aux Maisons, Lagune du, C2/P55 Havre Boucher, C1/P69 Heart Shoal, C3/P101 Heffernan Point, C1/P55 Henry Island, C1/P59 Herbe, Pointe d', C4/P132 Heron Channel, C4/P169 Heron Island, C4/P167 Heron Rock, C4/P169 Hillsborough Bay, C3/P125 Hillsborough River, C3/P136 Holman Island, C3/P184 Hood, Port, C1/P61 Hôpital, Cap de l', C2/P106 Horse Shoe Bar, C4/P24 Horton Bank, C3/P81 Howards Cove, C3/P200 Howatson, Pointe, C4/P239 Howe Bay, C1/P116 Howe Point, C1/P116 Huckleberry Gully, C4/P15 Huckleberry Island, C4/P15 Hunter River, C1/P196 lots-de-Newport, Les, C4/P197 Inch Arran Point, C4/P254 Indian Island, C3/P250 Indian Point, C3/P100 Indian Rocks, C3/P116 Indian Spit, C3/P171 Inkerman, C4/P79 Inman Reef, C3/P155 Inman Rock, C3/P155 Inverness, C1/P29 Inverness Harbour, C1/P29 Irvings Cape, C1/P153 Jack, Cape, C1/P70 Jack Shoal, C1/P71 Jacques-Cartier, Pointe, C4/P316 Jaquet River, C4/P168 Jérôme, Pointe à, C3/P241 Jerome Ledge, C1/P9 John, Cape, C3/P64 John, River, C3/P68 John Bay, C3/P68 Jollimore Reef, C3/P71 Jourimain, Cape, C3/P203 Jourimain Island, C3/P203 Jourimain Rocks, C3/P204 Jourimain Shoal, C3/P205 Judique Bank, C1/P56 Judique Shoals, C1/P56 Judique South, C1/P57 Kate Point, C1/P58 Kildare, Cape, C1/P225 Kings Head, C3/P16 Knight Point, C1/P99 Knoll Shoal, C1/P132 Kouchibouguac Bay, C3/P261 Kouchibouguacis River, C3/P259

Kouchibouguac River, C3/P214 Kouchibouguac River, C3/P261

Lamèque, Baie de, C4/P120 Lamèque, Île, C4/P85 L'Anse-à-Beaufils, C4/P272 L'Anse-à-la-Cabane, C2/P93 Launching Pond, C1/P122 Laurent Shoal, C3/P100 Lazy Bay, C3/P79 Leander, Haut-fond, C4/P171 Leggett Shoal, C4/P40 Lennox Channel, C1/P212 Lennox Island, C1/P212 Leslie, C2/P112 L'Étang-du-Nord, C2/P100 Lewis Head, C3/P84 Lewis Reef, C3/P84 Lighthouse Beach, C3/P26 L'Île-d'Entrée, C2/P84 Linwood Harbour, C1/P72 Little Channel, C1/P215 Little Gully, C3/P261 Little Harbour, C3/P20 Little Judique Harbour, C1/P67 Little Shemogue Harbour, C3/P208 Little Tracadie Harbour, C1/P72 Livingstone Bay, C1/P128 Livingstone Cove, C3/P10 Logans Point, C3/P24 Long Point, C1/P55 Loups, Île aux, C2/P107 Lourdes, Banc de, C4/P316 Lourdes, Pointe de, C4/P316 Lowdens Beach, C3/P26 Lower Montague, C1/P141 Lower Neguac, C4/P65 Lump, The, C4/P19

Mabou, C1/P33 Mabou, Cape, C1/P31 Mabou Harbour, C1/P33 Mabou River, C1/P33 MacCallums Point, C3/P170 Macdonald Reef, C3/P25 MacDonalds Cove, C3/P62 Macfarlane Point, C3/P78 Machons Point. C1/P161 Mackenzie Head, C3/P23 Mackenzie Point, C3/P82 Mackenzie Shoal, C3/P23 MacPhee Shoal, C1/P129 Madeleine, Îles de la, C2/P1 Mahoney Beach, C1/P81 Maisonnette, Pointe de, C4/P125 Maisons, Havre aux, C2/P53 Maitland Flat, C1/P129 Malagash Point, C3/P67 Malagash Wharf, C3/P74 Malbaie, La, C4/P282 Mal-Bay, C4/P285 Malignant Cove, C3/P11 Malpeque Bay, C1/P203 Malpeque Harbour, C1/P204 Maquereau, Pointe au, C4/P201 Marcelle, Pointe à, C4/P109 Margaree Harbour, C1/P24 Margaree Island, C1/P27 Margaree River, C1/P24

Margaulx, Rocher aux, C2/P120 Maria, Caps de, C4/P245 Marsh Point, C1/P28 Maryville, C1/P58 McAuley Wharf, C3/P124 McDonald Point, C3/P184 McEacherns Point, C4/P72 McIsaac Pond, C1/P29 McIsaac Rock, C1/P85 McNabs Bay, C3/P73 Medea Rock, C3/P220 Merigomish, C3/P17 Merigomish Harbour, C3/P16 Merigomish Point, C3/P16 Meules, Cap aux, C2/P58 Middle Caraquet, C4/P136 Middle Ground, C4/P32 Middle Ground, C4/P263 Middle Grounds, C3/P54 Middleground Shoal, C3/P71 Middle Head, C1/P73 Middle Island, C4/P42 Middle River, C4/P144 Miguasha, Banc de, C4/P256 Miguasha, Pointe de, C4/P256 Miguasha-Ouest, C4/P266 Millbank, C4/P45 Millerand, C2/P93 Miller Brook, C4/P143 Milne Bank, C1/P92 Miminegash Pond, C3/P201 Miminegash Reef, C3/P201 Mink River, C1/P165 Miramichi Bar, C4/P1 Miramichi Bay, C4/P1 Miramichi Inner Bay, C4/P1 Miscou Banks, C4/P92 Miscou Channel, C4/P100 Miscouche Bank, C3/P168 Miscouche Point, C3/P168 Miscou Flat, C4/P98 Miscou Gully, C4/P88 Miscou Harbour, C4/P100 Moine-Qui-Prie, Cap le, C2/P45 Monk Head, C1/P80 Montague, C1/P142 Montague River, C1/P128 Moodie Point, C3/P38 Moody Point, C4/P34 Moores Point, C3/P193 Mounette, Pointe à, C2/P55 Munroes Island, C3/P55 Murphy Pond, C1/P66 Murray Corner, C3/P207 Murray Harbour, C1/P153 Murrav Harbour, C1/P161 Murray Head, C1/P154 Murray River, C1/P164 Napan Bay, C4/P35

Napan Bay, C4/P35 Narrows, The, C1/P214 Naufrage Harbour, C1/P173 Neguac, C4/P66 Neguac Bay, C4/P63 Neguac Beach, C4/P63 Nepisiguit Bay, C4/P143 Nepisiguit River, C4/P144 New Carlisle, Pointe de, C4/P225 Newcastle, C4/P57 New Glasgow, C3/P48 New London, C1/P200 New London Bay, C1/P197 Newport, Pointe de, C4/P193 Newport Point, C4/P193 New Richmond, C4/P239 Noddy, Cap, C2/P117 Noirs, Les Caps, C4/P239 Nord-Est, Cap, C2/P17 North Cape, C1/P228 North Cape Reef, C1/P228 North Lake, C1/P171 North Patch, C3/P233 Northport (Alberton Harbour), C1/P218 Northport (Shinimicas River), C3/P99 North Richibucto Dune, C3/P249 North River, C3/P136 North Rustico, C1/P196 North Rustico Harbour, C1/P195 Northumberland Strait, C3/P1 Northwest Branch, C3/P257 Northwest Miramichi River, C4/P61 Northwest Miscou Point, C4/P91 Norway Point, C3/P47

Oak Channel, C4/P24 Oak Channel, C4/P32 Oak Island Bar, C3/P77 Oak Point, C4/P32 Ogdens Pond, C1/P84 Oiseaux, Rocher aux, C2/P120 Oiseaux, Rochers aux, C2/P119 Old-Harry, C2/P23 Old-Harry, Pointe, C2/P22 Orby Head, C1/P190 Orwell Bay, C3/P128 Orwell River, C3/P128 Os, Gros cap aux, C4/P305 Ouest, Étang du, C2/P98 Outer Bar, C4/P21 Oxley Point, C3/P93 Oyster Point, C1/P212

**P**abos, C4/P181 Page Point, C3/P90 Palmer Inlet, C1/P214 Palmer Point, C3/P79 Panmure Head, C1/P124 Panmure Island, C1/P124 Panmure Ledge, C1/P125 Panmure Spit, C1/P131 Paspébiac, C4/P222 Paspébiac, Baie de, C4/P227 Paspébiac, Pointe de, C4/P219 Passe, La, C2/P87 Pauls Bluff, C3/P160 Peinture, Pointe à, C4/P110 Pelé, Cap, C3/P211 Pelées, Buttes, C2/P43 Peninsula Point, C3/P71 Penny Point, C1/P158 Penouille, Pointe de, C4/P309 Penouille, Presqu'île de, C4/P309 Percé, C4/P279 Percé, Baie de, C4/P278 Percé, Récif de, C4/P280 Percé, Rocher, C4/P278 Percival River, C3/P193 Perle, La, C2/P48

Petit-Cap, C3/P210 Petite-Lamèque, Baie de, C4/P119 Petite-Lamèque, Pointe de, C4/P108 Petite-Rivière-de-l'Île, C4/P104 Petite-Rivière-Est, C4/P173 Petit-Pokemouche Gully, C4/P80 Petit-Rocher, C4/P154 Phare, Cap du, C2/P103 Philip, River, C3/P84 Philip, River, C3/P97 Philip Bar, C3/P97 Pictou, C3/P28 Pictou Banks, C3/P50 Pictou Harbour, C3/P26 Pictou Island, C3/P50 Pictou Landing, C3/P37 Pictou Road, C3/P24 Pinette, C3/P124 Pinette Point, C3/P122 Pinette River, C3/P122 Pinette Shoals, C3/P122 Plaisance, Baie de, C2/P72 Plate, Île, C4/P287 Pleasant Bay, C1/P5 Pointe, La (Chéticamp Island), C1/P19 Pointe-du-Chêne, C3/P223 Pointe-Sapin, C3/P264 Pointe-Verte, C4/P155 Pokemouche, Baie de, C4/P79 Pokemouche Gully, C4/P79 Pokemouche River, C4/P79 Pokesudie Island, C4/P109 Pokesudie Shoal, C4/P129 Pomquet Harbour, C1/P79 Pomquet Island, C1/P77 Pomquet Point, C1/P77 Pomquet Road, C1/P77 Pond Point, C3/P123 Portage Gully, C4/P64 Portage Island, C4/P23 Portage Island Channel, C4/P20 Port Borden, C3/P163 Port-Daniel, C4/P208 Port-Daniel, Baie de, C4/P208 Port-Daniel, Colline de, C4/P213 Port-Daniel, Rivière, C4/P210 Port-Daniel-Est, C4/P210 Port Elgin, C3/P103 Port Hood, C1/P63 Port Hood Island, C1/P60 Port Philip, C3/P98 Poverty Beach, C1/P153 Pownal Bay, C3/P130 Preston Beach, C4/P15 Prim Point, C3/P125 Prim Reefs, C3/P127 Profitts Point, C1/P203 Pruche, Pointe de, C3/P258 Pugwash, C3/P93 Pugwash Bar, C3/P88 Pugwash Harbour, C3/P90 Pugwash Point, C3/P83 Pugwash Reef, C3/P84 Pugwash River, C3/P84 Pugwash Road, C3/P84

Reddish, Pointe, C4/P202 Red Head (Canoe Gully), C3/P191 Red Head (St. Peters Bay), C1/P179

Red Point, C1/P98 Reef Point, C3/P68 Renards, Pointe aux, C3/P230 Restigouche River, C4/P254 Rice Point, C3/P133 Richard, Pointe à, C2/P56 Richibucto, C3/P251 Richibucto Bar, C3/P249 Richibucto Cape, C3/P247 Richibucto Gully, C3/P249 Richibucto Harbour, C3/P250 Richibucto River, C3/P249 Rifleman Reef, C3/P120 River John, C3/P68 Rivière au Portage, C3/P263 Roaring Bull Point, C3/P21 Robichaud, C3/P214 Roche, Pointe La, C4/P170 Rochette, Pointe, C4/P153 Rock Reef, C3/P105 Roger Point, C3/P50 Rollo Bay, C1/P112 Ronde, Butte, C2/P46 Royalty Point, C1/P204 Roy Island, C3/P20 Roy Ledge, C3/P20 Ruisseau-Leblanc, C4/P235 Rustico Bay, C1/P193 Rustico Island, C1/P193

Sable Point, C1/P153 Saddle Island, C3/P67 St. Andrew Point, C1/P131 St. Andrews Bank, C4/P39 St. Andrews Point, C4/P44 Sainte-Anne, Baie, C4/P15 Sainte-Anne, Mont, C4/P281 Sainte-Anne-de-Kent, C3/P238 Saint-Édouard-de-Kent, C3/P244 Sainte-Marie-sur-Mer, C4/P86 Sainte-Thérèse-de-Gaspé, C4/P173 St. Georges Bay, C1/P36 Saint-Godefroi, C4/P216 St. Jacques, C3/P189 Saint-Jean, Rivière, C4/P295 Saint-Joseph, Mont, C4/P246 St. Lawrence, Cape, C1/P1 Saint-Louis, Baie de, C3/P259 St. Marys Bay, C1/P128 St. Peters, C1/P177 St. Peters Bay, C1/P176 St. Peters Island, C3/P125 St. Peters Island, C3/P133 St. Peters Island Bar, C3/P133 St. Peters Road, C3/P134 St. Peters Shoals, C3/P133 St. Peters Spit, C3/P133 Saint-Pierre, Pointe, C4/P287 Saint-Simon Inlet, C4/P124 Saint-Simon-Nord, Baie, C4/P124 Saint-Thomas-de-Kent, C3/P237 Salmon Beach, C4/P143 Salutation Cove, C3/P169 Sand Reef, C3/P204 Sandy Beach, C4/P311 Sandy Beach, Pointe de, C4/P306 Sandy Hook, Dune, C2/P87 Sapin Ledge, C3/P267 Savage, Cap à, C2/P99

Savage Harbour, C1/P180 Savage Island, C1/P216 Savage Point, C3/P16 Savoy Landing, C4/P118 Seacow Head, C3/P166 Seacow Pond, C1/P227 Seal, Rocher, C4/P305 Seal Point (Cape Wolfe), C3/P200 Seal Point (Pictou Island), C3/P50 Seal River, C3/P128 Search and Rescue, C2/P66 Seatrout Point, C3/P142 Seaview Point, C3/P38 Sea Wolf Island, C1/P27 Seleine, Île, C2/P37 Selkirk Point, C3/P124 Shag, Île, C2/P41 Shallop Rock, C1/P98 Sharp, Cape, C1/P149 Sharp Point, C1/P212 Shea, Pointe, C2/P74 Shediac, C3/P225 Shediac Bay, C3/P215 Shediac Bridge, C3/P216 Shediac Harbour, C3/P217 Shediac Island, C3/P215 Shediac River, C3/P216 Sheldrake Channel, C4/P24 Shemogue Harbour, C3/P209 Shigawake, C4/P215 Shinimicas River, C3/P99 Ship Bar, C3/P77 Ship Channel (Malpeque Bay), C1/P203 Ship Channel (Miramichi Bay), C4/P19 Ship Channel (Wallace Harbour), C3/P77 Shippagan, C4/P113 Shippegan, Baie de, C4/P105 Shippegan Channel, C4/P105 Shippegan Flat, C4/P99 Shippegan Gully, C4/P81 Shippegan Harbour, C4/P81 Shipwreck Point, C1/P174 Skinners Cove, C3/P63 Skinners Pond, C3/P202 Smith, Pointe, C4/P215 Smith Point, C1/P65 Smith Point, C1/P125 Snake Point, C3/P217 Souris, C1/P100 Souris Harbour, C1/P99 Souris Head, C1/P111 Souris River, C1/P98 South Lake, C1/P96 South Richibucto Beach, C3/P249 Southwest Miramichi River, C4/P61 Spear Shoal, C3/P101 Spithead (Charlottetown Harbour), C3/P139 Spithead (Port Hood Island), C1/P62 Spit Shoal, C4/P19 Sprv Point, C1/P111 Squaw Bay, C3/P132 Squaw Point, C3/P132 Squaw Shoal, C3/P139 Stanhope, Cape, C1/P187 Stanley Bridge, C1/P201 Steven Point, C3/P88 Stewart Point, C3/P120 Stoke Point, C4/P131

Stonehaven, C4/P142 Stonehouse Point, C3/P45 Sturgeon Bay, C1/P128 Sud, Cap du, C2/P89 Sud-Ouest, Bassin du, C4/P316 Sud-Ouest, Pointe du, C4/P208 Sugarloaf Hill, C3/P11 Summerside, C3/P173 Summerside Harbour, C3/P172 Sunbury Cove, C3/P185 Susan, Cape, C1/P67 Swanton Point, C1/P101

Tabusintac, C4/P73 Tabusintac Bay, C4/P70 Tabusintac River, C4/P70 Tatamagouche, C3/P75 Tatamagouche Bay, C3/P73 Terras Point, C1/P149 Terre-Noire, Goulet de, C3/P259 Thrumcap Spit, C1/P132 Tidnish River, C3/P102 Tignish Harbour, C1/P226 Tignish River, C1/P226 Toney River, C3/P59 Tormentine, Cape, C3/P104 Tormentine Reef, C3/P105 Tracadie, C1/P73 Tracadie, Baie de, C4/P77 Tracadie Bay, C1/P183

Tracadie Big Island, C1/P73 Tracadie Gully, C4/P77 Tracadie Harbour, C1/P73 Tracadie-Sheila, C4/P77 Tracadigache, Baie, C4/P247 Tracadigache, Pointe, C4/P245 Trachy, Pointe, C4/P216 Treen Bluff, C3/P76 Treen Reef, C3/P76 Trenton, C3/P48 Tryon, Cape, C1/P202 Tryon Head, C3/P156

Val Comeau, C4/P76 Vent, Butte du, C2/P58 Vernon Bridge, C3/P129 Vernon River, C3/P128 Verte, Baie, C3/P100 Verte, Pointe, C4/P143 Verte, Pointe, C4/P178 Victoria, C3/P157 Victoria Harbour, C3/P156 Vieille Pointe, La, C4/P208 Vin, Bay du, C4/P27

Waldegrave, C3/P72 Wallace, C3/P80 Wallace Harbour, C3/P77 Wallace River, C3/P77 Warren Cove, C3/P143 Washball Reef, C3/P66 Washball Rock, C3/P66 Waugh Shoal, C3/P66 Waughs River, C3/P75 Weatherbies Point, C3/P70 Weatherbies Spit, C3/P69 Westmorland River, C3/P156 West Point, C3/P53 West Point, C3/P195 West Point Island, C4/P170 West Reef, C3/P196 West River, C3/P136 West Spit, C3/P196 Whale Cove, C1/P26 White Point, C1/P147 Widow Point, C3/P50 Wightmans Point, C1/P131 Wilmot River, C3/P184 Winter River, C1/P184 Wolfe, Cape, C3/P198 Wolfe Inlet, C3/P194 Wood Islands, C3/P111 Wright Bank, C4/P53

Youghall Point, C4/P144

Zephyr Rock, C3/P220

C = Chapter/P = Paragraph

