

NP 65

ST LAWRENCE PILOT

**Gulf and River St Lawrence, east coast of Cape Breton Island, Cabot Strait and
Strait of Canso**

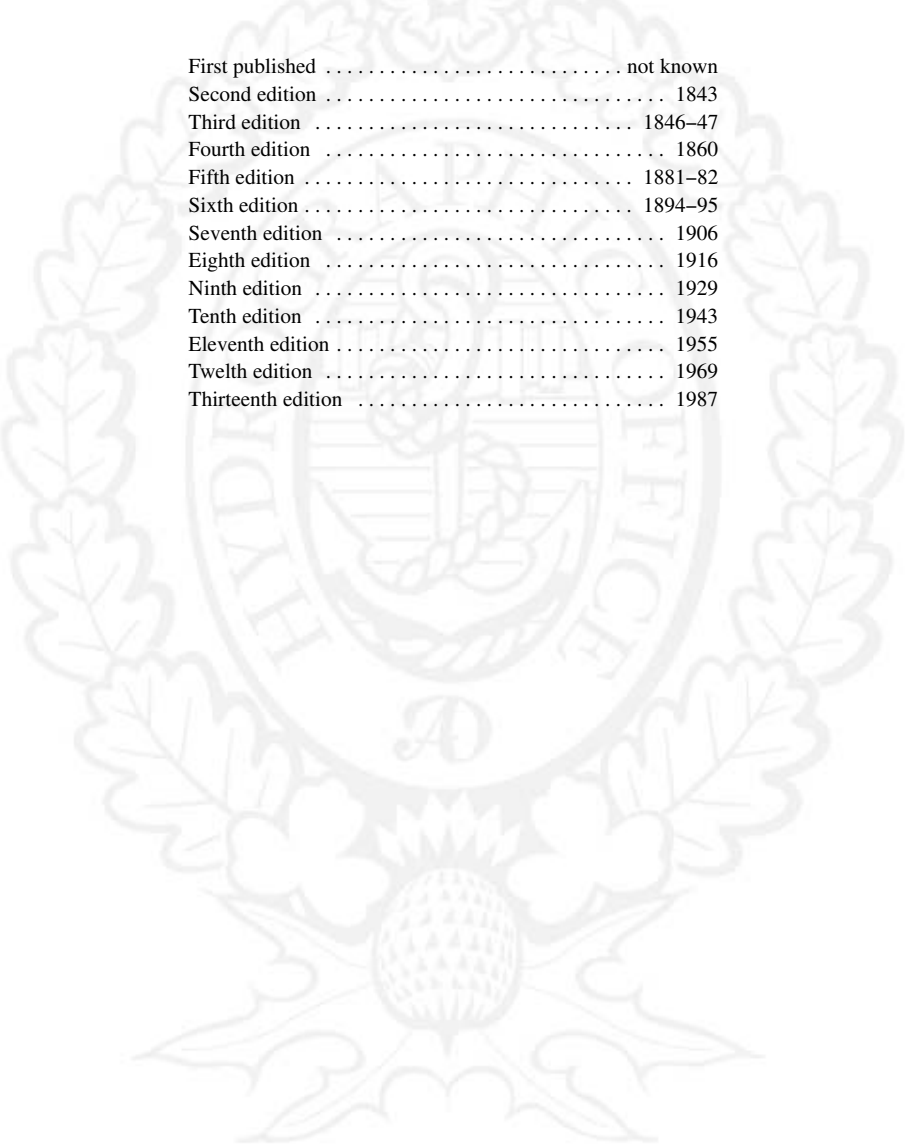
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PREFACE

The Fourteenth Edition of the St Lawrence Pilot has been prepared by M.J.Fagan, Master Mariner, and contains the latest information received in the United Kingdom Hydrographic Office to the date given below.

This edition supersedes the Thirteenth Edition (1987) and Supplement No 5 (1999), which are cancelled.

Information on climate and currents has been based on data provided by the Meteorological Office, Bracknell.

The following sources of information, other than UKHO Publications and Ministry of Defence papers, have been consulted:

British

Fairplay World Ports Directory 2003

Lloyds Ports of the World 2003

Lloyds Maritime Guide 2002

The Statesman's Yearbook 2003

Canadian

ATL 100 Sailing Directions, General information Atlantic Coast, First Edition 1992

ATL 104 Sailing Directions, Cape North to Cape Canso, First Edition 2001

ATL 110 Sailing Directions, Cap Whittle/Cap Gaspé to Les Escoumins, First Edition 1992

ATL 110 Sailing Directions, Cap Whittle/Cap Gaspé to Les Escoumins and Anticosti Island, Second Edition 2002

ATL 111 Sailing Directions, St Lawrence River; Île Verte to Québec, Second Edition 1995

ATL 112 Sailing Directions, St Lawrence River; Cap-Rouge to Montréal and Rivière Richelieu, Second Edition 2001

Sailing Directions, Gulf of St. Lawrence, First Edition 1992

Sailing Direction, Great Lakes, Volume 2, Seventh Edition 1993

List of Lights, Buoys and Fog Signals, Atlantic Coast 2001

Notice to Mariners Annual Editions 2002 and 2003

Port Handbooks produced by Port Authorities

Charts

Symbols, Abbreviations, Terms, 1996

French

Instructions Nautiques, Saint-Laurent, Grand Lacs, Nouvelle Écosse 1996

American

Pub 140 Sailing Directions (Planning Guide), North Atlantic Ocean, First Edition 1997

Pub 145 Sailing Directions (Enroute), Nova Scotia and the Saint Lawrence, Eighth Edition 2000

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EXPLANATORY NOTES

Admiralty Sailing Directions are intended for use by vessels of 12 m or more in length. They amplify charted detail and contain information needed for safe navigation which is not available from Admiralty charts, or other hydrographic publications. They are intended to be read in conjunction with the charts quoted in the text.

This volume of the Sailing Directions will be kept up-to-date by the issue of a new edition at intervals of approximately 3 years, without the use of supplements. In addition important amendments which cannot await the new edition are published in Section IV of the weekly editions of *Admiralty Notices to Mariners*. A list of such amendments and notices in force is published in the last weekly edition for each month. Those still in force at the end of the year are reprinted in the *Annual Summary of Admiralty Notices to Mariners*.

This volume should not be used without reference to Section IV of the weekly editions of Admiralty Notices to Mariners.

CD-ROM

Status. A compact disc is provided at the back of this volume. The paper publication of Sailing Directions satisfies the requirements of Chapter V of the International Convention for the Safety of Life at Sea. The CD version does not satisfy these requirements and should only be used in conjunction with the paper publication and any amendments affecting the paper publication. Where any discrepancy exists between data on the CD and in the paper publication of Sailing Directions, the paper publication (inclusive of amendments) is to be relied upon.

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References to hydrographic and other publications

The Mariner's Handbook gives general information affecting navigation and is complementary to this volume.

Ocean Passages for the World and *Routeing Charts* contain ocean routeing information and should be consulted for other than coastal passages.

Admiralty List of Lights should be consulted for details of lights, lanbys and fog signals, as these are not fully described in this volume.

Admiralty List of Radio Signals should be consulted for information relating to coast and port radio stations, radio details of pilotage services, radiobeacons and direction finding stations, meteorological services, radio navigational aids, Global Maritime Distress and Safety System (GMDSS) and Differential Global Positioning System (DGPS) stations, as these are only briefly referred to in this volume.

Admiralty Maritime Communications is a comprehensive guide on all aspects of maritime communications for the yachtsman and small craft user. It provides general information on Global Maritime Distress and Safety System (GMDSS), the management of VHF, Maritime Safety Information, NAVTEX, Inmarsat and Radio Facsimile, and detailed information and procedures for marinas and harbours used by small craft.

Annual Summary of Admiralty Notices to Mariners contains in addition to the temporary and preliminary notices, and amendments and notices affecting Sailing Directions, a number of notices giving information of a permanent nature covering radio messages and navigational warnings, distress and rescue at sea and exercise areas.

The International Code of Signals should be consulted for details of distress and life-saving signals, international ice-breaker signals as well as international flag signals.

Remarks on subject matter

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

Chart index diagrams in this volume show only those Admiralty charts of a suitable scale to give good coverage of the area. Mariners should consult NP 131 *Catalogue of Admiralty Charts and Publications* for details of larger scale charts.

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

Firing, practice and exercise areas. Except for submarine exercise areas, details of firing, practice and exercise areas are not mentioned in Sailing Directions, but signals and buoys used in connection with these areas are sometimes mentioned if significant for navigation. Attention is invited to the Annual Notice to Mariners on this subject.

Names have been taken from the most authoritative source. When an obsolete name still appears on the chart, it is given in brackets following the proper name at the principal description of the feature in the text and where the name is first mentioned.

Tidal information relating the daily vertical movements of the water is not given; for this *Admiralty Tide Tables* should be consulted. Changes in water level of an abnormal nature are mentioned.

Time difference used in the text when applied to the time of High Water found from the *Admiralty Tide Tables*, gives the time of the event being described in the Standard Time kept in the area of that event. Due allowance must be made for any seasonal daylight saving time which may be kept.

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

Units and terminology used in this volume

Latitude and Longitude given in brackets are approximate and are taken from the chart quoted.

Bearings and directions are referred to the true compass and when given in degrees are reckoned clockwise from 000° (North) to 359° Bearings used for positioning are given from the reference object.

Bearings of objects, alignments and light sectors are given as seen from the vessel.

Courses always refer to the course to be made good over the ground.

Winds are described by the direction from which they blow.

Tidal streams and currents are described by the direction towards which they flow.

Distances are expressed in sea miles of 60 to a degree of latitude and sub-divided into cables of one tenth of a sea mile.

Depths are given below chart datum, except where otherwise stated.

Heights of objects refer to the height of the structure above the ground and are invariably expressed as "... m in height".

Elevations, as distinct from heights, are given above Mean High Water Springs or Mean Higher High Water whichever is quoted in *Admiralty Tide Tables*, and expressed as, "an elevation of ... m". However the elevation of natural features such as hills may alternatively be expressed as "... m high" since in this case there can be no confusion between elevation and height.

Metric units are used for all measurements of depths, heights and short distances, but where feet/fathoms charts are referred to, these latter units are given in brackets after the metric values for depths and heights shown on the chart.

Time is expressed in the four-figure notation beginning at midnight and is given in local time unless otherwise stated. Details of local time kept will be found in *Admiralty List of Radio Signals Volume 2*.

Bands is the word used to indicate horizontal marking.

Stripes is the word used to indicate markings which are vertical, unless stated to be diagonal.

Conspicuous objects are natural and artificial marks which are outstanding, easily identifiable and clearly visible to the mariner over a large area of sea in varying conditions of light. If the scale is large enough they will normally be shown on the chart in bold capitals and may be marked "conspic".

Prominent objects are those which are easily identifiable, but do not justify being classified as conspicuous.

ABBREVIATIONS

The following abbreviations are used in the text.

Directions

N	north (northerly, northward, northern, northernmost)	S	south
NNE	north-north-east	SSW	south-south-west
NE	north-east	SW	south-west
ENE	east-north-east	WSW	west-south-west
E	east	W	west
ESE	east-south-east	WNW	west-north-west
SE	south-east	NW	north-west
SSE	south-south-east	NNW	north-north-west

Navigation

AIS	Automatic Identification System	ODAS	Ocean Data Acquisition System
CVTS	Co-operative Vessel Traffic System	Satnav	Satellite navigation
DGPS	Differential Global Positioning System	TSS	Traffic Separation Scheme
GPS	Global Positioning System	VMRS	Vessel Movement Reporting System
Lanby	Large automatic navigation buoy	VTC	Vessel Traffic Centre
MCTS	Marine Communications and Traffic Services Centres	VTs	Vessel Traffic Services
		VTMS	Vessel Traffic Management System

Offshore operations

ALC	Articulated loading column	FSO	Floating storage and offloading vessel
ALP	Articulated loading platform	PLEM	Pipe line end manifold
CALM	Catenary anchor leg mooring	SALM	Single anchor leg mooring system
CBM	Conventional buoy mooring	SALS	Single anchored leg storage system
ELSBM	Exposed location single buoy mooring	SBM	Single buoy mooring
FPSO	Floating production storage and offloading vessel	SPM	Single point mooring

Organizations

IALA	International Association of Lighthouse Authorities	NATO	North Atlantic Treaty Organization
IHO	International Hydrographic Organization	RN	Royal Navy
IMO	International Maritime Organization	UKHO	United Kingdom Hydrographic Office

Radio

DF	direction finding	RT	radio telephony
HF	high frequency	UHF	ultra high frequency
LF	low frequency	VHF	very high frequency
MF	medium frequency	WT	radio (wireless) telegraphy
Navtex	Navigational Telex System		

Rescue and distress

AMVER	Automated Mutual Assistance Vessel Rescue System	JRCC	Joint Rescue Cooperation Centre
EPIRB	Emergency Position Indicating Radio Beacon	MRCC	Maritime Rescue Co-ordination Centre
GMDSS	Global Maritime Distress and Safety System	MRSC	Maritime Rescue Sub-Centre
		SAR	Search and Rescue

Tides

HAT	Highest Astronomical Tide	MHWS	Mean High Water Springs
HW	High Water	MLHW	Mean Lower High Water
LAT	Lowest Astronomical Tide	MLLW	Mean Lower Low Water
LW	Low Water	MLW	Mean Low Water
MHHW	Mean Higher High Water	MLWN	Mean Low Water Neaps
MHLW	Mean Higher Low Water	MLWS	Mean Low Water Springs
MHW	Mean High Water	MSL	Mean Sea Level
MHWN	Mean High Water Neaps		

ABBREVIATIONS

Times

ETA estimated time of arrival
ETD estimated time of departure

UT Universal Time
UTC Co-ordinated Universal Time

Units and miscellaneous

°C degrees Celsius
DG degaussing
dwt deadweight tonnage
DZ danger zone
feu forty foot equivalent unit
fm fathom(s)
ft foot (feet)
g/cm³ gram per cubic centimetre
GRP glass reinforced plastic
grt gross register tonnage
gt gross tonnage
hp horse power
hPa hectopascal

kHz kilohertz
km kilometre(s)
kn knot(s)
kW kilowatt(s)
m metre(s)
mb millibar(s)
MHz megahertz
mm millimetre(s)
MW megawatt(s)
No number
nrt nett register tonnage
teu twenty foot equivalent unit

Vessels and cargo

HMS Her (His) Majesty's Ship
LASH Lighter Aboard Ship
LNG Liquefied Natural Gas
LOA Length overall
LPG Liquefied Petroleum Gas
MV Motor Vessel
MY Motor Yacht

POL Petrol, Oil & Lubricants
RMS Royal Mail Ship
Ro-Ro Roll-on, Roll-off
SS Steamship
ULCC Ultra Large Crude Carrier
VLCC Very Large Crude Carrier

GLOSSARY

French terms and words found on charts and in Sailing Directions

French *English*

anguille eel
 anse bay, cove
 archipel archipelago
 ardoise slate
 argent silver
 aviron oar

baie bay, gulf
 baleine whale
 banc bank, sandbank
 barachois or barasway small, shallow natural harbour
 barre bar
 bas low
 basse shoal
 bateau boat
 blanc, -he white
 bleu, -e blue
 bois wood
 bouche mouth of river
 boue mud
 bout extremity, point
 bras arm

cailloux stones, pebbles
 canal canal, channel
 cane duck
 cap cape, headland
 cap escarpé bluff
 chaîne cable
 chaussée bank, causeway
 chenal channel
 cinq five
 clair clear
 colline rounded hill
 corail coral
 côte coast
 coteau hill
 cou neck
 crête ridge
 crique creek, inlet

détroit strait
 digue mole, breakwater
 dos back

eau water
 écueil rock, breaker
 église church
 est east
 estuaire estuary
 étang pond, pool
 extérieur outer

falaise cliff
 fleuve river
 fond deep
 fontaine spring
 fourché forked

galet shingle
 golfe gulf
 grand, -e great
 gris, -e grey
 gros, -se course, large

haut, -e high, tall
 haut-fond a shoal
 havre harbour
 hune top

French *English*

île island, isle
 îlot islet
 intérieur inner
 isthme isthmus

jambe leg
 jaune yellow
 jetée jetty

lac lake
 lagune lagoon
 large broad, wide
 langue tongue

manche channel
 manglier mangrove tree
 marin sailor
 massif compact group of mountains
 méridional, -e southern
 mont mountain
 montagne mountain
 mouillage anchorage

noir, -e black
 nord north

occidental, -e western
 oriental, -e eastern
 ouest west

passé channel, pass, passage
 palétuvier mangrove
 péninsule peninsula
 petit, -e small
 pic peak
 pierre stone
 piton peak
 plage shore, beach
 plateau tableland or sunken flat
 pointe point
 pont bridge
 port port, harbour
 presqu'île peninsula
 promontoire promontory

quai quay, wharf

rade roadstead
 récif reef
 rivière river
 roche rock
 rocher rock, generally above-water
 rouge red
 ruisseau stream

sable sand
 septentrional, -e northern
 seuil sill
 sommet summit
 sud south

tête head
 tour tower

vallée valley
 vert, -e green
 vieil, -e old, ancient
 ville town

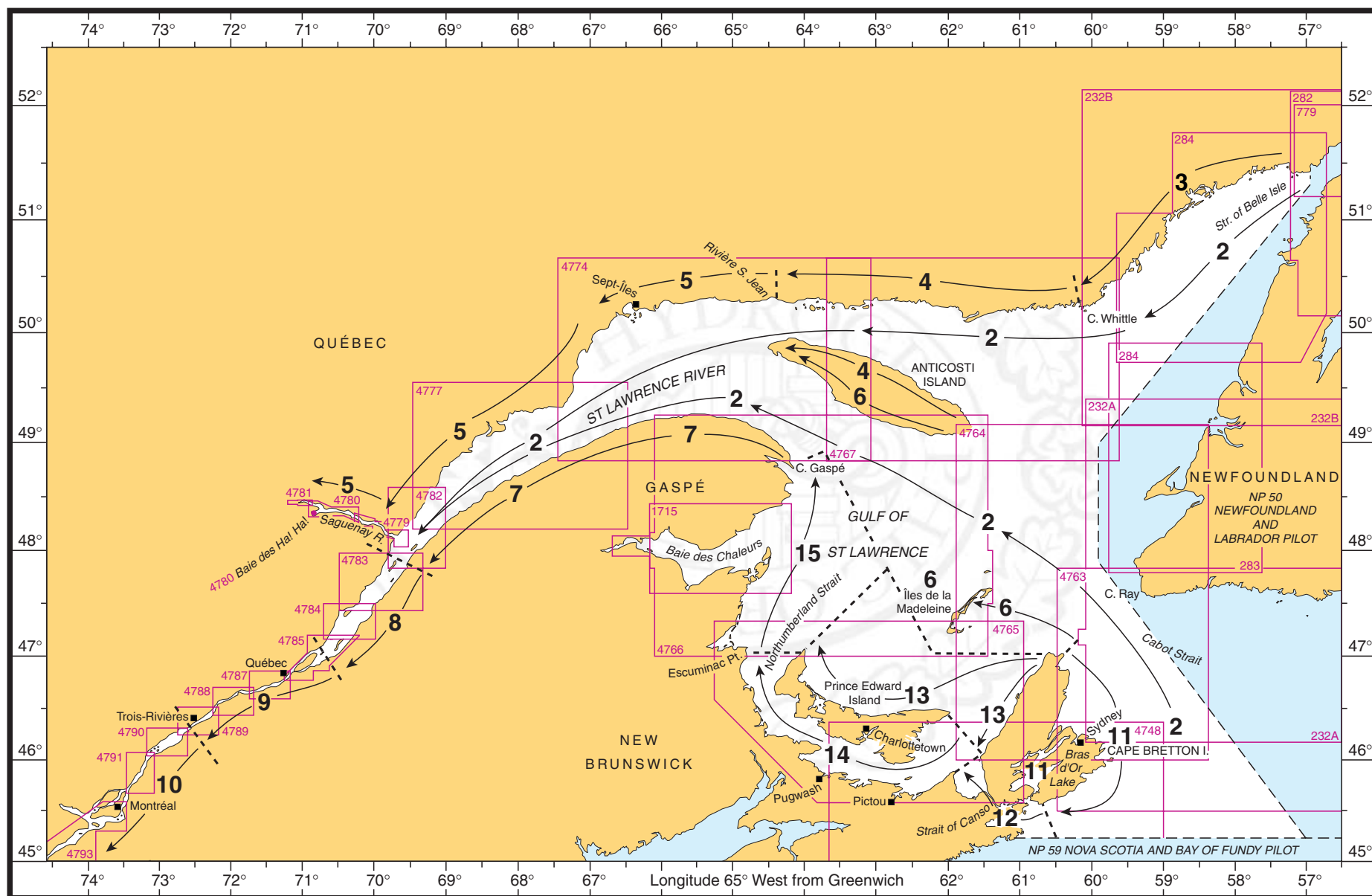


Home

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Chapter Index Diagram



St Lawrence Pilot

October 2003

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LAWS AND REGULATIONS APPERTAINING TO NAVIGATION

While, in the interests of the safety of shipping, the UK Hydrographic Office makes every endeavour to include in its hydrographic publications details of the laws and regulations of all countries appertaining to navigation, it must be clearly understood:-

- (a) that no liability whatsoever can be accepted for failure to publish details of any particular law or regulation, and
- (b) that publication of details of a law or regulation is solely for the safety and convenience of shipping and implies no recognition of the international validity of the law or regulation.

ST LAWRENCE PILOT

CHAPTER 1

NAVIGATION AND REGULATIONS COUNTRY AND PORTS NATURAL CONDITIONS

NAVIGATION AND REGULATIONS

LIMITS OF THE BOOK

Chart 4404

Area covered

1.1

- 1 This volume contains Sailing Directions for the coastal, inshore and inland waters of Canada within the limits defined below:

	Lat N	Long W
From Glasgow Head:	45°19'	60°58'
Thence E to Cranberry Island Light:	45°20'	60°56'
Thence E to position:	45°20'	57°00'
Thence NW through Cabot Strait to position:	48°00'	60°00'
Thence N to position:	49°00'	60°00'
Thence to position:	51°15'	57°00'

Thence N, across the W end of the Strait of Belle Isle to the coast of Labrador about 2 miles W of Forteau Point (51°25'N, 56°57'W).

- 2 The St Lawrence River is described in full as far as Montréal (45°40'N, 73°30'W). A brief description continues through the St Lawrence Seaway to the Great Lakes, which are not covered.

NAVIGATIONAL DANGERS AND HAZARDS

Coastal conditions

Coastline

1.2

- 1 Parts of the coastline are deeply indented, rocky and steep-to, making it dangerous to navigate close inshore, particularly in fog, which is common in this area.

In some places, notably the N coast of Prince Edward Island, the sea breaks heavily on the sand bars outside harbours, making entry hazardous or impossible in bad weather.

Coastal areas between Blanc-Sablon (51°25'N, 57°10'W) and Sept-Îles (50°12'N, 66°20'W) are not surveyed to modern standards and uncharted rocks or shoals may exist. Mariners should exercise caution.

Ice, icebergs, icebreakers

Reference publications

1.3

- 1 General information on ice, including a glossary of ice terms, the dangers of icing, the formation and movement of ice, and navigation in ice, is given in *The Mariner's Handbook*.

Mariners approaching the E coast of Canada and navigating in the Gulf of St Lawrence and St Lawrence River during the ice season are advised to consult the Canadian Coast Guard Publication *Ice Navigation in Canadian Waters*.

Ice in the Atlantic approaches

1.4

- 1 One of the chief hazards to which vessels are exposed when approaching the E coast of Canada is the great amount of ice in the form of icebergs, growlers and pack ice which is carried S by the Labrador Current. For further information on conditions on the Grand Banks of Newfoundland and the Nova Scotia Banks see *Newfoundland and Labrador Pilot* and *Nova Scotia and Bay of Fundy Pilot*. See also general information in *Ocean Passages for the World*.
- 2 All aspects of navigation in ice and of ice accumulation on ships are described in *The Mariner's Handbook*. In Canadian waters the Canadian Coast Guard publication *Ice Navigation in Canadian Waters* should be consulted. The Canadian publication is available from:

Hydrographic Chart Distribution Office
Fisheries and Oceans Canada
1675 Russell Road
PO Box 8080
Ottawa, Ontario
Canada, K1G 3H6.

Risk of structural damage

1.5

- 1 The brittleness of steel is increased by low temperatures, while structural stresses may be aggravated by natural conditions and the state of loading of the vessel. Therefore, when there is a combination of gale force winds, short steep seas, very cold temperatures, high length/beam ratio in vessels in ballast or part-loaded, Masters should minimise longitudinal stresses by reducing speed and distributing ballast.

Ice accumulation

1.6

- 1 Ice may accumulate on ships navigating in E Canadian waters during the winter. Ice has been reported to form a thickness of about 10 cms in 4 to 12 hours, when air temperatures of less than -1.7°C are combined with flying spray. See *The Mariner's Handbook* for details on the causes of ice accumulation and the recommended course of action.

International Ice Patrol

1.7

- 1 The International Ice Patrol is conducted by ships and aircraft operated by the United States Coast Guard. It has the primary objectives of collecting data and warning shipping of the amount and extent of ice in the vicinity of the Grand Banks of Newfoundland. The area of main interest lies between latitudes 39°N and 49°N and longitudes 42°W and 60°W , the patrol being conducted from late February or early March, when ice first begins to move into the area, until about the end of June, when summer melting clears it sufficiently again.
- 2 In addition to the main tasks scientific investigations of meteorological and oceanographical conditions are undertaken by the patrol whose activities are closely co-ordinated with those of the Canadian Ice Service (1.8). For full details of the International Ice Patrol, information disseminated and of reports which it is obligatory for ship masters to make concerning ice see *Admiralty List of Radio Signals Volume 3 (2)* and *The Mariner's Handbook*.

In particular, attention is drawn to the SOLAS Convention which requires the Master of every ship which meets dangerous ice to report it.

- 3 **Caution.** The work of the International Ice Patrol has greatly reduced the dangers from ice in this region, but the frequent long periods of fog and low visibility make it impossible for the patrol to include the latest position of every iceberg in their reports. The danger of collision with ice therefore remains a very real one. Experiments have shown that there is no instrument that can infallibly detect every iceberg, and a good look-out is therefore essential. A vessel should navigate at such a speed that collision can be avoided should an iceberg be sighted ahead.

Canadian ice advisory service

1.8

- 1 Ice information is collected and collated by the Canadian Ice Service Environment Canada for Canadian navigable waters at a central office in Ottawa. During the winter months ice starts to form in the St Lawrence River, then

moves towards the river estuary and the Gulf of St Lawrence.

- 2 Ice forecasts and ice charts are issued daily for areas of known marine activity and where ice is a navigational hazard. These reports are distributed to Canadian Coastguard Ice Operation Offices which are located with the appropriate Vessel Traffic Service System for the region, and are broadcast by radio and radio facsimile. Details of broadcasts are contained in the Canadian Coast publication *Radio Aids to Marine Navigation – Atlantic and Great Lakes* and in *Admiralty List of Radio Signals Volume 3 (2)*. The Canadian publication is obtainable from the address given at 1.33.

1.9

- 1 Canadian Coast Guard Marine Traffic and Communication Service stations also provide ice information on request and Ice Operations Offices provide pre-departure ice information. For the area covered by this volume the Ice Operation Offices are located with the Eastern Canada Traffic System (ECAREG Canada) (1.11) and St Lawrence Vessel Traffic Services Zone.

- 2 Ships encountering ice of any kind are requested to pass reports to Ice Forecasting Central, Ottawa, through any coast radio station, where they will be incorporated in the daily ice bulletins and forecasts.

Ships navigating independently in the Gulf of St Lawrence when ice is present are requested to report their positions and progress to ICE HALIFAX at 0200 and 1200 UTC.

- 3 **St Lawrence River.** In the St Lawrence River from W of longitude $66^{\circ}00'\text{W}$ up to Montréal, the movement of shipping is under the general control of the Vessel Traffic Services System (1.27) which also handles ice information and advisory services.

Mariners are advised to obtain the latest ice information prior to departure from ports in the St Lawrence River during the ice season. If departing in the morning it is advisable to await the early morning reconnaissance before sailing, as an ice jam in the channel could force a vessel aground.

- 4 **Great Lakes.** Vessels entering the Canadian waters of the Great Lakes may obtain the same services through the Coast Guard radio network in the area.

During the winter season, the routing systems are not necessarily the best routes to follow in ice. Ice routing is recommended.

Ice operations in St Lawrence River between Québec and Montréal

1.10

- 1 Special conditions exist in this part of the river, where broken ice brought down by the current is apt to consolidate, forming extensive jams and ice dams which cause a rapid rise in the water level and the threat of serious flooding.

- 2 Icebreakers operate in the river throughout the winter to keep a channel open for broken ice to move downstream. This channel also permits the passage of ships, but it is easily blocked if the ice on each side is dislodged from the banks and shoals, either by natural causes or by the wash of passing ships. Floating sheets (battures) of ice may move across a channel and start a jam. During periods when the formation of battures is particularly likely, it may be necessary to impose speed restrictions in certain sections of the river.

- 3 When an ice jam forms, it must be broken and the channel restored as quickly as possible. This is done from

downstream, so that ice loosened by the icebreakers can be carried away by the current. At such times shipping should keep clear of the jam so as not to hamper the icebreakers. All available icebreakers are concentrated to do this, so that ships cannot be assisted individually. Movements in the vicinity may have to be restricted.

Icebreaker assistance

1.11

- 1 The Canadian Coast Guard provides an icebreaker service for support of vessels navigating E Canadian waters. Requests for assistance should be made through the Eastern Canada Traffic System (ECAREG Canada) (1.9). Details including the information required in order to obtain assistance are given in *Admiralty List of Radio Signals Volume 3 (2)* and *Volume 6 (5)*.
- 2 The number of icebreakers is limited and support cannot always be given at short notice. So that best use can be made of them, therefore, it is essential that the Vessel Traffic Service System be kept informed of the positions and intended movement of ships. Priority is given to ships in the worst areas and to well-found, ice-strengthened vessels fitted with RT at the principal conning position, which is essential for rapid communication with icebreakers.
- 3 For further information on icebreaker operations see the Canadian Coast Guard publication *Ice Navigation in Canadian Waters*.

Cables and pipelines

Submarine cables and pipelines

1.12

- 1 Submarine cables and pipelines are shown on the charts and are mentioned in this book only if they are electric power cables or are laid in depths of 50 m or less in places where vessels are likely to anchor.
The Canadian Hydrographic Service does not differentiate between cables that carry power and those that do not.

Overhead cables

1.13

- 1 Overhead cables are shown on the charts and mentioned in this book, with vertical clearance or safe overhead clearance as appropriate. Mariners are advised that the actual clearance of an overhead cable may differ from its charted value due to changes in atmospheric conditions, water levels and in winter by the ice and snow conditions.
See *The Mariner's Handbook* for further information, including the radar response to be expected from overhead cables.

TRAFFIC AND OPERATIONS

Traffic

Ferries

1.14

- 1 A number of ferry services cross the St Lawrence River and Northumberland Strait. The usual tracks taken by the ferries are shown on the charts and are mentioned in the appropriate geographical chapters of the book.

Seaplanes

1.15

- 1 There are a number of seaplane operating areas situated in the area described in this pilot and in recent years the

number of serious incidents between vessels and seaplanes has increased.

- 2 It should be understood that at a particular stage in taking off, or in landing, a seaplane is committed and unable to change its intended action at the last moment. Also adverse weather conditions are generally more restrictive to a seaplane on the water than to a ship. Passing close to, or ahead of, a seaplane whose engines are operating creates an obvious hazard.

Mariners should, where possible, avoid seaplane operating areas, particularly in conditions of poor visibility.

Hovercraft

1.16

- 1 Hovercraft (air cushion vehicles) (non-displacement craft), similar to those operated by the Canadian Coast Guard, when fully cushioned may be greatly affected by wind such that the aspect presented by their navigation lights may not indicate their true direction of motion.
- 2 The all round yellow light required to be carried by an air cushion vessel under Rule 23 of *The International Regulations for Preventing Collisions at Sea (1972)* shall, in Canadian waters, flash at a rate of about 120 times per minute and be visible for a distance of at least 5 miles.
In addition to the above, mariners should bear in mind that the noise of operation of air cushion vessels may preclude the effectiveness of any sound signals made.

Routes

1.17

- 1 Shipping may enter the Gulf of St Lawrence through the Strait of Belle Isle, Cabot Strait or Strait of Canso; the first and second named are deep water routes, and the last is restricted by Canso Lock. See 2.6 for the seasonal effects of ice in the Strait of Belle Isle.
Ocean-going vessels can ascend St Lawrence River to the Port of Montréal; thence the St Lawrence Seaway carries traffic into the Great Lakes.

Dumping

1.18

- 1 For Canadian regulations see 1.82.

Fishing

General

1.19

- 1 Throughout the year, large numbers of fishing vessels are encountered on the Grand Banks of Newfoundland and on the Nova Scotia Banks. These vessels range in size from large fish factory ships to small dories. Extreme caution should be exercised when navigating on these banks, particularly in conditions of reduced visibility. For further information see the *Newfoundland and Labrador Pilot* and the *Nova Scotia and Bay of Fundy Pilot*.

Marine farms

1.20

- 1 The establishment of aquaculture facilities in Canada's navigable waterways has reached high concentration levels in many areas. Every mariner is advised to exercise caution and give a wide berth to the yellow cautionary buoys marking the perimeters of the approved aquaculture sites.
Any mariner wishing to obtain detailed information concerning the positions of aquaculture facilities should contact the regional Navigation Protection Program office of the Canadian Coast Guard. For further information see *Canadian Annual Notices to Mariners*.

Exercise areas

Defence exercises

1.21

- 1 Firing, bombing and other defence exercises take place intermittently in a number of areas off the coast of Canada. Details are promulgated by local Canadian Coast Guard Marine Radio Broadcasts and may be advertised in local newspapers.

The range authorities are responsible for ensuring there is no danger to vessels in the practice area.

Warning signals, when shown, consist of red flags by day and fixed or flashing red lights by night.

Full details are given in *Canadian Annual Edition of Notices to Mariners*.

Submarine exercises

1.22

- 1 The Commander of Maritime Forces Atlantic operates several submarines, based at Halifax, Nova Scotia. Mariners are warned that they may encounter these submarines anywhere off the E Canadian coast. *The Mariner's Handbook* and the *Annual Edition of Canadian Notices to Mariners* give general information on the characteristics of submarines and visual signals used to denote their presence.

Marine exploitation

Oil and gas fields

1.23

- 1 Considerable offshore exploration and exploitation of seabed resources is taking place off the Canadian coast, concentrated mainly off Nova Scotia (see *Nova Scotia and Bay of Fundy Pilot*) and the Grand Banks of Newfoundland (see *Newfoundland and Labrador Pilot*), and also in Lake Erie. Positions of vessels and rigs are published in *Canadian Notices to Mariners*, and the latest information can be obtained from any Canadian Coast Guard Radio Station.
- 2 Navigation safety messages are passed on VHF radio channel 16 and continuous watch should be kept on this channel while in the vicinity of exploration areas.

Pipelines

1.24

- 1 Gas from a damaged oil or gas pipeline could cause an explosion or some other serious hazard. Pipelines are not always buried and their presence may effectively reduce the charted depth by as much as 2 m. Where pipelines are close together, only one may be charted. Mariners should not anchor or trawl in the vicinity of a pipeline; they may risk prosecution if damage is caused. For further information see *The Mariner's Handbook*. See 1.73.

Canadian Coast Guard

1.25

- 1 The responsibilities of the Oceans and Fisheries Department of the Government of Canada for marine navigation is undertaken by the Canadian Coast Guard with its fleet of ships, helicopters, hovercraft and associated shore services. These responsibilities include traffic management, ice breaking, lighthouse supply, search and rescue, and marine research.
- 2 The Canadian Coast Guard operate in all Canadian waters from the Great Lakes to the northernmost channels of the Arctic Islands and from the Queen Charlotte Islands in the Pacific to Newfoundland in the Atlantic. The main Coast Guard Rescue Co-ordination Centre (RCC) for the

area covered by this volume is at Halifax, Nova Scotia with a Marine Rescue Sub-Centre (MRSC) at Québec City. The Great Lakes are covered by Trenton RCC at Trenton, Ontario.

Ship movement reporting systems

Eastern Canada Traffic Zone

1.26

- 1 The Eastern Canada Traffic Zone (ECAREG CANADA) comprises Canadian coastal waters S of 60°N, the Gulf of St Lawrence and St Lawrence River E of 66°00'W.

Masters of vessels approaching the Eastern Canada Traffic Zone are required to report by radio to ECAREG CANADA 96 and 24 hours prior to entering the traffic zone and obtain traffic clearance. The system is mandatory for vessels of 500 grt and over, and all vessels carrying pollutants or dangerous cargo, or towing such vessels.

- 2 Details of the system and the reports required are given in *Admiralty List of Radio Signals Volume 6 (5)*.

St Lawrence Waterway Vessel Traffic Services Zone

1.27

- 1 A vessel in-bound in the Gulf of St Lawrence enters the St Lawrence Waterway Vessel Traffic Services (VTS) Zone on crossing longitude 66°00'W to the upper limit of Montréal Harbour. The Master is required by the *St Lawrence Waterway Marine Traffic Regulations* to report by radio to the VTS Centre at Escoumins and obtain traffic clearance. Reports required thereafter, positions of the Reporting Points, VHF Channels in use and other information is given in *Admiralty List of Radio Signals Volume 6 (5)*. The system is mandatory for vessels over 20 m (65 ft) in length, towing vessels where the tow is 20 m or more in length, or the overall length of vessel and tow is 45 m or more, and air cushion vessel of 8 m or more in length.

- 2 The granting of clearances to deep-draught vessels transiting the river below Québec is conditional on their compliance with criteria set out in the Canadian Coast Guard publication *Vessel Performance in Confined and Restricted Channels of the St Lawrence River*.

Clearance above Québec is conditional on compliance with criteria regarding the vessel's beam and the minimum under-keel clearance required, published in *Canadian Notices to Mariners*.

Local vessel traffic services

1.28

- 1 Local vessel traffic services are established at Strait of Canso (12.3), Northumberland Strait (Confederation Bridge) (14.6), Straits of Belle Isle and Cabot Strait. For details see *Admiralty List of Radio Signals Volume 6 (5)*. In the Great Lakes ships may contact Seaway Long Point for up to date information.

Automatic Identification System (AIS)

1.29

- 1 AIS is intended as a safety and efficiency enhancing system the purpose of which is to: identify vessels; assist in tracking vessels; simplify information exchange by automation, and enhance situation awareness.

- 2 More information on AIS will be found in:

The Mariner's Handbook

Admiralty List of Radio Signals, Volume 1

Annual Notices to Mariners 17A.

The St Lawrence Seaway Management Corporation implemented mandatory carriage of AIS in Seaway waters, effective March 2003.

CHARTS

Admiralty charts

1.30

- 1 British Admiralty charts for this area are, in general, based on the Canadian charts. In some areas, however, detail is still dependent on nineteenth century British Admiralty Surveys.
- 2 In certain areas where the British Admiralty charts show insufficient detail for navigation close inshore these Sailing Directions have been written using Canadian charts. If used, these are quoted as reference charts in the text, assuming that mariners wishing to navigate in these areas will have provided themselves with the most suitable charts with which to do so.
- 3 Canadian charts may be obtained from the publishing authority shown in this volume and in the *Catalogue of Admiralty Charts*. These charts are not issued by the Hydrographic Department nor are they corrected by *Admiralty Notices to Mariners*.

Canadian charts

1.31

- 1 The main approach routes and harbours are charted from surveys conducted by the Canadian Hydrographic Service. In some small harbours and in waters used infrequently by shipping, the charted information may be based on surveys pre-dating the beginning of the twentieth century. A few Canadian charts in these areas are reproductions of British Admiralty charts, and this is stated under the chart title.
- 2 Many charts are overprinted with Loran-C lattice. For details of Canadian charts, the mariner should consult the *Canadian Publications and Admiralty Charts and Nautical Publications*.

Canadian chart regulations

1.32

- 1 The Canadian Charts and Publications Regulations are given in *Canadian Notices to Mariners*, which list Canadian charts and the corresponding charts from other national catalogues, the use of which is considered acceptable. Extracts from these regulations are reproduced at Appendix I of this book, but without the list of charts. See also the *Annual Summary of Admiralty Notices to Mariners*. For further details see 1.84.

Provision of Canadian charts

1.33

- 1 Canadian charts are obtainable from:
Canadian Hydrographic Service,
Department of Fisheries and Oceans,
615 Booth Street,
Ottawa,
Ontario K1A 0E6.
- 2 Ships entering St Lawrence River can obtain charts and publications from the pilot station at Anse aux Basques (48°19'N, 69°25'W); requirements should be made known when requesting the pilot.

Datums

Chart datums

1.34

- 1 Chart datum used for British Admiralty charts is the same as that used for Canadian charts, and approximates to the level of Lowest Astronomical Tide (LAT). For an

explanation of LAT and other information see *Admiralty Tide Tables* and *The Mariner's Handbook*.

Datums for elevations

1.35

- 1 In tidal waters elevations and vertical clearances are given above MHWS or MHHW. In non-tidal waters they are given above chart datum. In the latter case, to obtain the actual clearance the water level above chart datum must be subtracted from the quoted vertical clearance.

Horizontal datum

1.36

- 1 The most commonly used datum is North American Datum, 1927 (NAD 27). The Canadian Hydrographic Service is converting its navigational charts to North American Datum, 1983 (NAD 83) which is considered equivalent to the World Geodetic System (WGS), and this datum will then be used for British Admiralty charts.
- 2 The difference in the position of the same point on the ground defined by NAD 27 and NAD 83 is up to 60 m on the Atlantic coast, reducing to 25 m at Montréal.
Positions obtained from satellite receivers, which are normally referred to WGS, must be converted to the horizontal datum of the chart before plotting. A note giving the latitude and longitude changes is being added to charts. The notes will contain sufficient information to allow conversion from one datum to another.

NAVIGATIONAL AIDS

General information

Responsible authority

1.37

- 1 The Canadian Coast Guard is responsible for establishing and maintaining navigational aids, except those which are privately maintained.
Any failure of a navigational aid in Canadian waters should be reported by the quickest means to the Canadian Coast Guard.

Organisation

1.38

- 1 The Canadian waters in the area of this book are divided into three Coast Guard regions.
Maritimes Region. The E and N coasts of Nova Scotia and Cape Breton Island; Bras d'Or Lakes.
Laurentian Region. Gulf and River St Lawrence.
Central Region. Waters above Montréal.

Lights

Maritimes Region

1.39

- 1 In the Maritimes Region the lights are exhibited all the year round, except those listed as seasonal in the *Admiralty List of Lights*.
All other lights under the control of the Canadian Coast Guard are maintained in operation whenever navigation in the vicinity is open.

Laurentian Region

1.40

- 1 In the Laurentian Region the majority of lights are maintained in operation all the year round. A few lighthouses on offlying islands are closed for the winter and the main lights replaced by winter lights, as indicated in the *Admiralty List of Lights*.

Details of changes to be made for the winter season are published every autumn by *Canadian Notices to Shipping* and broadcast by radio as they occur.

Inland waters

1.41

- 1 In inland waters the lights are maintained in operation while navigation in the vicinity is open.

Emergency lights

1.42

- 1 Emergency lights are installed at certain major lights and come into operation automatically on the failure of the main light. These emergency lights exhibit a light with a standard characteristic of *group flash (6) 15 seconds*, and, on a dark night with a clear atmosphere, are normally visible at 5 nautical miles.

Mariners should not confuse these lights with Reserve Lights which normally retain the characteristic of the main light but with a reduced range.

For details, see *Admiralty List of Lights, Volume H*.

Landmarks

1.43

- 1 Caution is necessary when evaluating the descriptions given in this volume concerning landmarks, such as trees, and the colour and shape of buildings and other marks. New buildings may have been erected and old trees or houses destroyed, so that marks, which may at one time have been conspicuous on account of their isolation, shape or colour, may no longer exist or may now be difficult to identify.

Beacons and daymarks

Standard system

1.44

- 1 Beacons and daymarks are described in the geographical chapters of this book where appropriate and may differ from the standard system in places.
- 2 A beacon is a fixed artificial navigation mark which can be recognised by means of its shape, colour, pattern or topmark; it may carry a light, radar reflector or other navigational aid. In Canada unlit aids are known as *daybeacons*.

The term *daymark* refers to a large unlit beacon but the term is also used to denote a topmark or other distinguishing mark or shape incorporated into a beacon, light-buoy or buoy.

- 3 Daybeacons in Canada are used where navigation at night is negligible or where the conditions are such that it is impracticable to operate a light. Reflective material is applied to daybeacons to improve their identification at night with the aid of a searchlight.

The lateral system for fixed artificial aids is based on that used for buoyage.

Buoyage

General

1.45

- 1 Mariners should not rely on buoys being in their charted positions at all times. Buoys should be regarded as warning markers and not as infallible navigation marks. The position of any buoy may not be as charted due to storm, collision, current, or undersea features such as shoals, reefs, or ledges which tend to render the buoy being easily displaced. Mariners should always navigate their vessels by

visual bearings and radar distances of fixed shore objects, by soundings, or by the use of satellite or radio navigation systems whenever possible, rather than relying on buoys.

- 2 Due to their widespread use the term radar reflector is not included in the description of buoys mentioned in the text.

Buoyage season

1.46

- 1 Large areas of Canadian navigable waters freeze over in winter when many buoys are lifted, some being replaced with winter spars. The movement of ice, and of icebreakers, has been known to move buoys from their charted positions. It should not be assumed that there are no buoys present in an area even though the lights in the vicinity have been extinguished for the season.

IALA System

1.47

- 1 The IALA Maritime Buoyage System Region B (red to starboard) is in use for these waters. For a full description of this system see *The Mariner's Handbook* and *IALA Maritime Buoyage System* published by the Hydrographic Office.

Conventional directions of lateral buoyage

1.48

- 1 The conventional directions of lateral buoyage in these waters are as follows:

Local direction. The direction taken by the mariner when approaching a harbour, river estuary or other waterway from seaward, or the direction of the in-going tidal stream.

General direction. In a S direction along the Atlantic coast.

Canadian Special Purpose buoys

1.49

- 1 Canadian Special Purpose buoys do not have any lateral or cardinal significance. Special purpose buoys may be lit or unlit and be of a variety of shapes, they may also display yellow reflective material. All special purpose buoys may exhibit a yellow light flashing once every 4 seconds.
- 2 Special purpose buoys include:
 - Anchorage buoys used to mark the extremities of a designated anchorage area.
 - Cautionary buoys used to mark areas such as racing courses, exercise areas, seaplane bases etc.
 - Skin divers buoys used to mark areas in which skin divers are operating.
 - Keep-out buoys used to mark certain areas such as swimming areas where boats are prohibited.
- 3 Information buoys used to display information such as a locality name.
- Control buoys used to indicate a speed limit, no mooring etc.
- Mooring buoys used for mooring or securing vessel, seaplanes, etc.
- Hazard buoys used to mark areas of random hazards such as shoals and rocks.

Effect of ice on buoyage

1.50

- 1 Large areas of navigable waters freeze over in the winter season and many buoys are lifted for this period; some of these are replaced by spar or other type buoys. The details of winter aids to navigation are promulgated in *Canadian Notices to Mariners*. The movement of ice and the

operation of icebreakers may move buoys from their charted positions.

Ocean Data Acquisition System (ODAS) Buoys **1.51**

- 1 ODAS Buoys, used for the collecting of weather and oceanographical data, are moored in a number of locations off the coasts covered by this pilot.

Large ODAS buoys should be given a clearance of at least 1 mile, or 2½ miles by vessels towing underwater gear.

For further information see Appendix II and *The Mariner's Handbook*.

PILOTAGE

General information **1.52**

- 1 The Atlantic Pilotage Authority has a 24 hour centralised Pilot Despatch Centre located in Halifax, Nova Scotia. All requests for pilots, both compulsory and non-compulsory if required, should be sent to this authority.

If direct communication with the Atlantic Pilotage Authority in Halifax is not possible pilotage requests should be made through any Canadian Coast Guard radio station or VTS centre giving the address as the Atlantic Pilotage Authority.

For further information see *Admiralty List of Radio Signals Volume 6 (5)*.

Pilotage authorities **1.53**

- 1 The pilotage authorities for these waters are:

<i>Authority</i>	<i>Area</i>
Atlantic Pilotage Authority, Halifax, Nova Scotia	Waters surrounding Nova Scotia, Prince Edward island, New Brunswick, Baie des Chaleurs.
Laurentian Pilotage Authority, Montréal	Waters surrounding the province of Québec, including St Lawrence River as far as Montréal.

Procedures **1.54**

- 1 Information on pilotage procedures, including the requirements for compulsory pilotage, notice required when ordering pilots, boarding places and radio frequencies, is given in *Admiralty List of Radio Signals Volume 6 (5)*.

Pilot boarding facilities **1.55**

- 1 Canadian Pilot Ladder Regulations, which apply to every Canadian ship, differ from the requirements of the International Convention for the Safety of Life at Sea 1974, with respect to the height to the point of access to the ship.

Section 6 (3) of the Canadian Regulations states "Where the distance from the water to the point of access of the ship is more than 5 metres, access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equipment that provides equally safe and convenient access to the ship."

- 2 It is strongly recommended by the Canadian authorities that the height the pilot must climb by pilot ladder be reduced from the 9 m stipulated in the International Convention for the Safety of Life at Sea, 1974, to the 5 m stipulated in the Canadian Pilot Ladder Regulations.

See also *The Mariner's Handbook*.

RADIO FACILITIES

Satellite navigation systems

Global positioning system **1.56**

- 1 The Navstar Global Positioning System (GPS), a military satellite navigation system owned and operated by the United States Department of Defense provides world wide position fixing.

The system is referenced to the datum of the World Geodetic System 1984 (WGS84) and therefore positions obtained must be adjusted, if necessary, to the datum of the chart being used.

For further information see *Admiralty List of Radio Signals Volume 2*.

Differential Global Positioning System **1.57**

- 1 DGPS compares the position of a fixed point, referred to as the reference station, with positions obtained from a GPS receiver at that point. The resulting differences are then broadcast as corrections to suitable receivers to overcome the inherent limitations of GPS.

For further information see *Admiralty List of Radio Signals Volume 2*.

Global Navigation Satellite System **1.58**

- 1 The Russian Global Navigation Satellite System (GLONASS) is similar to GPS in that it is a space-based navigation system which provides world wide position fixing. The system is referenced to the Soviet Geocentric Co-ordinate System 1990 (SGS-90) and as for GPS positions must be adjusted, if necessary, to the datum of the chart being used.

For further information see *Admiralty List of Radio Signals Volume 2*.

Caution **1.59**

- 1 Satellite navigation systems are under the control of the owning nation which can impose selective availability or downgrade the accuracy to levels less than that available from terrestrial radio navigational systems. Therefore satellite based systems should only be utilised at the user's risk.

Other radio navigational aids

Racons **1.60**

- 1 There are several radar beacons (Racons) in the area covered by this volume to aid both offshore navigation and entry into harbours, and are indicated on the charts. Those aids which are pertinent to coastal and inshore navigation are included within the navigational text. For further information see *Admiralty List of Radio Signals Volume 2*.

Loran-C **1.61**

- 1 Loran-C is a low frequency electronic position fixing system using pulsed transmissions at 100 kHz. The system has a greater range than its predecessor, Loran A, and also provides considerably more accurate fixes. An area within this volume is covered by the Canadian East Coast Chain. See *Admiralty List of Radio Signals Volume 2*.

VHF direction finding service **1.62**

- 1 Each VHF direction finding station is remotely controlled by a Marine Communications and Traffic

Services Centre. This service is for emergency use only as the service uses Channel 16 VHF throughout. For details see *Admiralty List of Radio Signals Volume 2*.

Radio stations

Coast radio stations

1.63

- 1 The Canadian Coast Guard maintains a communications network between shore radio stations and ships in coastal and inland waters. For details see *Admiralty List of Radio Signals Volume 1* (2).

Radio navigational warnings

Long range warnings

1.64

- 1 The area covered by this volume lies within the limits of NAVAREA IV long range warning services. NAVAREA IV warnings are issued by National Imagery and Mapping Agency, (Attn: PTMN (Mail Stop D-44)), 4600 Sangamore Rd, Bethesda, MD 20816-5003, USA, through Boston (NMF).

For full details of the service and broadcast details see *Admiralty List of Radio Signals Volume 3* (2).

Notices to Shipping

1.65

- 1 Canadian Coast Guard Traffic Centres issue Notices to Shipping (NOTSHIPS) to inform mariners of changes in navigational aids or other conditions which affect navigation. Near-shore notices, affecting vessels less than 40 miles from the coast, are normally broadcast on VHF. Offshore notices are broadcast on MF.

See *Admiralty List of Radio Signals Volumes 5 and 3.2* for further details.

Local warnings

1.66

- 1 Local warnings cover the area within the limits of jurisdiction of a harbour or port authority and may be issued by those authorities. They may be issued in the national language only and supplement the coastal navigational warnings by giving information which the ocean-going ship may normally not require. For broadcast details see *Admiralty List of Radio Signals Volume 3* (2).

Radio medical advice

1.67

- 1 Mariners may obtain medical advice by radio from the International Radio-Medical Centre (CIRM) in Rome. For further information, and for details of the coast radio stations see *Admiralty List of Radio Signals Volume 1* (2).

Radio weather reports

METAREA IV warnings/bulletins

1.68

- 1 The World Meteorological Organization (WMO) has established a global service for the broadcast of high seas weather warnings and routine weather bulletins, through the Enhanced Group Calling International SafetyNET Service. METEOROLOGICAL service AREAS (METAREAS) are identical to the 16 NAVAREAS within the World-Wide Navigational Warning Service (WWNWS).
- 2 Each METAREA has a designated National Meteorological Service responsible for issuing high seas weather warnings and bulletins. The designated authorities are not necessarily in the same country as the NAVAREA

co-ordinators. Weather Warnings and routine bulletins are broadcast through:

- a) National coast radio stations.
- b) SafetyNET (Enhanced Group Calling International SafetyNET).

Details are given in *Admiralty List of Radio Signals Volume 3* (2).

Meteorological broadcasts by radio-facsimile

1.69

- 1 The area covered by this volume lies within the radio-facsimile broadcast coverage area of national coast radio-facsimile stations. For details see *Admiralty List of Radio Signals Volume 3* (2).

National weather services

1.70

- 1 For broadcast details see *Admiralty List of Radio Signals Volume 3* (2).

Internet weather services

1.71

- 1 Weather information for the area covered by this volume is available through the Internet.

Distress and rescue

1.72

- 1 See 1.103.

REGULATIONS

International regulations

Submarine cables and pipelines

1.73

- 1 Mariners are warned that every care should be taken to avoid anchoring or trawling in the vicinity of submarine cables or pipelines on account of the serious consequences which would result from fouling them. See *The Mariner's Handbook* for information on the *International Convention for the Protection of Submarine Cables*, together with advice on the action to be taken in the event of fouling a cable or pipeline.

Pollution

1.74

- 1 The International Convention for the Prevention of Pollution from Ships 1973 was adopted by the International Conference on Marine Pollution convened by IMO in 1973. It was modified by the Protocol of 1978 relating thereto and adopted by the International Conference on Tanker Safety and Pollution Prevention convened by IMO in 1978. The convention, as modified by the protocol, is known as *MARPOL 73/78*.
 - 2 The Convention consists of 6 annexes. Annex I (Oil), Annex II (Noxious Liquid Substances in Bulk), Annex III (Harmful Substances carried at Sea in Packaged Form) and Annex V (Garbage from Ships) are mandatory; Annex IV (Sewage from Ships) and Annex VI (Air Pollution) are optional.
- MARPOL 73/78* and Annexes are described in detail in *The Mariner's Handbook*.

Traffic separation schemes

1.75

- 1 Traffic separation schemes exist for the through routes between the Strait of Belle Isle (51°40'N, 56°15'W) and the St Lawrence River, and between Cabot Strait (47°20'N, 59°45'W) and the St Lawrence River. Traffic separation

schemes also lead in and out of Chedabucto Bay (45°24'N, 60°29'W) and Saint Georges Bay (45°54'N, 61°44'W). These schemes are shown in magenta on the appropriate charts and are referred to in the appropriate geographical chapters of this book. All traffic separation schemes are listed in the *Annual Summary of Admiralty Notices to Mariners*, which indicates which schemes have been adopted by IMO.

2 In the interest of safe navigation, the Canadian Authorities recommend that through traffic should use the traffic separation schemes, as far as circumstances permit, by day and night, in all weather conditions. The provisions of Rule 10 of the *International Regulations for Preventing Collisions at Sea, 1972*, apply; further rules are included in the *Canadian Collision Regulations*, extracts of which are given at Appendix II. The use of the scheme in and out of Chedabucto Bay is compulsory.

3 Vessels engaged in fishing may be encountered proceeding in any direction in or near the traffic separation schemes. All vessels must comply with the *Canadian Collision Regulations*.

Further information on traffic separation schemes is given in IMO Publication *Ships' Routeing*, in *The Mariner's Handbook* and *Canadian Annual Notices to Mariners*.

Canadian regulations

Caution

1.76

1 The information on various Canadian regulations given in this book is not exhaustive. Copies of these regulations are available by post from:

Canadian Government Publishing Centre,
Supply and Services Canada,
Hull, Québec, K1A 0S9.

Many of the regulations affecting the mariner are referred to in *Canadian Annual Edition of Notices to Mariners*.

Canadian collision regulations

1.77

1 The *International Regulations for Preventing Collisions at Sea, 1972* are modified for waters under Canadian jurisdiction and are known as the *Canadian Collision Regulations*.

Extracts from these regulations are given at Appendix II.

Pollution of the sea

1.78

1 **General information.** The attention of mariners is drawn to the provisions of the *Canadian Oil Pollution Prevention Regulations*, *Garbage Pollution Prevention Regulations* and the *Pollutant Substances Pollution Prevention Regulations*. These regulations, which are strictly enforced, expressly forbid the discharge from ships of oil, oily mixtures, garbage or substances, listed in the regulations as pollutants, into Canadian waters or fishing zones.

2 Any discharge or the danger of a discharge of oil, oily mixture, or a pollutant substance must be reported by the quickest means available to a pollution prevention officer or to a steamship inspector.

For further information a copy of the *Canadian Regulations* should be consulted.

Air pollution regulations. Black smoke emissions by ships are not allowed within 1 mile of the Canadian coast.

3 **International Convention on Civil Liability for Oil Pollution Damage 1992 (CLC)** came into force on the 29th May 1999 for all of Canada. All vessels covered by the convention are now required to carry a certificate showing that a contract of insurance, or other security that satisfies the requirements of the 1992 CLC, is in force in respect of the ship. It should be noted that the area of application has been extended to include voyages to off-shore terminals within the Exclusive Economic Zone and, therefore, the requirements for certification under the 1992 CLC may include ships that may have been exempt under the 1969 CLC. A 1992 CLC certificate is required for all sea-going ships carrying, in bulk as cargo, more than 2000 tons (equivalent to 2040 tonnes) of: crude oil; fuel oil; heavy diesel oil; lubricating oil or any other persistent hydrocarbon mineral oil that enters or leaves a port or off-shore terminal within Canadian waters or the exclusive economic zone of Canada.

4 A certificate can be issued by:

- (a) the Marine Safety Directorate, Transport Canada for Canadian vessels.
- (b) for ships registered in States that are party to the 1992 CLC, by the government of that State.
- (c) for vessels registered in States that are party to the 1969 CLC, the 1992 CLC shall be issued by either: the government of a State that is party to the 1992 CLC; the government of the flag state or by the Marine Safety Directorate, Transport Canada.

5 (d) for vessels that are registered in States that are not party to either the 1969 or 1992 CLC convention: the government of a State that is party to the 1992 CLC or the Marine Safety Directorate, Transport Canada. Application forms and additional information can be obtained from any Transport Canada Maritime Safety Office.

6 **Oil Spill Response.** Amendments to the *Canadian Shipping Act* now require oil tankers of over 150 grt and all other vessels of over 400 grt, trading in Canadian waters, to have in place an arrangement with a certified oil spill response organisation. All such vessels must carry a declaration naming the spill response organisation along with the ships insurer and those persons authorised to implement the vessels oil pollution emergency plan and the clean up arrangement.

Closure of ports and Examination Service

1.79

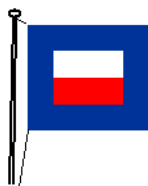
1 **Closure of port.** Should it be necessary for the Canadian Department of National Defence to take control of certain Canadian ports, the signals described at 1.81 will be displayed at or near the ports concerned.

Masters of vessels approaching the entrance to a controlled port should not enter a declared Dangerous Area or approach boom defences without permission, nor should they anchor or stop in a Dangerous Area or prohibited anchorage unless instructed to do so.

2 Masters are advised to communicate with any Canadian Government or Port Authority vessel in the area to ascertain the recommended approach route to the port.

Examination Services Vessels and Traffic Control Vessels wear the distinguishing flag of the Examination Service and the Canadian National Flag.

The flag of the Examination Service consists of a flag with a white and red centre, horizontally divided and a blue border.

**1.80**

- 1 If ordered to anchor in an Examination Anchorage, Masters are warned that it is forbidden, except for the purpose of avoiding an accident, to act as follows without prior permission being obtained from the Examination Officers:

Lower a boat.
 Communicate with the shore or any other ship.
 Move the ship.
 Work cables.
 Allow any person or thing to leave the ship.

- 2 Any passenger or member of the crew who has embarked outside Canada must be examined by the Canadian Immigration Officer before effecting admission to Canada.

Other regulations in force. Nothing in these precautionary regulations is to be taken as over-ruling any regulations issued by local authorities at particular ports, or by routing authorities of the Canadian Department of National Defence. *See Marpol Annex 1, Reg. 26.*

Vessels bound for Great Lakes and St Lawrence Seaway are requested to change their shallow water ballast for water embarked in ocean depths greater than 2000m and report same to ECAREG. *See Canadian Annual Notices to Mariners.*

1.81

- 1 **Movement control signals.** The following signals may be displayed from a conspicuous position at or near the ports concerned or by an Examination Service or Traffic Control Vessel.

When exhibited by Examination Vessels these signals will be carried in addition to normal navigation lights:

a) Entrance to the port prohibited.

By day.

Three red balls disposed vertically.

By night.

Three flashing red lights disposed vertically and visible all round the horizon.

- 2 **b) Entrance to the port permitted.**

By day.

No signal.

By night.

Three green lights disposed vertically and visible all round the horizon.

- 3 **c) Movement of shipping within the port or anchorage prohibited.**

By day.

A blue flag.

By night.

A red light, green light, red light, disposed vertically and visible all round the horizon.

Dumping at sea**1.82**

- 1 Under the *Canadian Environmental Protection Act and Regulations* a permit is required before dumping at sea, loading for the purpose of dumping at sea, for the disposal of a substance at sea or on ice, or by incineration at sea. Permits are issued on receipt of the appropriate application

form and fee. For more details mariners should contact their ships agent. Heavy fines may be imposed for contravention of the *Act*.

- 2 In the case of an emergency situation the requirement for a permit is waived but a report must be made in the prescribed form. Emergency situations are deemed to exist only where there is danger to human life at sea or to any ship or aircraft.

Aids to Navigation Protection Regulations**1.83**

- 1 Canadian regulations require that the Master of any vessel that moves or damages an aid to navigation shall report the fact to the Canadian Coast Guard by the quickest means.

Canadian Charts and Nautical Publications Regulations**1.84**

- 1 Regulations are in force concerning the carriage of charts and publications in Canadian waters; see Appendix I.

A *Provisional List of Charts* is published in *Canadian Annual Notice to Mariners* No 13 which lists the Canadian charts to be used in any given area together with the equivalent Admiralty chart acceptable under the regulations. Any chart marked REFERENCE may not be used for navigation in Canadian waters because the chart scale does not comply with that required by the Canadian regulations.

- 2 *Annual Summary of Admiralty Notices to Mariners* No 21 provides an up to date summary of the regulations with explanatory notes, and reprints *Canadian Annual Notice* No 13 giving a brief synopsis. It must not be assumed that when a Canadian chart is not quoted, the Admiralty chart which is quoted will meet the requirements of the Canadian regulations.

For details on how to obtain Canadian charts and publications see 1.33.

Shipping Casualties Reporting Regulations**1.85**

- 1 When in Canadian waters, any shipping casualty, accident or dangerous occurrence should be reported by radio to the Transportation Safety Board without delay. As soon as possible thereafter a written report should be forwarded. Copies of *Shipping Casualties Reporting Regulations* may be obtained from any shipping office.

For further details see *Canadian Annual Notice to Mariners* No 31, amended by *Canadian Notices to Mariners*.

Advance arrival notification**1.86**

- 1 The following vessels must request clearance 96 hours prior to entering Canadian waters from seaward or as soon as practicable where the ETA of the vessel in Canadian waters is less than 96 hours after the time the vessel departed its last port of call:

- Of 500 gross tons or more.
- Engaged in towing or pushing a vessel, where the combined tonnage of the vessel and the vessel being towed or pushed is 500 gross tons or more.
- Carrying a pollutant or dangerous goods, or engaged in towing or pushing a vessel carrying a pollutant or dangerous goods.

Quarantine reporting requirements**1.87**

- 1 The Canadian quarantine reporting requirements are given in Appendix III.

Customs

1.88

- 1 **Reporting requirements.** A master or person in charge of a vessel, upon arriving in Canada from a foreign port, must immediately report to the nearest Custom office. In case of emergency, and if Customs cannot be immediately contacted, then the nearest office of the Royal Canadian Mounted Police should be notified. Customs officers also assume immigration services and in certain ports represent Health and Welfare Canada in the matter of exemption, extension and issuing of de-ratting certificates.

- 2 **Ports of entry** for customs purposes are: Port Hawkesbury, Sydney, Charlottetown, Summerside, Bathurst, Campbellton, Caraquet, Newcastle, Baie Comeau, Cap-aux-Meules, Chicoutimi, Gaspé, Montréal, Paspébiac, Québec, Rimouski, Rivière-du-Loup, Sept-Îles, Sorel, Trois-Rivières.

Speed restrictions

1.89

- 1 Mariners are cautioned not to navigate at excessive speeds in the St Lawrence River above Québec, as the vessels wash can cause damage on the river banks and may be a danger to persons on the shore. Special danger points are mentioned in the appropriate geographical chapters of this book.

During the winter season, speed limits may be imposed on vessels navigating between Trois-Rivières and Montréal, due to the effects of wash on ice (1.10).

Details of any speed restrictions are promulgated in *Canadian Notices to Mariners*.

Protection of wildlife

1.90

- 1 **Conservation of marine mammals.** The Federal Department of Fisheries and Oceans is responsible for ensuring the protection and conservation of marine mammals within Canadian waters. The Fisheries Act prohibits any form of harassment of cetaceans, including repeated attempts to pursue, disperse, herd whales and any repeated intentional act of negligence resulting in the disruption of their normal behaviour. Harassing whales may force them away from their habitat at critical times in their annual reproduction and feeding cycles and may cause them injury.

Migratory bird sanctuaries

1.91

- 1 Mariners are advised that they are subject to the *Migratory Bird Sanctuary Regulations* should they have to stop within a sanctuary. The sanctuaries are shown on Canadian charts. Within these sanctuaries it is prohibited to hunt, disturb, destroy, take nests or have in ones possession a bird or egg etc. It is also prohibited to have firearms or any other hunting gear. Dogs and cats are not allowed to be at liberty. Access is prohibited or restricted at certain sites; consult Canadian Wildlife Service (Environment Canada) if in doubt.

SIGNALS

Fishing gear

1.92

- 1 In waters off the Atlantic coast of Canada fishing gear extending horizontally in the sea is marked as follows:

a) By day; at the W end by a buoy with two black square flags or one such flag over a black radar reflector; at the E end by a buoy with an orange square flag or an orange radar reflector; and if longer than 1 mile, by additional buoys carrying either a white square flag, or white reflector at intervals not exceeding 1 mile.

- 2 b) At night; at the W end by a buoy with two white lights; at the E end, by a buoy with one white light; and, if longer than 1 mile, by additional buoys exhibiting a white light at intervals not exceeding 1 mile.

The direction in which the gear extends may be further indicated by a buoy moored off each end carrying, by day, a square white flag or white radar reflector and, at night, a white light.

- 3 c) Anchored fishing gear which does not extend horizontally is marked, by day, by a buoy with a square blue flag or blue radar reflector and, at night, one white light.

d) Fishing gear which is drifting is marked at each end and at distances of not more than 2 miles along its length, by day, by buoys carrying a green square flag or green radar reflector and, at night, one white light.

Fishing vessels

1.93

- 1 For additional signals displayed by fishing vessels see Annex II of Appendix II for the Canadian modification to Rule 26 regarding additional signals for fishing vessels fishing in close proximity, or in close proximity to another vessel.

Diving operations

1.94

- 1 A red flag, with a white diagonal stripe, is frequently used to indicate scuba or other diving activity. This flag, despite its general use, is not a substitute for the lights and shapes required under *The International Regulations for Preventing Collisions at Sea (1972)*; however, if sighted vessels should keep well clear and proceed with caution.

Submarines

1.95

- 1 Canadian submarines conform closely to the warning signals procedure applicable to British submarines. Their indicator buoys are similar and operate on the same frequency.

In the event of an accident involving a submarine the nearest naval authority or coast radio station should be informed immediately.

For further information see the *Annual Summary of Admiralty Notices to Mariners* or the *Annual Edition of Canadian Notices to Mariners*.

Lights on Canadian warships

1.96

- 1 Mariners are cautioned that Canadian warships have been exempted from the requirement to carry the second steaming light prescribed by the *International Regulations for Collision Regulations at sea (1972)*, and that warships may exhibit additional lights or signals; these are described in the *Annual Edition of Canadian Notices to Mariners*.

Hydrographic and Seismic Survey Vessels

1.97

- 1 An orange buoy, usually attached to the end of the buoyant cable sensing device, is towed astern of survey vessels. The buoy displays a white light and carries a radar reflector.

Temporary signals**1.98**

- 1 Canadian Government vessels temporarily employed on Search and Rescue duties may display a square flag which has an orange triangle on a yellow background.

DISTRESS AND RESCUE**General information****Radio monitoring****1.99**

- 1 The radio watch monitoring international distress frequencies, which certain classes of ship are required to maintain when at sea, is one of the most important factors in the arrangements for the rescue of mariners and other people in distress at sea. For general information concerning distress and safety, including helicopter assistance, see *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook*.

Global Maritime Distress and Safety Systems**1.100**

- 1 The Global Maritime Distress System (GMDSS) enables Search and Rescue authorities on shore, in addition to shipping in the immediate vicinity of a vessel in distress, to be rapidly alerted to an incident so that assistance can be provided with the minimum of delay. The sea area covered by this volume lies within the Search and Rescue regions of Canada.

Details of the GMDSS and the associated coast radio stations are given in *Admiralty List of Radio Signals Volume 5*.

Ship reporting systems**Automated Mutual-assistance Vessel Rescue System**
1.101

- 1 The Automated Mutual-assistance Vessel Rescue (AMVER) system, operated by the United States Coast Guard, is a maritime mutual assistance organization which provides important aid to the development and co-ordination of Search and Rescue (SAR) efforts in many offshore areas of the world. Participation in the system is voluntary.

Details are given in *Admiralty List of Radio Signals Volume 1* (2).

Canada Traffic Systems**1.102**

- 1 For information on Eastern Canada Traffic System (ECAREG Canada) see (1.26).

Rescue services**General information****1.103**

- 1 The waters covered by this volume comprise two Search and Rescue Regions (SRRs), with the dividing line at Cornwall (45°00'N, 74°43'W) on St Lawrence River. Joint Rescue Co-ordination Centres (JRCCs), constantly manned by Canadian Forces and Canadian Coast Guard Officers, are established at Halifax, Nova Scotia, and at Trenton, Ontario, to co-ordinate search and rescue resources in their respective SRRs. In addition, Marine Rescue Sub-Centres (MRSCs) are maintained at St John's, Newfoundland, and at Québec City to co-ordinate local marine search and rescue operations.

- 2 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 addition, the Canadian Coast Guard operates a number of specialised vessels and small craft whose prime mission is search and rescue.

The Rescue Co-ordinator is not authorised to order vessels to undertake salvage but the RCC will attempt to inform the stricken vessel and its owners, of the presence of nearby vessels.

- 3 For further details see *Admiralty List of Radio Signals Volume 5*.

Distress messages**1.104**

- 1 All distress messages and requests for assistance should be passed to the nearest Canadian Coast Guard radio station or Vessel Traffic Services Centre.

Lifeboat stations**1.105**

- 1 Canadian Coast Guard lifeboats are stationed at the following places:

Louisbourg (Nova Scotia) (45°55'N, 59°58'W)
100 mile range.

Cap-aux-Meules (Îles de la Madeleine) (47°23'N, 61°51'W) 100 mile range.

Souris (Prince Edward Island) (46°21'N, 62°15'W)
75 mile range.

Havre Saint-Pierre (Québec) (50°14'N, 63°37'W)
75 mile range.

- 2 Summerside (Prince Edward Island) (46°23'N, 63°48'W) 75 mile range.

Rivière-au-Renard (Québec) (49°00'N, 64°23'W)
75 mile range.

Shippegan (New Brunswick) (47°45'N, 64°42'W)
75 mile range.

Tadoussac (Québec) (48°08'N, 69°43'W) 50 mile range.

Québec City (46°49'N, 71°12'W) 50 mile range.

- 3 Arun Class Lifeboats (length 15.54 m) operate from the stations mentioned above with 100 mile range. Cape Class Lifeboats (length 14.32 m) operate from the stations mentioned above with 75 mile range.

The stations at Cap-aux-Meules, Souris, Havre Saint-Pierre, Summerside, Rivière-au-Renard, Shippegan, Tadoussac and Québec City are operational from about 1st May to 30th November.

- 4 In addition, during the ice season a patrol ship operates in NE Gulf of St Lawrence.

Each of these stations are designated Search and Rescue Stations.

VHF DSC**1.106**

- 1 As from 1st August 2003, all VHF DSC stations (Sea Area 1) operating within the sea area of this book became fully operational. Details are given in *Admiralty List of Radio Signals Volume 5*.

Patrol vessels and rescue craft**1.107**

- 1 A Department of Fisheries and Oceans vessel is stationed at Richibucto, New Brunswick (46°41'N, 64°51'W) for search and rescue operations from 1st May to 30th November.

In the St Lawrence River between the Port of Québec and Île d'Anticosti, the Canadian Coast Guard operates at 41 m search and rescue cutter on patrol and a 21 m search

and rescue cutter stationed at Tadoussac (48°08'N, 69°43'W). The vessels are operational from about the end of April until the beginning of November.

- 2 All these vessels keep constant watch on VHF Channel 16, 2182 kHz and on General Radio Service Channel 9 (citizens band).

Inshore rescue boats are based at various places in the St Lawrence River between Québec and Cornwall

(45°00'N, 74°43'W). These small units are operational from about 15th May to 15th September.

Airborne liferafts

1.108

- 1 Certain Canadian Armed Forces fixed wing aircraft and helicopters are capable of dropping inflatable liferafts and survival equipment.



COUNTRIES AND PORTS

CANADA

General description

1.109

- 1 Canada occupies the N and larger part of the North American continent, bordered on the S by the United States of America. Within these boundaries there are ten self governing provinces and three territories with a total area of 9 970 610 square kilometres of which 755 180 square kilometres are fresh water, making Canada the second largest country in the world and the largest in the western hemisphere.

A notable feature of eastern Canada is the St Lawrence Seaway, entered at Montréal and allowing ocean-going vessels access to ports in the Great Lakes.

National limits

1.110

- 1 **Territorial sea.** Canada claims a 12 mile territorial sea.
- Contiguous zone.** Canada claims a 24 mile contiguous zone adjacent to the Canadian territorial seas. Within this zone the Canadian authorities exercise control to prevent the infringement of customs, immigration, sanitary and fiscal regulations.
- Exclusive Economic Zone.** Canada claims a 200 mile exclusive economic zone, which includes Fishing Zones 1 and 4 which are shown on Canadian charts.

For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook*.

History

1.111

- 1 The Norsemen from Greenland discovered and briefly settled in Newfoundland at the start of the eleventh century. The land was discovered again by John Cabot in *Matthew* in 1497, although fishermen from Portugal, Spain and France are known to have been fishing these waters before that date.
- In 1534 Jacques Cartier entered the Gulf of St Lawrence and took possession of the country for France.
- 2 Nova Scotia was occupied by the British in 1628, ceded to France in 1632 and returned by the Treaty of Utrecht in 1713. The Hudson's Bay Company's charter, conferring rights over the area round the Bay, was granted in 1670.
- 3 In 1759 Québec was captured by the British under General Wolfe and in 1763 Canada with all its dependencies became British under the terms of the Treaty of Paris.
- 4 The present federal state had its foundation in the British North America Act of 1867. This British Act of Parliament established the Dominion of Canada from the eastern provinces of Ontario, Québec, New Brunswick and Nova Scotia, and made provisions for the later inclusion of the other provinces and territories.
- The last of these to join was Newfoundland in 1949, making a federation of ten provinces and two territories.
- 5 The Canada Act, 1982 was the final Act of the British Parliament in Canadian constitutional development. It prepared the way for Canada to amend the constitution, and this was done by the Canadian parliament's Constitution Act, 1982, duly proclaimed in force by the Queen in the same year.

Government

1.112

- 1 Canada is a parliamentary democracy with a constitutional monarchy, in which the Sovereign's authority is delegated to a Governor General, who is appointed by the Sovereign on the advice of the Canadian Government.
- 2 The Parliament of Canada comprises an Upper House, or Senate, whose 105 members are appointed by the Governor General, and an elected Lower House called the House of Commons, that returned 301 members in the 2001 elections. The Prime Minister and the Cabinet are normally members of the House of Commons.
- There is a Lieutenant Governor, appointed by the Governor General, in each of the ten provinces, who, together with an elected Legislative Assembly is responsible for local affairs.
- 3 Yukon Territory, Nunavut and Northwest Territories, the three areas which do not have provincial status, are each governed by a Commissioner with an elected Legislative Council.

Population

1.113

- 1 Most of the population of 31 081 887 (2001 census) is concentrated near the S border, where the winter climate is less severe and development is more advanced. The combined population of the provinces of Nova Scotia, Québec, New Brunswick, and Prince Edward Island was 8 250 563 according to the 2001 census.

Language

1.114

- 1 English and French are both official languages in Canada. Most of the French speakers live in the province of Québec, but there are some in other provinces, notably New Brunswick.

Physical features of the eastern provinces

Nova Scotia

1.115

- 1 The province of Nova Scotia consists of a large peninsula, connected to the mainland of New Brunswick by an isthmus, 24 km wide. Cape Breton Island, the NE part of Nova Scotia, is separated from the main part of the province by the Strait of Canso, a narrow waterway leading into the S end of the Gulf of St Lawrence.
- 2 The SE slopes of the mountains which run the length of Nova Scotia are generally rocky, barren and wind-swept, while the land facing the Gulf of St Lawrence consists mainly of fertile arable plains and river valleys, which are extensively farmed. None of the mountains attain an elevation of more than 500 m and many of them are covered with valuable timber.

New Brunswick

1.116

- 1 The province of New Brunswick lies on the W side of the Gulf of St Lawrence. It is bounded on the N by Baie des Chaleurs and separated from Québec Province by Rivière Restigouche. The terrain is generally undulating, with a maximum elevation of 820 m in its central highlands.

Prince Edward Island

1.117

- 1 Prince Edward Island, the smallest province of Canada, lies in the S part of the Gulf of St Lawrence, separated

from the coasts of New Brunswick and Nova Scotia by Northumberland Strait. The island has a gently rolling terrain, rising to an elevation of about 137 m and is extensively farmed, mainly by descendants of English, Scottish and Irish settlers. Its rich red soil and red sandstone formations are distinctive.

Québec 1.118

- 1 Québec is the largest province in Canada, extending N from the United States border to Hudson Strait. Most of the province lies to the N of the Gulf of St Lawrence and St Lawrence River.

Many rivers flow into the St Lawrence River from high land on its N side.

- 2 The Appalachian Mountains extend through the area of Québec S of the St Lawrence River, reaching elevations of over 1000 m in the Chic-Chocs (Shickshock) Mountains of Péninsule de Gaspé.

- 3 Québec City, the capital of Québec Province and centre of French-Canadian culture, lies on the St Lawrence River, as does the great city and port of Montréal.

Ontario 1.119

- 1 The province of Ontario lies W of Québec and extends into the middle of Canada. Its S boundary has a fresh water shoreline on the Great Lakes. The terrain is rugged and rocky in the N, with gentler lowlands in the Great Lakes and St Lawrence River regions.

Ottawa, the federal capital of Canada, is situated in the SE part of the province; the great city and port of Toronto lies on the N shore of Lake Ontario.

Industry and trade

Agriculture and forestry 1.120

- 1 Canada is one of the world's largest exporters of farm products, chiefly grain from the vast prairies of the interior. Approximately 26.5 per cent (1995) of the land area is classed as productive forest land making Canada a major exporter of timber and wood products, including newsprint.

Fisheries 1.121

- 1 Extensive fishing is carried out on all the coasts of eastern Canada, except during the winter freeze. Fish of all kinds, including shellfish, are caught in great quantities.

Minerals and energy 1.122

- 1 Canada is one of the world's largest producers of minerals, oil and natural gas, and ranks among the first in the world in mineral exports.

Hydro-electric schemes provide the main source of electrical power, but coal, oil and nuclear power stations also contribute.

PRINCIPAL PORTS, HARBOURS AND ANCHORAGES

1.123

Place and Position

Remarks

North shore of gulf and estuary

Baie des Sept-Îles
(50°12'N, 66°28'W) (5.43) Sheltered anchorage.

Place and Position

Remarks

Sept-Îles (50°12'N, 66°23'W)
(5.43) Ore loading and commercial port.

Pointe Noire
(50°10'N, 66°30'W) (5.71) Ore loading terminal.

Anse à Brochu, close SE of
Pointe Noire.
(50°10'N, 66°28'W) (5.74) Ro-Ro terminal.

Havre de Port-Cartier
(50°02'N, 66°47'W) (5.99) Artificial harbour.
Privately owned. Ore
and grain loading
port.

Baie-Comeau
(49°15'N, 68°08'W) (5.158) Commercial port;
grain transshipment
terminal.

Saguenay River

Port-Alfred
(48°20'N, 70°52'W) (5.297) Industrial and
commercial port.

Chicoutimi
(48°26'N, 71°04'W) (5.328) Industrial and
commercial port.

St Lawrence River

Québec (46°49'N, 71°12'W)
(9.69) Major commercial
port.

Trois-Rivières
(46°20'N, 72°33'W) (9.179) Industrial and
commercial port.

Sorel (46°03'N, 73°07'W)
(10.32) Industrial and
commercial port.

Montréal (45°32'N, 73°32'W)
(10.139) Major commercial
port.

East coast of Cape Breton Island

Sydney Harbour including
North Sydney and Sydney
(46°16'N, 60°10'W) (11.49) Anchorage.
Commercial and
industrial port.

Chedabucto Bay and Strait of Canso

Chedabucto Bay
(45°26'N, 61°10'W) (12.70) Open anchorage for
large vessels.

Inhabitants Bay
(45°34'N, 61°16'W) (12.169) Anchorage.

Port Hawkesbury and
Mulgrave (45°37'N, 61°22'W)
(12.179) Industrial and
commercial port.

East coast of Prince Edward Island

Cardigan Bay
(46°10'N, 62°28'W) (14.101) Anchorage.

Georgetown
(46°10'N, 62°32'W) (14.105) Commercial port.

Northumberland Strait

Pictou Harbour
(45°40'N, 62°42'W) (14.26) Commercial port.
Anchorage.

Trenton and New Glasgow
(45°36'N, 62°38'W) (14.26) Commercial and
industrial ports.
Marinas

Charlottetown
(46°14'N, 63°08'W) (14.195) Commercial port
sheltered anchorage.

<i>Place and Position</i>	<i>Remarks</i>
Pugwash Harbour (45°51'N, 63°40'W) (14.249)	Commercial port. Anchorage.
Summerside Harbour (46°23'N, 63°48'W) (14.288)	Commercial port. Anchorage.
New Brunswick coast	
Miramichi Inner Bay (47°07'N, 65°10'W) (15.26)	Anchorage.
Miramichi River	
Chatham (47°02'N, 65°28'W) (15.49)	Industrial and commercial port. Siltng
Newcastle (47°00'N, 65°33'W) (15.49)	Industrial and commercial port. Siltng
Baie des Chaleurs	
Caraquet Harbour (47°48'N, 64°56'W) (15.119)	Commercial and fishing port.
Bathurst Harbour (47°37'N, 65°40'W) (15.182)	Commercial port. (Siltng)
Restigouche River	
Dalhousie (48°04'N, 66°22'W) (15.243)	Industrial port.
Campbellton (48°00'N, 66°40'W) (15.254)	Shipping port for lumber.
Baie de Gaspé	
Douglstown (48°46'N, 64°23'W) (15.305)	Anchorage.
Havre de Gaspé (48°50'N, 64°27'W) (15.289)	Sheltered harbour.

PORT SERVICES — SUMMARY

Docking facilities

1.124

- 1 **Les Méchins.** Dry dock. Length 244 m, breadth 27.4 m, depth 7.62 m over sill at MHWS (7.73).

Québec. Champlain Dry Dock. Length 364.2 m, breadth of entrance 32 m (bottom) 36.5 m (top), depth 12.1 m over sill at MHWS (9.102).

- 2 **Sorel.** Patent slip with transfer cables to six separate belts (building and repair). Length of cradle 128 m, lifting capacity 5100 tonnes (10.70).

Montréal. Floating Docks with lifting capacity 27,941 tonnes when two sessions are connected together (10.182).

North Sydney. Patent slip. Length of cradle 38 m, lifting capacity 550 tonnes (11.74).

Georgetown. Patent slip. Length of cradle 47.5 m, lifting capacity 670 tonnes (14.105).

Pictou. Patent slip. Length of cradle 98.8 m, lifting capacity 3300 tonnes (14.26).

Port Hawkesbury. (12.179) Two patent slips, the largest being 51.8 m long, 11.6 m wide capacity 900 tonnes.

Other facilities

Salvage services

1.125

- 1 Québec (9.102).
Montréal (10.182).

Compass adjustment

1.126

- 1 Sorel (10.71).

Deratting

1.127

- 1 Deratting may be carried out and certificates obtained at:
Québec (9.103).
Sorel (10.71).
Montréal (10.183).

- 2 Exemption and extension Certificates only may be obtained at:
Sept-Îles (5.83).
Havre de Port-Cartier (5.121).
Baie-Comeau (5.181).
Trois-Rivières (9.208).
Sydney (11.75).
Chicoutimi (5.328).
Gros Cacouna (8.87).
Havre-Saint-Pierre (4.98).
La Baie (5.297).

Measured distances

1.128

- 1 Grandes-Bergeronnes (5.237).
Cardigan Bay (14.123).

NATURAL CONDITIONS

MARITIME TOPOGRAPHY

General remarks

1.129

- 1 The Gulf of St Lawrence receives drainage from the vast land mass of E Canada. The two outlets to the Atlantic Ocean are the Strait of Belle Isle between Newfoundland and Labrador, and Cabot Strait between Newfoundland and Nova Scotia.

Depths and seabed

1.130

- 1 Water depths in the Gulf of St Lawrence are variable; the S portion is for the most part fairly flat and shallow, shelving very gradually out to the 100 m contour. Average depths are of the order of 60 to 80 m, and the edge of the shelf is 160 miles from the mainland at its widest point. In the N part, depths are more variable, and the shelf reaches 50 miles at its widest point.
- 2 Separating these two margins is the Laurentian Channel in which the depth is 400 to 500 m. This deep trough extends from the mouth of the St Lawrence River, S of Île d'Anticosti, out through the Cabot Strait and across the entire continental shelf S of Newfoundland. Another deep branch runs NE of Île d'Anticosti and extends up the NE arm of the Gulf towards the Strait of Belle Isle. Glacial erosion seems to have caused these troughs.
- 3 Sediments in the Gulf include coarse grained sandy deposits inshore and on the shallow margins, whereas the deep troughs contain much unsorted coarse material. Rock outcrops also occur on the shelf areas.

MAGNETIC VARIATION AND
LOCAL ANOMALIES

Local magnetic anomalies

1.131

- 1 Local magnetic anomalies are mentioned in the appropriate geographical chapters. Significant anomalies are also suspected to exist at a number of other locations in this region, too numerous to mention.

CURRENTS, TIDAL STREAMS AND FLOW

General information

1.132

- 1 **Remarks.** The horizontal water movement throughout the Gulf of St Lawrence is mainly a combination of the current from the St Lawrence River and the tidal streams. Upon these factors is imposed the effect of the formation and disintegration of ice, which varies from year to year, alternatively reducing and augmenting the flow.
- 2 The general anti-clockwise circulation, illustrated in the diagram, is derived from all available ship observations. These are sparse in the NE arm of the Gulf throughout the year, and in all parts during the winter season.
The predominant currents in open waters are reasonably well defined, but near the coasts the effects of bottom topography, tidal streams and freshwater run-off lead to very complex patterns in places.
- 3 **Current diagram.** In the current diagram (1.132.1), the arrows indicate predominant direction, average rate and constancy, which are defined as follows:

Predominant direction. The mean direction within a continuous 90° sector containing the highest proportion of observations from all sectors.

Average rate, to the nearest ¼ kn, of the highest 50% in the predominant sectors is indicated by the figures in the diagram. It is emphasised that rates above and below those shown may be experienced.

- 4 **Constancy,** as indicated by the thickness of the arrows is a measure of its persistence. For example, low constancy implies marked variability in rate and, particularly, in direction.

Currents

South-eastern approaches

1.133

- 1 The Labrador Current passes Cape Race (46°40'N, 53°05'W) and sets SW throughout the year, as shown in diagram 1.132.1. It is most constant during the winter season. For further information see *Newfoundland and Labrador Pilot*.

After long periods of E or NE winds, a current setting N may be experienced along the E coast of Cape Breton Island from Saint Anns Harbour to the vicinity of Cape North.

Cabot Strait

1.134

- 1 The predominant set through the strait is SSE, towards the right flank of the Labrador Current. For much of the year the main flow is concentrated on the Cape Breton side, where it is known as the Cape Breton or Cabot Current. Average rates are ¾ to 1 kn and on-shore sets are often experienced.

On the N side of Cabot Strait currents are less constant, and at times during the year there is a predominance of W sets towards Cape Ray (47°37'N, 59°18'W). In winter and early spring this current can be relatively warm, and contributes towards maintaining some open water off the S and W coasts of Newfoundland.

North-eastern arm of Gulf of St Lawrence

1.135

- 1 Observations in the region between the Strait of Belle Isle and Île d'Anticosti are sparse, and those available are restricted to the waters near the N shore, during the relatively ice-free months from late spring to early winter. There is some evidence in summer of SW sets from the Strait of Belle Isle to Cap Whittle (50°10'N, 60°04'W) on the N side, and of NE sets from near Saint Pauls Bay (49°51'N, 57°51'W) to the Strait of Belle Isle on the S side.

St Lawrence Estuary and Gulf of St Lawrence

1.136

- 1 The currents in the estuary set predominantly down river, along the axis of the main channel. The average rate of the top 50 per cent of these currents is about 1½ kn, and their constancy is at a moderate to high level.
- 2 **Gaspé Current.** The main current from St Lawrence River, after passing Pointe des Monts (49°19'N, 67°23'W) follows the S shore and flows out of the estuary through Détroit d'Honguedo. It tends to keep to the SW side of this passage, but occasionally moves laterally towards the centre. It is retarded or augmented by the in-going or out-going tidal streams, respectively, its rates being generally between ¾ to 1¼ kn. The current rose for Area

A on the diagram indicates the stability of SE sets and shows the frequency of sets in other directions. Occasionally, for periods of up to 3 days, an in-going current of up to ½ kn replaces the Gaspé Current.

- 3 The Gaspé Current turns more S on passing Cap de Gaspé (48°45'N, 64°10'W) and joins a general anti-clockwise circulation in the Gulf of St Lawrence, passing between Îles de la Madeleine and Prince Edward Island. As the current approaches the SW coast of Newfoundland it is diverted, some going NE towards the Strait of Belle Isle, and some towards Cape Ray.

- 4 **Western part of Gulf of St Lawrence.** The S and SW-going current is increasingly augmented, after the end of winter, by outflow from the many rivers and bays of New Brunswick, Prince Edward Island and Nova Scotia. There is a marked tendency for an anti-clockwise eddy to develop in late summer and autumn to the N of Prince Edward Island.

- 5 From spring to autumn the predominant rates tend to increase slightly to just over 1 kn in the waters between Îles de la Madeleine and the N point of Cape Breton Island. On-shore sets are common on the NW coast of Cape Breton Island, with tidal stream and current sometimes combining in this effect.

- 6 **Île d'Anticosti.** In the vicinity of Île d'Anticosti the out-going current from the St Lawrence Estuary passes both to the N and S of the island, the S part being stronger. To the N of the island it is probably swamped at times by the W-going tidal stream, which runs for a longer period than does the E-going stream.

- 7 There is some evidence of minor anti-clockwise eddies, one being to the W of Île d'Anticosti, where a weak inflow along the N shore of the Gulf is turned S across the main out-going flow from the St Lawrence Estuary.

Tidal streams

1.137

- 1 In the open areas of the Gulf of St Lawrence the tidal streams are subject to the influence of the wind. They are all-defined and weak, with rates of less than 1 kn.

Flow

1.138

- 1 The predicted flow at a number of positions in the Gulf of St Lawrence and St Lawrence River is given in Canadian Tide and Current Tables and shown on the charts. The information given is a combination of average current and tidal streams.

SEA LEVEL AND TIDES

Gulf of St Lawrence

1.139

- 1 The tide propagated through Cabot Strait and Strait of Belle Isle is mainly semi-diurnal, but diurnal tides predominate in the SE part of the Gulf. At the S tip of Îles de la Madeleine, and near Buctouche Harbour (46°28'N, 64°37'W) and Richibucto Cape (46°40'N, 64°43'W), the tides are entirely diurnal.
- 2 The semi-diurnal tide progresses anti-clockwise round the Gulf, HW in Cabot Strait coinciding with LW in the estuary of St Lawrence River and vice versa. The amphidromic point lies in about 47°25'N, 62°00'W off the W coast of Îles de la Madeleine. At this point the range of the semi-diurnal tide is zero and it increases outwards towards the shores of the Gulf, reaching 0.9 m in Cabot

Strait, in the N and E parts of the Gulf, and at the entrance to Détroit d'Honguedo.

St Lawrence River

1.140

- 1 A semi-diurnal tide progresses up St Lawrence River as far as Lac Saint-Pierre (46°10'N, 72°50'W). Starting from Sept-Îles, the crest of the tide takes about 10 hours to reach Lac Saint-Pierre. The spring range increases from about 2.4 m at Sept-Îles to about 5 m at Québec Harbour; after this it diminishes to less than 0.3 m at Lac Saint-Pierre.
- 2 Above Québec the effect of the river begins to be felt. The period between HW and LW exceeds that between LW and HW; the levels of HW remain roughly constant while LW levels rise with increasing distance from the sea. The LW level is higher at spring tides than it is at neap tides, a situation which frequently occurs in the higher reaches of a river.
- 3 In the river above Québec, water draining off the land may cause the level to vary by as much as 2.4 m, making the tide relatively insignificant in the upper reaches.
- 4 **Tide gauges** are located at Saint-François, Lauzon, Neuville, Portneuf, Deschailions, Trois-Rivières, Pointe-aux-Trembles and Montréal. Up-to-date readings from these stations can be obtained through the Vessel Traffic Services System.

SEA WATER CHARACTERISTICS

Salinity

1.141

- 1 For an explanation of salinity as applied to seawater, see *The Mariners Handbook*. In the winter months, the Gulf is practically ice-bound. Off the ice edge, in the SW of the region covered by this volume, salinity values will be at their lowest. In the open waters to the extreme SW of this region salinity values of 32.0 to 32.5 will be found.

In summer the salinity varies from a value of 31.5 centred on the Cabot Strait, up to 32.5 in the mouth of the St Lawrence, the N of the Gulf and to the SW of the region.

Density

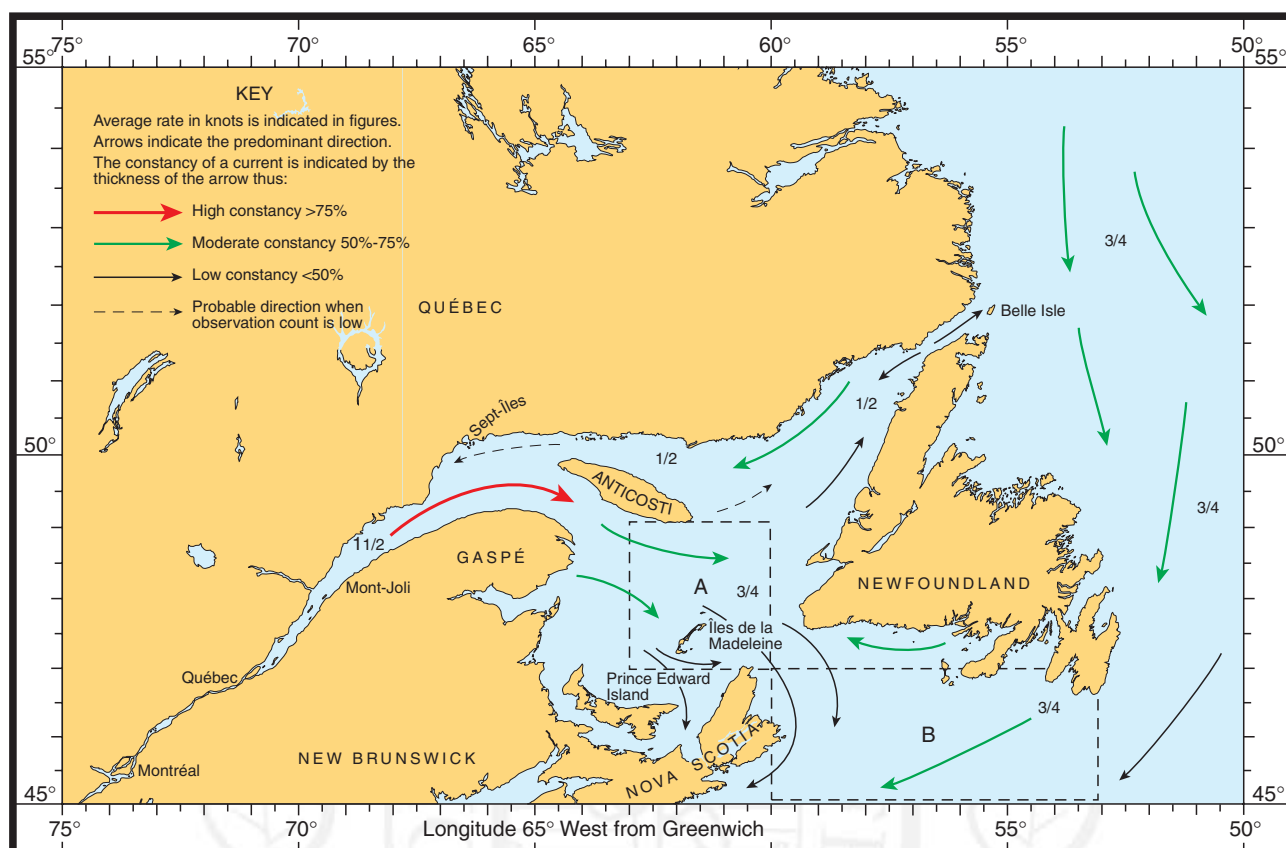
1.142

- 1 For an explanation of density as applied to seawater, see *The Mariners Handbook*. Density values follow the same trend as the salinity values. In winter low values are found off the ice edge with values of 1.02600 in the extreme SW of the region. In summer a value of 1.02325 is centred on the Cabot Strait going up to 1.02375 in the SW of the region. In the mouth of the St Lawrence and the N of the Gulf of St Lawrence density goes up to 1.02500.

Sea surface temperature

1.143

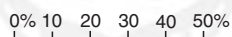
- 1 **Average distribution** of sea temperature for February, May, August and November is shown in diagrams 1.143.1 to 1.143.4. Lowest sea temperatures are experienced in February and March, when they are below 0°C throughout the Gulf of St Lawrence and ice is widespread. From April onwards water temperature rises, slowly at first but more rapidly in June and July with highest temperatures in the SW of the Gulf and lowest in the Strait of Belle Isle.
- 2 Maximum sea temperatures are reached in late August or early September with values of 10°C in the northern parts of the Gulf and 16°C or more in the SW part and in the Cabot Strait. After August temperatures fall with increasing rapidity to reach 0°C again by December in the N and in all other parts of the Gulf by January.



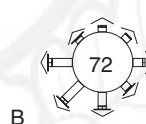
Arrows indicate direction of set and are divided according to rate:-



The length of each division indicates percentage frequency on the scale:-



The figure within the circle gives the percentage of occasions with currents less than 0.5 knots.



Generalised predominant currents: JANUARY - DECEMBER (1.132.1)
Observations in area A restricted to APRIL - NOVEMBER

Appreciable departures from average conditions may be experienced from year to year.

ICE CONDITIONS

Formation and dispersal of ice

1.144

- 1 Most of the ice in the Gulf of St Lawrence is formed within the Gulf itself, usually attaining a thickness of about 1 m. Some freshwater ice is brought in by the St Lawrence River. Sea ice up to 2 m thick from the Labrador Sea enters through the Strait of Belle Isle in the NE, often extending to about 60°W.
 - 2 Due to the various stresses acting on the ice, the Gulf is never completely covered with a uniform, solid mass of ice. Strong winds and tidal streams have a marked effect on the bulk movement of ice, resulting either in ice jams or extensive leads along the shores. Where ice is subject to pressure, ridges may form, often exceeding 3 m in height. Mean temperatures during the winter do not fall very far below freezing point, so that prolonged spells of colder or milder weather have a significant effect on the formation and disintegration of ice, particularly near the beginning and end of each ice season. This effect is not so apparent in higher latitudes, where air temperatures are much colder.
 - 3 In most seasons new ice first appears in the St Lawrence River towards the end of December, then coastal ice forms along the shallows of the New Brunswick coast, through Northumberland Strait and in the Strait of Belle Isle. Ice continues to develop and extend, so that by the end of January the Gulf is virtually filled with pack ice. Ice continues to thicken and extend until late February, when it reaches the W coast of Newfoundland and drifts through Cabot Strait into the Atlantic.
 - 4 By late March melt of the river ice is almost complete, whilst along the N shores and in the central Gulf disintegration of the pack ice is well advanced. Ice through Northumberland Strait and N of Prince Edward Island is slow to clear, but by the end of April only a few patches remain. Ice often persists in the Strait of Belle Isle throughout May, and may remain in the E approaches until the end of June.
 - 5 The average date for Cabot Strait to open to general navigation is about the middle of April, but this may vary by as much as a month either way. This clearance is usually preceded by a great rush of ice out of the Gulf of St Lawrence, causing a block, known as The Bridge between Saint Paul Island and Cape Ray. This usually lasts for several days, but may remain for as long as three weeks in exceptional years.
- Large quantities of ice pass through the strait for many days after navigation is open, particularly with N winds.

CLIMATE AND WEATHER

General information

1.145

- 1 The following information should be read in conjunction with the relevant chapters in *The Mariner's Handbook*.
Weather is highly variable from day to day. Rain, which turns to snow in winter, is plentiful throughout the year.
- 2 Climate is cold, and average temperatures are appreciably below the normal for this latitude. There is a marked seasonal variation; winter is long and very cold, but the brief summer from June to August may be quite hot in the interior.

Pressure

Variability

1.146

- 1 Although the average pressure distributions show a simple seasonal fluctuation with only minor change in pressure values, the day to day pressure variability is very high. Large pressure falls and rises are to be expected as lows move across the area; variability is greatest in January and least in July. The average pressure distribution at mean sea level in January and July is shown in the accompanying diagrams 1.146.1 and 1.146.2.
- 2 There is a small regular diurnal variation of about 1½ mb amplitude with maxima around 1000 and 2000 local time and minima about 1400 and 1600; however it is usually masked by the larger pressure changes caused by development and movement of pressure systems.

Winter

1.147

- 1 General pressure distribution is a high pressure belt over the Azores and the USA with a ridge extending from USA to northern Canada. Low pressure in the Iceland area results in an average pressure gradient from SW to NE over the Gulf of St Lawrence. A trough of low pressure extending NE from New Brunswick across Newfoundland marks the broad path followed by the numerous depressions which transit through or develop over this region. The average pressure field for January is illustrated in the diagram.

Spring and Summer

1.148

- 1 From March to May the pressure gradient over the area weakens as pressure falls over the USA and Canada. By July the mid-summer pattern is established (as shown in the diagram) with high pressure remaining over the Azores and with relatively low pressure over Hudson Bay and the Iceland area. The winter trough of low pressure across Newfoundland migrates slowly northwards in spring and summer as the most frequented depression track is also displaced to the north. The general pressure field corresponds with the predominantly SW winds which affect the region in summer.

Autumn

1.149

- 1 A gradual deepening of the Icelandic low from September to November, coupled with increasing pressure over the N American continent, restore the winter pressure distribution and an associated increase in W and NW winds over the area.

Depressions

1.150

- 1 Most depressions affecting this area have well-marked and active frontal systems giving low cloud and rain or snow.

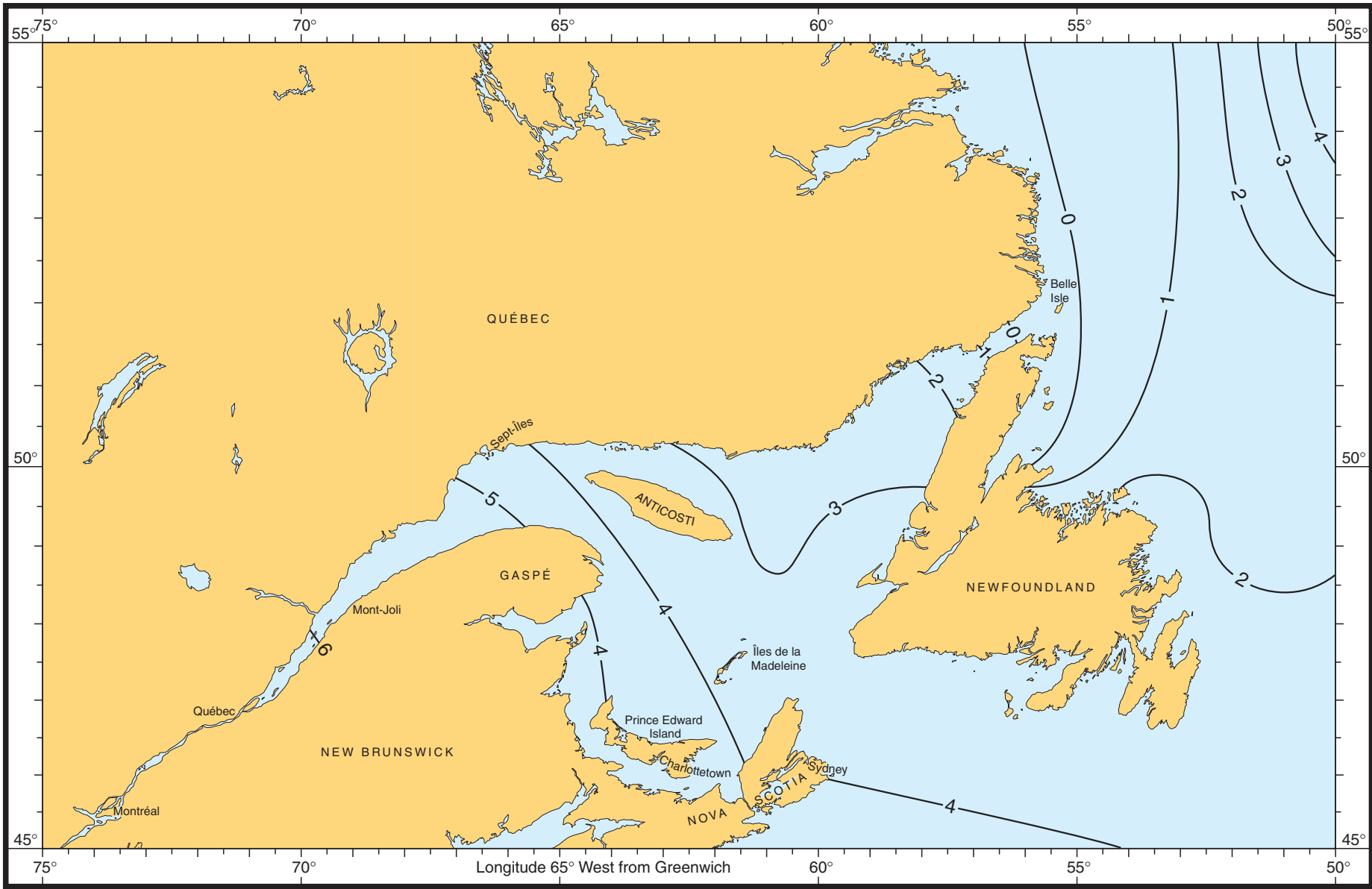
Development and movement

1.151

- 1 The region is frequently affected by travelling depressions and the diagram (1.151.1) illustrates typical depression tracks across the area.
Lows may develop over the continent, approaching the Gulf of St Lawrence from W to SW; or development may occur off the E coast of USA subsequently reaching the Gulf from S to SW. Almost all depressions have headings between N and E.



Mean sea surface temperature (°C) FEBRUARY (1.143.1)



Mean sea surface temperature (°C) MAY (1.143.2)

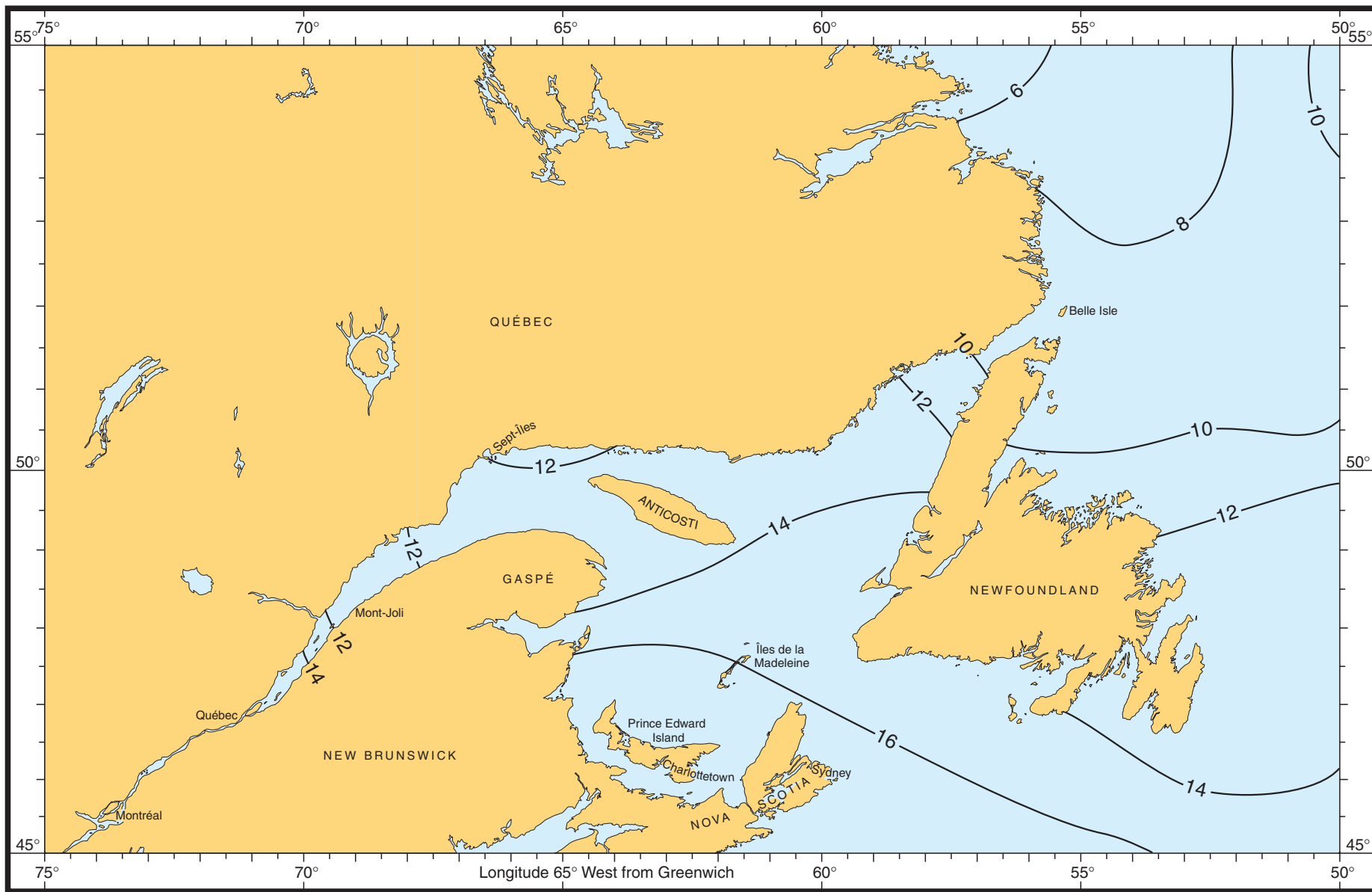
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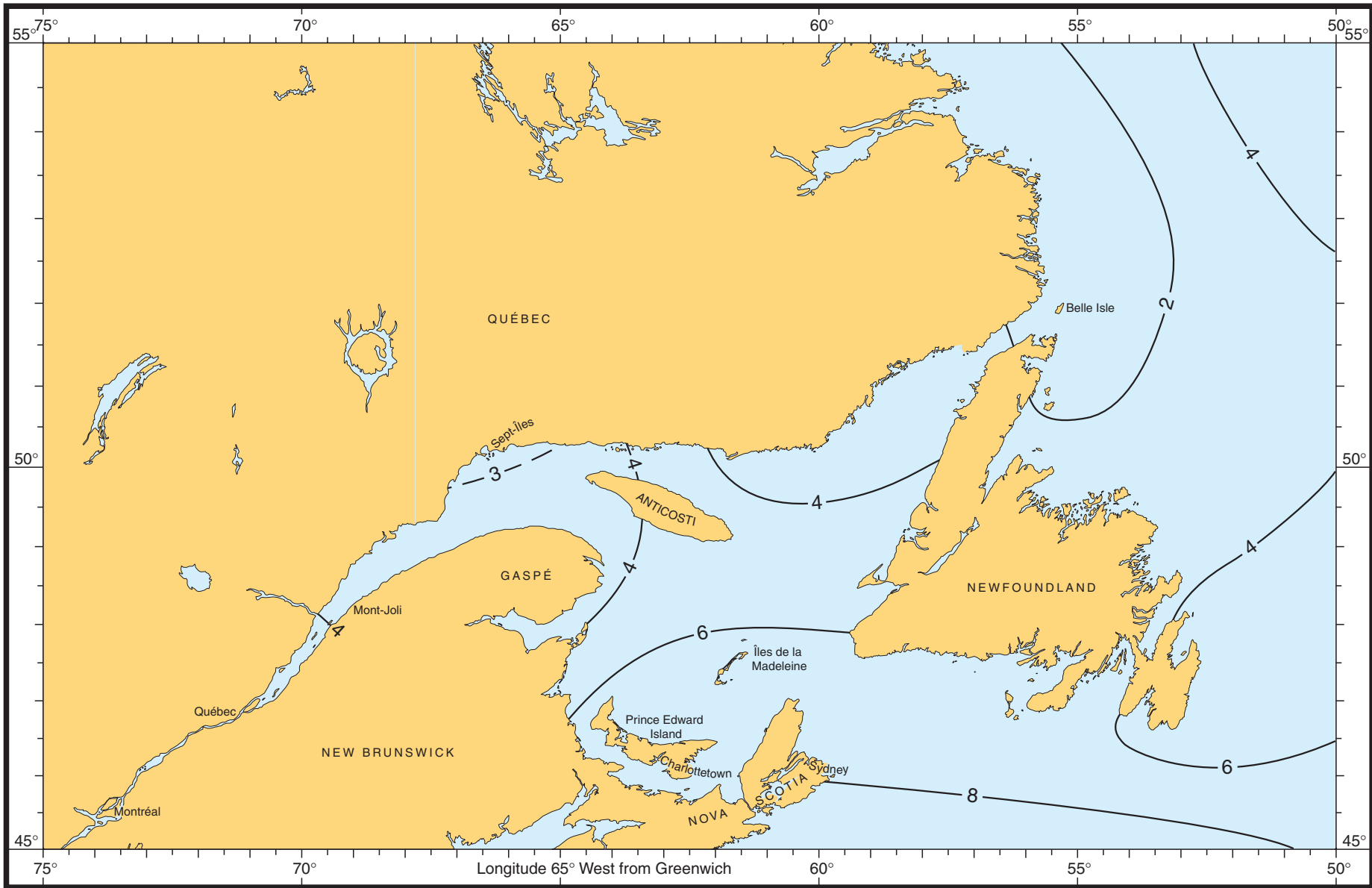
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CHAPTER 1



Mean sea surface temperature (°C) AUGUST (1.143.3)



Mean sea surface temperature (°C) NOVEMBER (1.143.4)

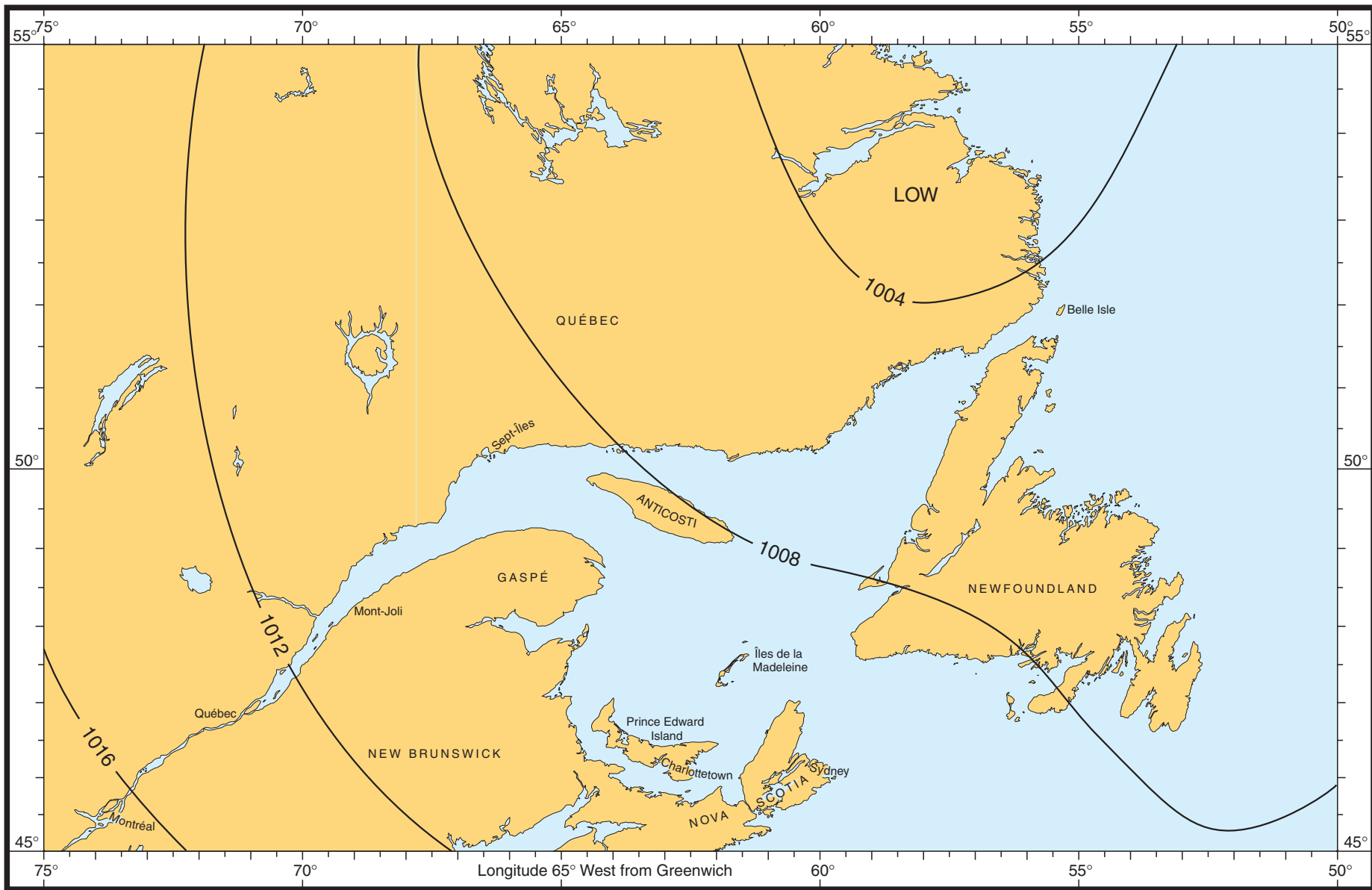
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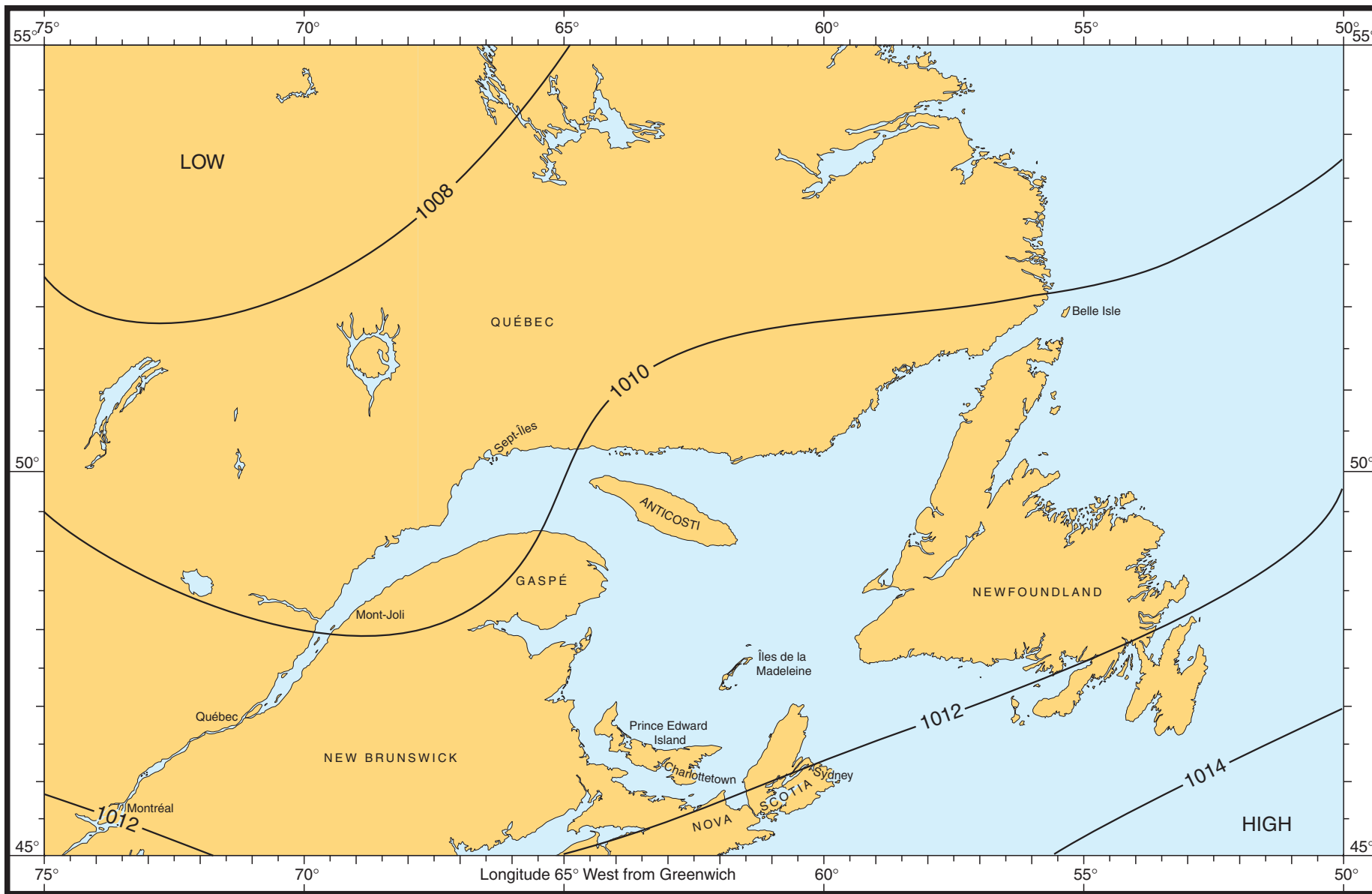
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CHAPTER 1



Average barometric pressure at mean sea level (hPa) JANUARY (1.146.1)



Average barometric pressure at mean sea level (hPa) JULY (1.146.2)

- 2 Depressions may already be fully developed when they arrive in the area but a considerable number originate or intensify over the Gulf of St Lawrence or in its vicinity; the mariner should be alert for this eventuality and the unexpected gales which may result. Occasionally a low will become slow-moving or stationary for a time, thus unexpectedly extending the period of stormy conditions.

Seasonal trend

1.152

- 1 In general depressions are less frequent and less intense in summer than in winter. During summer there is a tendency for depression tracks to be displaced farther to the north than in winter.

Fronts

Summer

1.153

- 1 In summer warm fronts preceded by drizzle and rain usually bring warm moist SW winds over the cold waters of the Gulf and river, often producing very low cloud or fog. Cold fronts, sometimes with showers and squalls but at other times with little associated cloud or precipitation, bring cooler drier air from the NW to give clearer conditions.

Winter

1.154

- 1 In winter snow rather than rain is likely to precede the arrival of the warm front, but after the frontal passage the

mild air of the warm sector may give mist and rain. Cold fronts bringing very cold unstable NW winds to the region produce snow squalls which may be violent. They are often followed by frequent and widespread snow showers. It is in these strong cold NW winds that superstructure icing (1.6) is to be expected, when spray and precipitation freeze on contact.

Winds

Wind roses

1.155

- 1 The diagrams (1.155.1 to 1.155.4) show average recorded frequencies of the various wind strengths from different points of the compass in January, April, July and October for several positions in and around the region.

Gulf of St Lawrence

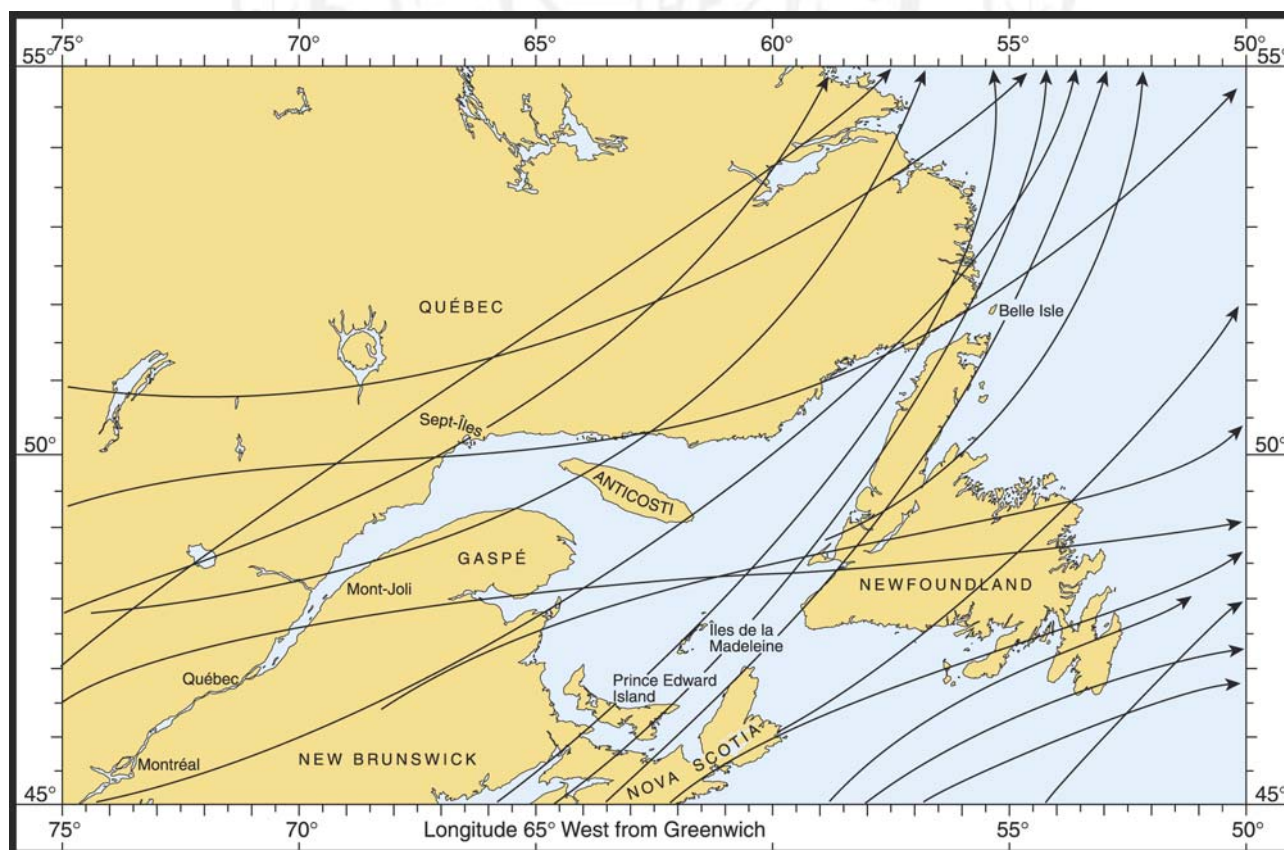
1.156

- 1 Over the open waters of the Gulf in autumn, winter and spring winds from all directions may be experienced as frequent depressions pass by; but the predominant wind direction at this season is from the NW quadrant.
- 2 Summer from June to August is a period of light or moderate winds, variable in direction but most frequently from the SW quadrant.

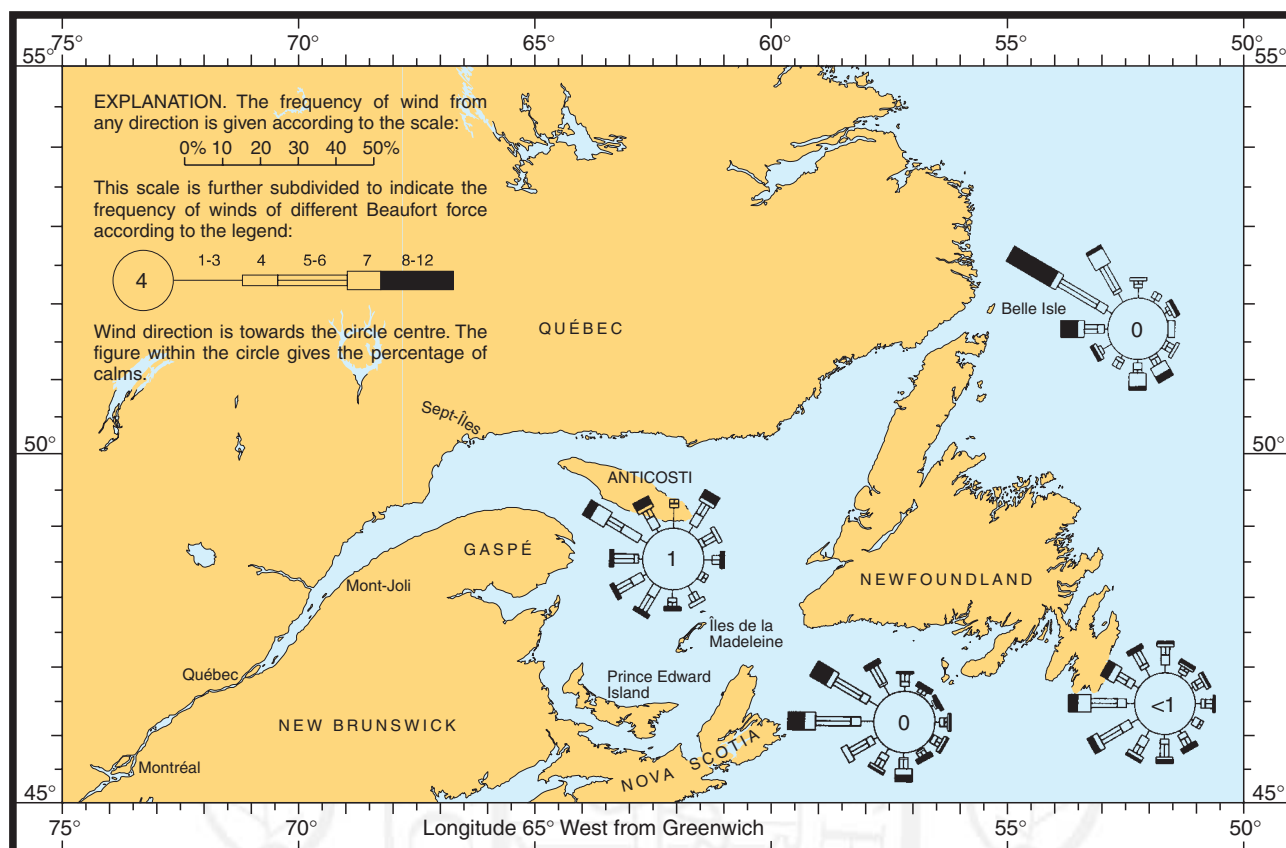
Coastal waters

1.157

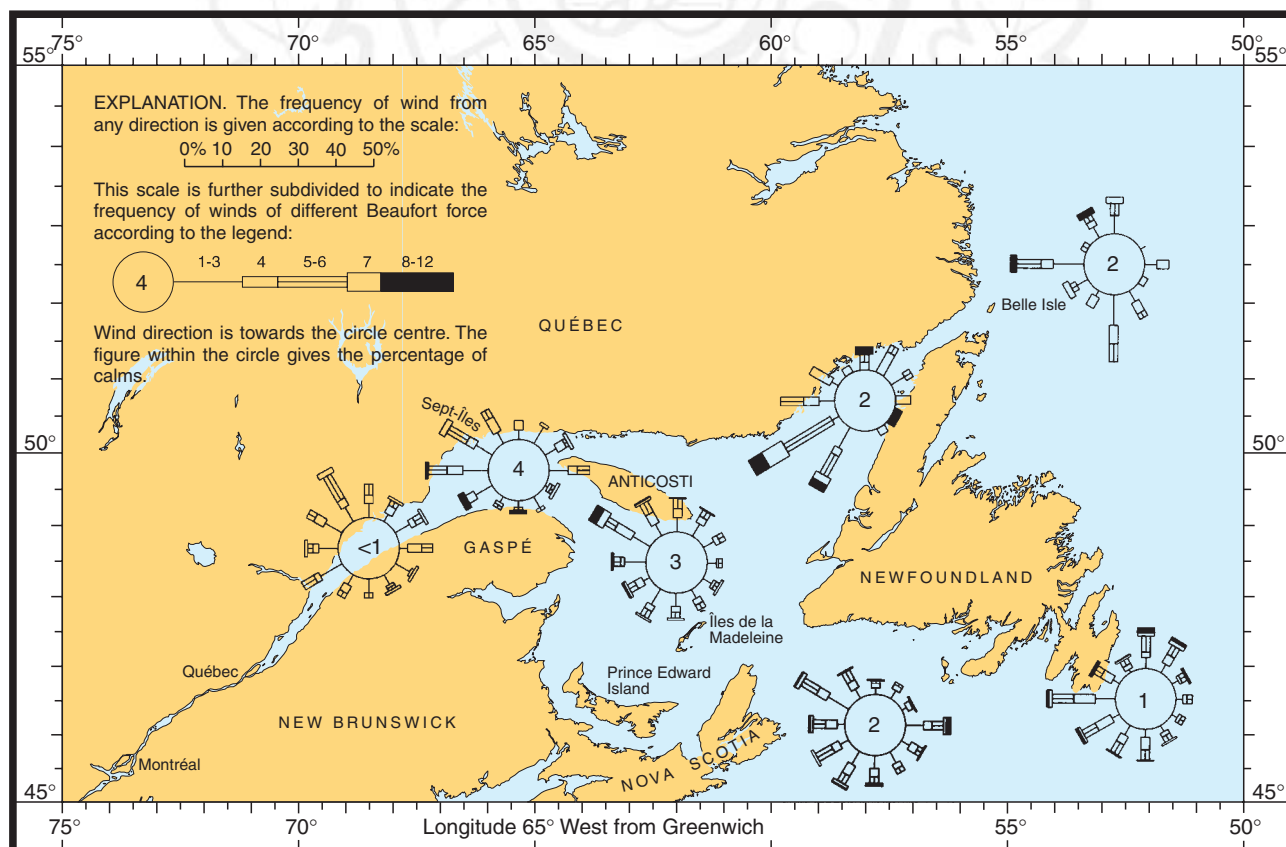
- 1 Although winds in coastal waters reflect the general character and variations of winds over the open sea, they may become progressively modified on approaching within



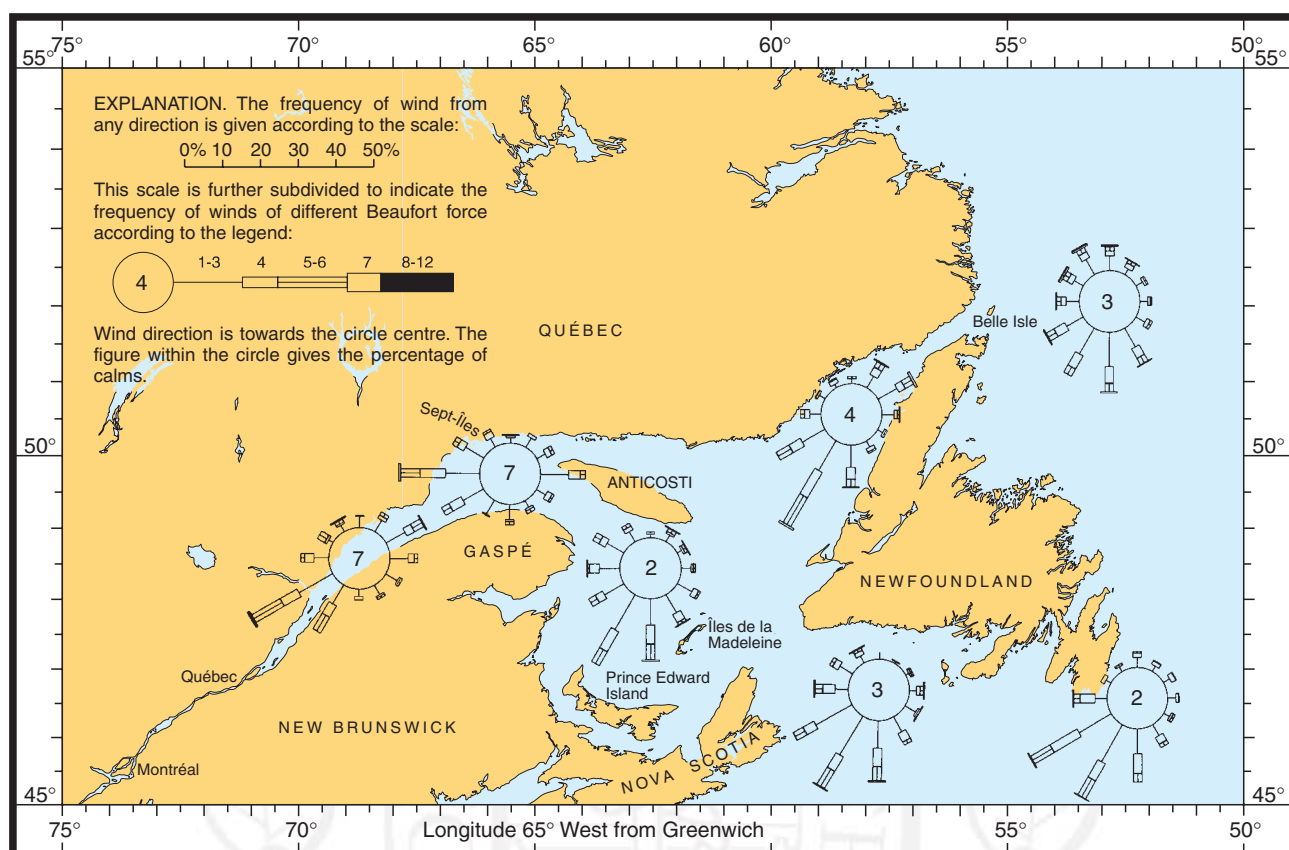
Typical Tracks of Depressions (1.151.1)



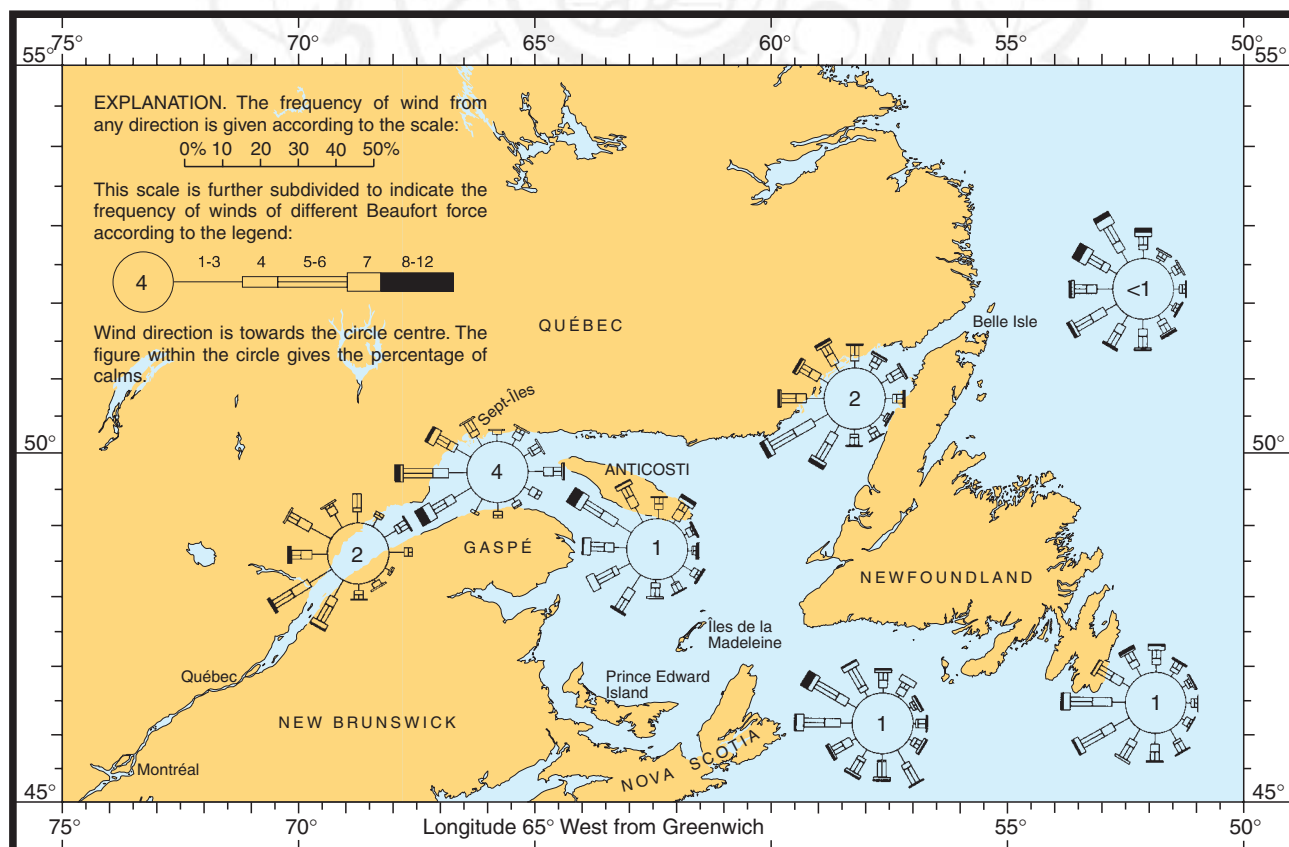
Wind distribution JANUARY (1.155.1)



Wind distribution APRIL (1.155.2)



Wind distribution JULY (1.155.3)



Wind distribution OCTOBER (1.155.4)

about 20 miles of a coast, as described in *The Mariner's Handbook*.

Topography

1.158

- 1 Topography is of particular significance in this area. High ground near coastlines, such as that bordering the shores of the St Lawrence river estuary and the N coast of the Gulf, tends to deflect winds to blow along coastlines or valleys. Increased wind strength in straits and around headlands is also a feature.

- 2 Thus in the St Lawrence estuary, SW or NE winds are more likely than other directions in summer. But in other months W to NW winds increase in frequency as cold air drains from the high ground to the N. Incidence of gales is slightly lower than in the open waters of the Gulf.

In the deep valleys of Rivière Saguenay and the Strait of Canso winds blow along the valleys generally in a direction from high to low pressure, irrespective of the free wind directions at either end of the valleys.

Land and sea breezes

1.159

- 1 Land and sea breezes are of minor significance only in this area. In periods of quiet weather in summer an on-shore breeze may arise in the heat of the day and a slight offshore breeze may get up at night especially along the N side of the St Lawrence estuary.

Squalls

1.160

- 1 Squalls may occur at any time of year and particularly in association with cold frontal passage.

In summer weak cold fronts may produce little cloud or rain, and a sudden severe squall can arrive without warning of approach.

In confined waters or near high ground topographical effects can cause squally conditions when winds are strong.

Gales

1.161

This is a stormy area; a very large number of depressions pass through or close to the region and gales, which may be severe, are particularly frequent in winter.

Gulf of St Lawrence

1.162

- 1 Gales are frequent particularly in the N and storm force winds are not uncommon. Gales may be prolonged, possibly for several days when associated with slow-moving lows.
- 2 Whilst gales occasionally occur in summer from June to August, particularly in association with storms of tropical origin (1.163) they are not frequent.

Storms

Tropical storms

1.163

- 1 The area is sometimes affected from June to September by intense depressions which originate as tropical storms or hurricanes in the Caribbean area.

As tropical storms move to higher latitudes they gradually acquire the characteristics of middle latitude depressions. There is some decrease in the extreme violence of the strongest winds which in the tropical phase are concentrated in a relatively narrow ring around the storm centre or "eye". Strong winds become more widely

distributed throughout the depression circulation which also tends to expand in size.

- 2 The storms of this type which reach the Gulf of St Lawrence have generally undergone some modification by the time they reach the area but nevertheless they may produce very violent conditions with gale, storm and occasionally hurricane force winds. The lows are usually smaller than the large lows of middle latitude origin and stormy conditions are confined to a relatively small area around the centre of the depression. They usually travel quickly towards NE or N, and they may give little evidence of their approach. Ships lying near the depression track may experience very rapid onset of stormy conditions.

- 3 For a detailed description of tropical storms and rules for avoiding them see *The Mariner's Handbook*.

Thunderstorms

1.164

- 1 Thunderstorms can occur at any time of year but they are a rare event in winter, and even in summer they are infrequent over the Gulf of St Lawrence. In the higher reaches of the St Lawrence river estuary they are fairly common in June, July and August when a thunderstorm can be expected on some 4 to 7 days per month.

Squalls, which can be violent, are an occasional feature of summer thunderstorms.

Cloud

1.165

- 1 The region is, on the whole, a cloudy one as the climatic tables at the end of this chapter show; but there is considerably more variability in cloud cover than the tables might indicate.

- 2 Periods with overcast skies are common and may be prolonged, particularly when moist SW winds over the cold waters of the Gulf and river give rise to low stratus cloud or fog. However, a veer of wind to NW often results in well broken cloud of cumulus type, and skies may be practically cloudless for a time in the N of the Gulf and in the St Lawrence estuary.

- 3 In the summer months there are periods of settled weather with many days of well-broken cloud and sunshine.

Precipitation

1.166

- 1 This is a wet region and appreciable precipitation is to be expected in all months.

In summer precipitation falls as rain but throughout the winter months snow is more common than rain. In the N of the region rain is comparatively rare from December to March but in the SE rain is not infrequent in the milder spells, even in winter. In most parts of the area snow is first reported in October; last snowfall of winter usually occurs in April or early May.

- 2 There is a wide variation in the character of the precipitation ranging from drizzle to the torrential downpours in intense depressions or thunderstorms, and the severe snowstorms and blizzards of winter.

- 3 Average monthly and annual precipitation totals (rain plus the water equivalent of snow) are given for several coastal stations in the climatic tables at the end of this chapter. Annual totals vary considerably across the region and range from about 900 mm in the entrance to the St Lawrence estuary to around 1400 mm in E Nova Scotia (Sydney).

The seasonal pattern of precipitation varies across the region.

- 4 Wettest time of year in the Gulf of St Lawrence is during winter, from November to January. In Québec and Montréal maximum precipitation falls in the summer months from July to September, but there is a secondary maximum in December.

Driest season in the Gulf is late spring and early summer with the least falls in June. But farther up the river estuary the driest time of year occurs rather earlier in spring, between February and May.

Snow

1.167

- 1 Snow is usually lying on the ground in Nova Scotia from about the beginning of December until mid-April. To the N and NW this period becomes longer and on the N shores of the Gulf snow cover may be expected from early November to early May. These periods vary from one year to another and may be as much as a month earlier or later than those quoted above.
- 2 Occasional incursions of warmer air during winter, especially in the SE, give rise to the phenomenon known locally as "silver thaw". Rain falling from relatively warmer air at higher altitude may reach the ground where temperatures are well below freezing point. The rain freezes on contact with the ground, trees, buildings, wires etc and covers them with a coating of ice. Ships' superstructures are also liable to be similarly affected.

Fog and visibility

Fog

1.168

- 1 Fog (visibility less than 1000 m) is a major hazard in this region. It is a common feature throughout the year although there is considerable variability in incidence according to season and locality. It is most prevalent in spring and early summer when mild moist air blows over the cold waters of the Gulf. See Diagram 1.168.1.
- 2 **Sea fog** or "advection fog" is the most usual type of fog in this area, and is caused by the chilling of warm, moist air as it blows over a cold sea surface. In the E part of the Gulf of St Lawrence it is most frequent between February and late July with an frequency of occurrence of around 10 to 15 per cent. This frequency steadily reduces to less than 5 per cent in the west of the area. At other times of the year the percentage frequency of fog is between 2 to 7 per cent.
- 3 Landlocked or leeward coastal waters are more likely to be fog-free than other localities.
- Clearance of sea fog generally occurs with the arrival of cooler, drier air; the passage of a cold front often marks the end of a foggy period.
- 4 **Arctic sea smoke** or frost smoke is another type of fog which is sometimes observed in winter. It occurs when very cold air blows over open water and has the appearance of steam rising from the water surface. The fog may be composed of ice crystals. Initially the fog layer may be shallow but it can develop both vertically and horizontally to constitute a serious navigational hazard.
- 5 **Radiation fog** affects the higher reaches of the St Lawrence River and other sheltered and low-lying areas well removed from maritime influence. It is caused by cooling of the air below the point of saturation, particularly on clear nights, and often disperses during the forenoon as the sun rises in the sky. Incidence is most common in winter and spring. This is well illustrated in the climatic

table for Montréal which is one locality affected by this type of fog.

Visibility

1.169

- 1 Visibility may be severely curtailed in very heavy rain or in moderate snow falls. Visibility can be reduced to near zero by more intense snow falls. The combination of strong winds and poor visibility due to snow produce blizzard conditions which can be highly dangerous.

Air temperature

Average

1.170

- 1 Average temperatures in this region are appreciably below the normal for these latitudes. The area is characterised by long cold winters and short warm summers (June to August). Temperature statistics are given in the climatic tables at the end of this chapter.
- Because the region is frequently affected by depressions, temperatures are highly variable from day to day. Large temperature changes may occur within a few hours due to the passage of warm and cold fronts; this happens more often in winter than in summer.
- 2 Temperature is generally well related to wind direction. S to SW winds bring milder air; W to NW winds are associated with colder conditions, and in winter may bring the extremely cold airstreams from the frozen interior of the continent.

Seasonal variation

1.171

- 1 Seasonal variation is very large. The range of temperature from summer to winter is the least in places in the SE which are exposed to moderating maritime influences. It is greatest on the northern shores of the Gulf and in the upper reaches of the river estuary.
- Thus at Sydney, Nova Scotia, average temperature ranges from about -6°C in February to 18°C in July, a difference of some 24°C. At Québec where the mean for January is -12°C and the July average is 19°C, the range is 31°C.

Minimum temperature

1.172

- 1 Throughout the region the average temperature is below 0°C from December to March. Lowest temperatures are reached in January and February when daily minimum temperatures around -15°C are to be expected in the St Lawrence estuary and -20°C in some localities on the N shores of the Gulf. In extreme conditions the temperature may fall well below -30°C.
- In the more "temperate" areas in the S and SE of the Gulf, daily minima of about -10° to -12°C are usual in mid winter and falling to around -20°C or lower in colder spells.

Maximum temperature

1.173

- 1 Maximum temperatures are in July and August when daily temperature normally reaches 20° to 25°C in most parts of the region and 15° to 20°C in the cooler northern shores of the Gulf.
- With the exception of localities on the N Gulf coast, temperatures are unlikely to fall below 0°C in July and August.

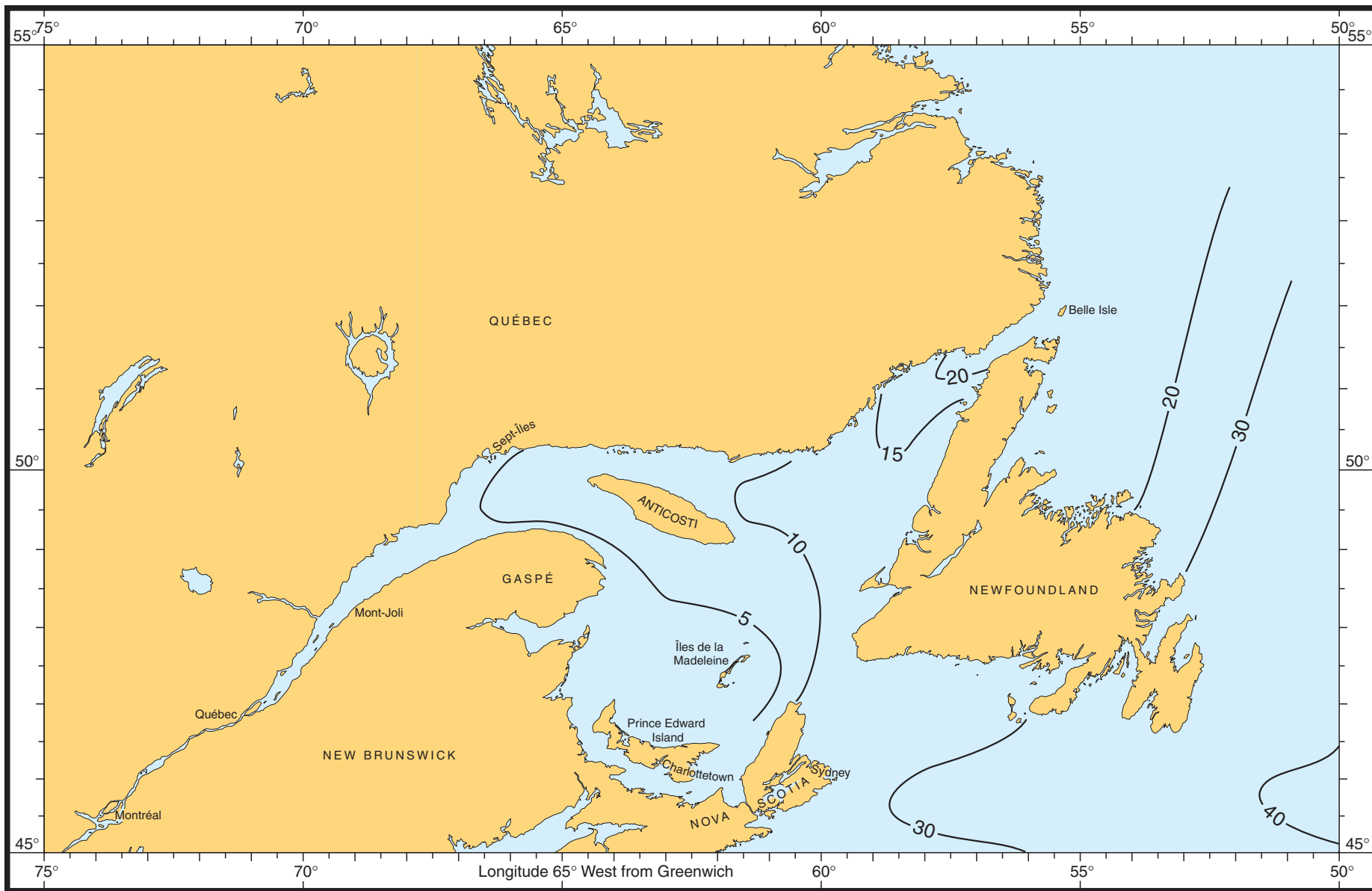
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CHAPTER 1



Percentage frequency of fog - JULY (1.168.1)

Humidity

General information

1.174

- / Average values for several stations are given in the climatic tables at the end of this chapter.

Over the open waters of the Gulf and estuary and at stations on windward coasts humidity is often high, particularly in spring and early summer when fog and low cloud are prevalent.

Lowest humidities are found in the more landlocked areas of the St Lawrence estuary and on leeward shores.

Wind direction

1.175

- / Wind direction is closely related to humidity. Winds from a S point tend to be moist; W and NW winds are usually dry. The veer of wind at the passage of a cold front is commonly accompanied by a considerable drop in humidity.

Daily variation

1.176

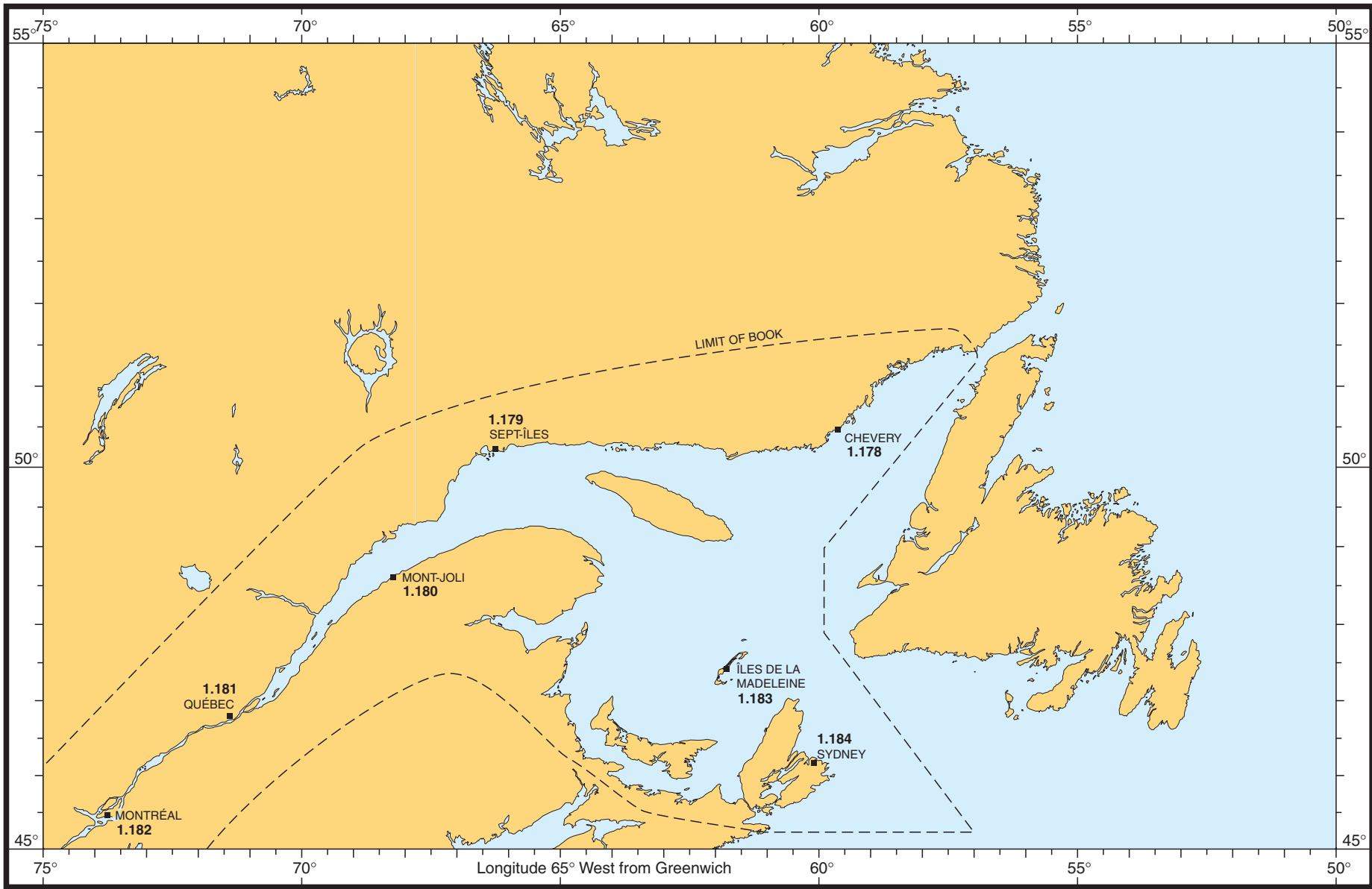
- / Humidity is usually highest around dawn when air temperature reaches its minimum value. As temperature rises, humidity falls to reach its lowest value during the afternoon. At sea and on windward coasts, variation in humidity is comparatively small from one time of day to another. The more landlocked stations show a larger fluctuation which becomes greatest in summer.

CLIMATIC TABLES

1.177

- / The climatic tables which follow give data for several stations for which regular weather observations are available for many years.

These data refer to the specific location of the observing station and may not be representative of conditions to be expected over the open sea or in approaches to ports in the vicinity. Topography has an important influence on local conditions and climate in this region.



Location of climatic stations (1.177)

1.178

WMO No 71814

CHEVERY (HARRINGTON HARBOUR) (50° 28' N, 59° 38' W) Height above MSL – 6 m

Climatic Table compiled from 10 to 20 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with			
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder	
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm								
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																											
February	1012	–8	–17	2	–30	78	75	5	5	122	18	19	6	3	2	6	17	22	18	9	12	10	2	2	6	17	32	14	6	9	10	0	4				
March	1011	–9	–18	0	–31	74	71	5	5	102	15	25	11	3	⊕	4	8	21	22	7	12	18	3	2	3	29	22	8	4	9	11	⊕	6				
April	1012	–5	–13	2	–27	78	76	5	5	114	15	22	17	3	1	4	12	11	16	16	7	22	5	3	5	32	12	8	6	9	11	⊕	8				
May	1014	1	–6	5	–16	79	76	5	5	81	14	23	30	9	2	6	9	5	12	5	8	26	12	10	15	21	2	4	3	10	10	0	8				
June	1013	5	–1	11	–7	80	77	6	5	85	13	16	29	10	5	6	17	3	8	7	5	20	15	7	15	24	2	8	4	8	9	0	3				
July	1012	11	4	18	–2	81	77	6	5	75	14	14	26	10	6	7	19	2	6	10	7	13	13	6	17	27	3	5	8	8	9	0	4				
August	1011	15	8	22	3	85	81	5	5	100	15	10	17	10	7	10	27	5	4	10	3	11	13	7	16	40	3	1	6	7	9	0	5				
September	1012	16	10	23	4	87	81	5	5	99	14	10	13	9	4	12	30	4	7	10	6	5	11	7	27	36	3	3	3	7	9	0	6				
October	1013	14	7	20	0	87	79	5	5	93	13	16	13	2	3	10	26	6	8	17	5	5	6	7	18	36	5	6	12	6	8	0	4				
November	1013	9	3	14	–5	89	79	5	5	103	14	16	15	3	3	6	16	11	17	13	7	14	9	4	13	28	10	9	7	7	9	0	4				
December	1013	3	–4	10	–14	85	75	5	6	136	15	16	11	4	3	7	12	18	21	9	9	17	3	2	6	24	20	13	6	8	10	0	2				
Means	1011	–3	–10	5	–24	83	77	5	5	126	16	26	15	3	3	2	8	12	22	9	20	19	3	1	5	12	17	15	8	9	9	0	4				
Totals	1012	4	–3	24*	–32§	82	75	5	5	–	–	18	18	6	3	6	16	10	13	10	9	15	8	5	12	27	10	8	6	8	10	–	–	–			
Extreme values	–	–	–	–	–	–	–	–	–	1233	176	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	58	–			
No. of years observations	10	10				10		20		20		10										10										10		10	10		

* Mean of highest each year

§ Mean of lowest each year

† Highest recorded temperature

‡ Lowest recorded temperature

⊕ Rare

⊖ All observations

1.179

WMO No 71811

SEPT-ÎLES (50° 13' N, 66° 15' W) Height above MSL – 54 m
Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm							
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																										
February	1014	–10	–20	1	–31	67	62	5	5	87	14	22	24	7	1	1	2	17	22	5	16	14	10	2	2	9	20	18	9	8	9	⊕	5	⊕		
March	1014	–9	–19	1	–30	66	60	4	5	69	11	24	24	9	1	⊕	1	13	22	7	11	7	14	5	6	20	14	17	5	7	9	⊕	3	0		
April	1014	–3	–11	6	–26	70	64	5	5	81	12	20	23	16	2	1	3	12	17	7	12	5	17	10	11	20	12	12	1	8	11	⊕	4	⊕		
May	1014	4	–3	12	–12	70	67	5	5	93	15	22	18	30	2	1	2	8	9	8	9	6	25	12	13	22	3	9	2	9	11	⊕	7	⊕		
June	1014	11	2	20	–4	69	67	5	6	96	15	12	15	34	5	5	5	6	10	8	8	3	21	18	17	25	3	6	1	8	10	⊕	5	⊕		
July	1011	17	7	24	1	70	66	5	5	92	13	13	12	29	9	7	5	7	11	7	7	3	17	15	16	29	5	8	1	8	11	⊕	5	2		
August	1011	19	11	27	6	77	72	5	6	91	13	10	13	29	6	5	7	10	11	9	4	2	17	21	16	27	4	8	⊕	7	10	0	5	3		
September	1013	19	10	26	4	78	71	5	5	100	14	14	13	25	3	2	5	11	12	15	5	2	12	16	18	33	4	9	1	6	10	0	4	2		
October	1013	14	6	21	0	82	70	5	6	112	14	12	17	20	3	⊕	6	15	15	12	4	2	13	16	15	25	10	14	1	6	10	⊕	5	1		
November	1014	8	1	15	–7	81	70	6	6	101	14	16	19	16	2	1	6	16	15	9	9	4	15	11	11	19	13	16	2	7	10	0	5	⊕		
December	1013	1	–6	9	–16	78	67	6	6	100	13	16	23	11	2	⊕	5	14	23	5	13	7	16	7	5	13	16	20	3	7	9	⊕	4	⊕		
Means	1013	5	–3	28*	–32§	73	67	5	5	–	–	17	19	19	3	2	4	12	16	8	10	6	16	11	11	21	10	13	2	7	10	–	–	–		
Totals	–	–	–	–	–	–	–	–	–	1129	163	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	56	8		
Extreme values	–	–	–	32†	–36‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
No. of years observations	15	15				15		15		30		15										15										15		15	15	15

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.180

WMO No 71718

MONT-JOLI (48° 36' N, 68° 13' W) Height above MSL – 52 m
Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm							
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots						
February	1015	–7	–15	5	–27	74	72	6	6	80	17	4	8	6	13	15	16	23	15	2	4	14	5	2	7	25	26	10	6	11	11	⊕	2	0		
March	1015	–7	–15	4	–24	72	68	6	6	61	12	6	8	4	14	14	17	18	15	3	8	16	2	2	3	27	28	10	4	10	11	⊕	2	⊕		
April	1015	–1	–8	10	–20	73	69	6	5	66	14	9	12	8	12	13	16	13	13	4	9	23	4	2	3	20	27	10	3	10	11	⊕	2	⊕		
May	1014	6	–1	16	–9	73	67	6	5	55	12	7	22	6	12	9	17	11	11	5	9	32	4	4	3	12	25	8	3	9	11	⊕	2	⊕		
June	1014	14	4	24	–1	73	62	6	5	80	15	8	20	5	10	8	19	17	9	6	10	33	4	2	2	12	26	8	2	9	11	⊕	2	⊕		
July	1012	20	10	28	3	74	62	5	5	70	14	6	13	4	6	8	26	22	9	5	8	21	4	2	4	13	36	9	3	8	9	⊕	1	3		
August	1012	22	13	30	7	76	66	5	5	75	13	5	7	3	7	9	38	21	4	7	8	17	2	2	3	16	41	9	2	8	9	0	2	3		
September	1014	22	12	29	6	78	65	5	5	89	13	2	6	3	5	12	42	15	5	10	9	11	2	2	4	18	42	9	4	7	9	0	3	3		
October	1014	16	8	25	1	79	67	5	6	82	12	2	5	4	11	15	39	14	4	6	4	13	4	3	5	23	41	5	3	8	10	0	2	⊕		
November	1015	9	3	19	–4	77	69	6	6	82	12	5	8	4	13	16	28	14	7	5	7	15	3	3	5	22	32	11	2	9	11	0	1	⊕		
December	1015	2	–3	14	–12	76	70	6	6	79	13	3	10	5	14	13	19	17	14	4	4	16	3	6	7	21	31	10	2	10	11	⊕	2	⊕		
Means	1014	8	0	31*	–27§	75	67	6	5	–	–	5	10	5	11	12	25	17	10	5	7	19	4	3	4	19	32	9	3	9	10	–	–	–		
Totals	–	–	–	–	–	–	–	–	–	913	165	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	23	9		
Extreme values	–	–	–	34†	–32‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
No. of years observations	15	15				15		15		30		15										15										15		15	15	15

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.181

WMO No 71714

QUÉBEC (46° 48' N, 71° 23' W) Height above MSL – 74 m
Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm							
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																			Knots							
February	1017	-7	-16	3	-29	75	70	5	5	90	18	9	12	14	1	⊕	18	28	7	11	1	9	21	⊕	3	30	26	3	8	8	10	⊕	8	0		
March	1016	-6	-15	5	-27	73	65	5	5	74	15	12	17	12	⊕	1	15	24	8	12	1	8	19	1	2	36	22	4	5	7	10	⊕	9	0		
April	1014	8	0	19	-8	75	63	5	5	85	13	12	16	18	⊕	1	12	19	9	13	2	9	25	3	3	30	18	6	6	7	10	⊕	11	⊕		
May	1014	17	6	27	-2	72	51	5	6	100	14	7	16	28	1	1	15	15	6	10	4	7	25	3	4	30	15	10	3	7	10	0	13	1		
June	1012	22	12	30	5	75	57	5	5	110	15	8	15	19	1	2	20	17	8	10	3	6	18	3	6	33	22	9	1	6	9	⊕	12	3		
July	1013	24	14	31	9	81	61	5	5	119	15	8	11	14	2	2	22	20	6	15	4	5	14	2	4	35	23	9	3	5	9	0	9	4		
August	1015	24	14	30	6	83	61	5	5	120	14	10	15	13	1	1	17	22	5	15	3	4	13	4	4	36	27	7	2	5	8	0	9	3		
September	1016	18	9	26	1	84	63	5	6	124	14	12	14	12	1	⊕	16	23	8	14	3	6	14	2	4	31	24	13	4	5	9	⊕	11	1		
October	1017	11	3	20	-4	81	62	6	6	96	13	10	18	13	1	2	18	18	8	13	3	9	19	2	3	19	30	11	4	6	9	⊕	10	⊕		
November	1016	3	-3	14	-14	81	69	6	6	106	16	9	15	15	1	1	17	25	7	10	2	12	22	2	2	19	27	10	5	7	9	⊕	10	0		
December	1017	-4	-11	4	-25	79	72	5	6	109	19	11	13	13	1	1	18	28	7	10	⊕	10	18	1	2	30	26	5	8	7	9	⊕	7	⊕		
Means	1015	9	0	32*	-30§	78	63	5	6	—	—	10	15	17	1	1	16	21	7	12	3	8	20	2	3	29	23	8	4	6	9	—	—	—		
Totals	—	—	—	—	—	—	—	—	—	1209	178	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	⊕	122	12		
Extreme values	—	—	—	34†	-33‡	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
No. of years observations	15	15				15		15		30		15										15										15		15	15	15

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.182

WMO No 71627

MONTREAL (45° 28' N, 73° 45' W) Height above MSL – 36 m
Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with			
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder	
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm								
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																											
February	1018	–5	–13	6	–26	75	69	5	5	63	15	14	18	4	7	5	18	22	7	5	11	18	2	8	5	18	28	3	6	8	10	⊕	3	⊕			
March	1017	–4	–12	6	–23	74	65	5	4	56	12	12	20	3	7	4	14	22	7	11	10	18	4	4	5	25	29	3	2	7	9	⊕	3	⊕			
April	1014	2	–6	14	–18	74	62	5	5	68	12	15	21	2	7	3	16	18	10	8	8	18	7	7	7	22	26	3	2	7	10	0	3	⊕			
May	1014	11	2	21	–6	71	55	5	5	75	12	14	26	3	10	4	14	15	10	6	7	20	7	11	8	17	22	8	2	8	10	⊕	2	1			
June	1013	19	8	28	1	71	54	5	5	68	12	11	21	4	12	8	19	15	8	3	4	14	6	10	13	26	19	5	2	8	9	0	1	1			
July	1013	24	14	31	7	74	58	4	5	83	13	10	15	3	10	7	26	17	6	5	4	9	5	10	10	34	20	6	2	6	9	⊕	1	4			
August	1015	26	17	32	10	77	59	4	4	86	13	7	10	3	9	7	30	22	8	5	5	5	2	8	12	39	22	7	1	6	8	0	⊕	4			
September	1016	25	15	31	8	81	60	4	4	100	13	12	14	2	8	7	24	20	7	7	5	8	4	5	10	36	23	7	1	6	8	0	1	4			
October	1017	20	11	28	2	84	62	4	5	87	12	12	13	4	10	9	19	16	9	8	5	8	2	11	10	30	24	8	1	6	8	⊕	1	2			
November	1016	13	5	23	–4	83	62	5	5	75	13	11	16	4	11	6	18	20	9	5	7	14	4	11	9	23	25	6	2	7	9	0	2	⊕			
December	1017	6	–1	16	–11	80	68	6	6	93	16	8	18	6	11	5	17	24	6	5	6	13	7	11	7	18	29	8	2	8	9	⊕	2	⊕			
Means	1016	11	3	32*	–27§	77	62	5	5	–	–	12	17	3	9	6	19	20	8	6	7	13	4	9	8	26	25	6	2	7	9	–	–	–			
Totals	–	–	–	–	–	–	–	–	–	940	161	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	22	16			
Extreme values	–	–	–	34†	–32‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			
No. of years observations	15	15				15		15		30		15										15										15		15	15	15	

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.183

WMO No 71709

ÎLES DE LA MADELEINE (47° 25' N, 61° 47' W) Height above MSL – 10 m

Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm							
January	hPa	°C	°C	°C	°C	%	%	Oktas		mm																										
February	1013	−3	−9	6	−18	83	81	7	7	89	19	9	5	6	6	10	16	23	23	3	9	6	6	5	10	13	29	22	1	14	15	2	6	⊕		
March	1013	−5	−11	5	−22	84	80	5	6	68	14	10	7	6	5	10	17	25	19	2	12	7	6	5	10	13	23	22	1	12	14	1	5	0		
April	1013	−1	−7	7	−16	86	81	5	6	71	15	10	10	8	7	14	16	20	13	3	13	10	8	7	14	9	23	15	⊕	12	14	1	5	⊕		
May	1014	4	−1	11	−7	85	79	6	6	65	12	11	13	12	12	12	9	14	13	3	11	14	14	12	11	7	15	15	⊕	12	13	1	6	⊕		
June	1012	10	4	19	−1	81	73	5	5	63	12	8	13	12	9	20	14	12	11	2	10	10	14	8	20	12	15	11	1	12	12	⊕	5	⊕		
July	1012	16	9	24	4	82	73	5	5	56	10	9	7	9	9	19	19	16	11	2	10	6	8	9	16	16	18	16	1	11	11	⊕	4	1		
August	1014	20	14	26	9	82	74	5	5	63	10	6	4	7	7	19	28	18	9	3	6	2	8	9	18	20	20	15	1	10	11	0	2	2		
September	1014	21	15	27	10	80	72	5	5	79	11	7	5	7	7	16	23	18	14	3	10	3	7	8	16	20	19	17	1	10	11	⊕	1	1		
October	1014	17	12	22	6	80	73	5	5	72	11	10	5	5	6	13	23	18	17	3	9	5	6	7	14	18	21	19	1	11	12	⊕	2	1		
November	1015	11	6	18	0	80	75	6	6	84	14	10	9	6	6	12	18	17	19	4	10	7	6	7	9	17	22	21	⊕	12	14	⊕	2	⊕		
December	1013	5	1	13	−6	80	77	7	7	98	15	12	9	6	5	12	16	18	20	3	11	8	7	4	12	12	22	23	⊕	14	15	2	2	⊕		
Means	1011	0	−4	8	−13	82	81	7	7	100	19	11	8	5	6	8	14	23	21	2	12	6	5	6	8	13	24	25	1	15	16	3	4	0		
Totals	1013	8	2	28*	−22§	82	77	6	6	—	—	9	8	7	7	14	18	18	16	3	10	7	8	7	13	14	21	19	1	12	13	—	—	—		
Extreme values	—	—	—	—	—	—	—	—	—	908	162	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	44	5		
No. of years observations	15	15				15		15		30		15										15										15		15	15	15

* Mean of highest each year

§ Mean of lowest each year

† Highest recorded temperature

‡ Lowest recorded temperature

⊕ Rare

⊖ All observations

1.184

WMO No 71707

SYDNEY (46° 10' N, 60° 03' W) Height above MSL – 62 m
Climatic Table compiled from 15 to 30 years observations, 1960 to 2000

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																				Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0700	1300	0700	1300	Average fall	No. of days with 0.2mm or more	0700										1300										0700	1300	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm							
January	hPa 1013	°C −1	°C −9	°C 9	°C −18	% 83	% 73	Oktas 6 6		mm 152	20	7	4	4	6	11	23	29	13	3	10	5	5	4	9	19	29	18	1	Knots 10 12		⊕	4	⊕		
February	1012	−2	−10	8	−21	83	71	6	6	125	16	15	5	5	4	10	23	25	11	3	16	8	4	6	7	16	25	18	1	9	12	⊕	4	⊕		
March	1013	1	−6	12	−17	84	71	6	6	131	17	15	7	6	7	11	20	19	11	4	17	13	6	7	10	16	17	14	1	10	12	⊕	7	⊕		
April	1013	6	−1	16	−7	81	71	6	6	125	14	19	10	9	10	10	14	14	11	3	20	16	10	11	11	10	12	10	⊕	10	13	⊕	8	⊕		
May	1015	13	3	23	−3	77	65	6	6	98	12	17	11	5	8	15	21	13	8	3	18	14	8	11	17	16	11	5	1	9	12	⊕	7	1		
June	1013	19	8	26	1	76	63	6	5	91	12	13	7	4	6	14	29	17	8	3	14	13	6	8	20	18	14	6	1	9	11	⊕	5	2		
July	1013	23	13	30	7	79	64	6	6	86	12	7	4	4	5	16	34	19	9	3	8	10	6	6	20	23	18	8	⊕	8	10	0	5	2		
August	1015	23	14	30	7	81	64	5	5	97	12	9	4	5	6	13	32	20	9	2	9	10	8	10	13	24	19	7	⊕	8	10	⊕	4	2		
September	1015	19	10	26	3	84	68	5	6	103	13	9	5	6	5	9	29	24	10	3	11	8	8	7	14	18	22	12	1	8	11	⊕	1	1		
October	1016	13	5	21	−2	85	70	6	6	138	15	8	7	4	5	15	26	18	12	5	12	9	5	7	10	20	22	13	2	9	11	⊕	2	⊕		
November	1013	7	1	15	−7	83	73	6	7	160	18	10	6	5	6	12	22	22	13	5	11	8	4	7	11	14	27	18	2	9	11	⊕	3	1		
December	1011	2	−5	11	−14	84	74	6	6	173	22	8	6	5	6	11	23	25	14	2	9	5	3	7	10	15	33	18	1	10	12	⊕	3	⊕		
Means	1011	9	2	31*	−21§	82	69	6	6	—	—	12	6	5	6	12	25	20	11	3	13	10	6	7	13	17	21	12	1	9	11	—	—	—		
Totals	—	—	—	—	—	—	—	—	—	1479	183	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	⊕	53	9		
Extreme values	—	—	—	33†	−27‡	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
No. of years observations	15	15				15		15		30		15										15										15		15	15	15

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

METEOROLOGICAL CONVERSION TABLE AND SCALES

Fahrenheit to Celsius

°Fahrenheit

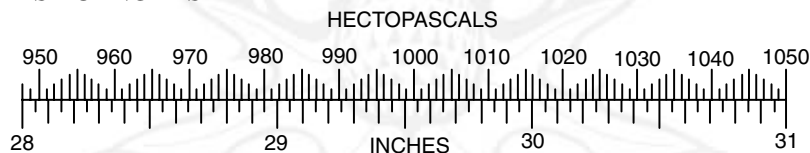
	0	1	2	3	4	5	6	7	8	9
°F	Degrees Celsius									
-100	-73.3	-73.9	-74.4	-75.0	-75.6	-76.1	-76.7	-77.2	-77.8	-78.3
-90	-67.8	-68.3	-68.9	-69.4	-70.0	-70.6	-71.1	-71.7	-72.2	-72.8
-80	-62.2	-62.8	-63.3	-63.9	-64.4	-65.0	-65.6	-66.1	-66.7	-67.2
-70	-56.7	-57.2	-57.8	-58.3	-58.9	-59.4	-60.0	-60.6	-61.1	-61.7
-60	-51.1	-51.7	-52.2	-52.8	-53.3	-53.9	-54.4	-55.0	-55.6	-56.1
-50	-45.6	-46.1	-46.7	-47.2	-47.8	-48.3	-48.9	-49.4	-50.0	-50.6
-40	-40.0	-40.6	-41.1	-41.7	-42.2	-42.8	-43.3	-43.9	-44.4	-45.0
-30	-34.4	-35.0	-35.6	-36.1	-36.7	-37.2	-37.8	-38.3	-38.9	-39.4
-20	-28.9	-29.4	-30.0	-30.6	-31.1	-31.7	-32.2	-32.8	-33.3	-33.9
-10	-23.3	-23.9	-24.4	-25.0	-25.6	-26.1	-26.7	-27.2	-27.8	-28.3
-0	-17.8	-18.3	-18.9	-19.4	-20.0	-20.6	-21.1	-21.7	-22.2	-22.8
+0	-17.8	-17.2	-16.7	-16.1	-15.6	-15.0	-14.4	-13.9	-13.3	-12.8
10	-12.2	-11.7	-11.1	-10.6	-10.0	-9.4	-8.9	-8.3	-7.8	-7.2
20	-6.7	-6.1	-5.6	-5.0	-4.4	-3.9	-3.3	-2.8	-2.2	-1.7
30	-1.1	-0.6	0	+0.6	+1.1	+1.7	+2.2	+2.8	+3.3	+3.9
40	+4.4	+5.0	+5.6	6.1	6.7	7.2	7.8	8.3	8.9	9.4
50	10.0	10.6	11.1	11.7	12.2	12.8	13.3	13.9	14.4	15.0
60	15.6	16.1	16.7	17.2	17.8	18.3	18.9	19.4	20.0	20.6
70	21.1	21.7	22.2	22.8	23.3	23.9	24.4	25.0	25.6	26.1
80	26.7	27.2	27.8	28.3	28.9	29.4	30.0	30.6	31.1	31.7
90	32.2	32.8	33.3	33.9	34.4	35.0	35.6	36.1	36.7	37.2
100	37.8	38.3	38.9	39.4	40.0	40.6	41.1	41.7	42.2	42.8
110	43.3	43.9	44.4	45.0	45.6	46.1	46.7	47.2	47.8	48.3
120	48.9	49.4	50.0	50.6	51.1	51.7	52.2	52.8	53.3	53.9

Celsius to Fahrenheit

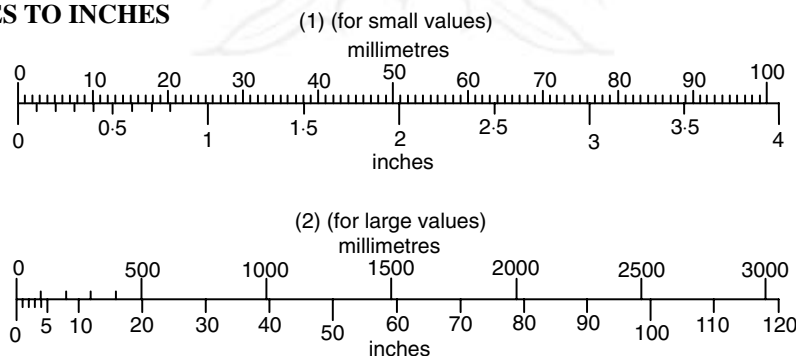
°Celsius

	0	1	2	3	4	5	6	7	8	9
°C	Degrees Fahrenheit									
-70	-94.0	-95.8	-97.6	-99.4	-101.2	-103.0	-104.8	-106.6	-108.4	-110.2
-60	-76.0	-77.8	-79.6	-81.4	-83.2	-85.0	-86.8	-88.6	-90.4	-92.2
-50	-58.0	-59.8	-61.6	-63.4	-65.2	-67.0	-68.8	-70.6	-72.4	-74.2
-40	-40.0	-41.8	-43.6	-45.4	-47.2	-49.0	-50.8	-52.6	-54.4	-56.2
-30	-22.0	-23.8	-25.6	-27.4	-29.2	-31.0	-32.8	-34.6	-36.4	-38.2
-20	-4.0	-5.8	-7.6	-9.4	-11.2	-13.0	-14.8	-16.6	-18.4	-20.2
-10	+14.0	+12.2	+10.4	+8.6	+6.8	+5.0	+3.2	+1.4	-0.4	-2.2
-0	32.0	30.2	28.4	26.6	24.8	23.0	21.2	19.4	+17.6	+15.8
+0	32.0	33.8	35.6	37.4	39.2	41.0	42.8	44.6	46.4	48.2
10	50.0	51.8	53.6	55.4	57.2	59.0	60.8	62.6	64.4	66.2
20	68.0	69.8	71.6	73.4	75.2	77.0	78.8	80.6	82.4	84.2
30	86.0	87.8	89.6	91.4	93.2	95.0	96.8	98.6	100.4	102.2
40	104.0	105.8	107.6	109.4	111.2	113.0	114.8	116.6	118.4	120.2
50	122.0	123.8	125.6	127.4	129.2	131.0	132.8	134.6	136.4	138.2

HECTOPASCALS TO INCHES

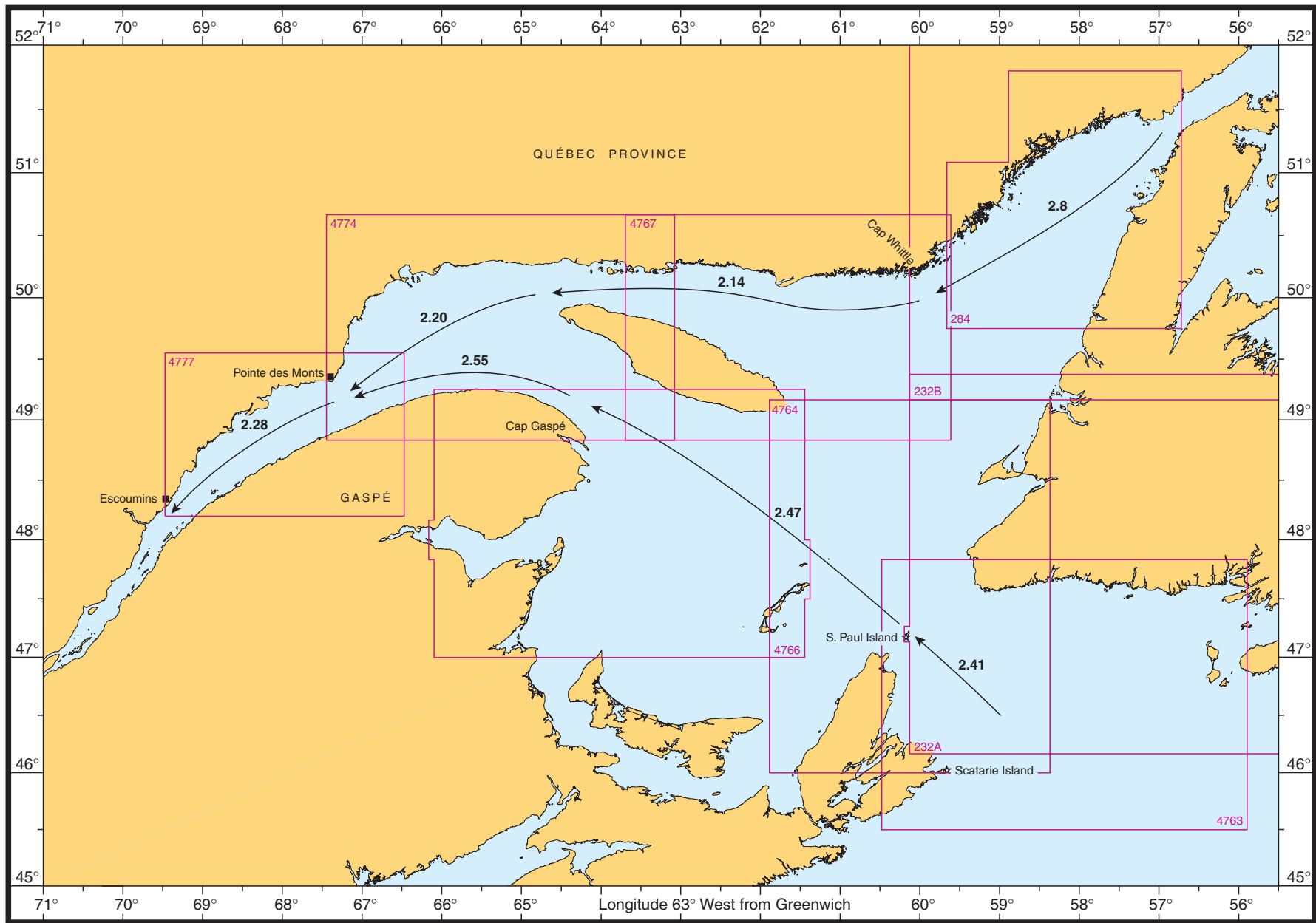


MILLIMETRES TO INCHES





Chapter 2 - Through Routes from the Atlantic Ocean to the St Lawrence River



October 2003

CHAPTER 2

THROUGH ROUTES FROM THE ATLANTIC OCEAN TO THE ST LAWRENCE RIVER

GENERAL INFORMATION

Chart 4404

Scope of the chapter**2.1**

- 1 This chapter describes the through routes from the North Atlantic Ocean to the St Lawrence River as far as the pilot boarding area (48°18'N, 69°24'W) off Les Escoumins.

The chapter is divided into two sections:

Strait of Belle Isle to St Lawrence River (2.7).

Cabot Strait approaches to St Lawrence River (2.40).

The routes for trans-Atlantic shipping approaching Cabot Strait are given in *Ocean Passages for the World*.

- 2 Details of coastal features, landmarks and lights are not given in this chapter, but cross references are given to paragraphs in the geographical chapter in which they are mentioned.

Exercise areas**2.2**

- 1 The Gulf of St Lawrence is a submarine exercise area. The W limit in St Lawrence River is 68°00'W. Details are given in the *Canadian Annual Edition of Notices to Mariners*.

Pilotage**2.3**

- 1 Pilotage is compulsory for passage up the St Lawrence River above Les Escoumins (Escoumins on Chart 4777) (48°21'N, 69°24'W).

Pilotage is not compulsory for the through routes below Les Escoumins, but pilots are available, from Halifax; see *Nova Scotia and Bay of Fundy Pilot*.

Further information is given at 5.235 and in *Admiralty List of Radio Signals Volume 6 (5)*.

Traffic regulations**2.4**

- 1 **Eastern Canada Traffic Zone Regulations (ECAREG)**

(1.26) are in effect in the Gulf of St Lawrence and its approaches. This is a mandatory system for vessels, or towing vessels and tows combined, of 500 grt and over, and all vessels which carry pollutants and dangerous cargoes.

Traffic separation schemes, recommended for the use of through traffic, are established for the entire length of the routes from Strait of Belle Isle to Les Escoumins and from Cabot Strait to Les Escoumins. These are shown in magenta on the charts. See 1.75 for further information.

Vessel Traffic Service**2.5**

- 1 St Lawrence Waterway Vessel Traffic Services Zone (1.27) covers the St Lawrence W from longitude 66°00'W to the upper limit of Montréal Harbour and includes Saguenay River. The system applies to all vessels over 7.6 m in length, 19.8 m for pleasure yachts, and includes all air-cushion vehicles and seaplanes on the water. For further information see *Admiralty List of Radio Signals, Volume 6 (5)*.

Natural conditions**2.6**

- 1 **Fog** is most prevalent in the Gulf of St Lawrence from mid-spring to early summer. As water temperatures rise, reaching their maximum in late August or early September, the frequency of fog diminishes.

Ice. By the end of January the Strait of Belle Isle becomes closed to normal traffic, causing trans-Atlantic shipping to use Cabot Strait for entry into the Gulf of St Lawrence. The Strait of Belle Isle is usually open for shipping again in early June.

- 2 Further information is given in Chapter 1 as follows:
Ice conditions 1.144.
Canadian ice advisory service 1.8.
Canadian Coast Guard ice services, 1.9.

STRAIT OF BELLE ISLE TO ST LAWRENCE RIVER

GENERAL INFORMATION

Charts 232B, 284, 4762, 4767, 4774, 4777

Area covered**2.7**

- 1 This section describes the through route from the inner end of the Strait of Belle Isle (see *Newfoundland and Labrador Pilot*) in the vicinity of Forteau Point (51°25'N, 56°57'W) to the pilot boarding area (48°18'N, 69°24'W) off Les Escoumins, passing through Détroit de Jacques-Cartier N of Île d'Anticosti (49°30'N, 63°00'W).

- 2 The section is arranged as follows:

Strait of Belle Isle to Cap Whittle (2.8).

Cap Whittle to Îles aux Perroquets (2.14).

Îles aux Perroquets to Pointe des Monts (2.20).

Pointe des Monts to Les Escoumins (2.28).

STRAIT OF BELLE ISLE
TO CAP WHITTLE

General information

Charts 284, 4767

Route**2.8**

- 1 From a position in the traffic separation scheme at the inner end of Strait of Belle Isle, about 5 miles SSW of Forteau Point (51°25'N, 56°57'W), the through route leads SW for about 140 miles in the traffic separation scheme, into the NE part of the Gulf of St Lawrence, to a position S of Cap Whittle (50°11'N, 60°07'W).

Topography**2.9**

- 1 Most of the mainland between Strait of Belle Isle and Cap Whittle is under 120 m in elevation, and is much

lower in many regions, but Collines de Bradore (Bradore Hills) (51°34'N, 57°10'W) (3.3) are distinctive. Île du Gros Mécatina (Great Mecatina Island) (50°48'N, 58°52'W) (3.77) and Île du Petit Mécatina (Little Mecatina Island) (50°34'N, 59°18'W) (3.102) are also distinctive.

The land in the vicinity of Cap Whittle is described at 3.122.

The W side of the island of Newfoundland is described in the *Newfoundland and Labrador Pilot*.

Depths

2.10

- 1 An offshore bank with a least depth of 16.5 m (9 fm) in position 50°18'4N, 59°04'8W, traversed by gullies, extends SW from Strait of Belle Isle to a position about 20 miles SSE of Îles Harrington (50°28'N, 59°27'W). The least depth in the traffic separation scheme is 29.3 m (16 fm) in position 50°43'4N, 57°59'0W.

Natural conditions

2.11

- 1 The climate can be severe, and much fog accompanies the prevailing S winds.
Information on currents and tidal streams is given at 1.132, ice at 1.144 and weather at 1.145.

Principal marks

2.12

- 1 **Major lights:**
Pointe Amour Light (white round tower, black band, 33 m in height) (51°27'N, 56°51'W).
New Férolle Peninsula Light (white tower, 12 m in height) (51°01'N, 57°06'W).
Saint Mary Islands Light (Îles Sainte-Marie) (50°18'3N, 59°39'4W) (3.125).
Rochers au Cormoran (Cap Whittle) Light (50°09'8N, 60°03'7W) (3.125).

Directions

2.13

- 1 From a position about 5 miles SSW of Forteau Point (51°25'N, 56°57'W), the track leads SW, passing (with positions from Pointe Amour Light):
SE of Greenly Island (13½ miles WSW), thence:
NW of New Férolle Peninsula Light (28 miles SSW) (2.12), thence:
SE of Flat Island (Île Plate) (50°45'N, 58°45'W) from which a light (3.76) is exhibited.
- 2 The track then leads a farther 30 miles SW before turning WSW to pass:
SSE of Saint-Mary Islands Light (50°18'3N, 59°39'4W), thence:
SSE of Rochers au Cormoran Light (50°09'8N, 60°03'7W).
The track then leads to a position about 10 miles S of Cap Whittle (50°11'N, 60°07'W).
(Directions continue at 2.18)

CAP WHITTLE TO ÎLES AUX PERROQUETS

General information

Charts 4767, 4774

Route

2.14

- 1 From a position S of Cap Whittle (50°11'N, 60°07'W) the track leads about 165 miles W in the traffic separation scheme through Détroit de Jacques-Cartier, N of Île d'Anticosti (Anticosti Island), to a position SW of Îles aux Perroquets (50°13'N, 64°12'W).

Topography

2.15

- 1 The mainland between Cap Whittle and the vicinity of Îles aux Perroquets is generally less than 300 m in elevation. Mont Saint-Jean (Mount Saint John) (50°27'N, 64°16'W), not marked, is the highest point in the area, with an elevation of 438 m. Further details are given, for the mainland coast at 4.4 and 4.59, for Îles de Mingan (Mingan Islands) at 4.60, and for the N side of Île d'Anticosti at 4.154.

Natural conditions

2.16

- 1 **Local magnetic anomaly** exists in the area indicated on the chart, SW of Pointe de Natashquan (50°05'N, 61°44'W). See 4.39 for further information.

Flow. The currents between Cap Whittle and Pointe Heath (49°05'N, 61°42'W) are weak and much influenced by the wind. Any W set along the N shore does not pass through Détroit de Jacques-Cartier, but swings S, passing around the E end of Île d'Anticosti.

Principal marks

2.17

- 1 **Major lights:**
Rochers au Cormoran (Cap Whittle) Light (50°09'8N, 60°03'7W) (3.125).
Petite Île au Marteau (Walrus Island) Light (50°12'N, 63°34'W) (4.92).
Cap de Rabast Light also known as Pointe Nord (49°57'N, 64°09'W) (4.177).

Directions

(continued from 2.13)

2.18

- 1 From a position about 10 miles S of Cap Whittle (50°11'N, 60°07'W), the W-bound lane leads through Détroit de Jacques-Cartier, passing (with positions given from Petite Île au Marteau Light (50°12'N, 63°34'W)):
S of Petite Île au Marteau Light, thence:
S of an ODAS light-buoy (special) (7 miles SSW), thence:
N of Cap de Rabast Light (27½ miles SW).
 - 2 Thence the W-bound lane leads to a position about 10½ miles SW of Îles aux Perroquets Light (25 miles W), where the traffic separation scheme divides (2.20). The E-bound lane passes about 4 miles N of Île d'Anticosti.
- Useful mark:**
Pointe de Natashquan Light (50°05'N, 61°44'W) (4.41).
(Directions continue for the main route at 2.23, and for the northern route at 2.24)

Anchorage and landing places

2.19

- 1 Sheltered anchorage can be obtained in the following natural harbours on the N shore:

Havre Sainte-Geneviève (4.114) in St Lawrence Bay (50°15'N, 63°06'W).

Havre Saint-Pierre (50°14'N, 63°37'W) (4.98).
Alongside berthing is also available.

ÎLES AUX PERROQUETS TO POINTE DES MONTS

General information

Chart 4774

Routes

2.20

- 1 The main route in the traffic separation scheme leads about 125 miles WSW from a position at the W end of Détroit de Jacques-Cartier, about 10½ miles SW of Îles aux Perroquets (50°13'N, 64°12'W), where the separation scheme divides, to a position in a precautionary area off Pointe des Monts (49°19'N, 67°23'W).
- 2 The N branch of the traffic separation scheme leads about 70 miles W from Détroit de Jacques-Cartier to a precautionary area in the approaches to Baie des Sept-Îles (Seven Islands Bay) (50°12'N, 66°27'W) (5.47) and Havre de Port-Cartier (50°02'N, 66°47'W) (5.99), whence it leads a farther 60 miles SW to rejoin the main route off Pointe des Monts.
- 3 The in-bound lane from the E, on the S side of the river, joins these routes in the precautionary area.
The coastal routes and harbours are described in Chapter 5.

Topography

2.21

- 1 The coast of the NW end of Île d'Anticosti is low, with hills of moderate height close inland; see 4.175 for further details. The terrain N of Pointe des Monts rises to high hills inland; see 5.92 for further details.

Traffic regulations

2.22

- 1 Incoming vessels enter the St Lawrence Waterway Vessel Traffic Services Zone (1.27) on crossing longitude 66°00'W. The reporting points, which are mandatory, are shown on the charts. For further information, including VHF radio channels, see *Admiralty List of Radio Signals Volume 6* (5).

Directions for main route

(continued from 2.18)

2.23

- 1 From a position in the traffic separation scheme about 10½ miles SW of Îles aux Perroquets Light (50°13'N, 64°12'W) (4.125), the direct route for the St Lawrence River leads WSW to a precautionary area about 11 miles ESE of Pointe des Monts (49°19'N, 67°23'W). The route merges with two other inbound lanes and meets outbound traffic in the traffic separation scheme destined for Baie des Sept-Îles. Thence the inbound lane leads SW passing about 5 miles SE of Pointe des Monts.
- 2 **Caution.** Crossing, merging and opposing traffic in other lanes of the traffic separation scheme may be encountered along this route and in the vicinity of the precautionary

area. The positions of the intersecting lanes can be seen on the chart.

(Directions continue at 2.36)

Directions for northern route

(continued from 2.18)

2.24

- 1 From a position in the traffic separation scheme about 10½ miles SW of Îles aux Perroquets Light (50°13'N, 64°12'W) the N route leads W, passing S of Rochers de Moisie (Moisie Rocks) (50°09'7N, 66°07'7W).

Thence the track leads to a position in a precautionary area about 3 miles E of Île du Corossol Light (50°05'N, 66°23'W), in the approaches to Baie des Sept-Îles. See 5.34 for directions to Sept-Îles and 5.97 for directions to Port-Cartier. The positions where other traffic lanes intersect this route can be seen on the chart.

2.25

- 1 From the vicinity of the precautionary area, the track leads SW, passing:
About 12 miles SE of Île du Grande Caouis (49°50'N, 67°00'W) (5.127), from which a light is exhibited, thence:
About 9 miles SE of Île aux Oeufs (49°37'N, 67°11'W) (5.127), from which a light is exhibited, thence:
About 5 miles SE of Pointe des Monts (49°19'N, 67°23'W).

The track leads through a precautionary area centred on a position about 11 miles ESE of Pointe des Monts.

- 2 **Caution.** Crossing, merging and opposing traffic in other lanes of the traffic separation scheme may be encountered along this route, particularly in the vicinity of the two precautionary areas. In the N, precautionary area traffic bound for Havre de Port-Cartier (50°02'N, 66°47'W) (5.99) crosses the separation scheme. The positions of the intersecting lanes can be seen on the chart.

2.26

- 1 **Useful marks:**
Radio tower (49°36'N, 67°16'W) (5.133).
Radio tower (49°31'N, 67°17'W) (5.133).
Disused lighthouse (49°20'N, 67°22'W) (5.133).
(Directions continue at 2.36)

Anchorage and harbours

Charts 4775, 4778

North shore

2.27

- 1 **Baie des Sept-Îles** (50°12'N, 66°27'W) (5.58), capable of accommodating large vessels at anchor or alongside.
Havre de Port-Cartier (50°02'N, 66°47'N) (5.110), a deep water artificial harbour and fine weather anchorage.
Baie des Homards (49°48'N, 67°06'W) (5.137), an anchorage with shelter from N winds only.

POINTE DES MONTS TO LES ESCOUMINS

General information

Charts 4774, 4777, 4782

Route

2.28

- 1 From a position in the precautionary area, 11 miles ESE of Pointe des Monts (49°19'N, 67°23'W) the in-bound lane of the traffic separation scheme leads about 105 miles WSW to a precautionary area 2 miles E of the pilot boarding position (48°18'N, 69°24'W), off Les Escoumins.

Topography**2.29**

- 1 High land which extends W from Pointe des Monts changes completely to a low terrain (5.186) SW of Pointe Saint-Gilles (49°12'N, 68°09'W). See 5.204 and 5.220 for details of the terrain farther SW.

Traffic regulations**2.30**

- 1 Three crossing gates, between Matane (48°51'N, 67°32'W) and Baie-Comeau, about 32 miles N; Pointe à Michel (48°55'N, 68°37'W) and the coast 23½ miles SE; and Trois-Pistoles (48°07'N, 69°10'W) and Les Escoumins, about 15 miles NNW, are shown on the chart. Vessels crossing the separation scheme should use these crossing gates and report their intentions to Escoumins Traffic on the appropriate VHF channel. See note on the chart.

Vessel Traffic Service**2.31**

- 1 The Vessel Traffic Services Centre at Les Escoumins maintains radar surveillance within a radius of 32 miles and regulates traffic in the area. Vessel Traffic Services reporting points are shown on the charts. See 2.5 and *Admiralty List of Radio Signals Volume 6 (5)* for further information.

Tidal streams**2.32**

- 1 About 1 mile S of Pointe des Monts, the in-going and out-going tidal streams set W and E, respectively, with maximum rates of ¾ kn.
About 2 miles N of Grosses Roches (48°56'N, 67°10'W) directions are WSW and ENE, with maximum rates of ½ kn. Elsewhere directions are WSW and ENE, with maximum rates of ¼ kn.
See also tidal information on the charts.

Tidal levels**2.33**

- 1 **Pointe des Monts.** Mean spring range about 2.9 m; mean neap range about 1.5 m. For further information see *Admiralty Tide Tables Volume 2*.

Principal marks**2.34**

- 1 **Landmarks:**
Radar tower (48°19'N, 69°25'W) near Les Escoumins.
Water-tower (48°20'N, 69°24'W) (red lights) near Les Escoumins.
Major lights:
Cap Chat Light (49°05'N, 66°45'W) (7.56).
Pointe de Manicouagan Light (49°06'N, 68°12'W) (5.188).
Pointe Rocheuse Light (48°44'N, 69°03'W) (5.207).
L'Anse aux Basques Light (48°19'N, 69°25'W) (5.239).
Cap de Bon-Désir Light (48°16'N, 69°28'W) (5.239).

Other navigational aids**2.35****Racons:**

- 1 Pointe de Manicouagan Light (49°06'N, 68°12'W) (5.188).
L'Anse aux Basques Light (48°19'N, 69°25'W) (5.239).

Directions

(continued from 2.23, 2.26, and 2.61)

2.36

- 1 From a position about 5 miles SE of Pointe des Monts (49°19'N, 67°23'W), where the main route from Détroit de Jacques-Cartier is joined by the N route, the inward-bound lane of the traffic separation scheme leads SW, passing:
About 11 miles SE of Pointe de Manicouagan (49°06'N, 68°12'W) (5.185), thence:
About 12 miles SE of Pointe à Michel (48°55'N, 68°37'W) (5.185), thence:
NW of a light-buoy (ODAS) (IML-4) (48°40'N, 68°35'W), thence:
About 8 miles NW of Île Bicquette (48°25'N, 68°54'W) from which a light is exhibited (7.115), thence:
2 About 5 miles SE of Pointe au Boisvert (48°34'N, 69°09'W) (5.204).

Thence the track leads to a precautionary area for Les Escoumins pilot boarding area situated 1 mile SE of L'Anse aux Basques Light (48°19'N, 69°25'W) where the St Lawrence River pilot is embarked. For further information see 5.235 and *Admiralty List of Radio Signals Volume 6 (5)*.
(Directions continue at 5.241)

Anchorage and harbours

Chart 4778 plan of Baie Comeau

Baie-Comeau**2.37**

- 1 The principal harbour on the N shore is Baie-Comeau (49°15'N, 68°08'W) (5.158). Anchorage can be obtained off the wharves on the W side of Baie des Anglais in depths of 20 to 40 m but it is exposed to E and S winds.

Chart 4777

Baie aux Outardes**2.38**

- 1 Good anchorage in W gales is available in Baie aux Outardes (48°59'N, 68°34'W) (5.191).

Chart 4777 plan of Rimouski

Rimouski**2.39**

- 1 Anchorage is afforded in Rimouski Road (48°29'N, 68°31'W) (7.119).

CABOT STRAIT APPROACHES TO ST LAWRENCE RIVER**GENERAL INFORMATION**

Chart 4404

Area covered**2.40**

- 1 Routes from the North Atlantic to Cabot Strait (47°24'N, 59°45'W) are given in *Ocean Passages for the World*. This

section describes the through route from the approaches to the strait from the S to Pointe des Monts, passing through Détroit d'Honguedo (Gaspé Passage) SW of Île d'Anticosti.

- 2 The section is arranged as follows:
 Scatarie Island to Saint Paul Island (2.41).
 Cabot Strait to Cap Gaspé (2.47).
 Cap Gaspé to Pointe des Monts (2.55).

SCATARIE ISLAND TO SAINT PAUL ISLAND

General information

Charts 4763, 4764, 2666

Route

2.41

- 1 From a landfall position E of Scatarie Island Light (46°02'N, 59°41'W), the route for shipping entering Cabot Strait leads NNW for about 75 miles to a position E of Saint Paul Island (47°12'N, 60°09'W).

Topography

2.42

- 1 The E coast of Cape Breton Island, from the vicinity of Scatarie Island (11.93) to Point Aconi (46°20'N, 60°18'W), is of moderate elevation, but farther W and N the terrain becomes mountainous. Further details are given at 11.5 and 11.31.

Natural conditions

2.43

- 1 **Flow.** See 1.134 for information on flow in Cabot Strait.
Ice is not usually a serious impediment to shipping outside the period from mid-February to mid-April. See 1.144 for further information.
Fog. See 1.145 and 1.168 for further information.

Principal marks

2.44

- 1 **Landmarks:**
 Flint Island Lighthouse (46°11'N, 59°46'W) (11.80).
 Saint Paul Island North Point Lighthouse (47°14'N, 60°08'W) (6.11).
Major lights:
 Scatarie Island NE Point Light (46°02'N, 59°41'W) (11.96).
 Flint Island Light (11.80).
 Sydney Low Point Light (46°16'N, 60°08'W) (11.34).
 Saint Paul Island North Point Light (6.11).
 Cape Ray Light (white 8-sided tower, red daymark white band, 17 m in height) (47°37'N, 59°18'W).

Directions

2.45

- 1 From a position E of Scatarie Island (46°02'N, 59°41'W) the track into the Gulf of St Lawrence leads NNW, passing ENE of Flint Island (46°11'N, 59°46'W) (11.78).
 Thence the track leads to a position about 6 miles ENE of Saint Paul Island (6.8), in Cabot Strait, entering the N, in-bound, lane of the traffic separation scheme, as indicated on the charts.

Useful mark:

- Saint Paul Island South Point Light (47°11'N, 60°10'W) (6.11).
(Directions continue at 2.52)

Anchorage

Chart 2042

Sydney Harbour

2.46

- 1 Sydney Harbour (46°12'N, 60°13'W) (11.49), which comprises a roadstead leading into the commercial ports of North Sydney and Sydney and affords anchorage in the approaches to North Sydney (11.72).

CABOT STRAIT TO CAP GASPÉ

General information

Charts 4764, 4766, 4762

Route

2.47

- 1 From a position about 6 miles ENE of Saint Paul Island (47°12'N, 60°09'W) the route from the SW side of Cabot Strait leads about 52 miles NNW to join the in-bound traffic lane leading WNW from NE side of the strait in position 48°01'N, 60°39'W. The merged track then continues a farther 140 miles NW, in the traffic separation scheme, to a position NNE of Cap Gaspé (48°45'N, 64°10'W).

Topography

2.48

- 1 From Cap Gaspé (48°45'N, 64°10'W) for a distance of 3 miles NW, limestone cliffs rise sheer from the sea to heights of more than 200 m. Descriptions are given, for the N coast of Cape Breton Island at 6.19, for Saint Paul Island at 6.8, for Îles de la Madeleine at 6.29, and for the S coast of Île d'Anticosti at 6.129.

Natural conditions

2.49

- 1 **Flow.** The flow in this region is dominated by the Gaspé Current (1.136) setting SE through Détroit d'Honguedo. West of a line drawn from Pointe du Sud-Ouest (Southwest Point) (49°24'N, 63°36'W) on the S coast of Île d'Anticosti to a position about 12 miles E of Saint Paul Island, the current usually sets SSE at a rate of ½ to 1 kn. Occasionally this direction is reversed, or there may be a cross-current setting either SE or SW with a rate of ½ to 1 kn.
 2 **Ice** fills the SW part of the gulf by early February in a normal winter, and continues to spread E throughout the month. Clearing becomes quite evident in the second half of March, producing an open route in the central part of the gulf during early April. See 1.144 for further information.

Principal marks

2.50

- 1 **Major lights:**
 Cape Ray Light (47°37'N, 59°18'W) (2.44).
 Saint Paul Island North Point Light (47°14'N, 60°08'W) (6.11).
 Cap des Rosiers Light (48°51'N, 64°12'W) (7.12).

Other navigational aids

2.51

- 1 **VHF emergency direction finding service:**
 Cap des Rosiers (48°51'N, 64°12'W).
 Pointe Heath (49°05'N, 61°42'W).
 For operating details see 1.62 and *Admiralty List of Radio Signals Volume 2*.

Directions (continued from 2.45)

Route from south-west side of Cabot Strait 2.52

1 From a position about 6 miles ENE of Saint Paul Island the track leads NNW for about 52 miles, in the in-bound lane of the traffic separation scheme, passing about 23 miles ENE of Rochers aux Oiseaux (Bird Rocks) (47°50'N, 61°09'W) (2.53), where it joins the in-bound lane of the route from the NE side of Cabot Strait.

2 Thence the track leads WNW across the Gulf of St Lawrence, passing about 20 miles NNE of Rochers aux Oiseaux, to a position about 34 miles NE of Cap Gaspé (48°45'N, 64°10'W) (7.10).

Caution. Traffic heading ESE may be met in the vicinity of 47°48'N, 60°29'W, where the out-going traffic lane is crossed.

(Directions continue at 2.61)

Route from north-east side of Cabot Strait 2.53

1 From an initial position about 33 miles NE of Saint Paul Island (47°12'N, 60°09'W), the in-bound lane of this branch of the traffic separation scheme leads WNW. It then joins the route coming from the SW part of the strait in the vicinity of 48°01'N, 60°39'W.

2 Useful mark:

Rochers aux Oiseaux (Bird Rocks) Light (47°50'N, 61°09'W) (6.124).

Anchorage

Chart 4766

2.54

1 Anchorage is available off Douglastown (48°46'N, 64°23'W) (15.305) in Baie de Gaspé.

CAP GASPÉ TO POINTE DES MONTS

General information

Charts 4766, 4774

Route

2.55

1 From a position in the traffic separation scheme NE of Cap Gaspé (48°45'N, 64°10'W) the route leads initially WNW to the vicinity of 49°22'N, 64°10'W where a branch of the traffic separation scheme continues WNW across the estuary to the approaches to Baie des Sept-Îles (50°12'N, 66°27'W) (5.47). The in-bound lane for the St Lawrence River leads W and then WSW, remaining about 12 miles off the S shore, to a position in a precautionary area centred on a position about 11 miles ESE of Pointe des Monts (49°19'N, 67°23'W). Thereafter the traffic separation scheme continues SW to Les Escoumins; see 2.28.

Topography

2.56

1 See 7.8, 7.10, 7.27, 7.39, 7.41 and 7.53 for descriptions of the land between Cap Gaspé and Cap Chat (49°05'N, 66°45'W).

Vessel Traffic Service

2.57

1 Incoming vessels enter the St Lawrence Waterway Vessel Traffic Services Zone (2.5) on crossing longitude 66°00'W.

This Vessel Traffic Services System is mandatory, and reporting points are shown on the charts.

For further information, including VHF operating channels, see *Admiralty List of Radio Signals, Volume 6 (5)*.

Natural conditions

2.58

1 **Flow.** See 1.138.

Ice. See 1.144.

Principal marks

2.59

1 Major lights:

Cap des Rosiers Light (48°51'N, 64°12'W) (7.12).

Rivière au Renard Light (49°00'N, 64°23'W) (7.12).

L'Anse-à-Valleau Light (49°05'N, 64°34'W) (7.12).

Cap de la Madeleine Light (49°15'N, 65°20'W) (7.28).

La-Martre-de-Gaspé (49°12'N, 66°10'W) (7.44).

Cap Chat Light (49°05'N, 66°45'W) (7.56).

Other navigational aids

2.60

1 VHF emergency direction finding service:

Cap des Rosiers (48°51'N, 64°12'W).

Rivière au Renard (49°00'N, 64°24'W).

For operating details see 1.62 and *Admiralty List of Radio Signals Volume 2*.

Directions

(continued from 2.52)

Cap Gaspé to Pointe des Monts

2.61

1 From a position in the in-bound lane of the traffic separation scheme about 34 miles NE of Cap Gaspé (48°45'N, 64°10'W) (7.10) the track leads initially WNW to position 49°22'N 64°10'W where the lane splits. The track then leads W, passing:

About 11 miles N of Cap de la Madeleine Light (49°15'N, 65°20'W), thence:

To a position 49°28'N, 65°50'W where the track leads WSW, passing:

2 About 13 miles NNW of Cap Chat Light (49°05'N, 66°45'W), thence:

To a position about 5 miles SE of Pointe des Monts (49°19'N, 67°23'W).

The track leads through a precautionary area centred on a position about 11 miles ESE of Pointe des Monts.

Caution. Crossing traffic may be encountered in the vicinity of position 49°23'N, 64°30'W at the intersection with the ESE-going route from Baie des Sept-Îles.

(Directions continue for Les Escoumins at 2.36)

Détroit d'Honguedo to Baie des Sept-Îles

2.62

1 From position 49°22'N 64°10'W where the lane splits (2.61), the other branch of the traffic separation scheme leads WNW across the estuary for about 90 miles to a precautionary area 6½ miles ESE of Île du Corossol Light (50°05'N, 66°23'W) (5.33). The precautionary area is situated 5½ miles SE of the entrance to Chenal du Milieu (Middle Channel) (5.47).

Caution. Crossing traffic may be encountered in the vicinity of 49°47'N, 65°27'W and the precautionary area, the positions of which are shown on the chart.

(Directions continue for the approach to Baie des Sept-Îles at 5.67)

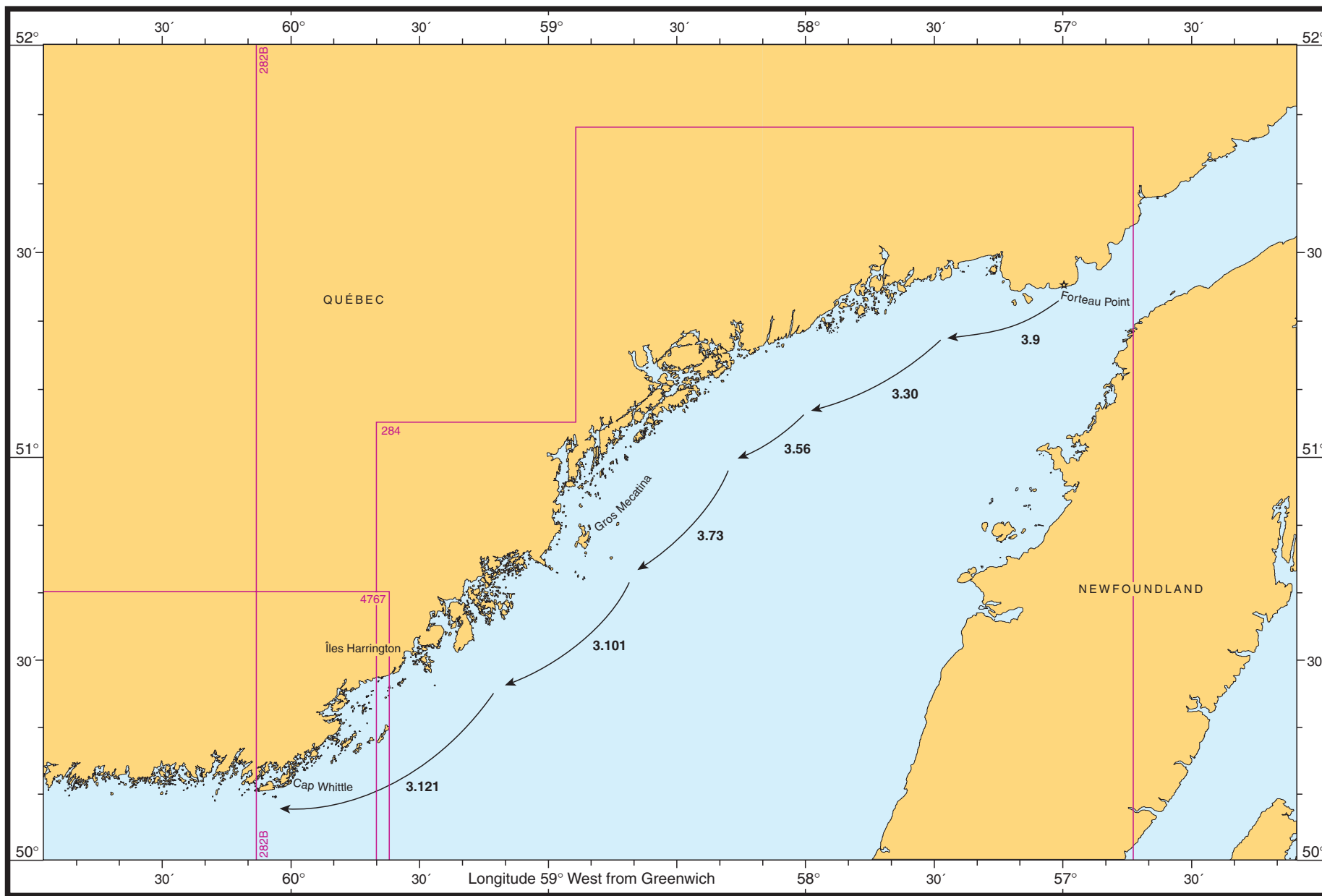


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October 2003

CHAPTER 3

GULF OF ST LAWRENCE, NORTH SHORE—
STRAIT OF BELLE ISLE TO CAP WHITTLE

GENERAL INFORMATION

*Chart 232B***Scope of the chapter****3.1**

- 1 This chapter describes the waters off the S coast of the provinces of Labrador and Québec, from position 51°21'N, 57°00'W at the W end of Strait of Belle Isle to Cap Whittle (50°11'N, 60°07'W). Anchorages, harbours and settlements, accessible to small vessels, on the coast and among the off-lying islands, and the passages leading to them from the open sea are included. Inshore passages, navigable by small vessels, along parts of the coast and among the islands are also described.

Through route. Directions are given in Chapter 2 for a through route and traffic separation scheme from Strait of Belle Isle to St Lawrence River, shown in magenta on the chart.

- 2 The chapter is divided into two sections:
Strait of Belle Isle to Cap du Gros Mécatina (3.8).
Cap du Gros Mécatina to Cap Whittle (3.99).

Charts**3.2**

- 1 Cautionary notes on charts 284 and 232B refer to limitations as to their use and differences in longitudes used on those charts. See also information on British Admiralty charts at 1.30.

Topography**3.3**

- 1 The coast is indented with inlets and bays, and fringed with islands, rocks and ledges which are frequently steep-to. In some places the islands and rocks are so numerous that only very small vessels can navigate among them.

The mainland hills, except Collines de Bradore (Bradore Hills) (51°34'N, 57°10'W), three round-backed mountains, over 305 m high, and the high land near Cap du Gros Mécatina (Cap Mécatina), close NW of Entrance Island (50°44'N, 59°00'W), do not, generally, rise above 122 m (400 ft), and are often much lower.

- 2 The only islands of considerable height are Île du Gros Mécatina (Great Mecatina Island) (50°48'N, 58°52'W) and Île du Petit Mécatina (Little Mecatina Island) (50°34'N, 59°18'W).

Both the mainland and the islands are of granite, with no trees except at the head of some bays. When not

entirely barren, the rocky ground is covered with moss and scrubby bushes.

Depths**3.4**

- 3 An offshore bank with a least depth of 16.5 m (54 ft) over a rock (50°18'.4N, 59°04'.8W), traversed by gullies, extends SW from Strait of Belle Isle to a position about 20 miles SSE of Îles Harrington (50°29'N, 59°28'W). The least depth in the area between the two traffic separation schemes is 29.3 m (16 fm) in position 50°43'.4N, 57°59'.0W.

Fishing**3.5**

- 1 During the navigation season, from June to December, the population is augmented by the crews of fishing vessels and others employed in the fishing industry. The very sparse resident population is scattered among the small villages and fishing settlements.

Navigation**3.6**

- 1 It is dangerous to approach this coast at night or in fog. Even in good conditions great caution is required, as the rocks and ledges which lie offshore frequently rise abruptly to within a few feet of the surface, so that soundings may give no warning of approach.

There are some harbours which may be safely entered by vessels of appropriate size, but their approaches are generally intricate and a good lookout should be kept for dangers within the outer reefs.

Natural conditions**3.7**

- 1 **Tidal streams.** Close inshore and among the islands the flood stream sets weakly W and the ebb sets weakly E, but both streams are much influenced by the wind.

Ice does not clear the coast before June and it forms again in sheltered bays in September. Drifting icebergs are common and may be encountered at any time.

Fog often accompanies the prevalent S wind during the navigation season from early June to mid-December.

Except towards the end of the navigation season, when it becomes frosty, it is warmer and less foggy in sheltered bays.

STRAIT OF BELLE ISLE TO CAP DU GROS MECATINA

GENERAL INFORMATION

*Chart 284***Area covered****3.8**

- 1 This section describes the waters between the inner end (51°25'N, 57°00'W) of Strait of Belle Isle and Cap du Gros

Mécatina (50°44'N, 59°01'W). The section is arranged as follows:

- Forteau Point to Île de la Demoiselle (3.9).
Île de la Demoiselle to Île Mistanoque (3.30).
Île Mistanoque to Îles Saint-Augustin (3.56).
Îles Saint-Augustin to Cap du Gros Mécatina (3.73).

FORTEAU POINT TO ÎLE DE LA DEMOISELLE

General information

Chart 284, Canadian Chart 4470 (see 1.32)

Route

3.9

- 1 From a position about 5 miles SSW of Forteau Point (51°25'N, 56°57'W), at the inner end of Strait of Belle Isle, the route leads about 25 miles WSW, crossing the mouth of a large bight, with several small harbours along its shoreline to a position about 7 miles S of Île de la Demoiselle (Caribou Island) (51°25'N, 57°38'W).

Topography

3.10

- 1 The bare granite hills of the S coast of Québec province descend to flat, marshy ground on the E side of Baie de Bradore (Bradore Bay) (51°29'N, 57°15'W). A large waterfall 3 miles W of the NE corner of Baie de Bradore may be visible from seaward.

Low promontories, with a green alluvial appearance, separate the following inlets:

Baie des Belles Amours (51°28'N, 57°26'W).

Baie du Milieu (Middle Bay) (51°27'N, 57°29'W).

Havre des Cinq Lieues (Five Leagues Harbour) (51°26'N, 57°32'W).

Principal marks

3.11

- 1 **Landmark:**
Shrine (51°25'N, 57°12'W), 60 m (198 ft) high, standing on a bluff, with a church spire, 2 cables SW, are prominent.
- 2 **Major light:**
New Férolle Peninsula Light (51°01'N, 57°06'W) (2.12).

Directions

(continued from Newfoundland and Labrador Pilot)

3.12

- 1 From a position about 5 miles SSW of Forteau Point (51°25'N, 56°57'W), the track leads WSW, passing (with positions from Île Greenly):
SSE of Île au Bois (1½ miles E), flat-topped, 50 m (165 ft) in elevation, thence:
SSE of Greenly Island, two hillocks joined by a low plateau, thence:
- 2 SSE of Middle Ledges, which extend 8 cables S of Pointe aux Écueils (51°26'N, 57°28'W), inside which there is no safe passage, thence:
SSE of Barrier Reefs (51°25'N, 57°33'W).

The track then leads to a position about 7 miles S of Île de la Demoiselle (Caribou Island) (51°25'N, 57°38'W), which appears from S to be part of the mainland, keeping clear of Haut-fond Whale (51°22'N, 57°41'W).

3.13

- 1 **Useful marks:**
Baie de Blanc-Sablon wharf head light (square framework tower, 9 m in height) (51°25'N, 57°09'W).
Microwave tower (red lights) (51°25'N, 57°06'W), 183 m (598 ft) high.
Microwave tower (red lights) (51°27'N, 57°13'W), 146 m (241 ft) high.

Radio tower (red lights) (51°25'N, 57°12'W), 65 m (213 ft) high.

(Directions continue for coastal passage at 3.35)

Baie de Blanc-Sablon

Canadian Charts 4980, 4470 (see 1.32)

General information

3.14

- 1 **Description.** Baie de Blanc-Sablon (51°25'N, 57°08'W) partly sheltered by Île au Bois and Île Greenly (3.12) is a generally safe anchorage, used by fishing vessels during the navigation season, but SW winds can cause heavy seas in the bay. Hills surround the bay, including a distinctive saddle-shaped hill on the N side. A group of oil tanks close W of the public jetty (3.20) on the W side of the bay can be seen from a distance of 7 to 8 miles.

- 2 **Rivière de Blanc-Sablon** flows into the head of the bay, at the E end of a sandy beach; elsewhere the shores are rocky, with boulders. The settlement of Blanc-Sablon, population about 350, is situated at the head of the bay.

Submarine cable is laid 180 m (591 ft) from the shore at Pointe à Morel (51°24'8N, 58°09'3W); a prohibited anchorage sign is situated near the shore.

3.15

- 1 **Local magnetic anomaly.** Deflection of the magnetic compass is reported in this area.

Tidal stream. The in-going stream usually sets W through the bay at an average rate of 1½ kn. The out-going stream sets E. Wind can increase the rate of the tidal streams to 2½ kn. Wind against tide raises a heavy sea in the channels, particularly between Île au Bois and the mainland, where conditions can be dangerous for boats.

- 2 **Tidal levels.** Mean spring range about 1.4 m; mean neap range about 0.6 m. See *Admiralty Tide Tables Volume 2* for the latest information.

Ice. Baie de Blanc-Sablon freezes over from about mid-December to mid-May.

Directions for approach to Baie de Blanc-Sablon from east

3.16

- 1 From a position about 2 miles S of Pointe L'Anse au Clair (51°25'N, 57°05'W), the track into the bay leads NW, passing (with positions from Pointe l'Anse au Clair):

NE of Pointe de l'Anse des Sables (2¼ miles SW), the E point of Île au Bois, thence:

SW of Pointe Saint-Charles (1 mile W), thence:

SW of Hauts-fonds Blandford (2 miles W) a rocky bank, marked by CY2 Buoy (starboard hand) on its SW side.

A vessel of deeper draught should pass SW of a 7.7 m (25 ft) patch (2¼ miles W).

Directions for approach to Baie de Blanc Sablon from west

3.17

- 1 **Blanc Sablon Leading Lights** stand on the hillside, 5 cables NW of Pointe Saint-Charles:

Front light (orange trapezium, black stripe, on square tower, 15 m in height) (51°25'2N, 57°07'1W).

Rear light (similar construction, inverted, on similar tower, 6 m in height) (231 m from front light).

The lights are visible on the leading line only.

- 2 From a position about 2 miles W of Île Greenly (51°23'N, 57°11'W) (3.11), the alignment (063¼°) of these lights leads, in a least depth of 11 m (36 ft), through the W entrance of Baie de Blanc-Sablon to the anchorage, passing (with positions from Île Greenly):

- 3 SSE of Longue Pointe (2¼ miles N), surrounded with rocky shoals, extending 5 cables seaward, thence: SSE of the entrance to Lourdes-de-Blanc-Sablon, marked by SABLO Light-buoy (safe water), (1½ miles N), thence: NNE of a 7 m (23 ft) shoal, indicated by tide-rips, 5 cables SSW of Pointe Lazy (2 miles NNE) (Pointe du Paresseux on Canadian Chart 4470), thence: SSE of a 3.5 m (11 ft) shoal extending 2 cables S of Pointe Lazy, thence: SSE of a jetty (3 miles NE) from which a light (square framework tower, 9 m in height) is exhibited. Oil tanks standing close W are visible 7 to 8 miles to seaward.
- Shoal water lies close on each side of the leading line.

3.18

1 Useful marks:

- Microwave tower (red lights) (51°25'N, 57°06'W), 182 m (598 ft) in height.
Microwave tower (red lights) (51°27'N, 57°13'W), 73 m (241 ft) in height.
Radio tower (red lights) (51°25'N, 57°12'W), 65 m (213 ft) in height.

Anchorage

3.19

- 1 Anchorage can be found in depths from 11 to 21 m (36 to 69 ft), sand, on the alignment of Blanc Sablon Leading Lights (3.17), about 7 cables from the front light. The anchorage position is indicated on Canadian Chart 4980.

Berths

3.20

- 1 A public jetty is situated on the W shore; length 279 m, depth 7.2 m at its head. Vessels berth on the outer 70 m on the N side and the outer 62 m on S side. Two freight sheds stand at inner end of jetty. Strong tidal streams set past the jetty.
- A L-shaped fishermen's pier, with a crane (907 kg capacity), lies close N of the public jetty; its outer face is 55 m long with a depth of 4 m alongside. Another pier lies about 5 cables farther N.

Communications

3.21

- 1 **Sea.** A regular service operates to Québec during the navigation season. A ferry service operates between Blanc-Sablon and St Barbe, Newfoundland.
- Airport** about 2 miles NW of Blanc-Sablon.

Small craft

3.22

- 1 **L'Anse au Clair** (Anse Eclair), about 2 miles E of Baie de Blanc-Sablon, contains a fishing establishment close within an islet, about 2½ cables W of the E entrance point.
- The settlement of L'Anse-au-Clair stands on the NW shore, with a L-shaped breakwater wharf with a berth 30 m long on the inside face and reported depths alongside of 3.7 to 6.1 m (12 to 20 ft). A wharf fronts a fish plant at the inner end of the breakwater; it is 61 m long with reported depths of 1.2 to 2.7 m (4 to 9 ft) alongside. A light (51°25'.4N, 57°04'.0W) (round mast, 2 m in height) is exhibited from the pierhead.

3.23

- 1 **Île au Bois** (51°23'N, 57°08'W) (3.12) has a fishing settlement with a flagstaff at the NW end of the island.

Boats may be able to land in the following coves, according to the weather:

- Anse Brick House (Anse Grouville), on the NE side of the island, about 4 cables ESE of Pointe de l'Ouest, its NW extremity.
- 2 Anse des Sables (Sandy Cove), on the NE side of the island, close N of its E extremity.
- Rocher Cow House, a square rock by the side of a small, deep creek, about 2 cables S of the NW extremity of the island. This landing may be usable when weather prevents landing on the NE side.

3.24

- 1 **Lourdes-de-Blanc-Sablon.** Fishing vessels may find shelter in a narrow creek, between two granite spurs, close E of Longue Point (51°25'N, 57°12'W) near the settlement of Lourdes-de-Blanc-Sablon.

The channel leading to Lourdes-de-Blanc-Sablon is marked at its outer end by SABLO Light-buoy (safe water) and by CY9 Light-buoy (spar) and CY10 Light-buoy (spar). Local knowledge is essential.

A wharf is situated on the W side of Pointe au Diable, 6 cables ESE of Longue Pointe. Conspicuous ice silos stand on the wharf.

Anchorage and harbours

Canadian Chart 4470 (see 1.32)

Baie de Bradore

3.25

- 1 **General information.** Baie de Bradore (Bradore Bay) lies between Longue Pointe (51°25'N, 57°12'W) and Pointe Rocheuse, 8½ miles WNW. It is not suitable for large vessels, as it contains many islets and rocks, and is exposed to heavy seas in SW winds. There is shelter for small vessels N of Île du Bassin (Island of Ledges) (51°28'N, 57°16'W), but better shelter can usually be found in Baie de Blanc-Sablon (3.14), 6 miles SE.
- 2 Many small islands and ledges lie off the S and NW coasts of Île du Bassin, and vessels should not approach within 1½ miles on these sides. The E coast is separated from the mainland by a channel with a least depth of 9.8 m (34 ft), but vessels should also not attempt to pass N of the island as rocks and shoals lie between Île du Bassin and the N shore of the bay.
- 3 **Directions.** The approach to the sheltered area at the E side of Baie de Bradore is from S, through the channel between Île du Bassin and the mainland 5 cables E, passing W of Perroquet (Perroque) Bank (51°24'N, 57°14'W).
- 4 **Leading lights** stand on the W side of La Falaise, a promontory in the NE corner of the bay:
- Front light (orange trapezium, black stripe, on red framework tower, 15 m in height) (51°29'.5N, 57°15'.0W).
- Rear light (orange rectangle and tower, 5 m in height) (96 m from front light).
- 5 The alignment (005°) of these lights leads in depths of more than 10 m (33 ft) through the channel, passing (with positions from Pointe Jones (51°27'.4N, 57°14'.9W)):
- W of Rocher East (9 cables S), thence:
- W of Rocher Gull (3 cables SSW), 0.3 m (1 ft) high, and E of Rocher Bull (5 cables WSW), 0.6 m (3 ft) high, thence:
- Over a rock (5 cables NNW), with a depth of 10.4 m (34 ft) over it, thence:
- 1 cable W of a rock (awash) (7 cables N).
- 6 **Havre à la Frégate** (51°28'N, 57°16'W), between the N point of Île du Bassin and Îlet Pigeon, provides confined

anchorage for small vessels. It is approached from the E by rounding the N point of Îlet Pigeon at a distance of at least 1 cable.

7 **Berths:**

A public jetty, 82 m long, on which there is a derrick, stands 4 cables SE of La Falaise peninsula.

A public jetty (51°28'1N, 57°15'7W) charted on the W side of an island, which lies 1 cable S of Îlet Pigeon, is in ruins.

Caution. A privately maintained unlit cautionary buoy, marked "EVP-16" is moored 755 ft (230 m) WNW of the wharf.

Baie des Belles Amours

3.26

- 1 **General information.** Baie des Belles Amours (51°28'N, 57°26'W) lies between Pointe Rocheuse (51°28'N, 57°25'W), a promontory which is low and green, and Pointe des Belles Amours, 1½ miles SSW, the W entrance point to the bay, which is bare granite.

Pointe au Havre on the W side of the inlet, 1½ miles N of Pointe des Belles Amours, rises to a bare granite hill with several cairns of stones on it.

- 2 **Directions.** Eastern Passage (51°27'N, 57°25'W), the main entrance channel, is approached from the SE with Pointe au Havre bearing 317°, passing, (with positions from Pointe Rocheuse):

SW of Rochers Flat (Flat Rocks) (5 cables to 1¼ miles SE), thence:

SW of Haut-fond Niobe (7 cables SSE), and a dangerous rock 3 cables SE of the shoal, and:

NE of shoal patches (1 mile SSW) with a least depth of 4.3 m (14 ft), over which the sea sometimes breaks.

- 3 **Directions.** Western Passage, about 1 mile SW of Eastern Passage, is suitable only for small vessels. This passage passes close E of Pointe des Belles Amours and enters Baie des Belles Amours from the S. Local knowledge is required.

- 4 **Anchorage** can be obtained in depths of 9 to 12 m (30 to 40 ft). A recommended anchorage position (51°27'8N, 57°26'2W) is shown on the chart, about 5 cables SE of Pointe au Havre (3.26).

- 5 **Havre des Belles Amours** (Belles Amours Harbour) (51°28'N, 57°27'W), an inner harbour at the head of Baie des Belles Amours, lies SW of Pointe au Havre (3.26). A marine farm has been established in the bay. Local knowledge is required.

Havre des Belles Amours can be entered by small craft, passing N of a rock which dries 1.2 m (4 ft), 1¼ cables N of Pointe au Havre. There is no passage between Pointe au Havre and the rock drying 1.2 m (4 ft), except for small boats.

- 6 Excellent shelter, with good holding ground, is available in depths of 9 to 12 m (30 to 40 ft), mud, but space is confined.

Baie du Milieu

3.27

- 1 **General information.** Baie du Milieu (Middle Bay) (51°27'N, 57°29'W) is separated from Baie des Belles Amours by a low, green peninsula. It is a good but open roadstead, with coves which provide havens for fishing craft. The village of Middle Bay lies at the head of the harbour.

- 2 **Directions.** The bay is approached from a position about 3 miles SSE of Pointe des Cinq Lieues (Five Leagues

Point) (51°26'N, 57°31'W), the W entrance point, and entered on the line of leading lights standing at the head of the bay:

Front light (orange rectangle, black stripe, on square framework tower, 11 m in height) (51°27'9N, 57°29'5W).

Rear light (similar construction and tower, 6 m in height) (249 m from the front light).

The lights are visible on leading line only.

- 3 The alignment (358¾°) of these lights leads into Baie du Milieu, passing (with positions from Pointe des Cinq Lieues):

W of Middle Ledges (1¼ miles E) (3.12), thence:

W of Pointe du Milieu (1½ miles E), the E entrance point to the bay, thence:

Close E of a rocky patch with a depth of 10.7 m (35 ft) over it (1 mile ENE).

Thence the track leads N to a position S of a 4.9 m (16 ft) depth (1¾ miles NNE).

- 4 **Useful mark:**

Pointe Peak (2 miles NE), a remarkable granite promontory extending S from the head of the bay.

- 5 **Berth.** There is a public wharf at the head of the bay on the E side.

Anchorage, sheltered from W winds, can be obtained off West Cove (51°27'N, 57°30'W), in about 7.3 m (24 ft), sand.

- 6 **Small craft** can find shelter, except in strong S winds, in Anse de l'Isthme, a cove at the E side of the head of the bay in depths of 5.5 m (18 ft), mud, N of a reef that lies on the S side of the cove. Local knowledge is required.

Havre des Cinq Lieues

3.28

- 1 **General information.** Havre des Cinq Lieues (Five Leagues Harbour) (51°26'N, 57°32'W), is only suitable as a shelter for small craft. It is partly sheltered by reefs over which the sea nearly always breaks, and has drying areas, lying up to 1 mile offshore.

A considerable swell sets in with SW winds.

- 2 **Directions.** Chenal de l'Est, the principal entrance channel, is approached on a NNW heading, passing (with positions from Pointe des Cinq Lieues (Five Leagues Point) (51°26'N, 57°31'W)):

Between 1 and 2 cables WSW of Récifs des Cinq Lieues (1 cable SW), rocks 1.8 m (6 ft) high, thence:

ENE of a rock drying 0.3 m (1 ft) (6 cables SW), thence:

WSW of two rocks, which dry 1.2 m (4 ft) (5 cables NW), lying close SW of Pointe South.

- 3 Thence the track leads into Baie des Cinq Lieues, the inner part of Havre des Cinq Lieues.

With local knowledge, approach may also be made through Chenal de l'Ouest, between Barrier Reefs (1½ miles SW) and Récifs Blanches (1½ miles W). Passe Barrier (9 cables SW), the channel between Barrier Reefs and a patch of reef which dries 1.2 m (4 ft), 7 cables NE, is difficult and should not be attempted.

- 4 **Useful mark:**

Hill, isolated and precipitous, nearly 61 m (200 ft) high, 7 cables N of Pointe des Cinq Lieues, is a good landmark for the mariner approaching from W.

- 5 **Anchorage** can be found in position 51°26'5N, 57°31'5W, 1½ cables NW of Pointe South, in depths of 4 to 6 m (13 to 19 ft).

Other names

3.29

- 1 Anse des Dunes (51°26'N, 57°13'W).
Anse Giguère (51°26'N, 57°34'W).
Anse Grand Plain (51°26'N, 57°35'W).
Anse North (51°29'N, 57°27'W).
Anse Wild (51°25'N, 57°36'W)
(Canadian Chart 4471).
Havre Yankee (51°27'N, 57°16'W).
Jobs Room (51°25'N, 57°08'W).
North Cove (51°29'N, 57°27'W).
Shallop Cove (51°27'N, 57°29'W).

ÎLE DE LA DEMOISELLE TO ÎLE MISTANOQUE

General information

Chart 284, Canadian Charts 4471, 4472 (see 1.32)

Routes

3.30

- 1 **Coastal route.** The coastal passage from a position S of Île de la Demoiselle (Caribou Island) (51°25'N, 57°38'W) to the vicinity of Île Mistanoque (Mistanoque Island), 24 miles WSW, passes outside the many islands, rocks and shoals in this area. There are extensive inner passages among Îles des Esquimaux (Eskimo Islands), N and W of Île à la Baleine (Whale Island) (51°21'N, 57°41'W).
- 2 **Inner route.** An inner channel, suitable only for small vessels, leads between the mainland coast and the offshore islands from the approaches to Baie du Vieux Fort (51°25'N, 57°49'W) to Île Mistanoque about 18 miles SW.

Topography

3.31

- 1 Îles des Esquimaux (Eskimo Islands) extend 13 miles WSW from Île de la Demoiselle to Île Station. The islands are bare of trees, except some near the coast. The larger islands, being very steep and bare, appear to be higher than they really are. Many rocks and ledges lie around the islands and extend up to 1½ miles to seaward of the outer islands.
- 2 The coast from the SW end of Îles des Esquimaux to Île Mistanoque is steep-to and rises abruptly to granite hills a short distance inland. Several narrow inlets with steep granite sides indent the coastline; islets, rocks and shoals lie up to 2½ miles offshore.

Flow

3.32

- 1 The flow in position 51°20'N, 57°48'W, near the S end of Chenal du Vieux Fort, has been found to be predominantly N-going, at a rate of ¼ to ½ kn.

Local knowledge

3.33

- 1 Local knowledge is required.

Navigational aid

3.34

- 1 **Racon:**
Mermot Island Light (51°19'3N, 57°50'6W).

Directions

(continued from 3.13)

3.35

- 1 From a position about 7 miles S of Île de la Demoiselle (51°25'N, 57°38'W) the coastal passage leads WSW, passing:
SSE of Île à la Baleine (Whale Island) (51°21'N, 57°41'W), and rocks and shoals extending 1 mile SSW. A light (orange rectangles on E and S sides of square framework tower, 11 m in height) is exhibited from the summit of the island. Thence:
SSE of Îles Tent (Tent Islands) (51°21'N, 57°44'W), and rocks and shoals extending 1½ miles S, thence:
SSE of Rochers de l'Américain (Fort Rocks) (51°19'6N, 57°48'2W), thence:
SSE of Île Mermettes (Mermot Island) (51°19'3N, 57°50'6W), from which a light (orange rectangles on SE and SW sides of a square framework tower, 6 m in height) is exhibited, thence:
SSE of Récifs des Îles aux Chiens (51°18'N, 57°54'W), rocks with depths of less than 1.8 m (6 ft), and shoal patches lying up to 1 mile SE from the S extremity of Îles aux Chiens (Dog Islands), thence:
SSE of Rocher Peril (Peril Rock) (51°15'3N, 58°05'3W), a small rock which dries 0.6 m (2 ft), over which the sea almost always breaks, and SSE of shoal patches lying up to 1 mile farther SW. Rocks, over which the sea almost always breaks, lie W of Rocher Peril. Sounding gives no warning of these dangers, which should be given a berth of at least 2 miles, unless local knowledge is available.
The track then leads to a position about 5 miles SSE of Île Mistanoque, from which a light (square framework tower, 5 m in height) (51°15'3N, 58°12'7W) is exhibited.
(Directions continue at 3.60)
- 2
- 3

Directions for inshore route from Baie du Vieux Fort to Île Mistanoque

(continued from 3.39)

Baie du Vieux Fort to Île Inner

3.36

- 1 From a position in Baie du Vieux Fort (Old Fort Bay) (51°25'N, 57°49'W) (3.50) an inshore channel, with a least depth in the fairway of 13 m (43 ft) and a minimum width of 1 cable, between 9.1 m (30 ft) depth contours, leads SW, then WSW, between the offshore islands and the mainland, passing:
WNW of Île Lizotte (Camp Island) (51°22'N, 57°52'W), and:
ESE of Île Net (Net Island), 3 cables W, thence:
NW of Îles Hautes (High Islands) (51°21'N, 57°55'W), thence:
NW of Île Verte (51°20'N, 57°56'W), and:
SE of Rocher Hébert (51°20'7N, 57°56'6W), a rock, with a depth of 4.6 m (15 ft) over it, close NW, thence:
NNW of the NW rock (51°17'7N, 58°00'5W) of Rochers aux Marsouins (Porpoise Rocks), two black rocks, thence:
NNW of Île Écrevisse (Crab Island) (51°16'9N, 58°06'6W), thence:
NNW of Île Inner (Inner Islet) (51°16'1N, 58°09'2W).
- 2

- 3 The track then leads WSW to the vicinity of 51°16'N, 58°10'W, between Île Inner and Île Chécatica (Shecatica Island), 1¼ miles W.

Useful mark:

Le Boulet (The Boulet) (51°16'·6N, 58°05'·7W), a smooth, green-topped islet, 27 m (88 ft) high.

Île Inner to Île Mistanoque

3.37

- 1 From the vicinity of 51°16'N, 58°10'W, the mariner may proceed into Havre Mistanoque (51°16'N, 58°13'W) (3.54), or rejoin the coastal passage SW, passing (with positions from Île Mistanoque Light (51°15'·3N, 58°12'·7W) (3.35)): NW of Les Quatre Rochers (Four Rocks) (3·3 to 7·3 m (11 to 24 ft) high) (2 miles ENE), thence: Between Rocher Mistanoque (6 cables ENE) and an unnamed and dangerous rock (1·7 miles E), thence:
- 2 Either side of a 5·5 m (18 ft) rocky patch (1·1 miles ESE).
- Thence the track leads to a position on the coastal passage S of Île Mistanoque (3.35).

Side channels

Canadian Chart 4471 (see 1.32)

Chenal à la Baleine

3.38

- 1 From a position on the coastal route (3.35) SSE of Îles Tent (Tent Islands) (51°21'N, 57°44'W), Chenal à la Baleine is entered close W of Île à la Baleine and leads N, passing (with positions from Île à la Baleine (Whale Island) Light (51°21'·4N, 57°41'·6W)):
- W of Roches du Sud-Ouest (6 cables SSW), and: E of a 5·5 m (18 ft) rocky patch (1 mile SW) thence: W of Île à la Baleine Light (orange rectangles on E and S sides on square framework tower, 11 m in height), standing on the rounded hill summit of the island, thence:
- 2 E of a 6·7 m (22 ft) rocky patch (7 cables NW), thence: W of a 4·6 m (15 ft) rocky patch (8 cables NNE), and: E of a 7 m (23 ft) rocky patch (1 mile NW).
- Thence the track leads about 3 miles farther N to Chenal Eskimo (51°24'·5N, 57°41'·9W), which leads into Passage Champlain (3.45), between Île Fair and Île Stone. The S end of Chenal Eskimo is constricted by a rock with a depth of 0·9 m (3 ft), over it, lying close SW of Île Fair.

Chenal du Vieux Fort

3.39

- 1 From a position on the coastal passage S of Île Mermettes (51°19'·3N, 57°50'·6W) (3.35), Chenal du Vieux Fort leads generally N, through the coastal islands W of Île du Vieux Fort (Old Fort Island) to Baie du Vieux Fort (Old Fort Bay), 3 miles farther NNW, passing (with positions from Île Mermettes):
- E of Île Mermettes, clear of a rocky patch (2 cables E), with a depth of 7·3 m (24 ft) over it, thence: W of Rochers de l'Américain (Fort Rocks) (1½ miles E); for information on flow see 3.32.
- 2 **Chenal du Vieux Fort Leading Lights** stand near the E entrance point of Baie du Vieux Fort:
- Front light (orange trapezium, black stripe, on framework tower, 9 m in height) (51°23'·9N, 57°48'·2W).
- Rear light (similar construction, inverted, and tower, 3 m in height) (336 m from front light).

The lights are visible on the leading line only.

The alignment (011°) of these lights leads through the channel, passing (positions given from Île Mermettes):

- 3 Close W of a 3·7 m (12 ft) rocky patch (2¼ miles NNE), which lies in the channel, 5 cables W of Île du Vieux Fort (Old Fort Island) (51°22'N, 57°47'W), thence:
- E of Île du Canal (Channel Island) (2½ miles N), and:
- W Île Dunn (3 miles NNE), thence:
- E of Île Crumb (2¾ miles N), and:
- W of Île Woodlawn (3½ miles NNE) and Îlets Roberts, 3 cables farther N.
- 4 Thence the track passes E of Île Tack (3¾ miles N) and leads NW to a position in Baie du Vieux Fort (51°25'N, 57°49'W) (3.50) or ENE towards a channel N of Île de la Baie (Bay Island) (51°23'N, 57°46'W) (3.40).
- (Directions continue for inshore passage from Baie du Vieux Fort to Île Mistanoque at 3.36)*

Small craft channels

Channels north and east of Île de la Baie

3.40

- 1 From the N end of Chenal du Vieux Fort (3.39) a channel runs ENE between Île de la Baie (Bay Island) (51°23'N, 57°46'W) and Pointe à la Perche, 3 cables N, on leading beacons and then either SE, on another set of leading beacons in a least charted depth of 3·9 m (13 ft), or N into Chenal de l'Ouest (3.41). Local knowledge is required.
- 2 **Île Whitely leading beacons** standing on SW end of Île Whitely:
- Front and rear (orange daymark, black stripe, on framework towers) (51°23'·9N, 57°45'·4W).
- The alignment (068°) of these beacons leads, in a least charted depth of 4·8 m (16 ft), through the channel.
- 3 **Pointe à la Perche leading beacons** standing on the N side of Pointe à la Perche:
- Front and rear (orange daymark, black stripe, on framework towers) (51°24'·0N, 57°46'·6W).
- The alignment (299½°), astern, of these beacons leads SE towards a beacon standing on the S end (51°23'·1N, 57°44'·0W) of Île Thomas, thence into Chenal à la Baleine (3.38).
- 4 A vessel proceeding E of Île Thomas should take care to avoid two rocky shoals, with depths of 1·2 m (4 ft) over them, which lie 2 cables SW and 4 cables W, respectively, of the island.

Chenal de l'Ouest

3.41

- 1 From the vicinity of Pointe à la Perche (51°24'·0N, 57°46'·6W) (3.40), a channel leads N between Île Devil, 2 cables NNE of the point, and Île Stick, 2 cables farther NE, into Chenal de l'Ouest (51°26'N, 57°45'W), and thence to Baie des Esquimaux. The least charted depth is 6·7 m (22 ft). Local knowledge is required.

Baie de Bonne-Espérance and Baie au Saumon

General information

3.42

- 1 **Description.** Baie de Bonne-Espérance (51°25'N, 57°40'W), the best harbour on this part of the coast, is contained between the mainland and a group of bare granite islands, many of which have piles of stones on their summits. Île de la Demoiselle (Caribou Island) (51°25'N, 57°38'W), on the E side of the bay, and Île des Esquimaux

(Eskimo Island) 2½ miles W, both appear to be part of the mainland when viewed from seaward.

- 2 **Baie au Saumon** (Salmon Bay) (51°27'N, 57°36'W) is reached from the E side of Baie de Bonne-Espérance through an unnamed channel. See 3.49.

Baie des Esquimaux (Eskimo Bay) (51°27'N, 57°43'W) is reached from the W side of Baie de Bonne-Espérance through Chenal Northwest (3.44) and Passage Champlain (3.45).

Directions

3.43

- 1 **Baie de Bonne-Espérance** (51°25'N, 57°40'W) is approached from a position on the coastal passage (3.35) about 7 miles S of Île de la Demoiselle (51°25'N, 57°38'W) passing about 2½ miles E of Île à la Baleine (Whale Island) Light (51°21'4N, 57°41'6W) (3.38).

Salmon Bay Leading Lights standing near the shore at the NE corner of Baie de Bonne-Espérance:

Front light (orange trapezium, black stripe, on square framework tower, 15 m in height) (51°25'8N, 57°39'2W).

Rear light (similar construction, inverted, and tower, 6 m in height) (249 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (349°) of these lights leads through the entrance channel in a least depth of 14 m (46 ft), passing (with positions from Île à la Baleine Light) (51°21'4N, 57°41'6W):

E of Haut-fond Middle (Middle Shoal) (2 miles ENE), and:

W of C10 Light-buoy (starboard hand), moored about 5 cables farther ENE, thence:

E of Rocher Watch, (2½ miles NE), and shoal water extending 1½ cables E from it, thence:

W of Rocher Bold (3 miles NE), thence:

E of Rocher Whelp (¾ miles NNE).

- 3 The track then leads NW to a position in the middle of Baie de Bonne-Espérance.

Useful marks:

Red beacon (framework tower) on SE part of Île au Saumon (Salmon Islet) (51°24'4N, 57°36'7W).

Red beacon on Îlet Link (51°23'2N, 57°39'4W).

Rocher Goddard (1.2 m in height) (51°23'4N, 57°37'2W).

- 4 **Stone Island Leading Lights** standing on islands at the W end of Baie de Bonne-Espérance:

Front light (orange trapezium black stripe, on square framework tower, 5 m in height) (51°24'9N, 57°41'7W) on the N extremity of Île Fair.

Rear light (similar construction, inverted, and tower, 9 m in height) (493 m from front light) on the N extremity of Île Stone.

- 5 The alignment (278°) of these lights leads across Baie de Bonne-Espérance, passing 1½ cables N of Récifs Anchor, 1¼ miles ESE of the front leading light, thence into the E end of Chenal Northwest.

Small craft channels

3.44

- 1 **Chenal Northwest** leads from the W end (51°24'8N, 57°41'0W) of Baie de Bonne-Espérance to the S entrance to Passage Champlain (51°26'N, 57°42'W).

Île des Esquimaux (Eskimo Island) Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 14 m in height) (51°25'2N, 57°42'3W) on E side of Île des Esquimaux.

Rear light (similar construction, inverted, and tower, 5 m in height) (139 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (297¼°) of these lights leads through the channel, with dangers close on each side.

From a position abreast Rivière Saint-Paul Light (white framework tower, red bands, 4 m in height) (3.45), which stands on the E side of the S entrance point to Passage Champlain, the channel leads N into the narrows.

3.45

- 1 **Passage Champlain** (51°26'N, 57°42'W) separates Île des Esquimaux (Eskimo Island) from the mainland close E. It is narrow at its N end with a minimum depth of 2.4 m (8 ft) in the fairway. An overhead cable with a vertical clearance of 13.4 m (44 ft) crosses the channel near its N end. The passage is usable only by small coasting vessels and local knowledge is required.

- 2 Saint-Paul Rivière light (framework tower, 4 m in height) (51°25'N, 57°42'W) is exhibited on the E side of Champlain Passage.

3.46

- 1 **Other small channels** lying between the islands on S side of Baie de Bonne-Espérance, include:

Chenal Shallop (51°23'8N, 57°40'4W).

Passage aux Caribou (51°24'8N, 57°42'6W).

Passage Flagstaff (51°23'4N, 57°40'0W).

Passage Job (51°24'0N, 57°39'7W).

Anchorage

3.47

- 1 **Havre de Bonne-Espérance** (51°24'2N, 57°40'5W) on the S side of Baie de Bonne-Espérance, is sheltered by Grande Île to the W, and by Île de Bonne-Espérance and Île Anchor to the E.

Good anchorage is available in depths of 22 to 29 m (12 to 16 fm).

Alongside berth

3.48

- 1 **Passage Champlain.** A L-shaped public pier, with a head 39 m in length and a cold storage plant nearby, lies on the W side of Passage Champlain (3.45), 3 cables within the S entrance.

Baie au Saumon

3.49

- 1 **General information.** Baie au Saumon (Salmon Bay), is a deep landlocked inlet about 2 miles NE of Baie de Bonne-Espérance. Salmon Bay village is situated on the S side of the entrance. Local knowledge is required.

Directions. Salmon Bay village is approached from Baie de Bonne-Espérance through a channel, with least charted depth of 5.5 m (18 ft), N of Île de la Demoiselle. Leading beacons at Salmon Bay village (51°25'4N, 57°37'0W), in line bearing 121°, lead from the E end of the approach channel towards a public jetty.

- 2 **Small craft channel.** Chenal de l'Est (51°25'N, 57°37'W) affords access into the bay for small craft from the E side of Île de la Demoiselle, in a least charted depth of 2.4 m (8 ft).

Anchorage, 3 cables WNW of Salmon-Bay village, is indicated on Canadian Chart 4471.

Berth. A T-shaped public pier with a depth of 4 m alongside its head is situated at Salmon-Bay village.

Anchorage and harbours

Canadian Charts 4471, 4472 (see 1.32)

Baie du Vieux Fort

3.50

- 1 **General information.** Baie du Vieux Fort (51°25'N, 57°49'W) extends inland for about 2 miles from Escarpement du Vieux Fort, its W entrance point, and is deep to within about 5 cables of its head. The settlement of Baie-du-Vieux-Fort, population about 320, is on the W shore of the bay, about 1 mile within the entrance.
- 2 A submarine cable is laid up to 100 m (328 ft) from the shore W of the wharf; a prohibited anchorage sign is exhibited near the shore.

Directions. Baie du Vieux Fort is entered from the S via Chenal du Vieux Fort (3.39) and from the SW via the inshore route described at 3.36.

- 3 **Anchorage** for a small vessel can be found in position 51°25'1N, 57°49'0W as indicated on Canadian Chart 4471.

Berth. A T-shaped jetty, from the head of which a light is exhibited (square framework tower, 6 m in height) (51°25'3N, 57°48'9W), extending from a promontory at the village, is in ruins. A L-shaped jetty, 47 m long, is situated close NE, with a fish processing plant nearby. This jetty has depths from 0.3 to 4.9 m on its W side.

Baie des Rochers

3.51

- 1 **General information.** Baie des Rochers (Rocky Bay) (51°19'N, 58°02'W) is a narrow inlet extending 1½ miles NE between high, rocky shores. The bay is deep at its entrance, and depths decrease gradually towards its head. Port-Saint-Servan village, population about 170, lies on the E shore, 1 mile within the entrance. Local knowledge is required.

Directions. The best approach is from the W using the inshore route described at 3.36. There are no known dangers in the inlet or its immediate approaches.

- 2 **Anchorage** is available opposite Port-Saint-Servan, in a depth of 20 m (11 fm), mud; see Canadian Chart 4471.
A small vessel can find good anchorage in the cove off the village.

Baie des Homards

3.52

- 1 **General information.** Baie des Homards (Lobster Bay) (51°20'N, 58°03'W) is a narrow inlet extending 4 miles N between high, steep shores. A marine farm is established in the N part of the bay marked by a yellow buoy.

Directions. The best approach is from the W, using the inshore route described at 3.36. The bay is entered W of Île Wright on which stands a beacon (white diamond daymark on a pyramidal structure) (51°17'8N, 58°03'8W). The track then leads N passing E of a 4.3 m (14 ft) shoal, which extends from the W shore 1¾ miles N of Île Wright.

Anchorage can be found in the inner part of the inlet in a depth of about 25 m (14 fm), mud, but it is open to S winds.

Baie Napetipi

3.53

- 1 **General information.** Baie Napetipi (Napetipi Bay) (51°18'N, 58°09'W) is a narrow inlet extending 4½ miles N

between high rocky shores. It is open to the S and, although heavy seas do not reach the head of the bay, is considered to be the least favourable inlet on this stretch of coast.

- 2 **Directions.** The bay is approached from SW, from a position on the inshore route (3.36) NW of Île Inner (51°16'1N, 58°09'2W), passing (with positions from Île Inner):

About 2 cables W of a rock (8 cables N), which dries 1 m (3 ft), thence:
W of an islet (2 miles N).

The track then leads in mid-channel for about 1 mile, until N of the narrows.

Baie Mistanoque and Havre Mistanoque

3.54

- 1 **General information.** Baie Mistanoque (51°17'N, 58°13'W), is a narrow inlet, 3 miles in length, with deep water and mud bottom throughout. It is sheltered by Île Mistanoque close S of the entrance and entered through the main channel to the W and a small craft channel to E, between Île Mistanoque and the mainland. Île Mistanoque and Île Chécatica (Shecatica Island), close E, are difficult to distinguish from seaward. Local knowledge is required for these channels.

- 2 Havre Mistanoque (Mistanoque Harbour), at the entrance to Baie Mistanoque, is formed by a small cove on the N side of Île Mistanoque.

Tidal levels. Mean spring range about 1.4 m; mean neap range about 0.6 m. See *Admiralty Tide Tables, Volume 2* for the latest information.

- 3 **Directions.** Passe West, the W main entrance channel, is approached from SE, passing between Île de l'Entrée (Enter Island) (51°15'N, 58°14'W) and Île Mistanoque. There is a least charted depth of 10 m (33 ft) in the fairway of the narrow channel between Île Mistanoque and the mainland NW.

Small craft channel. Passe East affords access from E passing N of Île Chécatica in a least charted depth of 5.5 m (18 ft) in mid-channel. The channel can also be entered from SE between Île Mistanoque and Île Chécatica.

Useful mark:

Mistanoque Light (51°15'3N, 58°12'7W) (3.35), on the SE side of the island.

- 4 **Anchorage:**

Havre Mistanoque. Sheltered anchorage can be found in depths of 22 to 36 m (12 to 20 fm), mud, with good holding ground. Shallow water is found on the E side of the harbour, but space becomes more restricted. A recommended anchor position is shown on the Canadian chart.

Baie Mistanoque is deep in its outer part, but depths decrease to 18 m (60 ft), mud, within 5 cables of the head of the inlet.

Other names

3.55

- 1 Anse Bull (51°18'N, 58°05'W).
Anse de la Vieille Maison (51°18'N, 58°07'W).
Anse Grassy (51°18'N, 58°06'W).
Grande Île (51°24'N, 57°41'W).
Îlot George (51°23'N, 57°40'W).
Charlie Knob (51°23'N, 57°37'W).
Île du Monument (51°23'N, 57°39'W).
Îles Eider (51°20'N, 57°51'W).
Île Fournel (51°18'N, 58°03'W).

ÎLE MISTANOQUE TO ÎLES SAINT-AUGUSTIN

General information

Chart 284, Canadian Charts 4472, 4473 (see 1.32)

Routes

3.56

- 1 From a position SSE of Île Mistanoque (51°16'N, 58°13'W) the coastal passage leads about 12 miles SW to a position SE of Îles Saint-Augustin (St Augustin Chain), passing outside the coastal islands, rocks and shoals.

Chenal du Carré (Square Channel) (51°10'N, 58°21'W) affords access to inner channels, and connects with La Grande Passe (3.78) and Grand Rigolet (3.81), which lead SW between the coastal islands. Inner channels, some of which are navigable by small vessels, extend as far as Baie de Kingston (Carkewetchepe Bay) (51°18'N, 58°26'W) to the N and Baie de Saint-Augustin (51°12'N, 58°35'W) to the W.

Topography

3.57

- 1 The many islands, islets and rocks that fill the bight W of Île Mistanoque are of moderate height and partially covered with moss.

Local knowledge

3.58

- 1 For safe navigation among the coastal dangers and in the inner channels, local knowledge is essential.

Navigational aid

3.59

- 1 **Racon:**

Pointe du Nord Est Light (51°10'N, 58°26'W).

Directions

(continued from 3.35)

3.60

- 1 From a position about 5 miles SSE of Île Mistanoque from which a light (51°15'3N, 58°12'7W) (3.35) is exhibited, the coastal passage leads SW, passing:

SE of Les Trois Rochers (Three Rocks) (51°13'N, 58°16'W), up to 5.5 m (18 ft) high, thence:

SE of Rocher Shag (Shag Rock) (4 m (13 ft) high) (51°11'N, 58°18'W), thence:

SE of Banc du Chenal du Carré (8.5 m (28 ft) shoal) (51°10'N, 58°20'W).

- 2 The track then leads to a position SE of Rocher Black (Black Rock) (1.2 m (4 ft) high and smooth) (51°08'3N, 58°25'1W), which is one of the outer islets and rocks of Îles Saint-Augustin (Saint Augustin Chain).

(Directions continue at 3.77)

Side channels

Chenal du Carré

3.61

- 1 **Route.** Chenal du Carré is entered between Île Dufour (51°11'N, 58°20'W), 24 m (80 ft) in elevation, with a remarkable round green hill in the middle, and Carré Saint Augustin (Saint Augustin Square) a group of islets, rocks and shoals, lying 2½ miles SW.

Local knowledge is required W of Îles du Rat Musque (50°11'N, 58°24'W).

- 2 **Directions.** From a position on the coastal passage (3.60) the track leads to the vicinity of St Augustin Light-buoy (safe water) (51°10'5N, 58°18'1W).

Pointe du Nord-Est Leading Lights stand near the NE extremity of Île de la Grande Passe:

Front light (orange trapezium, black stripe on framework tower, 4 m in height) (51°10'5N, 58°25'4W) on an islet 2 cables SE of the point.

Rear light (similar construction, inverted and tower, 4 m in height) (273 m from front light).

The lights are visible on the leading line only.

- 3 The alignment (269¾°) of these lights leads into Chenal du Carré, the sides of which are lined with rocks and shoals, to a position about 2 cables S of the W-most island (51°10'7N, 58°24'6W) of Îles du Rat Musque. The track then leads WNW to a position about 1 cable N of Pointe du Nord Est (Outer island) Light (orange rectangle on framework tower, 6 m in height) (51°10'6N, 58°25'7W).

3.62

- 1 **Île Bursey Leading Lights** are exhibited on the N end of Île Bursey at the W end of the channel:

Front light (orange trapezium, black stripe, on square framework tower, 5 m in height) (51°10'6N, 58°28'7W).

Rear light (similar construction, inverted and tower, 6 m in height) (483 m from front light).

The lights are visible on the leading line only.

- 2 Thence, from the position N of Pointe du Nord Est, the alignment (266½°) of these lights leads through the channel, passing:

S of Île Paul-Nadeau, (Dog Island) from the SE extremity of which a light (2 orange rectangles on framework tower, 4 m in height) (51°10'8N, 58°27'7W) is exhibited, and:

N of Île Andy, about 1 cable S.

The track then continues generally W, passing N of Île Bursey to a position about 2 cables SW of CU2 Light-buoy (starboard hand), marking Rocher Clinch, and foul ground extending 2 cables SW from the SW extremity of Île Paul-Nadeau.

3.63

- 1 **Île Paul-Nadeau Leading Lights** stand on the W end of that island:

Front light (orange trapezium, black stripe, on framework tower, 8 m in height) (51°11'0N, 58°28'9W) on the SW corner of the island.

Rear light (similar construction, inverted, and tower, 15 m in height) (539 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (044¾°), astern, of these lights leads between Île Bursey and Île Haynes, about 4 cables WNW, to a position about 1 mile SW of the front leading light, where the track leads (with positions from front light), either:

W into Passage Saint-Augustin (1½ miles WSW) (3.64), or:

Continues SW to a position about 2½ cables S of Île Pidgeon (2½ miles SW) at the NE entrance to La Grande Passe (3.78).

(Directions continue for Passage Saint-Augustin at 3.64 and La Grande Passe at 3.78)

Canadian Chart 4473 (see 1.32)

Passage Saint-Augustin

3.64

- 1 **Route.** Passage Saint-Augustin leads WNW for 2¼ miles into Baie de Saint-Augustin (51°12'N, 58°35'W) (3.70),

passing between La Grosse Île (51°11'N, 58°32'W) on the N side, and Île de la Conserverie and the mainland coast on the S side. The least charted depth is 12.2 m (40 ft).

At the mid point of the channel, a branch leads SW into Le Petit Rigolet (3.85).

Directions. The passage is approached from E.

2 Île Tickle Leading Lights:

Front light (orange trapezium, black stripe, on square framework tower, 3 m in height) (51°10'4N, 58°31'5W), standing on Île Tickle.

Rear light (orange rectangle and tower, 6 m in height) (624 m from front light), standing on Île de la Conserverie.

The front light is intensified on the leading line.

- 3 The alignment (271½°) of these lights, leads S of shoal ground extending 1 cable S from Île Haynes (51°10'7N, 58°30'2W) and N of Haut-fond Middle, 6 cables SW. Thence the track leads N of Île Tickle, at the S entrance point to the passage.

Useful mark:

Saint-Augustin Passage Light (square mast, 8 m in height) (51°10'9N, 58°34'1W), exhibited from a wharf at Pointe à la Truite.

- 4 **Alternative route.** A vessel may also proceed to Baie de Saint-Augustin by passing E and N of La Grosse Île (River Island).

(Directions for Petit Rigolet are given at 3.85)

Anchorage and harbours

Canadian Charts 4472, 4473 (see 1.32)

Baie de Jacques-Cartier

3.65

- 1 **General information.** Baie de Jacques-Cartier is entered between Île Mistanoque (51°16'N, 58°13'W) and Île Cumberland, 3 miles WSW. It contains many islands and intricate channels and local knowledge is essential. Marine farms are established in the bay N of Île Brouague (51°16'N, 58°16'W) and their S limit is marked by yellow buoys.

Anchorage. Anse du Portage (51°14'5 N, 58°17'5 W), a cove on the W side of the entrance to the bay, provides sheltered anchorage. Two shoals, depths 4.9 m (16 ft) and 5.5 m (18 ft), lie in the middle of the cove.

Havre Cumberland

3.66

- 1 **General information.** Havre Cumberland (51°13'N, 58°19'W), a well-sheltered harbour, used mainly by small craft, is the best and easiest of access along this part of the coast. Local knowledge is essential.

- 2 **Directions.** The narrow entrance to Havre Cumberland, between the SW side of Île Cumberland (two round hills) and the NE side of Île de l'Anse du Portage (Dukes Island), is approached from SE, passing (with positions from Les Trois Rochers (51°13'N, 58°16'W) (3.60)):

NE of Rocher Shag (1¼ miles SSW) and a patch with 3 m (10 ft) over it, 3 cables N, thence:

SW of Les Trois Rochers, thence:

- 3 SW of Île Lessard (7.3 m in elevation) (7 cables W), surmounted by an orange beacon, and:

NE of a rock (1¼ miles W) which dries 1.2 m (4 ft).

After passing between the outer points of the entrance, the recommended track runs close along the SW shore, avoiding:

A rock with a depth of 3.4 m (11 ft) over it, on the NE side of the channel, and:

A dangerous rock (51°13'4N, 58°18'9W), which lies about 6 cables within the entrance.

- 4 The two islands in the middle of the harbour, 1 cable N of the dangerous rock, should be rounded at a distance of about 1 cable.

- 5 **Small craft channel.** About 1 mile within the entrance a narrow channel, with a least charted depth of 7.3 m (24 ft), runs NNW between Île Cumberland and Île Bayfield (Sandy Island) to join the network of minor channels among the coastal islands (3.56).

- 6 **Anchorage** can be found N of the two islands in depths of 13 to 35 m (42 ft to 19 fm); good holding ground.

Havre Bayfield

3.67

- 1 **General information.** Havre Bayfield (Sandy Island Harbour) (51°12'5N, 58°22'0W) is a sheltered anchorage for small craft, with good holding ground. Local knowledge is required.

- 2 **Directions.** The entrance is approached from SE, passing (with positions from Rocher Andrew (51°11'N, 58°21'W)):

NE of Rocher Andrew, and:

SW of Île Dufour (8 cables ENE), and a rocky shoal with a depth of 3.3 m (11 ft) over it, 3 cables S, thence:

Close NE of Îles aux Oeufs (Egg Rocks) (6 cables NNW), and:

SW of a dangerous rock (6 cables N).

The track then leads NW, between rocky shoals, and N, passing E of Île Léon (1½ miles NNW).

Havre Augustin

3.68

- 1 **General information.** Havre Augustin (51°09'N, 58°26'W), a natural basin, surrounded by rocks, has depths of 18.3 m (60 ft) and is accessible to coasters. Local knowledge is required.

Directions. The harbour is approached from SE, passing:

NE of Rocher Black (51°08'3N, 58°25'1W) (3.60), and:

SW of a rocky ledge that dries 1.2 m (4 ft), lying 2 cables NE.

The track then leads NNW through the channel, along the W edge of Îles Saint-Augustin for about 7 cables, to the E end of the harbour.

Passage Saint-Augustin

3.69

- 1 **Berth.** A public wharf (51°11'N, 58°34'W), from which a light is exhibited (3.64), is situated on the S shore of Passage Saint-Augustin at Pointe à la Truite, 5 cables WNW of Île Driscoll. The wharf is of irregular shape in three sections, with a shed, ramp, and oil tanks. The main section is 62 m long, with a depth alongside of 6.9 m.

A public wharf on Île de la Conserverie, 5 cables from the E entrance to Passage Saint-Augustin, is not in use.

Baie de Saint-Augustin

3.70

- 1 **Anchorage.** Baie de Saint-Augustin (51°12'N, 58°35'W) provides anchorage, outside the entrance to Rivière Saint-Augustin, which flows into its W side. A series of three light-buoys (boat type), marked CSU2, CSU3, and CSU4, are moored in the W part of the bay and lead towards the river entrance.

Local knowledge is required.

Small craft

Saint-Augustin

3.71

- 1 **General information.** Saint-Augustin (51°13'N, 58°39'W) is a small trading station, population about 740, on the N side of the entrance to Rivière Saint-Augustin. An overhead cable, with vertical clearance 5.5 m (18 ft), spans the channel at Saint-Augustin.

Directions. A buoyed boat channel leads from the vicinity of three light-buoys (3.70) through the shifting sandbanks of the river mouth. A light (framework tower, 4 m in height) (51°13'3N, 58°38'7W) is exhibited from the N entrance point to the river. A microwave tower (elevation 267 m (877 ft), red lights) stands 1 mile N of the light.

- 2 **Berths.** L-shaped public jetty, 18 m long at outer face, depths alongside 0.3 to 0.6 m. Another jetty stands close NW.

Facilities: medical clinic; post office.

Other names

3.72

- 1 Anse Scallop (51°20'N, 58°17'W).
Baie Robin (51°15'N, 58°18'W).
Havre Marsal (51°20'N, 58°15'W).
Île du Plongeur (Diver Island) (51°15'N, 58°14'W).
Îles Marsal (51°15'N, 58°16'W).
Rocher Howell (51°10'N, 58°31'W).
Rocher Shattler (51°14'N, 58°16'W).

ÎLES SAINT-AUGUSTIN TO CAP DU GROS MÉCATINA

General information

Chart 284, Canadian Charts 4473, 4474, 4469 (see 1.32)

Routes

3.73

- 1 **Coastal passage.** From a position SE of Îles Saint-Augustin (Saint-Augustin Chain) (51°06'N, 58°28'W) the coastal passage leads about 30 miles SW to the vicinity of Cap du Gros Mécatina passing outside a chain of islands. Islets, rocks and shoals lie up to 2 miles to seaward of the islands in places, and inner channels lead between the islands.

Inshore passage. La Grande Passe and Grand Rigolet comprise a continuous channel from the NW side of Île de la Grande Passe (Outer Island) (51°09'N, 58°30'W) to Île du Guet, 17 miles SW. The passage then leads a farther 12 miles SSW to the vicinity of Cap du Gros Mécatina.

Topography

3.74

- 1 The mainland coast from Baie des Ha! Ha! (50°57'N, 58°57'W) to Cap du Gros Mécatina (Cape Mecatina), 12 miles S, is indented with small bays, some of which afford anchorage and berthing for small vessels.

Numerous islands lie close to the coast.

- 2 **Cap du Gros Mécatina** is at the SE end of a remarkable promontory, cut through with deep fissures running NE/SW.

A chain of small islands extends 2½ miles SE from the cape.

Local magnetic anomaly

3.75

- 1 Local deflection of the magnetic compass is reported to occur in the vicinity of Île Plate (50°45'N, 58°45'W) and over the banks 10 to 20 miles S.

Principal mark

3.76

- 1 **Major light:**

Île Plate (Flat Island) Light (framework tower, 24 m in height) (50°45'2N, 58°45'4W) exhibited from S summit of the island.

Directions for coastal passage

(continued from 3.60)

3.77

- 1 From a position SE of Rocher Black (3.60), SE of Îles Saint-Augustin, the coastal passage leads SW, passing (with positions from Île Plate (50°45'2N, 58°45'4W)):

Well clear and SE of the many islands, rocks and shoals lying inshore of a line between Îles Saint-Augustin and Île aux Trois Collines (Treble Hill Island) (5 miles N). Île aux Trois Collines, is rocky, with a ragged summit, light in colour, with its upper half sparsely covered with vegetation. Thence:

SE of Île Plate, from which a light (3.76) is exhibited. The island is flat, rocky, and grass-covered on its N side. And:

SE of Île du Gros Mécatina (Great Mecatina Island) (5 miles NW), a large island, rising to 142 m (466 ft) (530 ft on Chart 284) on its SW part, and fissured from N to S, thence:

SE of Rochers aux Marmettes (Murr Rocks) (5 miles SW), two flat-topped rocks, 2.7 m (9 ft) (4 ft on Chart 284) and 3.7 m (12 ft) (5 ft on Chart 284) in elevation, fronting the SE side of Îles aux Marmettes (Murr Islands). The outer island is a small, flat-topped rock, 20 m (66 ft) (85 ft on Chart 284) in elevation; the inner island is a rugged rock 22 m (71 ft) (80 ft on Chart 284) in elevation.

- 2 The track then leads to a position SE of Cap du Gros Mécatina (9½ miles W). The cape lies at the SE end of a remarkable promontory, cut through with deep fissures running NE/SW. A chain of small islands extends 2½ miles SE from the cape.

Vessels may also pass W of Haut-fond Île Plate (5 cables W), thence:

S of Haut-fond Quail (3½ miles W), and:

N of Récifs aux Marmettes (Murr Reef) (4¼ miles SW), which dries 1.2 m (4 ft), but is difficult to see.

(Directions continue at 3.103)

Directions for inshore passage

(continued from 3.63)

La Grande Passe

3.78

- 1 **Île Robin E Leading Lights** stand on the NE corner of the island:

Front light (orange trapezium, black stripe, on framework tower, 4 m in height) (51°09'2N, 58°33'0W).

Rear light (similar construction, inverted, and tower, 5 m in height) (99 m from front light).

The lights are visible on the leading line only.

- 2 From a position about 2½ cables S of Île Pidgeon, the alignment (269½°) of these lights leads N of Rocher Robin, a rock with a depth of 1.5 m (5 ft) over it, lying 3 cables ESE of the front light.

3.79

- 1 **Île du Petit Rigolet (Inner Island) Leading Lights**, 3 cables SW of Île Robin:

Front light (orange trapezium, black stripe on square framework tower, 4 m in height) (51°08'8N, 58°33'7W).

Rear light (similar construction, inverted, on white framework tower, 9 m in height) (155 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (242°) of these lights leads through the narrow channel close SE of Île Robin.

3.80

- 1 **Île Robin SW Leading Lights** stand on the SW corner of the island:

Front light (orange trapezium, black stripe on framework tower, 8 m in height) (51°09'0N, 58°33'4W).

Rear light (similar construction, inverted, and tower, 5 m in height) (86 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (021°), astern, of these lights, leads through the narrow channel SSW of Île Robin. The track then leads SW through La Grande Passe, for about 3 miles, between the SW part of Île de la Grande Passe (Outer Island) and Île du Petit Rigolet, close N, passing:

SE of Brisants Cook (51°06'6N, 58°36'9W), and:

NW of Pointe Cook, 2½ cables SE.

Then the channel widens and becomes Grand Rigolet.

Grand Rigolet**3.81**

- 1 The recommended track lies in mid-channel, passing (with positions from Brisants Cook (3.80)):

NW of Île Pagouatchiou (7 cables S), and:

SE of Île aux Graines (7 cables SW), thence:

Either side of Haut-fond Driscoll (about 2 miles SW), lying in mid-channel, thence:

SE of Haut-fond Bessie (3 miles SW), a rocky patch, thence:

- 2 NW of Pointe Whale Head, on the NW side of Île Lecouve (3¾ miles SSW), thence:

NW of Rocher Old Shag (51°01'6N, 58°42'6W), a rock about 2 cables off Île Mercer.

- 3 The recommended track then continues in mid-channel, passing (with positions from Rocher Old Shag):

SE of Haut-fond Mary (7 cables W), a rocky patch, thence:

Either side of Haut-fond Fox (11 cables SW), a rocky patch, thence:

SE of an unnamed 7.9 m (26 ft) rocky patch (2 miles WSW), thence:

NW of Îles Bun (2½ miles SW), thence:

SE of an unnamed 7.9 m (26 ft) rocky patch (4 miles SW), thence:

- 4 NW of Îles des Affligées (4½ miles SW), and:

SE of Haut-fond McCann (5 miles SW), a rocky shoal lying 5 cables NW of these islands, thence:

NW of Île McCann (6¼ miles SW) with surrounding islets and foul ground lying up to 4 cables NNE and 2½ cables W, thence:

SE of Rocher Dark (50°57'4N, 58°51'6W), thence (with positions from Rocher Dark):

NW Île Blue (7 cables S), and:

SE of an unnamed 9.1 m (30 ft) rocky patch (4 cables S) and a 4.5 m (15 ft) rocky patch (8 cables SSW).

- 5 The track passes NW of Île du Guet (1½ miles SSW), then leads SSW, passing:

WNW of a drying rock 2 m (6 ft), lying 1 cable W of Île du Guet and clear of shoal water extending 3 cables S, thence:

ESE of Récif Fecteau, a rocky shoal (2 miles SW).

The track then leads SW to the vicinity of 50°55'N, 59°54'W. A narrow passage separates Récif Fecteau from Pointe Fecteau, 2 cables NW, on the NW side of the channel.

3.82

- 1 **Useful mark:**

Île du Guet Light (square framework tower, 5 m in height) (50°55'8N, 58°52'8W) exhibited from the W side of the island.

Île du Guet to Cap du Gros Mécatina**3.83**

- 1 From the position 50°55'N, 59°54'W, 1 mile SW of Île du Guet, the inshore passage leads S, passing (with positions from Île de la Boule (The Boule) Light (square framework tower, 5 m in height) (50°50'2N, 58°52'6W)), exhibited from the NW end of Île du Gros Mécatina:

W of an unnamed 4.5 m (15 ft) rocky patch (4 miles N), and:

E of an unnamed 2.1 m (7 ft) rocky patch (4½ miles NNW), thence:

W of Îles aux Huards (Loon Islands) (2¾ miles N), and:

E of Île du Canard (Duck Island) (3¾ miles NW), thence:

- 2 E of Île Cormandière (2½ miles WNW), from which a light (square framework tower, 5 m in height) (50°51'5N, 58°55'9W) is exhibited, thence:

W of an unnamed 4.9 m (16 ft) rocky patch (6 cables NNW), thence:

E of Île Godin (Green Island) (2 miles W), which is 21 m (70 ft) high, whence the track leads generally SW, passing:

NW of Cap Round, the SW extremity of Île du Gros Mécatina (3 miles SSW), thence:

SE of Îlot aux Goélands (Gull Island) (4½ miles SW).

- 3 The track then leads either side of Île Entrance (Entrance Island), from which a light (square framework tower, 6 m in height) (50°44'1N, 59°00'5W) is exhibited, 2 cables SE of Cap du Gros Mécatina (3.77). The channel between Île Entrance and Île Dyke, close E, is wider and is preferable. Local knowledge is required.

Alternatively, a vessel may pass through the much wider and deeper channel between Rochers Outer (Outer Rocks) (3 to 4.5 m high), lying 2 miles SE of the light, and Îles aux Marmettes, 2½ miles farther E.

(Directions continue for coastal passage at 3.103)

Side channels**3.84**

- 1 **Passage Gagnon** (51°07'N, 58°33'W) is a narrow channel between Île de la Grande Passe and Île Wakeham, leading from La Grande Passe (3.78) to the open sea, in a least charted depth of 10 m (33 ft).

3.85

- 1 **Le Petit Rigolet** is a narrow passage, used by coasters, leading from its entrance in Passage Saint-Augustin (51°11'N, 58°33'W) (3.64) in a SW direction for 12 miles

to Baie de Kécarpoui (Kecarpwei Bay) (51°03'N, 58°49'W).

3.86

- 1 **Passage Fournier.** From the vicinity of Pointe Tucker (51°07'N, 58°40'W), Passage Fournier leads S from Le Petit Rigolet, between Île aux Graines and Île Monger (Long Island) close W, into Grand Rigolet.

3.87

- 1 **Passage MacKinnon.** From a position in Baie de Kécarpoui (51°03'N, 58°49'W) (3.85), Passage Mackinnon leads S for 2½ miles between Île Monger and Île de l'Indien, connecting Le Petit Rigolet with Grand Rigolet.

Anchorage and harbours

Baie des Ha! Ha!

3.88

- 1 **General information.** Baie des Ha! Ha! (Ha Ha Bay) (50°58'N, 58°57'W) is deep in places but affords many good anchorages. Its entrance is constricted by numerous islands and shoals. The village of Baie des Ha! Ha! is situated about 1 mile NW of Pointe Seal (Seal Point) (50°55'0N, 58°57'5W), the W entrance point to the bay.

Local knowledge is required.

Anchorage. The bay is deep in places, but many good anchorages may be found within.

Canadian Chart 4474 plan of Baie de la Tabatière (see 1.32)

Baie de la Tabatière

3.89

- 1 **General information.** Baie de la Tabatière (50°50'N, 58°58'W) is a base for fish processing and seal oil storage. The village of La Tabatière had a population of 458 in 1988. Local knowledge is required.

Flow. A weak and variable flow has been observed in position 50°51'N, 58°57'W, at the approach to Baie de la Tabatière, with a maximum rate of ¼ kn in a S direction.

Submarine cable. A submarine cable is laid up to 150 m from the shore N of a wharf mentioned below; a prohibited anchorage sign stands near the shore.

- 2 **Directions.** The bay is approached from NE.
La Tabatière Outer Leading Lights, situated on the W side of the bay:

Front light (orange trapezium, black stripe, on framework tower, 30 m in height) (50°50'6N, 58°58'5W).

Rear light (similar construction, inverted, on square framework tower, 5 m in height) (157 m from front light).

The lights are visible on the leading line only.

- 3 The alignment (234¼°) of these lights passes close NW of CT7 Light-buoy (port hand) moored 1 mile NE of the front leading light and about 1 cable NW of Haut-fond Percy, 8 cables NE of the front leading light.

Useful mark:

Île Cormandière Light (50°51'5N, 58°55'9W) (3.83).

3.90

- 1 **La Tabatière Inner Leading Lights**, situated on the SW corner of the bay:

Front light (orange trapezium, black stripe, on square framework tower, 15 m in height) (50°50'2N, 58°58'4W).

Rear light (similar construction, inverted, and tower, 5 m in height) (76 m from front light).

The lights are visible on the leading line only.

The alignment (193½°) of these lights leads into the harbour.

CT11 Light-buoy (port hand) is moored 1 cable SE of the intersection of the outer and inner leading lines.

- 2 **Berth.** There is a public wharf on the W side of the bay, 126 m long, least depth alongside 5.2 m (17 ft). Refrigeration and seal oil storage tanks stand behind wharf.

Supplies: fresh water and diesel fuel are available in limited quantities.

Canadian Chart 4474 (see 1.32)

Havre du Gros Mécatina

3.91

- 1 Havre du Gros Mécatina (50°47'5N, 58°51'0W) is an inlet on the E side of Île du Gros Mécatina. Île Harris, which lies 1 cable off the coast, provides some shelter from E winds. Local knowledge is required.

An anchorage position is indicated on Canadian Chart 4474, near the head of the inlet, in depths of 13 to 33 m (42 ft to 18 fm), mud.

Havre Gaumont

3.92

- 1 Havre Gaumont (50°49'N, 58°51'W), a narrow inlet at the N end of Île du Gros Mécatina, derives some shelter from Îles MacKinnon, 7 cables NE. Local knowledge is required.

An anchorage position is indicated on Canadian Chart 4474, near the head of the inlet, where there is good holding ground in depths of 25 to 35 m (14 to 19 fm).

Baie des Moutons

3.93

- 1 **Description.** Baie des Moutons (Mutton Bay) (50°46'N, 59°02'W) lies between high, steep granite hills, traversed by large fissures. Île Mitchell stands in the entrance to the bay, providing shelter for Havre Portage, which lies NW of the island.

- 2 Above Havre Portage there are narrows which connect Baie des Moutons with Baie du Portage, a landlocked bay, 5 cables farther NW. Baie-des-Moutons village, population 183 in 1988, identified by a church, lies on the E side of the narrows.

- 3 **Depths.** There is a least charted depth of 3.7 m (12 ft) in the narrow channel NW of Île Mitchell and charted depths of 7.0 to 13.1 m (23 to 43 ft) in the channel SW of the island.

- 4 **Vertical clearance.** An overhead cable with a vertical clearance of 5.2 m (17 ft) and a bridge with a vertical clearance of 1.8 m (6 ft) span the entrance to Havre Portage.

Above Havre Portage the narrows are spanned by a bridge, with a vertical clearance of 1.8 m (6 ft), and by an overhead cable.

Local knowledge is required.

- 5 **Directions.** Leading lights stand on the W shore of the narrows at the head of Havre Portage:

Front light (orange rectangle, black stripe, on square framework tower, 6 m in height) (50°46'2N, 59°02'1W).

Rear light (white tower, orange top, 4 m in height) (335 m from front light).

- 6 The alignment (322½°) of these lights leads through the entrance, keeping close to the leading line, passing (with positions from front light):

Close NE of Rochers Seal (1½ miles SE), thence:

Over the W edge of a rocky bank with a least depth of 3.6 m (12 ft) (1 miles SE), thence:

SW of Île Mitchell (3 cables SE), and into the harbour.

- 7 **Berth.** A public wharf is situated on the W side of the bay, there are rocks alongside except for a 14 m (46 ft) section on its SW face.

Anchorage can be found about 1 cable NE of Île Mitchell, as indicated on Canadian Chart 4474.

- 8 **Other facilities.** Small hospital at Baie-des-Moutons village.

Small craft may find shelter in a cove at the NE corner of the bay.

Anse Galion

3.94

- 1 Anse Galion (50°45'5N, 59°01'5W) about 1 mile NW of Cap du Gros Mécatina, provides anchorage in depths of 18 to 27 m (60 ft to 15 fm), with a mud bottom. The anchorage position is indicated on Canadian Chart 4474. Local knowledge is required.

There is a small settlement on the S entrance point to the cove.

Small craft

Havre de l'Aigle

3.95

- 1 Havre de l'Aigle (Eagle Harbour) (51°03'N, 58°44'W), contained by Île Monger and Îles de l'Aigle, provides shelter for small craft but the approaches are intricate. It has a least depth of 4.9 m (16 ft) in the N entrance and 10.1 m (33 ft) in the SW entrance. Local knowledge is essential.

Havre aux Poissons

3.96

- 1 **General information.** Havre aux Poissons (Fish Harbour) (50°53'N, 58°59'W) provides good anchorage for small craft. Local knowledge is required.

Directions. The cove can be entered on either side of Îlet au Bois, which lies in the entrance, the N side being preferable. There are dangers in the harbour and its approaches, including a dangerous rock, lying 3 cables E of Îlet au Bois.

Havre Boulet

3.97

- 1 Havre Boulet (50°47'N, 59°00'W), contained between Île de Mécatina (Mecatina Island) and the mainland, provides safe but confined anchorage for small craft. A vessel of any size must moor head and stern, with hawsers to the shore. Local knowledge is required.

Other names

3.98

- 1 Baie Querry (50°59'N, 58°51'W).
Baie Rouge (50°49'N, 58°57'W), a cove.
Goose Islands (Îles aux Outardes) (50°54'N, 58°49'W).
Havre de Mécatina (Mecatina Harbour) (50°46'N, 59°01'W).
Île Buffitt (50°46'N, 58°51'W).
Îles des Cormorans (Shag Rocks) (50°48'N, 58°57'W).
Île des Moutons (Mutton Island) (50°46'N, 59°00'W).
2 Île Double Hill (50°55'N, 58°51'W).
Îles Jalobert (51°07'N, 58°28'W).
Passage Mercier (51°02'N, 58°41'W).
Rocher de la Boule (50°50'N, 58°53'W).
Rocher Mackinnon (51°05'N, 58°32'W).
Rocher Quail (50°46'N, 58°51'W).
Rocher Wakeham (51°06'N, 58°31'W).

CAP DU GROS MÉCATINA TO CAP WHITTLE

GENERAL INFORMATION

Charts 284, 4767, Canadian Charts 4468, 4469, 4440 (see 1.32)

Area covered

3.99

- 1 This section describes the waters between Cap du Gros Mécatina (50°44'N, 59°01'W) and Cap Whittle (50°11'N, 60°07'W), about 55 miles SW. The section is arranged as follows:

Cap du Gros Mécatina to Îles Harrington (3.101).
Îles Harrington to Cap Whittle (3.121).

Topography

3.100

- 1 The coast between Cap du Gros Mécatina and Cap Whittle is fringed with islands, rocks and reefs which lie, in places, up to 8 miles from the mainland.

CAP DU GROS MÉCATINA TO ÎLES HARRINGTON

General information

Canadian Chart 4469 (see 1.32)

Route

3.101

- 1 The coastal passage from the vicinity of Cap du Gros Mécatina (50°44'N, 59°01'W) to a position SE of Îles Harrington, 24 miles SW, leads between the coastal islands and the in-bound lane of the traffic separation scheme.

Topography

3.102

- 1 The bay between Cap du Gros Mécatina and Île du Petit Mécatina, 15 miles SW, is encumbered with islands, rocks and reefs. Île Galuchon (Bald Island), 8 miles SW of Cap du Gros Mécatina, is bare and rounded.

The S part of Île du Petit Mécatina is high, descending to a low, swampy terrain in the N part. The SE coast of

the island between Pointe Antrobus (50°34'N, 59°17'W) and Cap Mackinnon, 3 miles SW, is high and bold, with beaches of white boulders.

Directions

(continued from 3.77 and 3.83)

3.103

- 1 From a position SE of Cap du Gros Mécatina the coastal passage leads SW, passing:
SE of Rochers Fin (50°36'N, 59°10'W), two islets, 2.7 m (9 ft) and 3.4 m (11 ft) in height, situated 5 cables S of Île Kanty, 72 m (236 ft) in elevation, thence:
SE of Rocher Scale, 2 miles SW of Rochers Fin, with shoal ground extending 5 cables farther S, thence:
SE of Pointe Antrobus (50°34'N, 59°17'W), the E point of Île du Petit Mécatina, and shoal ground extending 4 cables SE from it, thence:
- 2 SE of Cap Mackinnon, 3 miles SW of Pointe Antrobus.
The track then leads to a position SE of Cap Airey from which a light (orange rectangle on framework tower, 6 m in height) (50°28'2N, 59°27'5W) is exhibited.

Useful mark:

Entry Cliff Light (50°29'3N, 59°27'5W) exhibited from the S side of Île de l'Entrée (3.111).
(Directions continue for coastal passage at 3.126)

Tête-à-la-Baleine

General information

3.104

- 1 **General information.** The small port of Tête-à-la-Baleine is situated at the S end of Île du Grand Rigolet (Ouest) (50°41'N, 59°14'W). It is connected by road with the village of Tête-à-la-Baleine, population 336 in 1988, which lies 3 miles NW, at the head of a partly drying bay.
Route. From a position on the coastal passage, Tête-à-la-Baleine is reached through the channels of Passe Western which lead N and NW on the alignment of three sets of leading lights, for about 6 miles between many islands. Local knowledge is required.
Depth. The least charted depth in the fairway is 7.9 m (26 ft).

Directions for approaching Tête-à-la-Baleine

3.105

- 1 **Leading lights** stand on the NW end of Île Vatcher (Vatcher Island):
Front light (orange rectangle, black stripe, on square framework tower, 6 m in height) (50°39'6N, 59°12'0W).
Rear light (similar construction and tower, 5 m in height) (110 m from front light).
The lights are visible on the leading line only.
From a position about 2 miles SW of Rochers Fin (50°36'N, 59°10'W) (3.103), the alignment (001°) of these lights leads through Passe Western, passing (with positions from Rochers Fin):
W of Haut-fond Fin (5 cables W), close W of Pointe Whale, and:
- 2 E of shoal ground (1¼ miles W), with least depth of 2.4 m (8 ft) over it, extending about 4 cables NE from Îles aux Goélands, thence:
W of Rocher Gore (8 cables WNW), thence:
E of Haut-fond Monger (1¼ miles NW), thence:

W of Île du Chat (2 miles N), and:
E of Île Pierrot (2¼ miles NNW), thence:
E of Île Renard (2¾ miles NNW).

3.106

- 1 **Centre Leading Lights** are exhibited from two small islands W of Île Beaulieu:
Front light (orange trapezium, black stripe, on square framework tower, 3 m in height) (50°39'7N, 59°14'1W).
Rear light (similar construction, inverted, and tower, 3 m in height), (422 m from front light).
The lights are visible on the leading line only.
- 2 From a position about 2 cables NE of Île Renard the alignment (293½°) of these lights leads for a distance of 1 mile passing close S of a dangerous rock (50°39'6N, 59°13'4W), with a depth of less than 1.8 m (6 ft) over it, lying close to the SW side of Île Beaulieu.

3.107

- 1 **Inner Leading Lights** are exhibited from the S end of Île du Grand Rigolet (Ouest):
Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (50°40'8N, 59°14'6W).
Rear light (similar construction, inverted, and tower 3 m in height) (96 m from front light).
The lights are visible on the leading line only.
- 2 The alignment (330°) of these lights leads, for a distance of 1¼ miles to the vicinity of the wharf, 1 cable E of the front leading light, passing close W of a shoal with a least depth of 2.7 m (9 ft) over it, 6 cables SE of the front leading light.
Useful mark:
Four oil storage tanks on the shore, 1 cable NE of the front light.

Berths

3.108

- 1 There is a T-shaped public wharf at Île du Grand Rigolet (Ouest), with an outer face 57 m long, and a least depth of 6.7 m (22 ft) alongside. A light (square framework tower, 6 m in height) (50°40'8N, 59°14'4W) is exhibited from the E end of the wharf.
A T-shaped public pier lies 70 m W of the public wharf.

Havre de Harrington

Canadian Chart 4468 plan of Havre de Harrington (see 1.32)

General information

3.109

- 1 **Description.** Havre de Harrington (50°30'N, 59°28'W) lies among Îles Harrington, a close group of islands, 5 miles SW of Île du Petit Mécatina. The harbour, with an anchorage and a jetty, lies on SE side of Île Harrington, (Hospital Island) the largest of the group.
The settlement of Harrington Harbour, population 311 in 1988, is situated on the SE side of Île Harrington.
Tidal levels. Mean spring range about 1.5 m; mean neap range about 0.7 m. See *Admiralty Tide Tables Volume 2* for the latest information.

Climatic Table

3.110

- 1 See 1.178.

Directions**3.111**

- 1 **Entrance channel.** The main entrance channel is Déroit de l'Entrée between Île de l'Entrée (Entry Island) (50°29'·5N, 59°28'·0W) and Île Schooner close S.

- 2 **Leading lights** stand on a narrow island close S of Île Harrington:

Front light (orange rectangle, black stripe, on square framework tower, 6 m in height) (50°29'·6N, 59°29'·1W).

Rear light (similar construction and tower, 5 m in height) (189 m from front light).

The lights are visible on the leading line only.

The alignment (288¾°) of these lights leads through Déroit de l'Entrée, in a least depth of 9·1 m (30 ft) (1992), but there is a depth of 4·6 m (15 ft) close S of the leading line.

3.112

- 1 **Useful marks:**

Entry Cliff Light (square framework tower, 9 m in height) (50°29'·3N, 59°27'·7W) exhibited from the S side of Île de l'Entrée.

Light (square framework tower, 6 m in height) (50°29'·6N, 59°28'·2W) exhibited from the NW point of Île de l'Entrée.

Microwave tower (elevation 121 m (396 ft), red lights) (50°30'N, 59°29'W), on Île Harrington.

Side channels**3.113**

- 1 The following minor channels lead between the islands E of Île Harrington:

Québec Passe between Île de l'Entrée (50°29'·5N, 59°28'·0W) and Île du Jardin, 2 cables NE.

Schooner Passe between Île Schooner (50°29'·2N, 59°27'·8W) on the N side and Île du Cap, (Cape Island) close S, and Île Gull Cliff, close SW.

Anchorage**3.114**

- 1 Sheltered anchorage may be found between Île Harrington and Île de l'Entrée, in a depths of about 15 m (49 ft), mud, but attention is drawn to the following dangers (with positions from the light (3.112) on the NW point of Île de l'Entrée):

A rock (3 cables NNW), with a depth of less than 1·8 m (6 ft) over it.

A shoal patch (2½ cables NNE), with a depth of 3·6 m (12 ft) over it.

Berth**3.115**

- 1 A wharf, 183 m long is situated 1½ cables N of the SE point of Île Harrington. The outer berths on each side are 54 m long. There is a least depth of 2·4 m on the N side, with 6·1 m on the outer face, and between 2·9 and 6·4 m on the S side. A light (square mast, 8 m in height) (50°29'·8N, 59°28'·6W) is exhibited from the end of the wharf.

Two sheds and a fish plant stand on the jetty.

Port services**3.116**

- 1 **Other facilities.** There is a small hospital at Harrington Harbour.

Supplies: fuel oils; fresh water; provisions.

Communications. Regular sea services operate to Montréal and Québec during the navigation season.

A daily air service operates from Chevery airfield, about 5 miles W of Harrington Harbour.

Anchorage and harbours

Canadian Charts 4468, 4469 (see 1.32)

Havre aux Lièvres**3.117**

- 1 **General information.** Havre aux Lièvres (Hare Harbour) (50°36'N, 59°19'W), on the NE side of Île du Petit Mécatina, contains many dangers. Local knowledge is essential.

Directions. The harbour is entered between the S end of Île Price (50°35'·7N, 59°18'·0W) and Île Daly, about 2 cables W. There are depths of 14·6 m (48 ft) in the entrance channel, but care should be taken to avoid a rock, awash, in mid-channel about 3 cables within the entrance.

The channel between Île Price and Îles Eden, 4 cables E, should not be attempted.

Anse du Petit Mécatina**3.118**

- 1 **General information.** Anse du Petit Mécatina (Little Mecatina Cove) (50°34'N, 59°18'W) is a narrow inlet on the E side of Île du Petit Mécatina, which leads about 5 cables SW between high, rocky and precipitous shores.

Anchorage. Although well-sheltered, with a muddy bottom, the cove is not much used, being narrow and deep, with depths between 17·6 m (58 ft) and 25·6 m (14 fms) near the head at its widest part.

Passe Aylmer**3.119**

- 1 **General information.** Passe Aylmer (Aylmer Sound) entered W of Cap Mackinnon (50°31'N, 59°22'W) contains many reefs, rocks and shoals. The outermost danger is Récif Spray (awash) (50°30'·8N, 59°23'·5W). The sound is navigable for 4 miles N of Récif Spray. Local knowledge is essential.

Flow. In a position 3 miles SW of Cap Mackinnon, at the entrance to Passe Aylmer, the flow in summer has been observed to set predominantly 250°, at average rate of 1 kn, maximum 2 kn.

- 2 **Anchorage** can be found as follows:

Rade Lou (50°35'N, 59°23'W), a roomy roadstead, N to NE of Îles Doyle, with depths of 11 to 22 m (36 ft to 12 fm), mud.

Havre Louisa, at the N end of Rade Lou, provides anchorage for small coasting vessels, in depths of from 5 to 16 m (16 ft to 52 ft), mud. The anchorage is open to the S, but the seas are broken by Îles Doyle.

Other names**3.120**

- 1 Baie des Rochers (Bay of Rocks) (50°37'N, 59°17'W).
Récifs Élizabeth (Elizabeth Reef) (50°42'N, 59°07'W).
Havre de la Croix (50°32'N, 59°21'W).
Île Anderson (50°38'N, 59°14'W).
Île Fox (50°29'N, 59°29'W).
Îles Gore (50°37'N, 59°11'W).
Rocher Single (Single Rock) (50°35'N, 59°15'W).

ÎLES HARRINGTON TO CAP WHITTLE

General information

Canadian Charts 4468, 4440 (see 1.32)

Route

3.121

- 1 From a position SE of Îles Harrington (50°29'N, 59°28'W), the coastal passage leads generally SW, for a distance of about 31 miles, between coastal islands and the W-bound lane of the traffic separation scheme to the vicinity of Cap Whittle (50°11'N, 60°07'W).

Topography

3.122

- 1 The mainland coast is indented with numerous bays, and fringed with islands, many of which are high and bluff. From a little distance offshore, the islands merge with the mainland, which rises to a range of hills about 183 m high, with no distinguishable summits.

The S coast of Île du Lac (Lake Island) (50°11'N, 60°05'W) is remarkable for its red craggy cliffs, more than 30 m in elevation, stained white by cormorants.

Depths

3.123

- 1 Shoals and rocks, with depths of less than 18.5 m (61 ft) in places, extend to a distance of 13 miles from the mainland coast.

Flow

3.124

- 1 In a position about 1 mile N of Rochers au Cormoran (Cormorant Rocks) (50°10'N, 60°04'W) the in-going stream usually sets W and the out-going stream usually sets E, at rates of ½ to 1 kn, but both streams are much influenced by the wind.

Principal marks

3.125

- 1 **Major lights:**

Saint Mary Islands Light (Îles Sainte-Marie) (square framework tower, 16 m in height) (50°18'3N, 59°39'4W) exhibited from the summit of the SW island.

Rochers au Cormoran (Cap Whittle) Light (framework tower, 15 m in height) (50°09'8N, 60°03'7W).

Directions

(continued from 3.103)

3.126

- 1 From a position SE of Cap Airey, from which a light (50°28'2N, 59°27'5W) (3.103) is exhibited, the coastal passage leads SW, passing:

SE of Rocher Noir (Black Rock) (50°26'2N, 59°26'6W), thence:

About 7 miles SE of Îles Sainte-Marie (50°19'N, 59°38'W), a close group of three islands, practically forming one narrow island of steep granite, 3 miles long. Thence (with positions from Îles Sainte-Marie Light (3.125)):

SE of Rocher Roach (5¼ miles S), and shoal patches, with a least depth of 18.3 m (60 ft) over them, lying up to 3 miles SE, thence:

- 2 SE of Rocher Bent (8½ miles SSW), with discoloured water in the vicinity, and shoal patches with a least

depth of 15.8 m (52 ft) over them lying 1¼ miles SE and SSE, thence:

SSE of Brisants South Makers (South Makers Ledge) (15 miles SW), an islet.

The track then leads to a position SSE of Rochers au Cormoran (18 miles SW), a group of above-water and below-water rocks from which a light (3.125) is exhibited. An isolated rock, having a depth of 9.2 m (30 ft) over it, lies 1¾ miles SSE.

(Directions continue at 4.11)

Side channels

3.127

- 1 Deep water channels exist among the islands W of Îles Sainte-Marie as follows (with positions from Îles Sainte-Marie Light (3.125)):

Between the SW end of Île Sainte-Marie (5 cables SW) and a rock which dries 1.2 m (4 ft) (5 cables W), lying close E of Îles Cliff.

Between a 7 m (23 ft) rocky patch (2 miles W) and a 10.3 m (34 ft) patch, 5 cables farther WSW, close NE of Îles aux Perroquets.

Between Îles aux Perroquets and Îles Galibois (4¼ miles W).

3.128

- 1 **Caution.** The area between Îles Galibois, Îles Marianne (Southwest Islands) (7 miles WSW) and the mainland coast has not been completely surveyed and is not safe for navigation.

From Îles Marianne, to Cap Whittle, 12 miles SW, navigation among the islets extending about 2 miles from the mainland coast is practicable only for small craft. Local knowledge is essential.

Anchorage and harbours

Détroit Watagheistic

3.129

- 1 **General information.** Détroit Watagheistic (Watagheistic Sound) (50°23'N, 59°51'W) is a secure harbour which lies between Île Watagheistic and the mainland.

Caution. Undiscovered dangers may exist in the approaches to Détroit Watagheistic. Local knowledge is required.

- 2 **Directions.** From a position about 1 mile S of Récif du Centre, (50°20'5N, 59°42'4W), the track to Détroit Watagheistic leads W to a position NW of Rocher Bold (1½ miles SW), whence the track leads NW, passing (with positions from Récif du Centre):

SW of Rocher Montcalm (2 miles WNW), and:

NE of a rock, 0.9 m (3 ft) in height (2½ miles W), on the N edge of Récifs Cutter, thence:

NE of Récifs Noirs (3 miles WNW), a ledge of low, dark rocks, steep-to on their E side, thence:

Close SW of a 0.3 m (1 ft) rocky patch (3 miles NW).

- 3 Détroit Watagheistic S entrance is then approached from E passing either side of Rocher Kettle (4½ miles WNW), which lies in mid-channel. Thence the entrance channel lies on either side of two islets which are situated 3 cables and 6 cables W of Rocher Kettle.

The channel through the N entrance (50°25'N, 59°48'W) is narrow and intricate.

- 4 **Anchorage** may be found in Détroit Watagheistic and its vicinity as follows:

About 6 cables W of Récifs Noirs (above), in depths of about 18 m (60 ft), mud.

W of Île Watagheistic, in depths of about 31 m (17 fm), mud.

Small craft can find good anchorage in Hamel Harbour (50°27'N, 59°48'W) at the NE end of Détroit Watagheistic. Depths in the approach channel are between 3 m (18 ft) and 4 m (24 ft). An anchor position is indicated on Canadian Chart 4468.

Îles Sainte-Marie

3.130

- 1 **Anchorage.** There is fairly good anchorage, in depths of 33 m (18 fm), mud, off the W side of the NE island (50°20'N, 59°38'W).

Boat harbour. There is a boat harbour and landing on the N side of the SW island.

Small craft

Rivière Nétagamiou

3.131

- 1 **General information.** Rivière Nétagamiou (50°29'N, 59°36'W) enters the sea at Chevery, on the W side of the entrance where there is an uncharted jetty, from which a light (square framework tower, 5 m in height) (50°28'2N, 59°36'5W) is exhibited.

The current in the river is rapid and the bottom is rock. Boats can ascend as far as the first falls, about 1¼ miles above the entrance. Shelter for boats may be found 5 cables inside the entrance, where the river widens. Local knowledge is required.

3.132

- 1 **Directions.** The river is entered across a sand bar, through a narrow, buoyed channel with a depth of about 0.9 m (3 ft). At times a heavy surf on the bar makes entry dangerous. The channel entrance is marked by CS1 Light-buoy (port hand) and CS2 Light-buoy (starboard hand) moored about 1 mile S of Chevery.

Useful mark:

Îles Nétagamiou (Netagamu Islands), 2 miles SE of the river mouth, have a remarkable mound, 17 m (55 ft) in elevation, on the largest island.

Havre Blais

3.133

- 1 **General information.** Havre Blais (50°18'N, 59°47'W) is a well sheltered anchorage on the NW side of Îles Galibois, with entrances at each end. Local knowledge is required.

Directions for north-east entrance. The NE entrance, which is the safer of the two, is approached by passing N of Rocher Bold (50°19'5N, 59°44'1W).

Directions for south-west entrance. The SW entrance is approached from SW, passing NW of a rock with a depth of less than 2 m (6 ft), in the entrance channel.

- 2 **Anchorage.** There is good anchorage, about 1½ miles WSW of Rocher Bold, in depths of 20 m (11 fm), mud, as indicated on Canadian Charts 4468 and 4440.

Havre Yankee

3.134

- 1 **General information.** Havre Yankee (50°17'3N, 59°47'0W), lies on the SE side of the largest island of Îles Galibois, with an unnamed islet to the S. Local knowledge is required.

Anchorage, open to the S, can be found about 4 cables E of Havre Yankee, in a depth of 18 m (60 ft). The anchorage position is indicated on Canadian Charts 4468 and 4440. Small craft may find better shelter N of the islet mentioned above, depending on draught.

Havre de Ouapitagone

3.135

- 1 **General information.** Havre de Ouapitagone (Wapitagan Harbour) (50°12'N, 60°02'W) is a narrow passage with steep-to shores, separating Île de Ouapitagone (Wapitagan Island) from Îles de Ouapitagone du Large, a chain of islands lying close SE. The latter are of bare granite and appear from seaward as one island.

The harbour, which is suitable for small coasting vessels, may be entered from E through Passe de l'Est or W through Passe de l'Ouest; both entrances are difficult, but Passe de l'Ouest is the wider. Local knowledge is required.

- 2 **Directions for Passe de l'Est.** The entrance (50°12'3N, 60°00'0W) to this channel lies between islands at the NE end of Îles de Ouapitagone du Large, leading into the NE end of Havre de Ouapitagone.

Useful mark:

Rocher Mistassini (50°11'8N, 60°00'4W), a remarkable block of granite resembling a gun, on top of one of the outer islands, is a good mark for a vessel approaching Passe de l'Est.

- 3 **Directions for Passe de l'Ouest.** The approach to the entrance (50°11'1N, 60°03'3W) to this channel is encumbered by many rocks and shoals that lie N of Rochers au Cormoran (3.125).

Other names

3.136

- 1 Havre Jolliet (Juliet Harbour) (50°26'N, 59°46'W).
Île aux Mouches (Fly Island) (50°25'N, 59°38'W).
Île de l'Anse (Cove Island) (50°23'N, 59°43'W).
Île Matchiatic (50°16'N, 59°55'W).
Îles Middle (Middle Islands) (50°18'N, 59°47'W).
(Not named on chart).
Île Providence (50°37'N, 59°14'W).
Récif Major (50°28'N, 59°30'W).
Récif Mistassini (50°13'N, 59°58'W).
Récifs Sainte-Marie (Saint Mary Reefs) (50°12'N, 59°47'W).
Récifs Tender (50°15'N, 59°47'W).

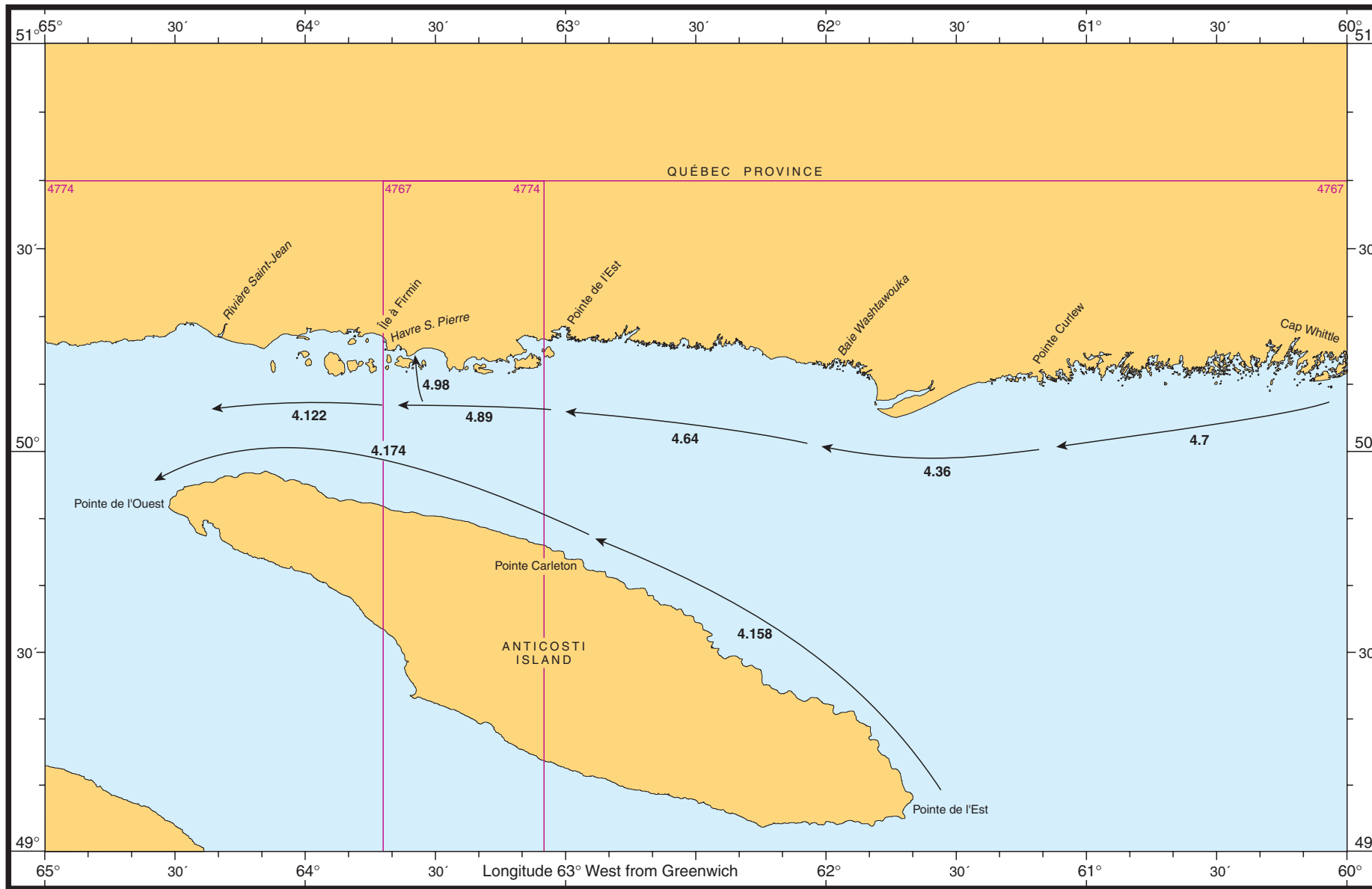


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October 2003

CHAPTER 4

GULF OF ST LAWRENCE, NORTH SHORE — CAP WHITTLE TO RIVIÈRE
SAINT-JEAN INCLUDING NORTH COAST OF ÎLE D'ANTICOSTI

GENERAL INFORMATION

*Chart 4762***Scope of the chapter****4.1**

- 1 This chapter describes the waters along the N shore of the Gulf of St Lawrence from Cap Whittle (50°11'N, 60°07'W) to Rivière Saint-Jean (50°17'N, 64°20'W), a distance of about 170 miles. The N coast of Île d'Anticosti from Pointe de l'Est (East Point) (49°08'N, 61°40'W) to Pointe de l'Ouest (West Point) (49°52'N, 64°31'W), the W extremity of the island, is also included.

- 2 The chapter is divided into three sections:
Cap Whittle to Baie Washtawouka (4.3).

Baie Washtawouka to Rivière Saint-Jean (4.58).
North coast of Île d'Anticosti (4.153).

Traffic separation scheme**4.2**

- 1 A traffic separation scheme from the Strait of Belle Isle to St Lawrence River runs parallel to the N shore of the Gulf and about 10 miles offshore, as indicated on the chart. See Chapter 2 for further information.

CAP WHITTLE TO BAIE WASHTAWOUKA

GENERAL INFORMATION

*Chart 4767***Area covered****4.3**

- 1 This section describes the waters between Cap Whittle (50°11'N, 60°07'W) and Baie Washtawouka, 73 miles W. The section is arranged as follows:
Cap Whittle to Pointe Curlew (4.7).
Pointe Curlew to Baie Washtawouka (4.36).

Topography**4.4**

- 1 The coast from Cap Whittle (50°11'N, 60°07'W) for about 50 miles W is of bare granite, rising to steep hills and ridges with rounded summits. The coast is sandy between Rivière Kégashka (50°11'N, 61°21'W) and Pointe de Natashquan and continues sandy a farther 6 miles N to Havre de Natashquan. The land is seldom higher than 60 m (200 ft) and slopes gradually to the shore.
- 2 The innumerable small islands, islets and rocks, which lie up to 5 miles offshore in places, are higher towards the mainland. Both the islands and the mainland are bare, except in the bays and along the sandy stretches, which are usually wooded.
- Seen from a distance of about 12 miles offshore the coast and offshore islands blend into an indistinguishable outline, and only within about 4 miles of the outer rocks can its broken and dangerous nature be seen.

Navigation**4.5**

- 1 The coast is dangerous, especially at night and in fog. The outer rocks, both above and below water, are steep-to, so that soundings give no warning of the vessel's approach to them. However, depths of less than 90 m (50 fm) generally indicate a position within 5 miles of the outer dangers.
- On clear sunny days the bottom may be seen, in depths of 7 m (24 ft) or less.

Tidal streams**4.6**

- 1 The tidal streams are weak, irregular and influenced both in rate and direction by the winds.

CAP WHITTLE TO POINTE CURLEW

General information*Canadian Charts 4440, 4453 (see 1.32)***Route****4.7**

- 1 The coastal route from the vicinity of Cap Whittle (50°11'N, 60°07'W) to Pointe Curlew, 41 miles W, is bounded on its seaward side by the in-bound lane of the traffic separation scheme (4.2).

Topography**4.8**

- 1 The mainland coast is deeply indented with bays and inlets.
- Between Cap Whittle and Île à la Brume, the waters up to 5½ miles offshore are filled with many islands, rocks and shoals; channels lead through these dangers to the principal bays.
- West of Île à la Brume, islands, rocks and shoals extend up to 3½ miles offshore in places. A remarkable red precipitous ridge of granite is situated W of Pointe du Cap Rouge (50°11'N, 61°07'W).

Regulations**4.9**

- 1 **Wildlife sanctuary.** A bird sanctuary is established on Île à la Brume (50°10'N, 60°30'W). For further information see 1.91.

Principal marks**4.10**

- 1 **Landmarks:**
Hill (50°17'N, 60°13'W), elevation 88 m (290 ft).
Beacon (orange rectangular daymarks on S, E and W faces), standing on the summit of Île du Large (50°09'N, 60°18'W).

Major light:

Rochers au Cormoran (Cap Whittle) Light (50°09'·8N, 60°03'·7W) (3.125).

Directions

(continued from 3.126)

4.11

- 1 From a position SSE of Rochers au Cormoran, a group of above-water and below-water rocks, from which a light is exhibited (4.10), the track leads W, passing (with positions from the beacon on Île du Large (4.10)):
 - S of Rochers Whittle (drying 1·5 m (5 ft)) (6 miles E), thence:
 - S of a patch (5½ miles ESE), with a least depth of 9·5 m (31 ft) over it, thence:
 - S of Rocher Cairntorr (1¼ miles S), marked by C64 Light-buoy (starboard hand), thence:
- 2 S of a patch (2½ miles SSW), with a least depth of 11 m (36 ft) over it, thence:
 - S of Brisants South (South Breaker) (rock, awash) (2½ miles WSW) and a patch about 5 cables farther S, with a least depth of 7·9 m (26 ft) over it, thence:
 - S of Breaker Rock (awash) (5½ miles W), thence:
 - S of Île à la Brume (Fog Island) (8 miles WNW) and the islets and rocks that extend 1 mile SE and almost 1½ miles SW from it.
- 3 **Caution.** Patches, with a least depth of 13·7 m (45 ft) over them, lying about 2½ miles SE and 2¾ miles ESE of Île à la Brume, could be a danger to deep draught vessels. There is also a patch, with a depth of 11·5 m (38 ft) over it, 2¼ miles SSW of Île à la Brume.

4.12

- 1 The track continues W, passing (with positions given from Île Triples (Treble Island) (50°10'·N, 60°42'·W)):
 - S of Îles Triples, a close group of islets, from which a light (4.13) is exhibited, thence:
 - S of Rochers aux Huards (2 miles WSW), thence:
 - S of Hauts-fonds Washicoutai (Washikutai Shoals), (6½ miles W), with patches up to 7½ cables SE of them, with depths of 4·6 m (15 ft) over them and patches, 2 miles W of them, with depths of 7 m (23 ft) over them, thence:
- 2 S of Pointe Chicoutai, also known as Cloudberry Point (9½ miles W) and a patch, 1¼ miles S, with a depth of 3·7 m (12 ft) over it, thence:
 - S of a patch, 3¾ miles SW of Pointe Chicoutai, with a depth of 11 m (36 ft) over it.

The track then leads S of islands, rocks and shoals with depths of less than 11 m (36 ft) over them extending 1¼ miles offshore between Pointe Musquaro (14 miles W) and Pointe Curlew (50°11'·N, 61°11'·W), to a position S of Pointe Curlew. Isolated patches with depths of less than 16·5 m (54 ft) over them, extend nearly 4 miles SW from Pointe Musquaro.

4.13

- 1 **Useful mark:**
 - Îles Triples Light (two orange rectangles on square framework tower, 6 m in height) (50°10'·1N, 60°41'·9W). The tower is prominent between bearings 320° and 020°.
- (Directions continue at 4.42)

Baie Coacoachou

Canadian Chart 4452 plan of Baie Coacoachou (see 1.32)

General information**4.14**

- 1 Baie Coacoachou (Coacoacho Bay) (50°14'·N, 60°18'·W) is a narrow inlet, 7½ miles W of Cap Whittle.

Directions**4.15**

- 1 From a position on the coastal passage about 4 miles SSW of the beacon on Île du Large (50°09'·N, 60°18'·W) (4.10) the approach channel leads N for about 7 miles, between islands and rocks on each side, to the entrance of the bay.

Pointe Milne Leading Lights:

- Front light (orange trapezium, black stripe, on square framework tower, 11 m in height) (50°13'·3N, 60°18'·9W).
 - 2 Rear light (similar construction, inverted, black stripe and tower, 9 m in height) (296 m from front light). The lights are visible on the leading line only. The alignment (004¾°) of these lights leads to the entrance of the bay, passing (with positions from the beacon on Île du Large):
 - Close E of a patch, (2½ miles SSW) with a least depth of 11 m (36 ft) over it, thence:
 - 3 W of Rocher Cairntorr (4.11) (1¼ miles S), thence:
 - E of a patch (1¼ miles WSW), with a least depth of 4·9 m (16 ft) over it, thence:
 - W of Île du Large and rocks and islets extending 7½ cables NNW, and:
 - E of a patch (1 mile W), with a least depth of 9·7 m (32 ft) over it, thence:
 - W of Île des Loups (1 mile NNE) and a rocky patch, 5 cables W, with a least depth of 6 m (20 ft) over it, thence:
 - E of Pointe Audubon (2½ miles NNW) at the S extremity of Îlots Audubon (3 miles NNW) and rocks and shoals lying 5 cables E, thence:
 - W of Pointe Emery (3¾ miles N), the E entrance point to Baie Coacoachou, which lies at the end of a string of islands, extending about 1 mile SSW from the mainland, and is low and may be difficult to distinguish.
 - 4 The track then leads NNE into the bay, passing (with positions from the front light):
 - ESE of a patch (reported in 1941) (7 cables SSW), with a least depth of 3·7 m (12 ft) over it, thence:
 - ESE of Île du Crocodile (9 cables NNE), and:
 - WNW of isolated rocks, with depths of less than 1·8 m (6 ft) (8 cables and 1 mile NE) over them, thence:
 - W of Récif Milne (rocks, drying in parts) (1½ miles NNE) if proceeding towards Lac à l'Ours (2½ miles NNE), or:
 - SE of Récif Milne if proceeding into Baie Tertiary Shell (2¾ miles NE).
- (Directions continue for Lac à l'Ours at 4.18 and for Baie Tertiary Shell at 4.19)

Side channels**4.16**

- 1 With local knowledge, Baie Coacoachou may also be approached from:
 - SE, passing through the channel, least charted depth 11·3 m (37 ft), between Île du Large and the islets and rocks extending 8 cables NNW, and Île des

Loups, 1 mile NNE. The recommended track lies slightly towards the NE side of the channel.

SW, passing SE of Brisants du Sud-Ouest (S.W. Breaker) (50°09'·7N, 60°24'·7W) and either side of Brisants South (4.11), 2½ miles ESE.

Anchorage

4.17

- 1 Baie Coacoachou provides anchorage in a depth of about 14·6 m (48 ft), mud, W of Récif Milne and about 5 cables N of Crocodile Islet. With strong NE winds a more sheltered berth may be found farther S.

Lac à l'Ours

4.18

- 1 **General information.** Lac à l'Ours (50°16'N, 60°18'W) affords shelter to small vessels at the N end of Baie Coacoachou.

Directions (*continued from 4.15*). From a position W of Récif Milne, the channel into Lac à l'Ours leads N, passing (with positions from Pointe Tertiary) (50°15'N, 60°17'W): E of a rock (6 cables NW) with a depth of 3 m (10 ft) over it, lying on the W side of the entrance channel, thence:

W of Île des Esquimaux (9 cables NNW).

Anchorage, which is good, can be found in a depth of about 12·5 m (41 ft), mud, clear of shallow water on the N side.

Baie Tertiary Shell

4.19

- 1 **General information.** Baie Tertiary Shell (50°15'N, 60°16'W) affords shelter to small vessels at the NE end of Baie Coacoachou.

Directions (*continued from 4.15*). From a position SE of Récif Milne, the track into Baie Tertiary Shell leads NE, through a narrow channel, passing:

SE of Pointe Tertiary, thence:

NE of a small drying rock, 2½ cables E of the point.

Anchorage, which is good, can be found in depths of 7 to 12 m (23 to 40 ft), mud. The recommended anchorage position is indicated on the Canadian Chart 4440.

Havre Gethsémani

Canadian Charts 4453, 4452 plan of Havre Gethsémani (see 1.32)

General information

4.20

- 1 Havre Gethsémani (50°12'N, 60°41'W) is an anchorage on the S side of Île en Dos-de-Cheval and Île des Lumières, situated about 2 miles NNE of Îles Triples (4.12). It affords access to Pointe du Petit Lac (7 cables NNW) which has a jetty and some facilities. The nearby settlement of La Romaine (50°13'N, 60°40'W), in which there is a church, lies at the head of a partly drying bay W of Rivière Olomane. In 1988 the population of La Romaine was 172.

4.21

- 1 **Tidal levels.** Mean spring range about 1·1 m; mean neap range about 0·5 m. For further information see *Admiralty Tide Tables, Volume 2*.

Directions to Havre Gethsémani

4.22

- 1 From a position on the coastal passage S of Îles Triples (50°10'N, 60°42'W) (4.12), the track leads NNE passing E of Îles Triples.

Havre Gethsémani Leading Lights stand near the W end of Île en Dos-de-Cheval:

Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (50°12'·4N, 60°41'·3W).

Rear light (similar construction, inverted, and framework tower, 5 m in height) (80 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (357¼°) of these lights leads into Havre Gethsémani, passing (with positions from the front light):

E of Îles Triples (2 miles SSW), and:

W of a shoal, about 1 mile E of Îles Triples with a least depth of 3 m (10 ft) over it, thence:

About 3 cables E of a group of drying rocks (1 mile SSW), thence:

Over a patch (7 cables S), with a least depth of 7·3 m (24 ft) over it, thence:

W of a shoal (5½ cables SSE), with a depth of 6·7 m (22 ft) over it, thence:

W of a shoal (4 cables SSE), with a depth of 7·0 m (23 ft) over it.

- 3 The track then leads to a position about 2 cables S of Havre Gethsémani Front Leading Light.

4.23

- 1 **Useful marks:**

Gethsémani Anchorage Light (framework tower, 4 m in height) (50°12'·2N, 60°40'·2W) exhibited from an islet at the E end of Île des Lumières.

Radio tower (red lights) 5 cables NNE of the leading lights on Île en Dos-de-Cheval.

Directions to Pointe du Petit Lac

4.24

- 1 From a position about 2 cables S of the Havre Gethsémani Front Leading Light (50°12'·4N, 60°41'·3W), Pointe du Petit Lac is approached through a channel with two legs, each marked by leading lights, W of Île en Dos-de-Cheval, in a least charted depth of 5·2 m (17 ft).

Pointe Mackenzie Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 3 m in height) (50°12'·8N, 60°41'·9W) on the point.

Rear light (similar construction, inverted, black stripe and tower, 6 m in height) (105 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (325¾°) of these lights leads through the first leg of the channel, passing:

SW of shoal ground extending ½ cable from the SW side of Île en Dos-de-Cheval, and:

Close NE of a rocky patch, with a depth of 4·5 m (15 ft) over it, 1½ cables SW of Havre Gethsémani Front Leading Light, marked by CJ5 Light-buoy (port hand).

4.25

- 1 **Pointe du Petit Lac Leading Lights:**

Front light (orange trapezium, black stripe, on square framework tower, 5 m in height) (50°12'·8N, 60°41'·4W) on the point.

Rear light (similar construction, inverted, black stripe and tower, 3 m in height) (75 m from front light).

The lights are visible on the leading line only.

The alignment (013°) of these lights leads through the second leg of the channel towards Pointe du Petit Lac.

Anchorage**4.26**

- 1 The anchorage at Havre Gethsémani is contained by Île en Dos-de-Cheval on the N side, and Île aux Goélands, 1 mile SSW, on the SE side, affording shelter except in S and SW winds, in depths of between 11.6 m (38 ft) and 16.5 m (54 ft), sand and gravel.

Two anchorage positions are indicated on the Canadian plan 3¼ cables W and 5 cables SW of Gethsémani Anchorage Light respectively (4.23). Also indicated are shallow patches with a least depth of 1.8 m (6 ft) over them.

Alongside berth**4.27**

- 1 A public jetty, 76 m long, 12 m wide, extends S from the outer end of a causeway at Pointe du Petit Lac.

Facilities**4.28**

- 1 **At Pointe du Petit Lac public jetty:**
Derrick, hand operated (1134 kg capacity).
Slipway for small craft close E of the jetty.
At La Romaine settlement: post office; first-aid station; seaplane wharf S of the village.

Communications**4.29**

- 1 **Sea.** Coastal vessels call during the navigation season.
Air. A regular air service operates.

Small craft

Canadian Chart 4440 (see 1.32)

Baie des Loups**4.30**

- 1 **General information.** Baie des Loups (50°12'N, 60°15'W) is obstructed by many dangers in its approaches. Intricate channels exist between these dangers, and the bay can only be entered, in case of necessity, with the greatest caution. Small settlements exist on the shores of the bay. Local knowledge is essential.

Canadian Chart 4452 plan of Baie Washicoutai (see 1.32)

Baie Washicoutai**4.31**

- 1 **General information.** Baie Washicoutai (Washikuti Bay) (50°13'N, 60°53'W) is encumbered with islets, rocks and ledges on each side of the entrance, and across its mouth. Local knowledge is essential.

4.32

- 1 **Directions.** From a position about 4 miles S of Pointe Chicoutai (50°11'N, 60°57'W), the alignment (020½°) of the E side of a small island and a prominent hill situated, respectively, 1¼ miles NE and 7 miles NNE of the point, leads NNE towards Baie Washicoutai, passing (with positions from Pointe Chicoutai):

WNW of a patch (1¼ miles SE), with a depth of 7 m (23 ft) over it, thence:

ESE of a patch (1 mile SE), with a depth of 7 m (23 ft) over it, thence:

Close to a rocky patch (1¼ miles ESE), with a depth of 9.1 m (30 ft) over it, and:

WNW of dangerous rock (1¼ miles E).

- 2 The track then leads NE, passing:
WNW of another dangerous rock (2 miles E), thence:
Between the small island (1¼ miles NE), fringed with dangerous rocks, and an islet (2½ miles NE).

N of the islet the track passes into a narrow channel, with a least depth of 7.3 m (24 ft), leading to the head of the bay.

4.33

- 1 **Anchorage.** A confined anchorage can be found at the head of the bay, N of a small wooded islet, 38 m (126 ft) in elevation, 5 miles NE of Pointe Chicoutai, depth 7.6 m (25 ft), mud.

Canadian Chart 4453 (see 1.32)

Rivière Musquaro**4.34**

- 1 **General information.** Rivière Musquaro (Musquaro River) (50°13'N, 61°04'W) flows into the NW corner of a bay, encumbered by islets and rocks, between Pointe Chicoutai (50°11'N, 60°56'W) and Pointe Musquaro, 4½ miles W. The small settlement of Musquaro is situated on the E bank of the river. The river is intricate and the stream is very rapid, making navigation dangerous, except for very small craft. Local knowledge is essential.

- 2 **Directions.** The red granite ridge W of Pointe du Cap Rouge (50°11'N, 61°07'W) is a landmark for locating the river mouth.

Other names**4.35**

- 1 Havre Bluff (Bluff Harbour) (50°13'N, 60°32'W).
Havre Jones (50°13'N, 60°11'W).
Rocher Grange (50°08'N, 60°18'W).

POINTE CURLEW TO BAIE WASHTAWOUKA**General information**

Canadian Chart 4454 (see 1.32)

Route**4.36**

- 1 The coastal route from the vicinity of Pointe Curlew (50°11'N, 61°11'W) to S of Baie Washtawouka (Washtawooka Bay), 32 miles W, is bounded on its seaward side by the in-bound lane of the traffic separation scheme (4.2) and crosses the approach to Havre de Natashquan (50°11'N, 61°51'W).

Topography**4.37**

- 1 From about 6 miles W of Baie de Kégashka (Kegaska Bay) (50°11'N, 61°16'W) to Pointe de Natashquan, 13 miles farther WSW, the rocky nature of the coast changes to cliffs about 21 m (70 ft) high, fronted by sandy beaches, and backed by thickly wooded country.

The main feature of the sandy coast between Pointe de Natashquan and Havre de Natashquan, 7 miles NNW, is the mouth of Rivière Natashquan.

- 2 The bight between Havre de Natashquan and Baie Washtawouka is filled with many islets, rocks and shoals, which extend up to 2 miles offshore, where small craft may find shelter.

Depths**4.38**

- 1 Banc de Natashquan (Natashquan Cod Banks), with depths of 20 to 73 m (11 to 40 fm), sand, gravel and shells,

runs parallel to the coast, 6 to 11 miles offshore, from abreast Baie de Kégashka to Pointe de Natashquan.

Natural conditions

4.39

- 1 **Local magnetic anomaly** occurs in an area, indicated on the chart, about 9 miles SW of Pointe de Natashquan; magnetic variation has been observed to change by about 5°.

4.40

- 1 **Current.** At a position 5 miles S of Pointe de Natashquan, an E-going current with a maximum rate of 1 kn has been observed. A 1 kn E-going current is shown on the charts 2 miles S of the point.

Tidal streams in the area are weak, but with the in-going tide the flow is nearly equalised.

Winds may considerably affect both the rate and direction of flow.

Principal marks

4.41

- 1 **Landmarks:**

Radio tower (elevation 109 m (358 ft), red lights) (50°10'·8N, 61°16'·0W) on Île de Kégashka.

Pointe de Natashquan Lighthouse (square framework tower, 10 m in height) (50°05'·0N, 61°44'·4W).

Directions

(continued from 4.13)

4.42

- 1 From a position S of shoals and islands extending up to 1 mile S of Pointe Curlew (50°11'N, 61°11'W) the coastal passage leads WSW, passing (with positions from Pointe Curlew):

SSE of a rocky patch, with a depths of 9·1 m (30 ft) over it (4 miles WSW), thence:

SSE of a rocky bank with a least depth of 8·8 m (29 ft) over it (7½ miles WSW), thence:

Clear SSE of Rocher du Ruisseau (10½ miles WSW), thence:

SSE of Pointe de Natashquan, the S end of a remarkable sandy promontory, from which a light (50°05'·0N, 61°44'·4W) (4.41) is exhibited.

- 2 The track then leads NW, passing (with positions from Pointe de Natashquan Light):

SW of Banc Cod with a least depth of 8·2 m (27 ft) over it, extending 1¾ miles SW, thence:

SW of Brisants Landry (7½ miles NW) a rocky patch, with a depth of 4·6 m (15 ft) over it, over which the sea breaks, thence:

About 3 miles SW of Îlet Shag (11 miles NW), a large black rock, and a patch with a depth of 4·3 m (14 ft) over it (1 mile W of Îlet Shag).

The track then leads to a position S of islands and shoals extending 1½ miles S of Baie Washtawouka (50°13'N, 62°01'W).

4.43

- 1 **Useful marks:**

Pointe de Kégashka Light (orange rectangle on framework tower, 6 m in height) (50°10'·5N, 61°16'·0W).

Beacon (orange daymark) on Rocher Noir (50°11'·7N, 61°52'·8W).

Beacon (white, 4·6 m in height) (50°12'·2N, 61°59'·8W) on an islet 1¼ miles NW of Îlet Shag.
(Directions continue at 4.68)

Baie de Kégashka

Canadian Chart 4452 plan of Baie de Kégashka (see 1.32)

General information

4.44

- 1 Baie de Kégashka (Kegaska Bay) (50°11'N, 61°15'W) is an open shallow bay, with the village of Kégashka (population 163 in 1988) on its W shore, and an anchorage for small craft on its W side.

The NW shore of Baie de Kégashka is a sandy beach, with a grassy isthmus leading to a rocky peninsula at its S end. A bridge joins the peninsula to Île de Kégashka (Kegaska Island) at the W entrance point to the bay. Both the island and the peninsula are partly wooded.

Directions

4.45

- 1 From a position S of Pointe de Kégashka (50°10'N, 61°16'W), Baie de Kégashka is approached from S and entered between Pointe de Kégashka and Île Verte, an island partly covered in grass, 9 cables ENE of the point; an orange beacon, facing N and E, stands at the E end of the island.

- 2 **Kegaska Harbour Leading Lights:**

Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (50°11'·8N, 61°15'·6W) on the NW shore of the bay.

Rear light (similar construction, inverted, black stripe and tower, 6 m in height) (91 m from front light).

The leading lights are visible on the leading line only.

- 3 The alignment (000½°) of these lights leads into Baie de Kégashka anchorage, passing (with positions from the front light):

Close E of CK1 Light-buoy (port hand) (1½ miles S), thence:

E of Île de Kégashka, and:

W of Haut-fond Court (1 mile S), a rocky shoal over which the sea breaks in heavy weather, thence:

W of Île Noire (Black Island) (7 cables SSE) and foul ground surrounding it to a distance of about 1 cable.

Anchorage

4.46

- 1 The only secure anchorage during S winds is found 2½ cables NW of Île Noire, between 7·6 m (25 ft) and 9·1 m (30 ft), mud, as indicated on the Canadian chart. Lack of room and depth restricts its use to small craft only.

Berth

4.47

- 1 A T-shaped pier is situated near the NE point of Île de Kégashka. The outer face is 44 m long with a depth of 5·5 m alongside. A light (square framework tower, 6 m in height) is exhibited from the NE end of the pier-head.

A fishermen's wharf, 30 m long with depths of 2·3 m, lies perpendicular to the SW inner end of the public wharf.

Facilities

4.48

- 1 A slipway and pontoons for seaplanes are situated close W of the fishermen's wharf.

Medical dispensary at Kégashka.

Supplies**4.49**

- 1 Fresh water at fishermen's wharf.

Havre de Natashquan

Canadian Chart 4428 (see 1.32)

General information**4.50**

- 1 Havre de Natashquan (50°11'N, 61°51'W), which is enclosed between the mainland and a number of islands and rocks, is accessible to small coasting vessels, and comprises an anchorage and a pier. The village of Natashquan, with a population of 401 in 1986, is situated near the mouth of Petite Rivière Natashquan, about 1 mile E of the harbour. Petite Rivière Natashquan affords shelter for boats only. Local knowledge is necessary.

Limiting conditions**4.51**

- 1 **Ice** usually begins to form across the approaches during the first week of January, and clears by the end of March.
- 2 **Tidal levels.** Mean spring range about 1.2 m; mean neap range about 0.7 m. For further information see *Admiralty Tide Tables, Volume 2*.

Directions**4.52**

- 1 The harbour is approached from a position on the coastal passage SSW of Île Joncas Light (square framework tower, 9 m in height) (50°10'9N, 61°50'7W).

Little Natashquan Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (50°11'6N, 60°50'6W), on the N shore of the harbour.

Rear light (similar construction, inverted, and tower, 9 m in height) (91 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (010°) of these lights leads, in depths of 6.1 m (20 ft), through the buoyed channel into Havre de Natashquan, passing (with positions from Île Joncas Light):
- Close E of Banc Charbonneau (4 cables SSW), thence:
 - Close W of Rocher South Sphinx (2 cables SSW) marked by CN2 Light-buoy (starboard hand), thence:
 - Close W of Rocher North Sphinx (1 cable SW), marked by CN4 Light-buoy (starboard hand), and:
 - E of shoal ground extending E from Récifs Vigneault (4 cables W), thence:
- 3 About ½ cable E of the S rock of Brisants du Centre (1½ cables NW), thence:
- Close E of CN7 Light-buoy (port hand) (2 cables NNW) marking shoal ground, with a least depth of 3.6 m (12 ft) over it, thence:
 - Close W of CN8 Light-buoy (starboard hand) (2½ cables N) marking drying rocks and shoal ground on the SE side of the harbour.
- A rocky patch, with a depth of 4.2 m (14 ft) over it, marked by Natashquan Buoy (isolated danger) (4 cables N)

lies very close to the leading line, about ½ cable W of the pierhead.

4 Useful marks:

Several conspicuous tanks stand on the E shore, 4½ cables NNE of Île Joncas Light.

Berths**4.53**

- 1 **Anchorage.** The best anchorage is near the middle of the harbour, 1¾ cables W of the pierhead, in a depth of 7.6 m (25 ft), mud, with the summit of Île des Américains bearing 275°, distant about 400 m, as indicated on the Canadian chart. A shoal with a depth of 2.1 m (7 ft) over it lies 3 cables W of the pierhead.

Alongside berth. A public pier, with a pierhead 20 m wide and depths alongside between 1.8 to 4.0 m, extends 182 m from the E shore of the harbour.

Facilities**4.54**

- 1 **Natashquan.** Medical dispensary.

Small craft

Canadian Chart 4454 (see 1.32)

Rivière Kégashka**4.55**

- 1 The entrance to Rivière Kégashka (Kegaska River) (50°11'N, 61°21'W), about 3 miles W of Pointe de Kégashka, affords shelter for small craft only.

Rivière Natashquan**4.56**

- 1 **General information.** Rivière Natashquan (50°07'N, 61°49'W), which discharges a great deal of water in the spring, is broad and shallow, and enters the sea through channels on each side of Île Sainte-Hélène, low and sandy, 3½ miles NW of Pointe de Natashquan. A sand bar, steep-to on its seaward side, extends W for about 7 cables from the river mouth. A heavy surf usually runs on the bar.
- A depth of 7.3 m (24 ft) was reported in 1987, about 8 cables SW of the S extremity of Île Sainte-Hélène.

- 2 **Directions.** Small craft may enter Rivière Natashquan through the channel S of Île Sainte-Hélène, in a least depth of 1.8 m (6 ft), which extends immediately within the entrance channel. Small craft can lie alongside the steep sandy river bank on the S side, about 5 cables within the entrance. Above this point the river is navigable by boats only.

Other names**4.57**

- 1 Baie Landry (50°13'N, 61°55'W).
Grande Baie (50°13'N, 61°52'W).
Havre Mistassini (50°11'N, 61°10'W).
Îles Kippin (50°11'N, 61°18'W).
Rocher des Fous de Bassan, also known as Gannet Rock (50°12'N, 61°54'W).

BAIE WASHTAWOUKA TO RIVIÈRE SAINT-JEAN

GENERAL INFORMATION

Charts 4767, 4774

Area covered**4.58**

- 1 This section describes the waters between Baie Washtawouka (50°13'N, 62°01'W) and Rivière Saint-Jean, 91 miles W. The section is arranged as follows:
- Baie Washtawouka to Pointe de l'Est (4.64).
 - Pointe de l'Est to Île à Firmin (4.89).
 - Île à Firmin to Rivière Saint-Jean (4.122).

Topography**4.59**

- 1 The coastal terrain is described at 4.65. The bays and rivers along this coast give shelter to small craft only.
- The mainland from Pointe de l'Est (East Point) (50°17'N, 63°00'W) to the mouth of Rivière Saint-Jean, 52 miles W, is generally low. Hills rise to 305 m (1000 ft) some 7 miles inland, N of La Grande Île (50°13'N, 63°54'W).
- Mont Saint-Jean (50°27'N, 64°16'W), with three district summits and an elevation of 438 m (1427 ft), lies about 11 miles NNE of the entrance to Rivière Saint-Jean and is the highest land in the area.

4.60

- 1 **Îles de Mingan**, a chain of islands, lie 3 miles or less from the mainland, from Île Sainte-Geneviève (50°15'N, 63°04'W) to Îles aux Perroquets, 45 miles W. The islands are bold, some having cliffs on their N, E and W sides, with a slope down towards the S, where reefs of flat limestone extend seaward. They nowhere exceed an elevation of 91 m (300 ft), and are generally much lower. They are thickly wooded on their N sides, but often have bare tracts towards the S.

Tidal streams**4.61**

- 1 The tidal streams are not strong among Îles de Mingan, the rate rarely exceeding 1 kn, except in some very narrow channels.
- The tidal streams are much influenced by the wind, but in good settled weather there is a constant alternation of in-going and out-going streams in the waters between the islands and the mainland, and also within 2 or 3 miles S of the islands.

Local magnetic anomalies**4.62**

- 1 Local magnetic anomalies occur in places among Îles de Mingan.

Regulations**4.63**

- 1 **National Park.** Îles de Mingan (4.60) have been proclaimed a National Park Reserve administered by Parks Canada from an office in Havre-Saint-Pierre (4.98).

BAIE WASHTAWOUKA TO
POINTE DE L'EST**General information**

Chart 4767, Canadian Charts 4455, 4456 (see 1.32)

Route**4.64**

- 1 The coastal route from a position S of Baie Washtawouka (50°13'N, 62°01'W) to a position S of Pointe de l'Est, 38 miles W, lies seaward of the coastal rocks and shoals. It is bounded on its seaward side by the in-bound lane of the traffic separation scheme (4.2).

Topography**4.65**

- 1 The coast from Baie Washtawouka to Pointe de l'Est is generally rocky and indented with many small bays and coves, giving shelter to small craft. Sandy stretches extend between the mouths of Rivière Aguanus (50°13'N, 62°05'W) and Rivière Nabisipi about 5 miles W. Behind the coast the land is low, rising a short distance inland to mounds and ridges not more than about 120 m (400 ft) high.
- 2 A large number of bare islets and rocks lie up to 2 miles offshore. A heavy sea breaks over the rocks, and in clear weather they can be seen from aloft. It is not advisable to approach this stretch of coast inside depths of 45 m (25 fm).

Depths**4.66**

- 1 Between Baie Washtawouka and Baie Pontbriand, 22 miles W, the 18 m (60 ft) depth contour lies up to 2 miles offshore; inside this line the whole area is foul, with numerous islets, rocks and shoals. These extend about 1½ miles offshore between Baie Pontbriand and Baie Piashti (50°17'N, 62°46'W), and 1 mile offshore W of Baie Johan-Beetz (50°17'N, 62°48'W).

Principal marks**4.67****Landmarks:**

- 1 Colline Saddle (Saddle Hill) (50°21'N, 62°45'W).
Radio tower (elevation 169 m (555 ft); red lights) (50°17'·6N, 62°48'·0W), 2 cables NE of the church at Baie-Johan-Beetz.

Directions

(continued from 4.43)

Coastal passage**4.68**

- 1 From a position S of Baie Washtawouka (50°13'N, 62°01'W) the coastal passage leads W, passing (with positions from Pointe Nabisipi (50°14'N, 62°13'W)):
- S of Brisants Aguanus (Aguanus Ledges) (drying rocks) (5½ miles ESE), and the shoals, with a least depth of 7 m (23 ft) over them, lying from 1 to 2 miles W, thence:
 - S of Rochers Nabisipi, extending 1½ miles S from Pointe Nabisipi, thence:
 - S of Pointe Pashashibou (4 miles WNW) and Hauts-fonds Pashashibou (Pashashibu Shoals), rocks, awash in places, extending 1¾ miles SSW, thence:
 - S of Île Bear (1·8 m (6 ft) high) (7 miles W) and Rocher Jalobert, 5 cables farther WSW.

4.69

- 1 The track then leads S of the rocks and foul ground extending 1½ miles offshore between Rocher Jalobert and Rocher Gull (50°15'N, 62°45'W), across the entrance to Baie Pontbriand (4.85), passing S of Baie Johan-Beetz (50°17'N, 62°48'W) (4.72), whence the route for vessels continuing the coastal passage W leads SW, to a position S of Rochers Bowen (Bowen Rocks), a large area of rocks and shoals lying about 3½ miles S of Pointe de l'Est (East Point) (50°17'N, 63°00'W).

4.70

- 1 **Useful marks:**

Granite peninsula (48 m (156 ft) in height) (50°16'N, 62°41'W) on the SE side of Havre Watshishou (Watshishu Harbour), appearing as an island from seaward.

Beacon (white, square) (50°16'N, 62°42'W) on the S end of the outer islet, about 5 cables SW of Havre Watshishou.

Beacon (orange) near the SW end of the Île Gull (50°16'3N, 62°46'5W).

(Directions continue at 4.92)

Inshore passage**4.71**

- 1 From the vicinity of Baie Johan-Beetz, an inshore passage leads W for about 7 miles to the vicinity of Pointe de l'Est.

(Directions continue for East Channel at 4.95)

Baie Johan-Beetz

Canadian Charts 4456, 4452 plan of Baie Johan-Beetz (see 1.32)

General information**4.72**

- 1 Baie Johan-Beetz (50°17'N, 62°48'W), provides anchorage and a jetty for small coasting vessels. The village of Baie-Johan-Beetz, population 112 in 1986, is situated at the head of the bay, at the mouth of Rivière Piashti.

The bay is exposed to S winds, which can raise a heavy sea in the shallow parts of the entrance channel, and may prevent a vessel leaving. Local knowledge is required.

Directions**4.73**

- 1 Baie Johan-Beetz is approached from the SW in the vicinity of C80 Light-buoy (starboard hand) moored 1.1 miles SSW of Pointe Tanguay (50°16'8N, 62°48'7W), the W entrance point to the bay, and entered between shoal patches on each side.

Baie Johan-Beetz Leading Lights:

Front light (orange trapezium, black stripe, on white framework tower, 6 m in height) (50°17'0N, 62°47'9W) exhibited from the E side of the bay.

Rear light (similar construction, inverted and tower, 9 m in height) (162 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (043°) of these lights leads to the entrance, passing (with positions from Pointe Tanguay):
Between rocky patches (7 cables SW and 8 cables SSW), with depths of less than 1.8 m (6 ft) over them, thence:

SE of a rocky patch with a depth of 5.2 m (17 ft) over it, (5½ cables SSW), thence:

Close NW of a rocky patch with a depth of 5.5 m (18 ft) over it, (3½ cables S), thence:

SE of rocks extending about 1 cable S, thence:

Close NW of two patches, with depths of 5.5 m (18 ft) over each of them (2¼ cables E).

4.74

- 1 **Inner leading lights:**

Front light (orange rectangle with black stripe, on square framework tower, 5 m in height) (50°17'0N, 62°48'7W), exhibited from the jetty on the W shore. This light is increased in intensity on the leading line.

Rear light (orange trapezium, similar tower and height) (125 m from front light).

- 2 The alignment (319°) of these lights leads towards the jetty, passing (with positions from the front light):

Close SW of a patch (reported 1977) (3¾ cables SE) with a depth of 3.7 m (12 ft) over it, near the intersection with the leading line (043°), thence:

NE of a patch (2½ cables SSE), marked by C81 Light-buoy (port hand), with a depth of 3.3 m (11 ft) over it.

4.75

- 1 **Useful marks:**

Cairn, small, surmounted by a cross, on Pointe Loizeau (50°16'6N, 62°48'2W) on the W side of the entrance to Baie Piashti (4.88).

Two white tanks close WNW of the jetty.

Anchorage**4.76**

- 1 The recommended anchor berth is indicated on the Canadian charts, 3½ cables NNW of the cairn on Pointe Loizeau, in a depth of about 9 m (30 ft), mud.

Berth**4.77**

- 1 A T-shaped public pier, with a pierhead 43 m long and a depth of 4.3 m alongside, extends from the shore on the W side of Baie Johan-Beetz. The inner sides of the outer face offer good berths for small craft. A slipway for small craft is located S of the mouth of the river.

A barge 6 m by 12 m is anchored 28 m S of the pier and used as a ferry landing. It is attached to the pier by wire cables which prevent passage between barge and pier. Yellow cautionary lights are exhibited from the NE and SE corners.

- 2 **Obstruction.** An outfall pipe is laid to 145 m (475 ft) offshore from a point 1 cable E of the pier. A buoy (special) is moored at the outer end.

Facilities**4.78**

- 1 Medical dispensary; slipway for small craft.

Small craft**Île-Michon****4.79**

- 1 **General information.** Île-Michon (Île à Michon) (50°13'N, 62°02'W) is a settlement at the head of a small bay.

Facilities: public pier; slipway.

Rivière Aguanish**4.80**

- 1 **General information.** Rivière Aguanish (Aquanus) (50°13'N, 62°05'W) is narrow and accessible to small craft only. Local knowledge is required. Aguanish settlement, population 408 in 1986, stands on the E side of the river.

Directions. Aguanish Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 5 m in height) (50°13'1N, 62°05'1W).

Rear light (similar daymark, inverted, on framework tower, 8 m in height) (479 m from front light).

The lights are visible on the leading line only.

From a position about 10 miles WNW of Pointe de Natashquan Light (4.41), the alignment (330½°) of Aguanish Leading Lights leads NE of Brisants Aguanus (4.68) to a position about 5 cables from the front light.

The channel into the river entrance, passing SW of the front leading light, is very shallow.

4.81**Berths:**

A small jetty is situated at Aguanish, on the E side of the river. It is 18 m long and is reported to be in a state of disrepair.

A L-shaped jetty is situated on the W shore downstream of the bridge that crosses the river. The outer face is 16 m long and the jetty is accessible at HW only. The jetty is used by fishermen.

Rivière Nabisipi**4.82**

General information. Rivière Nabisipi (Nabisipi River) (50°14'N, 62°13'W) can only be entered by boats, in good weather.

Baie Pashashibou**4.83**

General information. Baie Pashashibou (Pashashibu Bay) (50°16'N, 62°21'W) is shallow and filled with islets and rocks. Îles Pashashibou (Pashashibu Islands), 2.7 to 7.6 m (9 to 25 ft) high, lie in the approaches to the bay, making access difficult. Local knowledge is required.

Baie Jalobert**4.84**

General information. Baie Jalobert (50°16'N, 62°25'W) is open to S winds, but there is fairly good shelter for small craft, which can lie close inshore. Depths of 11 m (36 ft) may be found within 1½ miles of the head of the bay but Rocher Jalobert (50°14'5N, 62°24'8W) lies in the entrance. Local knowledge is required.

Useful mark:

Beacon (white, square, 4.6 m in height) (50°15'7N, 62°25'6W), on an islet at the W side of the bay.

Baie Pontbriand**4.85**

General information. Baie Pontbriand (50°16'N, 62°33'W) is shallow and obstructed by rocks across the entrance, but these give no shelter. Local knowledge is essential.

Canadian Chart 4456 (see 1.32)

Corneille Island**4.86**

General information. A small boat harbour is situated near Corneille Island, which is not marked on the chart. The entrance is marked by a small white square beacon (4.6 m (15 ft) in height) (50°16'4N, 62°53'1W), on the

island. An orange beacon stands on a point of land 3 cables ENE.

Baie de la Grande Hermine**4.87**

General information. Baie de la Grande Hermine (Grande Hermine Bay) (50°17'N, 63°01'W), N of Pointe de l'Est, is shallow and full of rocks and ledges. It is little used.

Anchorage and harbours

Canadian Charts 4456, 4452 plan of Baie Piashti (see 1.32)

Baie Piashti and Baie Quétachou**4.88**

General information. Baie Piashti (50°17'N, 62°46'W) is open to the SW and joins Baie Quétachou (Quétachou Bay), which extends NE. The bays contain many dangers, but a small coasting vessel may find anchorage. Local knowledge is essential.

A wharf adjoins a mica factory on a promontory 1 mile N of Île Gull (50°16'3N, 62°46'5W); in 1976 both were in ruins.

Directions. From a position about 4 miles SW of Rocher Gull (50°15'N, 62°45'W), Baie Piashti is approached from SSW, passing between dangers on each side of the entrance.

Leading line. The alignment (018½°) of Rocher Jaune (50°17'4N, 62°46'9W) a rock at the N end of Baie Piashti, and Colline Saddle (4.67), 4 miles NNE, leads into Baie Piashti, passing (with positions from the centre of Île Gull):

Close E of a patch with a depth of 8.5 m (28 ft) over it, (1 mile SW), thence:

W of a patch of rocks and shoals (4 to 6 cables W), including Caye à Boucher.

Useful mark:

Cairn on Pointe Loizeau (50°16'6N, 62°48'2W) (4.75).

POINTE DE L'EST TO ÎLE À FIRMIN**General information**

Chart 4774, Canadian Charts 4456, 4429 (see 1.32)

Route**4.89**

The coastal route from a position S of Pointe de l'Est (East Point) (50°17'N, 63°00'W) to a position S of Île à Firmin, also known as Fright Island, 27 miles W, leads S of Île Sainte-Geneviève (50°15'N, 63°04'W) and the islands W. It is bounded on the S side by the in-bound land of the traffic separation scheme (4.2).

Topography**4.90**

The mainland coast W of Île Sainte-Geneviève, the E-most of Îles de Mingan, is of granite and limestone, stratified in places.

The islands at the E end of Îles de Mingan lie close to the coast and enclose a number of harbours. They comprise a National Park (4.63).

Local magnetic anomaly**4.91**

Local magnetic anomaly exists 13 miles S of Pointe à l'Eau Claire (50°12'N, 63°27'W).

Directions*(continued from 4.70)***4.92**

- 1 From a position S of Rochers Bowen (50°13'N, 63°00'W) the coastal passage leads W, passing (with positions from La Grande Pointe (50°12'·2N, 63°26'·9W)):
 - S of Haut-fond Collins (15 miles ESE), marked by C84 Light-buoy (starboard hand), thence:
 - S of Rocher de la Garde (Garde Rock) (12 miles E), which lies on a shoal spit with a least depth of 7·9 m (26 ft) over it, extending nearly 2 miles S from Île à la Chasse, which is low and thickly wooded, thence:
- 2 S of Île Saint-Charles (3½ miles E), which is bold, with cliffs and wooded, and the rocky patches with depths of 9·7 m (32 ft) over them that lie up to 9 cables SSE of the E end of the island; Anse Shoal lies on the NE side of the island, thence:
 - S of Île Herbée (1½ miles E), a grassy islet standing on Ammonite Reef. The reef has depths of less than 5·5 m (18 ft) over it and extends over 4 cables S from Pointe Enragée (Ammonite Point), thence:
 - S of La Grande Pointe (also known as Clearwater Point) from which a light (square framework tower, 8 m in height) is exhibited, and a drying reef which extends 3 cables S, thence:
- 3 S of Haut-fond à l'Eau Claire (Clearwater Shoals) (1¼ miles W), thence:
 - S of Petite Île au Marteau (4¼ miles W), from which a light (square framework tower, 26 m in height) (50°12'·2N, 63°33'·6W) is exhibited from the S end of the island, which is precipitous and steep-to on N and E sides, with shoal ground extending 4½ cables S, thence:
 - S of Île à Calculot (50°12'N, 63°37'W), a grassy islet, on a shoal extending 1 mile S from the SE point of Île du Havre, which is wooded with cliffs on its NE point.

The track then leads to a position S of Île à Firmin, a wooded island, from which a light (50°12'·2N, 63°41'·3W) (4.107) is exhibited at its S end.

*(Directions continue at 4.126)***Side channels****General information****4.93**

- 1 **Routes.** Chenal des Saints (Saints Channel) (50°13'N, 63°04'W) and Chenal de l'Est, 2½ miles N, afford access to the anchorages enclosed by Île Sainte-Geneviève (50°15'N, 63°04'W) and Île à la Chasse, 1 mile WSW, which comprise:

Havre Sainte-Geneviève (4.114), on the NW coast of Île Sainte Geneviève.

Havre de Betchouane (Betchewun Harbour) (4.115), NW of Île à la Chasse.

Baie Saint-Laurent (Saint Lawrence Bay) (4.113).

Depths. Chenal des Saints is deep but there is a least charted depth in Chenal de l'Est of 14·6 m (48 ft).

4.94

- 1 **Tidal streams** between Île Sainte-Geneviève and Île à la Chasse, and N to the mainland, are much influenced by the wind.

The rates seldom amount to 1 kn and are usually much less, except in the shallow and narrow channel between the NW extremity of Île à la Chasse and the mainland, where there is a tidal race at times.

Chenal de l'Est*(continued from 4.71)***4.95**

- 1 **Directions.** From the vicinity of Pointe de l'Est (50°17'N, 63°00'W), Chenal de l'Est is approached from SE, passing (with positions from Pointe de l'Est):
 - NE of Rochers Bowen (3 miles S), and:
 - SW of the rocks and shoals off the mainland shore in the vicinity of Pointe de l'Est, thence:
 - NE of Pointe de l'Est, the E point of Île Sainte-Geneviève (3 miles SW), thence:
 - NE of the drying reef that extends about 1½ cables from the NE coast of Île Sainte-Geneviève.
 - 2 The channel then leads W, passing:
 - Around Pointe Nord-Est (Northeast Point) (3 miles WSW), a bluff head on which stands a tower, at the NE extremity of Île Sainte-Geneviève, and:
 - S of the rocks and shoals extending about 5 cables S from Pointe Rouge (2½ miles W).
- The track then leads into Havre Sainte-Geneviève.

Chenal des Saints**4.96**

- 1 **Directions.** From a position about 2 miles E of Haut-fond Collins (50°11'N, 63°04'W) (4.92), marked by C84 Light-buoy (starboard hand), Chenal des Saints is approached from SE, passing (positions given from Haut-fond Collins):
 - NE of offshore rocks and shoals extending SE from Île à la Chasse (2½ miles NNW), and:
 - SW of Les Saints (3 miles N), a rocky shoal, including Le Saint Ouest, which dries, the W rock of Rocher Saints, extending 1½ miles SSE of Île Sainte-Geneviève, thence:
 - Clear of an isolated patch (2½ miles N) with a depth of 11 m (36 ft) over it, lying in the middle of the fairway, thence:
 - SW of a rock lying 2 cables S of the SW point (3½ miles N) of Île Sainte-Geneviève, thence:
 - SW of Île de l'Ancre (4½ miles N) and shoal water extending 2 cables S.
- The channel then leads NW into Baie Saint-Laurent, which adjoins Havre Sainte-Geneviève to E and Havre de Betchouane to SW.

4.97

- 1 **Useful marks:**
 - Mont Sainte-Geneviève (50°18'N, 63°05'W), a flat-topped hill, 100 m (330 ft) in elevation.
 - Pointe de la Tête de Perdrix (50°15'N, 63°09'W), a wooded, steep-sided hill, 48 m (158 ft) in elevation.

Havre Saint-Pierre*Canadian Chart 4429 (see 1.32)***General information****4.98**

- 1 **Position.** Havre Saint-Pierre (50°14'N, 63°37'W) lies between Île du Havre and the mainland.
- Function.** It is a fishing centre and a loading port for the Quebec Iron and Titanium Corporation (QIT-Fer et Titane Inc.) The town of Havre Saint-Pierre had a population of 3344 in 1986.

4.99

- 1 **Topography.** The mainland coast for a distance of about 2½ miles NNW from La Grande Pointe (50°12'·2N, 63°26'·9W) is from 20 to 26 m (65 to 85 ft) high in places, with cliffs. Thence, for about 2½ miles farther W, there are

prominent, steep banks of white sand and clay; thence to Pointe aux Esquimaux about 3 miles farther W, the coast is comparatively low.

Port limits. The port is bounded by lines drawn as follows:

E limit. From Cap du Corbeau, the E extremity of Île du Havre, N to the mainland.

W limit. The meridian of 63°38'W.

4.100

- 1 **Approach and entry.** Havre Saint-Pierre can be approached through one of the following channels between the offshore islands and shoals:

From E through Chenal de la Vache Marine (Sea Cow Channel) (50°12'N, 63°31'W) (4.105).

From SE through Chenal Walrus (Chenal de la Petite Île au Marteau) (50°12'N, 63°34'W) (4.106); this is the recommended route.

From SW through the unnamed channel (50°12'N, 63°40'W) W of Île du Havre (4.107).

From W through Chenal Quin (50°15'N, 63°41'W) (4.108).

4.101

- 1 **Traffic.** In 2000, 37 ship movements were recorded, totalling 1 817 440 dwt.

Port Authority. Transport Canada, CP 548, 886 Bathelet, Havre Saint-Pierre, Québec, GOG 1PO.

Limiting conditions

4.102

- 1 **Deepest and longest berth:** QIT ore loading wharf (4.110).

Tidal levels. Mean spring range about 1.5 m; mean neap range about 0.7 m. For further information see *Admiralty Tide Tables Volume 2*.

Density of water. 1025 g/cm³.

Arrival information

4.103

- 1 **Pilotage** is compulsory. The pilot station (48°19'N, 69°25'W) is located near Escoumins. For further information see *Admiralty List of Radio Signals Volume 6*.

Port operations. The port operates from April to January.

Harbour

4.104

- 1 **General layout.** The port facilities are at Pointe aux Esquimaux on the N side of the harbour. The waters between Pointe aux Esquimaux and Île du Havre are available for anchorage.

Tidal streams. The in-going tidal stream usually sets W and the out-going usually sets E with rates of about 1 kn but the streams are much affected by the wind and many attain rates of 2 kn. During spring tides, a rate of up to 3 kn may be experienced off La Grosse Pierre, the NE point of Île du Havre.

Directions

4.105

- 1 **Chenal de la Vache Marine** (Sea Cow Channel) (50°12'N, 63°31'W), which lies between Haut-fond à l'Eau Claire (Clearwater Shoals) (4.92) and Récifs au Marteau (Sea Cow Shoals), about 1½ miles W, is clear of dangers in the fairway.

From a position about 3½ miles SW of La Grande Pointe (50°12'N, 63°27'W) (4.92), from which a light is exhibited, the channel leads N, then W, passing (with positions from the light):

W of Haut-fond à l'Eau Claire (1¼ miles W), and rocky shoals extending a farther 9 cables W, and: E of Récifs au Marteau (3½ miles W), rocks above and below water, thence:

NE of Grosse Île au Marteau (Sea Cow Island) (4 miles ENE), and clear of reefs extending 2 cables off the coast and clear of a fish farm, marked by buoys (private) close NE.

- 2 The track then leads W to Havre Saint-Pierre around the N point of Grosse Île au Marteau, on which stands a beacon (orange), passing N of a shallow bank with a depth of 5.4 m (18 ft) extending to 5½ cables NNW of the beacon.

4.106

- 1 **Chenal Walrus** (Chenal de la Petite Île au Marteau) (50°12'N, 63°34'W) has a least charted depth of 14.1 m (46 ft) and is the recommended approach to Havre Saint-Pierre. The channel is approached from a position about 3 miles S of Petite Île au Marteau, from the S end of which a light (50°12'2N, 63°33'6W) (4.92) is exhibited.

- 2 **Havre Saint-Pierre Leading Lights**, standing on the mainland:

Front light (orange trapezium, black stripe, on red framework tower, 11 m in height) (50°14'4N, 63°35'7W).

Rear light (similar construction, inverted, and tower, 18 m in height) (175 m from front light).

The lights are visible on the leading line only.

- 3 The alignment (338½°) of these leading lights, leads through Chenal Walrus, passing (with positions from Petite Île au Marteau Light):

WSW of shoal ground, with depths of less than 4 m (13 ft), extending 1 cable S, and up to 2 cables W of Petite Île au Marteau, thence:

ENE of Île aux Goélands (1 mile W), low and grassy, thence:

ENE of Cap du Corbeau (1¾ miles NW), bold, with cliffs, keeping clear of shoals extending up to 1 cable offshore from the NW and N coasts of Île du Havre.

- 4 Thence the track leads NW of CM5 Light-buoy (port hand) (2 miles NW), around La Grosse Pierre, 2 cables W of the buoy, then W into Havre Saint-Pierre.

4.107

- 1 **The unnamed channel** (50°12'N, 63°40'W), W of Île du Havre, is clear of dangers, and is marked by light-buoys on its E side. The channel is approached from a position S of Île à Firmin, a wooded island, from the S end of which a light (orange rectangle, on framework tower, 8 m in height) (50°12'2N, 63°41'3W) is exhibited.

Île à Firmin Leading Lights, also known as Fright Island Channel, standing on the mainland:

Front light (orange trapezium, black stripe, on square framework tower, 8 m in height) (50°15'4N, 63°39'3W).

Rear light (similar construction, inverted and tower, 18 m in height) (296 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (010°) of the leading lights leads through the channel, passing (with positions from Île à Firmin Light):

W of CM10 Light-buoy (starboard hand) (9 cables ESE) marking the SW extremity of a bank that extends about 1 mile S from Pointe de Chasse, the W point of Île du Havre, thence:

E of rocks and shoals extending over 3 cables E from Île à Firmin, thence:

Close W of CM12 Light-buoy (starboard hand) (1 mile NE), thence:

In mid-channel W of Île du Havre (1¼ miles NE) and E of Île du Fantôme, high and wooded, 6 cables W.

- 3 The track then leads to a position at the N end of the channel, W of Havre Saint-Pierre.

4.108

- 1 **Chenal Quin** leads into the W end of Havre Saint-Pierre between Pointe aux Morts (50°15'N, 63°41'W) and Île du Fantôme, (Île Quin) 7 cables S. The channel, marked by buoys, has a least charted depth of 9.0 m (30 ft) in the fairway, and a bottom of rock, gravel and sand. It is approached from a position in Chenal de Mingan (4.143), about 3 miles W of Pointe aux Morts.

- 2 **Pointe aux Esquimaux Leading Lights:**

Front light (orange trapezium, black stripe, on red framework tower, 12 m in height) (50°14'3N, 63°36'8W).

Rear light (similar construction and tower, 18 m in height) (238 m from front light).

The lights are visible on the leading line only.

The alignment (096¼°) of the leading lights leads through Chenal Quin, passing between shoal ground on the N side of the channel, marked by CM16 Light-buoy (starboard hand) and Récifs Quin, 2 cables S, marked by CM17 Light-buoy (port hand) on the S side.

- 3 **Useful mark:**

Radio tower (red lights) 1¼ miles NNE of Pointe aux Morts on Chart 4774 and Canadian Chart 4432.

Berths

4.109

- 1 **Anchorage** is available throughout the 1½ mile distance between the harbour limits (4.99), in depths of from 13 to 29 m (42 ft to 16 fm), sand, but the best anchorage is S of the line joining the N and NE points of Île du Havre, in depths of not more than 20 m (11 fm) as indicated on Canadian Chart 4429.

4.110

- 1 **Alongside berths** at Pointe aux Esquimaux:

Berth	Length	Alongside depth
Public wharf at E end of point	138 m	4.6 m to 7.0 m
Ore loading (QIT-Fer et Titane Inc) berth at W end of point	195 m between dolphins, 43 m at berthing face.	7.9 m to 10.6 m

The dolphins are joined to one another by footbridges and steel wire ropes.

Caution. There is an accumulation of shells alongside the public wharf and depths may be less than charted.

Port services

4.111

- 1 **Repairs.** Small repairs can be undertaken.

Other facilities: an overhead ore conveyor and loading crane at the ore loading berth; hospital in the town.

Supplies: fresh water; provisions; fuel and lubricants available by truck.

Communications:

Sea services operate to other ports on the N side of the Gulf of St Lawrence.

Internal air services operate from the airport close E of the town.

- 2 **Rescue.** A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

Small craft

4.112

A small craft harbour enclosed by two breakwaters, with a least depth of 2.7 m (10 ft) has been constructed in position 50°14'2N, 63°36'3W, close E of the public wharf. The harbour is approached from the SW in the white sector of a light exhibited from near the centre of the E breakwater.

Anchorage and harbours

Baie Saint-Laurent

4.113

- 1 **General information.** Baie Saint-Laurent (50°15'N, 63°08'W) is shallow, with drying flats of sand, mud and boulders filling its head. It is approached through either Chenal des Saints (4.96) or Chenal de l'Est (4.95).

Havre Sainte-Geneviève

4.114

- 1 **General information.** Havre Sainte-Geneviève (50°15'N, 63°06'W) is sheltered and lies close NW of Île Sainte-Geneviève.

Directions. The harbour is entered from E through Chenal de l'Est (4.95) and from W through Baie Saint-Laurent (4.113).

Anchorage. The recommended anchor berth is in a depth of about 16.5 m (54 ft), mud, between the N points of Île de l'Ancre and Île Sainte-Geneviève, as indicated on Canadian Chart 4456.

Havre de Betchouane

4.115

- 1 **General information.** Havre de Betchouane (Betchewun Harbour) (50°14'N, 63°10'W) is sheltered and lies NW of Île à la Chasse. An inner harbour lies W of Île à Mouton (50°14'1N, 63°10'4W), and a boat passage leads SW into Baie des Grès (50°14'N, 63°13'W) (4.117). Strong tidal streams run in this passage.

Directions. The harbour is approached from E through Baie Saint-Laurent (4.113), passing close N of the N extremity of Île à la Chasse, a bold mound, with cliffs, avoiding the shoal ground extending 2½ cables from Pointe de la Tête de Perdrix (50°15'N, 63°09'W) (4.97), about 7 cables NW.

- 2 **Anchorage** can be found about 3 to 4 cables ENE of Île à Mouton, in depths of 11 to 20 m (36 ft to 11 fm), mud.

Small craft

Baie Puffin

4.116

- 1 **General information.** Baie Puffin (50°13'N, 63°15'W) is entered from S between Le Sanctuaire (Gun Island) (50°11'7N, 63°13'2W), which is moderately steep-to on its SW side and grass covered, and the E point of Île Saint-Charles 2¼ miles W. It is largely exposed to S winds, but small coasting vessels may find shelter.

4.117

- 1 **Baie des Grès** (50°14'N, 63°13'W), in the NE corner of Baie Puffin, affords fair but confined anchorage for small craft in its NW part. The approach channel, between the shoals E of Pointe des Grès (Ragg Point) and shoals W of Île à la Chasse is narrow. Local knowledge is required.

A boat passage, in which there are strong tidal streams, leads to Havre de Betchouane (4.115) from the E side of the bay. Local knowledge is also required.

4.118

- 1 **Barchois de Gabriel** (50°12'5N, 63°18'0W), is an inlet on the NE side of Île Saint-Charles which is open to considerable swell from SE winds.

Anchorage can be found in a depth of 6.4 m to 13 m (21 ft to 42 ft), mud, seaward of the shallow area at the head of the inlet, with the deeper water about 2 cables off the S shore.

Baie des Trilobites

4.119

- 1 **General information.** Baie des Trilobites (Trilobite Bay) (50°13'N, 63°22'W), is approached from S, passing between the W end of Île Saint-Charles (4.92) and Île de la Fausse Passe (Whale Island) which is bold, with cliffs on S and E sides, 8 cables W. The N and NW sides of the bay are shallow, with the 11 m (36 ft) depth contour extending up to 9 cables from the shore.

Anchorage is good and well sheltered, except from S winds, in depths of 14.6 to 18.3 m (48 to 60 ft), clay.

Havre Saint-Charles

4.120

- 1 **General information.** Havre Saint-Charles (50°13'N, 63°20'W) is contained in a cove on the N side of Île Saint-Charles, S of a drying bank that extends 5 cables from the mainland. Local knowledge is required.

Directions. Havre Saint-Charles may be approached either from E, through Baie Puffin (4.116), or from W, through Baie des Trilobites (4.119).

Anchorage is secure for small craft in depths of 6.4 to 11 m (21 to 36 ft), mud.

Other names

4.121

- 1 Anchor Island (50°15'N, 63°05'W).
Indian Point (Pointe du Sauvage) (50°17'N, 63°07'W).
Le Saint-Est (50°14'N, 63°03'W).

ÎLE À FIRMIN TO RIVIÈRE SAINT-JEAN

General information

Chart 4774, Canadian Charts 4432 4026 (see 1.32)

Routes

4.122

- 1 From a position about 5 miles S of Île à Firmin (50°12'N, 63°41'W), the coastal route to a position S of Rivière Saint-Jean, 25 miles W, leads S of Îles de Mingan. Chenal de Mingan, an inner route N of the islands, is described at 4.139.

Topography

4.123

- 1 Îles de Mingan continue W in a line from Île à Firmin to Îles aux Perroquets, 20 miles W. Several navigable channels lead between the islands into Chenal de Mingan. The mainland coast from La Longue Pointe (50°15'N, 64°09'W) to the mouth of Rivière Saint-Jean, 7 miles W, is low, with a broad beach of sand.

Tide-rips

4.124

- 1 Immediately W of La Longue Pointe, tide-rips form on the in-going tide, where La Longue Pointe diverts the W-going stream to the SW.

Principal mark

4.125

- 1 **Landmark:**

Îles aux Perroquets Lighthouse (white 8-sided tower, red top, 11 m in height) (50°13'2N, 64°12'4W), stands on the NW islet of the group.

Directions

(continued from 4.92)

4.126

- 1 From a position S of Île à Firmin, a wooded island, from which a light (50°12'2N, 63°41'3W) (4.107) is exhibited at its S end, the coastal passage leads W, passing (with positions from the summit (elevation 63 m (205 ft)) of Île aux Bouleaux (50°15'N, 64°00'W)):

S of Île Niapiskau (Île à Samuel) (10 miles ESE), a partly wooded island with three hills, and drying reefs and foul ground extending 5 cables S, and: Either side of a 18.0 m (59 ft) patch (11 miles ESE), thence:

S of La Grande Île (2½ miles ESE), thickly wooded, and rocks and foul ground, extending up to 7½ cables from the S side, thence:

- 2 S of Récif du Milieu (above-water rocks) (3 miles SSE), thence:

S of Île Nue de Mingan (5 miles SW) and shoal ground that extends 3½ cables S from it, thence: S of Île du Wreck (7½ miles WSW), the SE-most of Îles aux Perroquets, a group of four low, bare islets; the largest and highest being the NW islet, which has cliffs and a flat top and from which a light (4.125) is exhibited. A 6.4 m (21 ft) patch lies 1½ miles WSW of Île du Wreck.

The track then leads to a position S of the entrance to Rivière Saint-Jean (50°17'N, 64°20'W).

4.127

- 1 **Caution.** A heavy swell is found at times on Banc de Mingan, a large rocky patch with a least depth of 14.6 m (48 ft) over it, lying 5 miles SSE of Îles aux Perroquets Light.

4.128

- 1 **Useful mark:**

Beacon (orange) (50°12'N, 63°45'W), faces S and E on the S side of Île Niapiskau.

(Directions continue at 5.16)

Side channels

Canadian Charts 4432, 4429 (see 1.32)

Chenal de Niapisca

4.129

- 1 **Description.** Chenal de Niapisca (50°12'N, 63°42'W) is a deep water channel, 7½ cables wide, leading from the coastal route (4.92) N into the E end of Chenal de Mingan (4.143).

Topography. Some remarkable rocks, shaped like flower pots, stand above the HW line on the SE side of Île Niapiskau (Île à Samuel).

Tidal streams. The in-going tidal stream in Chenal de Niapisca sets N and the out-going sets S, but both streams are much influenced by the wind.

- 2 **Directions.** From a position about 2 miles S of Île à Firmin Light (50°12'2N, 63°41'3W) (4.107), Chenal de Niapisca leads NW, passing clear of dangers between shoals extending up to 2 cables W from Île à Firmin and 5½ cables E from Île Niapiskau (Île à Samuel).

Chenal du Fantôme

4.130

- 1 **Description.** Chenal du Fantôme (50°13'N, 63°41'W) is a deep water channel, 1¼ cables wide, lying between Île du Fantôme and the reefs that extend about 3½ cables NNE from Île à Firmin.

Local knowledge is essential.

Channel between Île Niapiskau and Île à la Proie

4.131

- 1 The channel between Île Niapiskau (Île à Samuel) (50°13'N, 63°45'W) and Île à la Proie, 5 cables W, is not recommended.

Local knowledge is essential.

Chenal à la Proie

4.132

- 1 **Description.** Chenal à la Proie (50°13'N, 63°51'W) lying between Île à la Proie and La Grande Île, is 2 cables wide and clear of dangers.

Tidal streams. The in-going tidal stream sets N and the out-going sets S, both with a rate of about 1 kn.

Directions. From a position about 1 mile S of Île à la Proie, the track leads NNW in mid-channel between the S point of Île à la Proie and La Grande Île.

From a position about 6 cables within the S point of Île à la Proie the recommended track lies slightly nearer the E side of the channel. After clearing the N end of Chenal à la Proie, care should be taken to avoid Rocher à la Proie (50°14'N, 63°50'W), lying about 5 cables NNE of the NW extremity of Île à la Proie.

4.133

- 1 **Clearing lines:**

La Grande Île. For mariners approaching from the W the line of bearing not more than 075° of Île à Firmin Light (4.92), open S of the S extremity of Île Niapiskau (Île à Samuel), passes S of the shoals extending 7½ cables S from La Grande Île.

Rocher à la Proie. The alignment (190°) of the SE extremity of La Grande Île with the NW edge of Île à la Proie passes 2 cables W of Rocher à la Proie.

Le Grand Chenal

4.134

- 1 **Description.** Le Grand Chenal (50°12'N, 63°57'W), between La Grande Île and Récif du Milieu, about 2 miles W, is clear of dangers and is a good approach to Havre de Mingan (4.146).

Topography. On the W side of La Grande Île, about 1 mile N of Pointe Sud-Ouest (50°12'N, 63°55'W), many rocks shaped like flower pots, and others in the form of arches, stand just above the HW mark.

4.135

- 1 **Directions.** From a position about 2 miles SW of La Grande Île, the channel leads N, passing (with positions from Pointe Sud-Ouest):

W of drying reefs and foul ground extending 5 cables from the point, thence:

E of Récif du Milieu (4.126) (2¼ miles W), thence:
E of Petite Île aux Bouleaux (3 miles WNW), which is high, wooded and steep-to on E side, thence:

E of Île aux Bouleaux (4½ miles NW), which is high and wooded.

Chenal du Récif du Milieu

4.136

- 1 **Description.** Chenal du Récif du Milieu (50°12'N, 63°59'W) lies between Petite Île aux Bouleaux and Récif du Milieu, about 1 mile SSE. The channel is deep and clear of dangers.

Topography. A remarkable rock, shaped like a flower pot, stands on the SW point of Petite Île aux Bouleaux.

Tidal streams. The in-going tidal stream sets SW through the channel.

Directions. The channel is entered from SW, passing in mid-channel between the SE point of Petite Île aux Bouleaux, and shoal ground extending 2½ cables N from the above water part of Récif du Milieu.

Chenal aux Bouleaux

4.137

- 1 **Description.** Chenal aux Bouleaux (50°13'N, 64°04'W) E of Île Nue de Mingan, is 3 miles wide and clear of dangers.

Directions. From a position about 3 miles SE of Île Nue de Mingan, the channel leads N, passing:

W of reefs that extend 6 cables W from the SW side of Petite Île aux Bouleaux (4.135), thence:

W of Le Pain de Sucre, also known as Rocher Hulk, a remarkable low islet, resembling a hulk, near the S end of rocks and foul ground that extend nearly 1 mile SSW and 7½ cables W from a long low point at the W end of Île aux Bouleaux (4.135).

Chenal aux Perroquets

4.138

- 1 **Description.** Chenal aux Perroquets (50°12'N, 64°10'W) lies between Île Nue de Mingan and Îles aux Perroquets 2 miles W. The channel is deep and more than 1 mile wide.

Tidal streams. The in-going tidal stream sets S and the out-going sets SE through the channel.

- 2 **Directions.** From a position about 3 miles S of Îles aux Perroquets Light (4.125), the channel leads NE, passing: SE of Île du Wreck, the SE-most of the islets and drying reefs at the SE end of Îles aux Perroquets (4.126), thence:

SE of a 10 m (33 ft) depth, 5 cables NE of Île du Wreck, and:

NW of L'Îlot, lying 1 cable SW of the SW side of Île Nue de Mingan, and rocky shoals extending up to 6 cables around it.

Chenal de Mingan

General information

4.139

- 1 **Route.** Chenal de Mingan is the broad passage separating the W islands of Îles de Mingan from the mainland between Pointe aux Morts (50°15'N, 63°41'W), the N point of Chenal Quin, and La Longue Pointe, about 18 miles W. It is entered from S through a number of side channels (4.129).

4.140

- 1 **Topography.** The mainland coast between Pointe aux Morts and Pointe Paradis, 7 miles WNW, at the mouth of Rivière Romaine, is fronted by drying mud and sand flats, with scattered boulders, which extend 1½ miles offshore. Île Moniac and Île Moutange lie on the border of these flats.

Between Pointe Paradis (50°17'N, 63°51'W) and Havre de Mingan, about 5 miles W, drying sand flats and shoal ground with depths of less than 5.5 m (18 ft) extends up to 6 cables offshore in places.

Between Havre de Mingan and La Longue Pointe, 5½ miles WSW, the coast is low and sandy.

4.141

- 1 **Tide-rips** (4.124) form W of La Longue Pointe.

4.142

- 1 **Landmarks:**

Radio tower (elevation 204 m (668 ft); red lights) (50°16'N, 63°41'W) standing about 1¼ miles NNE of Pointe aux Morts.

Radio tower (elevation 49 m (160 ft)) (50°16'N, 64°08'W), standing about 1½ miles NE of La Longue Pointe, with a church spire 5 cables SW.

Directions

4.143

- 1 From a position in Chenal Quin (4.108), Chenal de Mingan leads W, passing across the N entrance to Chenal de Niapiskau (Niapisca) (4.129) (with positions from the N point of Île Niapiskau (Île à Samuel) (50°13'N, 63°45'W)):

N of Île Niapiskau, on the N point of which stands a beacon (orange) on the slope of a partly wooded hill, 44 m (145 ft) in elevation, thence:

S of Banc Moniac (2 miles NNW), thence:

S of Banc de la Romaine (2¾ miles NW), thence:

N of Rocher à la Proie (3 miles W), thence:

N of La Grande Île (4 miles W) 70 m (230 ft) in elevation and thickly wooded.

4.144

- 1 The track then leads either NW to the E entrance to Havre de Mingan (4.149), or W across the N entrance to Le Grand Chenal (4.134) to a position N of Île aux Bouleaux (50°15'N, 64°00'W), whence the track leads WSW, across the N entrance to Chenal aux Bouleaux (4.137), passing (with positions from the summit (elevation 63 m (205 ft)) of Île aux Bouleaux):

SSE of Rocher Wacouta (1½ miles N), and a rocky shoal, with a least depth of 5.5 m (18 ft), lying 2½ cables farther SW, thence:

NNW of Île Nue de Mingan (5 miles WSW), which is wooded and steep-to on N side, thence:

Across the N entrance to Chenal aux Perroquets (4.138), thence:

NNW of Îles aux Perroquets (8 miles WSW) (4.125), and:

SSE of the shoal ground, with depths of less than 11 m (36 ft), extending nearly 2 miles off the mainland coast between La Longue Pointe (6 miles W) and the entrance to Rivière Saint-Jean (13 miles W), thence:

To a position S of the entrance to Rivière Saint-Jean (50°17'N, 64°20'W).

- 2 **Useful mark:**

Church spire (50°16'N, 64°09'W) at Longue-Pointe.

(Directions continue for coastal passage at 5.16)

(Directions for Havre de Mingan are given at 4.149)

Anchorage

4.145

- 1 **Baie Quarry** (Anse à la Proie) (50°13'N, 63°48'W), a small bay on the N side of Île à la Proie, provides sheltered but confined anchorage for small vessels in depths of about 13 m (42 ft), in the middle of the bay, as indicated on the chart.

The cove is entered from N, keeping closer to the W shore, as depths of less than 5.5 m (18 ft) extend 1¼ cables off the E shore. Local knowledge is required.

Havre de Mingan

Canadian Chart 4432 (see 1.32)

General information

4.146

- 1 **Position.** Havre de Mingan (50°17'N, 64°01'W) is a well-sheltered harbour N of Île du Havre de Mingan with an E and a W entrance.

The village of Mingan, population 351 in 1986, is situated on the mainland, about 7 cables NE of the W end of Île du Havre de Mingan.

The village of Longue-Pointe-de-Mingan, population 612 in 1986, is situated about 1 mile NE of La Longue Pointe.

- 2 **Topography.** The mainland coast on the N side of the harbour is low, with a beach of fine sand. Rivière Mingan flows through drying sand flats into the E part of the harbour. These flats provide some protection from the E.

Limiting conditions

4.147

Depths. Least charted depth in:

E channel is 12.5 m (41 ft).

W channel is 6.4 m (21 ft).

Harbour

4.148

- 1 **General layout.** Havre de Mingan is a narrow area lying between Île du Havre de Mingan and the mainland. Berths are situated on the mainland side of the harbour.

Tidal stream. The out-going tidal stream sets strongly E through the harbour, especially in the W entrance.

Directions for eastern entrance

4.149

- 1 The E entrance channel, with a least width of 2 cables, lies between the NE side of Île du Havre de Mingan, which is wooded and precipitous, and the sand flats in the mouth of Rivière Mingan.

Eastern Entrance Leading Lights:

Front light (orange rectangle, black stripe on square framework tower, 12 m in height) (50°17'4N, 64°01'3W) at Mingan.

Rear light (similar construction and tower, 20 m in height) (189 m from front light).

The lights are visible on the leading line only.

- 2 From a position N of the N extremity of La Grande Île, the alignment (288°) of these lights leads 3 cables SSW of Cayes à Cochon (50°17'N, 63°55'W) and through the channel to Havre de Mingan, passing:

Close NNE of the shoal, with depths of 7.3 m (24 ft) over it, extending 8 cables E from Île du Havre de Mingan, thence:

SSW of CM28 Light-buoy (starboard hand) (50°17'1N, 63°59'5W), marking the edge of drying flats in the mouth of Rivière Mingan.

Directions for western entrance

4.150

- 1 The W entrance channel to Havre de Mingan, with a least width of 1 cables, lies between the NW side of Île du Havre de Mingan and a sandy point on the mainland.

Western Entrance Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (50°17'4N, 64°00'7W) E of Mingan near Pointe Matsitew.

Rear light (similar construction, inverted, on orange framework tower, 15 m in height) (421 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (065¾°) of these lights leads through the channel, passing close NW of a rock, which dries 0.3 m (1 ft), marked by CM21 BMING Light-buoy (W cardinal) (50°16'8N, 64°02'7W).

Berths

4.151

- 1 **Anchorage** in the main harbour area, which is about 1 mile long and 2½ cables wide, affords shelter in depths of 13 to 22 m (42 ft to 12 fm), fine sand.

The recommended anchor berth is indicated on the Canadian chart, at the intersection of the alignments of the Eastern Entrance and Western Entrance Leading Lights.

- 2 **Alongside berth.** A T-shaped pier extends SSE from Mingan; the pier-head is 62 m long, with a depth of 9.4 m alongside the E berth and 4.6 m alongside the W berth. A warehouse is situated close to the pier. A slipway is situated close W of the wharf.

Port services

4.152

- 1 **Supplies.** Fresh water available.
Communications. Coastal vessels call during the navigation season. An air service operates from Mingan Airport about 4 miles W of Mingan.

NORTH COAST OF ÎLE D'ANTICOSTI

GENERAL INFORMATION

Chart 4762

Area covered

4.153

- 1 This section describes the waters on the N coast of Île d'Anticosti between Pointe de l'Est (49°08'N, 61°40'W) and Pointe de l'Ouest (49°52'N, 64°31'W), 120 miles W. The section is arranged as follows:
Pointe de l'Est to Pointe Carleton (4.158).
Pointe Carleton to Pointe de l'Ouest (4.174).

Topography

4.154

- 1 The N coast of Île d'Anticosti between Pointe de l'Est and Falaise de Puyjalon, 72 miles WNW, is generally bold and precipitous. Ridges sweep down to the coast from the interior of the island, terminating in striking white headlands, 122 m (400 ft) high in places.
The coast between Falaise de Puyjalon (49°47'N, 63°12'W) and Pointe de l'Ouest, the W extremity of the island, is low and fringed with reefs of flat limestone.
Most of the land near the coast is wooded with dwarf spruce. Inland the terrain is thickly forested and rises to a central ridge about 305 m (1000 ft) high.
Île d'Anticosti is part of the province of Québec and is a national park.

Shelter

4.155

- 1 There are no harbours on the N coast of Île d'Anticosti, but shelter may be found in bays along the E part, especially between Cap Robert (49°29'N, 62°20'W) and Cap de l'Ours (Bear Head), 6 miles NW, where there is excellent anchorage.

Traffic separation scheme

4.156

- 1 The traffic separation scheme (4.2) passes around the NW end of the island at a distance of less than 4 miles, as indicated on the chart.

Weather

4.157

- 1 The climate of Île d'Anticosti is more moderate than that of the mainland. Fog is frequent off the E part of the island.

POINTE DE L'EST TO POINTE CARLETON

General information

Chart 4767

Route

4.158

- 1 The coastal route from Pointe de l'Est (East Point) (49°08'N, 61°40'W), the E extremity of Île d'Anticosti, to Pointe Carleton (Carleton Point), 61 miles NW, is clear of charted dangers more than 7 cables offshore.

Topography

4.159

- 1 The coast between Pointe de l'Est and Cap Sandtop, 4 miles NW, consists of limestone cliffs. From Cap Sandtop to Cap de la Table, 11 miles NW, the coast is indented with several bays, with reefs and shoals lining the shore for most of its length.
The most prominent inland feature is a ridge which runs from a wooded bluff, 96 m (316 ft) high, 3 miles W of Cap Sandtop, to Pointe de l'Est. Two remarkable isolated summits are situated on the ridge, close to its NW end. Table Hill, a densely wooded summit, 79 m in height, lies about 1 mile SW of Cap de la Table.
The coast between Cap Sandtop and Cap de l'Ours (49°33'N, 62°27'W) is indented with many open bays, some of which provide anchorage.
- 2 From Cap de l'Ours, bold cliffs, with several small bays, continue WNW for a further 12 miles to Cap Observation. From Cap Observation (49°40'N, 62°42'W) to Pointe Carleton, 10 miles WNW, the coast is divided into three bays, with a river flowing into the head of each.

Flow

4.160

- 1 Between Pointe de l'Est and Cap de la Table (49°21'N, 61°54'W) there is an almost constant flow S and SE, with an occasional weak eddy setting NE close inshore.

Principal mark

4.161

- 1 **Landmark:**
Cap de la Table Lighthouse (red and white 8-sided tower, 12 m in height) (49°21'N, 61°54'W).

Directions

(continued from 6.135)

4.162

- 1 From a position E of Pointe de l'Est (East Point) (49°08'N, 61°40'W), the coastal passage leads NW passing (with positions from Pointe de l'Est):

NE of Cap Sandtop (4 miles NW), a remarkable, steep headland, appearing white from seaward, with sheer cliffs S of it, thence:

NE of Reef Point (10 miles NW), which is low and flat, and a 1.8 m (6 ft) patch lying about 7 cables NNE, thence:

NE of Pointe du Renard (12 miles NW), with a flat reef extending nearly 5 cables from it, thence:

NE of Cap de la Table (49°21'N, 61°54'W) from which a light (4.161) is exhibited.

4.163

- 1 The track then leads WNW, passing (with positions from Cap de la Table Light):

NNE of Cap James (3 miles WNW), thence:

NNE of Pointe Harvey (Harvey Point) (15 miles WNW), thence:

NNE of Cap Robert (greyish-white cliffs, about 120 m (400 ft) high) (18½ miles WNW), thence:

NNE of Cap de l'Ours (49°33'N, 62°27'W), greyish-white cliffs, 129 m (425 ft) high, which resemble a bear's head.

4.164

- 1 The track then continues WNW, passing (with positions from Cap de l'Ours):

NNE of Guy Point (4 miles WNW), thence:

NNE of Cap Observation (12 miles NW) (4.169) a bold headland, somewhat resembling Cap de l'Ours (4.163), but with cliffs on the W side which suddenly dip at the point and regain their former height for a short distance on the E side.

The track then leads to a position NNE of Pointe Carleton (22 miles NW), from which a light (white 8-sided tower, red top, 12 m in height) (49°44'N, 62°57'W) is exhibited.

(Directions continue at 4.178)

Anchorage

Canadian Chart 4430 plan of Pointe de l'Est (see 1.32)

Baie aux Goélands**4.165**

- 1 Baie aux Goélands (Gull Cliff Bay) (49°10'N, 61°42'W), a slight indentation between Pointe de l'Est and Cap aux Goélands, a remarkable perpendicular bluff, 35 m (116 ft) high, 2¾ miles NW, affords anchorage in depths of 13 to 22 m (42 ft to 12 fm), sand and rock.

Chart 4767

Baie Prinista**4.166**

- 1 Baie Prinista (Prinista Bay) (49°21'N, 61°57'W) affords excellent anchorage near the head of the bay, sheltered from most winds other than N, in depths of 9 to 16 m (30 to 53 ft), clay or mud. Local knowledge is required.

Canadian Chart 4430 plan of Baie Natiscotec (see 1.32)

Baie Natiscotec, Baie de la Tour and Baie de l'Ours**4.167**

- 1 **General information.** Baie Natiscotec (Natiskotek Bay) (49°30'N, 62°24'W), the S-most of three bays lying between Cap Robert (49°29'N, 62°20'W) and Cap de l'Ours, 6 miles NW, affords the best anchorage on the N coast of Île d'Anticosti. It is separated from Baie de la

Tour, immediately NW, by Pointe de la Tour (49°30'5N, 62°25'0W). Baie de l'Ours lies farther NW, separated by Pointe Easton (Easton Point) (49°31'5N, 62°26'5W). The three bays together comprise a roomy roadstead, with excellent holding ground, moderate depth of water, and shelter from S and W winds.

Topography. There are sand and shingle beaches in the bays, and the cliffs, which are perpendicular or overhanging, are of greyish-white limestone, resembling masonry towers.

Rivière Natiscotec enters Baie Natiscotec at a point close S of Pointe de la Tour.

4.168

- 1 **Anchorage.** The best anchorage is found in Baie Natiscotec about 1 mile ESE of Pointe de la Tour, in a depth of 24 m (13 fm), brown mud.

Chart 4767

Cap Observation**4.169**

- 1 **Anchorage** can be found under the lee of Cap Observation (49°40'N, 62°42'W) in W winds and fine weather.

Canadian Chart 4430 plan of Pointe Carleton (see 1.32)

Baie au Caplan**4.170**

- 1 **General information.** Baie au Caplan (49°43'N, 62°55'W), with Rivière à la Patate (Potato River) flowing into its head is situated about 1¾ miles SSE of Pointe Carleton Lighthouse (4.164).

A fishing lodge stands on the N side of the river entrance, and a stranded wreck lies 9 cables NNW.

- 2 **Anchorage** sheltered from W winds, can be found about 6 cables N of the entrance to Rivière à la Patate, in a depth of about 7.3 m (24 ft), sand, as indicated on the chart.

Small craft

Chart 4767

Baie du Renard**4.171**

- 1 **General information.** Baie du Renard (Fox Bay) (49°17'N, 61°50'W) lies between Reef Point (4.162) and Pointe du Renard (Fox Point). A few houses stand on the S shore of the bay, and a lobster cannery stands on the W shore. A stream enters the bay through a sandy beach at its head. Local knowledge is required.

Directions. Baie du Renard is entered from E, passing N of the shoals extending about 7 cables NNE from Reef Point.

Anchorage, sheltered from W, is available in the middle of the bay, in depths from 4 to 5 m (13 to 16 ft), mud.

Some protection from E is given by the shoals lying off the bay.

Boat landing south of Cap de la Table**4.172**

- 1 At a position about 1¼ miles S of Cap de la Table (49°21'N, 61°54'W), a break in the reef affords sheltered landing for boats in moderate weather.

Anse Harvey**4.173**

- 1 Anse Harvey (Broom Bay) (49°26'N, 62°14'W) lies at the mouth of Salmon River. The alignment (205°) of leading marks (masts), situated close E of the river mouth, leads into the bay.

POINTE CARLETON TO POINTE DE L'OUEST

General information

Charts 4762, 4767, 4774

Route 4.174

- 1 The coastal route from Pointe Carleton (49°44'N, 62°57'W) to Pointe de l'Ouest, (6.128) 62 miles WNW, the W extremity of Île d'Anticosti, is restricted by the out-bound lane of the traffic separation scheme (4.2), which closes to within 3 miles of the coast as it rounds the NW side of the island. There are no charted dangers outside 1 mile from the coast.
 - 2 From the vicinity of Pointe Nord (Cap de Rabast) (49°57'N, 64°09'W) the route leads between the coast and the E-bound lane of the traffic separation scheme. Mariners navigating W may join the W-bound lane, which passes about 8 miles N of the coast; see 1.75.
- Details of the traffic separation scheme are shown on the chart.

Topography 4.175

- 1 Low cliffs extend from Pointe Carleton to Falaise de Puyjalon (49°47'N, 63°12'W), thence the coast to Pointe de l'Ouest is low and lined with reefs of flat limestone extending 1 mile offshore, increasing to 2 miles in the vicinity of Anse Girard (49°51'N, 63°38'W) and Rivière à l'Huile, 2 miles W.
- The land rises to a central ridge a few miles inland, reaching an elevation of 145 m (476 ft) at Makasti Hill (49°56'N, 64°17'W).

Tidal streams 4.176

- 1 In the channel between Pointe Nord (Cap de Rabast) (49°57'N, 64°09'W) and Île Nue de Mingan, 15 miles N, the in-going tidal stream sets W, and the out-going stream sets E, but the direction is liable to considerable variation. The W-going stream is slightly the stronger but rates, measured at neaps, have not exceeded 1½ kn.

Principal marks 4.177

- 1 **Landmarks:**
 - Pointe Nord (Cap de Rabast) Lighthouse (white 8-sided tower, red top, 22 m in height) (49°57'N, 64°09'W).
 - Radio tower (red lights) (49°51'5N, 64°26'7W), 144 m (472 ft) in elevation. (Not shown on chart 4774).

Major light:

Pointe Nord Light — as above.

Directions (continued from 4.164)

Pointe Carleton to Pointe Nord 4.178

- 1 From a position NNE of Pointe Carleton (49°44'N, 62°57'W), from which a light (4.164) is exhibited the coastal passage leads WNW, passing (with positions from Falaise de Puyjalon (49°47'N, 63°12'W)):
 - NNE of Falaise de Puyjalon a prominent isolated cliff, 140 m (462 ft) high, which appears as a white patch on the land, and can be seen from a distance of 20 miles in clear weather, thence:
 - NNE of Pointe au Naufrage (7 miles WNW) and clear of the reefs which extend about 5 cables offshore, thence:
- 2 NNE of Rivière à l'Huile (19 miles WNW), not charted, with reefs extending 1½ miles offshore, and depths of less than 7.3 m (24 ft) extending 2 miles offshore in the vicinity, thence:
 - NNE of Pointe aux Kakawis (24 miles WNW), which is fronted by a sloping heap of rock fragments.

The track then leads to a position N of Pointe Nord (49°57'N, 64°09'W), which is of moderate height and wooded and from which a light (4.177) is exhibited.

Cap de Rabast to Pointe de l'Ouest 4.179

- 1 From a position about 1 mile N of Cap de Rabast, the track inshore of the E-bound lane of the traffic separation scheme leads generally WSW, passing N of reefs and shoals, with depths of less than 11 m (36 ft), extending up to 1 mile offshore in places, to a position NW of Cap aux Anglais (49°54'N, 64°30'W).
- The track then leads SSW to a position W of Pointe de l'Ouest from which a light (framework tower, 18 m in height) (49°52'N, 64°31'W) is exhibited, and which is low and wooded, with reefs extending 5 cables offshore.
- 2 It is advisable to keep in depths greater than 46 m (25 fm) between Cap de Rabast and Cap aux Anglais.
- Caution.** South-bound traffic may be encountered leaving the traffic separation scheme NW of Cap aux Anglais.

(Directions for the coastal route off the S coast of Île d'Anticosti are given at 6.135)

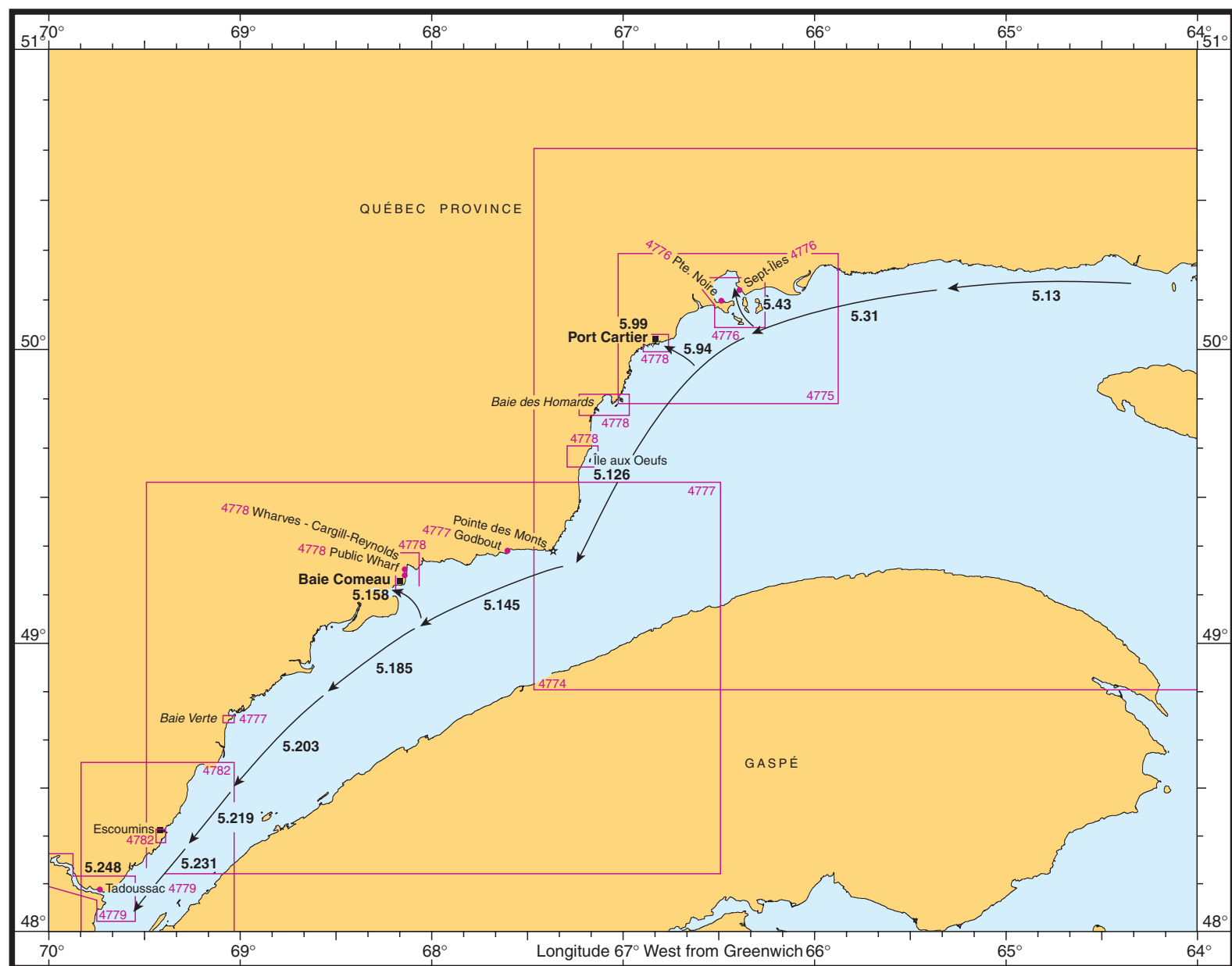
Other names

4.180

- 1 Baie Sainte-Claire (49°54'N, 64°30'W).
Pointe des Hautes Falaises (Highcliff Point) (49°53'N, 63°50'W).



Chapter 5 - St Lawrence River, north shore - Rivière Saint-Jean to Rivière Saguenay



October 2003

CHAPTER 5

ST LAWRENCE RIVER, NORTH SHORE — RIVIÈRE SAINT-JEAN TO RIVIÈRE SAGUENAY

GENERAL INFORMATION

Charts 4774, 4777, 4782

Scope of the chapter**5.1**

- 1 This chapter describes the waters along the N shore of St Lawrence River including:

Coastal passage between Rivière Saint-Jean (50°17'N, 64°20'W), and the entrance to Rivière Saguenay (48°07'N, 69°35'W).

Rivière Saguenay from its entrance to the limit of navigation for ocean-going vessels at Chicoutimi (48°26'N, 71°04'W).

- 2 The chapter is divided into five sections:

Rivière Saint-Jean to Sept-Îles (5.8).

Sept-Îles to Pointe des Monts (5.91).

Pointe des Monts to Pointe à Michel (5.144).

Pointe à Michel to Pointe aux Vaches (5.199).

Rivière Saguenay and approaches (5.248).

Topography**5.2**

- 1 The W limit of the Gulf of St Lawrence is taken to be a line joining the mouth of Rivière Saint-Jean and Pointe de l'Ouest, the W extremity of Île d'Anticosti, 26 miles SSW. The St Lawrence River estuary continues W from this line.

Exercise area**5.3**

- 1 The Gulf of St Lawrence is a submarine exercise area. The W limit in St Lawrence River is 68°00'W. Details are

given in the *Canadian Annual Edition of Notices to Mariners*.

Through route**5.4**

- 1 The traffic separation scheme on the N side of the estuary provides the through-route from NW of Île d'Anticosti to the approaches to Baie des Sept-Îles, about 75 miles W, thence SW into St Lawrence River, as indicated on the charts. The scheme terminates off Escoumins (48°21'N, 69°23'W).

Directions for the through-route are given in Chapter 2. An inshore traffic zone has been established between Baie des Sept-Îles and Escoumins.

Vessel Traffic Services**5.5**

- 1 Incoming vessels enter the St Lawrence River Vessel Traffic Services Zone (1.27) on crossing longitude 66°00'W. For operating details and the positions of reporting points see the chart and *Admiralty List of Radio Signals Volume 6* (5).

Pilotage**5.6**

- 1 Pilotage is compulsory above Escoumins.

Rescue**5.7**

- 1 A Canadian Coast Guard search and rescue cutter operates in the area from about 15th May to 15th November. See 1.105 for further information.

RIVIÈRE SAINT-JEAN TO SEPT-ÎLES

GENERAL INFORMATION

Chart 4774

Area covered**5.8**

- 1 This section describes the waters between Rivière Saint-Jean (50°17'N, 64°20'W) and La Grosse Boule, 75 miles W, in the approaches to Sept-Îles. The section is arranged as follows:

Rivière Saint-Jean to Pointe Manitou (5.13).

Pointe Manitou to La Grosse Boule (5.31).

Sept-Îles (5.43).

Topography**5.9**

- 1 The appearance of the land from Rivière Saint-Jean to Baie des Sept-Îles is slightly undulating, bold, unbroken, and so uniform that it is very difficult to distinguish one part from another when at a distance of 6 miles or more. On nearer approach, the features of the coast can generally be seen.

5.10

- 1 The coast between Baie de Magpie (50°18'N, 64°27'W) and Pointe de Moisie, about 63 miles W, is rocky. It rises

from the sea in steep, though often rounded hills, either bare or partly wooded with small trees. The hills near the shore are from 61 to 91 m high, but about 2½ miles inland a range rises to an elevation of from 152 to 213 m.

The coast is not so bold as it appears from a distance, there being many rocks off it, both above and below water, several of which lie nearly 1 mile offshore.

Depths**5.11**

- 1 The coastal areas along the N shore of St Lawrence River, W of Baie des Sept-Îles, are not accurately surveyed and uncharted shoals or rocks may exist. See warning on the chart.

Unless bound for a place on the coast, it is not advisable to approach the land inside depths of 73 m between Baie de Magpie and Pointe Saint-Charles, 53 miles W.

Local magnetic anomaly**5.12**

- 1 Local deflection of the magnetic compass occurs in the vicinity of this coast. The effect decreases to seaward, and is not noticeable more than 5 miles offshore.

RIVIÈRE SAINT-JEAN TO POINTE MANITOU

General information

Chart 4774

Route

5.13

- 1 The coastal route from S of Rivière Saint-Jean (50°17'N, 64°20'W) to S of Pointe Manitou, 34 miles W, is bounded on the S side by the in-bound lane of the traffic separation scheme (5.4), which passes between 9 and 13 miles offshore.

Topography

5.14

- 1 The coast between the entrance to Rivière Saint-Jean and the entrance to Rivière Magpie, about 5 miles WNW, consists of white cliffs.
Mont Saint-Jean, 10 miles N of the entrance to Rivière Saint-Jean, has three distinct summits and an elevation of 438 m, which is the highest land in the area.
The coast W of Baie de Magpie is described at 5.10.

Principal marks

5.15

- 1 **Landmarks:**
Microwave tower (elevation 134 m, red lights) (50°17'N, 64°37'W).
Radio tower (elevation 75 m, red lights) (50°17'N, 64°41'W).
Church (white with red spire) (50°16'N, 64°47'W) in the village of Rivière-au-Tonnerre (5.24).
Îles aux Perroquets Lighthouse (50°13'·2N, 64°12'·5W) (4.125).

Directions

(continued from 4.128 and 4.144)

5.16

- 1 From a position S of the entrance to Rivière Saint-Jean (50°17'N, 64°20'W) (5.18) the coastal passage leads W, passing (with positions from Rivière-au-Tonnerre church spire):
Either side of Banc Rouge (10 miles ESE), a rocky shoal, thence:
S of Pointe au Tonnerre (1¼ miles E) on which stands a radio tower, thence:
S of Rivière-au-Tonnerre church spire, and:
2 S of Rivière-au-Tonnerre Light (orange rectangle, black stripe, on two sides of a framework tower, 6 m in height) (close W), thence:
S of a pile (3 miles WSW) standing 5 cables off the coast, thence:
S of Sheldrake River Light (orange rectangle on square framework tower, 5 m in height) (5 miles W).
3 The track then leads W to a position S of Pointe Manitou (17½ miles W), the E entrance point to Rivière Manitou (5.38).

5.17

Useful mark:

- 1 Radio tower (elevation 160 m) (50°17'N, 65°03'W).
(Directions continue at 5.34)

Anchorage and harbours

Rivière Saint-Jean

5.18

- 1 Rivière Saint-Jean (50°17'N, 64°20'W) affords good anchorage seaward of the bar, on a bottom of sand and clay. Depths decrease steadily on the approach to the bar and a shoal with a depth of 2·7 m over it, extends about 1¼ miles SSE from the river entrance.

Baie de Magpie

5.19

- 1 **General information.** Baie de Magpie (50°18'N, 64°27'W), has white cliffs along its shores, and the entrance to Rivière Magpie at its head. Rivière Magpie is swift and turbulent; it is not navigable, even by boat. Local knowledge is required.

A rocky shoal, which dries 1·5 m and over which the sea nearly always breaks at LW, lies about 3 cables offshore, E of the spire.

Magpie village, identified by a church spire (50°18'N, 64°30'W), is situated on the W side of the bay.

5.20

- 1 **Directions.** A patch with a depth of 11·3 m over it lies in the approach to the bay, about 4 miles SE of the spire.
Anchorage. Good anchorage may be obtained in Baie de Magpie, in depths of more than 13 m, but S winds cause heavy seas.
Communications. Coasters run to Québec and other ports in the Gulf and River St Lawrence during the navigation season.

Small craft

Rivière Saint-Jean

5.21

- 1 **General information.** Rivière Saint-Jean (50°17'N, 64°20'W) enters the sea between a sandy point on the E side, and clay cliffs on the W side.
Boats can ascend the river for 6 miles in depths of 1·8 to 5·5 m, and coasters call at the settlement of Rivière Saint-Jean, population 456 in 1986, near the river entrance.
2 An extensive sand-bar, with depths seldom greater than 0·9 m, lying about 5 cables outside the entrance, shifts with every gale. Winds from S or W cause a heavy surf, making entry impossible at the time.
The river is spanned by a bridge and two overhead cables 1½ miles upstream from the entrance. The overhead cables have a vertical clearance of 7·7 m and 10·0 m.

5.22

- 1 **Directions.** Care should be taken to avoid the shoal water that extends offshore between Rivière Saint-Jean and Longue Pointe, 7 miles E, and the shoal that lies about 1½ miles SSE of the river mouth with a depth of 2·7 m over it.

5.23

- 1 **Communications.** Coasters run to Québec and other ports in the Gulf and River St Lawrence in the navigation season.

Rivière-au-Tonnerre

5.24

- 1 **General information.** Rivière-au-Tonnerre (50°16'N, 64°47'W) is a small fishing village and harbour, situated at the mouth of the river of that name. In 1986 it had a population of 606. The local industries are fish processing and lumber.
2 The harbour consists of a natural, circular basin, about 1 cable in diameter. The entrance is about 50 m wide, with

a depth of 1.3 m in places in the channel, and bordered by rocks. Drying rocks and shoals obstruct the harbour. South winds raise a sea making the approach difficult. Silting has been reported in the harbour which can be carried offshore during the spring run-off and results in varying depths throughout the year. Depths may be less than charted.

5.25

- 1 **Directions.** Rivière-au-Tonnerre Leading Lights:
Front light (orange trapezium, black stripe, on square framework tower, 8 m in height) (50°16'6 N, 64°46'8 W).
Rear light (similar construction, inverted, and tower, 9 m in height) (119 m from front light).
The lights are seasonal and visible on the leading line only.

- 2 The alignment (359¾°) of these lights leads into the harbour, passing:
Close to Rivière-au-Tonnerre Light-buoy (safe water; bell) (marked RAT) moored about 7 cables S of the front leading light, thence:
Close W of a rock which dries 0.6 m, lying about 3 cables offshore.

5.26

- 1 **Berths.** A public wharf situated on the W side of the harbour is formed in two sections. The N section, which is in ruins, has a fish plant and is 56 m long; the S section is 57 m long. Depths alongside both sections vary between 1.4 m and 4 m. Electrical supplies are available.
Another wharf, situated outside the harbour, 6 cables E of Rivière-au-Tonnerre, is in ruins and was closed to traffic in 1979.

Supplies. Fresh water and provisions.

Rivière Sheldrake

5.27

- 1 **General information.** Rivière Sheldrake (Sheldrake River) (50°16'N, 64°55'W) can only be entered in very good weather, due to heavy surf, and is navigable by small craft. There is scarcely any bar.

There are clay cliffs immediately within the entrance, and the peculiar hills on each side of it are barren and thickly studded with small round mounds.

Sheldrake, a fishing village, is situated on the coast, a short distance E of the river mouth.

Local knowledge is required.

5.28

- 1 **Directions.** The entrance is approached from S, passing (with positions from Sheldrake River Light (5.16)):
W of a rock (awash) (1 cable SW), thence:
E of a rock (awash) (1¼ miles W).

The river is entered through a narrow channel with a depth of 0.9 m, close W of a long, narrow spit of sand, which extends across its mouth. A fixed bridge spans the river close inside the entrance.

The channel continues only for a short distance inside the entrance.

Rivière à la Chaloupe

5.29

- 1 Rivière à la Chaloupe (Shallop River) (50°17'N, 65°07'W) affords shelter for boats, but it can only be entered when there is no surf. Local knowledge is required.

Other name

5.30

- 1 Dock village (50°16'N, 64°41'W).
Pointe Ridge (50°16'N, 64°39'W).

POINTE MANITOU TO LA GROSSE BOULE

General information

Charts 4774, 4775

Route

5.31

- 1 The coastal route from S of Pointe Manitou (50°17'N 65°14'W) to a position about 1½ miles S of La Grosse Boule, 42 miles W, in the approaches to Baie des Sept-Îles, is bounded on the S side by the in-bound lane of the traffic separation scheme (5.4), which closes the coast to within 5 miles at the W end of the waterway.

Topography

5.32

- 1 The nature of the coast and the land behind it are described at 5.10; the following features may be observed:
Buchan River Falls (50°18'N, 65°20'W), not charted, a conspicuous cascade over the coast about 7 cables NW of Pointe à la Boucane (50°18'N, 65°19'W).
Waterfall, conspicuous, where Rivière Tortue, not charted, enters the sea about 2¼ miles W of Pointe à la Boucane.
Three conspicuous red cliffs (50°18'N, 65°26'W).
- 2 **Offshore islands.** Cormorant Islets (50°16'N, 65°35'W), are joined to the coast at LW and are not easy to distinguish from seaward.

Principal marks

5.33

- 1 **Landmarks:**

Microwave tower (red lights, height 100 m) (50°12'4N, 66°19'7W).

Île du Corossol Light (framework tower, 18 m in height) (50°05'3N, 66°22'7W).

Directions

(continued from 5.17)

5.34

- 1 From a position S of Pointe Manitou the coastal passage leads WSW, passing (with positions from Pointe Saint-Charles (50°15'N, 65°49'W)):
SSE of Récif de la Pointe à la Boucane (Buchan Point Reef) (20 miles ENE), thence:
SSE of Cap du Cormoran (11 miles E), a high, prominent bluff, thence:
SSE of the Cormorant Islets (9 miles E), with a patch lying about 1 mile SW, with a depth of 2.7m over it and another patch lying about 1½ miles S of the coast, with a depth of 9.1 m over it, thence:
- 2 SSE of Récifs Saint-Charles which extend nearly 1 mile S from Pointe Saint-Charles, and are steep-to on their seaward side, thence:
SSE of Pointe de Moisie (10½ miles WSW), which is low, sandy and marked by a white dome, thence:
SSE of Rochers de Moisie, two rocks on which the sea usually breaks, 2¾ miles SW of Pointe de Moisie.

The track then leads WSW to a position 50°06'N, 66°18'W in the precautionary area about 1½ miles S of the S point of La Grosse Boule.

5.35

Useful marks:

- 1 Four radio towers standing within 1¼ miles W of Pointe de Moisie (50°12'N, 66°05'W).

Radio tower (red lights) (50°12'N, 66°09'W) and a radio tower 5 cables ESE.

(Directions continue for coastal passage at 5.97 and for the main approach to Sept-Îles via Chenal de Milieu at 5.67)

(Directions for the through route to Pointe des Monts are given at 2.25)

Anchorage

Rivière Manitou

5.36

- 1 Good anchorage in depths of 17 to 27 m, mud, can be found in fine weather about 1½ miles SW of the entrance to Rivière Manitou (50°18'N, 65°15'W).

Depths decrease steadily towards the land, and small vessels may anchor farther inshore, W of a sandspit, in sand and mud. For directions see 5.39.

Baie de Moisie

5.37

- 1 **General information.** Baie de Moisie (50°16'N, 65°56'W) is bordered by rocks along the E and N shores, and has a beach of fine sand along the W shore.

Depths in the bay shoal gradually towards the shore, except for a rocky patch, with a depth of 8 m over it, lying about 7 cables SSW of Le Cormoran (50°16'N, 65°52'W).

Anchorage can be found in depths of 14 to 17 m about 8 cables from the head of the bay.

Small craft. Le Cormoran is an inlet which affords shelter to boats. Local knowledge is required.

Small craft

Rivière Manitou

5.38

- 1 **General information.** Rivière Manitou (50°18'N, 65°15'W) is a large stream, navigable by boats as far as the first rapids, about 1 mile upstream. Local knowledge is essential.

The entrance channel is, generally, about 50 m wide, with depths of 1-5 m in the fairway, but both width and depth vary with the seasons and the winds.

- 2 Strong S and W winds cause a heavy surf, making entry impossible.

A sandspit extends SE from the NW entrance point, with a small settlement nearby.

The river mouth can be identified by two prominent clay patches, visible many miles to seaward, both sides of the entrance.

5.39

- 1 **Directions.** The entrance is approached from S, passing E of Récif de la Pointe à la Boucane, about 1¼ miles WSW of the entrance. Thence the river is entered by passing close along the shore at the SE entrance point, which is rocky.

Rivière au Bouleau

5.40

- 1 **General information.** Rivière au Bouleau (50°17'N, 65°31'W) is narrow and shallow at its mouth, where the depths vary according to the weather. A spit of large stones extends about 1½ cables S from the E entrance point and a rock, which dries 0.9 m, lies about 5 cables S of the entrance.

The entrance is generally accessible to small craft, and the river is navigable as far as the first rapids, about 3 cables upstream. Local knowledge is required.

Rivière Moisie

5.41

- 1 **General information.** Rivière Moisie (50°12'N, 66°04'W) is accessible to small craft only. The entrance is obstructed by a sand-bar, which extends about 5 cables seaward.

The terrain in the vicinity of the river, including Pointe de Moisie, its S entrance point, is low and sandy.

Depths in the entrance channel vary with the seasons; winds from S and E tend to block it up, and gales from these quarters cause breaking seas at the river mouth, where heavy tide-rips occur.

- 2 The river deepens and narrows about 2½ miles upstream, but rapids soon prohibit navigation. Local knowledge is required.

The village of Moisie, population 1118 in 1986, is situated on the W side of the river, 1 mile within its entrance.

- 3 **Vertical clearance.** A bridge (vertical clearance 4.9 m) and power cables (close N) (vertical clearance 4.1 m) span the river about 2½ miles upstream of the river entrance.

Berth. A public wharf is situated 2 cables W of Pointe de Moisie. It is 38 m long, with a reported depth of 1.5 m alongside its outer face.

Other names

5.42

- 1 Blaskowit, Banc (50°10'N, 65°40'W).
Boucane, Banc à la (Bouchan Bank) (50°08'N, 65°22'W).
Moisie, Banc de (50°10'N, 65°53'W).
Perche, Pointe à la (50°15'N, 65°41'W).
Pigou, Banc de (50°09'N, 65°30'W).

SEPT-ÎLES

General information

Charts 4775, 4776

Position

5.43

- 1 The port of Sept-Îles (50°12'N, 66°23'W), is situated on the NE side of Baie des Sept-Îles. Other port installations are at Pointe Noire and Anse à Brochu, on the SW side of the bay.

Function

5.44

- 1 Sept-Îles has been developed as a major deep water loading port for iron ore and is open throughout the year. In 1986 it had a population of 25 637.
Sept-Îles is a port of entry for Canada.

Topography

5.45

- 1 The off-lying islands, which lie within 5 miles of the entrance to the bay, are high, steep and rocky. They are thinly wooded and quite unlike any other islands in the Gulf of St Lawrence.

The shores of Baie de la Boule, between Pointe de Moisie (50°12'N, 66°04'W) (5.41) and Pointe aux Basques, 11 miles W, have broad sandy beaches along their whole length.

The mainland peninsula on the S side of Baie des Sept-Îles is higher than any of the islands, and appears as an island from seaward.

Port limits**5.46**

- 1 The port comprises all the waters of Baie des Sept-Îles and extends seaward to embrace the off-lying islands. The limits are indicated on the chart.

Approach and entry**5.47**

- 1 Baie des Sept-Îles (50°12'N, 66°27'W) is approached through deep water channels between the mainland and the off-lying islands which give the bay its name; these channels are:

Chenal de l'Est (East Channel) (50°11'N, 66°22'W) (5.76).

Chenal du Milieu (50°07'N, 66°22'W) (5.67), the main approach.

Chenal de l'Ouest (West Channel) (50°07'N, 66°27'W) (5.79).

Traffic separation schemes, details of which can best be seen from the charts, terminate at the entrance to Chenal du Milieu.

Traffic**5.48**

- 1 In 2000, 220 ship movements were recorded, totalling 18 945 219 dwt.

Port Authority**5.49**

- 1 Port of Sept-Îles Authority:
Postal address: 1 Quai Mgr-Blanche, Sept-Îles,
Quebec, G4R 5P3.
E-mail address: portsi@portsi.com

Limiting conditions**Depths****5.50**

- 1 Depths less than currently charted are reported to exist in the vicinities of Pointe Noire, Île Grande Basque and Île Petite Basque. Mariners are advised to navigate with caution in this area.

Deepest and longest berth**5.51**

- 1 The deepest berth is at Sept-Îles Wharf No 2. See 5.80 for details.

Tidal levels**5.52**

- 1 Mean spring range about 2.4 m; mean neap range about 1.2 m. For further information see *Admiralty Tide Tables Volume 2*.

Density of water**5.53**

- 1 The density of water in the harbour is 1.025 g/cm³.

Maximum size of vessel handled**5.54**

- 1 The bulk ore carrier *World Gala*, 282 642 dwt, draught 21.7 m, has used the port.

Arrival information**Port operations****5.55**

- 1 The use of Quai des Pétroliers (5.80) is restricted to vessels of 60 000 dwt or less and vessels alongside are to leave the berth when the wind speed is 32 kn or more.

Port radio**5.56**

- 1 There is a port radio station at Sept-Îles operated by Iron Ore Company of Canada; see *Admiralty List of Radio Signals, Volume 6 (5)*.

Notice of ETA**5.57**

- 1 Notice of ETA for Sept-Îles should be signalled to the Atlantic Pilot Authority 96, 72, 48, and 24 hours before arrival. See *Admiralty List of Radio Signals, Volume 6 (5)*.

Outer anchorages**5.58**

- 1 Anchorage has been established in Baie des Sept-Îles in the vicinity of 50°12'N, 66°28'W, in depths of 13 to 32 m, mud, as shown on the charts. The swell in the anchorage with strong S winds is considerable but not generally dangerous.

Pilots**5.59**

- 1 The pilot embarks at the N end of Chenal du Milieu in the vicinity of 50°10'N, 66°24'W, as shown on the charts.
Pilotage and tugs are compulsory for all foreign vessels. A docking master and tugs are compulsory for docking at the ore wharves; the docking master boards inside the port limits.

Tugs**5.60**

- 1 Two tugs are available, with a third from Port-Cartier if required for very large vessels. Tug lines are normally used. A tug is compulsory for any vessel registered in Canada with 25 000 dwt or more.
Bassin des Remorqueurs, a tug harbour, is situated within breakwaters on the extremity of Pointe aux Basques, the N entrance point to Baie des Sept-Îles.

Quarantine**5.61**

- 1 Sept-Îles is not a quarantine station; derat exemption certificates can be issued. See 5.83.

Customs and Excise**5.62**

- 1 For customs purposes, Sept-Îles is a port of entry.

Harbour**General layout****5.63**

- 1 Baie des Sept-Îles is an almost landlocked harbour entered between Pointe à la Marmite (50°10'N, 66°26'W) and Pointe aux Basques 2¾ miles NE, with a deep water anchorage area about 3 miles wide, and mud-banks around its shores.

The port installations are situated at Sept-Îles (50°12'N, 66°23'W), on the NE side of the bay, and at Pointe Noire and Anse à Brochu on the SW side.

A bird sanctuary exists on Île du Corossol.

Marine farms**5.64**

- 1 Marine farms are established in positions shown on the charts, marked by buoys (special):
In Baie des Sept-Îles in the vicinity of 50°13'N, 66°29'W.
In a bight (50°09'N, 66°18'W) on the NW coast of La Grosse Boule. See 1.20.

Natural conditions**5.65**

- 1 **Tidal streams** in Baie des Sept-Îles seldom reach a rate of 1 kn, and set as follows:

In-going stream. The greater part of the in-going stream enters the bay through Chenal de l'Est.

Out-going stream. The out-going tidal stream sets fairly out of the bay, part of it passing through Chenal de l'Est, and part of it through Chenal du Milieu.

- 2 Tidal streams in the main channels between the islands seldom reach a rate of 1 kn. In the narrower channels, including Chenal de l'Est and Chenal de l'Ouest, a rate of 2 kn is reached at springs, or even more when influenced by strong winds:

In-going tidal stream sets generally W through and around the islands, and enters Baie des Sept-Îles mainly through Chenal de l'Est, very little stream being felt in Chenal du Milieu; the in-going stream sets SW through Chenal de l'Ouest.

- 3 Out-going tidal stream sets E through Chenal de l'Est, and S, then SE, through Chenal du Milieu; the out-going stream sets NE through Chenal de l'Ouest, and turns E on meeting the out-going stream in Chenal du Milieu.

Wind. At night, in good weather, the wind is almost always light and variable among the islands, particularly if the wind in the offing is from the W.

Climatic table. See 1.179.

Principal mark**5.66**

- 1 **Landmark:**

Microwave tower (red lights) (50°12'4N, 66°19'7W) (5.33).

Directions for approach to Sept-Îles

(continued from 5.35)

Chenal du Milieu**5.67**

- 1 From a position in the precautionary area about 1½ miles S of Île Grosse Boule (Great Boule Island) (50°08'N, 66°18'W), the track through Chenal du Milieu leads NW and N for 6 miles, passing (with positions from Île du Corossol Light):

NE of Île du Corossol, thence:

NE of Île Manowin (close N), and:

SW of Île Petite Basque (2½ miles NNE), thence the track leads N, passing:

- 2 E of Pointe au Corbeau (4 miles NW), from which a light (orange rectangle on framework tower, 6 m in height) (50°09'1N, 66°25'5W) is exhibited, and: W of La Grosse Pointe (4 miles N), from which a light (square framework tower, 6 m in height) (50°09'2N, 66°22'6W) is exhibited, thence:

E of Pointe à la Marmite (4¾ miles NW), from which submarine cables and a pipeline extend out to 2 cables.

- 3 The track then leads to the pilot boarding position (50°10'N, 66°24'W) as shown on the chart.

There are no dangers in the fairway, but the land on each side should be passed at a distance of more than 2 cables.

5.68

- 1 **Useful marks:**

Îlets Dequen Light (square framework tower, 6 m in height) (50°07'3N, 66°26'0W).

Pointe à la Chasse Light (square framework tower, 6 m in height) (50°07'6N, 66°27'1W).

Berthing at Sept-Îles**5.69**

- 1 **Iron Ore Company Leading Lights:**

Front light (white diamond, red bands on mast) (50°11'7N, 66°22'6W) on Wharf No 1.

Rear light (similar construction on mast, 24 m in height) (280 m from front light).

The lights are privately maintained.

- 2 **Clearing line.** The alignment (098½°) of the leading lights passes S of shoal water, with depths decreasing from 12 m on the NE side of the bay.

5.70

- 1 **Iron Ore Company Wharf Leading Lights:**

Front light (50°11'3 N, 66°22'3 W), on a building, 10 m in height, at the NW end of the berthing face.

Rear light (white diamond, red bands) (496 m from front light), close NW of Pointe aux Basques.

The lights are privately maintained, and are visible on the leading line only.

- 2 The alignment (122¾°) of the leading lights leads towards the berth.

Chart 4776 plan of Pointe Noire**Directions for Pointe Noire****5.71**

- 1 The line of bearing 214° within the white sector (211°–217°) of Pointe Noire Direction Light (framework tower, 16 m in height) (50°09'8N, 66°29'2W), exhibited from the shore, S of the W end of the jetty, leads to the terminal.

5.72

- 1 **Pointe Noire Ore Terminal East Lights in line:**

Front light (black metal column, 2 m in height) (50°09'9N, 66°28'8W), at the E end of Pointe Noire jetty.

Rear light (mast) (213 m from front light), on the causeway to the shore, near the middle of the jetty.

The lights are privately maintained.

The alignment (247¾°) of these lights indicates the SE limit of the dredged approach to the jetty, and passes close SSE of D17 Light-buoy (port hand), moored about 3 cables NE of the front light.

5.73

- 1 **Lights in line on Pointe Noire Wharf:**

Front light (mast, 16 m in height) (50°09'9N, 66°29'0W), on the middle of the jetty.

Rear light (mast) (173 m from front light) on the shore.

The lights are visible on the leading line only, and are privately maintained.

- 2 The alignment (180°) of these lights indicates the mid-point of the jetty.

The SW limit of the dredged approach to the wharf is marked by D20 Light-buoy (starboard hand), moored 2½ cables NW of the W end of the wharf.

5.74

- 1 **Pointe Noire. Anse à Brochu Leading Lights:**

Front light (tower) (50°09'6N, 66°27'6W).

Rear light (tower) (272 m from front light).

The lights are visible on the leading line only and are privately maintained.

The alignment (192 $\frac{3}{4}$ °) leads to the ro-ro berth.

5.75

1 Useful marks:

Water-tower (50°10'N, 66°32'W).

Three radio towers (red lights) (50°12'N, 66°34'W).

Side channels

Chenal de l'Est

5.76

- 1 **Clearing line.** From the coastal passage E of Rochers de Moisie (50°10'N, 66°08'W), the alignment (261°) of the S point of Île Grosse Boule (50°08'N, 66°18'W) and the N extremity of Île Manowin (50°06'N, 66°24'W) about 5 miles WSW, passes 1 $\frac{1}{4}$ miles clear of the S edge of Rochers Moisie.

- 2 From a position S of Rochers de Moisie (50°10'N, 66°08'W), the approach to Chenal de l'Est leads about 7 miles WNW, passing (with position from Rochers de Moisie):

SW of Cayes de l'Est (East Rocks) (4 $\frac{1}{2}$ miles WNW), and:

NE of Île Petite Boule (6 $\frac{1}{2}$ miles W).

The track then leads a farther 3 $\frac{1}{2}$ miles W into Chenal de l'Est which comprises two deep water channels, one on each side of Récif du Basque, a drying reef lying in mid-channel between Pointe aux Basques (50°11'N, 66°22'W) and Île Grande Basque, 5 cables S.

5.77

- 1 The recommended track into Baie des Sept-Îles leads N of Récif du Basque, passing about 1 cable clear of the breakwaters of the tug harbour, Bassin des Remorqueurs, at Pointe aux Basques; the channel is marked by light-buoys.

If using the channel S of Récif du Basque it is necessary to pass more than 1 cable clear of the N point of Île Grande Basque, and S of the light-buoys marking the reef.

5.78

1 Useful marks:

Four radio towers standing within 1 $\frac{1}{4}$ miles W of Pointe de Moisie (50°12'N, 66°05'W).

Radio tower (red lights) (50°12'N, 66°09'W) and a radio tower 5 cables ESE.

Aero light (50°13'N, 66°16'W) occasionally exhibited from Sept-Îles airport.

Three chimneys (heights 51 m) (50°11'·7N, 66°20'·6W).

Chenal de l'Ouest

5.79

- 1 From a position 1 mile S of Pointe à la Chasse (50°08'N, 66°27'W), the track through Chenal de l'Ouest leads NE, passing:

SE of Pointe à la Chasse, from which a light (5.68) is exhibited, and:

NW of Îlets Dequen, (West Rocks) 8 cables ESE, from which a light (5.68) is exhibited, keeping more than 2 cables from the land on each side, thence:

NW of a group of rocks, which cover only at very high tides, lying close N of Îlets Dequen.

- 2 The directions for Chenal du Milieu (5.67) should then be followed N. Care is necessary during the out-going tidal stream, which sets E towards Îlets Dequen.

Berths

Alongside berths at Sept-Îles

5.80

- 1 Alongside berths, listed from N to S, are as follows (with positions from Pointe aux Basques (50°11'N, 66°22'W)):

Berth	Length (m)	Depth (m)
Quai du Parc Urbain (No 20) (1 $\frac{3}{4}$ miles NW)	pier: 86 L-shaped head: 30	2 to 4·8
Quai Monseigneur Blanche (Nos 14 & 15) (1 mile NW). Berths on N side. Large freight shed.	200	2 to 8·0
Quai des Pétroliers (No 8) (9 cables NW). Tanker berth.	98, extended by dolphins to 153	11·7
Quai Pointe aux Basques (No 7) (8 cables NW) with freight shed and bulk cement handling plant.	183	7·6
Iron Ore Company of Canada: (No 5) (7 cables NW). Unloading.	244	9·8 to 10·4
(No 4) (6 cables NW). Loading.	244	11·3
Iron Ore Company of Canada deep water berth (No 2) (3 cables NW). Detached jetty with mooring dolphins at each end.	265 extended by dolphins to 488	17·6

Alongside berths at Pointe Noire

5.81

- 1 **Pointe Noire.** Wabush Mines Terminal (Minière Wabush) (No 30) (50°10'N, 66°29'W) is a detached wharf situated 2 cables W of Pointe Noire; length of berth 488 m, least depth alongside wharf 10·8 m. The E end of the wharf is used for mooring and general cargo, the W end for iron ore loading with two travelling boom conveyors.

- 2 **Anse à Brochu.** Quai de la Relance (No 40) Ro-Ro terminal is situated about 8 cables ESE of the wharf at Pointe Noire; length of berth 260 m, least depth alongside 12·7 m within 5 m of the wharf face. Berth No 41, 1 cable E, is a railway ferry terminal, length 141 m and a least depth alongside of 9 m (2000). The approach to the terminals has been dredged to a depth of 13·3 m (2001).

- 3 **Caution.** Depths less than currently charted are reported to exist in the vicinity of Pointe Noire. Mariners are advised to proceed with caution in this area.

Port services

Repairs

5.82

- 1 Major repairs which do not require docking facilities can be effected at Sept-Îles.

Other facilities

5.83

- 1 Cranes of up to 140 tonnes capacity; garbage and limited oily waste disposal; hospital; derat exemption certificates.



Sept-Îles – Terminals at Iron Ore Company of Canada, Pointe-aux-Basques,
Quai des Pétroliers and Quai Monseigneur Blanche (5.80)

(Original dated prior 2002)

(Photograph – Sept-Îles Port Authority)



Sept-Îles – Terminals at Iron Ore Company of Canada, Pointe-aux-Basques,
Quai des Pétroliers and Quai Monseigneur Blanche (5.80)

(Original dated prior 2002)

(Photograph – Sept-Îles Port Authority)

Supplies**5.84**

- 1 Provisions; fuel oil; fresh water.

Communications**5.85**

- 1 **Sea.** Regular services operate to ports in the Gulf and River St Lawrence; ferries run to the S shore.
Air. Daily air services operate from Sept-Îles airport, 4 miles E of the city.

Small craft**La Grosse Boule****5.86**

- 1 A bight (50°09'N, 66°18'W) on the NW side of La Grosse Boule provides shelter from S and E winds; local knowledge is required. A marine farm is established in the bight; see 5.64.

Anse à la Marmite**5.87**

- 1 Anse à la Marmite (50°10'N, 66°26'W), a small cove immediately S of Point à la Marmite, provides excellent

shelter for boats. The entrance to the cove is obstructed by rocks on the N side.

Île Grande Basque**5.88**

- 1 There are four private mooring buoys off the W coast of Île Grande Basque (50°10'N, 66°22'W).

Caution. Depths less than currently charted are reported to exist in the vicinity of Île Grande Basque and Île Petite Basque. Mariners are advised to navigate with caution in this area.

Fishing boat harbour**5.89**

- 1 A basin, designated berth No 16, for fishing boats is situated 1¼ miles NW of Pointe aux Basques (50°11'N, 66°22'W), close NW of Quai Monseigneur Blanche. The total berthing length, including wharves and pontoons, is 440 m, with a minimum depth of 4.3 m.

Yacht marina**5.90**

- 1 A basin, designated berth No 17, for pleasure craft is situated close NW of Quai Monseigneur Blanche. The basin had depths of 2.7 m in 1984.

SEPT-ÎLES TO POINTE DES MONTS**GENERAL INFORMATION**

Chart 4774

Area covered**5.91**

- 1 This section describes the coastal waters on the NW side of the estuary of St Lawrence River from La Grosse Boule (50°08'N, 66°18'W) to Pointe des Monts, about 65 miles SW. The section is arranged as follows:
 La Grosse Boule to Havre de Port-Cartier (5.94).
 Havre de Port-Cartier (5.99).
 Havre de Port-Cartier to Pointe des Monts (5.126).

Topography**5.92**

- 1 The coast between Pointe à la Chasse (50°08'N, 66°27'W) and Pointe des Monts, 60 miles SW, is of moderate height, the land near the sea consisting of small, low, partially wooded hills.
 Sandy beaches occur occasionally, and the sandy tracts within them are always the most densely wooded parts.
 2 The highest hills are, generally, far inland, except between Rivière Pentecôte (49°47'N, 67°10'W) and Pointe des Monts, where there is a maximum elevation of 510 m within about 6 miles of the coast.
 There are no dangers for ships of moderate draught outside a distance of 1¼ miles from this coast, which is much bolder than its appearance suggests.

Depths**5.93**

- 1 Although there are considerable depths off every point, soundings generally give warning of approach to the land.

**LA GROSSE BOULE TO
HAVRE DE PORT-CARTIER****General information**

Chart 4775

Route**5.94**

- 1 The coastal route from a position 50°06'N, 66°18'W, 1½ miles S of La Grosse Boule, leads 19 miles WSW to Havre de Port-Cartier. South-west of Île du Corossol the coastal waterway lies in the inshore traffic zone, as shown on the chart.

Topography**5.95**

- 1 The islands in the approaches to Baie des Sept-Îles, and the mainland peninsula on the S side of the bay between Pointe à la Chasse (50°08'N, 66°27'W) and Anse de la Grande Coulée, 2 miles WNW, are described at 5.45.
 The mainland shore between Pointe à la Chasse and Pointe aux Jambons, (previously known as Pointe Sainte-Marguerite) (Marguerite Point) 12 miles WSW, is low and sandy.

Principal marks**5.96**

- 1 **Landmarks:**
 Microwave tower (red lights) (50°13'·3N, 66°42'·1W), position approximate, 342 m in elevation.
 Microwave towers (red lights) (50°10'·3N, 66°44'·3W), position approximate, 329 m in elevation.
 Hill (elevation 99 m) (50°03'N, 66°45'W), about 8 cables N of Pointe aux Jambons.

Directions

(continued from 5.35)

5.97

- 1 From a position 50°06'N, 66°18'W, 1½ miles S of Île Grosse Boule, the coastal passage leads WSW, passing (with positions from Île du Corossol Light):

SSE of Île du Corossol, thence:

SSE of Pointe à la Chasse (¾ miles NW), from which a light (5.68) is exhibited, and across Baie Sainte-Marguerite, thence:

- 2 SSE of Pointe aux Jambons (14 miles WSW), which is of moderate height and rocky, and a drying rock (1.5 m), 3 cables S.

The track then leads to the pilot boarding position (50°00.3'N, 66°46.8'W) 1 mile SSW of Havre de Port-Cartier.

(Directions continue for coastal passage at 5.130, and for Havre de Port-Cartier at 5.116)

Small craft**Rivière Sainte-Marguerite****5.98**

- 1 **General information.** Rivière Sainte-Marguerite (50°08'N, 66°36'W), which flows into the head of Baie Sainte-Marguerite, provides shelter for boats.

Rivière Sainte-Marguerite-en-Bas village, stands on the W side of the river mouth. A sandy beach extends for a considerable distance on each side of the entrance.

Directions. The entrance channel, with a depth of 0.8 m, is approached across a shifting sand-bar at the river mouth. Depths within the entrance increase to about 1.8 m. The river then leads through many drying sand-bars to Clarke City, a wood pulp manufacturing centre, about 4 miles upstream.

- 2 **Overhead cable.** An overhead power transmission cable, with a vertical clearance of 16 m, spans the river about 2 miles within the entrance.

Facilities at Clarke City include: capacity for small repairs; a hospital.

Useful mark:

Radio tower (red lights) (50°09'N, 66°37'W), elevation 155 m.

HAVRE DE PORT-CARTIER**General information**

Chart 4778 plan of Port-Cartier

Position**5.99**

- 1 Havre de Port-Cartier (50°02'N, 66°47'W) lies 2 miles W of Pointe aux Jambons.

Function**5.100**

- 1 Havre de Port-Cartier is an artificial harbour, used mainly for shipping iron ore and grain. There are also oil handling and general cargo facilities. The town of Port-Cartier, 2 miles W of the port, had a population of 7070 in 2002.

The port is not a customs port of entry, nor a quarantine station.

Approach and entry**5.101**

- 1 The harbour is approached from SSW through an approach channel, the outer end of which is marked by Port-Cartier Light-buoy (safe water), moored about 1½ miles SSW of the harbour entrance.

Traffic**5.102**

- 1 In 2000, 232 ship movements were recorded, totalling 17 494 215 dwt.

Port Authority**5.103**

- 1 Port Authority is Compagnie Minière Québec, Cartier Services Maritime, 30 Route 138, Port-Cartier Qc, G5B 2H3.

E-mail address: port@qcmines.com

Limiting conditions**Controlling depth****5.104**

- 1 The entrance channel is dredged at its inner end to a depth of 16.6 m (1970) over a width of 122 m; at the harbour entrance the dredged width is reduced to about 91 m.

The minimum depth inside the harbour is 15.2 m.

Tidal levels**5.105**

- 1 Mean spring range about 2.4 m; mean neap range about 1.4 m. For further information see *Admiralty Tide Tables Volume 2*.

Density of water**5.106**

- 1 Density of harbour water is 1.021 to 1.025 g/cm³.

Maximum size of vessels handled**5.107**

- 1 North Wharf (Ore terminal): maximum length 303 m, width 53 m and draught 14.6 m.

South Wharf (Grain terminal): maximum length 274 m, width 42 m and draught 14.3 m.

Arrival information**Port radio****5.108**

- 1 Compagnie Minière Québec Cartier operates a VHF radio station at Havre de Port-Cartier. For operating details see *Admiralty List of Radio Signals Volume 6 (5)*.

Notice of ETA**5.109**

- 1 ETA should be reported 72, 48 and 24 hours before arrival; amendments of more than 1 hour should be signalled immediately.

Outer anchorages**5.110**

- 1 Anchor berths, in depths of 20 to 33 m have been established S of the harbour, as follows (with positions from Port-Cartier Front Leading Light (50°02.2'N, 66°46.8'W) (5.116):

Anchor berth	Position
A	172°, 1¼ miles
B	145°, 1¼ miles
C	125°, 1½ miles
D	155½°, 1¾ miles
E	174°, 1¾ miles
F	208°, 2½ miles
G	215½°, 3 miles

- 2 The holding ground is reported to be good, but the anchorages are tenable only in fine weather.

The nearest secure anchorage is in Baie des Sept-Îles (5.43) 16 miles NE.

Pilotage

5.111

- 1 Pilotage is compulsory except for vessels of less than 106.7 m in length. A pilot employed by Compagnie Minière Québec Cartier, who is available day and night, boards at position 50°00'3N, 66°46'8W, about 0.6 miles E of the fairway buoy and 1½ miles ESE of Cascades Wharf (5.114).

Tugs

5.112

- 1 There are two tugs. The use of tugs is compulsory for vessels in excess of 115.8 m in length.

Regulations concerning entry

5.113

- 1 Vessels over 289.6 m in length may only dock during daylight.

Harbour

General layout

5.114

- 1 Havre de Port-Cartier main harbour consists of one basin, 762 m long and 137 m wide, with wharfage on its N and S sides, with smooth rock bottom.

Cascades Wharf (Québec Rayonier Quay) (50°01'N, 66°49'W), a privately owned facility for loading pulp and paper, extends SSE from the end of a curved causeway, 1½ miles WSW of Havre de Port-Cartier. It is accessible throughout the year.

A submarine pipeline extends 3 cables S from the jetty.

Hazard

5.115

- 1 An air bubble system for ice control is installed on the harbour bottom and the use of an anchor in the harbour is prohibited.

Directions for entering harbour

(continued from 5.97)

Main entrance channel

5.116

Leading lights:

Front light (yellow diamond, black cross, on square framework tower) (50°02'N, 66°46'9W), exhibited from the roof of a building.

Rear light (yellow diamond, black cross, on framework tower, 23 m in height) (495 m from front light).

The lights are visible on the leading line only and are privately maintained.

- 1 From the pilot boarding position, the alignment (016½°) of these lights indicates the centre line of the entrance channel, passing (with positions from the front light):

ESE of two circular caissons on the W side of the entrance, from which a light (grey mast) (5 cables SSW) is exhibited on the outer caisson, and:

WNW of the head of an arm extending SW from the shore on the E side of the entrance, from which a light (grey mast, 5 m in height) (4½ cables S) is exhibited at the outer end.

- 2 **Useful marks:**

Radio tower (elevation 81 m; red lights) very close NW of the front leading light.

Grain elevator (4 cables SW), with eight silos, standing on the promontory S of the basin.



Port Cartier from E (5.114)

(Original dated 2001)

(Photograph – Compagnie Minières Québec)

Cascades Wharf entrance channel**5.117****1 Rayonier Leading Lights:**

Front light (orange rectangle, black stripe, on triangular framework tower, 4 m in height) (50°01'1N, 66°48'9W), near the root of the causeway.

Rear light (similar construction and tower, 10 m in height), (369 m from front light).

The lights are privately maintained and are visible on the leading line only.

2 From a position on the coastal route S of Cascades Wharf, the alignment (005½°) of these lights leads through a buoyed channel towards the wharf, passing (with positions from the outer end of the wharf):

E of shoal ground (1¾ cables SW), with a least depth of 7.0 m over it, marked by KA13 Light-buoy (port hand), and:

W of a rocky shoal (1 cable SSW), with a least depth of 7.0 m over it, marked by KA12 Light-buoy (starboard hand), thence:

3 Clear of a patch (91 m W), with a least depth of 9.8 m over it.

The leading line passes between anchor berths F and G (5.110) off Havre de Port-Cartier.

Berths**Main harbour****5.118****1** Alongside berths are located on the N and S walls of the harbour basin as follows:

<i>Berth</i>	<i>Length (m)</i>	<i>Depth (m)</i>
<i>N Wall:</i>		
Nos 1 & 4 iron ore loading; discharging, bentonite, limestone, coke breeze at E end.	762 in total	15.2
<i>S Wall:</i>		
No 2 grain and oil discharge berth.	305 m from W end of wall	15.2
No 3 grain loading and general cargo berth.	146 m from E end of the wall	15.2
No 5 general cargo berth for coastal vessels on S side of S wall.	64 m from E end	15.2

It is mandatory to allow 0.9 m under the keel at all times at these berths.

Cascades Wharf**5.119****1** The berth, 168 m in length, with a depth of 11.8 m alongside is situated on the W side of the quay, and is marked by two fixed blue lights at each end.**Port services****Repairs****5.120****1** Minor repairs can be undertaken.**Other facilities****5.121****1** Medical clinic; facilities for reception of oily waste and garbage disposal are available; derat exemption certificates issued.**Supplies****5.122****1** Fuel oil; fresh water; provisions.**Communications****5.123****1** **Sea.** Regular communication with Montréal and intermediate ports during the navigation season.

Air. The nearest airport is at Sept-Îles, 60 km to the E.

Small craft**Rivière aux Rochers****5.124****1** Rivière aux Rochers (50°01'N, 66°52'W) flows into Baie de l'Abri, ¾ miles WSW of Havre de Port-Cartier. There is a least charted depth of 0.3 m in the W entrance on both sides of La Grosse Caye.

Port-Cartier-Ouest village, with a church, is situated on the W side of the river entrance.

A disused jetty, in ruins, projects from the SE corner of Île du Quai (50°01'N, 66°52'W), at the river mouth. Île du Quai is joined to Île Patterson by a bridge with a vertical clearance of 3.2 m.

5.125**1** **Berths.** A ramp and a public wharf (50°01'1N, 66°52'4W) used by local fishermen, are situated on the W shore of the river. Private pontoons extend about 1 cable N from the public wharf on the W shore and a road bridge, with a vertical clearance of 3.4 m, lies close N. Local knowledge is essential and the current is strong, especially around LW.

The E entrance to Rivière Dominique, between the town of Port-Cartier and Île McCormick, is spanned by an overhead cable (50°01'2N, 66°51'8W), with a vertical clearance of 0.2 m.

**HAVRE DE PORT-CARTIER
TO POINTE DES MONTS****General information**

Charts 4774, 4775

Route**5.126****1** The coastal route from the vicinity of the pilot boarding position 50°00'3N, 66°46'8W, off Havre de Port-Cartier, leads about 48 miles SW and SSW to Pointe des Monts, in the inshore traffic zone.**Topography****5.127****1** The coast between Pointe aux Jambons (50°02'N, 66°44'W) and Île du Grand Caouis (Caoui), 16 miles SW, is low and fringed with small islets. A sandy beach extends between Rivière Pentecôte, 7 miles SW of the island, to Pointe aux Anglais, 6½ miles S of the river and the coast is generally low and wooded.

The coast from Île aux Oeufs (Egg Island) (49°37'N, 67°10'W) to Îlets Caribou, 8 miles S, has no off-lying dangers. For the remaining 12 miles to Pointe des Monts the shoreline is more broken, with outlying reefs.

Natural conditions at Pointe des Monts

5.128

- 1 **Current.** A SE-going current of about $\frac{1}{4}$ kn may be expected about 1 mile S of Pointe des Monts.

Tidal streams:

<i>Interval from HW Pointe au Père</i>	<i>Set</i>
-0500	W-going starts
-0200	Maximum W-going
+0100	E-going starts
+0400	Maximum E-going

The maximum rates are $\frac{3}{4}$ kn.

Tidal levels

5.129

- 1 **Pointe des Monts.** Mean spring range about 2.9 m; mean neap range about 1.5 m.

For further information see *Admiralty Tide Tables, Volume 2*.

Directions

(continued from 5.97)

Port-Cartier to Île du Grand Caouis (Caoui)

5.130

- 1 From the vicinity of the pilot boarding position (50°00'·3N, 66°46'·8W), 1 mile SSW of Havre de Port-Cartier, the coastal passage leads SW, passing (with positions from Île du Grand Caouis (49°50'N, 67°01'W)): SE of Pointe Jambon (5½ miles NNE) and Îles de Mai, which extend 8 cables NNE, and a 0.4 m shoal which extends 5 cables SE; a rock which dries 0.3 m is shown on this shoal on Chart 4774. Thence:
- 2 SE of Île du Grand Caouis (5.134), which is grey granite and nearly bare, and from which a light (white 8-sided tower, red top, 11 m in height) (49°49'·6N, 67°00'·4W) is exhibited from its S point. A 14.6 m deep rocky patch lies about 8 cables ESE of the light.

Useful mark:

Microwave tower (red lights) (49°53'N, 67°04'W), elevation 158 m, position approximate.

Île du Grand Caouis (Caoui) to Île aux Oeufs

5.131

- 1 From the position SE of Île du Grand Caouis (Great Cawee Island) (49°50'N, 67°01'W) the track then leads SSW, passing (with positions from Île du Grand Caouis): ESE of Rocher Caouis (Cawee Rock) (2 m high) (3 cables S), thence:
- ESE of Île du Petit Caouis (Little Cawee Island) (1½ miles SW), lying 8 cables SE of Pointe à Luc (Sproule Point), and across the entrance to Baie des Homards (5.137), thence:
- ESE of Pointe aux Anglais (English Point) (11½ miles SW), a low, wooded and sandy point, with steep-to rocks extending 3 cables offshore, thence:
- 2 ESE of Île aux Oeufs (22 m in elevation) (14 miles SSW) (5.138), two low, granite islands, close together, wooded on their E sides, and Récif Northeast, rocks drying 2.2 m in places, extending about 6 cables NE. A light (white 8-sided tower, red top, 11 m in height) (49°37'·3N, 67°10'·6W) is exhibited near the S end of the island.

- 3 **Useful marks:**

Radio tower (red lights) (49°49'N, 67°10'W), elevation 178 m, position approximate.

Microwave tower (red lights) (49°47'N, 67°10'W), elevation 111 m, position approximate.

Île aux Oeufs to Pointe des Monts

5.132

- 1 From the position SE of Île aux Oeufs (49°37'N, 67°11'W) the track then continues SSW, passing (with positions from Île aux Oeufs):
- ESE of Îlets Caribou (8 miles S) (5.142), two islets, with reefs and rocks extending 5 cables offshore, thence:
- Clear of Banc Comeau (14 miles SSW) lying 1½ miles E of the S entrance point to Baie de la Trinité (5.140), thence:
- ESE of Récif Steamship (17 miles SSW), lying just inside the 37 m depth contour.
- 2 The track then leads to a position clear SE of a bank, with a depth of 3.2 m over it, extending 8 cables SE from Pointe des Monts (20 miles SSW).

Caution. There are depths of more than 200 m within 1 mile of Pointe des Monts, and soundings give no warning of approach to the shore. It is advisable to keep in depths of more than 37 m from the vicinity of Îlets Caribou to Pointe des Monts.

5.133

Useful marks:

Microwave tower (red lights) (49°36'N, 67°16'W), elevation 197 m, position approximate.

Microwave tower (red lights) (49°31'N, 67°17'W), elevation 100 m, position approximate.

Microwave tower (red lights) (49°25'N, 67°18'W), elevation 69 m, position approximate.

Disused lighthouse (white tower, red bands) (49°20'N, 67°22'W), 7 cables NE of Pointe des Monts.

(Directions for coastal passage continue at 5.147)

Anchorage

Chart 4778 plan of Baie des Homards anchorages

Île du Grand Caouis (Caoui)

5.134

- 1 **General information.** Small coasting vessels may find shelter NW of Île du Grand Caouis (49°50'N, 67°01'W). Local knowledge is required.

Tidal streams run fairly through the channels inshore of Île du Grand Caouis and Île du Petit Caouis, 1 mile SW, the in-going stream setting SW and the out-going stream setting NE. The rate of the tidal stream rarely exceeds 1½ kn, and is generally much less.

Tidal levels. Mean spring range about 2.4 m; mean neap range about 1.2 m. For further information see *Admiralty Tide Tables Volume 2*.

5.135

- 1 **Directions.** The anchorage may be approached from SE through the channel between Île du Grand Caouis, from which a light (5.130) is exhibited and Île du Petit Caouis, passing:

SW of Rocher Caouis, 3 cables S of Île du Grand Caouis, thence;

Close to the W extremity of Île du Grand Caouis.

Anchorage may be found in restricted space, about 1 cable off the NW side of Île du Grand Caouis, in a depth of 13 m, mud, with good holding ground. The anchorage is sheltered from winds between WSW and NE, through N.

There is some shelter from E winds, but the swell rolls round the island and SW winds cause a heavy sea.

5.136

- 1 **Small craft.** Boats can find secure anchorage in Le Fer à Cheval, a cove, unnamed on the chart, on the N side of Île du Grand Caouis, but its entrance is narrow.

Haut-Fond du Grand Caouis, rocky, lies about 3 cables NE of the entrance to the cove.

Baie des Homards**5.137**

- 1 **General information.** Baie des Homards lies between a drying reef extending 4 cables SW of Pointe à Luc (49°49'N, 67°04'W) and Cayes Rouges (Crooked Islands), 3 miles SW, a group of islets and rocks. It is an open roadstead, sheltered from N winds only. Onshore winds cause a heavy sea, often accompanied by thick weather.

- 2 **Anchorage** can be found SW of the drying reef, about 1½ miles E of the SE islet of Cayes Rouges, in a depth of 22 m, fine sand over clay.

Smaller vessels may anchor about 1½ miles NE of the SE islet of Cayes Rouges, in a depth of about 9 m.

Chart 4778 plan of Île aux Oeufs anchorages

Île aux Oeufs**5.138**

- 1 **General information.** Vessels can find anchorage in confined but deep waters, sheltered from all but S winds which are seldom strong, in the area between Île aux Oeufs (49°37'N, 67°11'W) and the flats that extend E from the mainland. Local knowledge is required.

- 2 **Tidal streams.** The rate of the tidal streams between Île aux Oeufs and the mainland is from ½ to 1 kn, the in-going stream setting S, and the out-going stream setting N.

A part of the out-going stream sets NE through the narrow channel between Île aux Oeufs and Récifs aux Cormorans, 5 cables N, an area of rocks, 4 m in elevation; part of the in-going stream comes in through the same channel.

5.139

- 1 **Anchorage.** A recommended anchorage is shown on the chart in a position with the S end of Île aux Oeufs bearing about 120°, distance 4½ cables, in a depth of about 24 m, clay.

Alternative anchorage, in a depth of 17 m, sand, lies close W of this position.

A good scope of cable is advisable, as violent squalls come off the land at times.

- 2 **Caution.** It is not advisable to anchor N of a line joining the middle of Île aux Oeufs and the mainland WNW. A submarine cable is laid from the N end of Île aux Oeufs, NW to the mainland; a sign on the island indicates its position.

Boats may find anchorage in the basin formed between Île aux Oeufs and Récifs aux Cormorans, in a depth of 5.4 m. Local knowledge is required.

Chart 4774

Baie de la Trinité**5.140**

- 1 **General information.** Baie de la Trinité (Trinity East)

(49°25'N, 67°18'W) provides anchorage, in moderate depths, with good holding ground.

The municipality of Baie-Trinité, marked by a microwave tower (red lights), elevation 69 m, and a church, about 5 cables E, (not shown on Chart 4774) with a population of 646 in 2002, is situated at the mouth of Rivière de la Trinité, at the N end of the bay.

- 2 **Anchorage.** The recommended anchorage position is in a depth of 10 to 20 m, sand, with the church at Baie-Trinité bearing 329°, distance 1.2 miles.

Small craft can anchor close under the S point of the bay, in depths of 5.5 m, but local knowledge is required.

Berth. A public wharf, length 93 m, is situated on the NE side of the bay. Part of the head and the E side of the wharf are filled with rocks. Depths at the S end of the wharf change continuously owing to silting and may be less than charted. There is a slipway adjacent to the inner end of the wharf. Ruins of an old breakwater lie E of the wharf.

Small craft

Charts 4774, 4778 plan of Baie des Homards anchorages

Rivière Pentecôte**5.141**

- 1 **General information.** Rivière Pentecôte (49°47'N, 67°10'W) enters the sea 1½ miles SW of Cayes Rouges (5.137), and provides shelter for small craft.

The first reach of the river leads S, with a narrow sandy ridge separating it from the sea. Steep cliffs of sand and clay form the banks for a distance of 2½ miles, which is the limit of navigation by boats. Local knowledge is required as there is continual silting.

Rivière-Pentecôte village, marked by a church spire, is situated on the E side of the entrance. It had a population of 640 in 2002.

- 2 **Directions.** The river mouth is approached from SE and entered between a rocky point 27 m high on the E side, and a sandy point on the W side.

Wharf and pier. A partially ruined wharf lies along the E bank of the river, near the church, close inside the entrance; a pier extends about 90 m from its NW end.

Chart 4774

Îlets Caribou**5.142**

- 1 **General information.** Îlets Caribou (49°29'N, 67°14'W), two islets, with reefs and rocks extending 5 cables offshore, afford shelter for boats in sandy coves.

A village, with a church, (not shown on Chart 4774) is situated on the mainland abreast the islets.

Other names

Chart 4777

5.143

- 1 Cayes Joncas (49°25'N, 67°17'W).
Cayes Noires (49°22'N, 67°19'W).
Petite Rivière de la Trinité (49°32'N, 67°14'W).
Pointe à Poulin (49°23'N, 67°18'W).

POINTE DES MONTS TO POINTE À MICHEL

GENERAL INFORMATION

Chart 4777

Area covered

5.144

- 1 This section describes the coastal waters on the N side of St Lawrence River from Pointe des Monts (49°19'N, 67°23'W) to Pointe à Michel about 55 miles WSW. The section is arranged as follows:

Pointe des Monts to Baie des Anglais (5.145).

Baie Comeau (5.158).

Baie des Anglais to Pointe à Michel (5.185).

POINTE DES MONTS TO BAIE DES ANGLAIS

General information

Chart 4777

Route

5.145

- 1 The coastal route from Pointe des Monts (49°19'N, 67°23'W) to Baie des Anglais, about 28 miles W, is bounded to seaward by the in-bound lane of the traffic separation scheme (5.4), which passes within 4 miles of Pointe des Monts, before diverging from the coast and passing about 15 miles SE of Baie des Anglais.

Topography

5.146

- 1 At Pointe des Monts the land begins to rise, and sparsely wooded granite hills, up to 300 m in elevation, form the N coast of St Lawrence River as far as Pointe Saint-Pancrace (49°15'N, 68°05'W).

The shore is steep-to, and soundings give little warning of approach to land.

Directions

(continued from 5.132)

5.147

- 1 From a position clear SE of a bank, with a depth of 3.2 m over it, extending 8 cables SE from Pointe des Monts (49°19'N, 67°23'W) the coastal passage leads W, passing (with positions from Pointe des Monts):

SSE of a drying sandbank extending 5 cables from the entrance to Rivière Godbout (9 miles W), which is marked by K14 Light-buoy (starboard hand) moored close to its SE edge, thence:

SSE of Pointe à la Croix (Cape Saint Nicholas) (17 miles W), a bare and very bold granite headland.

- 2 The track then leads to a position SE of Pointe Saint-Pancrace (28 miles W), from which a light (orange rectangle on square framework tower, 11 m in height) (49°15'2N, 68°04'7W) is exhibited, at the E entrance to Baie des Anglais.

5.148

Useful marks:

- 1 Orange beacon (49°19'4N, 67°32'4W), on the coast 6¼ miles W of Pointe des Monts.

Godbout Wharf Light (red and white framework tower, 7 m in height) (49°19'3N, 67°35'5W) (5.152).

(Directions continue for Baie des Anglais at 5.176, and for coastal passage at 5.190)

Anchorage and harbours

Grande Anse Saint-Augustin

5.149

- 1 **General information.** Grande Anse Saint-Augustin (Saint Augustin Cove) (49°19'N, 67°25'W), about 1 mile W of Pointe des Monts, is a small cove with an islet at its head, occasionally used by small craft sheltering from E winds. The cove shallows rapidly at its head. A line drawn between the islet and the E point of the cove marks the limit of a drying area. There is a depth of 4.1 m (13 ft) near the middle of the entrance.

- 2 **Anchorage** can be found off the middle of the cove, in depths of 18 to 22 m, clay.

Chart 4777 plan of Godbout

Godbout

5.150

- 1 **General information.** Godbout (49°19'N, 67°36'W), on the W side of an unnamed bay, 8 miles W of Pointe des Monts, is a village, with a population of 390 in 2002, and a ferry terminal. A light (red and white framework tower, 7 m in height) is exhibited from the outer end of the ferry terminal wharf, which is approached from SE. Local knowledge is required.

Tidal streams off Godbout are irregular, frequently setting towards the shore.

5.151

- 1 **Anchorage** can be found about 7½ cables NE of the entrance to Rivière Godbout (5.153), sheltered from W winds, in depths from 10 to 40 m, sand and pebbles. It is advisable to approach at slow speed, with the anchor lowered to the required depth, as the bottom is steep-to.

Small vessels can anchor on the edge of the bank, off the mouth of a little stream that flows into the NE corner of the bay, with the stream bearing 010°; in this position there is good shelter, even from E winds.

5.152

- 1 **Berths.** Godbout ferry terminal is protected from S by the ferry wharf which extends 150 m NE from the terminal. Boulders which cover at HW extend along the S side of the wharf. There is a least depth of 4.6 m alongside the berth on the N face.

A ruined public wharf, with about 60 m of berthing space on its N side and a least depth alongside of 2.1 m, is situated 150 m N of the ferry wharf. Its S side is lined with boulders.

Other facility. A ramp is located at the inner end of the N side of the ruined public jetty.

Supplies: fuel oil; water; provisions.

Communications:

A ferry service runs to Matane (7.74) on the S side of St Lawrence River.

Regular sea services run to Québec during the navigation season.

Small craft

Rivière Godbout

5.153

- 1 **General information.** Rivière Godbout (49°19'N, 67°36'W), about 1 mile SW of Godbout, flows into the sea over a partially drying sand-bar. The channel through the sand-bar is reported to have a depth of about 0.6 m.

Grande Baie Saint-Nicholas**5.154**

- 1 **General information.** Grande Baie Saint-Nicholas (Baie Saint Nicholas) (49°18'N, 67°46'W) is a narrow inlet, completely landlocked, extending about 1¼ miles NE between granite hills, 150 to 210 m in elevation. Local knowledge is essential.

An overhead cable with vertical clearance of 34 m, spans the bay at the entrance.

5.155

- 1 **Directions.** The entrance is approached from S, passing:
W of a bank of drying sand and boulders which extends about 3 cables seaward from the E entrance point, with a very large boulder near its S end, which never completely covers, and:
E of a rocky spit that extends 90 m from the shore, with a small wooden cross on it.
- 2 Thence the inlet is entered through a narrow channel, dredged to a depth of 2.4 m over a width of 23 m.
The bottom in the entrance is of sand, with a few large stones, which can be seen and avoided.

5.156

- 1 **Anchorage** for coasters can be found, in a depth of 15 m, with good holding ground, between the spits off the entrance to the inlet, on the following lines of bearing:
Rocky point with cross, on W side of entrance bearing 355°.
E entrance point bearing 067°.
- 2 **Small craft** can find sheltered anchorage in the inlet, which is less than 2 cables wide at its widest part, with a maximum depth of 16 m and a sandy bottom.

Anse Saint-Pancrace**5.157**

- 1 **General information.** Anse Saint-Pancrace (49°17'N, 68°03'W), is a deep, narrow inlet, providing shelter for coasters and small craft. The shores of the inlet are steep and rise to an elevation of 244 m.

Directions. Anse Saint-Pancrace is approached from SE, avoiding Rocher Comeau, which lies 6 cables SE of the W entrance point, by keeping a waterfall on the W side of the cove open of the W shore.

- 2 The entrance to the cove is about ¾ cables wide, narrowing to 1¼ cables, and widening again to 2 cables.
- 3 A light (orange rectangle on square framework tower, 11 m in height) (49°15'N, 68°05'W) is exhibited from the point.

Anchorage can be found in depths of 27 to 37 m, fine sand, where the cove widens.

Berths. Pontoons, owned by Club Nautique de Baie-Comeau, are situated in the NE part of the inlet.

Useful mark:

Microwave tower (red lights) (49°18'N, 68°04'W), elevation 328 m, position approximate.

BAIE-COMEAU**General information**

Chart 4778 plan of Baie-Comeau

Position**5.158**

- 1 The port of Baie-Comeau (49°15'N, 68°08'W) lies on the W shore of Baie des Anglais.

Function**5.159**

- 1 Baie-Comeau is a customs port of entry but not a quarantine station. The port, which is open throughout the year, serves the industries of the area, including a newsprint mill, an aluminium smelter and a grain transshipment terminal. The rail ferry service to Matane (7.74) operates from Baie-Comeau.

In 2002, the town of Baie-Comeau had a population of 25 554.

Port limits**5.160**

- 1 The outer limit of the port is the line joining Pointe Saint-Pancrace (49°15'N, 68°05'W) and Pointe Saint-Gilles, 4 miles SW.

Approach and entry**5.161**

- 1 The approach to Baie-Comeau, between Pointe Saint-Pancrace and the NE edge of Battures de Manicouagan (Manicouagan Shoal) (5.186), 2¼ miles SSW, is open and clear of dangers.

Traffic**5.162**

- 1 In 2000, 168 ship movements were recorded, totalling 3 642 442 dwt.

Port Authority**5.163**

- 1 Port Authority and port operator is Transport Canada.
Postal address: PO Box 331, Baie-Comeau, Quebec, G4Z 2H1.

Limiting conditions**Controlling depths****5.164**

- 1 Controlling depths vary between 12.2 and 8.4 m depending on the dredged depths on the approaches to wharves.

Deepest and longest berths**5.165**

- 1 Deepest and longest berths are situated at Cargill wharves. See 5.179 for dimensions of berths.

Tidal levels**5.166**

- 1 Mean spring range about 3.1 m; mean neap range about 1.6 m. For further information, see *Admiralty Tide Tables Volume 2*.

Density of water**5.167**

- 1 Density of water in the harbour is 1.000 to 1.025 g/cm³.

Arrival information**Port radio****5.168**

- 1 Mont-Joli Radio (VCF), VHF channel 16, is used to communicate with the Port Authority (5.163).

Notice of ETA**5.169**

- 1 ETA should be signalled, through the agent, 72, 24 and 4 hours before arrival, including requirements for fuel and stores.

Outer anchorages**5.170**

- 1 Anchorage can be found E of the wharves, in depths of 20 to 40 m, mud, but a heavy sea rolls into Baie des Anglais with E winds. An obstruction with a least depth of 9.4 m over it lies at the end of an outfall in position 49°13'8N, 68°07'7W.

Pilots**5.171**

- 1 The pilot/docking master boards from a tug about 5 cables SW of Pointe Saint-Pancrace (49°15'N, 68°05'W).
The use of a tug and the services of a harbour pilot/docking master are compulsory for a ship berthing at Cargill-Reynolds wharves. At other wharves pilotage is not compulsory, but is recommended.

Tug**5.172**

- 1 A tug is available operated by Eastern Canada Towing Ltd.

Quarantine**5.173**

- 1 Vessels bound for the port may request pratique by radio from the Quarantine Station at Montréal. Baie-Comeau is not a quarantine station.

Harbour**General layout****5.174**

- 1 The shores of Baie des Anglais are high and rocky. The port facilities at Baie-Comeau are grouped at three places on the W side of the bay as follows, from S to N (5.179):
Public wharves, including rail ferry berth.
Société Canadienne de Métaux Reynolds Limitée, private wharves in Anse du Moulin.
La Compagnie des Céréales Cargill Limitée, private grain terminal wharves.

Principal marks**5.175**

- 1 **Landmarks:**
Church spire (138 m in height) (49°14'4N, 68°08'6W).
Microwave tower (190 m in height) (49°14'0N, 68°08'5W).
Paper mill with chimneys (63 m in height) (49°13'4N, 68°09'1W).
Microwave tower (134 m in height) (49°13'1N, 68°09'2W).
2 **Major light:**
Baie-Comeau Wharf Head Light (framework tower, 9 m in height) (49°14'2N, 68°07'7W).

Directions for entering harbour*(continued from 5.148)***Entering Baie des Anglais****5.176**

- 1 **Baie des Anglais Leading Lights:**
Front light (orange square, black stripe, on framework tower, 15 m in height) (49°16'1N, 68°07'8W), standing on a small promontory.
Rear light (similar construction on metal tower, 3 m in height) (220 m from front light).

The lights are visible on the leading line only and are privately maintained.

- 2 From a position SE of Pointe Saint-Pancrace, from which a light (49°15'2N, 68°04'7W) (5.147) is exhibited, the alignment (312½°) of these leading lights leads into the bay, passing about 1¼ miles NE of KD14 Light-buoy (starboard hand), moored 3¼ miles SSE of Pointe Saint-Pancrace.

Useful mark:

A cross (80 m in height) (49°13'1N, 68°09'1W).

Entering Reynolds wharves in Anse du Moulin**5.177**

- 1 **Port-du-Moulin Leading Lights:**
Front light (orange square, white stripe, on tank) (49°14'9N, 68°08'3W).
Rear light (similar construction, on concrete base) (182 m from front light).
The lights are privately maintained.
From a position about 1 mile SE of Baie des Anglais front leading light (5.176), the alignment (239¼°) of the Port-du-Moulin lights leads, in a least depth of 9.4 m, to Société Canadienne de Métaux Reynolds Limitée private wharves at Anse du Moulin.

Entering Cargill Grain Terminal**5.178**

- 1 **Cargill Grain Terminal Leading Lights:**
Front light (orange square, white stripe, on a tank) (49°15'3N, 68°08'1W), in the vicinity of a grain elevator.
Rear light (similar construction on framework tower, 3 m in height) (229 m from front light).
The lights are visible on the leading line only, and are privately maintained.
2 From a position about 6½ cables SE of Baie des Anglais front leading light (5.176), the alignment (237¼°) of these lights leads to a position close N of the piers at the entrance to Rivière aux Anglais.

Berths

Chart 4778 plans of Public and Cargill-Reynolds Wharves
5.179

- 1 The principal berths at Baie-Comeau are as follows:

Berth	Length (m)	Depth (m)

Public wharves

No 1 (N end of main arm, inner side).	155	9.1
No 2	155	8.6
No 3 (Spur at SW end of main arm, with ferry ramp on W side).	135	8.8
NE arm with ro-ro ramp.	220	8.8-9.2
Wharf in ruins (N of ro-ro ramp).	180	7.9

Société Canadienne de Métaux Reynolds wharves

Berth No 1 at outer end of S wall:	164	9.4
Berth No 2 at inner end of S wall (dredged 1984):	179	10.1
Berth No 3 on N side of basin (dredged 1984)	168	10.1



Baie-Comeau Dock No 1 (5.179)

(Original dated 1982)

(Photograph – Canadian Hydrographic Service)



Baie-Comeau Dock No 2 – Anse du Moulin (5.179)

(Original dated 1982)

(Photograph – Canadian Hydrographic Service)



Baie-Comeau Dock No 3 – Cargill Grain Terminal (5.179)

(Original dated 1982)

(Photograph – Canadian Hydrographic Service)

Cargill Grain Terminal

SE Pier (discharging berth)	212	8.4 (NW side)
NW Pier (loading berth)	178	12.2 (NW side) 11.6 (SE side)

Port services**Repairs****5.180**

- 1 Minor work can be undertaken locally.

Other facilities**5.181**

- 1 Issue of de-ratting and exemption certificates; hospital at Baie-Comeau.

Supplies**5.182**

- 1 Fuel oil; provisions; fresh water by pipeline at all berths between April and October.

Communications**5.183**

- 1 **Sea.** Regular services run to ports on N shore of Gulf and River St Lawrence. A daily ferry runs to Matane (7.74) on the S shore (April to January); the ferry route is shown on Chart 4777.

Air. Regular services operate from the airport 5 miles W of Baie-Comeau.

Small craft

5.184

- 1 **Marina.** A marina, enclosed by breakwaters from which three lights are exhibited, is situated about 8 cables NE of the paper mill (5.175). The approach to the entrance (49°13'7N, 68°08'0W), leading from E, is dredged to a depth of 4 m (1985) and marked by KC1 and KC3 Buoys (port hand).

BAIE DES ANGLAIS TO POINTE À MICHEL

General information

Chart 4777

Route

5.185

- 1 The coastal route from Baie des Anglais (49°15'N, 68°06'W) to Pointe à Michel, about 28 miles SW, is bounded to seaward by the in-bound lane of the traffic separation scheme (5.4) which passes 11 miles SE of Pointe de Manicouagan (49°06'N, 68°12'W).

Topography

5.186

- 1 The coast SW of Pointe Saint-Gilles (49°12'N, 68°09'W) changes completely in character, becoming low and wooded, with a sandy shore, fronted by extensive drying flats of sand and gravel.

The S side of Péninsule de Manicouagan, between Pointe de Manicouagan, which is low and thickly wooded, and Pointe aux Outardes, 11 miles WSW, has a broad sandy beach with the extensive drying banks of Battures de Manicouagan offshore.

- 2 These drying banks continue W, as Battures aux Outardes, into the N part of Baie aux Outardes (49°00'N, 68°35'W).

The coast in the vicinity of Pointe à Michel is low, sandy and difficult to distinguish at night; shoal ground extends about 7 cables seaward.

Tidal streams and sea conditions

5.187

- 1 Off Battures de Manicouagan the tidal streams are fairly regular; the maximum rate of both streams is about 2 kn; see tidal arrows on the chart.

There is often a heavy sea off Battures de Manicouagan, particularly when the wind is against the tidal stream, with tide-rips off the S and E parts of the bank giving an exaggerated impression of the strength of the tidal stream.

Principal mark

5.188

- 1 **Major light:**
Pointe de Manicouagan Light (framework tower, 30 m in height) (49°06'N, 68°12'W).

Other navigational aid

5.189

- 1 **Racon:**
Pointe de Manicouagan Light (as above).

Directions (continued from 5.147)

5.190

- 1 From a position SE of Pointe Saint-Pancrace, from which a light (49°15'7N, 68°04'7W) (5.147) is exhibited, at the E entrance to Baie des Anglais, the coastal passage leads initially S, passing (with positions from Pointe de Manicouagan Light):

E of KD14 Light-buoy (starboard hand) (8 miles NE), thence:

SE of K30 Light-buoy (starboard hand) (3¼ miles SE), moored about 8 cables off the SE edge of Battures de Manicouagan.

- 2 The track then leads WSW to a position SE of K32 Light-buoy (starboard hand) (48°53'N, 68°38'W) marking the edge of shoal ground extending about 5 cables SE from the sandy beach S of Pointe à Michel (5.217).

(Directions for coastal passage continue at 5.208)

Anchorage

Baie aux Outardes

5.191

- 1 **General information.** The N part of Baie aux Outardes (49°00'N, 68°35'W) is filled by the drying sandbanks of Batture aux Outardes; shoal ground extends 1 mile from the W shore.

The waters of the bay are frequently covered by a surface layer of white earth in suspension, giving the appearance of shallow water. A vessel passing through this layer displaces it, leaving a blue streak in its wake.

5.192

- 1 **Tidal streams** in Baie aux Outardes seldom exceed a rate of 2 kn, the in-going stream being the weaker.

The directions of the tidal streams on the W side of the bay are reversed by the effect of the river at its head, so that the in-going stream sets N and NE, and the out-going stream sets SW and SE.

5.193

- 1 **Directions.** From a position about 5 miles SE of Pointe à Michel (48°55'N, 68°37'W) (5.190), the track into Baie aux Outardes leads N, passing E of the shoal ground surrounding Pointe à Michel, keeping in depths of not less than 20 m, as the coastal bank is steep-to.

Clearing line. The line of bearing less than 332° of Pointe de l'Anse des Aulnes (49°00'6N, 68°36'8W), a rocky point on the W side of the bay, passes E of the shoal ground off Pointe à Michel.

5.194

- 1 **Anchorage.** Good anchorage, well sheltered from W gales, in a depth of 25 m, mud, can be found with:

Pointe à Michel bearing 192°.

Pointe de Manicouagan bearing 065°.

Small vessels can anchor closer inshore, in a depth of 11 m.

Small craft

Rivière Manicouagan

5.195

- 1 The mouth of Rivière Manicouagan, between Pointe Saint-Gilles (49°12'N, 68°09'W), which is high, rocky and marked by a beacon, and Pointe-Lebel, which is low and thickly wooded, 3 miles SW, provides anchorage for small craft. The river is entered over a bar from ENE, with a least charted depth of 0.3 m. Boats can navigate to the first falls, about 3 miles up river. Local knowledge is essential.

The town of Hauterive, not charted, lies on the N shore, 4 miles WSW of Pointe Saint-Gilles.

2 **Tidal streams** set as follows:

The out-going tidal stream sets E over the bar at a rate of about 1½ kn. The in-going tidal stream sets W at nearly the same rate.

Rivière aux Outardes

5.196

- 1 **General information.** Rivière aux Outardes flows into the NE corner of Baie aux Outardes, between Pointe aux Outardes (49°03'N, 68°28'W) and Pointe à Jos-Caron, 1½ miles NW. Both points have church spires in their vicinities.

The entrance to the river is approached through an intricate channel with a least depth 0.6 m, which crosses Batture aux Outardes about 3 miles W of Pointe aux Outardes; it is used by local boats only.

Local knowledge is essential.

Rivière Betsiamites

5.197

- 1 **General information.** Rivière Betsiamites flows into the SW side of Baie aux Outardes, through a bar of drying and shifting sandbanks, N of Pointe à Michel (48°55'N, 68°37'W).

Within the bar, the channel follows a mid-river course, with depths of from 0.9 to 1.2 m. The river is navigable by boats for a distance of 40 miles, but a great deal of water is discharged, especially in the spring season, and the flow can reach a rate of 4 kn in the narrows. A road bridge and an overhead cable, with a vertical clearance of 12 m, cross the river about 3½ miles upstream. Local knowledge is essential.

Betsiamites village is situated around a small bay within the N entrance point to the river.

Other names

5.198

- 1 Blanche, Île (49°03'·2N, 68°33'·2W).
Mine, Île de la (49°02'·9N, 68°33'·1W).

POINTE À MICHEL TO POINTE AUX VACHES

GENERAL INFORMATION

Charts 4777, 4782

Area covered

5.199

- 1 This section describes the coastal waters on the NW side of St Lawrence River from Pointe à Michel (48°55'N, 68°37'W) to Pointe aux Vaches, about 63 miles SW. The section is arranged as follows:

Pointe à Michel to Pointe au Boisvert (5.203).

Pointe au Boisvert to Escoumins (5.219).

Escoumins to Rivière Saguenay (5.231).

Unexploded ordnance

5.200

- 1 Unexploded ordnance is reported to lie in an area extending from 2 to 5 miles offshore, between Anse aux Basques (48°19'N, 69°25'W) and Pointe à John, 8 miles SW; the limits of the area are indicated on the chart.

If ordnance is netted or trawled, the Coast Guard should be informed immediately.

Pilotage

5.201

- 1 Pilotage is compulsory for passage up the St Lawrence River above Escoumins (48°21'N, 69°24'W).

Further information is given in *Admiralty List of Radio Signals, Volume 6* (5).

Vessel Traffic Service

5.202

- 1 St Lawrence Vessel Traffic Service (1.27) covers the St Lawrence River W from longitude 66°00'W to the upper limit of Montréal Harbour and includes Saguenay River. The system applies to all vessels over 7.6 m in length, 19.8 m for pleasure yachts, and includes all air-cushion vehicles and seaplanes on the water. For further information see *Admiralty List of Radio Signals, Volume 6* (5).

A radar surveillance centre is situated near Escoumins. This station is equipped with VHF communications and surveillance radar with a range of 32 miles.

POINTE À MICHEL TO POINTE AU BOISVERT

General information

Chart 4777

Route

5.203

- 1 The coastal route on the NW side of St Lawrence River, from Pointe à Michel (48°55'N, 68°37'W) to Pointe au Boisvert, 30 miles SW, is bounded to seaward by the in-bound lane of the traffic separation scheme (5.4), which passes Pointe au Boisvert at a distance of about 4 miles.

Topography

5.204

- 1 The coast between Pointe à Michel and Îlets Jérémie, 7 miles WSW, is low and sandy, with patches of white clay to be seen N of the islets.

The coast between Îlets Jérémie and Sainte-Anne-de-Portneuf, 20 miles farther SW, is rocky and backed by hills that rise to an elevation of 245 m. A prominent ridge of white granite, 137 m in elevation, runs parallel to the coast, about 4 miles inland. Clay cliffs commence S of Forestville (48°44'N, 69°04'W) and continue for about 5 miles to the entrance to Rivière Portneuf.

- 2 From Rivière Portneuf to Pointe au Boisvert, 5 miles farther SSW, the land is well wooded, with comparatively low hills about 2 miles inland. Pointe au Boisvert is low and sandy; a clump of trees stands near its SE extremity, but is separated from it at HW.

Depths

5.205

- 1 Depths of less than 5 m extend up to 1½ miles offshore in places between Pointe à Michel (48°55'N, 68°37'W) and the entrance to Rivière Portneuf, 25 miles SW.

Drying sandbanks extend up to 1½ miles offshore between Rivière Portneuf and Pointe au Boisvert.

Tidal streams**5.206**

- 1 The rate of the in-going tidal stream off Pointe au Boisvert is from 1½ to 2 kn at springs, but this does not extend far from the shore.

Principal marks**5.207**

- 1 **Landmarks:**

Microwave tower (red lights, 127 m in height) (48°52'N, 68°51'W).
 Microwave tower (red lights, 99 m in height) (48°44'N, 69°05'W), at Forestville, and:
 Water tower (red lights, 123 m in height), about 5 cables E.

Major light:

Pointe Rocheuse Light (square framework tower, 15 m in height) (48°44'4N, 69°02'9W).

Directions

(continued from 5.190)

Coastal passage**5.208**

- 1 From a position SE of K32 Light-buoy (starboard hand) (48°53'N, 68°38'W), marking the edge of shoal ground extending about 5 cables SE from the sandy beach S of Pointe à Michel (5.217), the coastal passage leads SW, passing (with positions from Pointe Rocheuse Light):
 SE of Îlets Jérémie (13½ miles NE), a rocky islet, 12 m in elevation, and a shoal with a depth of 0.7 m over it, 1½ miles ESE, thence:
 2 SE of Battures Gulnare (9 miles NE), a narrow ridge of rocks about 2 miles in length, lying 1¼ miles offshore in the vicinity of Cap Colombier, a rocky peninsula from which a light (square framework tower, 9 m in height) (48°49'2N, 68°52'6W) is exhibited, thence:
 SE of Battures aux Gibiers (5 miles NE), marked by a beacon (orange), on the shore, thence:
 SE of K38 Light-buoy (starboard hand) (3 miles E), thence:
 3 SE of Banc de Portneuf (9 miles SSW), an extensive area of drying sandbanks, with depths of less than

1.8 m over them, extending about 1½ miles offshore, and steep-to, between the entrance to Rivière Portneuf (5.218) and Pointe au Boisvert.

The track then leads to a position SE of K48 Light-buoy (starboard hand) (11½ miles SSW).

It is advisable to keep in depths not less than 55 m when passing SE of Battures Gulnare and Banc de Portneuf.

5.209

- 1 **Clearing line.** The line of bearing of about 250° of the N extremity of Île Laval (48°45'N, 69°02'W), 76 m in elevation, which is round and rocky and on the S side of which stands a beacon (orange), kept just open S of Pointe Orient, 2 miles NE, passes SE of Battures Gulnare.

(Directions continue for coastal passage at 5.222)

Baie Verte

Chart 4777 plan of Baie Verte

General information**5.210**

- 1 **Position.** 48°44'N, 69°03'W, W of Pointe Rocheuse.
Function. Baie Verte is a ferry terminal and the loading port for the wood pulp and paper mills of Forestville, population 3894 in 2002, 7 cables W.
Approach and entry. The bay is entered from E through a dredged channel, marked by light-buoys, on a line of leading lights.
Port Authority. Transport Canada, Harbours and Ports, Room 121, 104 Dalhousie Street, Quebec, G1K 4B8.

Limiting conditions**5.211**

- 1 **Controlling depth.** The least depth in the entrance channel is 4.2 m.
Density of water is 1.025 g/cm³.

Arrival information**5.212**

- 1 **Port radio.** Mont-Joli Radio (VCF), VHF channel 16, is used to communicate with the Port Authority (5.163).
Outer anchorage. Good anchorage in depths of 11 to 13 m, sand and mud, is available 2 miles SE of the harbour, keeping clear of a submarine cable leading SE across St Lawrence River.



Baie Verte (5.213)

(Original dated 1978)

(Photograph – Canadian Hydrographic Service)

Pilotage is not compulsory, but a pilot and tugs are available.

Harbour

5.213

- 1 **General layout.** The harbour is protected from the E by a breakwater. Protection from the W and SW is provided by a rock breakwater, with a private wharf (5.215) on its E side, which extends S from the shore at the head of the bay, and by a training wall, which covers at HW, extending S beyond the head of the wharf.

Directions

5.214

- 1 **Forestville Leading Lights:**

Front light (orange rectangle, black stripe, on red framework tower, 6 m in height) (48°44'·1 N, 69°03'·8 W).

Rear light (similar construction and tower, white bands, 5 m in height) (241 m from front light).

The lights are visible on the leading line only.

- 2 From the vicinity of K38 Light-buoy (starboard hand) (5.208), the alignment (261½°) of these lights leads through the channel, marked by KE2 and KE4 Light-buoys (starboard hand) and KE3 Light-buoy (port hand), into the harbour. At the inner end of the channel the track passes close S of Pointe Rocheuse, E breakwater, marked by a beacon on the S end, and from which a light (5.207) is exhibited, about 1 cable N.

Berths

5.215

- 1 A wharf, 138 m in length, owned by Compagnie de Papier Daishowa, for loading pulpwood forms the E side of the W breakwater. A mobile ramp for the ferry lies on the E side of the inner end of the wharf.

Port services

5.216

- 1 **Repairs.** Minor repairs can be undertaken.
Supplies: limited quantities of fuel oil; fresh water is available in summer months only; fresh provisions.
Communications. A small airport is situated 1½ miles W of Forestville.

Anchorage and harbours

Pointe à Michel

5.217

- 1 Anchorage can be found, with fair shelter from NE winds, SW of Pointe à Michel, with a beacon (radar reflector) (48°54'N, 68°40'W) bearing 064°, distant 1¼ miles, in depths from 10 m to 30 m.

Small craft

Rivière Portneuf

5.218

- 1 **General information.** Rivière Portneuf enters the sea between Pointe des Fortin (48°38'N, 69°05'W) and Barre de Portneuf, a very low, sandy peninsula that extends about 2 miles S. The N part of Barre de Portneuf is occasionally covered at very high tide. The entrance channel, marked by light-buoys, leads to a marina on the N bank and a public wharf and ramp on the S shore opposite, about 3 cables W of the point. The channel nearly dries and numerous shallow channels carry the river to the sea across Banc de Portneuf (5.208). Flooding, silting and storms affect the depths at the river mouth. Local knowledge is essential.

- 2 The village of Sainte-Anne-de-Portneuf, population 990 in 2002, is situated on a steep, sandy bank, at the S entrance to the river, facing Barre de Portneuf.

Obstructions. A submarine pipeline is laid across the river between the public wharf and the marina.

Close upstream of the marina there is an overhead power cable with a vertical clearance of 5·7 m and a bridge with a vertical clearance of 2·5 m.

- 3 **Caution.** Strong E winds cause a considerable swell and heavy surf on the shore. Mariners anchoring close to the shore must be prepared to move at short notice.

POINTE AU BOISVERT TO ESCOUMINS

General information

Charts 4782, 4777

Route

5.219

- 1 The coastal route on the NW side of St Lawrence River, from Pointe au Boisvert (48°34'N, 69°09'W) to Escoumins, 17 miles SSW, is bounded to seaward by the in-bound lane of the traffic separation scheme (5.4), which passes about 5 miles SE of Pointe au Boisvert.

The in-bound lane converges with the coast as it approaches its termination at the pilot boarding area off Anse aux Basques (48°19'N, 69°25'W). Details of the traffic separation scheme are shown on the chart.

Topography

5.220

- 1 Between Pointe au Boisvert (5.204) and Îlets Boisés, two wooded islets, 11 miles SW, the shores of Baie de Mille Vaches are bordered by Hauts-fonds de Mille-Vaches, extensive mud and sand flats, with many large boulders, especially in the SW part.

The coast for a distance of about 1 mile S of Sault-au-Mouton (48°32'N, 69°15'W), and for about 1 mile N of Petite Romaine river entrance (48°29'N, 69°17'W) is backed by wooded, clay cliffs, with the intervening portion backed by cultivated land, and many dwellings.

- 2 The sand and mud flats, with some islets, continue SW of Îlets Boisés to Escoumins, 5 miles farther SW. This section of the coast consists of wooded, clay cliffs, with a road running along the top.

Principal mark

5.221

- 1 **Landmark:**

Water-tower (red lights) (48°20'N, 69°24'W), 88 m in elevation.

Directions

(continued from 5.208)

5.222

- 1 From a position SE of K48 Light-buoy (starboard hand), moored 1¼ miles off Pointe au Boisvert (48°34'N, 69°09'W), the coastal passage leads SW, passing:

SE of Hauts-fonds de Mille-Vaches, drying flats that fill Baie de Mille Vaches, and foul ground that extends 1 mile seaward of these flats in places, thence:

SE of Îlets Boisés (Îlets Penchés) (48°25'N, 69°19'W), two islets 12 m in elevation, thence:

- 2 SE of Grande Caye à Brisson (48°24'N, 69°20'W) and Petite Caye à Brisson, 1 cable SW.

The track then leads to a position about 1 mile SE of the S entrance point to Baie des Escoumins, where there is

a wharf (5.227) from the head of which a light (moveable structure, 10 m in height) (48°20'8N, 69°23'4W) is exhibited.

5.223

Useful marks:

- 1 Church spire (48°34'N, 69°14'W) on Les Crans Rouges, a red granite point, at Saint-Paul-du-Nord. Île Bicquette Light (white round tower, 23 m in height) (48°25'N, 68°54'W) (7.113).
(Directions continue at 5.241)

Anchorage and harbours

Baie de Mille Vaches

5.224

- 1 **Anchorage.** Good anchorage can be found SE of Sault-au-Mouton (48°32'N, 69°15'W) (5.229), in depths of 15 to 20 m, sand and mud.

Baie des Escoumins

5.225

- 1 **General information.** Baie des Escoumins (48°21'N, 69°24'W), lying S of Pointe de la Croix, dries out completely, except for shallow drainage channels from Rivière des Escoumins, at its head.
The small town of Escoumins, population 2136 in 2002, is situated N of the river mouth.

5.226

- 1 **Anchorage.** Vessels loading at Escoumins may anchor in depths of 11 m on the bank which extends about 3 cables NE from the S entrance point to the bay. The holding ground is poor.
It is reported that vessels cannot remain at anchor in this position in strong E winds.

Directions. It is advisable for a vessel intending to anchor to approach at slow speed, sounding frequently, as there are depths of well over 100 m at a distance of only 1 cable from the bank.

- 2 **Useful mark:**

Church (brown granite; silver steeple) (48°21'N, 69°24'W), with a white statue standing on the ground in front.

5.227

- 1 **Berths.** Escoumins public jetty, 120 m long, which extends E from the S entrance point to the bay is in ruins and its use is prohibited except for a mobile ramp for the ferry at its inner end.

Communications. A seasonal passenger and car ferry plies between Escoumins and Trois-Pistoles (48°08'N, 69°10'W) (7.142) on the S shore of St Lawrence River. The ferry track is indicated on the chart. The schedule of the ferry to Trois Pistoles is governed by the time of HW at Trois Pistoles.

Small craft

Saint-Paul-du-Nord

5.228

- 1 **General information.** Saint-Paul-du-Nord village (48°34'N, 69°14'W) with a population of 896 in 1986, is grouped around a church about 4 miles W of Pointe au Boisvert. Local knowledge is required.
- 2 **Directions.** The recommended approach track across the flats, which dry for a distance of 2 miles from the village, is on a line of bearing 315° of the church; in this direction there are fewer boulders on the flats.

Sault-au-Mouton

5.229

- 1 **General information.** Sault-au-Mouton (48°32'N, 69°15'W) is a lumber village, population 792 in 1986, at the mouth of the river of that name, 4½ miles WSW of Pointe au Boisvert. It is marked by a church spire. A waterfall, 24 m in elevation, is clearly visible from SE through the river entrance, but is obscured from other directions. Local knowledge is essential.

Directions. It is reported that leading beacons, privately maintained and occasionally lighted, mark an approach channel, 30 m wide and cleared of boulders to a depth of 1 m.

- 2 **Berths.** A small pier, in ruins, 77 m long, stands at the S side of the river entrance. The berth alongside the pier dries, but the approach channel can be used at HW. Two other piers, in ruins, stand near the river mouth.
- 3 Sault-au-Mouton and Saint-Paul-du-Nord have amalgamated with the municipality of Longue-Rive with a population of 1410 in 2002.

La Petite Romaine

5.230

- 1 **General information.** La Petite Romaine (48°29'N, 69°17'W) is a river with drying mud-flats in its mouth, on which small craft lie for loading timber. There are depths of 3 m up to the river entrance at HW. Local knowledge is required.

ESCOUMINS TO RIVIÈRE SAGUENAY

General information

Chart 4782

Route

5.231

- 1 The coastal route from Escoumins (48°21'N, 69°24'W) to Rivière Saguenay, 17 miles SW, on the NW side of St Lawrence River, leads to the outer end of the Rivière Saguenay approach channel (5.254). It contains the Escoumins pilot boarding area, which occupies a radius of 2 miles from Anse aux Basques (48°19'N, 69°25'W). The limits of the pilot boarding area are indicated on the chart.
This waterway is also the main route for in-bound traffic proceeding farther up St Lawrence River.

Topography

5.232

- 1 The coast between Escoumins and Cap de Bon-Désir is steep-to, with depths of over 100 m only 1 or 2 cables offshore. Cap de Bon-Désir is a granite headland. From Cap de Bon-Désir to Baie des Petites Bergeronnes, 5½ miles farther SW, the coast is bordered by Batture à Théophile, drying flats, which extend more than 5 cables offshore in places. The flats are steep-to with a fringe of reefs of large boulders; several bare islets stand on the flats.
- 2 The coast is backed by low cliffs, and becomes wooded near Baie des Grandes Bergeronnes (48°14'N, 69°33'W), which is separated by a wooded peninsula from Baie des Petites Bergeronnes, 1 mile SW.

5.233

- 1 The coast between Baie des Petites Bergeronnes and Pointe aux Vaches, 6 miles farther SW, is thickly wooded. For the first 2¾ miles it rises gradually to the coastal hills but farther SW it is high and bold.
The sandy nature of the Saguenay district begins SW of Baie du Moulin à Baude (48°09'N, 69°40'W), the high clay cliffs and sand ridges being very distinctive from seaward.

For about 2 miles S from Baie des Petites Bergeronnes the shore is fringed by a drying reef about 1½ cables wide, edged with large boulders and steep-to on the outer side.

- 2 Farther SW, off Pointe aux Vaches (48°08'N, 69°41'W), shoal ground and rocky patches extend offshore to Rochers du Saguenay (rocky patches) 3 miles E of the point.

A prominent waterfall and the remains of an old power house are situated near the mouth of Rivière du Moulin à Baude, about 1 mile NNE of Pointe aux Vaches; the noise of the waterfall can be heard at a considerable distance.

Unexploded ordnance

5.234

- 1 The unexploded ordnance area (5.200) lies from about 2 to 5 miles offshore.

Pilotage

5.235

- 1 **ETA.** Vessels proceeding up St Lawrence River are required to embark a pilot at Escoumins, sending ETA 24, 12 and 6 hours in advance. Vessels sailing downstream embark the pilot at Québec. Vessels are to give 4 hours notice to change pilots at Québec, Trois-Rivières, and Montréal. For further details see *Admiralty List of Radio Signals Volume 6*.

Clearance must be obtained from Escoumins VTS (1.27) before entering the pilot boarding area, and will not be granted until the preceding ship is well clear. Priority is given to outward-bound vessels. Ships manoeuvring to embark or disembark pilots should not navigate inside the 200 m depth contour.

- 2 **Pilot boarding.** The pilot boards off Anse aux Basques (48°19'N, 69°25'W) (5.243) in the pilot boarding area shown on the chart. Steerage way must be maintained, otherwise the pilot vessel will not come alongside; appropriate instructions will be given from the pilot vessel on VHF.

Traffic regulations

5.236

- 1 The in-bound lane of the traffic separation scheme (5.4) terminates at the pilot boarding area; the out-bound lane leaves the pilot boarding area E of Anse aux Basques. Details are shown on the charts.

Measured distance

5.237

- 1 There is a measured distance between 5 cables SW and 1½ miles SW of Cap de Bon-Désir (48°16'N, 69°28'W), as shown on the chart.

North-east limit marks. The alignment (310°) of light-beacons (orange triangles, point up (point down on rear beacon), black stripe, on red and white square framework towers) (48°16'3N, 69°29'4W); lights visible in line only.

South-west limit marks. The alignment (310°) of light-beacons (similar construction as NE limit light-beacons) (48°15'6N, 69°30'3W); lights visible in line only.

Distance. 1853 m.

Running track. 040°/220°.

Tidal streams

5.238

- 1 The tidal streams are regular, with a rate increasing as the comparatively narrow passages are approached that lie

on each side of Île Rouge (48°04'N, 69°33'W), abreast the entrance to Rivière Saguenay.

The in-going tidal stream is the stronger, the out-going stream being deflected towards the S shore by the flow from Rivière Saguenay.

- 2 The in-going tidal stream does not extend more than 6 miles off the N shore below Baie des Grandes Bergeronnes (48°14'N, 69°33'W), and the closer to that shore, the stronger the tidal stream. Off Baie des Grandes Bergeronnes the rate is 2 to 3 kn at springs.

Principal marks

5.239

Landmarks:

- 1 Water-tower, (red lights) (48°20'N, 69°24'W), 88 m in elevation.
Pilot station (red and white building) (48°19'N, 69°25'W) at Anse aux Basques, with a radar tower close by.
Cap de Bon-Désir Lighthouse (white 8-sided tower, with red upper part) (48°16'3N, 69°28'1W).
Spire (aluminium) (48°15'N, 69°33'W), at Grande-Bergeronnes.
- 2 Sand patches, triangular in shape (48°13'N, 69°34'W) are visible from a considerable distance, especially in the morning sun.
White granite patches (48°11'N, 69°37'W) lie close together on the cliffs, on the side of a sharp peak, 129 m in elevation, which is distinctive from the NE.
Orange beacon (48°09'6N, 69°39'8W) at Baie du Moulin à Baude.

Major lights:

- 3 Anse aux Basques Light (square framework tower, 9 m in height) (48°19'N, 69°25'W).
Cap de Bon-Désir Light — as above.
Haut-fond Prince Pier Light (white round tower, red bands) (48°07'N, 69°37'W).
Île Rouge Light (48°04'N, 69°33'W) (7.154).

Other navigational aid

5.240

Racon:

- 1 Anse aux Basques Light (48°19'N, 69°25'W) (5.239).

Directions

(continued from 5.222 and 2.36)

5.241

- 1 From a position about 1 mile SE of Escoumins Wharf Light (48°21'N, 69°23'W) (5.222) the coastal passage leads SW through the pilot boarding area off Anse aux Basques (5.243), from which a light (5.239) is exhibited. The track then passes (with positions from Cap de Bon-Désir (48°16'N, 69°28'W)):

SE of Cap de Bon-Désir and the lights (1 mile W and 1¾ miles WSW) marking the measured mile (5.237), thence:

- 2 SE of the coastal flats (5.232) between Cap de Bon-Désir and Baie des Petites Bergeronnes (6 miles SW).

The track then leads to a position 48°07'N, 69°35'W, in the vicinity of Saguenay Light-buoy (safe water), about 1 mile SE of K54 Light-buoy (starboard hand) (10 miles SW), marking the SE side of Rochers du Saguenay.

(Directions continue for approach to Rivière Saguenay at 5.259, and for St Lawrence River at 8.24)

Anchorages and harbours

Rochers du Saguenay

5.242

- 1 Anchorage can be found on Rochers du Saguenay (48°08'N, 69°36'W), with Haut-fond Prince Pier Light (5.239) bearing 193°, distant 2 miles, in a depth of 15 m, mud. See position on the chart.

Anchorage is also available between Rochers du Saguenay and the coast NW, with Haut-fond Prince Pier Light bearing 176°, distance 3¼ miles, in a depth of 11 m, mud and sand, about 7 cables from the shore. Depths increase rapidly outside this position. See position on the chart.

Small craft

Anse aux Basques

5.243

- 1 **General information.** Anse aux Basques (48°19'N, 69°25'W) is the base for Escoumins pilots.

Directions. The cove is entered on the alignment (301¾°) of Anse aux Basques Leading Lights:

Front light (orange trapezium, black stripe on red and white framework tower, 5 m in height) (48°19'1N, 69°24'9W) exhibited from the head of the pilot station wharf on the N shore.

Rear light (similar construction and tower) (69 m from front light).

The lights are visible on the leading line only.

Baie des Grandes Bergeronnes

5.244

- 1 **General information.** Baie des Grandes Bergeronnes (48°14'N, 69°33'W), dries out completely, except in the

shallow channels from the river that flows into its head. The boulders have been cleared away in certain parts of the flats across the entrance to the cove, making it accessible to small craft at HW. Local knowledge is required.

The village of Grandes-Bergeronnes, population 640, containing a mica mine and a sawmill, is situated at the head of a narrow inlet N of the bay. A road bridge crosses the river at the village, which is marked by a prominent church spire (5.239).

5.245

- 1 **Directions.** The bay is entered through a buoyed channel in the flats, marked in its E side by KJ2 Light-buoy (starboard hand; boat type) (48°13'3N, 69°33'2W). The channel, dredged in 1997 to a depth of 2.0 m, is 30 m wide and leads generally NNW to a 50 m wide basin at Pointe à John, where there is a public wharf with pontoons and a marina.

5.246

- 1 **Anchorage.** A small hole, with a depth of 1.8 m, in which boats occasionally anchor, lies off Pointe à John, the NE entrance point to the bay.

Berths:

Basin at Pointe à John contains a public wharf, length 110 m, with pontoons and a marina.

Baie des Petites Bergeronnes

5.247

- 1 **General information.** Baie des Petites Bergeronnes (48°13'N, 69°35'W), which is accessible to small craft near HW, dries out well beyond its entrance points, the flats being fringed with very large boulders. The E entrance point, Pointe Sauvage, is marked by a conspicuous white boulder. A shallow stream which flows into the head of the cove has been cleared to enable small craft to enter towards HW. Local knowledge is required.

RIVIÈRE SAGUENAY AND APPROACHES

GENERAL INFORMATION

Charts 4780, 4781, 4779

Area covered

5.248

- 1 This section describes the navigable waters of Rivière Saguenay from Saguenay Light-buoy (safe water) (48°07'N, 69°36'W), off the entrance to Rivière Saguenay, to Chicoutimi, Port Saguenay, about 60 miles WNW. The section is arranged as follows:

Approaches to Rivière Saguenay (5.254).

Pointe Noire to Pointe au Boeuf (5.267).

Pointe au Boeuf to Cap de l'Ouest (5.286).

Baie Des Ha! Ha! and Port-Alfred (5.297).

Port Saguenay (5.328).

Topography

5.249

- 1 Rivière Saguenay discharges the waters of Lac Saint-Jean, in the interior of Québec Province, and enters St Lawrence River between Pointe Rouge (48°08'N, 69°42'W) and Pointe Noire, about 1 mile SW. The river resembles a narrow mountain loch, between 6 cables and 2 miles wide, for the first 50 miles above its mouth.
- 2 The mountains, which rise abruptly from the water, form precipitous headlands, more than 300 m high in places, where the river cuts through them. When seen one beyond

the other, up magnificent reaches many miles long, they produce a scenery which, although wild and barren, is full of grandeur and beauty. The hills are generally bare, but the valleys, through which rapid streams descend, are thickly wooded. Above Cap de la Mer (48°26'N, 70°54'W) the terrain and channel becomes much more typical of a river entrance.

Depths

5.250

- 1 A bar lies 2½ miles E of the entrance to the river. Within the bar the depths increase, and for the first 50 miles there are depths of over 100 m very close to the precipitous shores for long stretches. There are occasional anchorages, but they are some miles apart, and the depths in them are considerable.

The river is navigable by ocean-going vessels as far as Chicoutimi (48°26'N, 71°03'W). Above Chicoutimi the river is navigable by small craft for a further 6 miles.

Ice

5.251

- 1 Ice forms in Rivière Saguenay from mid-December until the end of March. The ice covers the whole width of the river and forms fast ice attached to the shore. Vessels navigating the river need to be ice strengthened. At the mouth of the river the mixing of the waters produces an ice free zone.

Tidal streams**5.252**

- 1 Tidal streams of variable direction are encountered in the mouth of Rivière Saguenay, with rates of 6 to 7 kn at spring tides. On the change of tidal streams, there are heavy tide rips over the bar at the entrance to the river. When the ebb tide is coincident with an E gale, a cross sea is raised which is particularly dangerous for small craft. With strong NW winds, during the flood, the sea becomes very choppy with breakers. Above the entrance the flow is predominantly out-going. The effect of the in-going tidal stream is soon lost, except as a weak stream close to the shore and, perhaps, at a depth of several metres.

Vessel Traffic Services**5.253**

- 1 Vessels entering Rivière Saguenay are required to report to Escoumins VTS Centre (Escoumins Traffic) on passing the reporting points, which are indicated on the chart and listed in *Admiralty List of Radio Signals Volume 6* (5).

APPROACHES TO RIVIÈRE SAGUENAY**General information**

Chart 4779

Description**5.254**

- 1 The main channel into the entrance to Rivière Saguenay from a position 48°07'N, 69°35'W, about 1½ miles ENE of Haut-fond Prince Pier Light (48°07'N, 69°37'W), leads about 5 miles W to a position NE of Pointe Noire (48°07'N, 69°43'W).

Topography**5.255**

- 1 The coast in the vicinity of Pointe aux Vaches (48°08'N, 69°41'W), on the N side of the river entrance, is formed by precipitous clay cliffs, up to 62 m in elevation, with some peculiar patches of brushwood on them rising to 200 m hills.
- Batture de la Pointe aux Vaches, a drying bank, extends about 6 cables SE from Pointe aux Vaches, with some rocks, which dry 3 m, near its S end.
- 2 S of the river entrance, the extensive drying flats of Batture aux Alouettes, sand and boulders, extend more than 3 miles offshore.

Depths**5.256**

- 1 The depths in the channel are irregular and can best be seen from the chart. There is a least depth of 11 m in the channel, over the bar, 1½ miles WNW of Haut-fond Prince Pier Light. The least depth on the leading line (5.259) is 18.3 m.

Tidal streams and dangerous seas**5.257**

- 1 **Outer approach.** At a position 1¼ miles NE of Haut-fond Prince Pier Light, the in-going tidal stream sets SSW at a spring rate of about 2 kn; the out-going tidal stream sets NE at a spring rate of up to 3.6 kn. The tidal stream tables on the charts give hourly directions and rates.
- 2 **In the entrance channel.** At springs the out-going tidal streams from Rivière Saguenay meeting the out-going stream in St Lawrence River in the vicinity of the bar (48°07'N, 69°40'W), causes an area of breaking seas, eddies and tide-rips, severe enough to affect a ship's

steering. These tidal streams, when opposed by a NE gale, cause an exceedingly high cross and breaking sea, enough to sink a boat, and dangerous even for small vessels. Out-going rates can attain 7 kn.

- 3 On the in-going tidal stream at such times, there is no more sea than in other parts of the river.

Principal marks**5.258**

- 1 **Landmark:**

Orange beacon (48°09'.6N, 69°39'.8W) at Baie du Moulin à Baude.

Major lights:

Cap de Bon-Désir Light (48°16'.3N, 69°28'.1W) (5.239).

Haut-fond Prince Pier Light (48°07'N, 69°37'W) (5.239).

Île Rouge Light (48°04'N, 69°33'W) (7.154).

Directions

(continued from 5.241)

Main channel**5.259**

- 1 **Pointe Noire Leading Lights:**

Front light (orange square, black stripe, on square framework tower, 11 m in height) (48°07'.4N, 69°43'.0W) on the point.

Rear light (similar construction and tower, 8 m in height) (427 m from front light).

The lights are visible on the leading line only.

- 2 From a position 48°07'N, 69°35'W, about 1½ miles ENE of Haut-fond Prince Light, the alignment (273°) of these lights leads through the buoyed channel, passing (with positions from Haut-fond Prince Pier Light):

Close to Saguenay Light-buoy (safe water) (8 cables NE), thence:

About 5 cables N of the N edge of Haut-fond Prince shoal (3 cables NW), marked by S3 Light-buoy (port hand) (7 cables WNW), thence:

- 3 S of Batture aux Vaches shoal, marked by S4 Light-buoy (starboard hand) (1¼ miles NW), thence:

N of Récif Bar, marked by S5 Light-buoy (port hand) (1¾ miles WNW), thence:

S of Batture de la Pointe aux Vaches, marked by S8 Light-buoy (starboard hand) (2½ miles WNW), and:

N of shoal ground, marked by S7 Light-buoy (port hand) (2½ miles WNW), extending 7 cables NNE from Îlet aux Alouettes, (Lark Island) on which stands a beacon (orange and white) with a radar reflector.

- 4 The track then leads WNW to a position in the river entrance, about 4 cables NE of Pointe Noire, (precipitous and steep-to). A light is exhibited from Pointe Noire, visible N of a line of bearing of 257° only.

Caution. The out-going tidal stream sets strongly NE across Batture aux Vaches and Batture de la Pointe aux Vaches.

Inshore channel**5.260**

- 1 It is possible to pass between Batture aux Vaches (48°07'.7N, 69°38'.5W) and Batture de la Pointe aux Vaches, close NW, but great care is necessary.

Leading line. The line of bearing 226° of Pointe au Bouleau (Birch Point) (48°04'.7N, 69°43'.8W), open a little

SE of the beacon on Îlet aux Alouettes, leads through the channel, with shoal water close on each side.

Useful marks

5.261

- 1 Saint-Firmin Church spire (48°06'N, 69°44'W), on top of sandy cliffs.
Pointe de l'Islet Light (square framework tower, 9 m in height) (48°08'N, 69°43'W).
Baie Sainte-Catherine Wharf Head Light (red square framework tower, 1 m in height) (48°07'N, 69°43'W).
(Directions continue for Rivière Saguenay at 5.272).

Baie Sainte-Catherine

General information

5.262

- 1 Baie Sainte-Catherine (48°07'N, 69°43'W), S of the river entrance, is filled on its W and S sides by the drying flats of Batture aux Alouettes (Lark Reef). Close N of the drying area there is a public wharf; a rocky, steep-to shore extends thence to Pointe Noire, 5 cables NNE.

The village of Saint-Firmin, population 316, marked by a conspicuous church spire, is situated on the SW shore of the bay.

Anchorage

5.263

- 1 Good anchorage can be found off the pier, in a depth of about 33 m. See position on the chart. This anchorage, used by passenger vessels during the summer months, is out of the tidal stream, but E winds cause a considerable swell.

Berth

5.264

- 1 The public wharf, which is 105 m in length, with a 31 m pierhead, and with depths alongside of 3.7 m at W end and 8.5 m at E end. It is used for commercial traffic only.
Baie Sainte-Catherine Light (5.261) is exhibited from the pierhead.

Communications

5.265

- 1 **Sea.** A ferry plies throughout the year to Tadoussac on the N side of the river entrance.

Small craft

5.266

- 1 A 12 m pontoon and a slipway are available for small craft close W of the public wharf.

POINTE NOIRE TO POINTE AU BOEUF

General information

Chart 4779

Description

5.267

- 1 Rivière Saguenay, from its entrance NE of Pointe Noire (48°07'N, 69°43'W) to Pointe au Boeuf, 22 miles upstream, is deep and clear of dangers.

Topography

5.268

- 1 The shores are, generally, steep-to, but there are anchorages and jetties for small vessels in some of the bays and coves.

Fishing

5.269

- 1 Fishing shanties are established annually on ice from Île Saint-Louis (48°15'N, 70°01'W) to Chicoutimi (48°26'N, 71°03'W), including Baie des Ha! Ha! (48°20'N, 70°50'W). Mariners should take all necessary care to avoid the drifting installations and should reduce speed between Île Saint-Louis and Cap Éternité (48°18'N, 70°17'W).

Overhead power cables

5.270

- 1 Power transmission lines span the river as follows:
3 cables W of Cap de la Boule (48°09'N, 69°48'W), vertical clearance 92 m, reducing to 72 m in severe ice conditions.
1½ miles WNW of Pointe aux Crêpes (48°13'N, 69°54'W), vertical clearance 50 m.
The supporting towers on both banks are marked by red lights.

Caution. Under severe icing conditions the clearance under power transmission lines may be considerably reduced. See also the note on the chart.

Natural conditions

5.271

- 1 **Local magnetic anomaly.** Local deflection of the compass occurs in the vicinity of Pointe Claveau (48°16'N, 70°07'W).

Tidal streams. In the entrance to the river, the in-going stream begins 4 h 10 m before HW Pointe au Père (48°31'N, 68°28'W) and attains a rate of 3 to 4 kn at springs; the out-going stream begins 0 h 35 m after HW Pointe au Père and attains a rate of 6 to 7 kn at springs. Above Tadoussac, these rates decrease rapidly.

- 2 Above Baie Sainte-Marguerite (48°15'N, 69°58'W) the in-going stream is barely perceptible, except for a weak stream close inshore; the out-going stream varies from 3 to 5 kn, depending on the width of the river. There is sometimes an in-going sub-surface stream while the surface stream is out-going.

Directions

(continued from 5.259)

5.272

- 1 From a position about 4 cables NE of Pointe Noire (48°07'N, 69°43'W) the track leads in mid-river, passing (with positions from Cap de la Boule Light (48°09'N, 69°48'W)):
SSW of Pointe de l'Islet Light (3½ miles ESE) (5.261), thence:
NNE of Anse du Portage Wharf Head Light (square framework tower, 6 m in height) (3¼ miles ESE) (5.277), and:
SSW of Anse à l'Eau Wharf Head Light (square framework tower, 6 m in height) (3 miles E) (5.276), thence:
S of Cap de la Boule Light (red framework tower, white bands, 6 m in height), thence:
NE of Anse de Sable (Anse à David) Light (red framework tower, white bands, 6 m in height) (2 miles W); thence:
WSW of a radio tower (30 m in height) (4¾ miles NNW), thence:
WSW of Anse-de-Roches Wharf Light (red and white framework tower, 6 m in height) (5 miles NNW), the S entrance point to Anse à la Grosse Roche (5.280), and:
- 3

ENE of Pointe aux Crêpes Light (red framework tower, white bands, 8 m in height) (5½ miles NW), the N entrance point to Anse de Saint-Étienne (5.279), thence:

SW of Anse à Pierrot Light (square framework tower, 9 m in height) (6¼ miles NNW), thence:

N of Île Saint-Louis Light (red framework tower, white bands, 9 m in height) (10½ miles NW) (5.282), exhibited from the N side of the islet, thence:

S of Pointe Claveau Light (red framework tower, white bands, 9 m in height) (48°16'N, 70°07'W), 1½ miles NNW of Anse du Petit-Saguenay (5.284).

The track then leads to a position NE of Pointe au Boeuf (48°16'N, 70°11'W), off Anse Saint-Jean (5.285).

(*Directions continue at 5.291*)

Anchorage and harbours

Baie de Tadoussac

5.273

- 1 **General information.** Baie de Tadoussac (48°08'N, 69°43'W), on the N side of the entrance to Rivière Saguenay, has the village of Tadoussac, a summer resort, population 900, at its head. The village stands on a terrace of sand and clay, backed by high, rugged hills. It is marked by a church spire and a conspicuous red and white hotel, surmounted by a cupola.

There is a public wharf at Tadoussac and the bay affords anchorage sheltered from the seas, but NW winds bring extremely strong gusts down the river.

Tidal levels at Tadoussac. Mean spring range about 4.1 m; mean neap range about 2.1 m. For further information see *Admiralty Tide Tables Volume 2*.

5.274

- 1 **Anchorage** can be found about 2½ cables from the head of the bay, as indicated on the chart, in depths of 29 to 33 m sand and clay. The anchorage is out of the tidal stream, but eddies in the bay may cause a vessel to swing many times during each tide. There is a danger of vessels dragging their anchors in the violent NW gusts previously mentioned.

Small vessels may anchor in depths of 13 to 15 m in the N corner of the bay, which is completely sheltered.

- 2 **Berth.** A public wharf 77 m in length on its outer, NE face, depth alongside 7.4 m, is situated on the NE side of the promontory at the SW side of the bay, about 2 cables NE of Pointe de l'Îslet. The SE face of the wharf is 31.5 m in length with a charted depth of 3 m alongside.

5.275

- 1 **Facilities** at the wharf include a slipway with hoist on the N side.

Supplies: fresh water; provisions.

Communications. A ferry service operates to Saint-Firmin (5.262) and regular services run to ports on St Lawrence and Saguenay rivers.

Small craft. A marina with pontoon berths, situated close NW of the public wharf, was dredged to a depth of 3 m in 1984. There is also a dry-dock.

Rescue. A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

Anse à l'Eau

5.276

- 1 Anse à l'Eau, a cove about 5 cables W of Baie de Tadoussac, is the ferry terminal for a year round service across the river to Anse au Portage. The ferry loads and

unloads from a moveable ramp on a public wharf, on the W side of the cove. The berth is 56 m long, with a depth of 4.6 m alongside. A light (5.272) is exhibited at the outer end of the wharf.

Anse du Portage

5.277

- 1 Anse du Portage, the S shore terminal of the river ferry service has a ferry berth 49 m in length. A light (5.272) is exhibited from the outer end of the wharf.

Caution. Vessels passing the ferry terminals should reduce speed, to reduce disturbance to the movable ramps. The ferry track is shown on the chart.

Small craft

Anse à la Barque

5.278

- 1 **General information.** Anse à la Barque (48°09'N, 69°44'W), on the N shore of the river, about 1 mile W of Baie de Tadoussac, provides confined but sheltered anchorage for small craft. See anchor position on the chart.

Anse de Saint-Étienne

5.279

- 1 **General information.** Anse de Saint-Étienne (48°12'N, 69°54'W) is situated on the W shore of the river, S of Pointe aux Crêpes; drying banks fill the head of the cove.

Anchorage can be found in depths of 18 to 55 m, clay, off the edge of the banks, as indicated on the charts.

Anse à la Grosse Roche

5.280

- 1 **General information.** Anse à la Grosse Roche (48°13'N, 60°53'W) lies on the E shore of the river, opposite Pointe aux Crêpes. The bay contains the village of Anse-de-Roche, which serves the lumber industry of Sacré-Coeur, a town situated about 3 miles inland.

Anse-de-Roche has a public wharf from which a light (5.272) is exhibited. Local knowledge is required before approaching the wharf owing to the presence of a number of uncharted shoal depths.

- 2 **Berths.** The public wharf is 75 m in length, with a 30 m long outer face which has a depth alongside of 4.9 to 5.5 m.

Small craft. A marina with floating pontoons and a slipway is situated on the N side of the wharf.

Baie Sainte-Marguerite

5.281

- 1 **General information.** Baie Sainte-Marguerite (48°15'N, 69°58'W) on the N shore, with Rivière Sainte-Marguerite flowing into its head, is used by vessels loading lumber. The village of Sainte-Marguerite (Denonville) stands on the banks of the river.

Île Saint-Louis

5.282

- 1 **General information.** Île Saint-Louis (48°15'N, 70°01'W) from which a light (5.272) is exhibited on the N side, lies towards the S side of the river, about 16 miles above the entrance to Rivière Saguenay. A reporting point lies close N of the island.

Anchorage. Good anchorage can be found between the island and the S bank of the river, with a recommended position 3 cables from the SE side of the island, in depths of over 50 m, sand and mud. See the position on the chart.

Small craft can anchor closer inshore in depths of 4 to 5 m.

Île Saint-Barthélemy**5.283**

- 1 **General information.** Île Saint-Barthélemy (48°16'N, 70°03'W) lies close to the N shore of the river, about 1 mile NW of Île Saint-Louis.

Anchorage for one or two coasters may be found NW of the island, in depths of 15 to 27 m, but space is very restricted.

Anse du Petit-Saguenay**5.284**

- 1 **General information.** Anse du Petit-Saguenay (48°14'N, 70°06'W) lies on the S side of the river, about 3 miles above Île Saint-Louis. A rock, which dries 3 m, lies in the approximate position 48°14'3N, 70°06'2W.

Berth. A pier projects from the shore on the W side of the cove, with a berth 44 m long and a depth of 4.4 m alongside its outer face. A boat slipway is located nearby.

Anse Saint-Jean**5.285**

- 1 **General information.** Anse Saint-Jean (48°15'N, 70°11'W), on the S side of the river, 22 miles above its entrance, provides anchorage for small vessels, a public wharf and a marina.

Rivière Saint-Jean and other small streams flow into the bay through drying mud-flats at its head. The village of L'Anse-Saint-Jean, population 1309, lies on the S shore of the bay. A prominent waterfall can be seen on the W side of the bay.

- 2 **Anchorage,** can be found in depths of 15 to 55 m, mud, off the edge of the drying bank at the head of the bay.

Berths. The public wharf, 121 m in length, with a berth 31 m long in ruins at its outer end and a depth of 5.5 m alongside, extends from the shore on the SE side of the bay. A marina with floating pontoons and a boat ramp is located on the W side of the pier.

POINTE AU BOEUF TO CAP DE L'OUEST**General information**

Canadian Charts 1203, 1202 (see 1.32)

Description**5.286**

- 1 Rivière Saguenay, from Pointe au Boeuf (48°16'N, 70°11'W) to Cap de l'Ouest (Cape West) (48°23'N, 70°45'W), 25 miles farther up river, is deep and clear of dangers.

Topography**5.287**

- 1 The shores are, generally, steep-to, but there are anchorages and berths for small vessels in some of the bays and coves.

Overhead power cables**5.288**

- 1 Power transmission lines, with a vertical clearance of 61 m, span the river about 1 mile NW of Pointe au Boeuf.

The supporting towers on both banks are marked by red lights.

Caution. Under severe icing conditions the clearance under power transmission lines may be reduced to as little as 33 m. See also the note on Canadian Chart 1203.

Fishing**5.289**

- 1 See information at 5.269.

Natural conditions**5.290**

- 1 **Local magnetic anomalies.** Local deflection of the compass occurs in the vicinity of Baie Trinité Light (48°21'N, 70°21'W) and Anse de la Croix (48°21'N, 70°40'W).

Tidal streams. Between Pointe au Boeuf and Cap de l'Ouest the surface stream is never strong.

In many parts, especially during spring tides, there is a variable under-current, strong with the in-going tidal stream, but scarcely perceptible during the out-going stream. This under-current may affect the handling of a vessel, even when assisted by a tug.

Directions

(continued from 5.272)

5.291

- 1 From a position NE of Pointe au Boeuf (48°16'N, 70°11'W) the track leads in mid-river, passing:

NE of Anse de Tabatière Light (red framework tower, white bands, 5 m in height) (48°16'N, 70°12'W), thence (with positions from Cap Rouge Light (48°22'N, 70°32'W)):

NE of Cap Trinité (9 miles ESE), which viewed from up or down river, resembles three steps. On the lowest step, at an elevation of about 122 m, stands a statue of the Virgin Mary, 10 m in height; on the next step, at an elevation of 213 m, stands a cross; above these the cape rises to an elevation of 457 m. Thence:

- 2 NE of La Niche (7¾ miles ESE), a remarkable hole in the cliffs on the S shore, about 1½ miles above Cap Trinité, thence:

SW of Baie Trinité Light (red framework tower, white bands, 10 m in height) (7¾ miles E), thence: S of Cap Rouge Light (red framework tower, white bands, 8 m in height).

The track then leads to a position SW of Cap de l'Est Light (East Cape) (white 8-sided tower, 8 m in height) (48°23'N, 70°42'W), in the entrance to Baie des Ha! Ha!

(Directions continue for Baie des Ha! Ha! at 5.317, and for Chicoutimi at 5.349)

Anchorage and harbours**Baie Éternité****5.292**

- 1 **General information.** Baie Éternité (48°19'N, 70°19'W) is a deep indentation in the S bank of the river, between Cap Éternité and Cap Trinité, about 1½ miles NW. Rivière Éternité flows into the head of the bay through drying flats.

Anchorage. Secure and landlocked anchorage can be found off the edge of the shoal ground at the head of the bay, in depths of 15 to 55 m, mud.

Small craft. Pontoons, 24 m in length, are situated on the W side of the bay, near the river entrance. Mooring buoys are located at the head of the bay.

Saint-Basile-de-Tableau**5.293**

- 1 **General information.** Saint-Basile-de-Tableau (48°22'N, 70°28'W), a village on the N shore, about 13 miles above Pointe au Boeuf, is marked by a church and a small wharf in ruins.

Anse de la Descente des Femmes**5.294**

- 1 **General information.** Anse de la Descente des Femmes (48°23'N, 70°34'W), on the N shore, 17 miles above Pointe au Boeuf, is an isolated cove and village. A marine farm is located at the head of the cove.

Anse Théophile**5.295**

- 1 **General information.** Anse Théophile (48°23'N, 70°35'W) has the village of Sainte-Rose-du-Nord, population 423, marked by a church spire, at its head.

Berth. A public wharf 77 m in length and 12 m in width, with a depth of 4.9 m at its head, extends from the E side of the cove, S of the church. A conspicuous flagstaff stands on the point S of the wharf.

Small craft. A marina, equipped with a slipway, is situated N of the wharf.

Anse de la Croix**5.296**

- 1 **General information.** Anse de la Croix (48°21'N, 70°40'W) is a cove on the S shore, 20 miles above Pointe au Boeuf.

Berth. A small wharf in ruins, with a depth alongside of 3.7 m at HW, extends from the shore at the head of the cove.

BAIE DES HA! HA! AND PORT-ALFRED**General information**

Canadian Chart 1202 plan of Baie des Ha! Ha! (see 1.32)

Position**5.297**

- 1 Baie des Ha! Ha! (48°21'N, 70°49'W) is a deep water bay situated about 50 miles above the entrance to Rivière Saguenay, with the city of La Baie, population 21 647, at its head. La Baie incorporates the towns of Port-Alfred, Bagotville and Grande-Baie.

Function**5.298**

- 1 Principal commodities traded through Port-Alfred are:
Exports. Wood pulp, newsprint, lumber and aluminium.
Imports. Bauxite, alumina, green coke, fluorspar and oil.

Topography**5.299**

- 1 From Pointe du Fort, near the S entrance point, the land is mostly cultivated around the shores of the bay, generally backed by steep hills except in the port area.

Port limits**5.300**

- 1 The outer limit of the port is a line drawn from a point on the shore about 3 cables N of Cap de l'Ouest (48°23'N, 70°45'W) in a SE direction to the opposite shore. See the chart.

Approach and entry**5.301**

- 1 The berths at Port-Alfred are approached from ENE through Baie des Ha! Ha! on the alignment of leading lights.

Traffic**5.302**

- 1 In 2000, 111 ship movements were recorded, totalling 4 667 462 dwt.

Port Authority**5.303**

- 1 The port is administered by Alcan Smelters and Chemicals Ltd, PO Box 10, Port Alfred, Ville de la Baie, G7B 3R1.

Limiting conditions**Deepest and longest berths****5.304**

- 1 See 5.321 for detailed information.

Tidal levels**5.305**

- 1 Mean spring range about 5.0 m; mean neap range about 2.4 m. For further information see *Admiralty Tide Tables Volume 2*.

Low water levels are considerably affected by meteorological conditions.

Density of water**5.306**

- 1 The density of the water in the harbour is 1.005 g/cm³.

Ice**5.307**

- 1 The ice cover is solid from about mid-December to late March, with the bay clearing of ice about mid-April.

Wind**5.308**

- 1 The bay is exposed to E winds. Berthing at Port-Alfred is difficult when there is a strong NE wind.

Arrival information**Port operations****5.309**

- 1 Berthing is controlled by ALCAN Operations on VHF; for full details see *Admiralty List of Radio Signals Volume 6 (5)*.

Notice of ETA**5.310**

- 1 ETA should be sent to Escoumins VTS, as at 5.235. See *Admiralty List of Radio Signals Volume 6 (5)*.

Outer anchorages**5.311**

- 1 Anchorage for vessels waiting for alongside berths can be found off Anse à Philippe (48°21'N, 70°53'W), but the water is very deep. The anchor position is shown on the chart.

Pilots**5.312**

- 1 Pilotage is compulsory. Pilots board at Escoumins pilot boarding area (5.235).
 Harbour pilots are required for vessels over 50 000 dwt, arriving or departing.

Tugs**5.313**

- 1 Tugs are normally used for berthing and unberthing ocean-going vessels, joining the incoming vessel 1 mile from Port-Alfred. Two tugs are normally available.

Quarantine**5.314**

- 1 La Baie is not a quarantine station.

Harbour**General layout****5.315**

- 1 Baie des Ha! Ha! extends 6 miles WSW from its entrance abreast Cap de l'Ouest. All the port facilities are located at the city of La Baie at the head of the bay, the principal berths being at Port-Alfred. Minor berths are located at Bagotville, close N of Port-Alfred.

Local magnetic anomaly**5.316**

- 1 Local deflection of the magnetic compass occurs on the N side of Baie des Ha! Ha!

Directions for entering harbour

(continued from 5.291)

Baie des Ha! Ha!**5.317**

- 1 From a position SW of Cap de l'Est Light (48°23'N, 70°42'W) (5.291) the track through Baie des Ha! Ha! leads generally WSW towards Port-Alfred, passing N of a drying bank of large boulders extending 3 cables offshore NE of Pointe du Fort, marked by SH9 Light-buoy (port hand). Shoal ground extends up to 3 cables offshore from Pointe du Fort to the head of the bay.

Port-Alfred**5.318**

- 1 Port-Alfred Leading Lights:
Front light (mast on shed, 9 m in height) (48°20'1N, 70°52'5W).
Rear light (mast on shed, 21 m in height) (122 m from front light, on the same building).
The lights are visible on the leading line only, and are privately maintained.
The berths at Port-Alfred are approached on the alignment (261¾°) of Port-Alfred Leading Lights.

Useful marks**5.319**

- 1 Beacon (orange) (48°22'5N, 70°46'7W), 1 mile W of Cap de l'Ouest.
Three pulp conveyor towers (48°19'7N, 70°52'4W) (red lights) situated about 3 cables S of the wharves at Port-Alfred.

Berths**5.320**

- 1 Alongside berths at the head of Baie des Ha! Ha! are listed from N to S.

Bagotville.

<i>Berth</i>	<i>Length (m)</i>	<i>Depth (m)</i>
Public wharf:	33	8.5
Outer face.		

A light (black square mast, 8 m in height) (48°21'N, 70°53'W) is exhibited from the head of the public wharf.

5.321

- 1 **Port-Alfred.** Powell and Duncan Wharves are operated by Alcan Smelters and Chemicals Ltd. The S wharf is operated by Stone-Consolidated Inc.

<i>Berth</i>	<i>Length (m)</i>	<i>Depth (m)</i>

Powell Wharf:

S side No 1	173	10.1
S side No 2	173	11.0
N side No 4 (tanker berth)	146	11.9
	67	11.0

Outer face No 3

Duncan Wharf S side	385	11.9
Stone-Consolidated Wharf, N side	183	7.9

- 2 Duncan Wharf is a Ro-Ro berth, side door only.
A log boom extends SE from the head of Stone-Consolidated Wharf.

Port services**Repairs****5.322**

- 1 Minor repairs only.

Other facilities**5.323**

- 1 Issue of de-ratting and exemption certificates; facilities for the collection of garbage and oily waste; hospital at Chicoutimi about 13 miles distant.

Supplies**5.324**

- 1 Ship's stores; provisions; fuel oil; fresh water.

Communications**5.325**

- 1 Regular air services operate from Bagotville airfield to Montréal, Québec, Sept-Îles and Baie-Comeau.

Small craft**Anse à Benjamin****5.326**

- 1 A marina (48°21'3N, 70°51'9W), consisting of pontoon berths protected by a breakwater is located at Anse à Benjamin, 8 cables NE of Bagotville public wharf. A slipway is situated at the head of the marina.

Grande-Baie**5.327**

- 1 Grande-Baie, situated at the SW corner Baie des Ha! Ha!, has a public pier 254 m long; the outer face is 13 m long, but it dries at LW and is reported to be in ruins.

PORT SAGUENAY**General information**

Chart 4780, Canadian charts 1202, 1209 (see 1.32)

Position**5.328**

- 1 Port Saguenay comprises the port facilities on Rivière Saguenay between Cap de l'Ouest (48°23'N, 70°45'W) and Chicoutimi, about 13 miles WNW, including:
Grande Anse Terminal (48°24'N, 70°50'W).
Albert-Maltais Terminal (48°27'N, 70°59'W).
Chicoutimi (48°26'N, 71°03'W).

Function**5.329**

- 1 Port Saguenay serves the industries of the area which are mainly agriculture, lumber, pulp, paper and aluminium.

Principal imports and exports are coal, granite, lumber, petroleum products, salt, paper, logs and wood-pulp.

The town of Chicoutimi has a population of 64 616.

Port limits

5.330

- 1 The E limit of the port is a line drawn from Cap de l'Ouest (48°23'N, 70°45'W) in a 010° direction to the mouth of Rivière Pelletier, on the N shore.

Approach and entry

5.331

- 1 Approach to Albert Maltais Terminal (49°27'N, 70°59'W) and Chicoutimi, 3 miles farther up-river, is through a dredged and buoyed channel entered 2 miles W of Pointe aux Pins (48°25'N, 70°50'W). From this point, Rivière Saguenay assumes the usual character of a river, with drying banks of mud and boulders on each side. Chicoutimi is the limit of navigation for ocean-going vessels.

Traffic

5.332

- 1 In 2000 the following ship movements were recorded:
Grande Anse. 10 ship movements, totalling 142 316 dwt.
Chicoutimi. 5 ship movements, totalling 67 726 dwt.

Port Authority

5.333

- 1 The port is administered by Port Saguenay Authority.
 Postal address: 6600 Grande-Anse Road, La Baie, Quebec, G7B 3N9.

Limiting conditions

Controlling depths

5.334

- 1 **Entrance channel.** A channel leads to Albert-Maltais wharf, but the channel is liable to silting. The depth in the channel W of S53 buoy, 4 cables NE of Pointe à l'Îlet, to the W edge of Bassin de Chicoutimi is no longer maintained by dredging. Mariners are warned that depths less than charted may exist. Information on depths may be obtained from the Canadian Coast Guard and Escoumins VTS Centre.
- 2 Above Saint-Fulgence, the channel becomes narrow and is no longer maintained by dredging. The channel is marked by leading lights and buoys and the courses are marked on the charts.

Deepest and longest berth.

5.335

- 1 See 5.357 for detailed information.

Tidal levels

5.336

- 1 Mean spring range about 4.1 m; mean neap range about 2.2 m. For further information see *Admiralty Tide Tables, Volume 2*.
 Low water levels are considerably affected by meteorological conditions.

Density of water

5.337

- 1 The density of the water varies between 1.000 g/cm³ at LW and 1.015 g/cm³.

Ice

5.338

- 1 The navigation season is generally from mid-April to the end of November.

Arrival information

Notice of ETA

5.339

- 1 ETA should be sent to Escoumins VTS Centre, as at 5.235.

Outer anchorages

5.340

- 1 Good anchorage, in a depth of 37 m or less, is available on the N side of the river, between Pointe aux Pins (48°25'N, 70°50'W) (5.348) and a position E of the spoil ground situated about 1½ miles SE of the church at Saint-Fulgence (48°27'N, 70°54'W). An outfall, and a crib with a drying height of 1.5 m, have been constructed near the coast 7 cables N of the spoil ground.
 This anchorage is used by vessels awaiting the tide for Chicoutimi.
- 2 Except in emergency, no vessel is permitted to anchor within the port limits without the prior permission of the Port Manager, and then only in the assigned berth.

Pilotage

5.341

- 1 Pilotage is compulsory; see 5.235.

Tugs

5.342

- 1 Tugs are available at Grande Anse Terminal. They are not required at Albert-Maltais Terminal.

Local knowledge

5.343

- 1 Local knowledge is required.

Quarantine

5.344

- 1 Chicoutimi is a port of entry for Canada but not a quarantine station.

Harbour

General layout

5.345

- 1 The main deep water wharf is Grande Anse Terminal situated on the S bank of the river 3½ miles WNW of Cap de l'Ouest (48°23'N, 70°45'W). Albert Maltais Oil Terminal stands 7 miles farther WNW, off the S shore. Chicoutimi Wharf, 13 miles above Cap de l'Ouest, at the end of the channel, which is no longer maintained by dredging, is also on the S shore.
 Close W of the wharf at Chicoutimi a swing bridge gives small craft access to the river above Chicoutimi. Traffic signals are exhibited on the swing bridge.

Submarine pipelines

5.346

- 1 Four submarine pipelines, marked on the chart, are laid about 1½ cables NW from the SE shore between Pointe à l'Îlet (48°27'N, 71°00'W) and Rivière du Moulin 1¼ miles SW. Two pipelines terminate in the navigational channel.

Tidal streams

5.347

- 1 The tidal range is reduced by the river slope, especially during the freshet season, from April to July. At the height

of the thaw about the beginning of June, the out-going stream runs swiftly, sometimes overcoming the in-going tidal stream and requiring special care.

At springs a large body of water passes over the shoals below Chicoutimi, attaining a very rapid rate during the out-going tidal stream. This out-flow falls suddenly into deep water SE of Cap de la Mer (Cap des Roches) (48°27'N, 70°54'W), and seems to strike downwards at once, leaving only a slight stream on the surface.

Principal mark

5.348

1 Landmark:

Pointe aux Pins Light (red framework tower, white bands, 7 m in height) (48°25'N, 70°50'W) on the W side of a high rocky headland on the N shore.

Directions for entering Chicoutimi

(continued from 5.291)

Entrance channel

5.349

1 From a position SW of Cap de l'Est Light (48°23'N, 70°42'W) (5.291) the track leads generally WNW in deep water, passing:

SSE of Pointe aux Pins Light (48°25'N, 70°50'W) (5.348), thence:

Close SSE of S30 Light-buoy (starboard hand), 2 miles W of Pointe aux Pins Light, at the seaward end of the marked channel leading to Chicoutimi.

2 The edges of the channel, dredged only as far as Saint-Fulgence, are marked by light-buoys, and the centre line is indicated by the alignments of seven pairs of leading lights, or unlit beacons, situated on the shore, for the seven reaches.

3 **Caution.** The lighted buoys are removed for the winter. Consult local notices to mariners (broadcast or written) for the actual date of removal.

Caution. Numerous depths less than those charted may exist outside the buoyed channel. See 5.334 for depths.

5.350

1 Poste-Saint-Martin Leading Lights:

Front light (orange trapezium, black stripe, on red framework tower, 22 m in height) (48°27'N, 70°59'W).

Rear light (similar construction, inverted and tower, 18 m in height) (1¼ miles from front light).

The lights are visible on the leading line only.

2 The alignment (287¼°) of these leading lights leads to the vicinity of S39 Light-buoy (port hand), 4½ cables E of Pointe à Gonie (48°26'N, 70°57'W). Thereafter, relative positions from Pointe à Gonie are given for the light-buoys.

5.351

1 Rivière Valin Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 25 m in height) (48°28'N, 70°59'W).

Rear light (similar construction, inverted, black stripe, on red framework tower, white bands, 8 m in height) (5½ cables NW of front light).

The lights are visible on the leading line only.

The alignment (314°) of these leading lights leads to the vicinity of S46 Light-buoy (starboard hand) (9½ cables NW).

5.352

1 Rivière du Caribou Leading Lights:

Front light (orange trapezium, black stripe, on white framework tower, red bands, 12 m in height) (48°27'N, 71°01'W).

Rear light (similar construction, inverted and tower, 9 m in height) (229 m from front light).

The lights are visible on the leading line only.

2 The alignment (283½°) of these leading lights leads to the vicinity of S56 Light-buoy (starboard hand) (2 miles WNW), passing 1 cable NNE of Quai Maltais (49°27'N, 70°59'W), oil terminal wharf, which is the limit of the dredged channel and, above which, only pleasure craft are permitted to navigate.

5.353

1 Simard Leading Lights:

Front light (orange diamond, black stripe, on framework tower, 8 m in height) (48°27'N, 71°01'W).

Rear light (orange trapezium, black stripe on tower, 12 m in height) (213 m from front light).

The lights are visible on the leading line only.

The alignment (256¼°) of these leading lights leads to the vicinity of S60 Light-buoy (starboard hand) (2½ miles NW).

5.354

1 Rivière du Moulin Lower Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 9 m in height) (48°26'N, 71°02'W).

Rear light (similar construction, inverted and tower, 8 m in height) (197 m SW of front light).

The alignment (214¾°) of these leading lights leads to the vicinity of S63 Light-buoy (port hand) (2½ miles W).

The track then leads (232°) on the alignment of beacons (48°25'8N, 71°02'6W) to the vicinity of S67 Light-buoy (port hand) (3¼ miles W).

5.355

1 Rivière du Moulin Upper Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (48°26'N, 71°02'W).

Rear light (similar construction, inverted and tower, 8 m in height) (132 m from front light).

The lights are visible on the leading line only.

The alignment (081½°) of these leading lights, astern, leads to Chicoutimi Wharf (1 mile W).

Useful marks

5.356

1 Spire (48°25'8N, 71°02'4W) at Chicoutimi, about 90 m E of Price Monument.

Chimney about 3½ cables SW of spire.

Berths

Grande Anse Terminal

5.357

1 The terminal (48°24'N, 70°50'W) consists of a wharf 286 m in length, with a depth of 13.7 m alongside, used for general cargo.

Albert-Maltais Terminal

5.358

1 Quai Maltais is a detached oil tanker wharf lying 2½ cables off the S bank, close E of Pointe à l'Îlet (48°27'N, 71°00'W), and connected by a pier to the shore. The length of the berth is 40 m, extended by two dolphins

located 91 m each side of the wharf, permitting vessels up to 137 m in length to berth. Depth alongside was 8.6 m (1999). The channel is no longer maintained by dredging.

Chicoutimi Wharf

5.359

- 1 Chicoutimi Wharf (48°26'N, 71°04'W) has a length of 838 m and a depth alongside of 8.2 to 8.8 m (1985). It is used by pleasure craft.

Caution. A concrete foundation block projects about 25 cm from the wharf approximately 23 m from the W end of a shed which surmounts the wharf.

Port services

Repairs

5.360

- 1 Minor work can be undertaken but no docking facilities available.

Other facilities

5.361

- 1 Issue of de-ratting and exemption certificates; disposal of garbage for Canadian registered vessels only; limited facilities for the disposal of oily waste; hospital in Chicoutimi.

Supplies

5.362

- 1 Fuels oils; provisions, stores and fresh water are available.

Communications

5.363

- 1 **Sea.** Coastal services operate to Montréal, Québec and other ports in the Gulf and River St Lawrence.

Air. Services operate from Bagotville (5.325) airport to Montréal, Québec, Sept-Îles and Baie-Comeau.

Small craft

General information

5.364

- 1 Rivière Saguenay contracts to little more than 2 cables in width above Chicoutimi. The channel winds between patches of large stones, and is navigable by small craft as far as the first rapids, 6 miles above Chicoutimi.

Berths

5.365

- 1 Facilities for pleasure craft include:
Marina (48°26'N, 71°03'W), operated by Club de Yacht de Chicoutimi Inc, situated at the E end of Chicoutimi Wharf.
Marina (48°27'N, 71°02'W), operated by Club Nautique Chicoutimi-Nord, situated on the N bank 1 mile NE of Cap Saint-François.
Floating pontoon berths have been established in a cove NE of Cap Jaseur (48°25'N, 70°49'W).

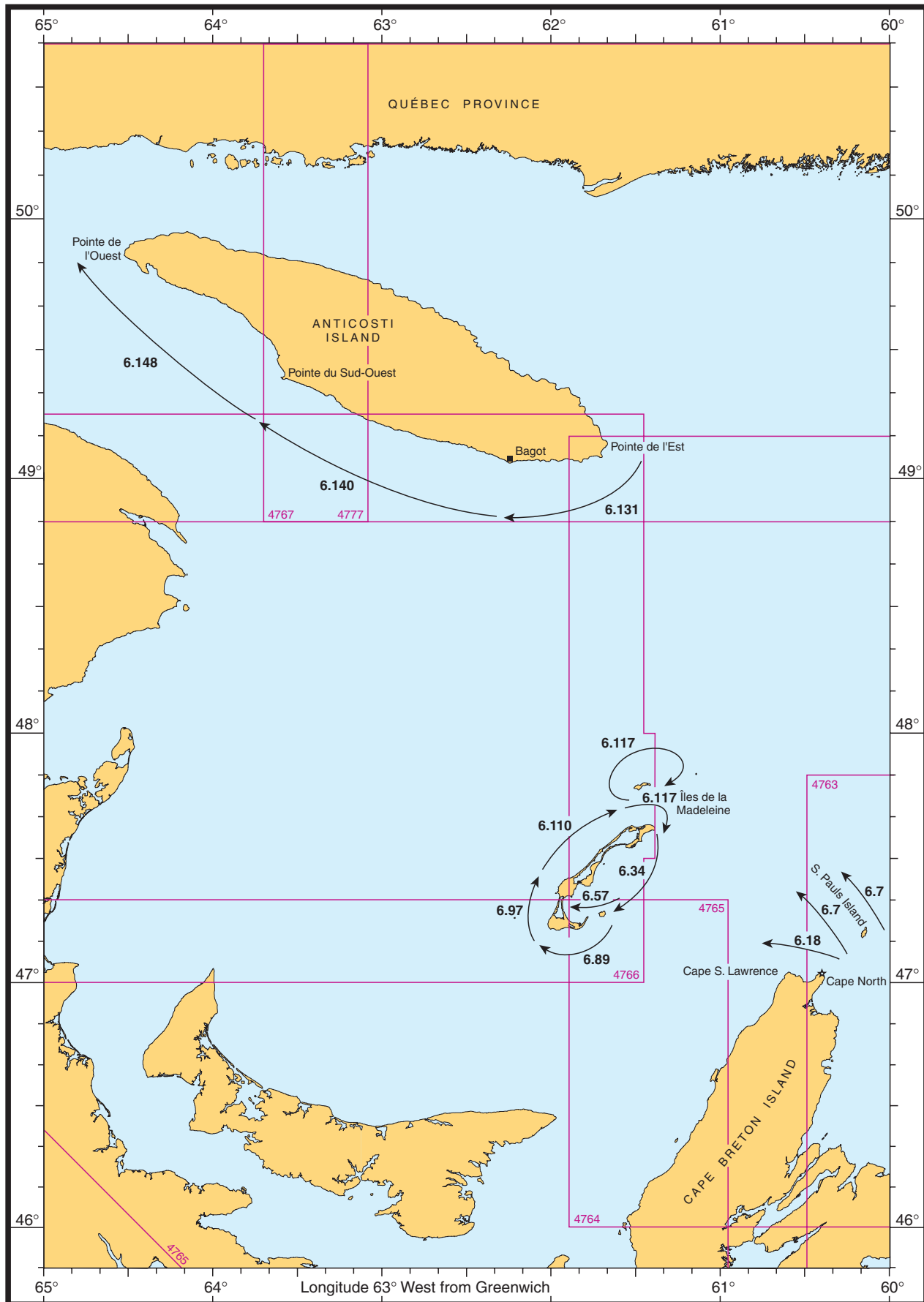
Port services

5.366

- 1 **Repairs** can be carried out at a small craft shipyard, with two slips and a ramp, on the S shore below Poste-Saint-Martin Front Leading Light (48°27'N, 70°59'W) (5.350).



Chapter 6 - Gulf of St Lawrence - Cabot Strait and north coast of Cape Breton Island -
Îles de la Madeleine - South coast of Île d' Anticosti



October 2003

CHAPTER 6

GULF OF ST LAWRENCE — CABOT STRAIT AND NORTH COAST OF CAPE
BRETON ISLAND — ÎLES DE LA MADELEINE — SOUTH COAST OF ÎLE
D'ANTICOSTI

GENERAL INFORMATION

Chart 4762

Scope of the chapter**6.1**

- 1 The area covered by this chapter includes the coastal waters in the vicinity of:

Cabot Strait, NW of a line drawn from Cape North (47°02'N, 60°25'W) in a NE direction to the limit of the *Newfoundland and Labrador Pilot*, 10 miles SW of Cape Ray (47°37'N, 59°18'W).

North of Cape Breton Island between Cape North and Cape Saint Lawrence, 8 miles W.

- 2 Îles de la Madeleine (47°30'N, 61°45'W).

South of Île d'Anticosti between Pointe de l'Est (49°08'N, 61°40'W), and Pointe de l'Ouest

(49°52'N, 64°31'W).

The chapter is arranged in three sections as follows:

Cabot Strait — North Coast of Cape Breton Island (6.3).

Îles de la Madeleine (6.28).

South Coast of Île d'Anticosti (6.128).

Traffic separation scheme**6.2**

- 1 A traffic separation scheme, (1.75) for through-traffic, leads from Cabot Strait to St Lawrence River, passing NE of Îles de la Madeleine and SW of Île d'Anticosti. Details are indicated on the charts, and further information, including directions, is given in Chapter 2.

CABOT STRAIT — NORTH COAST OF CAPE BRETON ISLAND

GENERAL INFORMATION

Chart 4764

Area covered**6.3**

- 1 This section describes the coastal waters of Saint Paul Island (47°12'N, 60°09'W) and the N coast of Cape Breton Island from Cape North (47°02'N, 60°25'W) to Cape Saint Lawrence (47°03'N, 60°36'W). The section is arranged as follows:

Coastal waters of Saint Paul Island (6.7).

North Coast of Cape Breton Island — Cape North to Cape Saint Lawrence (6.18).

Topography**6.4**

- 1 **Cabot Strait**, between Cape North (47°02'N, 60°25'W), the NE point of Cape Breton Island, and Cape Ray (47°37'N, 59°18'W) the SW extremity of Newfoundland, is the main entrance to the Gulf of St Lawrence.

The strait, which is 56 miles wide, is unobstructed, except for Saint Paul Island (47°12'N, 60°09'W).

Cape Ray and the Newfoundland coast are described in the *Newfoundland and Labrador Pilot*.

Weather**6.5**

- 1 **Fog** in Cabot Strait occurs with a frequency of 15 to 20 per cent in summer, and about 5 per cent in winter.

Winds blow with considerable strength from the NW and W in winter, shifting to the SW and SE in spring and summer. Winter gales average more than 10 per cent of the time in January and February, but during the summer, gales are rare. During autumn, tropical storms may reach this area, and if the course of the storm has been mainly over water, it can be a serious hazard to shipping in the strait.

- 2 **Snow** in winter is frequently heavy and reduces visibility almost to nil.

Traffic regulations**6.6**

- 1 Two branches of the traffic separation scheme (6.2), starting on the SW and NE sides of Cabot Strait, join about 40 miles N of Cape North. Details can best be seen from the chart.

COASTAL WATERS OF SAINT PAUL ISLAND

General information

Charts 4764, 232A

Routes**6.7**

- 1 The following paragraphs describe passages along the E and W sides of Saint Paul Island (47°12'N, 60°09'W).

Topography**6.8**

- 1 Saint Paul Island is rocky, precipitous and partly wooded.

North Point, the N extremity, is a detached pinnacle which is separated by a narrow channel from a peninsula 124 m (408 ft) in elevation, but appears from seaward to be connected to it.

- 2 The highest ground on the island is a range of hills running along the SE side, with a summit of 148 m (485 ft).

A parallel range of hills runs down the NW side of the island, but they are not as high as those on the SE side.

Depths**6.9**

- 1 **Caution.** Saint Paul Island is generally steep-to, and great care is necessary when approaching its coasts in foggy weather, as soundings give little or no warning of approach to danger.

Natural conditions**6.10**

- 1 Variable currents about the island add to the dangers arising from fog, which is common in this area.

Principal marks**6.11**

- 1 **Landmarks:**

South Point Lighthouse (white round tower, red top, 6 m in height) (47°11'N, 60°10'W) at the S end of the island.

North Point Lighthouse (white octagonal tower, 14 m in height) (47°14'N, 60°08'W).

Major light:

North Point Light — as above.

Directions**East of Saint Paul Island****6.12**

- 1 From a position about 1 mile ESE of South Point Light (6.11), the coastal passage on the E side of Saint Paul Island leads NNE, passing:
- ESE of shoal ground with depths of less than 11 m (36 ft) extending 2½ cables E from Moon Point (47°11'9N, 60°08'5W), the N entrance point to Atlantic Cove.
 - ESE of a detached shoal with a least depth of 13 m (43 ft) over it, lying 7 cables ENE of North Point.

West of Saint Paul Island**6.13**

- 1 From a position about 1 mile WNW of South Point (47°11'N, 60°10'W) the coastal passage on the W side of Saint Paul Island leads NNE, passing (with positions from South Point Light (6.11)):
- SW of a patch, with a depth of 8.2 m (27 ft) over it, (3 cables WNW), thence:
 - If draught requires, W of a shoal, with a depth of 14 m (46 ft) over it (7 cables NW) and a shoal with a depth of 15.9 m (52 ft) over it (9 cables NNW), thence:
 - W of North Point.

Anchorage and harbours**Atlantic Cove****6.14**

- 1 **General information.** With offshore winds, small vessels may anchor off Atlantic Cove, 1¾ miles S of North Point (47°14'N, 60°08'W).
- Anchorage.** The anchoring position is about 2 cables from the rocks in the cove, in depths of 18 to 22 m (60 ft to 12 fm), sand and gravel.
- 2 In good weather larger vessels might anchor about 5 cables offshore in depths of 45 to 64 m (25 to 35 fm), but they must be ready to weigh at any sign of a change in the weather.

Trinity Cove**6.15**

- 1 **General information.** With offshore winds, small vessels may anchor off Trinity Cove, 8 cables NNW of South Point (47°11'N, 60°10'W).

Anchorage. The anchoring position is about 2 cables from the rocks in the cove, in depths of 18 to 22 m (60 ft to 12 fm), sand and gravel.

In good weather larger vessels might anchor about 5 cables offshore, in depths of 45 to 55 m (25 to 30 fm), but they must be ready to weigh at any sign of a change in the weather.

Small craft**South Martin Powers Cove****6.16**

- 1 South Martin Powers Cove, 7 cables S of North Point, affords fair shelter for small craft.

North Martin Powers Cove**6.17**

- 1 North Martin Powers Cove, 8 cables SSW of North Point, affords fair shelter for small craft.

NORTH COAST OF CAPE BRETON ISLAND — CAPE NORTH TO CAPE SAINT LAWRENCE

General information

Chart 4764

Route**6.18**

- 1 The coastal route from a position NE of Cape North (47°02'N, 60°25'W) leads W for about 10 miles to a position N of Cape Saint Lawrence (47°03'N, 60°36'W).

Topography**6.19**

- 1 **Cape North**, the NE extremity of Cape Breton Island, is steep-to and rises abruptly to an elevation of 305 m (1000 ft).
- Cape Saint Lawrence**, the NW extremity of Cape Breton Island, is high, with cliffs on the E side.

Local weather**6.20**

- 1 Violent squalls are frequent off Cape North.

Principal mark**6.21**

- 1 **Landmark:**

Radio tower (red lights) (47°01'N, 60°24'W), on the summit of a ridge.

Directions**6.22**

- 1 From a position about 3 miles NE of Cape North (47°02'N, 60°25'W) the track leads W for about 10 miles across the entrance to Saint Lawrence Bay, to a position N of Cape Saint Lawrence.

6.23

- 1 **Useful marks:**

Cape North Light (white square structure, red bands, 15 m in height) (47°02'N, 60°24'W) on Money Point, about 1 mile ESE of Cape North.

Saint Lawrence Bay E Breakwater Light (round mast, 4 m in height) (shown May to December) (47°00'N, 60°28'W).

Cape Saint Lawrence Light (framework tower, 6 m in height) (47°02'N, 60°36'W).

Bear Hill, a remarkable sugar loaf hill 247 m (810 ft) high, about 6 cables SE of Cape Saint Lawrence.

(Directions continue for coastal passage SW at 13.8)

Saint Lawrence Bay

Chart 4764

General information

6.24

- 1 **Description.** Saint Lawrence Bay (47°01'N, 60°29'W) (Bay St Lawrence on Chart 4762) affords temporary open anchorage in summer months, when strong N winds are infrequent. The village of Saint Lawrence Bay has a population of about 218.

Wreck Cove, in the SW part of Saint Lawrence Bay, has the village of Capstick (population about 30) on its shores and a small breakwater.

- 2 **Anchorage** is available in Saint Lawrence Bay in depths of 16 to 18 m (54 to 60 ft), sand and rock, about 5 cables offshore.

It is advisable to weigh immediately a wind sets in from seaward.

Deadman's Pond

6.25

- 1 **General information.** Deadman's Pond (MacDougall Pond) a small lake on the S side of Bay Saint Lawrence, has a depth of 1.2 m (4 ft) at its head, with some facilities for fisherman at its entrance.

Directions. The entrance to Deadman's Pond (47°00'N, 60°28'W) is approached from NNW by passing (positions given from the entrance):

- 2 Close to VV Light-buoy (safe water) (seasonal) (8 cables NNW), thence:
Through a channel with a width of 15 m and a depth of 0.6 m (2 ft), which crosses the sand and gravel bar at the entrance, thence:

Between the heads of two breakwaters protecting the entrance; a light (seasonal) is exhibited from masts (round towers, 4m in height) on each breakwater head.

- 3 **Berths.** A public jetty 62 m long, with a depth of 1.2 m alongside, used by local fishermen, is situated close within the E breakwater at the entrance to Deadman's Pond.

A freight shed and lobster processing plant stand on the E breakwater.

Capstick

6.26

- 1 A public pier 58 m long, with a depth of 0.9 m alongside its head, is situated at Capstick in Wreck Cove (47°01'N, 60°30'W).

Other names

6.27

- 1 Black Point (47°02'N, 60°32'W).
Black Rock (47°02'N, 60°34'W).
Meat Cove (47°02'N, 60°33'W).
Shag Rock (47°02'N, 60°32'W).

ÎLES DE LA MADELEINE

GENERAL INFORMATION

Charts 4764, 4766

Area covered

6.28

- 1 This section describes Îles de la Madeleine (Magdalen Islands) extending from Pointe de l'Est (East Point (47°37'N, 61°23'W) to Le Gros Cap (47°13'N, 62°00'W). The section is arranged as follows:

Pointe de l'Est to Île d'Entrée (6.34).

Baie de Plaisance and approaches (6.57).

Île d'Entrée to Le Gros Cap (6.89).

Le Gros Cap to Cap de l'Hôpital (6.97).

Cap de l'Hôpital to Cap du Dauphin (6.110).

North side of Îles de la Madeleine (6.117).

Topography

6.29

- 1 The main group of Îles de la Madeleine extends from Pointe de l'Est (47°37'N, 61°23'W) to Le Gros Cap, 34 miles SW. The islands are joined by a double line of sand ridges, except for Île d'Entrée (47°16'N, 61°42'W) which is detached.

The central parts of the islands rise to wooded, sometimes dome-shaped summits, the highest reaching an elevation of 158 m (518 ft) on Île d'Entrée. The islands are partially wooded, with some areas of grassland.

- 2 The sand ridges are in some parts only a few feet high, and in other parts they rise to hills of considerable height. Tidal lagoons, with very narrow entrances, lie between the sand ridges.

Fishing is the principal industry, cod, herring and mackerel being the main catches. Salt is exported from the islands.

- 3 **Aspect.** In bright sunny weather the contrasting colours of the red cliffs, yellow sands and green vegetation give an

appearance quite unlike anything else in the Gulf of St Lawrence.

Through the rain and mist that often accompany an E gale, the isolated hills and craggy cliffs appear to be joined by long ranges of breakers, almost hiding the ridges of sand.

- 4 **Off-lying islands.** Île Brion and Rochers aux Oiseaux lie, respectively, 9 miles N and 16 miles NE of the main group of islands.

Regulations

6.30

- 1 **Deballasting.** Strict regulations of the Canadian Department of Fisheries and Oceans control the discharge of ballast water into Lagune de la Grande Entrée or within 10 miles of Îles de la Madeleine. No such deballasting is permitted by these regulations without the appropriate certificate issued by Area Manager, Department of Fisheries and Oceans, Cap-aux-Meules.

Natural conditions

6.31

- 1 **Current.** A few miles outside Île Brion and Rochers aux Oiseaux, there is usually a current setting SE.

Tidal streams. Tidal streams around Îles de la Madeleine are very variable in rate and direction, being greatly influenced by the winds.

- 2 The rate of the tidal stream seldom amounts to 1 kn, except close inshore or round points of land. The out-going stream is usually the stronger and its rate is increased by W winds, while the rate of the in-going stream is increased by E winds.

- 3 The in-going tidal stream sets NW towards Îles de la Madeleine, and runs strongly NW and W between the main islands and Île Brion to the N. This branch of the in-going stream turns SW and runs down the NW side of the

islands, whence the greater part continues SW, whilst the remainder runs E along the S side of Île du Havre Aubert. **6.32**

- 1 South of Pointe de l'Est, the NE extremity of the main group of islands, the in-going tidal stream is diverted SSW towards Île d'Entrée, near the S end of the islands, leaving nearly slack water in the area between Île de la Grande Entrée (47°33'N, 61°32'W) and Cap Alright (47°23'N, 61°46'W), and in Baie de Plaisance, S of Cap Alright.

- 2 South of Île d'Entrée the in-going streams, setting SSW down the E side of the islands, and E along the S side of the islands, combine and gradually turn SW to merge with the weak in-going stream setting W in the offing.

The out-going tidal stream on the SE side of Îles de la Madeleine sets strongly out of the lagoons, and out of Baie de Plaisance between Dune Sandy Hook (47°16'N, 61°47'W) and Île d'Entrée.

- 3 The out-going stream often sets W along the coast of Île du Havre Aubert, thence NE and E along the NW and N sides of the islands.

At the same time, the out-going tidal stream sets NE over the shoals in the vicinity of Pointe de l'Est, where it meets the ebb stream that has rounded the N coast of the islands and is now setting SE.

- 4 This meeting of the two out-going streams, together with the shoal water, raises a heavy, breaking sea in strong E winds, causing dangerous conditions for small craft.

6.33

- 1 **Local weather.** The climate is severe, but not as cold in winter as the mainland of the province of Québec. In summer it is cool and damp.

Rain and fogs are frequent, E gales with thick weather being particularly prevalent in autumn.

Climatic table. See 1.183.

POINTE DE L'EST TO ÎLE D'ENTRÉE

General information

Charts 4764, 4766

Routes

6.34

- 1 The coastal route leads, clear of offshore hazards, from a position E of Pointe de l'Est (East Point) (47°37'N, 61°23'W) to a position about 6 miles S of Île d'Entrée (47°16'N, 61°42'W).

The inner passage leads to Baie de Plaisance down the E side of Îles de la Madeleine between Pointe de l'Est and Île d'Entrée, 24 miles SSW.

- 2 This waterway gives access to Havre de la Grande Entrée, 6 miles WSW of Pointe de l'Est, and Baie de Plaisance, about 20 miles farther SW.

There are numerous shoals off the E side of the islands and close attention to the chart is advised.

Topography

6.35

- 1 Pointe de l'Est, the NE extremity of Îles de la Madeleine, is low and sandy. Dunes and sand-hills extend W and SW from Pointe de l'Est, with a conspicuous sand-dune about 1¼ miles WNW of the point.

- 2 Cap Nord-Est (Northeast Cape) (47°37'N, 61°28'W) is a remarkable isolated hill on Île de l'Est, which rises in sheer cliffs to an elevation of 62 m (203 ft) and is visible over the sand-hills. When seen from a distance, Cap Nord-Est appears to be the NE extremity of Îles de la Madeleine, as the land E of it is much lower.

- 3 Île de la Grande Entrée has the red sandstone cliffs of Pointe Old Harry at its E extremity, 4½ miles SW of Pointe de l'Est.

- 4 South-west of Île de la Grande Entrée, a narrow ridge of sand forms the shore of a bight as far as Île du Havre aux Maisons, about 11 miles SW of Île de la Grande Entrée. Steep cliffs form the E side of Île du Havre aux Maisons.

- 5 Île d'Entrée (Entry Island) is described at 6.59.

Caution

6.36

- 1 It is not advisable to approach the coast between Pointe Old Harry (Old Harry Point) (47°34'N, 61°28'W) and the S end of Île de la Grande Entrée in foggy weather, due to foul ground extending offshore in this vicinity.

Tidal streams

6.37

- 1 The in-going tidal stream sets SSW and the out-going tidal stream sets NE off this coast. For further details see 6.31.

Principal marks

6.38

- 1 **Major lights:**

Cap Alright Light (white square tower, 8 m in height) (47°23'N, 61°46'W) on a very low point of land.

Île d'Entrée Light (47°16'N, 61°42'W) (6.92).

Other navigational aid

6.39

- 1 **Racon:**

Pointe de l'Est (47°37'N, 61°23'W).

Directions

Coastal passage

6.40

- 1 From a position about 13 miles E of Pointe de l'Est (47°37'N, 61°23'W) the route leads SSW then SW, passing (with positions from Pointe de l'Est):

ESE of a rocky patch, with a depth of 13.4 m (44 ft) over it (9½ miles E), thence:

ESE of Doyle Reef (Récif Doyle) (6¼ miles ESE), consisting of sharp rocks over which the sea breaks in heavy gales only, thence:

- 2 ESE of Clark Shoal (Haut-fond Clark) (8½ miles SSE), thence:

ESE and S of a dangerous wreck (11 miles SSE), (shown on Chart 4764) thence:

SE of a rock and coral patch, with a depth of 9.1 m (30 ft) over it, (12½ miles S), thence:

SE of Newhall Ground (14 miles SSW), thence:

- 3 SE of a marine farm (17½ miles SSW), thence:

SE of La Perle (Pearl Reef) (47°20'N, 61°36'W), marked by Y16 Light-buoy (starboard hand) (seasonal), moored about 1 mile ESE. La Perle consists of a reef with number of rocky heads, on which there are heavy breakers, even in a moderate sea; it is dangerous to approach it at any time.

- 4 The track then continues SW, passing (with positions from Île d'Entrée Light (47°16'N, 61°42'W)):

SE of a patch, with a depth of 10 m (33 ft) over it, (1¼ miles E) fronting the SE side of Île d'Entrée, thence:

SE of a rocky shoal, with a depth of 3.6 m (12 ft) over it (1 mile SW) marked by YM1 Light-buoy (6.68), and noting a shoal with a depth of 6.1 m

(20 ft) over it (1 mile SSW), at the entrance to La Passe (6.67).

- 5 The track then leads to a position about 6 miles S of Île d'Entrée.

*(Directions continue for waters
S of Îles de la Madeleine at 6.93)*

Inner passage to Baie de Plaisance

6.41

- 1 From a position about 5 miles E of Pointe de l'Est Light (framework tower, 15 m in height) (47°37'N, 61°23'W) the route leads SW, SSW then WSW, passing (with positions from Pointe de l'Est):
 - NW of a rocky patch, with a depth of 12.6 m (42 ft) over it (9½ miles E), thence:
 - SE of YY Light-buoy (E cardinal) (2½ miles E), marking the E side of shoal ground off the point, thence:
- 2 NW of Doyle Reef (Récif Doyle) (6¼ miles ESE) (6.40), thence:
 - SE of a sand bar (1 miles S) with a least depth of 4 m (14 ft) over it, thence:
 - NW of Clark Shoal (Haut-fond Clark) (8½ miles SSE), thence:
- 3 SE of Old Harry Ledge (4 miles SSW) extending 6 cables SE of Pointe Old Harry and marked by YA2 Light-buoy (starboard hand) (seasonal), thence:
 - Close SE of Y8 Light-buoy (starboard hand) (6¾ miles SSW), marking Les Colombines, a number of sharp rocks and shoal patches extending 2¾ miles S from Pointe Old Harry, thence:
- 4 NW of Goodwin Shoal (Banc Goodwin) (9¼ miles S), thence:
 - Clear of a wreck with a depth of 9.1 m (30 ft) over it (11½ miles SW), and:
 - NW and N of a rock, with a depth of 11.0 m (36 ft) over it (12 miles SSW), thence:
- 5 NW and WNW of a rock (13½ miles SW), with a depth of 9.1 m (30 ft) over it, and Southwest Ground (Récif du Sud-Ouest) (15 miles SW), thence:
 - E of Y12 Light-buoy (starboard hand) (seasonal) (18 miles SW) marking the E extremity of Récif Alright.
- 6 The track then leads to a position about 5 miles ESE of Cap Alright (47°23'N, 61°46'W), from which a light (6.38) is exhibited.

Clearing marks

6.42

- 1 The line of bearing 278° or less, of the summit of Cap du Dauphin (47°38'N, 61°31'W) seen midway between Cap Nord-Est, 2¼ miles ESE, and a large conspicuous sand-dune about 4 miles E, passes N of Doyle Reef.

The alignment (285°) of the summit of Cap du Dauphin and Cap Nord-Est, passes S of Doyle Reef, but very close to a 15.5 m (51 ft) patch 5 cables S of the reef.

Useful marks

6.43

- 1 Buttes Pelées (47°24'N, 61°46'W) remarkable steep cliffs, elevation 110 m (362 ft), forming the SE coast of Île du Havre aux Maisons; they are greyish-white with shades of brick red at the base.
- 2 Butte Ronde (47°24'N, 61°47'W) a remarkable hill 102 m (335 ft) high, close N of Cap Alright.

Île d'Entrée North Side Light (square framework tower, 5 m in height) (41°17'N, 61°41'W).
(Directions continue for Baie de Plaisance at 6.64)

Havre de la Grande Entrée

Chart 4766, Canadian Charts 4952, 4954 (see 1.32)

General information

6.44

- 1 **Position.** Havre de la Grande Entrée (47°35'N, 61°32'W) is a large and almost totally enclosed lagoon, between Île de la Grande Entrée, and Dune de Nord, about 3 miles NW. Grande-Entrée village (population about 787) is situated on the NW side of Île de la Grande Entrée, E of the entrance to the lagoon.
- 2 **Function.** There are a number of lobster canning and fish curing plants at Grande-Entrée.
 - Salt is loaded from plant operated by Les Mines Seleine Inc at Dune de Nord.
- Aquaculture zones.** Numerous aquaculture zones have been established in this area. The zones are marked from 1st April to 31st December by yellow unlighted buoys equipped with radar reflectors. Long lines are marked with yellow balloons. Mariners are urged to exercise caution when navigating in this area.
- 3 **Approach and entry.** The harbour is approached through a buoyed channel leading to a narrow passage between the W end of Île de la Grande Entrée and the sand-dunes W of it. A dredged and buoyed channel leads across the lagoon to Les Mines Seleine salt wharf.
 - The SE limit of a spoil ground lies 2 cables NW of the transit of Grande Entrée leading lights, to seaward and 3 cables SW of YC Light-buoy (6.47), and runs parallel to the transit for a distance of 7 cables.

Limiting conditions

6.45

- 1 **Project depth.** Approach channel and channel across the lagoon were dredged to a depth of 7.3 m (24 ft) (2002). Depths in the channel are maintained by periodic dredging. However, owing to continual silting varying amounts of refilling must be expected. The latest information on depths can be obtained from the Harbour Master, Mines Seleine.
- 2 **Deepest and longest berths:**
 - At Grande-Entrée: see 6.51 for details.
 - At Les Mines Seleine Wharf: see 6.51 for details.
- Tidal levels.** Mean spring range about 0.6 m; mean neap range about 0.2 m. For further details see *Admiralty Tide Tables Volume 2*.
- 3 **Local weather and sea state.** Due to shifting shoals and to silting, great caution is advised when entering Havre de la Grande Entrée. Passage should only be attempted with the in-going tide, in good weather and with good visibility.
 - The leading lights and buoys may be moved to suit the best channel. Mariners should contact the Harbour Master at Les Mines Seleine, or the commercial office in Montréal for the latest information.
- 4 Strong winds and fog are frequent, particularly in October and November, the prevailing winds being from W and NW.
 - Ice forms in late December or early January and remains, unless broken by the passage of ships, until April.

Harbour

6.46

- 1 **General layout.** Havre de la Grande-Entrée contains two berthing areas, one on the E side of the entrance to the

lagoon at Grande-Entrée, and the other on the N side at Les Mines Seleine.

Most of the lagoon is shallow, with drying banks in the S part, but at HW small craft can traverse its entire length.

- 2 **Cables.** Disused submarine power cables are laid between the inner end of Les Mines Seleine wharf and Île Seleine situated SSE of the wharf. Vessels should not anchor without local knowledge.

Directions for entering Havre de la Grande Entrée 6.47

- 1 **Entrance channel.** Havre de la Grande-Entrée is approached from SSW through a dredged and buoyed channel, 100 m wide, marked at its entrance by YC Light-buoy (safe water), moored 2 miles SSW of the W extremity of Île de la Grande Entrée.

- 2 **Grande Entrée Leading Lights** are situated on Pointe de la Grande Entrée (47°33'4N, 61°33'7W), on the E side of the entrance to the lagoon:

Front light (white square, red stripe on a square framework tower, 5 m in height).

Rear light (similar construction and tower, 10 m in height) (63 m from front light).

- 3 The alignment (026°) of these lights leads through the dredged channel as far as the pair of light-buoys moored 7 cables SSW of the front leading light.

Grande Entrée Sector Light (square framework tower, 9 m in height) (47°36'5N, 61°32'4W) (private) is situated on Pointe Rockhill, 3¼ miles NNE of Havre de la Grande Entrée. The narrow white sector of this light (017¼°–018¼°) leads from the pair of buoys mentioned previously to the entrance of the lagoon.

6.48

- 1 At the entrance to the lagoon, YC14 Light-buoy (starboard hand), moored close NW of the front leading light, marks the E side of the dredged channel.

Thence a narrow buoyed channel, with shoal water on its N side, leads E to the berths at Grande-Entrée.

6.49

- 1 **Useful marks:**

Two square towers, about 100 m in height, (47°37'1N, 61°33'5W), at Les Mines Seleine Inc plant on Dune de Nord, are visible when approaching Havre de la Grande Entrée from the S.

Directions for crossing the lagoon

6.50

- 1 From the entrance to the lagoon a channel 100 m wide, marked by light-buoys, leads NNE, then NW, to the salt wharf.

La Grosse Île Sector Light (framework tower, 6 m in height) (47°36'6N, 61°30'5W) is exhibited about 1¼ miles ENE of Pointe Rockhill, the S extremity of the island. The white sector of the light (an arc of only 24') bearing 034°, leads through the first leg of the dredged channel for a distance of about 2 miles. The light is privately maintained.

- 2 **Dune de Nord Leading Lights** are situated about 1¼ miles W of Pointe Rockhill:

Front light (round tower) (47°36'5N, 61°34'2W).

Rear light (round tower) (201 m from front light).

These lights are privately maintained and visible on leading line only.

- 3 The alignment (287°) of the lights leads through the second leg of the dredged channel from a position 3½ cables S of Pointe Rockhill to the approach to Les Mines Seleine Wharf.

Berths

6.51

- 1 Grande-Entrée and Dune de Nord:

Berth	Length (m)	Depth (m)
<i>Grande-Entrée</i>		
Public wharf with slipway.	122	2.2
<i>Dune de Nord</i>		
Les Mines Seleine Inc Berth.	300	7.3

- 2 Les Mines Seleine Inc Berth is connected to the shore by a causeway and bridge.

Port services

6.52

- 1 **Repairs.** Two boat slips at Grande-Entrée.

Other facilities. First aid station at Grande-Entrée.

Communications. Regular sea services run to Pictou, Nova Scotia, during the navigation season.

Small craft

6.53

- 1 A basin, with three finger jetties and a depth of about 1.6 m (5 ft), is situated close E of the public wharf at Grande-Entrée.

Small craft harbours between Pointe de l'Est and Cap Alright

Chart 4764, Canadian Charts 4952, 4951 (see 1.32)

Pointe Old Harry

6.54

- 1 A breakwater with a depth of 2.4 m alongside, extends 87 m from the shore on the N side of Pointe Old Harry (47°34'N, 61°28'W).

The usable berthing length is about 37 m, on the SW side of the breakwater, with depths of 1 to 1.5 m. The inner 40 m of the wharf was dredged to 1 m in 1993 and the dredged area extends about 30 m off the wharf.

- 2 A slipway exists at the inner end of the breakwater.

Bassin aux Huîtres

6.55

- 1 Bassin aux Huîtres (47°33'N, 61°32'W) on the SE side of Île de la Grande Entrée, is a lagoon with a very narrow entrance, through which boats can enter at HW in fine weather. A marina is situated on the S side of Bassin aux Huîtres.

Dune du Sud

6.56

- 1 A wall 253 m long, with a depth of 2.1 m alongside, extends from the shore at Dune du Sud, (47°25'N, 61°45'W) about 2 miles NNE of Cap Alright.

A slipway is located S of the wall.

BAIE DE PLAISANCE AND APPROACHES

General information

Charts 4764, 4765, Canadian Chart 4951 (see 1.32)

Description

6.57

- 1 Baie de Plaisance (Pleasant Bay) is entered between Cap Alright (47°23'N, 61°46'W) and Île d'Entrée 7 miles SSE.

It is the best roadstead in Îles de la Madeleine. It is the only place where vessels can lie protected during the summer months, gales being infrequent during this season.

- 2 In E gales, which are common at other seasons, the sea is much lessened by passing over shoal ground, but a vessel at anchor in the bay may be in considerable danger and great caution is advisable at all times.

Topography

6.58

- 1 Cap Alright, the N entrance point to the bay, is low, but W of the cape the cliffs rise again along the S side of Île du Havre aux Maisons.

Île du Cap aux Meules, on the NW side of the bay, is bordered by cliffs in many places and rises to a peak, 126 m (413 ft) in elevation (6.101), near the centre of the island. Cap aux Meules is a prominent grey sandstone point, elevation 45 m (149 ft), with a breakwater and wharf (6.69).

- 2 The W shore of the bay is formed by two ridges of sand, which join Île du Cap aux Meules to Île du Havre Aubert, about 5 miles S. Between the sand ridges lies the shallow lagoon of Baie du Havre aux Basques (6.86).

6.59

- 1 Île du Havre Aubert on the SW side of the bay, has hills rising to an elevation of 148 m (486 ft) towards its S side. At the E end of the island, grey sandstone cliffs form the W side of the entrance to Havre Aubert (47°14'N, 61°50'W) (6.76).

The SE shore of Baie de Plaisance is formed by Sandy Hook, a sand spit extending NNE from the E end of Île du Havre Aubert.

- 2 Île d'Entrée, the SE entry point to Baie de Plaisance, is the highest island of Îles de la Madeleine, attaining an elevation of 158 m (518 ft). The NE side of the island is formed of red cliffs 107 m (350 ft) high. La Cormorandière, a remarkable tower-like rock of red sandstone is situated about ½ cable off the NE point. Île d'Entrée has red cliffs 122 m (400 ft) high on its S side.

- 3 La Passe (6.67), a narrow and shallow passage, leads between Sandy Hook and Île d'Entrée.

Tidal streams

6.60

- 1 For general information on tidal streams in Baie de Plaisance see 6.32.

Marine farm

6.61

- 1 A marine farm has been established in 47°21'4N, 61°45'3W. The area is marked by yellow cautionary buoys from May 1st to November 1st.

Principal marks

6.62

- 1 **Landmarks:**

Radio tower (47°14'6N, 61°57'3W) (6.92).
Peak with radio tower (elevation 234 m (768 ft); red lights) (47°23'N, 61°55'W).

Major lights:

Cap Alright Light (47°23'N, 61°46'W) (6.38).
Île d'Entrée Light (47°16'N, 61°42'W) (6.92).

Directions

Approaches

6.63

- 1 **Caution.** The mariner approaching Baie de Plaisance is advised to keep well clear of La Perle (6.40), situated 4½ miles NE of Île d'Entrée.

Entering Baie de Plaisance from north-east

(continued from 6.43)

6.64

- 1 From a position about 5 miles ESE of Cap Alright the track into Baie de Plaisance leads SW, passing (with positions from Cap Alright (47°23'N, 61°46'W)):

SE of a rock (1 mile ESE), with a depth of 3.8 m (12 ft) over it, thence:

Clear of the marine farm (2 miles S) (6.61), thence:
SE of Cap Alright, from which a light (6.38) is exhibited, and:

NW of Île d'Entrée (7 miles SSE).

Entering Baie de Plaisance from south-east

6.65

- 1 From a position about 2 miles E of the NE point of Île d'Entrée the track into Baie de Plaisance leads W, passing (with positions given from Île d'Entrée North Side Light (41°17'N, 61°41'W)):

Not less than 5 cables N of Rocher Andromache (pinnacles) (3 cables NE), thence:

N of YM11 Light-buoy (port hand) (2½ miles W), moored N of shoal ground between Île d'Entrée and Sandy Hook.

6.66

- 1 **Useful marks:**

Radio tower (red lights) (47°21'4N, 61°55'6W) near the S end of Île du Cap aux Meules.

Collines de la Demoiselle (47°14'N, 61°52'W), a remarkable conical hill, 69 m (226 ft) in elevation, with red cliffs on its N side, making a good mark for the mariner approaching Havre Aubert (6.76).

- 2 Cross (illuminated at night) on a conical hill 2 cables E of Colline de la Demoiselle.

La Passe

6.67

- 1 **Route.** La Passe (47°16'N, 61°43'W) is a narrow passage, with a least charted depth of 5.9 m (19 ft), marked by buoys and light-buoys, between the rocky shoals on the W side of Île d'Entrée and the flats E of Dune Sandy Hook.

- 2 **Tidal stream.** The out-going tidal stream sets strongly out of Baie de Plaisance, over Sandy Hook Flat (47°16'N, 61°45'W) and through La Passe. Local knowledge is advisable.

6.68

- 1 **Directions.** From a position 2 miles SSE of Île d'Entrée Light (47°16'N, 61°42'W) the channel through La Passe leads NNW and NW, passing (with positions from Île d'Entrée Light):

ENE of YM1 Light-buoy (port hand) marking the E side of a rocky patch (1 mile SW), with a depth of 3.5 m (11 ft) over it, thence:

- 2 WSW of a shoal (5 cables SW), with a depth of 3.5 m (11 ft) over it, extending from the SW extremity of Île d'Entrée, thence:

Through the buoyed channel, which leads NNW and NW for about 2 miles to YM11 Light-buoy (port hand) (2¼ miles NW).

It is advisable to keep on the E side of the channel to avoid the shallows of Sandy Hook Flat.

- 3 **Useful mark:**

Île d'Entrée Pier Light (mast, 5 m in height) (47°16'7N, 61°43'1W) at Île-d'Entrée village.

Cap-aux-Meules

Chart 4764, Canadian Chart 4956 (See 1.32)

General information

6.69

- 1 **Position.** Cap-aux-Meules (47°23'N, 61°51'W) (6.58) is situated on the E side of Île du Cap aux Meules. Cap-aux-Meules Wharf extends E and SE from the point, and is protected on the E side by a curved breakwater.
- 2 **Function.** The village of Cap-aux-Meules, (population about 1500) with a fish processing plant and an oil tank farm, lies W of the cape. A ferry terminal is situated in the N part of the harbour.

Limiting conditions

6.70

- 1 **Depths.** The approach channel was dredged to a depth of 6.3 m in 2002. Depths in the harbour were reported (1999) to be between 4 and 5 m.
Tidal levels. Mean spring range about 0.6 m; mean neap range about 0.3 m. For further details see *Admiralty Tide Tables Volume 2*.
Ice. Local fast ice appears in mid-December with significant pack ice in the approaches a month later. The area is usually clear by mid-May.

Directions

6.71

- 1 From a position close SW of YD Light-buoy (safe water) moored 8 cables SSE of the harbour entrance the track leads NW.
Leading lights are exhibited from the outer arm of Cap-aux-Meules Wharf:
- 2 Front light (orange trapezium, black stripe, on red framework tower, 5 m in height) on the head of the wharf.
Rear light (similar construction, inverted and tower, 9 m in height) (133m from front light).
The lights are visible on the leading line only.
- 3 The alignment (330¼°) of these lights leads to the harbour entrance.

6.72

- 1 **Useful marks:**
Cap-aux-Meules Breakwater Light (square mast, 6 m in height) (47°23'N, 61°51'W) on the E breakwater head.
Cap-aux-Meules West Breakwater Light (square framework tower, 5 m in height), on the head of the marina breakwater (6.75), 2 cables WNW of Cap-aux-Meules Breakwater Light.

Berths

6.73

- 1 The harbour basin has wharves on its N, W and S sides, the main berths being as follows:
Ferry Wharf — N side; length 132 m with charted depth of 5.4 m alongside.
Ro-Ro Berth — S side; length 89 m with a least depth of 5.3 m alongside; ramp 28.8 m wide.
Spur SE of Ro-Ro Berth; length 180 m with depths from 5.1 to 7.5 m alongside.
- 2 The commercial wharf at Cap-aux-Meules is equipped with a cathodic protection system against corrosion. In order to prevent damage to ships, operational procedures are to be followed while berthing. For more information and procedures to follow, telephone the harbour master.

Port services

6.74

- 1 **Repairs:** on the N side of the harbour there is a 7 m wide haul-out facility with a 100 tonnes travel lift.
Other facilities: a hospital; churches; post office; bank.
Supplies: fresh water, electricity and light fuels are available.
- 2 **Communications:** a ferry service operates during the summer months to Souris, Prince Edward Island. There are flights to Québec Province.
Rescue: a lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

Small craft

6.75

- Marina.** Two breakwaters extending from the SW side of Cap-aux-Meules Wharf enclose a marina basin. A public wharf, 150 m long, with a depth of 2.3 m (8 ft) alongside, forms the N side of the basin with the marina on the SE side. A light is exhibited from the S breakwater (6.72).
Boat basin. A short spur projects from the N side of Grindstone Wharf, near its root, protecting a boat basin with depths of about 0.9 m (3 ft).

Havre-Aubert

Charts 4764, 4765, Canadian Chart 4957 (see 1.32)

General information

6.76

- 1 **Position.** Havre-Aubert is approached from the S end of Baie de Plaisance through a narrow buoyed channel, SE of Cap Gridley (47°14'N, 61°50'W).
Function. The harbour is well sheltered, and contains fish processing plants and associated berths. The village of Havre-Aubert (population about 360) is situated on the N shore of the harbour.

Limiting conditions

6.77

- 1 **Depths.** The limiting depth in the entrance channel as far as the wharf on its NW side is 5.5 m (18 ft) (1995).
Ice. Local shore-fast ice usually forms in mid-December, with pack ice appearing in the approaches a month later. This pack ice usually decreases to a few tenths coverage by mid-April, and the entire area is clear of ice by mid-May.

Arrival information

6.78

- 1 **Outer anchorage.** Excellent anchorage is available between 5 and 8 cables offshore, in a depth of 7.3 m (24 ft), with Cap Gridley bearing 208°, distant about 8 cables.

Harbour

6.79

- 1 The entrance channel leads into a well sheltered basin, bordered on its NE, SE and SW sided by drying flats.
A curved peninsula, with Pointe Shea at its N point and Cap Gridley at its NE point, surrounds the NW part of the harbour, which is shallow. A narrow channel leads NW across this area to a pier for small craft 3 cables W of Cap Gridley.
- 2 A public wharf is located on the E side of the harbour entrance and a small craft basin is adjacent.
At the S end of the harbour a fish plant and ruined wharf stand on the W side of the entrance to Le Petit Bassin, 5 cables SW of Cap Gridley.

Directions for entering Havre Aubert**6.80****1 Leading lights:**

Front light (orange rectangle, black stripe, on red framework tower, 5 m in height) (47°13'·7N, 61°50'·0W) on Pointe Fox at S end of harbour.
Rear light (similar construction and tower) (541 m from front light).

2 From a position close NE of YK2 Light-buoy (starboard hand), moored about 3½ cables NE of Cap Gridley, the alignment (213½°) of these lights leads through the buoyed channel into the harbour, passing between shoal ground on the W side and drying banks on the E side. In following the deepest channel, it may be necessary to deviate from the leading line in places.

3 A sector light is exhibited from the head of the small craft pier, which accommodates a marina, situated 3 cables W of Cap Gridley. The white sector (322¾°–325¾°) leads to the marina and into La Petit Baie. The channel to the pier is privately buoyed and had a reported depth of 1·1 m (4 ft) in 1994.

Berths**6.81**

1 Alongside berths (positions given from Cap Gridley):

<i>Berth</i>	<i>Length (m)</i>	<i>Depth (m)</i>
Public wharf (1 cable SSW)	182	5·5
National Sea Foods wharf and plant (½ cable S)	–	–
Small craft basin (1¾ cables S)	–	1·8
Pier for small craft (3 cables W)	152	1·5

Port services**6.82**

1 **Facility:** first aid station.

Supplies: fresh water; diesel; stevedores.

Communications: regular communication by sea with Pictou, Prince Edward Island; air flights to Charlottetown and Québec Province.

Small craft

Canadian Chart 4951 (see 1.32)

Pointe Basse**6.83**

1 At Pointe Basse (47°23'N, 61°47'W) a wharf 175 m long, and a breakwater-wharf, of about the same length, enclose a small basin of which the major part was dredged to a depth of 1·7 m (6 ft) in 2001. The SE breakwater provides a wharf on its NW side, 105 m long with a depth of 1·7 m alongside. The outer end is not dredged and is protected by rocks. The breakwater extends 30 m beyond the end of the wharf. Another small wharf is situated close N. Owing to continuous silting, the limiting depth in the harbour may be less than charted.

2 Pointe Basse Wharf Light (red framework tower, 7 m in height) is exhibited from the head of the SE breakwater. Some shelter is available in good weather, but not from E gales, which are common in spring.

Chart 4764, Canadian Charts 4955, 4951 (see 1.32)

Havre-aux-Maisons**6.84**

1 **Description.** Havre-aux-Maisons (47°24'N, 61°50'W) lies in a bay at the N end of Baie de Plaisance.

The town of Havre-aux-Maisons (population about 2300) is situated on the NE shore of the harbour.

2 **Vertical clearance.** A road bridge with a vertical clearance of 3·0 m (10 ft) crosses the head of the harbour, spanning a channel that leads into Lagune du Havre aux Maisons. An overhead cable, with a vertical clearance of 12 m (40 ft), spans the channel close SE of the road bridge.

The channel beneath the bridge is marked by two lights which are exhibited from the NE and SW ends of the bridge.

6.85

1 **Directions.** Havre-aux-Maisons is approached from Baie de Plaisance through a narrow and shifting channel, with changing depths of from 0·3 to 2·8 m (1 to 9 ft).

The channel is marked by buoys, but these do not always indicate the deepest water. Local knowledge is required.

2 **Berths.** Several small jetties and a fish processing plant are situated in Lagune du Havre aux Maisons, close E of the road bridge.

A marina at Fatima (47°24'·5N, 61°52'·0W) in Lagune du Havre aux Maisons is approached through a channel with a least depth of 0·4 m (1¼ ft) (1991).

3 **Marine farm.** An aquaculture zone with a maximum dimension of 20 x 15 m has been established in Lagune du Havre aux Maisons. The central point of the zone is identified from October 1st to December 15th with one unlighted yellow cautionary buoy with radar reflectors in 47°24'·4N, 61°50'·3W.

Baie du Havre aux Basques**6.86**

1 Baie du Havre aux Basques (47°18'N, 61°57'W) is an extensive lagoon between the sand ridges joining Île du Cap aux Meules and Île du Havre Aubert. The lagoon is shallow and is encumbered with drying sandbanks.

A passage with a depth of 1·8 m (6 ft) leads into the lagoon from the S end of Île aux Oeufs (47°18'N, 61°56'W).

Île-d'Entrée village**6.87**

1 **General information.** Île-d'Entrée village (population about 190) is situated on the W side of the island.

Berths: a L-shaped pier for fishing vessels with an inner face 90 m long and a depth of 1·7 m (6 ft) alongside (in 1995) is situated near the village. The outer face of the wharf is protected by rocks. A breakwater lies close N of the wharf and the outer part of the enclosed basin was dredged to 1·7 m in 1992. Owing to continuous silting the depths available in the harbour may be reduced. A light (6.68) is exhibited from the head of the pier.

2 **Facilities:** post office; a first aid station; a church.

Communications: small ferry runs each day to Cap-aux-Meules (6.69) during the navigation season; air service operates in winter.

Other names

6.88

- 1 Échouerie, Pointe de l' (47°21'3N, 61°52'3W).
Gros Cap, Le (47°20'7N, 61°52'9W).
Nelson Pointe (47°24'3N, 61°50'8W).

ÎLE D'ENTRÉE TO LE GROS CAP

General information

Chart 4764, Canadian Chart 4951 (see 1.32)

Route

6.89

- 1 The coastal route S of Îles de la Madeleine leads from Île d'Entrée (47°17'N, 61°42'W) to the vicinity of Le Gros Cap, 13 miles WSW.

Topography

6.90

- 1 For information on the topography of Île d'Entrée see 6.59.

The S coast of Île du Havre Aubert, for a distance of about 7½ miles SW from Sandy Hook (47°16'N, 61°47'W), consists of sand-hills and beaches, with shoals extending up to 7 cables offshore.

About 1½ miles W of the entrance to Le Bassin (47°13'N, 61°53'W) the coast becomes high with cliffs, except in Anse à la Cabane, 4 miles W of Le Bassin.

Tidal streams

6.91

- 1 For general information on tidal streams around Îles de la Madeleine see 6.31 to 6.32.

Principal marks

6.92

- 1 **Landmarks:**

Île d'Entrée Lighthouse (white 8-sided tower, 14 m in height) (47°16'N, 61°42'W) on S side of island.
Radio tower (elevation 227 m (745 ft); red lights) (47°14'6N, 61°57'3W).

Île du Havre Aubert Lighthouse (Cap du Sud) (white 6-sided tower, 17 m in height) (47°13'N, 61°58'W).

- 2 **Major lights:**

Île d'Entrée Light — as above.
Cap du Sud Light — as above.

Directions

(continued from 6.40)

6.93

- 1 From a position about 6 miles S of Île d'Entrée the coastal passage leads W, passing (with positions from Île d'Entrée Light):

S of the shore bank, with depths of less than 11 m (36 ft), extending up to 7 cables from the S coast of Île du Havre Aubert, thence:

- 2 S of Île du Havre Aubert Lighthouse (Cap du Sud) (11¼ miles WSW) (6.92).

The track then leads to a position about 1 mile SW of Le Gros Cap (47°13'N, 62°00'W).

(Directions continue for the coastal passage
W of Îles de la Madeleine at 6.102)

Anchorages and harbours

Off Le Bassin

6.94

- 1 Le Bassin (47°14'N, 61°53'W) is a large lagoon in the E part of Île du Havre Aubert.

There is good anchorage, in offshore winds, in depths of 11 to 16 m (36 to 53 ft), sand, off the entrance to Le Bassin.

Anse à la Cabane

6.95

- 1 Anse à la Cabane (47°13'N, 61°59'W) is a small bight between Cap du Sud and Le Gros Cap. It provides good anchorage in NE winds, in depths of about 16 m (53 ft), sand, in the middle of the bight, 8 cables offshore. In this position Cap du Sud is in line with the SW extremity of Cap Percé, 7½ cables E.

Small craft

Millerand

6.96

- 1 **General information.** The fishing village of Millerand (47°13'N, 61°59'W), with a L-shaped wharf, is situated at the head of Anse à la Cabane.

- 2 **Directions.** The wharf is approached from the vicinity of YP Light-buoy (safe water) moored about 5 cables WSW of Cap du Sud.

- 3 **Berth.** The L-shaped wharf is 103 m long; the outer face, bordered on the S side by a breakwater, is 135 m long. In 1994 the depth alongside was 2.0 m (6.5 ft). A light (mast, 1 m in height) (47°13'0N, 61°59'1W) is exhibited from this breakwater.

Another breakwater, 330 m long lies to the E; a light (square framework tower, 4 m in height) is exhibited from its outer end. The entrance between the wharf and the breakwater is 59 m (194 ft) wide. Due to continual silting, depths vary but dredging is sometimes carried out.

LE GROS CAP TO CAP DE L'HÔPITAL

General information

Chart 4766, Canadian Chart 4951 (see 1.32)

Route

6.97

- 1 The coastal route W of Îles de la Madeleine, between Le Gros Cap (47°13'N, 62°00'W) and Cap de l'Hôpital, 13 miles NNE, leads inside Le Corps Mort (47°16'N, 62°12'W).

Topography

6.98

- 1 The W side of Île du Havre Aubert, from Le Gros Cap to Étang de l'Ouest, 2½ miles N, is composed of red cliffs 30 m (100 ft) high; a ridge of sand continues thence for 6 miles NNE to Île du Cap aux Meules.

The W coast of Île du Cap aux Meules consists of red cliffs, except in Étang du Nord (47°22'N, 61°57'W), which is a sandy bay.

Depths

6.99

- 1 **Coastal bank.** A bank, with depths of less than 18.3 m (60 ft) over it, extends about 4 miles offshore in places between Étang de l'Ouest and Cap à Savage, 7 miles NNE.

Several isolated shoal patches, the positions and depths of which can best be seen from the chart, may be a danger to deep and medium draught vessels.

Tidal streams**6.100**

- 1 For general information on tidal streams around Îles de la Madeleine see 6.31 to 6.32.

Principal marks**6.101**

- 1 **Landmarks:**

Radio tower (47°14'·6N, 61°57'·3W) (6.92).

Peak with radio tower (elevation 234 m (768 ft); red lights) (47°23'N, 61°55'W).

Major light:

Étang du Nord (Cap-aux-Meules) Light (white round tower, 11 m in height) (47°23'·1N, 61°57'·6W) exhibited from Cap du Phare (Pointe Hérissée).

Directions

(continued from 6.93)

6.102

- 1 From a position SW of Le Gros Cap the track leads generally N and NE, passing (with positions from Cap du Phare (47°23'N, 61°58'W)):

SW and W of Rocher de la Vache Marine (10 miles SSW) and the coastal bank extending about 5 cables from the shore between Le Gros Cap and Étang de l'Ouest (7½ miles SSW), thence:

- 2 E of Le Corps Mort (12½ miles SW) (6.104), thence: W of a rocky patch on the coastal bank, with a depth of 9·1 m (30 ft) over it, lying 3¾ miles SW of Cap à Savage (1¼ miles S). A visible wreck lies at the end of the cape, thence:

- 3 E or W of Récifs du Cheval Blanc, a group of rock pinnacles, (6 miles WSW) over which the sea often breaks, thence:

NW of the coastal bank, with depths of less than 9·1 m (30 ft), that extends about 1 mile offshore between Cap du Phare and Cap de l'Hôpital, (3½ miles NE), and:

- 4 SE or NW of Pierre de Gros Cap, (4 miles NW) over which the sea breaks only in heavy weather, thence:

To a position about 4 miles NW of Cap de l'Hôpital.

6.103

- 1 **Useful marks:**

Radio tower (47°21'·4N, 61°55'·6W) (6.66).

Étang du Nord N Breakwater Light (square mast, 6 m in height) (47°22'N, 61°58'W).

Étang du Nord S Breakwater Light (square framework tower, 3 m in height) situated on the outer end of the S breakwater.

Stranded wreck (47°21'N, 61°57'W).

(Directions continue for coastal passage at 6.113)

Adjacent island**Le Corps Mort****6.104**

- 1 **Le Corps Mort** (47°16'N, 62°12'W) lies about 8 miles W of Île du Havre Aubert.

The island is rocky and steep. When seen from E or W it resembles a pyramid; when seen from N or S it resembles a recumbent human form.

The W side of Le Corps Mort is moderately steep-to. A reef extends for a distance of 1 mile ESE from the island.

Étang du Nord**General information****6.105**

- 1 **Position.** Étang du Nord is a harbour formed by a nearly perfect semicircle of sandy beach between Cap à Savage (47°22'N, 61°58'W) and a point of land 5 cables N. The harbour is partially protected by breakwaters extending from its N and S sides, 335 and 416 m long, respectively.

The town of L'Étang-du-Nord, with a population of 3602 in 1986, is situated at the head of the bay.

Directions for approaching Étang du Nord**6.106**

- 1 **Caution.** When approaching from W it is necessary to avoid Récifs du Cheval Blanc (6.102), situated 5 miles W of the harbour.

Clearing marks. The alignment (083½°) of the following marks passes S of Récifs du Cheval Blanc:

Church (47°22'·2N, 61°54'·5W) situated about 2½ miles ENE of Cap à Savage.

The N side of Cap à Savage.

Directions for entering harbour**6.107**

- 1 From a position about 3 miles W of Cap à Savage the white sector (079·2°–080·2°) of a light (square framework tower, 4 m in height) (47°22'·2N, 61°57'·5W), exhibited from the N end of the T-shaped wharf within the harbour, leads E, passing:

- 2 About 5 cables N of Île aux Goélands, 19 m high, and associated rocks which lie close SW of Cap à Savage (47°22'N, 61°58'W), thence:

Between the breakwaters from which lights are exhibited (6.103).

- 3 **Caution.** It is advisable to proceed with great care in approaching the harbour entrance.

Berth**6.108**

- 1 There are two public wharves. The first, 215 m long, with depths of 0·3 to 1·5 m (1 to 5 ft) in 2002, lies along the inside face of the N breakwater. The other is T-shaped, extending 123 m W from the shore to an outer face 73 m long. There is a spur extending 54 m S from its central part. Depths vary from 0·3 to 2·5 m (1 to 8 ft) alongside.

Small craft**6.109**

- 1 A dredged channel leads to the basin, in which there is a good shelter for boats, between the N breakwater and the public jetty.

CAP DE L'HÔPITAL TO CAP DU DAUPHIN**General information**

Chart 4766, Canadian Charts 4951, 4952 (see 1.32)

Route**6.110**

- 1 The coastal route off the NW side of Îles de la Madeleine, between Cap de l'Hôpital (47°25'N, 61°54'W) and Cap du Dauphin (North Cape), 20 miles NE, passes to seaward of a number of detached shoal patches which lie up to 4 miles from the coast.

Topography**6.111**

- 1 The NW coast of Îles de la Madeleine consists of sandy beaches and dunes, except where sandstone cliffs appear at

Île aux Loups (47°32'N, 61°43'W). At Cap du Dauphin the coast rises to a precipitous headland.

- 2 **Aspect.** At the N end of Îles de la Madeleine, the hills of La Grosse Île (47°37'N, 61°32'W) and Île de la Grande Entrée, 3½ miles S, can be seen rising behind the sandy coast.

Tidal streams

6.112

- 1 For information on tidal streams around Îles de la Madeleine see 6.31 to 6.32.

Directions

(continued from 6.103)

6.113

- 1 From a position about 4 miles NW of Cap de l'Hôpital (47°25'N, 61°54'W) the coastal passage leads NE, passing (with positions from Île aux Loups (47°32'N, 61°43'W)): NW of rocky patches, with least depths of 6.2 m (20 ft) and 6.5 m (21 ft) over them, (lying, respectively, 6½ and 7½ miles SW), thence:
 - 2 NW of rocky shoals with least depths of 10.2 m (33 ft) and 8.7 m (28 ft) (lying, respectively, 4 miles W and 3½ miles WNW), thence: NW of Récif Glawson (Glawson Patch) (6 miles NNE), a rocky shoal, and depths of 11.2 m (37 ft) lying 1¾ miles farther SW, thence:
 - 3 NW of rocks and shoals, including Rochers du Dauphin and North Cape Rocks which lie up to 6 cables from the coast between Cap du Dauphin (10 miles NE) and a point 1½ miles WSW of it.
- The track then leads to a position about 6 miles WNW of Cap du Dauphin (47°38'N, 61°31'W).

6.114

- 1 **Useful mark:**
Two towers (red lights, 30 m in height) (47°37'N, 61°33'W), 1.4 miles SW of Cap du Dauphin.
(Directions continue for coastal passage
N of Îles de la Madeleine at 6.121)

Small craft

Anse de l'Hôpital

6.115

- 1 Anse de l'Hôpital (47°25'N, 61°54'W) is a small fishing harbour E of Cap de l'Hôpital. It has a public pier, 91 m long, in ruins, protected by two breakwaters.

Île aux Loups

6.116

- 1 Île aux Loups (47°32'N, 61°43'W) has a public pier 46 m long, with a depth of 1 m (3 ft) alongside (1992). A slipway for small craft is located immediately S of the pier. A breakwater extends 190 m NW from the shore S of the pier.

NORTH SIDE OF ÎLES DE LA MADELEINE

General information

Chart 4766

Routes

6.117

- 1 A route leads around the N side of Îles de la Madeleine between Cap du Dauphin (47°38'N, 61°31'W) and Île Brion 9 miles farther N.

A route passing N and W of Île Brion (47°48'N, 61°28'W) (Brion Island on Chart 4764) and Rochers aux Oiseaux 11 miles ENE is described at 6.122.

Topography

6.118

- 1 **North coast.** The N coast of Îles de la Madeleine between Cap du Dauphin and Pointe de l'Est (6.35) 6 miles E, consists of a curved sandy beach.
Dunes, sand-hills and the remarkable cliffs of Cap Nord-Est (47°37'N, 61°28'W) (6.35) rise behind the beach.
- 2 **Île Brion** (47°48'N, 61°28'W), which lies 9 miles N of the main group of islands, is about 4 miles in length, and is formed of alternating horizontal strata of red and grey sandstone and clay.
The island has perpendicular or overhanging cliffs, higher on the N side, with many caves.
A great part of the island is covered with stunted trees, with grass on much of the high ground.
- 3 **Rochers aux Oiseaux** (47°50'N, 61°09'W), about 11 miles ENE of Île Brion, are two rocks of dark red sandstone, with perpendicular cliffs practically all round, sheltering large colonies of sea birds.
Rocher aux Oiseaux, the SE rock, is the larger.
Rocher aux Margaux, the NW rock, is smaller and lower; it consists of three precipitous mounds, joined at their bases, the lowest mound resembling a tower.
- 4 A patch of breakers lies nearly midway between the two rocks.
The islands are a designated bird sanctuary (1.91).

Tidal streams

6.119

- 1 For general information on tidal streams around Îles de la Madeleine see 6.31 to 6.32.

Navigational aid

6.120

- 1 **Racon:**
Pointe de l'Est (47°37'N, 61°23'W).

Directions

(continued from 6.113)

Passage south of Île Brion and Rochers aux Oiseaux

6.121

- 1 From a position about 6 miles WNW of Cap du Dauphin the track leads ESE and E, passing (with positions from Cap du Dauphin (47°38'N, 61°31'W)): S of an extensive patch of foul and rocky ground (6 miles NNW), with depths of less than 18.3 m (60 ft) over it, and a least known depth of 10.9 m (36 ft). This patch, where the bottom has been seen in calm weather, is a danger to vessels of medium or greater draught at any time, and to all vessels when a heavy sea is running. Thence:
- 2 S of a sandy patch (8½ miles N), with depths of 5.5 m (18 ft) over it, 2½ miles SE of Cap Noddy (Noddy Head) the W point of Île Brion, thence: S of a patch (8¾ miles NNE), with depths of 9.1 m (30 ft) over it, thence: S of Rochers aux Oiseaux (19 miles NE) (6.118), from which a light (6.124) is exhibited.
- 3 The track then leads to a position about 13 miles E of Pointe de l'Est (47°37'N, 61°23'W), from which a light (6.41) is exhibited.

Passage west, north and east of Île Brion

6.122

- 1 From a position about 6 miles WNW of Cap du Dauphin, the track W and N of Île Brion leads NNE, ENE, and thence S, passing (with positions from Cap du Dauphin (47°38'N, 61°31'W)):

WNW of the extensive patch of foul and rocky ground (6 miles NNW) (6.121), thence:

- 2 WNW of YJ Light-buoy (W cardinal) (9 miles NNW) moored 1½ miles W of Cap Noddy, marking reefs extending about 1¼ miles W and 1 mile NW from that point; a light (6.124) is exhibited from Cap Noddy, thence:

- 3 NNW of shoal ground, with depths of less than 11 m (36 ft) (10½ miles NNE), extending about 5 cables N from Pointe Dandy (Dandy Head), the N point of the island, thence:

NNW of a ridge of foul and rocky ground (14½ miles NNE), with depths of less than 18.3 m (60 ft), and a least charted depth of 11.3 m (37 ft), lying between Île Brion and Rochers aux Oiseaux. The bottom has been seen in calm weather. It is inadvisable to cross this ridge, as the swell builds up on it and groundings have occurred. Thence:

- 4 NNW and E of Rochers aux Oiseaux (19 miles NE) (6.118). A light (6.124) is exhibited from Rocher aux Oiseaux.

The track then leads to a position about 13 miles E of Point de l'Est (47°37'N, 61°23'W).

6.123

- 1 **Offshore depths.** A rocky ridge, with depths of less than 12 m (40 ft) over it, lying roughly parallel with the N coast of Île Brion, at a distance of about 2½ miles from it, may be a danger to some vessels. Shallower depths continue to be reported in the area.

6.124

- 1 **Useful marks:**

Rochers aux Oiseaux (Bird Rocks) Light (square framework tower, 11 m in height) (47°50'N, 61°09'W) exhibited from the summit of Rocher aux Oiseaux.

Île Brion Light (white 8-sided tower, 14 m in height)

(47°47'N, 61°31'W) on Cap Noddy.

Pointe de l'Est Light (47°37'N, 61°23'W) (6.41).

Two towers (47°37'N, 61°33'W) (6.114).

Anchorage and harbours

Leslie

6.125

- 1 **General information.** Leslie (47°37'.7N, 61°30'.9W) is a small harbour enclosed by a wharf which is protected on its N side by rocks and a breakwater close SE, situated about 4 cables SE of Cap du Dauphin. In 2002 the depth in the harbour entrance was 2.3 m (8 ft). The majority of the harbour was dredged to 1.6 m (5 ft) in 2000. Grosse Île Light (mast) (seasonal) is exhibited from the outer end of the N breakwater.

- 2 **Anchorage** in depths of 16.5 m (54 ft), sand, with good holding ground, is available in offshore winds NE of Cap du Dauphin.

Berth. The wharf is 100 m in length with a depth of 1.6 m alongside.

- 3 **Marina.** There are several pontoons, a slipway and a boat ramp in the harbour.

South-east of Île Brion

6.126

- 1 The roadstead SE of Anthony's Nose (47°47'.0N, 61°28'.2W), on the SE side of Île Brion, provides anchorage in offshore winds, in depths of about 11 m (36 ft), sand, 1 mile or more offshore. The reefs surrounding the S extremity of Île Brion provide some shelter.

During NW gales, anchorage for small vessels may be found close under the reef on the W side of the roadstead.

Local knowledge is required.

North of Île Brion

6.127

- 1 Anchorage, with a sandy bottom, is available in fine weather and S winds between the N coast of the island and the rocky ridge (6.123) about 2½ miles offshore.

SOUTH COAST OF ÎLE D'ANTICOSTI

GENERAL INFORMATION

Chart 4762

Area covered

6.128

- 1 This section describes the waters along the S coast of Île d'Anticosti from Pointe de l'Est (East Point) (49°08'N, 61°40'W) to Pointe de l'Ouest (West Point) (49°52'N, 64°31'W), 124 miles NW. It is arranged as follows:

Pointe de l'Est to Escarpement Bagot (6.131).

Escarpement Bagot to Pointe du Sud-Ouest (6.140).

Pointe du Sud-Ouest to Pointe de l'Ouest (6.148).

Topography

6.129

- 1 The S coast of the island, between Pointe de l'Est (East Point) (49°08'N, 61°40'W) and Pointe de l'Ouest (West Point) (49°52'N, 64°31'W) is low and shelving, with drying reefs of flat limestone and some isolated coastal features. A range of high land is visible within Pointe Sud-Ouest, extending to the N and to the E.

Shelter

6.130

- 1 Anchorage off this coast is generally poor, due to the reefs which extend 1½ miles offshore in places.

Baie Ellis (49°48'N, 64°22'W) (6.152), containing Port-Menier, is the best harbour available, and the only port in Île d'Anticosti.

POINTE DE L'EST TO ESCARPEMENT BAGOT

General information

Chart 4767

Route

6.131

- 1 The coastal passage off the S side of Île d'Anticosti, from the vicinity of Pointe de l'Est (East Point) (49°08'N, 61°40'W) to Escarpement Bagot, 24 miles WSW, is clear except for some charted dangers which lie within 2 miles of the coast.

Topography**6.132**

- 1 Pointe de l'Est, a limestone cliff 15 m high, forms the end of a densely wooded ridge. A prominent patch of sand is to be seen on the face of a steep slope, about 3 cables SW of Pointe de l'Est.
- 2 The coast from Pointe Heath (Heath Point) a limestone headland, 3 m high, 3½ miles SSW of Pointe de l'Est, to Pointe du Sud consists of small bights separated by low points. Wooded ridges come down to the coast in the vicinity of Pointe au Cormoran (Cormorant Point) (49°04'N, 61°49'W). Between Escarpement Bagot, 15 miles farther W, and Pointe du Sud the terrain rises to 91 m (300 ft) about 4 miles inland.

Natural conditions**6.133**

- 1 **Tidal streams.** The tidal streams run strongly around Pointe Heath at springs, to a distance of about 6 miles from the coast; the in-going stream sets between N and NE and the out-going stream sets between S and SW. At a distance of about 5 miles from the land the tidal streams at springs turn at 1½ hours before HW and LW by the shore, and run at a rate of about ¾ kn.
During neaps the tidal streams are much modified, both in rate and direction, by the wind.
- 2 **Tide-rips** form over the coastal shoals during spring tides, with heavy overfalls in bad weather.
Winds. Occasionally, W winds converge from both sides of Île d'Anticosti towards Pointe Heath, resulting in light and variable winds in an area from 5 to 8 miles E of the island.
Fogs are frequent off the E part of the island.

Principal mark**6.134**

- 1 **Major Aero light:**
Pointe Heath Aero Light (framework tower) (49°05'1N, 61°42'1W) on the point.

Directions**6.135**

- 1 From the vicinity of Pointe de l'Est (49°08'N, 61°40'W), the track leads S, then W, passing (with positions from Pointe Heath (49°05'N, 61°42'W)):
E of a rocky shoal, with depths of 5.5 m (18 ft) over it (1½ miles E), with foul ground and depths of less than 11 m (36 ft) extending 8 cables farther E, thence:
- 2 S of foul ground, generally indicated by breakers, extending about 8 cables S from Pointe au Cormoran (5 miles WSW), a conspicuous steep slope of red clay, thence:
S of the reef with depths of less than 11 m (36 ft) over it, extending about ¼ miles S from Pointe Goose (10 miles WSW), thence:
- 3 S of Pointe du Sud (21 miles W), which is low and flat, with no trees within 5 cables of its extremity, thence:
To a position S of Escarpement Bagot (22 miles W), a slight rise in the coast from where Bagot Bluff (Escarpement Bagot) Light (6.145) is exhibited.

- 4 **Clearing marks.** The line of bearing not more than 075° of Pointe Heath Light, open S of Pointe au Cormoran, 5 miles WSW, passes S of the reef off Pointe Goose.

Caution. The out-going tidal stream, setting SSW past Pointe de l'Est, sometimes turns sharply into Baie du Naufrage close S, and care is necessary when navigating in the vicinity.

Heavy tide-rips and overfalls may occur over the shoals E of Pointe Heath.

(Directions continue for coastal passage at 6.143 and for passage on N coast of Anticosti at 4.162)

Anchorage and harbours

Canadian Chart 4430 (see 1.32)

Baie du Naufrage**6.136**

- 1 **Anchorage.** Baie du Naufrage (Wreck Bay) (49°06'N, 61°41'W) provides only poor anchorage, with a rock bottom. It is used by fishing vessels during NW winds, but it is not advisable to approach the bay during S and E winds, as a heavy sea rolls in. The bottom is foul to a distance of 5 cables from the shore.

Chart 4767

Baie Cybèle**6.137**

- 1 **Anchorage.** Baie Cybèle (49°05'N, 61°44'W) affords anchorage in offshore winds in depths of 11 to 18 m (36 to 60 ft). The bottom is generally rocky, but there are patches of mud and sand.

Small craft**Rivers****6.138**

- 1 Eel River (49°05'N, 62°00'W) and Bell River, about 8 miles farther W, are accessible to boats at HW.

Other name**6.139**

- 1 Pointe de la Croix (49°04'N, 62°04'W).

**ESCARPEMENT BAGOT TO
POINTE DU SUD-OUEST****General information**

Chart 4767

Route**6.140**

- 1 The coastal passage from S of Escarpement Bagot (49°04'N, 62°16'W) to Pointe du Sud-Ouest (South West Point), 55 miles WNW, is clear of dangers outside the coastal reef, which extends 1 mile from the shore in places, and is steep-to.

Topography**6.141**

- 1 The coast between Escarpement Bagot and Pointe du Sud-Ouest has no distinguishable features.
The land is low to the W of Escarpement Bagot, but it begins to rise at Rivière du Pavillon (49°12'N, 62°54'W), and a high ridge continues thence to Pointe du Sud-Ouest.

Natural conditions**6.142**

- 1 **Flow.** In the coastal route SW of Pointe du Sud-Ouest the current is weak and variable. The tidal streams set as follows:

Interval from HW Pointe au Père *Set*

-0530	NW-going starts
-0245	Maximum NW-going
+0030	SE-going starts
+0345	Maximum SE-going

The maximum rates are $\frac{1}{2}$ kn.

- 2 **Local weather.** Local effects at Pointe Sud-Ouest accentuate the seasonal change in winds. The predominant afternoon winds blow from NW from August to April, and SE from May to July.

Directions

(continued from 6.135)

6.143

- 1 From S of Escarpement Bagot (49°04'N, 62°16'W), the track leads WNW, passing (with positions from Escarpement Bagot Light):
SSW of a rocky spit, with a depth of 3.7 m (12 ft) over it, extending about $\frac{1}{2}$ miles from the coast (2 miles WNW), thence:
SSW of Pointe Dauphine (10 miles WNW), thence:
SSW of Cap des Caps (29 miles WNW), a conspicuous sand cliff, thence:
- 2 Seaward of the foul ground, with depths of less than 15 m (49 ft) over it, extending about 2 miles SSW from Pointe du Petit Lac Salé (43 miles WNW), on the SE side of Baie au Sable (6.146), thence:
SSW of Pointe du Sud-Ouest, a low projecting mound of limestone, from which stands Pointe du Sud-Ouest Light (framework tower, 15 m in height) (49°23'N, 63°36'W).

- 3 **Caution.** It is inadvisable to navigate close inshore as the coastal reef, which extends about 1 mile offshore in places, is so steep-to that soundings give little warning of approach to danger.

6.144

- 1 **Clearing bearing.** When Pointe du Sud-Ouest Light is in sight, it should be kept bearing more than 310° to pass well clear of the coastal dangers.

6.145

- 1 **Useful mark:**
Bagot Bluff (Escarpement Bagot) Light (square framework tower, 15 m in height) (49°04'N, 62°16'W).
(Directions continue at 6.151)

Anchorage and harbours

Baie des Sables

6.146

- 1 **General information.** Baie des Sables (49°19'N, 63°19'W) has sandy beaches enclosing tidal lagoons.
Directions. A vessel approaching Baie du Sable from SE should pass seaward of the outer edge of the foul ground, with charted depths of 15 m (49 ft), 2 miles SSW of Pointe du Petit Lac Salé, the SE entrance point to the bay; there is probably less water farther inshore.
- 2 **Anchorage.** There is anchorage in a depth of 11 m (36 ft), sand, SSE of Peat Point, the NW entrance point, but it is rather poor. The anchorage position is 5 cables W of a 3.7 m (12 ft) rock situated about 1 mile WSW of Pointe du Petit Lac Salé.

Other names

6.147

- 1 Shallop (village) (49°08'N, 62°33'W).
Shandon Point (49°06'N, 62°23'W).

POINTE DU SUD-OUEST TO POINTE DE L'OUEST

General information

Chart 4774

Route

6.148

- 1 The coastal passage from the vicinity of Pointe du Sud-Ouest (South West Point) (49°23'N, 63°36'W) to Pointe de l'Ouest (West Point), 46 miles WNW, is clear of dangers of seaward of the coastal reefs, which extend up to $1\frac{1}{4}$ miles offshore.

Topography

6.149

- 1 Cliffs rise perpendicularly from the sea between Pointe du Sud-Ouest and Rivière Jupiter, 5 miles N. Pointe aux Ivrognes (Cap Henri) (49°47'N, 64°23'W) is a bluff that can be easily distinguished against low land at the head of Baie Ellis (6.152).

Principal marks

6.150

- 1 **Landmark:**
Radio tower (elevation 144 m (472 ft); red lights) (49°50'N, 64°22'W).
- Major light:**
Pointe de l'Ouest (West Point) Light (framework tower, 18 m in height (49°52'N, 64°31'W).

Directions

(continued from 6.145)

6.151

- 1 From a position SSW of Pointe du Sud-Ouest (49°23'N, 63°36'W) the track leads NW, passing SW of the reefs that extend up to $1\frac{1}{4}$ miles offshore between Cap Henri (49°47'N, 64°23'W) and Pointe de l'Ouest, 7 miles farther NW.
- 2 **Caution.** It is inadvisable to approach the coast between Pointe du Sud-Ouest and Baie Ellis inside depths of 31 m (17 fm), as the coastal reefs, which extend about 1 mile offshore in places, are steep-to.
(Directions continue for St Lawrence River in Chapters 5 and 7)

Baie Ellis and Port-Menier

Chart 4774, Canadian Chart 4430 (see 1.32)

General information

6.152

- 1 **Position.** Baie Ellis (49°48'N, 64°21'W) is rather confined and exposed to the S, but is the only harbour in Île d'Anticosti.
Function. Port-Menier (population about 260 in 2002) on the NE side of Baie Ellis, has some port facilities and is the principal settlement on Île d'Anticosti.

Limiting conditions

6.153

- 1 **Depths.** The approach channel to the jetties at Port-Menier had a least charted depth of 3 m (10 ft) in 1996.

Weather. Strong S winds raise a very heavy sea in the entrance to Baie Ellis, but much less in the inner anchorage. The harbour should be entered with caution.

Arrival information

6.154

- 1 **Outer anchorage.** Vessels may anchor in depths of about 6·7 m (22 ft), about 1 mile ESE of Pointe aux Ivrognes, the W entrance point to Baie Ellis.

Shelter and holding ground in this locality are not as good as in the inner anchorage (6.158).

Harbour

6.155

- 1 The entrance to Baie Ellis lies between drying limestone reefs and boulders that extend 5 cables SW from Cap à l'Aigle on the E side, and 8 cables from Pointe aux Ivrognes on the W side.

The sea breaks over these reefs with the least swell, the long lines of breakers presenting an uninviting appearance from seaward.

- 2 It is not advisable to close the reefs to depths of less than 13 m (42 ft) when approaching the entrance.

The shores of the bay are fringed with drying reefs which extend from 5 to 8 cables offshore all round, so that depths of 5·5 m (18 ft) or more are found only in a confined area in the middle of the bay.

Directions for entering harbour

6.156

- 1 **Ellis Bay Main Leading Lights** are situated at the head of the bay:

Front light (square framework tower, 9 m in height) on Pointe du Château, 2 miles N of Cap Henri (Pointe aux Ivrognes).

- 2 Rear light (similar tower, 15 m in height) (6 cables from front light).

The lights are visible on the leading line only.

From a position 3 miles SE of Cap Henri (49°47'N, 64°23'W) the alignment (339½°) of these lights leads into Baie Ellis, thence through a buoyed channel to the inner anchorage and the berths at Port-Menier, passing close to Port Menier Light-buoy (safe water) moored 2 miles SE of Pointe aux Ivrognes.

6.157

- 1 **Useful marks:**

Orange beacon on Cap à l'Aigle (49°47'·2N, 64°19'·4W).

Orange beacon on Pointe aux Ivrognes (49°47'·6N, 64°22'·8W).

Berths

6.158

- 1 **Inner anchorage.** Anchorage is available during June, July and August, in depths of about 5·5 m (18 ft), mud, close E of the alignment (339½°) of Ellis Bay Leading Lights, and with Pointe aux Ivrognes bearing 240°.

This position is exposed to the S, and caution is necessary, but strong winds from this direction are rare at this season, and are usually of short duration.

- 2 **Berths.** A causeway extends SW for about 5 cables from the shore at Port-Menier to the outer edge of the reef, about 4 cables SW.

A public jetty, 210 m long extends SW from the causeway head. A breakwater runs parallel to the jetty, their outer ends being 107 m apart. A slipway is situated on the N side of the jetty at its outer end. The basin between the jetty and the breakwater is sheltered except from the SW.

- 3 Dolphins, in ruins, extend in two lines from the head of the jetty to the N shore of the bay; in the past they were used to hold a boom.

Port services

6.159

- 1 **Repairs:** minor mechanical repairs.

Supplies: diesel in limited quantities; water in emergencies only; small amounts of fresh provisions.

Other facilities: a small local hospital; limited facilities for oily waste; regional airport.

Small craft

Canadian Chart 4430 (see 1.32)

Rivière Jupiter

6.160

- 1 **General information.** Rivière Jupiter, the largest river in Île d'Anticosti, flows into the sea 1 mile N of Cap Ottawa (49°28'N, 63°37'W); it is, at most times, accessible to small craft. The river can be identified by conspicuous sandy cliffs 55 m (180 ft) high, immediately N of the entrance.

- 2 The entrance is shallow, with depths of about 0·9 m (3 ft) for most of the year, but during the spring thaw this depth is increased to 1·5 to 1·8 m (5 to 6 ft). South-west gales sometimes cause the entrance to be barred with sand, but it soon reopens.

- 3 **River.** Inside the high shingle beach which forms the S side of the entrance, the river widens into a tidal basin, about 2 cables wide, with sandy and marshy flats which dry at LW.

Small craft can navigate, through a succession of pools and rapids, for a considerable distance inland.

Chart 4774

Rivière aux Becs-Scies

6.161

- 1 Rivière aux Becs-Scies (49°43'N, 64°03'W) flows into the head of a small cove, in which boats may find shelter.

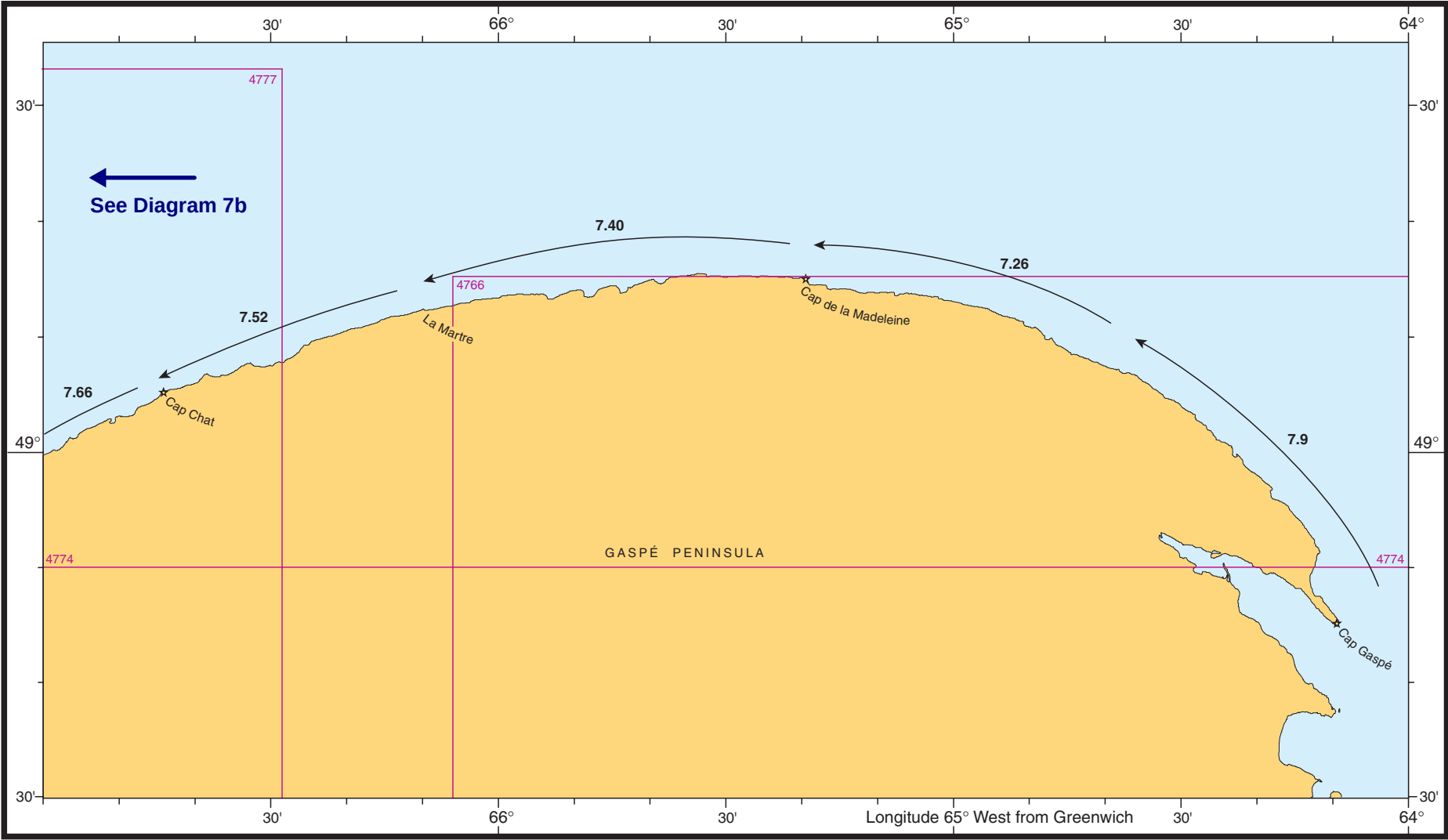
Other names

6.162

- 1 Falaise Sainte-Marie (St Mary Cliff) (49°40'N, 63°54'W).
Fraises, Anse aux (49°50'N, 64°27'W).
Graines, Pointe aux (49°45'N, 64°16'W).
Gun River (49°35'N, 63°44'W).
MacGilvray River (49°32'N, 63°40'W).
Otter River (49°37'N, 63°48'W).
Sainte-Anne, Rivière (49°38'N, 63°50'W).



Chapter 7a - St Lawrence River - south shore - Cap Gaspé to Cap Chat



October 2003

CHAPTER 7

ST LAWRENCE RIVER — SOUTH SHORE — CAP GASPÉ TO ÎLE VERTE

GENERAL INFORMATION

Charts 4766, 4774, 4777, 4782

Scope of the chapter**7.1**

- 1 This chapter covers passages along the N side of Péninsule de Gaspé, and the S shore of St Lawrence River from Cap Gaspé (48°45'N, 64°10'W) to Île Verte (48°02'N, 69°26'W), a distance of about 250 miles. It is arranged as follows:

Cap Gaspé to Cap de la Madeleine (7.7).
 Cap de la Madeleine to Cap Chat (7.38).
 Cap Chat to Pointe au Père (7.64).
 Pointe au Père to Île Verte (7.107).

Topography**7.2**

- 1 **St Lawrence River limits.** The Gulf of St Lawrence leads into the estuary of St Lawrence River across the line joining Cap des Rosiers (48°51'N, 64°12'W) and the W end of Île d'Anticosti, about 60 miles NNW.

- 2 **Terrain.** Monts Notre-Dame, the distinctive range of Péninsule de la Gaspésie, reach an elevation of 1268 m at Table Top Mountains and Mount Jacques Cartier, which lie about 15 miles inland, between Cap de la Madeleine (49°15'N, 65°20'W) and Cap Chat (49°05'N, 66°45'W).

Flow**7.3**

- 1 The flow on the S side of the estuary below Île Rouge (48°04'N, 69°33'W) is almost continually out-going as far down as Cap Chat, with a marked S component setting onto the coast between Matane (48°51'N, 67°32'W) and Cap Chat.

From Cap de la Madeleine SE to Cap Gaspé, the flow is dominated by the Gaspé Current (1.136) setting out from the St Lawrence River.

- 2 **Inshore tidal streams.** Between the S edge of the Gaspé Current and the S shore, the out-going tidal stream runs with the main current, but the in-going tidal stream is slight, except at springs, and its rate never exceeds 1 kn.

Caution. The E-going current tends to set a vessel onto some stretches of this coast.

Traffic regulations**7.4**

- 1 **Traffic separation scheme.** The traffic separation scheme for shipping approaching St Lawrence River from SE passes through Détroit D'Honguedo (49°00'N, 64°30'W) and follows the coast of Péninsule de la Gaspésie to join the routes from Sept-Îles (50°12'N, 66°23'W) and Détroit de Jacques-Cartier (50°05'N, 64°00'W) in the precautionary area SE of Pointe des Monts (49°19'N, 67°23'W). Details of the traffic lanes and separation zones can best be seen from the charts, and further information on these traffic separation schemes is given at 1.75 and in Chapter 2.

7.5

- 1 **Vessel Traffic Services.** The St Lawrence River Vessel Traffic Services Zone (1.27) encompasses all the waters of this chapter W of longitude 66°00'W. For operating details and the positions of reporting points see the chart and *Admiralty List of Radio Signals, Volume 6* (5).

- 2 **Pilotage** is compulsory above Escoumins.

Rescue**7.6**

- 1 A Canadian Coast Guard search and rescue cutter operates in the area between Île d'Anticosti and Québec from about 15th May to 15th November. See 1.105 for further information.

CAP GASPÉ TO CAP DE LA MADELEINE

GENERAL INFORMATION

Charts 4766, 4774

Area covered**7.7**

- 1 This section covers the SW side of Détroit d'Honguedo from Cap Gaspé (48°45'N, 64°10'W) to Cap de la Madeleine, 57 miles NW. It is arranged as follows:

Cap Gaspé to Pointe à la Renommée (7.9).
 Pointe à la Renommée to Cap de la Madeleine (7.26).

Topography**7.8**

- 1 The coast of Péninsule de la Gaspésie from Cap des Rosiers (48°51'N, 64°12'W), 6½ miles NNW of Cap Gaspé, to Cap de la Madeleine (49°15'N, 65°20'W) is bold and lined with cliffs; there are a number of bays and coves, but few beaches.

The country inland is rugged, with hills rising from the shore to an elevation of 305 m at a distance to 1 or 2 miles inland.

CAP GASPÉ TO POINTE À LA RENOMMÉE

General information

Charts 4766, 4774

Route**7.9**

- 1 The coastal route, bounded on the NE side by the traffic separation scheme (7.4), leads from a position SE of Cap Gaspé (48°45'N, 64°10'W) N for about 20 miles, thence WNW for a farther distance of 20 miles, to a position about 5 miles NNE of Pointe à la Renommée (49°07'N, 64°36'W).

Topography**7.10**

- 1 Cap Gaspé is a limestone headland at the extremity of a narrow peninsula extending about 4 miles SE from the mainland; cliffs rise to an elevation of 211 m on its NE side.

The coast and terrain NW of Cap des Rosiers are described at 7.8.

Flow

7.11

- 1 **Position.** Up to 5 miles off Pointe Nord-Ouest (48°57'N, 64°18'W).

Current. From ½ to 1 kn SE, decreasing farther NE.

Tidal streams:

<i>Interval from HW Pointe au Père</i>	<i>Set</i>
-0600	NW-going starts
-0300	Maximum NW-going
HW	SE-going starts
+0315	Maximum SE-going

- 2 Maximum rates are ½ kn.

Principal marks

7.12

- 1 **Landmarks:**

Cap Gaspé Lighthouse (white 8-sided tower, 9 m in height) (48°45'N, 64°10'W) on the edge of the cliffs at the S extremity of the cape.

Hill 361 m high, surmounted by a radio tower (48°50'N, 64°15'W) exhibiting red obstruction lights.

- 2 Cap des Rosiers Lighthouse (white round tower, 27 m in height) (48°51'N, 64°12'W).

Rivière au Renard Light (square framework tower, 5 m in height) (49°00'N, 64°23'W).

Radio mast, conspicuous (elevation 361 m; red lights) (49°00'N, 64°26'W).

L'Anse-à-Valleau Lighthouse (framework tower, 31 m in height) (49°05'N, 64°34'W) on the cliff, WNW of the harbour (7.25).

Television tower (elevation 197 m) (49°04'N, 64°32'W).

- 3 **Major lights:**

Cap des Rosiers Light — as above.

Rivière au Renard Light — as above.

Anse-à-Valleau Light — as above.

Directions

(continued from 15.269)

7.13

- 1 From a position SE of Cap Gaspé (45°45'N, 64°10'W), the track leads N and then generally NNW, keeping clear S of the traffic separation scheme, around the NE coast of Péninsule de Gaspé, passing (positions from Cap des Rosiers Light (48°51'N, 64°12'W)):

- 2 E of Cap Gaspé (7 miles SSE), thence:

NNE of Cap des Rosiers a low and rocky point, with depths of less than 11 m extending 3 cables offshore, thence:

NNE of Rivière au Renard (11 miles NW). A light (framework tower, 5 m in height) is exhibited from the outer end of a wharf in Anse de la Rivière au Renard. Thence:

- 3 NNE of Récif du Serpent (15 miles NW) extending about 1 mile E from Pointe de l'Échouerie. Attention is drawn to a depth of 4-6 m over a rock near the outer edge, with lesser depths inshore, thence:

NNE of Anse-à-Valleau (20 miles NW), from where

Anse-à-Valleau Light (7.12) is exhibited, thence:

NNE of Pointe à la Renommée (49°07'N, 64°36'W).

7.14

- 1 **Useful marks:**

A group of radio masts (elevation 82 m; red lights) (49°00'5N, 64°24'0W) at Rivière-au-Renard coast radio station.

Cap-des-Rosiers-Est North Jetty Light (red framework tower, white bands, 5 m in height) (48°50'N, 64°13'W).

- 2 L'Anse-à-Valleau East Light (orange rectangle, black stripe on framework tower, 6 m in height) (49°05'N, 64°33'W).

(Directions continue at 7.29)

Small craft

Chart 4774

Cap-des-Rosiers-Est

7.15

- 1 **General information.** Cap-des-Rosiers-Est is a fishing village with a small pier, about 1½ miles S of Cap des Rosiers.

Two jetties border the channel that leads to the inner basin. The L-shaped jetty, is 137 m long and is rock-filled at its S end; the N jetty is 100 m long. The walls of the basin provide a total berthing length of 200 m. Periodically the basin is dredged to a depth of 1.5 m. Depths may vary due to silting.

- 2 A light (7.14) is exhibited from the outer end of the pier.

Cap des Rosiers

7.16

- 1 **General information.** There is anchorage and shelter from NW winds under Cap des Rosiers (48°51'N, 64°12'W), but the holding ground is not good. When an E swell is running this anchorage is dangerous.

Jersey Cove

7.17

- 1 **General information.** Jersey Cove (48°54'N, 64°14'W) is a small fishing village, with a detached breakwater in a state of disrepair, 3 miles NW of Cap des Rosiers. A rock with a depth of 6.4 m over it lies about 6 cables ESE.

Landing. A break in the coastal reef gives access to the cove, in which there is a gravel beach with a good landing for small craft.

Anse au Griffon

7.18

- 1 **General information.** Anse au Griffon (48°56'N, 64°18'W) affords shelter for small craft. A small boat harbour lies at the mouth of a river which enters the head of the cove. The entrance to the harbour is protected on the S side by a breakwater and a breakwater-jetty on the N side, both of which extend in an E direction. The entrance and a section of the harbour were dredged to a depth of 1.3 m in 1995. The depths alongside the wharves are less.

Caution. Winds from N through NE can create a heavy swell at the harbour entrance which make the approach difficult. Due to silting depths may be less than charted.

- 2 **Local knowledge** is required.

7.19

- 1 **Directions.** Anse au Griffon Leading Lights:

Front light (orange rectangle, black stripe, on framework tower, 5 m in height).

Rear light (similar construction and tower, 9 m in height) (216 m from front light).

The lights are visible on the leading line only and are exhibited from 15th April to 10th December.

The alignment (243 $\frac{3}{4}$ °) of these lights leads to the harbour entrance.

- 2 **Anchorage.** Small craft may anchor in depths of 5.5 m, with Pointe Nord-Ouest (48°57'N, 64°18'W) bearing 355°, distant 2 cables, but the holding ground is poor.

Berths. Wharves are situated on both sides of the river mouth.

Canadian Chart 1230 (see 1.32)

Anse de la Rivière au Renard

7.20

- 1 **General information.** Anse de la Rivière au Renard, between Pointe au Renard (49°00'N, 64°23'W) and Pointe Samuel about 7 cables NW, has a beach of fine sand, and Rivière au Renard flowing into its head.

The town of Rivière-au-Renard (population about 2500), with a large stone church, is situated on the S side of the bay. It is an important fishing base. Rivière-au-Renard coast radio station (7.14) is situated close NW.

- 2 Shelter is provided by two breakwaters, with an entrance 122 m wide between their heads:

The N breakwater extends SE for 777 m from the vicinity of Pointe Samuel.

The S breakwater, on which there is a public quay, extends NW for 396 m from the vicinity of Pointe au Renard.

7.21

- 1 **Directions.** The entrance is approached on the alignment (216 $\frac{1}{4}$ °) of Rivière-au-Renard Leading Lights:

Front light (orange trapezium, black stripe, on a framework tower, 8 m in height) (49°00'N, 64°23'W), on the S shore of the harbour.

Rear light (similar construction inverted and tower 9 m in height) (73 m from front light).

7.22

- 1 **Anchorage** for small craft, in depths of 1.8 to 5.1 m, fine dark sand, is available inside the breakwaters.

Berths:

Public quay on the S breakwater with depths of 6.7 m at its outer end, reducing to 4 m at its inner end. A spur, in ruins, near the inner end of this quay encloses a small basin with a least depth of 4.3 m inside.

- 2 Breakwater, 538 m long, protecting a public wharf that borders the SE shore SW of the S breakwater. There are depths of 2.5 to 3.9 m alongside. Quai d'Amour situated near the river mouth, on the W side of the bay, with a breakwater partly in ruins close E of it.

7.23

- 1 **Facilities.** A fish processing plant; slipway close by; marina.

Rescue. A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

Saint-Maurice-de-l'Échouerie

7.24

- 1 **General information.** Saint-Maurice-de-l'Échouerie (49°03'N, 64°29'W) a small settlement with a prominent church, is situated near Pointe de l'Échouerie.

There is a public jetty 152 m long at the settlement, and the ruins of another pier extend about 174 m from Pointe de l'Échouerie.

Berth. The berth on the jetty is 55 m long, with a depth of 2.3 m alongside.

L'Anse-à-Valleau

7.25

- 1 **General information.** Anse-à-Valleau (49°05'N, 64°33'W) is a small harbour for fishing boats, enclosed by two breakwaters, with an entrance 12.5 m wide. There are depths of 2.4 m inside the harbour.

- 2 **Directions.** Approach to the entrance is marked by the Anse-à-Valleau Light-buoy (safe water), marked VALLEA, moored 4 cables ENE of the breakwater.

Useful mark:

L'Anse-à-Valleau East Light (7.14) exhibited from a hill S of the harbour.

POINTE À LA RENOMMÉE TO CAP DE LA MADELEINE

General information

Chart 4774

Route

7.26

- 1 The coastal route from the vicinity of Pointe à la Renommée (49°07'N, 64°36'W) to Cap de la Madeleine about 30 miles WNW is bounded on the NE side by the out-bound lane of the the traffic separation scheme (7.4).

Topography

7.27

- 1 The coast and terrain are described at 7.8. There is a remarkable waterfall on the W side of Pointe à la Frégate (Frigate Point) (49°12'N, 64°55'W).

Principal marks

7.28

Landmarks:

Radio tower (elevation 229 m; red lights) (49°12'N, 64°54'W).

Radio tower (elevation 335 m; red lights) (49°13'N, 65°11'W).

Cap de la Madeleine Lighthouse (white round tower, 16 m in height) (49°15'N, 65°20'W).

- 2 **Major light:**

Cap de la Madeleine Light — as above.

Directions

(continued from 7.14)

7.29

- 1 From a position NNE of Pointe à la Renommée (49°07'N, 64°36'W), the track leads generally WNW passing:

NNE of Pointe à la Frégate (49°12'N, 64°55'W) (7.27) where there are numerous houses near the shore, thence:

N of Cap de la Madeleine (49°15'N, 65°20'W), a rocky promontory with cliffs, 18 m in height, jutting out from the coastal hills. A light (7.28) is exhibited from the promontory.

- 2 **Useful mark:**

Grande-Vallée Wharf Light (framework tower, 8 m in height) (49°14'N, 65°08'W).

(Directions continue at 7.45)

Small craft

Chart 4774

Grand Étang

7.30

- 1 Grand Étang (49°08'N, 64°45'W) is a small creek and fishing village, giving shelter for boats only.

Cloridorme

7.31

- 1 **Description.** The village of Cloridorme (49°11'N, 64°51'W) (population 1084 in 2002), lies on the shores of a small bay.

Local knowledge is required.

- 2 **Directions.** Leading lights stand close to the cliff edge on the shores of the bay:

Front light (orange trapezium, black stripe, on framework tower, red bands, 5 m in height) (49°11'N, 64°51'W).

Rear light (similar construction, inverted, and tower, 8 m in height) (74 m from front light).

The lights are visible on the leading line only.

- 3 The alignment (196½°) of these lights leads into the bay, passing:

Close to Cloridorme Light-buoy (safe water) marked CLORI, moored off the entrance to the bay, thence:

About 1½ cables E of a drying reef surrounding Pointe Cloridorme, the NW entrance point to the bay, and:

- 4 W of a spit, with depths of less than 5.5 m extending from the E entrance point, thence:

Close E of a rock filled breakwater, which extends ½ cable S from the head of the Cloridorme-Ouest public jetty.

- 5 A further set of leading lights has been established 3½ cables NNW of the leading lights above.

Inner Leading Lights:

Front light (red trapezium, black stripe on framework tower, 5 m in height) (49°11'N, 64°51'W).

Rear light (similar construction, inverted, on tower 6 m in height) (52 m from front light).

- 6 The alignment (292°) of these lights leads to the jetty.

Useful marks:

- 7 Church (spire) (49°11'N, 64°50'W), close E of Cloridorme.

White cross (49°11'N, 64°51'W), on Pointe Cloridorme.

Light (framework tower, 8 m in height) exhibited from the head of the public jetty.

7.32

- 1 **Anchorage,** in depths of 7 m, with poor holding ground, is available ESE of Pointe Cloridorme, close W of the leading line.

Berths. An L-shaped public jetty, 200 m long and rock filled on its N side, is situated on the NW side of the bay, near Point Cloridorme. A breakwater extends S from the head of the jetty. Depths alongside range from 2.8 m to 3.5 m.

- 2 The jetty is equipped with a cathodic protection system. In order to avoid damage to ships, special procedures are to be followed while berthing. For additional information contact the Harbour Master.

Petite-Vallée

7.33

- 1 **General information.** Petite-Vallée (49°13'N, 65°02'W) is a fishing village (population 224 in 2002) on the shores of a small cove. A river at the head of the cove can be entered by boats at HW with local knowledge.

Berths. There are wharves and a slipway on the shores of the river used by small fishing vessels.

Canadian Chart 1230 plan of Grande-Vallée (see 1.32)

Anse de la Rivière de la Grande Vallée

7.34

- 1 **General information.** Anse de la Rivière de la Grande Vallée (49°14'N, 65°08'W) is a cove, with Rivière de la Grande Vallée flowing into its SE side.

There are depths of 5.5 to 7.3 m in the outer part of the cove, but a patch with a depth of 1.2 m over it and two wrecks lie about 2 cables from the head of the cove.

- 2 The village of Grande-Vallée (population 1431 in 2002) is built around the shores of the cove, with a church (spire) standing near the E entrance point. A road bridge (vertical clearance 2.2 m) spans the river ½ cable upstream of the entrance. In 2002, there were depths of 0.5 m at the entrance to the river and close upstream of the bridge.

Directions. The cove is entered on the alignment (190°) of Grande Vallée Leading Lights:

- 3 Front light (orange trapezium, black stripe, on white framework tower with red bands, 5 m in height) at the head of the cove (49°14'N, 65°08'W).

Rear light (similar construction, inverted, and tower, 6 m in height) (90 m from front light).

The lights are visible on the leading line only.

- 4 Rivière de la Grande Vallée is entered through a channel between retaining walls, 15 m apart.

7.35

- 1 **Berths and facilities:**

A public pier extends 200 m E from the shore near the W entrance point to the bay; its N side is protected by rock fill. Charted depth alongside the outer 90 m on the S side was 4.2 m in 2002. A rocky shoal with 3.5 m of water over it, lies 2½ cables ESE of the end of the jetty.

- 2 There are jetties inside the retaining wall at the entrance to Rivière de la Grande Vallée. Both jetties continue up river beyond the road bridge. The seaward ends of both jetties were reported to be in ruins (2002).

Boat ramps are located on both sides of the river, upstream of the road bridge.

Cap de la Madeleine

7.36

- 1 **General information.** A sandy bay is situated E of Cap de la Madeleine (49°15'N, 65°20'W), with Rivière Madeleine flowing into its head.

The mouth of the river, which is about 30 m wide, has a depth of 2.1 m at the entrance and for a short distance within. It is protected from the W by a partly drying reef extending 2 cables E from the cape.

- 2 Small craft can occasionally find shelter in the river mouth. Local knowledge is required due to the changing depths caused by gales.

Anchorage. Temporary anchorage may be obtained, in good weather, in depths of about 11 m, sand and gravel, with Cap de la Madeleine Lighthouse (7.28) bearing 277°, distant 7½ cables.

A rocky patch with a depth of 2.7 m over it, lies about 5 cables offshore and about 7 cables E of the light.

Other names

7.37

- 1 Petit-Cap (49°02'N, 64°27'W).
Saint-Yvon (49°10'N, 64°48'W).

CAP DE LA MADELEINE TO CAP CHAT

GENERAL INFORMATION

Chart 4774

Area covered

7.38

- 1 This section covers the S shore of the Saint Lawrence River from Cap de la Madeleine (49°15'N, 65°20'W) to Cap Chat, 56 miles WSW, arranged as follows:
Cap de la Madeleine to La Martre (7.40).
La Martre to Cap Chat (7.52).

Topography

7.39

- 1 The coast from Cap de la Madeleine to Cap Chat (49°05'W, 66°45'N) is formed by cliffs or steep slopes, backed by wooded hills.

CAP DE LA MADELEINE TO LA MARTRE

General information

Chart 4774

Route

7.40

- 1 From the vicinity of Cap de la Madeleine (49°15'N, 65°20'W) the coastal route leads along the S side of the estuary to the vicinity of La Martre (Sainte-Marthe-de-Gaspé), 33 miles W, bounded on the N side by the out-bound lane which lies about 8 miles offshore.

Topography

7.41

- 1 From Cap de la Madeleine to Pointe du Gros Morne, 9 miles W, the shore is rocky, with cliffs 18 m high near Cap de la Madeleine, rising to 152 m farther W. Rounded hills rise to 518 m within 1 mile of the shore.
A high conical hill inland and W of Cap de la Madeleine stands out prominently over the coastal hills, when seen from about 10 miles offshore.
- 2 From Pointe du Gros Morne to La Martre, about 24 miles W, the coast is rocky, with cliffs or steep slopes, and wooded hills rising to 457 m close inland.
- 3 Of the several bays situated along this coastline, only Anse de Mont-Louis (49°14'N, 65°45'W) (7.47) provides any shelter.

Depths

7.42

- 1 The coast is fringed with reefs of slate that dry up to 3 cables off the points of bays. The depths increase rapidly offshore to a well defined 37 m depth contour, which runs generally, from 5 to 7 cables offshore.

Traffic regulations

7.43

- 1 **Vessel Traffic Services Zone.** The outer limit of the St Lawrence River Waterway Traffic Services Zone (7.5) is crossed at longitude 66°00'W.

Principal marks

7.44

- 1 **Landmark:**
Cap de la Madeleine Lighthouse (49°15'N, 65°20'W) (7.28).
Major lights:
Cap de la Madeleine Light — as above.
La-Martre-de-Gaspé Light (red 8-sided tower, white stripe, 11 m in height) (49°12'N, 66°10'W).
Offshore mark:
ODAS light-buoy (yellow) (49°32'.5N, 65°46'.4W).

Directions

(continued from 7.29)

7.45

- 1 From a position N of Cap de la Madeleine (49°15'N, 65°20'W), the track leads W, then WSW, passing:
N of Pointe du Gros Morne (49°16'N, 65°33'W), a remarkable headland with a bold cliff 91 m in height, thence:
- 2 N of Cap aux Corbeaux (49°14'N, 65°45'W) the W point of Anse de Mont-Louis, thence:
NNW of La Martre-de-Gaspé Light (49°12'N, 66°10'W) (7.44), which is situated on a bank rising gradually from the W side of Rivière à la Martre but precipitously from the shoreline; the light is not easy to distinguish from seaward.

7.46

- 1 **Useful marks:**
Church (prominent spire) (49°15'N, 65°22'W), 1½ miles W of Cap de la Madeleine.
Tower (red lights) (49°15'N, 65°32'W), 1½ miles SE of Pointe du Gros-Morne.
Two large oil tanks on the NE side of Pointe Sèche, (49°14'N, 65°43'W).
(Directions continue at 7.57)

Anchorage and harbours

Canadian Chart 1230 plan of Mont-Louis (see 1.32)

Anse de Mont-Louis

7.47

- 1 **General information.** Anse de Mont-Louis (49°14'N, 65°45'W), has the village of Mont-Louis (population about 1499 in 2002), containing a church, at its head. A small river enters the SW corner of the bay.
- 2 **Directions.** The bay is entered between drying reefs on the alignment (176°) of Mont-Louis Leading Lights:
Front light (orange trapezium, black stripe, on red and white framework tower, 6 m in height) situated 1 cable W of the church.
Rear light (similar construction, inverted, and tower 9 m in height) (117 m from front light).
- 3 **Anchorage** in depths of about 8 m is available, in good weather, a little E of the leading line, with the outer end of the jetty on the W side of the bay bearing 235°.
Berth alongside the jetty on the W side of the cove, maximum charted depth 5.5 m. The N side and E face of the jetty are protected by rock-fill. The jetty provides 127 m of berthing space on S side but the E end is in

disrepair and access is prohibited. A pier in ruins, lies close S.

- 4 **Caution.** A jetty, at the outer end of a breakwater on the E side of the bay, extending from Pointe Sèche, is in ruins. A submerged dolphin lies 50 m off the W end of this jetty and mariners are advised to exercise caution in the vicinity.

Rivière à Pierre

7.48

- 1 **General information.** Rivière à Pierre (49°14'N, 65°48'W) flows into a bay, which has bold and distinctive cliffs, about 305 m high, on its E and W sides.

The village of Mont Saint-Pierre (population 288 in 2002) lies at the head of the bay, where there is a sandy beach.

An illuminated cross is situated on a hillside on E side of the cove.

- 2 **Anchorage.** The bay affords only temporary anchorage, clear of the drying reefs which extend about 2 cables from the W entrance point.
- 3 There is no shelter, as the sea rolls in with both E and W winds and heavy squalls come down from the valley.

Rivière à Claude

7.49

- 1 **General information.** Rivière à Claude (49°13'N, 65°54'W) flows into a bay where there is shelter for small craft only.

Berths. A wooden jetty is located on the W side of the bay.

Marsoui

7.50

- 1 **General information.** Marsoui (49°13'N, 66°04'W) is a village with a jetty at the mouth of Rivière Marsoui.

Berth. A fisherman's jetty lies on the E bank of the mouth of the Rivière Marsoui. Local knowledge is required.

Other name

7.51

- 1 Manche d'Épée (49°15'N, 65°25'W).

LA MARTRE TO CAP CHAT

General information

Chart 4774

Route

7.52

- 1 The coastal route between La Martre (49°12'N, 66°10'W) and Cap Chat, about 24 miles WSW, follows the coast on the S side and is bounded on the ENE by the out-bound lane of the traffic separation scheme (7.4) which lies about 13 miles offshore.

Topography

7.53

- 1 From La Martre to Cap Sainte-Anne, 11 miles WSW, the cliffs are about 18 m high, backed by a comparatively narrow strip of level land, which then rises to wooded summits, 305 to 762 m high.
- 2 About 5 miles WSW of La Martre there is a sheer cliff nearly 244 m high, with a rounded summit rising to 457 m immediately inland. When seen from 10 miles to E or W, the cliff and summit merge into one and stand out prominently. At LW, drying reefs of slate, with a few

boulders, extend about ½ cable from the shore in this vicinity.

- 3 Three wide bays fill the shoreline from Cap Sainte-Anne to Cap Chat, where a conspicuous conical hill, rises to an elevation of about 150 m. In good visibility the hill can be seen from a distance of 25 miles, and at that distance it appears as an island.

At LW, reefs dry to a distance of 3 cables offshore in some places along this stretch of coast.

Depths

7.54

- 1 There are no outlying dangers between La Martre and Cap Chat.

Depths increase rapidly to the 37 m depth contour, which lies about 5 cables offshore as far as Cap Sainte-Anne. W of this cape, the 37 m depth contour lies about 1 mile off the points, and approaches the shore again at Cap Chat, where it lies about 3 cables off.

Flow

7.55

- 1 The dominant flow is E-going, between ½ kn and 2 kn. The in-going tidal stream is seldom felt, except near the shore.

Principal marks

7.56

- 1 **Major lights:**

La-Martre-de-Gaspé Light (49°12'N, 66°10'W) (7.44).
Cap Chat Light (white square tower, 13 m in height) (49°05'N, 66°45'W) on the NE point of the cape.

Directions

(continued from 7.46)

7.57

- 1 **Caution.** There may be a set towards this shore. See 7.3 for further information.
- 2 From a position NNW of La Martre (49°12'N, 66°10'W), the track leads generally WSW, passing (with positions from La Martre):
NNW of Cap au Renard (2¾ miles W) a rocky promontory about 24 m high, with a small village on it, thence:
3 NNW of Cap Sainte-Anne (10½ miles WSW), a projecting rocky cliff, 17 m in height, with a cross on it, and with a remarkable rock resembling a tower, 7.6 m in height, at its foot, thence:
NNW of Pointe de Cap-Chat (19½ miles WSW), a low rocky spit with a drying reef extending 3 cables from it; the N edge of the reef is steep-to. There are several depths of less than 2.7 m in the vicinity of 49°06'0N, 66°41'4W and deep draught vessels should give the area a wide berth, thence:
4 NNW of Cap Chat.
Clearing marks. Cap Chat, a conspicuous hill about 150 m high, kept open S of a prominent hill, 213 m high, near the coast 12½ miles WSW, passes clear of the reef surrounding Pointe de Cap-Chat.

7.58

- 1 **Useful marks:**

Radio tower, (elevation 239 m; red lights) (49°08'N, 66°20'W).
Church (spire) (49°10'N, 66°25'W) situated close to the cliff top, about 1 mile NE of Cap Sainte-Anne, is prominent.

Sainte-Anne-des-Monts Light (framework tower, 8 m in height) (49°08'N, 66°29'W).

Radio tower, (elevation 235 m; red and white lights) (49°05'N, 66°44'W).

(Directions continue for coastal passage at 7.71)

Anchorage and harbours

Charts 4774, 4777, Canadian Chart 1230 plan of Sainte-Anne-des-Monts (see 1.32)

Anse de Sainte-Anne-des-Monts

7.59

1 **General information.** Anse de Sainte-Anne-des-Monts (49°08'N, 66°29'W) is an open bight with the town of Sainte-Anne-des-Monts (population 7183 in 2002) around its shores. The E half of the shore is rocky, with reefs extending 2 to 3 cables offshore; the W half is sandy.

2 A public pier, 457 m long, with a berth at its outer end, extends from a point on the shore near the middle of the bight, where there is a church with two spires. A fish cage, marked by buoys, is moored on the bottom about 4 cables WSW of the outer end of the pier. Sainte-Anne-des-Monts Light (7.58) is exhibited from the end of the pier.

Anchorage is available, in depths of about 16 m, 8 cables offshore, with the church bearing 109°, but the holding ground is poor.

3 **Berth.** Alongside outer end of the public pier: length of berth 91 m; depths alongside the outer face vary from 6.4 to 6.5 m (1999). A freight shed stands on the pier, and electric supplies are available. The E side of the pier affords shelter from S to NW winds, but in strong E winds a ground swell rolls in.

4 A basin, formed by two breakwaters, is situated W of the pier; lights (seasonal) are exhibited from the heads of the breakwaters. In 1999, the depth was 2.7 m at the entrance and 1.5 m at the E end of the basin. A launching ramp and L-shaped floating pontoon 100 m in length, are located on the SW side of the basin within a dredged area of 2.7 m. A jetty, 32 m long with a depth of 3 m alongside its W 28 m, is located in the S portion of the basin near the inner end of the public pier. Fresh water and electrical supplies are available.

5 The mouth of Rivière Sainte-Anne, 8 cables SW of the church, has a bar of sand and gravel about 1 cable outside its entrance, and a road bridge with a vertical clearance of about 1.8 m close within it.

The river mouth is used by local boats, but the channel is narrow and the current is swift and local knowledge is essential. A slipway lies on the E bank below the bridge.

Canadian Chart 1230 plan of Cap Chat (see 1.32)

Rivière Cap-Chat

7.60

1 **General information.** The mouth of Rivière Cap-Chat (49°06'N, 66°41'W), 1½ miles SW of Pointe de Cap-Chat,

may be entered through a narrow channel, navigable by boats. A training wall extends 160 m NNW from the W side of the river entrance. Two buoys (special) are moored W of the training wall. Depth in the entrance channel is 0.3 m. There is a small public wharf on the W shore with a depth of 0.6 m, close N of a road bridge with a vertical clearance of 2.4 m which spans the river.

Local knowledge is required.

7.61

1 **Fishing harbour.** A small harbour, formed by two L-shaped rock breakwaters, extends 1½ cables from the shore at the town of Cap-Chat (population 3202 in 1986), about 2 cables W of the river entrance. The basin has a public jetty (92 m long) on the E side, with floating pontoons and a ramp in the SW part of the basin. The entrance to the basin, about 38 m wide, is on the SW side with a depth of 2.5 m (2001). A wreck which dries 1.5 m is situated close NNE of the end of the E breakwater.

2 Two light-buoys (port hand and starboard hand) moored off the W end of the breakwater mark the approach to the basin.

There is no suitable anchorage off Rivière Cap-Chat.

Small craft

Saint-Joachim-de-Tourelle

7.62

1 **General information.** Saint-Joachim-de-Tourelle (Petite-Tourelle) (49°10'N, 66°22'W) (population around 1760) has a small harbour for the use of fishing boats only, enclosed by two rubble breakwaters. The entrance is 25 m wide and has a depth of about 2.7 m in mid-channel.

An obstruction lying close off the harbour, marked by a light-buoy (special) moored in the vicinity of position 49°11'7N, 66°22'4W, should be given a wide berth.

2 **Directions.** The entrance is approached on the alignment (205°) of leading lights in the harbour:

Front light (orange trapezium, black stripe, on framework tower, 11 m in height) (49°10'N, 66°22'W).

Rear light (similar construction, inverted, and tower, 9 m in height) (91 m from front light).

3 **Berths.** A public jetty, 75 m long, extends N from the S side of the harbour. Two other berthing walls lie each side of the root of the jetty, each about 40 m long. Depths vary from 1.2 m in the W basin to 2.5 to 2.7 m in the E basin (1999). The port is equipped with two slipways. Owing to silting in the harbour, depths may be less than charted.

Other name

7.63

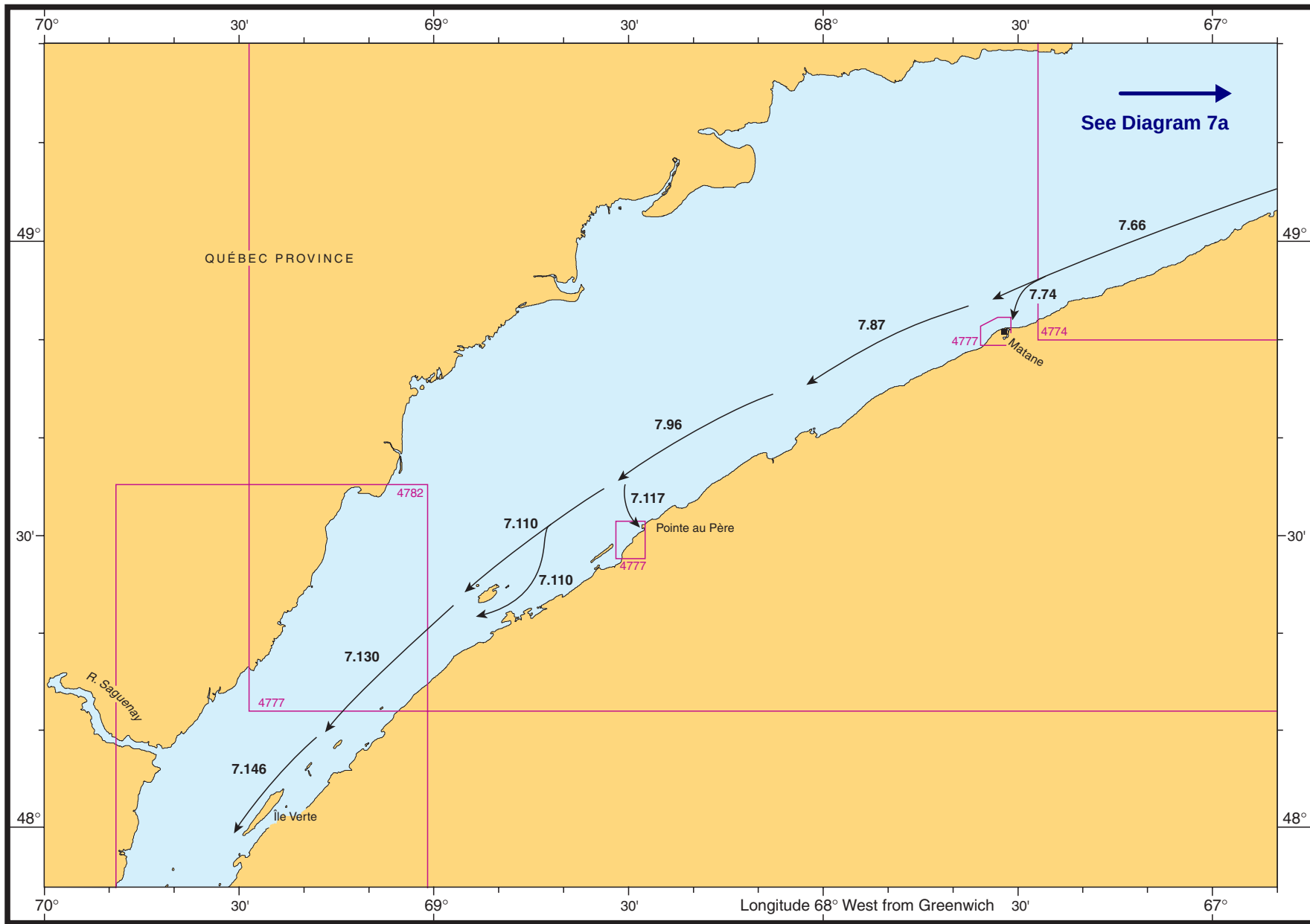
1 Ruisseau Castor (49°11'N, 66°20'W).

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Chapter 7b - St Lawrence River - south shore - Cap Chat to Île Verte



October 2003

CAP CHAT TO POINTE AU PÈRE

GENERAL INFORMATION

Chart 4777

Area covered

7.64

- 1 This section covers the S shore of the St Lawrence River from Cap Chat (49°05'N, 66°45'W) to Pointe au Père, about 72 miles SW. It is arranged as follows:

Cap Chat to Matane (7.66).

Matane to Pointe Mitis (7.87).

Pointe Mitis to Pointe au Père (7.96).

Topography

7.65

- 1 To the WSW of Cap Chat (49°05'N, 66°45'W) the mountains begin to recede from the coast and decrease in height, leaving a gently rolling strip of open land, about 3 miles wide.
- 2 From Matane (48°51'N, 67°32'W) to Pointe au Père, 42 miles SW, the coast is low, rocky and wooded, rising in easy slopes to the hills inland. The land is continuously inhabited and cultivated.

CAP CHAT TO MATANE

General information

Chart 4777

Route

7.66

- 1 The coastal route from a position NNW of Cap Chat (49°05'N, 66°45'W) leads 34 miles WSW, clear of the traffic separation scheme (7.4) to a position NNW of Matane (48°51'N, 67°32'W).

Topography

7.67

- 1 The coastline is straight, bold and rocky. The mountains run parallel to the coast, about 15 miles inland, to their termination point about 18 miles SE of Matane.
- 2 Clay cliffs form the coast between Sainte Félicité, 26 miles WSW of Cap Chat, and Matane, about 8 miles farther WSW. The shore line is fringed with slate reefs, extending from 1 to 2 cables offshore for the first 6½ miles, after which there are sand and mud-flats.

Ferry routes

7.68

- 1 The coastal route is crossed by the tracks of ferries plying between Matane Harbour and ports on the N side of the estuary. The ferry tracks are indicated on the charts.

Flow

7.69

- 1 **Position.** Two miles N of Grosses-Roches (48°56'N, 67°10'W).

Current. About ½ kn E.**Tidal streams:**

Interval from HW Pointe au Père

–0500	WSW-going starts
–0200	Maximum WSW-going
+0100	ENE-going starts
+0400	Maximum ENE-going

- 2 Maximum rates are ½ kn.

The flow can set directly onshore along this stretch of coast at times. Both in-going and out-going tidal streams are found close inshore, but are not dependable, and it is dangerous to navigate close inshore. For further information see *Admiralty Tide Tables Volume 2*.

Principal marks

7.70

1 Landmarks:

Radio tower (elevation 454 m; red lights) (48°55'N, 67°07'W).

Radio towers (red lights) (48°51'N, 67°30'W), 1½ miles E of Matane.

2 Major light:

Matane East Breakwater Light (framework tower, 6 m in height) (48°50'8N, 67°34'6W).

Directions

(continued from 7.58)

7.71

- 1 From a position NNW of Cap Chat (49°05'N, 66°45'W), the track leads generally WSW, passing (with positions from Cap à la Baleine (48°55'N, 67°17'W)):

NNW of Cap des Méchins (18 m high) (14½ miles NE), thence:

NNW of Les Méchins (13 miles NE) (7.73), thence:

NNW of Les Îlets (three small islands, up to 3·7 m high) (10 miles NE) with a rock, with a depth 1·5 m over it, lying on the 18 m depth contour, 1½ cables farther seaward, thence:

- 2 NNW of Cap à la Baleine, a bold headland, 76 m in height, thence:

NNW of Battures à la Croix (2½ miles W), over which the sea seldom breaks, thence:

NNW of a rocky patch, with a depth of 9·8 m over it (4 miles W), thence:

NNW of shoal ground, (11 miles WSW) with depths of less than 11 m over it extending about 1 mile from the entrance to Rivière Matane (48°51'N, 67°32'W), thence:

- 3 NNW of the breakwaters enclosing the port of Matane (7.74), which extend 5 cables from the shore, 1½ miles W of the entrance to Rivière Matane.

7.72

1 Useful marks:

Church (48°52'N, 67°27'W) at Petite Matane.

Matane West Breakwater Light (framework tower, 6 m in height) (48°50'9N, 67°34'7W).

(Directions continue at 7.92)

Anchorages and harbours

Chart 4777, Canadian Chart 1230 plan of Les Méchins (see 1.32)

Les Méchins

7.73

- 1 **General information.** Les Méchins (49°00'N, 66°59'W) is a village, population 1280 in 2002, on the S shore of a shallow bight between Cap des Méchins and Le Gros Méchins, a promontory about 1½ miles SW. A church (spire) stands 2 cables SSW of Le Gros Méchins.

- 2 A public jetty, protected on the NW side by a rock breakwater, sheltering small craft from all winds except NE to E, extends about 340 m NE from Le Gros Méchins. Le Gros Méchins Light (seasonal) (framework tower, 6 m in

height) is exhibited from the most NE of two dolphins, close NE of the end of the jetty.

- 3 Fishermen's Wharf, on a breakwater 238 m long, extends from the shore 3 cables SE of the public jetty. Les Méchins East Light (seasonal) (framework tower, 6 m in height) is exhibited from the head of this jetty.

4 Berths at Les Méchins:

Berth	Length (m)	Depth (m)
No 1. (Public jetty, on SE side of outer arm.)	118	6.7
No 2. (Inner berth on public jetty)	127	5.5
Fishermen's Wharf, on SW side of outer arm.	72	1.8 (Charted as 0.4m on Canadian Chart 1230)

The Fisherman's Wharf is equipped with a cathodic protection system. In order to avoid damage to ships, special procedures are to be followed while berthing. For additional information contact the Harbour Master.

5 Facilities: fuel, water and repairs.

A dry dock is located at Le Gros Méchins, against the SE side of the inner end of the public jetty:

Length of dry dock: 244 m.

Width at dock entrance: 27.4 m.

Depth over sill at MHWS: 7.62 m.

Maximum vessel handled was of 38 200 dwt.

A light (private) is exhibited from a pile on the E side of the entrance to the dry dock.

- 6 **Small craft.** Floating pontoons S of the berths on Fishermen's Wharf.

Matane

Chart 4777 plan of Matane

General information

7.74

- 1 **Position and function.** Matane (48°51'N, 67°35'W), an artificial harbour 1½ miles W of Rivière Matane, contains a cargo berth and ferry terminal. 648 000 tonnes of cargo were handled in 2000.

Port limits. From a position about 1 cable SW of the root of the W breakwater, the port limit extends 9 cables NW, then continues NE to a position 48°52'3N, 67°31'7W and then S to the coast.

The limits are shown on the plan.

Port authority. Transport Canada, Harbours and Ports Division, 104 Dalhousie Street, Québec G1K 4B8.

Limiting conditions

7.75

- 1 **Deepest and longest berth.** The public wharf (7.79).

Tidal levels. Mean spring range about 2.9 m; mean neap range about 1.7 m. For further information see *Admiralty Tide Tables Volume 2*.

Density. 1.025 g/cm³.

Maximum size of vessel handled. Length 175 m; draught 8.5 m.

Ice. The harbour is open all year. Occasionally the assistance of an icebreaker may be required.

Arrival information

7.76

- 1 **Pilotage** is not compulsory but is available. If required the pilot boards 1 mile off the entrance.

Tugs are not available.

Harbour

7.77

- 1 **General layout.** The harbour is enclosed between two breakwaters which extend about 5 cables offshore.

The W breakwater, which curves NE at its outer end, has the main wharf on its inner side.

The E breakwater has the ferry berths near its inner end. Charted depths in the main part of the harbour are from 5.8 to 8.2 m, but shoal rapidly towards the head of the harbour.

- 2 Due to continual silting, dredging is carried out periodically to maintain the charted depths; mariners are cautioned that depths less than those charted must be expected.

The harbour entrance is open to the NE and strong NE winds, particularly in the autumn, create heavy seas within the harbour.

Directions

7.78

- 1 The harbour is entered between the breakwater heads at its NE corner; lights (7.70 and 7.72) are exhibited from each breakwater head.

Submarine pipelines, 3 cables NE and 3 cables SW of the harbour, extend 555 m and 300 m, respectively, to seaward. The SW pipeline has a depth of 1 m over it at its outer end.

Berths

7.79

- 1 The public wharf, 183 m long, with a depth of 9 m alongside (2000), is situated on the inside of the W breakwater. A ferry terminal lies inside the E breakwater. It is equipped with two berths and has depths of about 7.6 m alongside.

The public wharf is equipped with a cathodic protection system. In order to avoid damage to ships, special procedures are to be followed while berthing. For additional information contact the Harbour Master.

A fisherman's wharf, 161 m long with a depth of 3 m alongside (1992) is situated in the S part of the harbour.

Port services

7.80

- 1 **Repairs:** minor repairs; slipway, capacity 200 tonnes.
Medical: hospital.
Supplies: fresh water by pipeline; fuel by road tanker; fresh provisions; reception facilities for dirty ballast water.
- 2 **Communications:** ferry services to Godbout (49°19'N, 67°35'W) and Baie-Comeau (49°14'N, 68°08'W) on the N shore of the estuary.

Small craft

Chart 4777

Baie des Capucins

7.81

- 1 **General information.** Baie des Capucins (49°03'N, 66°51'W) has a small detached breakwater off its W entrance point, and a pier on its W side. A church stands near the E entrance point, but it is not easily distinguished. The bay dries out completely, with many large boulders near its head, but there is shelter for boats at the pier.

Les Îlets

7.82

- 1 **General information.** Les Îlets (48°59'N, 67°02'W) are a group of three small islands lying very close to the mainland coast. The largest island, at the E end of the group is 3.1 m high.

Caution. A rock with a depth of 1.5 m over it, lies 1½ cables off these islets. A drying rock is situated near the shore, 8 cables SW of the islets.

- 2 **Berths.** A jetty, 91 m long, with depth of 3.7 m alongside at HW, extends from the mainland shore, abreast Les Îlets.

Ruisseau-à-Sem

7.83

- 1 **General information.** A small pier is situated at Ruisseau-à-Sem (48°58'N, 67°05'W).

A rocky reef, with large boulders, extends about 2 cables offshore beyond the head of the pier.

Chart 4777 plan of Matane

Rivière Matane

7.84

- 1 The old harbour within the mouth of Rivière Matane (48°51'N, 67°32'W) is subject to rapid silting, and is now restricted to use by small craft, as dredging is no longer carried out. During the winter the channel outside the breakwaters usually fills to a depth of about 1.8 m.

The entrance channel lies between parallel breakwaters, extending about 1½ cables from the shore in a NNW direction.

- 2 The town of Matane (population 15 788 in 2002) lies on both sides of the river mouth, and a fixed bridge, with a vertical clearance of 4.6 m spans the river a short distance within the entrance.

Local knowledge is essential as depths are constantly changing.

7.85

- 1 **Directions.** Rivière Matane is approached from NNW in the white sector (148°–152°) of Matane Light (48°51'N, 67°31'W), passing close to Matane Light-buoy (safe water), moored 7 cables to seaward of the breakwater heads.

Useful marks:

Church (spire) standing near the W shore, of the harbour, 4½ cables SSE of the breakwater heads.

Lights (masts) exhibited from the heads of the breakwaters.

7.86

- 1 **Anchorage** is available in depths of 9 m about 8 cables offshore, or a little farther out in depths of 18 m, sand and clay.

Marina and yacht basin are situated inside the E entrance point to the harbour.

MATANE TO POINTE MITIS

General information

Chart 4777

Route

7.87

- 1 The coastal route for vessels from Matane (48°51'N, 67°35'W), leads 21 miles WSW, to a position off Pointe Mitis (48°41'N, 68°02'W) and is constrained to the NW by the out-bound lane of the traffic separation scheme which lies about 9 miles offshore.

Topography

7.88

- 1 A beach of fine sand extends about 4 miles SW from Matane.

For the remaining distance to Pointe Mitis the shoreline is fringed with reefs of slate, covered with boulders, extending over 2 cables offshore at LW.

The coastal terrain is described at 7.65.

Ferry routes

7.89

- 1 Ferry tracks (7.80) cross the coastal route NW of Matane.

Traffic regulations

7.90

- 1 The positions of reporting points in the Vessel Traffic Service (7.5) are indicated on the chart.

Principal marks

7.91

- 1 **Landmarks:**

Radio tower (elevation 233 m; red lights) (48°46'N, 67°42'W) with a floodlit building nearby.

Hill, prominent (48°42'N, 67°52'W) rising from ground level to an elevation of 182 m.

Directions

(continued from 7.72)

7.92

- 1 From a position NNW of the breakwaters of Matane Harbour (48°51'N, 67°35'W), the track into St Lawrence River leads WSW, passing (with positions from Matane Harbour):

NNW of Pointe au Naufrage (9½ miles SW), a low point, thence:

- 2 NNW of foul ground extending about 3 cables from the outer face of Pointe Mitis (21 miles SW), a low wooded promontory with a number of buildings on it. A light (6-sided tower, 17 m in height) is exhibited from the point.

- 3 A rock that dries 1.5 m lies near the outer edge of the foul ground NW of Pointe Mitis, towards its NE end. A number of rocks and foul ground extend about 7 cables NE from the extremity of the point, the outermost above-water rock being 3 m high. It is inadvisable to approach these dangers inside depths of 9 m.

7.93

- 1 **Useful mark:**

Church (high spire) (48°43'N, 67°54'W) at Baie-des-Sables.

(Directions continue at 7.101)

Anchorage and harbours

Anse du Petit Mitis

7.94

- 1 **General information.** Anse du Petit Mitis (48°40'N, 68°01'W) lies between Pointe Mitis and the mainland coast SE of it.

- 2 **Anchorage** in depths of 5 m, mud, is available midway between Les Boules, a bare round islet, with rocks on each side, on the E side of the bay, and the reef that extends NE from Pointe Mitis. Larger vessels anchor farther out, in depths of from 9 to 11 m, but not on the line of the reef, where the ground is foul and rocky.

Small craft

Rivière Blanche

7.95

- 1 **General information.** Rivière Blanche (48°47'N, 67°42'W), with the village of Saint-Ulric (population 751 in

2002) at its mouth, affords shelter to small boats. There is a church (spire) and a boat ramp is located close to it.

POINTE MITIS TO POINTE AU PÈRE

General information

Chart 4777

Routes

7.96

- 1 The main route into the St Lawrence River follows the in-bound lane of the traffic separation scheme (7.4).

The coastal route from Pointe Mitis (48°41'N, 68°02'W), to Pointe au Père (48°31'N, 68°28'W) leads 20 miles SW. Vessels are constrained to the NW by the out-bound lane of the traffic separation scheme which lies 7 miles offshore.

Topography

7.97

- 1 From the SW side of Baie Mitis, close SW of Pointe Mitis, to Pointe aux Coques, 11 miles SW, the shore is of gravel, fringed with reefs extending about 2 cables offshore.

The coastal terrain is described at 7.65.

Vessel Traffic Service

7.98

- 1 The positions of reporting points in the Vessel Traffic Services System (7.5) are indicated on the chart.

Natural conditions

7.99

- 1 **Ice.** The river never freezes over completely in the vicinity of Pointe au Père. There is rarely any heavy ice until the end of December, and a channel always remains open, either on the N or the S side of the river, according to the prevailing wind, even a light air being sufficient to drive the ice to mid-channel.

- 2 **Climatic table.** See 1.180.

Principal mark

7.100

- 1 **Landmark:**

Lighthouse (8-sided tower, 27 m in height, disused) (48°31'N, 68°28'W) close W of Pointe au Père.

Directions for coastal passage

(continued from 7.93)

7.101

- 1 From a position NW of Pointe Mitis (48°41'N, 68°02'W) the route into St Lawrence River leads SW, passing (with positions from Pointe Mitis):

NW of Pointe aux Cenelles (cliffs about 18 m high) (5 miles SW), and:

NW of a light-buoy (pillar, yellow) moored 1 mile N of Pointe aux Cenelles, thence:

NW of the coastal bank with depths of less than 5.5 m extending up to 1½ miles offshore between Pointe aux Cenelles and Pointe aux Coques, 11 miles farther SW, and clear of a light-buoy (pillar, white) (seasonal) moored 4.3 miles NNW of the church at Sainte-Luce, thence:

NW of a wreck with a depth of 9.8 m over it, lying 2 miles W of Pointe aux Coques, thence:

- 2 NW of Pointe au Père (a low point), and the pier (7.106) extending NW from it. A disused lighthouse lies nearby (7.100).

Useful marks

7.102

- 1 Church, prominent (48°36'N, 68°05'W) at Saint-Octave.
Church (spire) (48°35'N, 68°11'W) at Mont-Joli, and another church at Saint-Joseph-de-Lepage, 1 mile SE.
Mont Comi, a conspicuous hill (574 m) with radio tower (red lights) (48°28'N, 68°13'W).
- 2 Radio tower (elevation 200 m, red lights) (48°34'N, 68°13'W).
Church (spire) (48°37'N, 68°14'W) at Sainte-Flavie.
Church (48°33'N, 68°23'W) at Sainte-Luce.
Church (prominent, spire) (48°31'N, 68°28'W), close SE of Pointe au Père.

(Directions continue at 7.114)

Anchorage and harbours

Baie Mitis

7.103

- 1 **General information.** Baie Mitis (48°38'N, 68°07'W), a bay which mostly dries, has Rivière Mitis flowing into its SW corner. A round islet, 9 m high, lies 3 cables off the river mouth.

Anchorage, in depths of 11 to 22 m, with good holding ground, is available off the bay in fine weather. Small vessels may anchor in depths of 6 to 7 m near the NE end of the bay.

- 2 The anchorage is dangerous in strong N winds, but these seldom occur during the summer season before September.

An intake pipeline extends 1 mile N from Pointe aux Cenelles. A light-buoy (7.101) is moored near its seaward end; another intake pipe lies close E. There is a wharf (Fisheries and Oceans Research Centre) at Pointe aux Cenelles. Use of this wharf is restricted to designated vessels.

Small craft

Sainte-Flavie

7.104

- 1 A public pier, 244 m long extends NW from the coast at Sainte-Flavie (48°37'N, 68°14'W). The outer end is reported to dry.

The pier is rock-filled on the E side and partially rock-filled on the W side; it is reported to be in poor condition. An outfall pipe extends 285 m from the shore 2 cables E of the pier. The crib at the end of the pipe has a depth of 1.2 m over it. A slipway lies close W of the wharf.

- 2 Mont-Joli coast radio station is situated in the village, SSW of the church (7.102).

Sainte-Luce

7.105

- 1 A public pier at Sainte-Luce extends from the E side of Pointe aux Coques (48°33'N, 68°23'W); the pier is 116 m long and the outer end dries out completely at LW. Small craft are launched from the beach near the pier.

Chart 4777 plan Rimouski Pointe-au Père

Pointe au Père

7.106

- 1 A large L-shaped pier, in ruins and disused, projects from the NW side of Pointe au Père (48°31'N, 68°28'W). Berthing is prohibited.

POINTE AU PÈRE TO ÎLE VERTE

GENERAL INFORMATION

Charts 4777, 4782

Area covered

7.107

- 1 This section covers the S shore of the St Lawrence River from Pointe au Père (48°31'N, 68°28'W) to Île Verte, a distance of 47 miles. It is arranged as follows:
 Pointe au Père to Île Bicquette (7.110).
 Île Bicquette to Île aux Basques (7.130).
 Île aux Basques to Île Verte (7.146).

Topography

7.108

- 1 From Pointe au Père (48°31'N, 68°28'W) to Île Verte (48°02'N, 69°25'W), the estuary narrows to a navigable width of 7½ miles abreast Île Verte. Bancs de l'Île Rouge (48°05'N, 69°32'W) lie in mid-river in this locality. Several islands and islets lie off the SE shore.
- 2 SW of the town of Bic (48°22'N, 68°42'W) the land rises to Montagne du Pic Champlain (48°20'N, 68°50'W). These hills rise in narrow ridges parallel to the coast, with deep valleys between them, presenting a remarkable appearance from both up and down river.

Flow

7.109

- 1 From about 2 hours after LW until the time of HW at Pointe au Père, the flow is weak (usually less than 1 kn) in the vicinity of Île du Bic (48°24'N, 68°52'W) and at positions about 5 miles above and below the island. During this period the set is onshore below the island and offshore above it, except occasionally round the 4th hour after LW, when the set may be S of a rate of ¾ kn.
- 2 At other times the currents are directly outward, and strongest off Île Bicquette (48°25'N, 68°54'W), where the average out-going rate is 2¼ kn.
- 3 An in-going tidal stream sets along the shore above Île Saint-Barnabé (48°28'N, 68°34'W). In the middle of Chenal du Bic (48°22'N, 68°50'W) it begins 1 hour after LW and runs until the time of HW. The rates of the in-going and out-going tidal streams here are approximately 1¼ kn with average tides.

POINTE AU PÈRE TO ÎLE BICQUETTE

General information

Chart 4777

Routes

7.110

- 1 The coastal route from the vicinity of Pointe au Père (48°31'N, 68°28'W) to the vicinity of Île Bicquette (48°25'N, 68°54'W) is bounded on the NW side by the out-bound lane of the traffic separation scheme (7.4).
- 2 The route upriver may pass either outside Île Bicquette or through Chenal du Bic (48°22'N, 68°50'W); the recommended route passes NW of Île Bicquette. It is also possible to pass through Chenal Bicquette, between Île Bicquette and Île du Bic, 8 cables SE, in favourable conditions.

Topography

7.111

- 1 Île Saint-Barnabé (48°28'N, 68°34'W), which lies on the outer side of drying flats abreast Rimouski, is covered by

low trees, except at its NE end, which is grassy. When seen from NE the island appears as two islets until within 4 or 5 miles.

The coast from abreast Île Saint-Barnabé for a distance of about 4 miles SW, is bordered by drying ridges of slate, with wooded cliffs in places.

From Cap du Caribou (48°24'N, 68°40'W) to Cap du Corbeau, 2½ miles farther SW, the shore is backed by high wooded cliffs, with several conspicuous bare patches.

- 2 **Offshore islands.** Île du Bic (48°24'N, 68°52'W) is thickly wooded, rising to an elevation of 55 m to the tops of the trees; drying ridges of slate fringe its shores. Île Bicquette, 8 cables NW of Île du Bic, has an elevation of 15 m; a black cross stands near the W end of the island. The many dangers in the vicinity of these two islands can best be seen from the chart. There are a number of marine farms established in this vicinity. See 1.20 for further information.

Tidal streams

7.112

- 1 The direction of flood and ebb tidal streams at several positions are shown on the chart.

Principal marks

7.113

- 1 **Landmarks:**

Pointe au Père disused lighthouse (48°31'N, 68°28'W) (7.100).

Two radio towers (red lights) (48°26'5N, 68°34'7W), one of which has an elevation of 182 m and is conspicuous, on the coast close SE of Îlet Canuel.

Île Bicquette Lighthouse (white round tower, 23 m in height) (48°25'N, 68°54'W).

Directions

(continued from 7.102)

Passage north-west of Île Bicquette

7.114

- 1 The recommended coastal route from a position NW of Pointe au Père (48°31'N, 68°28'W) leads WSW, passing (positions from Pointe au Père):

NNW of a bank of sand and gravel, with depths of less than 5.5 m extending 9 cables NW from Île Saint-Barnabé (5 miles SW), thence:

NNW of Île Bicquette (18 miles SW) (7.111).

(Directions continue for coastal passage at 7.137)

Chenal du Bic

7.115

- 1 **General information.** Chenal du Bic (48°22'N, 68°50'W), between Île du Bic and the mainland, is clear of dangers, but Rocher Alcide (7.139) lies 3 miles farther SW. Tidal streams are indicated on the chart.

Directions. Chenal du Bic is entered from NE, passing, (with positions from Île Bicquette Light (48°25'N, 68°54'W)):

Between Récif du l'Original (5 miles ESE) and Récif du Sud-Est (3 miles E), thence:

- 2 Between Cap à l'Original (4 miles SE), a perpendicular cliff about 67 m high at the NE point of a hilly promontory, and Île du Bic, thence:

SE of rocky ground, with depths of less than 5.5 m, extending about 3 cables S and 7 cables SW from the SW point of Île du Bic.

- 3 **Useful marks:**
 Church (spire) (48°25'·5N, 68°35'·4W) at Sacré-Coeur.
 Île du Bic (West End) Light (orange rectangle on white framework tower with red bands, 9 m in height) (48°23'N, 68°53'W) on SW point of the island.
(Directions continue for inshore passage at 7.139)

Side channel

Chenal Bicquette

7.116

- 1 **Route.** Chenal Bicquette (48°25'N, 68°52'W) lies between Île du Bic and Île Bicquette, 7 cables farther NW. **Local knowledge** is required.
Directions. The deepest water will be found by passing (with positions given from Île Bicquette Light):
 NW of Récif du Nord-Est (2¼ miles ENE), thence:
 2 Between the numerous small islets and reefs close to the NW side of Île du Bic, and the foul ground with drying rocks on the SE side of Île Bicquette, thence:
 Between a reef that dries 1·8 m (1 mile S) and Récif de l'Ouest (6 cables SW); rocks awash lie close SE of Récif de l'Ouest. Thence:
 3 SE of Récif du Nord-Ouest (1¼ miles WSW) and rocky shoals extending about 5 cables farther SW. H47 Light-buoy (port hand) is moored on the WNW side of the reef.
 The channel has no leading marks, but the dangers on either side are visible at LW.
 4 **Caution.** The passage between the drying reef 1 mile SW of Île Bicquette Light and Récif de l'Ouest, close N, should not be attempted.
(Directions continue for inshore passage at 7.139)

Rimouski Harbour

Chart 4777 plan of Rimouski Pointe-au-Père

General information

7.117

- 1 **Position.** Rimouski Harbour (48°29'N, 68°31'W) lies 1½ miles N of the town of Rimouski (population 42 299 in 2002).
Function. Petroleum products, lumber and plywood are handled.
Port limits. Rimouski port limits cover an area from 10 miles W to 5 miles NNW. The limits are shown on the chart.
 2 **Approach.** The approach is from the NW through a buoyed and dredged channel.
Traffic. In 2000, three international movements were recorded totalling 20 075 dwt.
Port Authority. Rimouski is administered by Transport Canada, Harbours and Ports Division, 104 Dalhousie Street, Québec G1K 4B8.

Limiting conditions

7.118

- 1 **Controlling depths.** The dredged depth in the approach channel is 4·3 m (2001), but silting occurs and depths may be less in the channel and in the area off the berths. Up-to-date information may be obtained from the Canadian Coast Guard Vessel Traffic Services, Québec.

- 2 **Deepest and longest berth.** No. 1 berth West Jetty (7.121).

Ice. The harbour is open all year but occasionally assistance of icebreakers may be required.

Arrival information

7.119

- 1 **Outer anchorage.** The best anchorage is in Rade de Rimouski, in a depth of about 7·8 m, with Rimouski wharf head light (framework tower, 12 m in height) (48°29'N, 68°31'W) bearing 177°, 1 mile.
 Small vessels may anchor in a depth of about 5 m, with the wharf head light bearing 129°, 7 cables.
 A restricted anchorage area exists SW of Rimouski. Details are shown on the chart.
 2 **Pilotage** is not compulsory but pilots are available.
Tugs are available.
Quarantine. Rimouski is a quarantine sub-station and a port of entry for Canada.

Directions for entering Rimouski Harbour

7.120

- 1 **Leading lights** stand near the shore, S of the berths:
 Front light (orange trapezium, black stripe, on square framework tower, 11 m in height), racon, (48°28'N, 68°31'W).
 Rear light (similar construction, inverted, and tower, 18 m in height) (701 m from front light).
 2 The lights are visible on the leading line only.
 From a position about 2 miles W of Pointe au Père Light the alignment (178½°) of these lights leads through Rade de Rimouski, thence through the buoyed and dredged channel to the berths. The entrance channel had a least depth of 4·3 m (2001). Mariners are warned that depths may be less than charted.
 3 **Approach from the west.** The mariner approaching from W should round the NE end of Île Saint-Barnabé when the head of the NE jetty is in line with the inner end. At night it is advisable to bring the rear leading light E of the front light before shaping course for the dredged channel.
 4 **Caution.** Several red and white lights are shown during flying operations at Rimouski airport (7.122); these lights are visible from the river and should not be confused with navigational aids in the vicinity.

Berths

7.121

- 1 The Public Wharf (48°28'·6N, 68°30'·7W) at Rimouski is built out for a distance of about 270 m from the shore, and has a wharf extending NW from each end. The East wharf has a basin on its E side protected by a breakwater. A marina operates in the basin and pontoons on the W side are used by fishing vessels. Charted depth in the marina is 1·8 m (2001).
 2 Details of the main berths are as follows:
- | Berth | Length (m) | Depth (m) |
|--------------------------------|------------|------------|
| East Wharf – Berths 3, 4 and 5 | 425 | 5·6 (2001) |
| West Wharf – Berth 1 | 213 | 5·4 (2001) |
| Cross Wharf – Berth 2 | 184 | N/A |

Berth 2 has been reported as being in disrepair.

The deck elevation at all berths is 2·1 m. Depths are not maintained by regular dredging.



Breakwater

East Jetty

West Jetty

Rimouski Harbour (7.121)

(Original dated 1982)

(Photograph – Canadian Hydrographic Service)

Port services**7.122**

- 1 **Repairs:** minor repairs.
Other facilities: hospital in Rimouski.
Supplies: fuel by pipeline on the West Jetty or by road tanker; fresh water; fresh provisions and stores in moderate quantities.
- 2 **Communications:**
Air. Rimouski airport 1 km SE of the wharves.

Anchorage and harbours**Rade Saint-Barnabé****7.123**

- 1 **General information.** Rade Saint-Barnabé (48°26'N, 68°37'W), close SW of Île Saint-Barnabé, provides good shelter from E winds.
Anchorage is available for small vessels, in a depth of 5 m, mud. The recommended berth is with the two radio towers (7.113) on the coast, close SE of Îlet Canuel, bearing 090°, distant 1½ miles.
Attention is drawn to the presence of marine farms in the area. For further details, see 1.20.

Anse à l'Original**7.124**

- 1 **General information.** Anse à l'Original (48°22'N, 68°47'W) affords good anchorage for small vessels during W winds, in a depth of 5.5 m, mud. The recommended berth is with the N face of Cap à l'Original bearing 255°, distant 1.15 miles.
Local knowledge is required.

North-east of Île du Bic**7.125**

- 1 **Anchorage.** Good anchorage, sheltered from W winds, can be obtained off the E end of Île du Bic (48°24'N, 68°52'W), in the bight between Récif du Nord-Est and Récif du Sud-Est, 1 mile farther ESE.
There are depths of 13 m, sand and mud, with the N extremity of Île du Bic bearing 263°, distant 1.05 miles. In this position the SE islet of Île Bicquette is just open N of Île du Bic.

- 2 Nearer Île du Bic, there are depths of about 8 m, sand and mud, between the SW islet of Récif du Sud-Est and the E extremity of Île du Bic. The confused sea, which is raised when the tidal stream is against the wind, is not felt so much in this position.

South-east of Île du Bic**7.126**

- 1 **Anchorage.** With N winds, which are often very strong in the autumn, the best anchorage is about 5 cables off the middle of the S coast of Île du Bic, in depths of from 13 to 16 m. Small vessels can anchor closer to the island. The anchorage is shown on the chart.

South-west of Île du Bic**7.127**

- 1 **Anchorage.** With E winds the most comfortable anchorage is in a depth of about 13 m, sand and mud, about 6 cables S of Île du Bic (West End) Light (7.115).
In this position there is no more wind, and considerably less sea, than may be found W of the island. The anchorage is shown on the chart.

Small craft**Old Bic Harbour****7.128**

- 1 **General information.** Old Bic Harbour, entered between Île Brûlée (wooded) (48°23'N, 68°44'W) and Cap Enragé, 6 cables W, dries at LW over most of its area. The town of Bic, population 2 999 in 2002, is situated near the mouth of a river at its NE corner. A church, and a cross standing about 200 m W of it, are conspicuous from NW.
- 2 **Anchorage.** There is anchorage for small craft in depths of about 4 m, mud, in the middle of the entrance to the harbour.

Ha Ha Bay**7.129**

- 1 **General information.** Ha Ha Bay (48°21'N, 68°50'W), on the W side of Cap à l'Original peninsula, affords shelter for small craft during E winds, but anchorage is not recommended, due to marine farms, tidal eddies and backwash.

ÎLE BICQUETTE TO ÎLE AUX BASQUES

General information

Charts 4777, 4782

Route

7.130

- 1 The coastal waterway on the SE side of St Lawrence River from the vicinity of Île Bicquette (48°25'N, 68°54'W) to the vicinity of Île aux Basques (48°09'N, 69°15'W), 22 miles SW, is bounded on the NW side, for the greater part of its length, by the out-bound lane of the traffic separation scheme (7.4).

Topography

7.131

- 1 The coast between Ha Ha Bay (48°21'N, 68°50'W) and the vicinity of Île Rasade Nord-Est (48°12'N, 69°08'W) is mostly high and rocky. Nearly perpendicular cliffs 150 to 180 m high, extend from the vicinity of Point à Mercier (48°19'N, 68°53'W) to Pointe à Cives, 2½ miles SW.

From abreast Île Rasade Nord-Est to Trois Pistoles, 5 miles farther SW, the coast is generally low, with occasional rocky points on which there are trees. Extensive drying flats line this part of the coast.

- 2 Behind the coast the terrain rises in undulating ranges, with no prominent summits.

Depths

7.132

- 1 Several rocks and shoal patches lie up to 5 miles offshore from 3 to 12 miles SW of Île du Bic.

Shoal ground with depths of less than 5.5 m extends as far as 3 miles offshore in the vicinity of Île aux Basques.

Pilotage

7.133

- 1 Pilotage is compulsory above Escoumins (48°20'N, 69°23'W). Directions for approaching Escoumins and instructions for embarking the pilot are given at 5.235.

Traffic regulations

7.134

- 1 For the mariner crossing the outward-bound lane of the traffic separation scheme below Escoumins, Rule 10 of the *International Regulations for Preventing Collisions at Sea* (1972) applies.

Tidal streams

7.135

- 1 The direction of flood and ebb tidal streams at several positions are shown on the chart. For additional information see *Admiralty Tide Tables, Volume 2*.

Principal marks

7.136

- 1 **Landmarks:**

Île Bicquette Lighthouse (48°25'N, 68°54'W) (7.113).
Radio tower, conspicuous (elevation 411 m; red lights) (48°20'N, 68°50'W) on the summit of Mont du Bic (Pic Champlain).

Directions

(continued from 7.114)

Coastal passage

7.137

- 1 From a position NNW of Île Bicquette and between Île Bicquette (48°25'N, 68°54'W) and the out-bound lane of the traffic separation scheme, the track leads SW, passing:

NW of H47 Light-buoy (port hand), moored about 5 cables WNW of Récif du Nord-Ouest (48°24'N, 68°55'W), thence:

NW of a patch (48°20'N, 69°01'W), with a depth of 5.8 m over it, marked by Cap à la Carre Light-buoy (N cardinal), thence:

- 2 NW of Île Rasade Nord-Est (48°12'N, 69°08'W) (7.139), thence:

NW of the shoal ground, with depths of less than 5.5 m, extending 6 cables NW from Île aux Basques (48°09'N, 69°15'W), a thickly wooded island, 40 m high to the tree tops. A light (framework tower, 9 m in height) (seasonal) is exhibited from the NE end of the island.

7.138

Useful mark:

Radio tower (48°18'N, 68°53'W) (7.140).

(Directions continue for coastal passage at 7.155)

Inshore passage from Île du Bic to Île aux Basques

(continued from 7.115 and 7.116)

7.139

- 1 From the SW end of Chenal du Bic (48°22'N, 68°51'W), or Chenal Bicquette, about 2½ miles NW, the recommended track for the inshore passage leads SW, passing:

NW of Rocher Alcide (48°20'N, 68°56'W) marked by a light-buoy (N cardinal), thence:

- 2 Clear of a patch (48°20'N, 69°01'W), with a depth of 5.8 m over it, marked by Cap à la Carre Light-buoy (7.137), thence:

NW of the shoal ground, with depths of less than 5.5 m over it, which extends up to 1½ miles from the mainland shore between a position 6 miles SW of Rocher Alcide, and Île Rasade Nord-Est (rocky and grassy) (48°12'N, 69°08'W), thence:

- 3 NW of shoal ground, with depths of less than 5.5 m over it, extending 7 cables NW from Île Rasade Sud-Ouest (rocky and grassy) (48°11'N, 69°09'W), thence:

NW of the shoal ground surrounding Île aux Basques, as at 7.137.

- 4 **Bird sanctuary.** Île Rasade Nord-Est, Île Rasade Sud-Ouest and Île aux Basques are designated bird sanctuaries. For further details, see 1.91.

- 5 **Clearing bearing.** The line of bearing 052° of Récif du Sud-Est (48°25'N, 68°49'W), just open SE of Île du Bic, passes about 7 cables NW of Rocher Alcide.

Useful marks

7.140

- 1 Radio tower (elevation 216 m; red lights) (48°18'N, 68°53'W).

Cross (stone) near the SW end of Île Rasade Sud-Ouest (48°11'N, 69°09'W).

Church (grey, three spires) at Trois-Pistoles (48°07'N, 69°10'W), which can be seen from a great distance, especially when the sun shines on it.

(Directions continue for coastal passage at 7.155)

Small craft

Saint-Fabien-sur-Mer

7.141

- 1 **General information.** The hamlet of Saint-Fabien-sur-Mer (48°19'N, 68°52'W) lies at the head of a shallow bay, which has a wooded promontory at its NE end.

A small jetty at the head of the bay is in ruins and dries out at LW.

Trois-Pistoles

7.142

- 1 **General information.** Trois-Pistoles (48°08'N, 69°10'W) is a town (population 3 807 in 2002) at the head of a drying bay, with a jetty extending from the W point of the bay.

- 2 **Directions.** Leading lights are exhibited from the outer end of the jetty:

Front light (orange rectangle, black stripe, on framework tower, 7 m in height).

Rear light (similar construction and tower, 15 m in height) (240 m from front light).

- 3 The alignment (137°) of these lights leads towards the jetty, passing about 1 mile NE of Île aux Basques Light (48°09'N, 69°14'W) (7.137).

There are depths of more than 2 m to within 8 cables of the pier-head; numerous boulders and drying rocks lie off the end of the pier, and it is not advisable to go alongside until near HW.

7.143

- 1 **Anchorage.** During W winds small vessels can anchor off the NE end of Île aux Basques, in about 5 m, sand and mud, with Île aux Basques Light bearing 243°, 1 mile.

In this position, which lies about one cable SW of the leading line, the SW extremity of Île aux Pommes (48°06'N, 69°19'W), a grassy island, is in line with the S side of Île aux Basques.

7.144

- 1 **Berths.** The NW section of the wharf is 229 m long; the outer end dries at LW and is partially fringed with rocks; the SE section is 90 m long.

A marina, which dries completely, is accessible from two hours before to two hours after HW.

Facilities. A movable ramp (capacity 32 tonnes) is located on the inside of the NW section of the jetty; a ramp and a small slip are located near the SE part.

- 2 **Communications.** A passenger and car ferry crosses between Trois-Pistoles and Escoumins on the N shore; the ferry track is shown on the chart.

The ferry service operates according to the time of HW at Trois-Pistoles.

Other name

7.145

- 1 Îlets d'Amours (48°08'N, 69°10'W).

ÎLE AUX BASQUES TO ÎLE VERTE

General information

Charts 4782, 4783

Routes

7.146

- 1 From abreast Île aux Basques (48°09'N, 69°15'W) the coastal passage on the SE side of St Lawrence River continues SW to a position WNW of Pointe du Bout d'en Haut (47°59'N, 69°30'W). The main route for traffic entering St Lawrence River passes NW of Bancs de l'Île Rouge (48°05'N, 69°32'W). The out-bound route passes SE of Bancs de l'Île Rouge.

Topography

7.147

- 1 Île aux Basques, Île aux Pommes and Île Verte lie near the outer edge of a large area of shoal ground, with drying flats of sand, mud and boulders, extending from the SE shore.

The coast between Île aux Pommes and the NE end of Île Verte is low and bordered with grassy swamps, with earth cliffs 15 to 30 m high behind them.

- 2 The coast abreast the SW part of Île Verte is also low, but it is backed by a narrow ridge of wooded hills, 80 m high.

Île Verte is thickly wooded on its upper ridges, which rise to an elevation of 70 m. Along the W side of the island the HW line is fringed by ridges of slate, behind which lie low, wooded cliffs of earth for the greater part of the island. A church (spire), which is not visible from NE, stands about 2 miles NE of Pointe du Bout d'en Haut, the SW extremity of the island.

7.148

- 1 **Mid-river bank.** Bancs de l'Île Rouge (48°05'N, 69°32'W) is the outermost of a line of banks that divide St Lawrence River into two channels for a distance of about 30 miles.

This bank, which is about 3 miles long and 2 miles wide, is very foul inside depths of 5.5 m, and dries in many places.

- 2 Île Rouge is a shingle islet with an elevation of about 5.2 m, lying near the S end of the bank.

The edges of the bank are marked by light-buoys.

Tidal streams

7.149

- 1 The directions and rates of the tidal streams at several lettered positions are tabulated on the chart. An atlas of tidal current charts for every hour of the tide in this area is published by the Canadian Hydrographic Service.

7.150

- 1 **In-going tidal stream.** The in-going tidal stream, having progressed fairly up the estuary, is obstructed on approaching Bancs de l'Île Rouge; possibly the greater part turns S to flow between these banks and Île Verte. There are in-going currents below the surface E of Bancs de l'Île Rouge, while the surface flow is still out-going. The rate of the in-going stream is greatest about 5 hours after LW at Pointe au Père, attaining an average rate of 1½ kn in the approaches to the banks and 2¼ kn SE of them.

7.151

- 1 **Out-going tidal stream.** The first of the out-going tidal stream W of Île Rouge is deflected by the out-going stream from Rivière Saguenay and turns E round the N side of Bancs de l'Île Rouge between 2 and 3 hours after LW at Pointe au Père. This causes a strong eddy on the NE side of the bank. Farther out in the estuary, the out-going stream sets N until turned almost E by the out-going stream from Rivière Saguenay, about 5 hours after HW at Pointe au Père. The stream veers gradually S between 3 and 4½ hours after LW at Pointe au Père, with a rate at average tides diminishing from 2 to 1½ kn during this period.

- 2 On the SE side, in the vicinity of Île aux Basques, the rate of the out-going stream is weak from HW at Pointe au Père for 3 to 4 hours; even at its full strength the rate rarely extends 2¼ kn.

Along the NW side of Île Verte the out-going tidal stream attains a maximum of 3½ kn at average tides at the

time of LW at Pointe au Père, decreasing to 1½ kn off Île Rasade Nord-Est about 14 miles NE.

7.152

- 1 **Reefs north and south of Îles Verte** as follows:

Récif de l'Île Verte. The out-going stream sets strongly NE across the reef, and the beginning of the in-going streams sets S onto it.

Reef SW of Pointe du Bout d'en Haut. Both the out-going and in-going streams set strongly across the reef; with a strong in-going stream there is usually a heavy tide-rip off the reef, caused by the meeting of the streams from both sides of the island.

7.153

- 1 **Tide-rips.** Where the out-going stream from Rivière Saguenay meets the stream in the estuary, tide-rips, dangerous to small craft, are set up. This is specially the case in bad weather over the foul ground NE of Île Rouge. This out-going stream, flowing E and S, half encircles Bancs de l'Île Rouge, causing strong eddies, until it joins the in-going stream S of Île Rouge about 3 to 3½ hours after LW at Pointe au Père.

- 2 Tide-rips of less intensity may be met anywhere in the vicinity of Île Rouge with either in-going or out-going streams, and their positions vary with state of the tide and wind; with strong NE winds the sea becomes very rough in this area.

Principal marks

7.154

- 1 **Landmarks:**

Île Verte Lighthouse (white round tower, 17 m in height) (48°03'N, 69°25'W) on a low point on the NW side of the island; this point appears to be detached when viewed from a distance NE.

Île Rouge Lighthouse (grey round tower, 19 m in height) (48°04'N, 69°33'W) with a white dwelling nearby, at the centre of the islet.

- 2 **Major lights:**

Île Verte Light — as above.

Île Rouge Light — as above.

Directions

(continued from 7.138 and 7.140)

7.155

- 1 From a position NW of Île aux Basques (48°09'N, 69°15'W), the track leads SW, passing (with positions from Île aux Basques Light (48°09'N, 69°14'W):

NW of Récif aux Basques, which extends about 7 cables WSW from Île aux Basques; a rock near its extremity covers with the highest tides. Thence:

NW of Île aux Pommes (4 miles SW) (7.143), thence:

- 2 NW of Récif de l'Île Verte (8½ miles SW) which dries in places and is steep-to on its W side, extending about 1 mile NE from the N coast of Île Verte, thence:

SE of Bancs de l'Île Rouge (12 miles WSW) (7.148), marked on the E side by H52 Light-buoy (starboard hand), thence:

- 3 To a position about 3 miles WNW of Pointe du Bout d'en Haut (47°59'N, 69°30'W).

7.156

- 1 **Clearing marks.** The N extremity of Île aux Basques, bearing about 059°, and well open of the third dip in the

hills of the high land near Mont du Bic (Pic Champlain) (48°20'N, 68°50'W) passes NW of Récif de l'Île Verte and depths of less than 9·1 m extending nearly 5 cables farther NW.

7.157

- 1 **Useful marks:**

Church (spire) in the village of Rivière-Trois-Pistoles (48°06'N, 69°12'W).

Radio tower (elevation 93 m; red lights), 8 cables N of the church at Rivière-Trois-Pistoles.

- 2 Île Verte (North-east End) Light (48°04'N, 69°23'W) (square framework tower, 9 m in height) (seasonal) situated on a low ridge of slate, which becomes a chain of islets at HW. From a distance, the islet on which the light stands appears to be detached.

(Directions continue at 8.77)

Anchorage and harbours

Chart 4782

Rade de l'Île Verte

7.158

- 1 **General information.** Rade de l'Île Verte (48°05'N, 69°24'W) provides good anchorage in depths of about 11 m, stiff mud, N of Récif de l'Île Verte (7.155).

Directions. The anchorage position is approached from NW on the alignment (148°) of Île Verte (North-east End) Light (7.157) and a church (red roof, grey spire) (48°01'N, 69°20'W) in L'Isle-Verte village (7.159), anchoring when Île Verte Light (7.154) on the NW side of the island, bears 214°. The anchor position is shown on the chart.

- 2 Smaller vessels can be anchored closer to Île Verte.

Small craft

Chart 4782

L'Isle-Verte

7.159

- 1 **General information.** L'Isle-Verte (48°01'N, 69°20'W) is a village (population 1 040 in 2000) on the S shore abreast the NE end of Île Verte. A causeway leads across a grassy swamp from the mainland to a public pier.

- 2 **Directions.** The pier is approached from NNW, across the drying flats which lie between Île Verte and the mainland. Passage over the flats should only be attempted near HW.

- 3 **Berths.** The public wharf, which dries completely, has an outer end 90 m long. The NW end of the wharf is fringed with rocks on all faces. A narrow and tortuous channel, marked by stakes and daybeacons leads to the wharf. A ferry ramp and slipway are located on the S face of the wharf. A small seasonal ferry runs between the mainland and Île Verte. Small craft may use floating pontoons, which dry at LW.

Île aux Pommes

7.160

- 1 **Anchorage** for small craft, in depths of 5 m, fairly sheltered from W winds, is available about 4 cables NE of Île aux Pommes (48°06'N, 69°19'W) (7.143).

Directions. The recommended approach to the anchorage is from the NNE. The line of bearing 211° of Île Ronde (wooded islet on mud flats) (1¾ miles S of the NE end of Île Verte), open its own width SE of Île aux Pommes, leads to the anchorage position, which is shown on the chart.

East side of Île Verte**7.161**

- 1 **North-east end.** An L-shaped public pier 85m in length at La Richardière, with an outer face 29 m long and a depth of 3 m alongside at HW, projects from the E side of Île Verte, 1¼ miles SW of the NE extremity of the island. There is a ramp on the W side which is partially rock filled and a light (red and white square framework tower, 5 m in height) is exhibited from the pier-head.

A marina, entered at HW, is situated on the E side of the pier. Local knowledge is required.

- 2 **South-west end.** A public pier with a depth of 3·7 m alongside its outer end at HW, projects from the SE side of

Île Verte, 1½ miles NE of Pointe du Bout d'en Haut, the SW extremity of the island. A landing slip, which dries at LW, is situated on the W side of the pier.

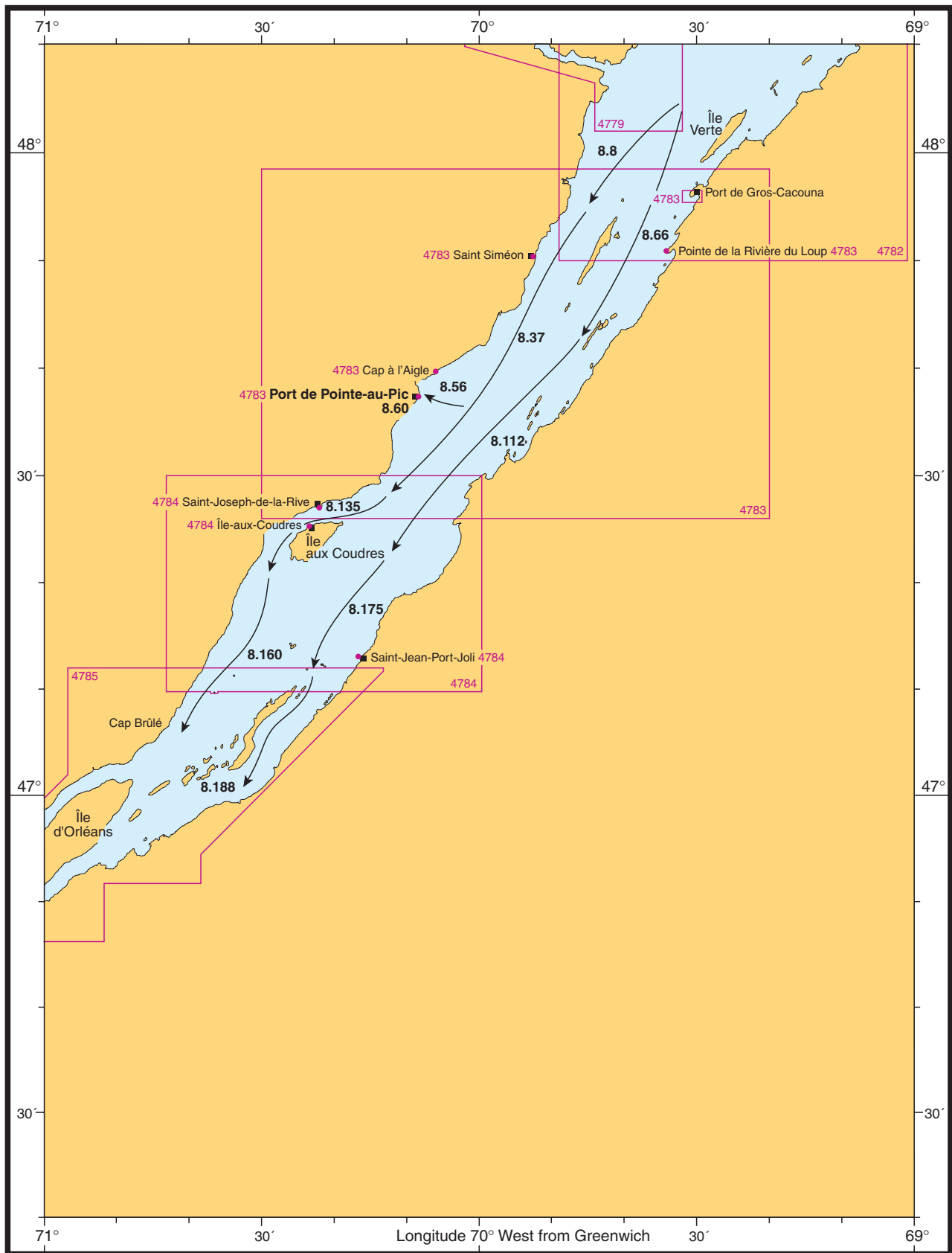
Cacouna-Est**7.162**

- 1 **General information.** Cacouna-Est (48°00'N, 69°26'W) is a small village on the SE shore, near the SW end of Île Verte. A public pier projects NW from the shore and has a outer face, 10 m in length, which dries at LW.

Submarine cables. Four submarine cables are laid from a position close NE of the public pier in a NW direction to Île Verte.



Chapter 8 - St Lawrence River - Île Rouge to Cap Brûlé



October 2003

CHAPTER 8

ST LAWRENCE RIVER — ÎLE ROUGE TO CAP BRÛLÉ

GENERAL INFORMATION

Charts 4782, 4783, 4784, 4785

Scope of the chapter**8.1**

- 1 This chapter covers the lower St Lawrence River from the vicinity of Île Rouge (48°04'N, 69°33'W) to the vicinity of Cap Brûlé (47°07'N, 70°43'W), a distance, by river, of about 75 miles. It is arranged as follows:

Île Rouge to Cap aux Oies (8.5).

Cap aux Oies to Cap Brûlé (8.131).

Routes**8.2**

- 1 The usual route for ships proceeding up the St Lawrence River passes W of Île Rouge, while ships proceeding down-river commonly pass E of the island. South of Île Rouge the river is divided into two channels by islands and banks lying in mid-stream.
- 2 Chenal du Nord, on the NW side of the river, is the main ship channel, and is almost always used by large vessels proceeding both up and down river, as it is the deeper channel and is considered to be the best and safest for navigation. It frequently remains free from ice for some time after the shallower waters on the SE side of the river become unnavigable.

- 3 Chenal du Sud, on the SE side of the river, is preferred by some masters of smaller vessels, especially those having local knowledge of the tidal streams, which are, generally, not so strong as in Chenal du Nord. Good anchorage is available in this channel.

- 4 **Caution.** Chenal du Sud is not recommended to commercial shipping. From seaward to Pointe de Saint-Vallier (46°55'N, 70°48'W) this channel is shallow and encumbered with islets and shoals.

Traffic regulations**8.3**

- 1 The positions of reporting points in the St Lawrence Waterway Vessel Traffic Services Zone (1.27) are indicated on the charts.

For further information, see *Admiralty List of Radio Signals Volume 6 (5)*.

Rescue**8.4**

- 1 A Canadian Coast Guard search and rescue cutter operates in the area between Québec and Île d'Anticosti from May to November. See 1.105 for further information.

ÎLE ROUGE TO CAP AUX OIES

GENERAL INFORMATION

Charts 4782, 4783, 4784

Area covered**8.5**

- 1 This section covers the passage up St Lawrence River from Île Rouge (48°04'N, 69°33'W) to Cap aux Oies, 44 miles SW. It is arranged as follows:

Chenal du Nord — Île Rouge to Pointe des Rochers (8.8).

Chenal du Nord — Pointe des Rochers to Cap aux Oies (8.37).

Chenal du Sud — Île Verte to Îles de Kamouraska (8.66).

Chenal du Sud — Îles de Kamouraska to Traverse de Saint-Roch (8.112).

Topography**8.6**

- 1 The NW shore from Cap du Basque (48°00'N, 69°46'W) to Cap aux Oies (47°29'N, 70°14'W) is bold and mountainous, with deep water close to the cliffs in most places, and few indentations. In many places the hills rise to elevations of 370 to 395 m within 5 cables of the shore, with mountain ranges rising a short distance inland.
- 2 A line of islands, reefs and shoals, running in mid-river, from abreast Cap du Basque, SW for a distance of 22 miles, separates Chenal du Nord from Chenal du Sud in this section of the river.

Tidal streams**8.7**

- 1 Tidal streams in this part of the river are greatly influenced by the bottom profile which, in some places, can create strong tide rips and overfalls. Mariners may encounter cross and counter currents which can force a vessel off course. The strongest currents, up to 7 kn, with tide rips and eddies, are located off the banks of Île Rouge, at the junction of the Saguenay and Saint Lawrence Rivers and in Passage de l'Île aux Coudres (47°25'N, 70°25'W).

CHENAL DU NORD — ÎLE ROUGE
TO POINTE DES ROCHERS**General information**

Charts 4782, 4783

Route**8.8**

- 1 The main route lies on the W side of the river from the vicinity of Île Rouge (48°04'N, 69°33'W) to the vicinity of Pointe des Rochers, 23 miles SW, entering Chenal du Nord abreast Cap du Basque (48°00'N, 69°46'W).

Topography**8.9**

- 1 **Batture aux Alouettes** is an extensive drying area of sand and boulders, which extends up to 4 miles E from the coast between Pointe aux Alouettes (48°06'N, 69°42'W) and a position about 4 miles SSW. There are stony ridges along its E edge, these being the last to cover with the

rising tide. The highest, which lies about 4 cables S of Îlet aux Alouettes (5.262), only covers at the highest tides. Foul ground extends nearly 2 miles E from the outer edge of the reef, in places.

Île Rouge and Bancs de l'Île Rouge are described at 7.148.

8.10

- 1 **Western shore.** The terrain on the NW side of the river is described at 8.6.

Between Pointe aux Alouettes and Pointe au Bouleau, 1¾ miles SSW, the coast consists of sand and clay cliffs, about 24 to 30 m high; these continue to the mouth of Rivière aux Canards, 6 cables farther W. Southward of the mouth of this river the coast becomes rocky. Cap du Basque is a mountainous headland, and the mountainous shore with high cliffs continues SSW to Cap de la Tête au Chien, a prominent and very precipitous point.

8.11

- 1 **Battures de l'Île Blanche** extends about 3¾ miles SSW, in mid-river, from a position about 5½ miles ESE of Cap du Basque. The reef is of slate, the greater part of which dries, with numerous boulders on it and skirting it.

Île Blanche (47°56'N, 69°40'W) a sandy islet, with high grass, is situated on Battures de l'Île Blanche, 5½ miles SE of Cap du Basque.

8.12

- 1 **Île aux Lièvres** extends about 7 miles SSW from the S end of Battures de l'Île Blanche. The island rises gradually from both ends to a wooded summit. The W side of the island, for a distance of about 2¼ miles from its N end, is fringed by a drying bank extending about 1 cable offshore, with some rocky heads just outside it.

8.13

- 1 **Récif de l'Île aux Fraises** lies in mid-river, about 4 miles E of Pointe des Rochers (47°46'N, 69°54'W). The drying portion of this reef extends for nearly 3 miles SSW from a position about 1½ miles SSW of Île aux Lièvres, being separated from that island by Passe de l'Île aux Lièvres, (8.26).

There are several islets on the ridge of the reef; the middle and largest islet is covered with trees and small bushes, 6 to 9 m high to their tops; the others, about 1 to 2 m high, are covered with grass and small bushes.

Récif de l'Île aux Fraises is a designated bird sanctuary. For further information, see 1.91.

Ferry terminal

8.14

- 1 It is advisable to reduce speed when passing the ferry terminal of Saint-Siméon (47°50'N, 69°52'W) (8.34) when there is a ferry alongside. The normal ferry track is marked on the chart.

Tidal streams in the vicinity of Île Rouge

8.15

- 1 The directions and routes of the tidal streams at hourly intervals for several positions in the area are tabulated on the chart.

In-going tidal streams. A portion of the in-going tidal stream passes W of Bancs de l'Île Rouge, attaining a rate of 3½ kn with average tides.

- 2 The remainder, possibly the greater part, passes SE of Bancs de l'Île Rouge, attaining a rate of 2¼ kn with average tides. Part of this stream continues up Chenal du Sud, but, from 3 to 4 hours after LW to 2 hours after HW at Pointe au Père, a part curves W towards Chenal du

Nord, passing S of Île Rouge, attaining a rate of 2¾ kn in the hour of HW at Pointe au Père, with average tides.

- 3 This branch of the in-going stream is deflected SW on meeting the in-going stream from W of Île Rouge, and the resultant flow is SW, roughly towards Cap du Basque. This flow is most definite from 5 hours after LW until 2 hours after HW at Pointe au Père.

8.16

- 1 **Out-going tidal stream.** Commencing about 3 hours after HW at Pointe au Père, the first of the out-going tidal stream in the area SE of Île Rouge comes from Chenal du Sud. Two hours later the out-going tidal stream from Chenal du Nord begins to cross over between Île Blanche and Île Rouge, and, until 3 hours after LW at Pointe au Père, it predominates, turning the stream NE towards Île Verte.

- 2 In a position about 1½ miles SE of Île Rouge the rate of the tidal stream, with average tides, from ½ hour before to 1½ hours after LW at Pointe au Père, is about 4 kn, reaching 5 kn at springs. A rate of 6 kn has been experienced for a short period. Along the NW side of Île Verte the out-going rate is 3½ kn with average tides, and is strongest about the time of LW at Pointe au Père.

8.17

- 1 W of Île Rouge the flow turns to out-going between 1¼ and 2¼ hours after HW at Pointe au Père. At first the set is N through the passage, but a set towards Bancs de l'Île Rouge develops and is most pronounced about 1 or 2 hours after LW at Pointe au Père.

The out-going tidal stream through the passage W of Île Rouge attains a rate of 3½ kn with average tides, and 5 kn at springs.

8.18

- 1 **Tide-rips**, some of which may be heavy and a danger to small craft, occur in several areas on either side of Bancs de l'Île Rouge and between Île Verte and Île Blanche, as shown on the charts. Tide-rips of lesser strength may occur anywhere in the Île Rouge region, caused by conflicting tidal streams; their positions vary with the stage of the tide and, perhaps, with the force and direction of the wind.

Tidal streams in Chenal du Nord

8.19

- 1 **In-going tidal streams.** From about 3½ to nearly 5 hours after LW at Pointe au Père, the in-going tidal stream starts to set fairly up Chenal du Nord, along the coast of Île aux Lièvres. After this, the W flow from the SE side of the river (8.15) causes variable eddies close to Battures de l'Île Blanche and the NE end of Île aux Lièvres. The in-going stream from the SE side of the river is predominant from 4 hours after LW to 2 hours after HW at Pointe au Père.

- 2 The in-going tidal stream through Passe de l'Île aux Lièvres is felt for some distance into Chenal du Nord from 4 hours after LW until 1 hour after HW at Pointe au Père.

The rate of the average in-going flow reaches 1½ kn at a position of 1 mile off Cap de la Tête au Chien (47°55'N, 69°48'W), and ½ kn at a position 1 mile off Pointe des Rochers.

8.20

- 1 **Out-going tidal stream.** In the vicinity of Île aux Lièvres, the out-going stream commences about 2 to 3 hours after HW at Pointe au Père, a part curving towards the SE side of the river, over and N of Île aux Lièvres and Battures de l'Île Blanche. There is a strong set towards Île Rouge and Bancs de l'Île Rouge from 4 hours after HW to 2 hours after LW at Pointe au Père, as mentioned at 8.17.

- 2 Eddies, with heavy tide-rips at times, may be set up during the out-going tidal streams on the S side of Cap de la Tête au Chien and Pointe des Rochers, but these seldom extend beyond 5 cables offshore. At distances of 1 mile from these headlands, there are no appreciable onshore or offshore sets.

The rate of the average out-going flow reaches 3 kn at a position 1 mile off Cap de la Tête au Chien, and 2½ kn at a position 1 mile off Pointe des Rochers.

8.21

- 1 There is no appreciable set from Chenal du Nord towards Passe de l'Île aux Lièvres during the out-going tidal stream.

Tidal streams around Île Rouge

8.22

- 1 There is a strong set towards Île Rouge and Bancs de l'Île Rouge during the out-going tidal stream (8.16). The out-going tidal streams set strongly towards and over the NE end of Battures de l'Île Blanche.

Principal marks

8.23

- 1 **Major lights:**

Haut-fond Prince Light (48°07'N, 69°37'W) (5.239).
Île Verte Light (48°03'N, 69°25'W) (7.154).
Île Rouge Light (grey round tower, 19 m in height) (48°04'N, 69°33'W) on the centre of the islet.
White dwelling with brown roof nearby.
Cap au Saumon Light (white 8-sided tower, red top, 14 m in height) (47°46'N, 69°54'W) on Pointe des Rochers.

Directions

(continued from 5.241)

8.24

- 1 From a position 48°07'N, 69°35'W the track leads SSW through Chenal du Nord, (with positions from Île Rouge Light (48°04'N, 69°33'W)) passing:
Between Haut-Fond Prince Light (3½ miles NW) (5.239) and Bancs de l'Île Rouge (close N) (7.148). The NW side of Bancs de l'Île Rouge is marked by K55 Light-buoy (port hand). Thence:
2 ESE of Batture aux Alouettes (5 miles W) (8.9), the E side of which is marked by light-buoys (starboard hand), thence:
In mid-channel, WNW of the N end of Battures de l'Île Blanche (9 miles SSW) (8.11), marked by K59 Light-buoy (port hand), and WNW of Île Blanche, thence:
3 ESE of Cap de la Tête au Chien (14 miles SW) from which a light (white 8-sided tower, 12 m in height) is exhibited, thence:
WNW of Île aux Lièvres (14 miles SSW). Île aux Lièvres Light (orange triangle in white rectangle, on framework tower, 8 m in height) is exhibited from a small islet near the S end of the island.
And:
4 ESE of Saint-Siméon (47°50'N, 69°52'W) a ferry terminal (8.14). A light (framework tower, 6 m in height) is exhibited from the head of the S pier.
The track then leads to a position about 1½ miles ESE of Pointe des Rochers (47°46'N, 69°54'W), a high, bold and precipitous headland, from which a light (8.23) is exhibited. The high land behind the point is separated from the inland ranges by undulating grassland.

8.25

- 1 **Useful mark:**

Church (47°50'N, 69°52'W), with prominent spire, 140 m in elevation, at Saint-Siméon.
(Directions continue at 8.49)

Side channel

Passe de l'Île aux Lièvres

8.26

- 1 **General information.** Passe de l'Île aux Lièvres (47°47'N, 69°47'W), between the S end of Île aux Lièvres and Récif de l'Île aux Fraises, about 1½ miles SSW, is much used by traffic crossing between the E and W sides of the river. There is a least charted depth of 3·8 m in this passage.

Local knowledge is required.

8.27

- 1 **Tidal streams.** During spring tides, the tidal streams set through Passe de l'Île aux Lièvres at a rate of about 4 kn, with strong eddies on the out-going stream. Further information is given at 8.19 and 8.21. Hourly predictions are tabulated on the chart.

8.28

- 1 **Directions.** The recommended track from Chenal du Nord leads SE into Passe de l'Île aux Lièvres, passing close on either side of Île aux Lièvres Light-buoy (safe water), moored 8 cables SW of Île aux Lièvres Light.

Line of bearing. The line of bearing 305°, astern, of the church spire at Saint-Siméon (8.25), with a conspicuous granite patch on the hills behind the village open S of it, leads through the passage, in depths of not less than 4 m, passing about 1½ cables NE of Île aux Lièvres Light-buoy.

Anchorage and harbours

Basque Road

8.29

- 1 **General information.** Basque Road (48°02'N, 69°44'W) is a good anchorage, sheltered from NE winds by Batture aux Alouettes (8.9). A waterfall in the hills at the head of the cove W of Basque Road is very distinctive after rain.

Anchorage. The best berth is in depths of 15 to 18 m, clay or stiff mud, on the following lines of bearing:

- 2 Île du Chafaud aux Basques; a wooded islet, 1·4 miles N of Cap du Basque, bearing about 259°, distant about 1 mile.
The beacon (5.259) on Îlet aux Alouettes bearing 025°.
Excellent anchorage is available near the 10 m depth contour, with a bottom of stiff mud, on the following lines of bearing:
3 A bare rock, 6·7 m high, about 2 cables W of Île du Chafaud aux Basques, just open S of that island.
The alignment (201°) of Cap du Basque and the next point of land SSW of it.
Both anchorage positions are shown on the chart.

Baie des Rochers

8.30

- 1 **General information.** Baie des Rochers (47°57'N, 69°47'W) is entirely filled by a flat of sand, mud and large boulders, which dries 1·8 to 2·7 m.
2 Cap du Nid aux Corbeaux, the NE entrance point, is mountainous and steep-to. The SW entrance point is a small wooded islet, 6 m high, joined to the mainland by a narrow strip of yellow sand, and fringed by a rocky ledge, covered with large boulders. About midway between these points a narrow ridge of rocks, which dry 2·7 m, lies across

the entrance to the bay. This ridge is steep-to, having depths of 37 m within 1 cable. A wooded island, about 50 m high, is situated in the SW part of the bay. A low but prominent waterfall marks the outlet of a river in the SW corner of the bay.

- 3 **Tidal streams** set strongly across the ridge of rocks at the mouth of the bay.

8.31

- 1 **Landings.** Temporary jetties are sometimes erected in the small indentations between Baie des Rochers and Cap de la Tête au Chien.

Anchorage west of Île aux Lièvres

8.32

- 1 In calm weather, temporary anchorage in depths of 18 m may be obtained W of the NE end (47°54'N, 69°41'W) of Île aux Lièvres (8.12).

The recommended anchorage position is 2½ cables outside the 5 m depth contour, with the NE end of the island bearing about 103°, distant 7 cables.

The out-going tidal stream setting across the reef, is not felt in this position, though it is felt closer inshore.

Port aux Quilles

8.33

- 1 **General information.** Port aux Quilles (47°53'N, 69°51'W) is situated at the mouth of a shallow stream. Pointe aux Quilles, about 4 cables SE of the river mouth, rising to an elevation of about 210 m within 4 cables of the coast, is remarkable.

Anchorages. There is temporary anchorage for small craft off the mouth of the stream.

Local knowledge is required, as the coastal bank is steep-to.

Chart 4783 plan of Saint-Siméon

Saint-Siméon

8.34

- 1 **General information.** Saint-Siméon (47°50'N, 69°52'W), a village with a population of about 1500, is a summer resort situated close S of the mouth of Rivière Noire. A church (8.25), standing on a plateau above the coast, is prominent.

Ferry. Saint-Siméon is the terminal for the ferry service to Rivière-du-Loup (8.94).

8.35

- 1 **Berths.** At Saint-Siméon there is a public pier and a jetty:

The N pier (public) is L-shaped and 120 m long; its outer face is 41 m long with charted depths of 7.7 m alongside. The N side of the pier is protected by boulders. The S side provides shallowing depths of about 2.7 m at the outer end and dries at the inner end.

- 2 The S jetty (ferry berth) is 158 m long; the outer berthing section is 87 m long and 9 m wide.

A light (8.24) is exhibited from the head of the S jetty.

- 3 **Port services:**

Repairs: moveable ramp at the ferry berth.

Supplies and facilities: electricity; fresh water; telephone on south jetty.

Small craft

Port-au-Persil

8.36

- 1 **General information.** Port-au-Persil (47°48'N, 69°54'W) is a village (population 179 in 1981) situated near the

mouth of a small stream. A small church stands on the point near the village. The pier is in ruins, but it provides protection for small craft.

CHENAL DU NORD — POINTE DES ROCHERS TO CAP AUX OIES

General information

Charts 4783, 4784

Route

8.37

- 1 Chenal du Nord continues on the NW side of the river from abreast Pointe des Rochers (47°46'N, 69°54'W) to the vicinity of Cap aux Oies (47°29'N, 70°14'W), 22 miles SW.

Topography

8.38

- 1 **North-west shore.** The terrain on the NW side of the river is described at 8.6.

The coast between Pointe des Rochers and Gros Cap à l'Aigle, 5¼ miles SW, is high and precipitous, except in the vicinity of Port-au-Saumon, 2 miles SW of Pointe des Rochers.

A peak, rising to an elevation of 560 m, about 3 miles WNW of Port-au-Saumon, is conspicuous from the S.

8.39

- 1 Between Gros Cap à l'Aigle and Cap à l'Aigle, about 5 miles farther WSW, the coast is wooded, with high earth cliffs. It is bordered for almost its entire length by a rocky ledge covered with sand and large boulders, which dries as much as 3-4 m. This ledge is fairly steep-to, except for a distance of about 4 cables NE from Cap à l'Aigle, where depths of less than 18 m extend about 2 cables outside the drying ledge.

8.40

- 1 The coast is steep-to from Pointe au Pic (47°37'N, 70°08'W) for a distance of about 2 miles SW. A drying flat and a shallow bank border the coast from the mouth of Le Gros Ruisseau, 2½ miles SW of Pointe au Pic, for a further 2½ miles SSW.

- 2 From Pointe Jureux (47°32'N, 70°12'W) to Cap de la Corneille, 2 miles SW, the coast is fairly steep-to. La Petite Malbaie, between Cap de la Corneille and Cap aux Oies, about 1 mile SSW, is filled by a drying reef.

8.41

- 1 **Mont des Éboulements** rises to an elevation of 766 m about 3½ miles NW of Cap aux Oies; it is the highest of the mountain ranges in the area, and is surrounded by conical peaks.

8.42

- 1 **Banc de l'Île aux Lièvres** extends about 4 miles SSW from Récif de l'Île aux Fraises (8.13) to a position about 5¼ miles ESE of Gros Cap à l'Aigle.

8.43

- 1 **Banc des Anglais**, is situated near the centre of the river, SE of Cap aux Oies. It separates Chenal du Nord from Chenal du Sud in this section of the river.

Tidal streams

8.44

- 1 **Off Gros Cap à l'Aigle.** At a position 1 mile off Gros Cap à l'Aigle, the tidal stream turns to in-going 3 to 4 hours after LW at Pointe au Père and attains a rate of ¾ kn with average tides; the tidal stream turns to out-going 2½ to 3½ hours after HW at Pointe au Père and attains a rate of 2¼ kn with average tides.

8.45

- 1 **Above Gros Cap à l'Aigle.** The in-going tidal stream sets fairly up the channel as far as Haut-fond Morin (47°36'N, 70°02'W), above which it sets in a 265° direction during the period from HW at Pointe au Père until 2 hours later, when the rate is about 2 kn with average tides. This onshore set is not so pronounced with large tides, when the stream sets in 240° direction. Also, in this locality, there may be little or no stream on the surface at neap tides. Further on the in-going stream rounds Cap aux Oies parallel to the shore, and at a position farther from the cape it flows towards Traverse du Milieu (47°25'N, 70°16'W).

8.46

- 1 The main out-going stream is strongest about the time of LW at Pointe au Père. With average tides, it flows from the vicinity of Cap aux Oies and along by Banc des Anglais towards Banc de l'Île aux Lièvres. When within 4 miles of the latter, it divides, a portion entering Chenal du Sud. With large tides the out-going stream sets more directly down-river, past Haut-fond Morin, before turning towards Banc de l'Île aux Lièvres.

- 2 Approaching Haut-fond Morin, the out-going tidal streams has a rate of 2¼ kn with average tides. With large tides the rate between Cap aux Oies and Haut-fond Morin increases to 4 kn, and is strongest from the time of LW at Pointe au Père to 1 hour after.

8.47

- 1 **Tide-rips and eddy.** There are violent tide-rips off Gros Cap à l'Aigle and Cap aux Oies, and between Cap aux Oies and Banc des Anglais, 3 cables SE, at times.

Between Gros Cap à l'Aigle and Cap à l'Aigle, a back eddy sets up-river on the out-going tide, close to the edge of the flats.

Hourly predictions of the directions and rates of the tidal streams at several positions are tabulated on the charts.

Principal marks**8.48**

- 1 **Landmark:**

Radio tower (elevation 456 m; red lights) (47°43'N, 70°01'W).

Major lights:

Cap au Saumon Light (47°46'N, 69°54'W) (8.23).

Pointe au Pic Light (square framework tower, 18 m in height) (47°37'N, 70°08'W).

Cap aux Oies Light (square framework tower, 9 m in height) (47°29'N, 70°14'W).

Directions

(continued from 8.25)

Passage north-west of Haut-fond Morin**8.49**

- 1 From a position about 1½ miles ESE of Pointe des Rochers, the track leads SW through Chenal du Nord, passing:

NW of Banc de l'Île aux Lièvres (8.42), thence: SE of Gros Cap à l'Aigle (47°42'N, 69°59'W), a high wooded cape, thence:

- 2 NW of Haut-fond Morin (rock) (47°36'N, 70°02'W), marked by Haut-fond Morin Light-buoy (preferred channel to starboard), moored SW of its shallowest part; an extensive bank with depths of less than 16 m over it, lies W of Haut-fond Morin, thence: About 1½ miles SE of Cap aux Oies, a bold wooded bluff at the end of a spur of high land.

Passage south-east of Haut-fond Morin**8.50**

- 1 From SE of Gros Cap à l'Aigle, the track for the mariner intending to pass SE of Haut-fond Morin leads SSW, passing about 1½ miles ESE of the shoal.

8.51

- 1 **Clearing bearing.** On approaching Haut-fond Morin, the line of bearing 024° of the fall of the land in the vicinity of Cap de la Tête au Chien (8.10), open E of Pointe des Rochers, passes about 1 mile ESE of the shoal.

8.52

- 1 After passing Haut-fond Morin, the track leads SW to rejoin Chenal du Nord off Cap aux Oies, as at 8.49, or continues SSW to join Chenal du Sud, off Pointe aux Orignaux (47°29'N, 70°02'W), as at 8.120.

8.53

- 1 **Caution.** In reduced visibility it is necessary to navigate with great care in the vicinity of Haut-fond Morin.

Useful marks**8.54**

- 1 Church (spire), prominent, at Saint-Fidèle-de-Mont-Murray (47°44'N, 70°00'W), on the plateau, about 1 mile inland.
Grande Île Light (47°37'N, 69°52'W) (8.79).
Cap à l'Aigle Light (square framework tower, 5 m in height) (47°40'N, 70°06'W).
Hotel, prominent (47°37'N, 70°09'W) on the cliffs S of Pointe au Pic.
- 2 Church (spire), prominent, at Sainte-Irénée (47°34'N, 70°13'W).

(Directions continue, for Chenal du Nord at 8.142)

(Directions for Chenal du Sud are given at 8.120)

Anchorage and harbours

Chart 4783 plan of port of Pointe-au-Pic

La Malbaie**8.55**

- 1 **General information.** La Malbaie (47°39'N, 70°08'W), a bay about 2 miles SW of Cap à l'Aigle, is filled by drying flats of mud, sand and boulders. Rivière Malbaie (River Murray) flows into the head of the bay and crosses the flats through shallow tidal channels, navigable at times by small craft.

- 2 The town of La Malbaie, a popular summer resort with a population of about 5000, is situated on both sides of the mouth of Rivière Malbaie, and extends down the W shore of the bay as far as Pointe au Pic, 3 miles SW of Cap à l'Aigle. Saint-Étienne church, situated W of the river mouth, has a conspicuous spire, and a cross, illuminated at night, stands on a hill N of the river mouth.

8.56

- 1 **Pointe-au-Pic.** The village of Pointe-au-Pic has facilities for loading pulpwood and paper, and is generally clear of ice throughout the winter. Pilotage is compulsory.

8.57

- 1 **Directions for Pointe-au-Pic.** The wharf (8.60) at Pointe-au-Pic is approached from E, passing (positions given from Pointe au Pic Light (8.48)):

S of K64 Light-buoy (starboard hand) (3 cables E), thence:

S of KPP Light-buoy (S Cardinal) (¾ cable ENE), marking the S side of the shoal ground in La Malbaie.

8.58

- 1 **Anchorage off La Malbaie.** Good anchorage is available in depths of 22 m off the N end of La Malbaie,

with Sainte-Étienne church on the W side of the river mouth, bearing 289°, just open S of Pointe à Gaz on the N side of the bay, as indicated on the chart. This position is out of the main tidal stream, and is well sheltered from the prevailing winds. Holding ground is good.

- 2 There is also anchorage farther out, in slightly deeper water, but here the tidal streams are much stronger.

8.59

- 1 **Anchorage off Pointe-au-Pic.** Temporary anchorage can be obtained in depths of 21 m, with the outer end of the wharf bearing 283°, distant 4 cables, but the tidal streams here are very strong, with occasional heavy eddies and tide-rips. There is a good anchor berth for a coaster inside the 20 m depth contour, with Pointe au Pic Light (8.48) bearing 349°, distant 2 cables.

8.60

- 1 **Alongside berth at Pointe-au-Pic.** A public wharf is constructed on reclaimed land extending about $\frac{3}{4}$ cable from the coast at Pointe-au-Pic. There is an alongside berth on the SE face of this wharf with a length of 131 m and depth alongside 8 m. The maximum length of vessel that can be accommodated is 168 m.

The use of the N face is prohibited.

8.61

- 1 **Port services at Pointe-au-Pic:**

Repairs: boat ramp and hoisting apparatus (capacity 18 tonnes) on public wharf; minor repairs.

Other facilities: local hospital.

Supplies: fresh water; diesel; electrical power.

8.62

- 1 **Small craft.** There is a small marina NE of the public wharf protected to the E by a floodlit breakwater. Fresh water and electrical power are available at the berths.

Chart 4784

Anchorage on Banc des Anglais

8.63

- 1 Banc des Anglais (47°28'N, 70°08'W) (8.43), and the shoal water N of it, can be used as an anchorage in calm weather.

Small craft

Chart 4783 plan of Cap-à-l'Aigle

Port-au-Saumon

8.64

- 1 **General information.** Port-au-Saumon (47°45'N, 69°57'W), 2 miles SW of Pointe des Rochers, lies adjacent to a small cove. Two wooded islets, about 6 m high, are situated on the outer edge of the drying flat S of the cove.

Local knowledge is required.

Cap-à-l'Aigle

8.65

- 1 **General information.** Cap-à-l'Aigle (47°40'N, 70°06'W) (population of 775 in 1998) is a summer resort.

Anchorage. Small craft may anchor close N of the pier in summer months. Local knowledge is required.

The pier is in ruins. A small concrete ramp on the inner side of the pier can be used for landing small boats at HW. A light (8.54) is exhibited from the pier-head.

- 2 **Marina** facilities are provided close NE of the public pier. The marina has a series of pontoons and is enclosed by a L-shaped breakwater. A light (red and white square framework tower, 5 m in height) is exhibited from the marina breakwater.

CHENAL DU SUD — ÎLE VERTE TO ÎLES DE KAMOURASKA

General information

Charts 4782, 4783

Route

8.66

- 1 Chenal du Sud follows the SE side of the river from abreast the SW end of Île Verte (48°01'N, 69°27'W) to Îles de Kamouraska, 26 miles SW.

- 2 **Buoys.** During the winter, the buoys marking the Chenal du Sud are removed.

Topography

8.67

- 1 **Le Gros Cacouna** (Île du Gros Cacouna), $2\frac{1}{4}$ miles S of Île Verte, is of grey rock, well wooded, with cliffs along the NW side. It is very noticeable against the gently rising ground of the mainland. The island is joined to the mainland by a causeway built over swampy grassland which partially covers at the highest tides.

8.68

- 1 **Coast.** The land in the vicinity of Rivière-du-Loup (47°50'N, 69°32'W) forms a series of ridges parallel to the river, separated by cultivated valleys. The coastal ridges, faced by cliffs on the shoreline, extend to Notre Dame du Portage, about 5 miles SW. Mont Pilote, a remarkable isolated hill, (elevation 83 m), situated about 2 miles NE of Pointe de la Rivière du Loup (47°51'N, 69°34'W), appears as a sharp cone from W. The hills inland are almost flat in outline, and descend gradually from elevations of 120 to 170 m.

- 2 The coast is low between Notre Dame du Portage and a point with a rocky summit, 34 m high, about $3\frac{1}{2}$ miles SW.

8.69

- 1 A chain of hills, rising abruptly from the flat land just behind the coastline, commences near the 34 m rocky summit mentioned above; the highest hill, about 5 miles SSW of the point, is 190 m in elevation.

The shore between Andréville (Saint André) (47°40'N, 69°44'W) and a position about 6 miles SW, is flat, low and bordered by grassy swamps. A series of remarkable hills rises abruptly out of the flat ground just behind the coastline.

- 2 Pointe Saint-André, 8 cables SW of Andréville, is a round and rocky peninsula, 40 m in elevation, with a few stunted trees.

8.70

- 1 **Banc Saint-André** extends about $2\frac{1}{2}$ miles offshore between Les Pèlerins (47°44'N, 69°44'W) and Grande Île, 6 miles SW. It is flat, gradually shelving, and steep-to at its outer edge. Several rocky ledges, which dry, lie between Pointe Saint-André and Grande Île, just off the edge of the drying flats.

Mid-river islands and reefs

8.71

- 1 A bank of islands and reefs running from Battures de l'Île Blanche, $5\frac{3}{4}$ miles W of the SW end of Île Verte, to Banc de l'Île aux Lièvres, about 22 miles SW, are described at 8.11 to 8.13, and 8.42.

- 2 **Îles du Pot à l'Eau-de-Vie** (Brandypot Islands) (47°52'N, 69°41'W), on the E side of Île aux Lièvres, lie close together on a drying reef near the NE end of Banc du Pot à l'Eau-de-Vie. The islets are wooded and fringed with rocks. The W islet is the highest in group with an elevation of 40 m (192 ft). The islands are designated bird sanctuaries. For further information, see 1.91.

8.72

- 1 The coastal island groups of Les Pèlerins (47°44'N, 69°44'W) and Îles de Kamouraska, about 7 miles farther S are described at 8.107 and 8.109, respectively.

Ferry**8.73**

- 1 A car and passenger ferry plies between Rivière-du-Loup and Saint-Siméon on the opposite shore. The usual route is shown on the chart.

Tidal streams in Chenal du Sud**8.74**

- 1 **In-going tidal stream.** Part of the in-going tidal stream sets W over Battures de l'Île Blanche, while the remainder sets fairly towards Chenal du Sud and Chenal du Pot à l'Eau de Vie (47°52'N, 69°40'W), being stronger in the deeper water of the latter. A considerable body of water sets through Passe de l'Île aux Lièvres, as mentioned at 8.19 and 8.27.

8.75

- 1 **Out-going tidal stream.** The out-going flow weakens along the edge of the banks as the flats along the SE shore dry. Local mariners invariably use Chenal du Sud in making up against the out-going stream. At half tide the out-going stream is scarcely noticeable inside the 5 m depth contour.

8.76

- 1 The table below shows the time of slack water, relative to the time of HW and LW at Pointe au Père, and the durations of the in-going and out-going tidal streams. The rate of the tidal streams is from 2 to 3½ kn.

Locality	Turn to		Duration		Turn to		Duration	
	in-going		of		out-going		of	
	stream		in-going		stream		out-going	
	After LW		stream		After HW		stream	
	h	m	h	m	h	m	h	m
Île Blanche	2	20	6	40	2	50	5	45
Chenal du								
Pot à l'Eau	2	05	6	05	1	45	6	20
de Vie								

- 2 Hourly predictions of the tidal streams in the channel E of Battures de l'Île Blanche are tabulated on the chart.

Directions

(continued from 7.157)

Île Verte to Pointe de la Rivière du Loup**8.77**

- 1 From a position about 3 miles WNW of Pointe du Bout d'en Haut (47°59'N, 69°30'W), the track leads SSW through Chenal du Sud, marked in places by light-buoys, passing (with positions from Pointe du Bout d'en Haut):
- 2 NW of a drying reef, the outer end of which is detached except at the lowest tides, extending about 6 cables SW from Pointe du Bout d'en Haut, the low point at the SW end of Île Verte; the NW side of this reef is steep-to. Thence:
- ESE of K59 light-buoy (port hand) (5¼ miles W), which marks the NE end of of the Battures de l'Île Blanche, thence:

- 3 WNW of Rocher Percé (6 miles SSW), a narrow ridge, the greater part of which is above water, thence:

ESE of Brisants Barrett, two small and steep-to rocks (8 and 8½ miles SW respectively), marked on their E side by H56 Light-buoy (starboard hand) thence:

- 4 About 5 cables ESE of Hauts-fonds du Milieu, which consist of several rocky patches, lying about 3 miles WNW of Pointe de la Rivière du Loup (47°51'N, 69°34'W), including Rocher Marmen, the NE patch, and Rocher Demers, the SW patch, marked by H58 Light-buoy (starboard hand).

8.78

- 1 **Useful marks:**

Cacouna Harbour North Light (framework tower, 5 m in height) (47°56'N, 69°31'W).

Cacouna Harbour South Light (framework tower, 5 m in height) (close S of the North Light).

Church, prominent spire (elevation 51 m) (47°55'N, 69°30'W) at Saint-Georges-de-Cacouna.

- 2 Pointe de la Rivière du Loup Light (framework tower, 9 m in height) (47°51'N, 69°34'W).

Îles du Pot à l'Eau-de-Vie Light (framework tower, 12 m in elevation) (47°52'N, 69°41'W), on the E side of the E island (8.71).

Pointe de la Rivière du Loup to Îles de Kamouraska**8.79**

- 1 From a position 3 miles W of Pointe de la Rivière du Loup, the track leads SW through Chenal du Sud, passing (with positions from Le Long Pèlerin Light (47°43'N, 69°45'W):

SE of Banc du Milieu, (7 miles NE) extending about 5 miles SW from Rocher Demers (8.77), with a shallow ridge of stones and mud (47°48'N, 69°43'W) near it SW end, and:

- 2 NW of a shoal, with a depth of 9.1 m over it (7¼ miles NNE), thence:

About 4 cables NW of Battures des Pèlerins, a narrow ridge of sand and gravel, marked by H63 light-buoy (port hand), thence:

SE of Récif de l'Île aux Fraises (3½ miles NW) (8.13), and:

- 3 NW of Les Pèlerins (8.107), a group of islands. Le Long Pèlerin (Long Pilgrim Island) Light (square framework tower, 14 m in height) is exhibited from the SW part of Le Long Pèlerin. Thence:

About 8 cables SE of the SW end of Banc de l'Île aux Lièvres (4 miles WSW) (8.42).

- 4 The track then leads to a position about 6 cables NW of Grande Île (7¼ miles SSW) (8.109), which is the N island of Îles de Kamouraska. Grande Île (Kamouraska) Light (square framework tower, 12 m in height) (47°37'N, 69°52'W), adjacent to a white dwelling with a red roof, is exhibited from the island.

8.80

- 1 **Useful marks:**

Cross, conspicuous, 22 m in height, illuminated at night, situated 2 miles SE of Pointe de la Rivière du Loup, with conspicuous spires 3 cables SSW and 7 cables NW of it, the latter having an elevation of 59 m.

Radio tower (elevation 188 m) (47°49'N, 69°32'W).

Aero light (47°46'N, 69°35'W).

Île aux Lièvres Light (47°48'N, 69°47'W).

(Directions continue at 8.120)

Side channels

Channel east of Rocher Percé

8.81

- 1 **Route.** There is a narrow channel with a least depth of 5.5 m between Rocher Percé (47°54'N, 69°33'W) (8.77) and the SE shore.

Directions. The recommended track through this channel lies towards the Rocher Percé side.

Chenal du Pot à l'Eau-de-Vie

8.82

- 1 **Route.** Chenal du Pot à l'Eau-de-Vie between Banc du Pot à l'Eau-de-Vie on the E side of Île aux Lièvres, and Banc du Milieu (8.79), is seldom used.

Directions. Clearing bearing. The line of bearing 192° of the 190 m hill (8.69), about 1½ miles SSE of Pointe Saint-André (8.69) seen between Le Pèlerin du Milieu (8.107) and Le Gros Pèlerin, passes, in depths of not less than about 8.2 m, E of the shoal ground that lies N of Îles du Pot à l'Eau-de-Vie.

Anchorage and harbours

Charts 4782, 4783

North of Île Gros Cacouna

8.83

- 1 Good anchorage in depths of 11 to 15 m, with shelter from E winds, can be obtained SW of Pointe du Bout d'en Haut (47°59'N, 69°30'W).

The anchorage position is with Rocher de Cacouna (47°57'N, 69°30'W), a bare islet 7.6 m high, bearing 167°, distant 7 to 8 cables. This position is indicated on the chart.

- 2 There is an anchorage for smaller vessels about 5 cables N of this position, in depths of 5 to 7 m, out of the heavy tide eddies which are occasionally felt at the outer anchorage. This position is also indicated on the chart.

Tidal streams. In the latter anchorage the out-going tidal streams set N across the reef off Pointe du Bout d'en Haut, and NE through the channel between Île Verte and the mainland.

- 3 As the flats in the NE part of this channel begin to uncover, the stream between the island and the mainland changes direction, and runs SW, towards the anchorage.

Off Île Blanche

8.84

- 1 Anchorage can be found in depths of 20 to 30 m, about 1¼ miles E of Le Pillier de l'Île Blanche (47°59'N, 69°38'W). The position is indicated on the chart.

There is also anchorage in 11 to 13 m, 1¼ miles SE of Île Blanche (47°56'N, 69°40'W) (8.11). This position is indicated on the chart.

South-east of Banc du Milieu

8.85

- 1 Anchorage, with good holding ground, is available in Chenal du Sud, SE of Banc du Milieu (47°49'N, 69°42'W) (8.79).

Chenal du Pot à l'Eau-de-Vie

8.86

- 1 Good anchorage is available throughout Chenal du Pot à l'Eau-de-Vie. Some detached shoals, with depths of 3 to 4.9 m over them, lie from 7 to 9 cables off the E side of Île aux Lièvres, about 3½ miles SSW of Îles du Pot à l'Eau-de-Vie.

- 2 Small craft may find sheltered anchorage in depths from 3 to 5 m, NE or SW of Îles du Pot à l'Eau-de-Vie,

according to the wind; the holding ground is good. A dangerous rock lies 2 cables NE of the islets.

Port de Gros Cacouna

Chart 4783 plan of Port de Gros Cacouna

General information

8.87

- 1 **Position.** Port de Gros Cacouna (47°56'N, 69°31'W) is situated on the S side of Le Gros Cacouna (8.67).

Function. Port de Gros Cacouna is an artificial harbour which contains a grain terminal.

Approach and entry. The harbour is approached from Chenal du Sud and entered between breakwater heads.

Traffic. In 2000 the port handled 51 international movements with a total dwt of 389 637 tonnes.

- 2 **Port Authority.** Transport Canada, Canadian Coast Guard, Harbours and Ports, 104 Dalhousie Street, Quebec, G1K 4B8.

Limiting conditions

8.88

- 1 **Controlling depth.** Least charted depth in entrance 7.9 m.

Ice. Occasional icebreaker assistance may be required in winter.

Mean tidal levels. The nearest port for which information is tabulated in *Admiralty Tide Tables* is Rivière du Loup. See *Admiralty Tide Tables, Volume 2*.

Arrival information

8.89

- 1 **Outer anchorage.** There is good anchorage between the SW end of Île Verte and Rocher de Cacouna, 2 miles SSW. For further information see 8.83.

Pilotage is compulsory.

Tugs are not available.

Harbour

8.90

- 1 **General layout.** The harbour is enclosed by two rock-fill breakwaters.

Directions for entering harbour

8.91

- 1 **Entrance channel.** The navigable channel between the breakwater heads is about 170 m wide; a light (framework tower, 5 m in height) is exhibited from each breakwater head.

- 2 **Leading lights.** The alignment (082°) of Cacouna Harbour Leading Lights leads through the entrance:

Front light (orange rectangle, black stripe, on framework tower, 15 m in height) (47°56'N, 69°30'W), on the mainland E of the harbour.

Rear light (similar construction on framework tower, 4 m in height) (349 m from front light).

The lights are visible on the leading line only.

Berth

8.92

- 1 The wharf has a least charted depth of 9.3 m and length of 274 m. It lies against an area of open land on the E side of the harbour. A transit shed stands near the wharf.

Port services

8.93

- 1 **Facility:** deratting certificate extensions.

Supplies: fresh water and provisions; fuel, diesel and lubricating oils by road tanker.

Pointe de la Rivière du Loup

Charts 4782, 4783 plan Pointe de la Rivière du Loup

General information

8.94

- 1 **Position.** 47°51'N, 69°34'W, 5 miles SSW of Île du Gros Cacouna.

Function. Pointe de la Rivière du Loup is the E terminal of the ferry service to Saint-Siméon (8.34); there is also a marina within the harbour.

- 2 The city of Rivière-du-Loup, situated close within the river entrance, had a population of 14 345 in 1998; there are several industries and pulp mills in the city.

8.95

- 1 **Port limits.** The N and S limits extend WNW for a distance of 2 miles from points on the coast 2 miles NNE and 5 miles SSW of Pointe de la Rivière du Loup. The W limit lies about 2 miles offshore.

Limiting conditions

8.96

- 1 **Tidal levels.** Mean spring range about 4.0 m; mean neap range about 2.1 m. For further information see *Admiralty Tide Tables Volume 2*.

Arrival information

8.97

- 1 **Radio station.** Rivière-du-Loup Canadian Coast Guard radio station is situated near Notre-Dame-du-Portage (8.110), 5½ miles SSW.

8.98

- 1 **Outer anchorage.** There is anchorage in 7 to 9 m off Pointe de la Rivière du Loup. It is sheltered from all but N winds, and the holding ground is very good; there are depths of 7.1 m to within about 2 cables of the pier-heads.
- 2 A spoil ground, which is indicated on the charts, is centred about 1¾ miles NNW of the point.

Harbour

8.99

- 1 **General layout.** The ferry terminal at the point is sheltered by a L-shaped public wharf to the S. Within this area a boulder breakwater protects a marina situated in the inner part of the harbour.

8.100

- 1 The bay E of the point dries nearly right across, but there is a channel, navigable by small craft at HW, as far as the bridge at Fraserville, the N part of the city of Rivière-du-Loup, a distance of about 1¼ miles.

8.101

- 1 **Tidal streams.** Off Rivière du Loup, the out-going tidal stream sets strongly around the bay and along the S side of the public wharf. At the end of the wharf, tide rips are generated with strong N winds.

Directions for entering harbour

8.102

- 1 **Pointe de la Rivière du Loup.** The approaches to the harbour and ferry terminal have been dredged to a depth of 4.6 m (2001) for a distance of about 350 m from the head of the ferry berth, but depths may be reduced by silting.

The ferry terminal is approached from W, passing N of the head of the main breakwater.

Rivière du Loup. Local knowledge is necessary for approaching the mouth of Rivière du Loup.

2 Useful marks:

Pointe de la Rivière du Loup Light (square framework tower, 9 m in height) on the outer end of the ferry berth.

Conspicuous white oil storage tanks situated close NE of Pointe de la Rivière du Loup.

Basins and berths

8.103

- 1 **Pointe de la Rivière du Loup.** At the point the L-shaped public wharf, which extends 366 m from the shore, is in ruins and access is prohibited. Close N of the public wharf, a jetty extends 305 m from the shore, with a ferry berth 80 m long on its S side. The ferry berth is within the dredged area and is also liable to silting.
- 2 The public wharf is closed to navigation, access is prohibited and the port is no longer used for commercial shipping.

Port services

8.104

- 1 **Repairs:** minor repairs.
Other facilities: supplies; hospital.
Communication: airport 6 miles S.

Small craft

8.105

- 1 **Pointe de la Rivière du Loup.** A marina, protected by a breakwater is situated between the two wharfs in the inner part of the basin at Pointe de la Rivière du Loup. Due to silting depths may be less than shown on the chart, particularly at the entrance to the marina.
Pontoon berths, fuel and fresh water are available.

8.106

- 1 **Rivière du Loup.** The public wharf inside the mouth of the river has a berth, 92 m long, parallel to the stream.
The wharf is accessible to very small craft only and dries at LW and is situated upstream of the Trans-Canada Highway bridge. The river up to the wharf is not marked and depths are subject to change.

Adjacent islands

Chart 4783

Les Pèlerins

8.107

- 1 **General information.** Les Pèlerins (47°44'N, 69°43'W) comprise a group of five islands and some rocks, on the SE side of Chenal du Sud, from 7 to 12 miles SW of Pointe de la Rivière du Loup. They are separated from the mainland E of them by shoal ground, on which there are many boulders, only just covered. The main islands are:
- 2 Le Gros Pèlerin, the N and highest island of the group, is of grey rock, covered with turf, with stunted trees in the hollows. The ends of this island rise to rounded hills.
- Le Pèlerin du Milieu, about 4 cables SW of Le Gros Pèlerin, is partly wooded, and joined to a smaller island, Le Pèlerin du Jardin, close SW, by a drying reef.
- 3 Le Long Pèlerin, lying farthest offshore, is about 2 miles long and narrow. Its NE end is the highest part and is partially wooded. The remainder of the island is a ridge, with grey cliffs. There is a light (8.79) near the SW end.

Le Petit Pèlerin is almost joined to the SW end of Le Long Pèlerin. It continues the ridge and grey cliffs of that island.

The islands are designated bird sanctuaries. See 1.91.
8.108

- 1 **Boat channels.** A channel, navigable by boats, lies between the island SW of Le Pèlerin du Milieu and the N end of Le Long Pèlerin. This channel is used occasionally by craft sheltering from W winds. Local knowledge is required.

Boats can also pass, at HW, through the gap between Le Long Pèlerin and Le Petit Pèlerin.

- 2 **Landing.** A small pier is situated on the E side of Le Long Pèlerin, with a reported depth of 0.9 m alongside at HW.

Îles de Kamouraska

8.109

- 1 **General information.** Îles de Kamouraska are a group of five islands, extending about 3½ miles SSW from Grande Île (47°37'N, 69°52'W). The main islands are:

Grande Île, which is partly wooded, with a light (8.79) near its NE end.

Île Brûlée, which is situated about 7 cables SW of Grande Île, and is wooded.

- 2 Both islands are very steep-to on their NW sides. The islands are joined to the mainland by drying flats.

The islands are designated bird sanctuaries. See 1.91.

Small craft

Notre-Dame-du-Portage

8.110

- 1 **General information.** Notre-Dame-du-Portage (47°46'N, 69°37'W) is a coastal village with a population of 1193 in 1998. The church is not easily identified. Two radio masts and an aero light are located farther inland.

Coast radio station. Rivière-du-Loup Canadian Coast Guard radio station is situated 5 cables SE of the church.

- 2 **Berth.** A public pier, 192 m long, extends NW from the coast at the village. The pier is in ruins and access is prohibited, however a ramp at the inner end on the NE side is still in use.

Other names

8.111

- 1 Dumais, Île (47°37'N, 69°48'W).
Ferme, Îlots de la (47°37'N, 69°48'W).
Patins, Île aux (47°36'N, 69°52'W).
Providence, Île de la (47°36'N, 69°52'W).
Taché, Cap (47°35'N, 69°52'W).

CHENAL DU SUD — ÎLES DE KAMOURASKA TO TRAVERSE DE SAINT-ROCH

General information

Charts 4783, 4784

Route

8.112

- 1 Chenal du Sud continues on the SE side of the river from abreast Îles de Kamouraska (47°36'N, 69°53'W) to the N end of Traverse de Saint-Roch, about 17 miles SW.

Topography

8.113

- 1 **Îles de Kamouraska** are described at 8.109.

Cap au Diable (47°32'N, 69°56'W) is low and sandy, but a round wooded hill 70 m high, close S, is distinctive. There are several bare islets on the drying coastal bank, within 5 cables N and W of the cape.

- 2 The coast between Cap au Diable and Pointe Saint-Denis, about 3 miles SW, is fringed by a drying reef, covered with sand and mud, extending up to 8 cables offshore; numerous rocky patches, with depths of from 1 to 2 m over them, lie outside the drying reef.

8.114

- 1 **Pointe Saint-Denis** is the NE extremity of a low wooded promontory.

Pointe aux Orignaux, about 1¼ miles farther SW, is the SW extremity of the same promontory, which is joined to the mainland by low, flat ground.

8.115

- 1 **Pointe de la Rivière Ouelle**, 4 miles above Pointe aux Orignaux, is prominent, rising gradually to an elevation of 33 m at the W summit of a partially wooded ridge that extends some distance inland.

8.116

- 1 Several prominent isolated hills lie SW of Montagne du Collège, (47°22'N, 70°03'W), a prominent rounded hill rising to an elevation of 110 m. A remarkable truncated cone, 216 m in elevation, lies E of La Pocatière, a town on the N slopes of Montagne du Collège.

Tidal streams

8.117

- 1 **In-going** stream in the vicinity of Îles de Kamouraska is about 1 kn, increasing to the SW towards Traverse de Saint-Roch.

Out-going stream weakens along the edge of the banks off the SE shore, as described at 8.75.

- 2 Hourly predictions of the tidal streams at a position 5 miles WNW of Cap au Diable are tabulated on the chart.

8.118

- 1 The table below shows the time of slack water, relative to the time of HW and LW at Pointe au Père (48°31'N, 68°28'W), and the duration of the in-going and out-going streams:

<i>Locality</i>	<i>Turn to in-going stream After LW</i>		<i>Duration of in-going stream</i>		<i>Turn to out-going stream After HW</i>		<i>Duration of out-going stream</i>	
	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>
Pointe aux Orignaux (mid- channel)	3	50	5	35	3	20	6	50

Principal marks

8.119

- 1 **Landmark:**

A very remarkable, isolated hill (elevation 150 m) (47°32'N, 69°48'W), with a cross on its summit.

Major lights:

Pointe au Pic Light (47°37'N, 70°08'W) (8.48).

Cap aux Oies Light (47°29'N, 70°14'W) (8.48).

Directions

(continued from 8.80)

8.120

- 1 From a position about 6 cables NW of Grande Île (47°37'N, 69°52'W) the track through Chenal du Sud continues SW, parallel to the outer edge of the coastal reefs and shoals, which extends up to 2 miles from the SE shore in places, passing (with positions from Grand Île Light):
About 2¼ miles NW of Cap au Diable (6 miles SSW) (8.113), thence:
- 2 About 2 miles NW of Pointe aux Orignaux (10½ miles SSW) (8.114), on which there is a large hotel, thence:
About 5 cables SE of Banc des Anglais (14 miles SW) (8.43), thence:
NW of the outer edge of shoal ground, with depths of less than 5.5 m over it, extending almost 5½ miles from the head of Anse de Sainte-Anne (47°22'N, 70°07'W), thence:
- 3 The track then leads to a position about 5 miles W of Pointe de la Rivière Ouelle (14 miles SSW) (8.115).
- 4 **Caution.** This section of Chenal du Sud is not recommended to commercial traffic.

Caution. Tidal stream. The first of the in-going tidal stream (8.117) sets directly towards the coastal bank W of Pointe de la Rivière Ouelle.

8.121

- 1 **Clearing bearing.** The line of bearing 045°, astern, of the SE side of Grande Île (8.109), well open of the NE end of Île Brûlée (8.109) passes, in depths of not less than 5.5 m, NW of the coastal shoals as far S as a position abreast Pointe aux Orignaux.
- 2 **Clearing bearing.** The line of bearing 056° of Cap au Diable (8.113) well open N of Pointe aux Orignaux (8.114) passes NW of the shoal ground W of Pointe de la Rivière Ouelle (8.115).

8.122

- 1 **Useful marks:**
Cross, prominent (elevation 33 m) on the summit of Île aux Corneilles (47°35'N, 69°53'W).
Church, with very distinctive spire, at Kamouraska (47°34'N, 69°52'W).
Church (spire; elevation 86 m) at Saint-Denis (47°30'N, 69°56'W) can be seen over the coastal ridge.
- 2 Church (prominent spire) and a large college (cupola) at La Pocatière (47°22'N, 70°02'W) (8.116).
Radio towers situated 2.2 miles SW of the church at La Pocatière.
(*Directions continue at 8.181*)

Anchorage and harbours**Anchorage off the south-east shore****8.123**

- 1 There is excellent anchorage, in 13 to 18 m, stiff mud, along the outer edge of the coastal bank between Îles de Kamouraska and Haut-fonds de Sainte-Anne (8.184), about 15 miles SW.

Kamouraska**8.124**

- 1 **General information.** Kamouraska (47°34'N, 69°52'W), a village with a population of 778 in 1998, is a summer resort. The church at Kamouraska (8.122) can be seen from a great distance.

- 2 **Anchorage.** There is good anchorage in 14 to 15 m, stiff mud, off Kamouraska. The best berth lies on the following lines of bearing:

Kamouraska church bearing 111°, open SW of Île aux Corneilles.

The SE side of Grande Île (8.109) bearing 042°, well open W of Île Brûlée (8.109).

8.125

- 1 **Berths.** Two public piers, which dry at LW, are situated close together, about 2½ cables SW of the church:
NW pier: length 165 m; depth at outer end 4 m at HW; a ramp is situated on the E side of the pier, near the inner end.
SW pier: L-shaped; length 110 m, with outer face 30 m long; depth at outer end 2.7 m at HW.
- 2 The SW pier is in a state of disrepair and the wreck of a vessel can be seen at LW, on the inner side of the SW pier. Both wharves dry at LW.

Anchorage off Pointe aux Orignaux**8.126**

- 1 There is good anchorage in 9 to 11 m, mud, about 1¼ miles NNW of Pointe aux Orignaux (47°29'N, 70°01'W), or closer in, according to draught.

Small craft**Anchorage north-east of Grande Île****8.127**

- 1 There is good anchorage for small craft, just on the edge of shoal ground, about 2½ cables NE of the NE point of Grande Île (47°37'N, 69°52'W). The anchorage is sheltered from winds between SE and SW, through S.

Local knowledge is required.

Baie de Kamouraska**8.128**

- 1 **General information.** Baie de Kamouraska (47°32'N, 69°55'W), entered between Kamouraska and Cap au Diable (8.113), about 3 miles SW, dries out completely.
The bay affords good shelter for small craft, which can lie on the mud.
- 2 **Directions.** From a position about 2 miles NNW of Cap au Diable, the alignment (105°) of the cross on the isolated hill (8.119), about 5 miles E of the cape, and Îlot Julien, 2 miles NE of the cape, leads into the bay, passing:
SSE of slate ridges extending SW from Île aux Corneilles (8.122), and:
- 3 NNE of slate ridges extending 1¼ miles NNE from Cap au Diable.

When clear of the dangers extending NNE from Cap au Diable, the track leads S, into the inner part of the bay.

Rivière Ouelle**8.129**

- 1 **General information.** Rivière Ouelle (47°25'N, 70°02'W) flows into the N end of Baie Sainte-Anne, close S of Pointe de la Rivière Ouelle (8.115).
The village of Rivière-Ouelle, with a population of 1313 in 1998, is situated by a bridge, about 2 miles up the river. The bridge has a vertical clearance of 6.2 m. An overhead cable with a vertical clearance of 4.6 m, spans the river close E of the bridge. A church with two spires stands in the village.
- 2 The river is navigable by small craft near HW to a small pier about 2 cables W of the bridge. A ruined pier, closed to traffic, is situated on the S bank, about 1½ miles from the entrance.

Directions. The channel passes S of an islet situated about 5 cables within the river mouth.

- 3 **Berth.** The small pier W of the bridge is reported to have a depth of 0.6 m alongside.

Other names

8.130

- 1 Harengs, Île aux (47°32'N, 69°55'W).
Iroquois, Pointe (47°28'N, 70°02'W).

CAP AUX OIES TO CAP BRÛLÉ

GENERAL INFORMATION

Charts 4784, 4785

Area covered

8.131

- 1 This section covers the passage up St Lawrence River, on the NW side, from Cap Aux Oies (47°29'N, 70°14'W) to Cap Brûlé (47°07'N, 70°43'W), about 31 miles SSW, and on the SE side from Pointe de la Rivière Ouelle (47°25'N, 70°04'W) to Pointe Saint-Thomas (46°59'N, 70°38'W), about 34 miles SW. The section is arranged as follows:
- 2 Chenal du Nord — Cap aux Oies to Cap de la Baie (8.135).
Chenal du Nord — Cap de la Baie to Cap Brûlé (8.160).
Chenal du Sud — Traverse de Saint-Roch to Le Pilier de Pierre (8.175).
Chenal du Sud — Le Pilier de Pierre to Pointe Saint Thomas (8.188).

Routes

8.132

- 1 Above Banc des Anglais (47°28'N, 70°09'W) (8.43), the river again divides into two navigable channels; Chenal du Nord continues to follow the NW shore, and Chenal du Sud lies towards the SE side of the river.

Traverse du Milieu (Middle Channel), lying in mid-river, SE of Île aux Coudres (47°24'N, 70°23'W), is shallow, intricate and difficult for general navigation; it is, therefore, not described further in this publication.

Topography

8.133

- 1 The high NW shore of the river continues from Cap aux Oies (47°29'N, 70°14'W), SW to Cap Brûlé (47°07'N, 70°43'W). The SE shore is lower and generally less bold.

Flow

8.134

- 1 The tidal streams in Chenal du Nord between Île aux Coudres and Cap Brûlé are stronger than in the corresponding parts of Chenal du Sud.

CHENAL DU NORD — CAP AUX OIES TO CAP DE LA BAIE

General information

Chart 4784

Route

8.135

- 1 Chenal du Nord continues to follow the NW side of the river from abreast Cap aux Oies (47°29'N, 70°14'W) to Cap de la Baie, about 13 miles SW, passing through Passage de l'Île aux Coudres, between Île aux Coudres and the NW shore.

Topography

8.136

- 1 The terrain along the NW shore is high, but well cultivated in places, even on the steep slopes of the mountains.

Baie des Éboulements, WSW of Cap Martin (47°28'N, 70°18'W) dries almost completely, as does Baie Saint-Joseph, 1 mile farther WSW. There is a well-defined landslip on the shore about 1½ miles WSW of Cap Saint-Joseph (47°27'N, 70°22'W).

- 2 Île aux Coudres is described at 8.152.

Submarine cables

8.137

- 1 There are several submarine power cables laid across Passage de l'Île aux Coudres; between points on the N coast of the island and the mainland as shown on the chart. Mariners are advised not to anchor in their vicinity.

Spoil ground

8.138

- 1 There is a spoil ground 1 mile SW of Cap Martin (47°28'N, 70°18'W).

Traffic regulations

8.139

- 1 **Speed restrictions.** During the boating season out-going vessels must reduce their speed off the marina at l'Île aux Coudres (47°25'N, 70°24'W) in order to avoid damage to the marina facilities and to moored boats.

Tidal streams

8.140

- 1 In Passage de l'Île aux Coudres, the tidal stream turns to in-going approximately 1 hour before the time of LW at Québec, first setting up the S side. There is an hour of variation in the time of the LW slack within the limits of the passage.

The turn to out-going occurs more sharply at 20 to 45 minutes before the time of HW at Québec.

- 2 The in-going and out-going streams attain rates of 4 kn and almost 6 kn, respectively, in the summer season, with average tides. A maximum rate of 7 kn may be encountered when out-going rates are stronger in the spring season. The out-going tidal stream sweeps strongly around Baie Saint-Paul (47°25'N, 70°29'W) (8.149), making a strong tide-rip which is dangerous for small craft.

- 3 During the greater part of the out-going tidal stream, there is a decidedly N flow over the whole breadth of the channel opposite Cap à Labranche, the W extremity of Île aux Coudres, continuing toward the N shore in the general vicinity of Cap aux Corbeaux and the leading lights 1¼ miles NE.

See tidal information tabulated on the chart.

Principal marks

8.141

- 1 **Major lights:**

Cap aux Oies Light (47°29'N, 70°14'W) (8.48).
Pointe de la Prairie Light (red pile, white top) (47°25'N, 70°26'W).

Directions (continued from 8.54)

Cap aux Oies to Cap aux Corbeaux 8.142

- 1 From a position 1½ miles SE of Cap aux Oies (47°29'N, 70°14'W), the track leads WSW through Chenal du Nord into Passage de l'Île aux Coudres, passing:

About 1 mile SSE of Cap Martin, a conspicuous, sharp, projecting cliff situated 3 miles WSW of Cap aux Oies, thence:

In mid-channel SSE of Cap-Saint-Joseph, a promontory faced by sand cliffs, situated 3 miles farther WSW, thence:

- 2 Between Pointe de la Prairie Light (8.141), situated on the NW edge of La Grande Batture (47°25'N, 70°26'W), a drying bank extending 6 cables off the NW coast of Île aux Coudres, and Cap aux Corbeaux, 1¼ miles NW.

K65 Light-buoy (port hand), moored about 2 cables NW of Pointe de la Prairie Light, marks the SE side of the channel.

8.143

- 1 **Caution.** In the W part of Passage de l'Île aux Coudres, from the vicinity of Cap aux Corbeaux Leading Lights (8.145), to a position abreast Cap à Labranche, there is a danger of vessels outward-bound colliding with inward-bound vessels by being carried across the bows of the latter by the strength of the out-going tidal stream.

- 2 **Clearing marks.** The alignment (063°), astern, of Cap Martin and Cap aux Oies passes NW of the outer edge of La Grande Batture.

8.144

- 1 **Useful marks:**

Church, prominent (spire; elevation 331 m) at Les Éboulements (47°29'N, 70°19'W).

Cap Saint-Joseph Light (white framework tower, red bands, 15 m in height) (47°27'N, 70°22'W) on the outer end of the pier (8.148).

- 2 Île aux Coudres Pier Light, on ferry ramp structure superstructure on the outer end of the wharf (8.156) at Pointe des Roches (47°25'N, 70°24'W). Cap aux Corbeaux Front Light (47°26'N, 70°26'W), visible on W bearings.

Cap aux Corbeaux Rear Light (about 2 cables NNE of the front light), visible on W bearings.

Cap aux Corbeaux to Cap de la Baie 8.145

- 1 **Cap aux Corbeaux Leading Lights:**

Front light (orange rectangle on framework tower, 30 m in height) (47°26'N, 70°26'W), on the N shore, about 1¼ miles ENE of the cape.

Rear light (similar construction and tower, 8 m in height) (375 m from front light).

- 2 The alignment (024°), astern, of these lights leads out of Passage de l'Île aux Coudres, into the continuation, SSW, of Chenal du Nord, passing:

5 cables WNW of Pointe de la Prairie Light, thence:

In mid-channel, ESE of Le Petit-Claude, a group of boulders, higher than others in its vicinity, extending about 6 cables SE from Cap de la Baie (47°23'N, 70°30'W), and:

- 3 WNW of the N part of Banc de l'Île aux Coudres, extending SSW from Île aux Coudres.

8.146

- 1 **Useful mark:**

Church (two spires) (47°26'N, 70°30'W) at the town of Baie-Saint-Paul (8.149) is visible from some sections of the channel.

(Directions continue at 8.166)

Anchorage and harbours

Anchorage south-west of Cap aux Oies

8.147

- 1 There is good anchorage in about 13 m, sheltered from N winds, with Cap aux Oies Light bearing 054°, distant 1.7 miles. This position is indicated on the chart.

The tidal streams are irregular and occasionally strong in this anchorage, especially if the vessel is anchored too far out.

Chart 4784 plan Saint-Joseph-de-la-Rive

Cap Saint-Joseph

8.148

- 1 **General information.** Cap Saint-Joseph (47°27'N, 70°22'W) is the N terminal of the vehicle and passenger ferry service to Pointe des Roches on Île aux Coudres. The ferry route is shown on the chart.

- 2 **Berth.** A public pier extends 280 m SSE from the cape. The berth across the outer end of the pier is about 50 m in length. The approaches to the berth and the berths themselves are dredged to a depth of 5.0 m (2001). A light (8.144) is exhibited near the W end of the berth. A second ferry facility is located about 65 m from the outer end on the W side. Mariners are warned that depths may be less than charted due to silting.

- 3 **Facilities:** ferry ramp at the outer end of the pier; a second ramp on W side; fresh water.

Chart 4784

Baie Saint-Paul

8.149

- 1 **General information.** Baie Saint-Paul (47°25'N, 70°29'W), entered between Cap aux Corbeaux and Cap de la Baie, about 3½ miles SW, dries out completely. Rivière du Gouffre and Rivière du Moulin flow into the N and W sides of the bay, respectively, but they are not navigable. The promontory at the head of the bay, between the two rivers, is wooded and rises to a prominent sand-hill, 9 m high.

- 2 The town of Baie Saint-Paul is situated near the bridge which crosses Rivière du Gouffre; the town had a population of 3765 in 1998.

8.150

- 1 **Directions.** From about 7 cables WSW of the ruined pier at Cap aux Corbeaux, the alignment (309°) of Marina Baie Saint-Paul Leading Lights leads towards the marina:

Front light (orange trapezium, black stripe, on black, white and orange framework tower, 3 m in height) (47°25'9N, 70°29'5W).

Rear light (similar construction and tower, 6 m in height) (28 m from front light).

- 2 The lights are visible on the leading line only and are privately maintained.

8.151

- 1 **Berths.** A public pier, 284 m long and 12 m wide, is situated at the S entrance point to Rivière du Gouffre. For safety reasons, mooring is prohibited indefinitely.

Facilities: ramp on the N side of the pier, near its inner end.

- 2 **Small craft.** Marina Baie Saint-Paul, operated by a private yacht club, is situated close NW of the public pier at Baie Saint-Paul (8.149). The marina comprises a small boat basin with pontoon berths.

Île aux Coudres

General information

8.152

- 1 Île aux Coudres extends nearly 6 miles SW from Pointe du Bout d'en Bas (47°26'N, 70°19'W). This point slopes down from a wooded hillock, 19 m high, and appears as an island from a short distance. A conspicuous hotel is situated near the point.

The N coast of the island rises steeply to wooded hills, 119 m high, S of which there is a cultivated valley. Cap à Labranche, the W extremity of the island, is a steep wooded bluff, 55 m high.

- 2 The points of land at the SW end of the island are at the bases of bold cliffs. La Butte à Cailla (not named on BA 4784) is a mound, 27 m (90 ft) high, situated about 1 mile SSE of Cap à Labranche. A wooded hillock, 12 m high, extends to Îlet d'en Haut, the SW point of the island; this hillock appears as an island from a short distance.

Anchorage

8.153

- 1 **Caution.** There are several submerged cables laid in this vicinity, some of which are abandoned; local knowledge is required before anchoring.

8.154

- 1 **Mouillage de la Prairie,** off the N coast of Île aux Coudres, about 3¼ miles W of Pointe du Bout d'en Bas, provides good anchorage, in depths of from 6 to 18 m, clay. The anchorage is sheltered from all winds and the holding ground is good, making this one of the most sheltered anchorages in the river.

The best berth is in about 10 m, near the middle of the bay; this position is indicated on the chart.

8.155

- 1 **Tidal streams.** In Mouillage de la Prairie, the in-going tidal stream is of longer duration than the out-going, flowing for 6h 20m, whereas the latter runs for only 6h.
- 2 The in-going stream at the anchorage is stronger than the out-going stream, its rate being about 4 kn at springs. The out-going tidal stream is deflected to a great extent by La Grande Batture (8.142), SW of the bay. Its rate for the first 2 hours is about 2 kn; it then slacks for about 5 minutes, so completely that a vessel will swing to the wind. Then the stream becomes stronger and regular during the remainder of the tide, its rate being about 3½ kn at springs.

Chart 4784 plan of Île aux Coudres

Berths

8.156

- 1 **Pointe des Roches** on the N coast of Île aux Coudres, 3 miles W of Pointe du Bout d'en Bas, is the S terminal of the ferry service to Cap Saint-Joseph (8.148) on the mainland. A row of conspicuous white oil tanks is situated near the ferry terminal.

- 2 A public pier extends about 120 m NW from the coast, with a depth of 5.3 m alongside the berth at the pier-head on the outer face. The SW face has a depth of 4.4 m alongside. A light (8.144) is exhibited from the ferry ramp structure at the outer end of the wharf.

Areas have been dredged (2001) to a depth of 5.3 m NE and 4.4 m SW of the pier. There is a charted depth of

5.1 m in the approaches to the ramp on the NE side of the pier. Berthing on the outer face and NE sides of the pier is limited to ferries only.

- 3 **Facilities:** movable ramp near centre of face; another movable ramp near inner end of pier, on NE side; shipyard 1 cable NE of public pier; shipyard has a slipway, capacity 1000 tonnes, and constructs and repairs small vessels up to 69 m in length.

8.157

- 1 **Small craft.** A marina, enclosed by breakwaters, with an entrance at its NE corner, is situated close SW of the pier. Mariners cannot enter the marina during the period 3 hours before to 3 hours after LW. Depths in the entrance may be reduced owing to continuous silting.

Small craft

Anchorage east of Cap aux Corbeaux

8.158

- 1 **Description.** There is restricted anchorage space for small craft, in depths of 9 m (30 ft), about 2.5 cables E of a ruined pier at Cap aux Corbeaux (47°25'5N, 70°27'4W). The anchorage lies between the N edge of the tidal stream and the coastal bank.

Local knowledge is required.

Other names

8.159

- 1 Antoine, Pointe à (47°22'N, 70°25'W).
Église, Anse de l' (47°22'N, 70°24'W).
Le Havre (a cove) (47°22'N, 70°26'W).

CHENAL DU NORD — CAP DE LA BAIE TO CAP BRÛLÉ

General information

Charts 4784, 4785

Route

8.160

- 1 Chenal du Nord continues to follow the W shore of the river from abreast Cap de la Baie (47°23'N, 70°30'W) to Cap Brûlé, about 18 miles SSW. The channel is bounded on the E side by the mid-river reefs and shoals that extend SSW from Île aux Coudres, and is marked by leading lights and buoys.

Topography

8.161

- 1 The shore SSW of Cap de la Baie rises steeply to the summits of high, wooded hills, which attain an elevation of 808 m) about 2 miles NW of Cap Maillard (47°15'N, 70°35'W). Several valleys divide these hills, the most marked being about 3 miles SW of Cap de la Baie.
- 2 There is a narrow strip of low, flat land at the foot of the hills, running from a position 1½ miles SW of Cap de la Baie to Grande-Pointe, about 6½ miles farther SSW. Numerous houses on this flat form the town of Saint-François-Xavier-de-la-Petite-Rivière (8.172).

Controlling depths

8.162

- 1 The channel SSW of Pointe d'Alliance (47°10'N, 70°40'W) has been dredged to 12.5 m, but due to silting there may be less water. Information concerning depths may be obtained from the Canadian Coast Guard, Waterways Development, Marine Programmes, 101 Blvd. Champlain, Québec, G1K 7Y7.

Natural conditions**8.163**

- 1 **Tidal streams.** The main channel in this section of the river is free from cross currents, except near the turn of the tide, but even then they are weak. The time of the turn from in-going to out-going streams is approximately the same over the whole of this reach, at about 25 minutes before HW at Québec. The time of LW slack along the NW shore is roughly, for the whole reach, 1 hour before the time of LW at Québec, but it is perhaps an hour earlier than this by the bank on the SE side opposite Cap Maillard, because of the in-going tidal stream coming up from Traverse du Milieu.

- 2 The rates of the in-going tidal streams vary from 3½ kn off Cap de la Baie to 2½ kn off Cap Brûlé, and corresponding out-going rates are 4½ kn and 2½ kn, with average tides.

See tidal stream information on the chart.

8.164

- 1 **Local weather.** At the beginning of winter the NW squalls off the mountains are heavy and frequent.

Conditions for anchorage**8.165**

- 1 Anchorage, generally, in this part of Chenal du Nord is not good, due to the foul bottom between Cap de la Baie and Cap Maillard, and the strong tidal streams. See 8.171 for anchorage on SE side of Chenal du Nord.

Directions

(continued from 8.146)

Cap de la Baie to Grande-Pointe**8.166**

- 1 From a position in mid-channel, 1.3 miles ESE of Cap de la Baie (47°23'N, 70°30'W) Chenal du Nord is marked for a further 6½ miles SSW by the alignment (024°), astern, of Cap aux Corbeaux Leading Lights (8.145), passing:
- 2 Between Bancs de la Baie (rocky flats, covered with mud and boulders), extending about 7 cables off the W shore in places, and Banc de l'Île aux Coudres (8.145) to the E, thence:
- 1½ miles ESE of Grande-Pointe (47°17'N, 70°34'W).

Grande-Pointe to Sault-au-Cochon**8.167**

- 1 **Banc de Cap Brûlé Downstream Leading Lights:**
Front light (orange rectangle, black stripe, on white dwelling, 7 m in height) (47°06'N, 70°42'W).
Rear light (white round tower, orange top, 16 m in height) (5½ cables from front light).
The lights are visible on the leading line only.
- 2 The alignment (213½°) of these lights leads in mid-channel for a distance of almost 5 miles, passing:
1¼ miles SE of Cap Maillard (47°15'N, 70°35'W) which rises to a conical hill, 240 m in elevation, prominent from NE and SW, thence:
NW of drying patches on the mid-river shoals, about 2¾ miles E of Sault-au-Cochon (47°12'N, 70°38'W), and:
- 3 SSE of Sault-au-Cochon, from which is exhibited Sault-au-Cochon Light (orange rectangle on framework tower, 8 m in height), on the shore near the village.

Sault-au-Cochon to Pointe d'Alliance**8.168**

- 1 **Cap Rouge Leading Lights:**
Front light (orange rectangle on framework tower, 11 m in height) (47°08'N, 70°42'W).
Rear light (similar daymark and tower, 8 m in height) (1025 m from front light).
The alignment (221¼°) of these lights leads through the channel for a distance of about 3½ miles, passing, (with positions from Pointe d'Alliance (47°10'N, 70°40'W)):
- 2 NW of Rocher de Neptune (47°10'N, 70°37'W), which has two heads, each about 1 m in height and an orange beacon, thence:
NW of a spoil ground (3 miles NNE) of 2½ miles in length, which lies close NW of drying banks on the SE side of the channel, thence:
6 cables SE of Pointe d'Alliance, on which there is an orange beacon, thence:
Between K92 (starboard hand) and K91 (port hand) Light-buoys moored 6 cables S of Pointe d'Alliance marking the entrance to the next reach.

Pointe d'Alliance to Cap Brûlé**8.169**

- 1 **Pointe Argentenay Leading Lights:**
Front light (square framework tower, 5 m in height) (47°01'N, 70°48'W), at Pointe Bellerive at the NE end of Île d'Orléans.
Rear light (framework tower, 34 m in height) (1.5 miles from front light).
The lights are visible on the leading line only.
- 2 The alignment (213½°) of these lights leads for a distance of 3½ miles, through the dredged and buoyed channel (8.162), passing:
Close ESE of Récifs de Longue Pointe, a rocky shoal with a least depth of 7.1 m over it, extending about 2 cables from the shore, 3 cables NE of Cap Gribane (47°08'N, 70°41'W), thence:
- 3 About 3 cables ESE of Cap Brûlé marked by Cap Brûlé Light (orange rectangle, black stripe, on red and white framework tower, 5 m in height) (47°07'N, 70°43'W).

8.170

- 1 **Useful mark:**
Church (spire) (47°18'N, 70°34'W) at Saint-François-Xavier-de-la-Petite-Rivière.
(Directions continue at 9.13)

Anchorage and harbours**Anchorage****8.171**

- 1 There is anchorage on the edge of the bank on the SE side of the channel, in depths of about 18 m.

Saint-François-Xavier-de-la-Petite-Rivière**8.172**

- 1 **General information.** The small town of Saint-François-Xavier-de-la-Petite-Rivière (Petite-Rivière) (47°18'N, 70°34'W) (population 811 in 1998) with a pier and a marina is situated on the W shore, 5 miles S of Cap de la Baie.

8.173

- 1 **Berth.** The head of the public pier is 61 m long, is subject to silting and dries at LW.
Marina with pontoon berths is located on the NW side of the pier.

Small craft

8.174

- 1 It is possible for small craft to land on two small shingle beaches SW of Cap Maillard (47°15'N, 70°35'W):
 Petit Abattis, 1 mile SW, and:
 L'Abattis, 1½ miles SW. There are several prominent houses at L'Abattis.
 Boats may also land at Pointe du Débarquement (Petit Débarquement) about 1 mile NE of Cap Gribane (47°08'N, 70°41'W).

CHENAL DU SUD — TRAVERSE DE SAINT-ROCH TO LE PILIER DE PIERRE

General information

Chart 4784

Route

8.175

- 1 Chenal du Sud enters the narrow passage of Traverse de Saint-Roch about 5½ miles WSW of Pointe de la Rivière Ouelle (47°26'N, 70°04'W), and continues to follow the SE side of the river to the vicinity of Le Pilier de Pierre, an offshore islet about 18 miles SSW.
 In bad weather, and in poor visibility, it may not be prudent to use Traverse de Saint-Roch, especially at night.
- 2 It is generally desirable to pass through Traverse de Saint-Roch with the in-going tidal stream, as the out-going stream is very strong.
- Caution.** This section of Chenal du Sud is not recommended to commercial shipping.

Topography

8.176

- 1 The SE shore, SW of Pointe Saint-Roch (47°18'N, 70°12'W), is low and composed of slate. It rises gradually, in a series of ridges, to a long wooded range from 4½ to 6 miles inland, and attains elevations of 305 to 610 m; there are houses along the shore.
- 2 Shoal ground, with depths of less than 5.5 m, extends almost 3½ miles from the coast at Pointe Saint-Roch, narrowing to 2 miles abreast Saint-Jean-Port-Joli, about 8½ miles SW.

Offshore features

8.177

- 1 **Les Piliers**, comprising Le Pilier de Pierre (47°12'N, 70°22'W) and Le Pilier de Bois, 1¼ miles WSW, are rocky islets, lying on the W side of Chenal du Sud.
- Îles aux Loups Marins**, lie near mid-river, about 3 miles NW of Les Piliers, towards the SW end of an extensive drying reef.

Tidal streams

8.178

- 1 The tidal streams in Traverse de Saint-Roch are the strongest in the lower St Lawrence River. The rate of the out-going tidal stream is 7 to 8 kn, and that of the in-going stream is 6 to 7½ kn. These rates decrease gradually up-river, until about 1½ miles below Haut-fond du Chenal (47°15'N, 70°19'W), where the out-going tidal stream attains a rate of 4½ kn at springs; the rate of this stream increases to 5¼ kn abreast Le Pilier de Pierre.
- 2 The times of slack water, relative to the time of LW and HW at Pointe au Père, and the duration of the tidal streams, are as follows:

Locality	Turn to in-going stream after LW	Duration of in-going stream	Turn to out-going stream after HW	Duration of out-going stream
	h	m	h	m

Mid-point
of Traverse
de
Saint-Roch
(47°22'N,
70°15'W)

3	55	5	45	3	35	6	45

South end
of Traverse
de
Saint-Roch
(47°20'N,
70°16'W)

3	50	5	25	3	15	7	00

- 3 Variations of up to 25 minutes in the times of the turn to the in-going tidal stream may occur under certain astronomical conditions. Daily predictions are published in the Canadian *St Lawrence and Saguenay Tide and Current Tables*.

8.179

- 1 **In-going** tidal streams begin much earlier in Chenal du Nord than in Chenal du Sud, and the first of the stream therefore comes from the N, setting in a S direction onto Hauts-fonds de Sainte-Anne (47°22'N, 70°13'W) and Hauts-fonds de Saint-Roch, 2 miles SW, but inclining gradually more towards the W until, at a quarter tide, it sets SSW fairly through Traverse de Saint-Roch. After half-tide the in-going stream sets more SW and, towards the end of the tide, still more W.

8.180

- 1 **Out-going** tidal streams set nearly in the contrary direction to the in-going stream; the first of the out-going stream sets off from Hauts-fond de Sainte-Anne and Hauts-fonds de Saint-Roch through the channels W of Haut-fond du Centre (47°23'N, 70°16'W), and N over the tail of that shoal.

Directions

(continued from 8.122)

Traverse de Saint-Roch

8.181

- 1 From a position about 5 miles W of Pointe de la Rivière Ouelle (47°26'N, 70°04'W), the track leads SSW through Traverse de Saint-Roch, a buoyed channel, 2½ cables wide at its narrowest point, for about 6 miles, passing (positions given from Pointe Saint-Roch (47°18'N, 70°12'W)):
 ESE of H68 Light-buoy (starboard hand) (6¾ miles N), thence:
 ESE of Haut-fond du Centre (4¾ miles NNW), a rocky shoal, thence:
 WNW of the outer edge of Hauts-fonds de Saint-Roch (3½ miles NW).

Traverse de Saint-Roch to Le Pilier de Pierre

8.182

- 1 From the SW end of Traverse de Saint-Roch, 3½ miles WNW of Pointe Saint-Roch (8.176), the track leads SSW through Chenal du Sud, passing:
 Between the mid-river shoals extending SW from Haut-fond du Centre, and shoal ground extending from the SE shore, thence:
 2 Through the passage, only 2½ cables wide, ESE of Haut-fond du Chenal, a narrow shoal on the NW

edge of the channel, about 2½ miles NW of Saint-Jean-Port-Joli Pier-head Light (47°13'N, 70°17'W) (8.183), thence:

About 2½ cables ESE of Roche à Veillon, a bare, steep, rocky islet lying 3 cables SE of Le Pilier de Pierre (47°12'N, 70°22'W); Roche à Veillon is marked by H98 Light-buoy (starboard hand) moored close SE.

Useful marks

8.183

- 1 Church with two small spires at Saint-Roch-des-Aulnaies (47°19'N, 70°11'W). Two silos (47°19'N, 70°08'W) at Village des Aulnaies. There are three further silos located about 1 mile NE of the village. Church (two spires) at Saint-Jean-Port-Joli (47°13'N, 70°16'W).
- 2 Saint-Jean-Port-Joli Pier-head Light (red framework tower, white bands, 5 m in height) (47°13'N, 70°17'W), exhibited from 15th April to 10th December.
Le Pilier de Pierre Light (grey round tower, 10 m in height) (47°12'N, 70°22'W), exhibited from 15th April to 10th December.
(*Directions continue at 8.191*)

Anchorage and harbours

Hauts-fonds de Sainte-Anne

8.184

- 1 There is anchorage off Hauts-fonds de Sainte-Anne (47°22'N, 70°13'W), in depths of about 11 m, up to the NE entrance to Traverse de Saint-Roch. The ground is better and the tidal streams are less than on the shoal ground NE of Haut-fond du Centre.
Anchorage farther SW in Traverse de Saint-Roch is not recommended, due to the strength of the tidal streams and unreliable holding ground.

South of Traverse de Saint-Roch

8.185

- 1 Anchorage S of Traverse de Saint-Roch is not recommended until above Anse Port Joli (47°11'N, 70°19'W).

Small craft

Saint-Roch-des-Aulnaies

8.186

- 1 **General information.** Saint-Roch-des-Aulnaies (47°19'N, 70°11'W) is a coastal village, with a population of 1073 in 1998. A church (8.183) stands close to the shore.
Berth. A L-shaped public pier, with an outer face 58 m long, extends from the shore 3 cables E of the church. The pier dries at LW.
Saint-Jean-Port-Joli
8.187
General information. Saint-Jean-Port-Joli (47°13'N, 70°16'W) is a coastal town, with a population of 3 414 in 1998. A church (8.183) stands in the town.

Berth. The public pier, 216 m long, with a depth of 0.3 m alongside its outer end, extends from the shore, SW of the church. A strong current during the ebb at the end of the pier may hamper the approach. The wharf is in ruins and berthing is not permitted. Works were in progress (2001) on a breakwater extension on the NE arm of the pier.

- 2 A storage area is situated near the inner end of the pier. A light (8.183) is exhibited from the pier-head.

Marina. A marina, protected by a breakwater lies SW of the public pier.

CHENAL DU SUD — LE PILIER DE PIERRE TO POINTE SAINT-THOMAS

General information

Chart 4785

Route

8.188

- 1 Chenal du Sud continues SW from abreast Le Pilier de Pierre (47°12'N, 70°22'W) for about 18 miles to the vicinity of Pointe Saint-Thomas (46°59'N, 70°38'W), passing through Chenal de Beaujeu, Chenal de Beaujeu Ouest (47°04'N, 70°31'W), and Chenal Saint-Thomas (47°01'N, 70°36'W).

Topography

8.189

- 1 From abreast Le Pilier de Pierre to the city of Montmagny, 15 miles SW, the terrain continues low, with houses along the shore, as described at 8.176.
The SW part of the coast is bordered by a drying bank which extends 2 cables from Cap Saint-Ignace (47°03'N, 70°28'W), and runs into Banc de Saint-Thomas (8.197), about 4 miles farther SW, where it extends fully 1¾ miles from the shore. The HW line near Montmagny is receding as it is eroded by ice and sea, but the LW line is not much affected.
- 2 A large white barn, very noticeable from N, is situated at the NE end of Île aux Oies (47°09'N, 70°27'W) (8.206).
Île aux Grues (47°04'N, 70°32'W) is described at 8.208.

Tidal streams

8.190

- 1 The chart is the best guide for the directions and rates of the tidal streams.
The following table gives the times of slack water, relative to the times of HW and LW at Québec, and the durations of the tidal streams:

Locality	Turn to in-going stream after LW		Duration of in- going stream		Turn to out- going stream after HW		Duration of out- going stream	
	h	m	h	m	h	m	h	m
L'Îlet-sur-Mer (47°08'N, 70°22'W)	1	20	5	30	0	55	6	50
	before LW				before HW			
Grosse Île (47°02'N, 70°40'W)	0	20	5	10	0	10	7	10
	after LW				after HW			

Directions*(continued from 8.183)***Le Pilier de Pierre to Chenal de Beaujeu****8.191**

- 1 From a position 6 cables SE of Le Pilier de Pierre Light (47°12'N, 70°22'W) (8.183), the track leads SW through Chenal du Sud, on the SE side of the river, passing:
SE of a patch with a depth of 5.8 m over it lying 1¾ miles SSW of Le Pilier de Pierre Light, thence:
- 2 About 4 cables SE of Récif de l'Île aux Oies, a drying ledge of rock, with several small heads always above water, extending SW for 1¾ miles from a position 2¼ miles SW of Le Pilier de Pierre; its highest point is a rugged conical mound, 8.8 m high, near the SW end, and an isolated rock that dries 0.8 m lies 5 cables from the NE end, thence:
- 3 About 3½ cables SE of Rocher Dunscomb, lying 8 cables SSE of the front leading light (8.192), on Rocher à l'Hôpital (47°08'N, 70°28'W), thence:
Into Chenal de Beaujeu, NW of Banc de Beaujeu (47°05'N, 70°29'W), a narrow shoal of sand and gravel over slate, marked by Beaujeu Light-buoy (N cardinal) (marked BEAUJ), moored close N of its shallowest part, and:
- 4 SW of Roches à Zéphirin-Saint-Pierre, (Pilots Rock) which dries 4.8 m, on the outer edge of the drying bank, 2¾ miles SSW of Rocher à l'Hôpital.

Chenal de Beaujeu Ouest**8.192**

- 1 **Route.** This channel, E of Île aux Grues (47°04'N, 70°32'W) (8.208), has a width of about 213 m and a least charted depth of 7.2 m.

Rocher de l'Hôpital Leading Lights:

- Front light (orange trapezium, black stripe, on framework tower, 6 m in height) (47°08'N, 70°28'W).
- 2 Rear light (similar construction, inverted, on red framework tower, white bands, 19 m in height) (9 cables from front light).

The lights are visible on the leading line only and are seasonal.

The alignment (025½°), astern, of these lights leads through Chenal de Beaujeu Ouest, passing:

- 3 SE of the drying reef extending about 1½ cables from Pointe Lemoyne-MacPherson, the E point of Île aux Grues, and:
NW of the SW end of Banc de Beaujeu (8.191).
A spoil ground lies 1.7 miles SSE of Pointe Lemoyne-MacPherson.

Chenal de Beaujeu Ouest to Pointe Saint-Thomas**8.193**

- 1 **Chenal de Beaujeu Ouest to Pointe aux Pins.** From a position at the SW end of Chenal de Beaujeu Ouest, about 7 cables NE of Île aux Grues Wharf Light, the channel leads SW around the S side of Île aux Grues, passing:
About 3 cables off La Cédrière, the SE point of Île aux Grues, thence:
- 2 About 6 cables S of Pointe aux Pins, the SW point of Île aux Grues, on which there is a light (8.196).
Caution. Four submarine power cables are laid across the channel between the S side of Île aux Grues and the S shore. They are shown on the chart and mariners are cautioned not to anchor in the vicinity.

8.194

- 1 **Chenal Saint-Thomas.** From S of Pointe aux Pins, the route leads SW through Chenal Saint-Thomas, passing:
Between Rocher Wye, situated 7 cables N of Pointe Saint-Thomas, marked on its NW side by H121 Light-buoy (port hand), and Banc Empress which lies along the N side of the channel, NW of Pointe Saint-Thomas, thence:
To a position at the SW end of Chenal Saint-Thomas, about 9 cables NW of Pointe Saint-Thomas.
- 2 **Caution.** Mariners are advised that depths exist in Chenal Saint-Thomas that are shoaler than charted, and mariners are advised to navigate with caution in the area.

Clearing bearing**8.195**

- 1 The line of bearing 037°, astern, of Pilier de Pierre Light, just open SE of the highest part of Récif de l'Île aux Oies, passes close SE of Rocher Dunscomb.

Useful marks:**8.196**

- 1 Black cross, conspicuous (47°08'N, 70°21'W), standing on a cliff.
Church (two spires) 1 mile SW of the cross mentioned above.
- 2 Chenal de Beaujeu Light (square block, 2 m in height) (47°04'N, 70°31'W), standing on the shoal ground off the E side of Île aux Grues. The light is surmounted by a helicopter landing pad. One daymark faces NE, and the other faces S. The light is maintained from 15 April to 10 December.
- 3 Île aux Grues Light (on wharf structure, 9 m in height) (47°03'N, 70°32'W).
Pointe aux Pins Light (orange rectangle on framework tower, 9 m in height) (47°02'N, 70°35'W).
- 4 Radio tower (red lights) (47°00'N, 70°31'W).
Beacon (orange daymarks, on red framework tower, 12 m in height) on Pointe à Lacaille (46°59'.4N, 70°35'.2W).
Beacon (similar to that listed above) on Pointe Saint-Thomas (46°58'.8N, 70°37'.7W).
Chimney (46°58'.5N, 70°35'.9W).
(Directions continue at 9.26)

Montmagny**General information****8.197**

- 1 **Position and description.** Montmagny (46°59'N, 70°33'W) is an industrial city, with a population of 11 830 in 1998. The city lies at the confluence of the rivers Bras-Saint-Nicolas and Rivière du Sud. Rivière du Sud, blocked by a dam about 9 m high, empties into Le Bassin, a small cove, and discharge through a buoyed channel, which nearly dries, across Banc de Saint-Thomas, (sand, mud and stones). This bank extends about 1½ miles offshore and dries almost to its N edge, beyond which some boulders are visible at LW.
- 2 Due to changing conditions buoys may be relocated to indicate the preferred channel for boats and small car ferry. Also due to changing conditions of the sea bed the Montmagny Leading Lights may not indicate the centre of the channel.
Montmagny is the mainland terminal for the ferry service to Île aux Grues, 4 miles N. The usual ferry route is shown on the chart.
Local knowledge is required.

Directions**8.198**

- 1 The harbour is entered on the alignment ($169\frac{1}{2}^\circ$) of Montmagny Leading Lights:

Front light (orange rectangle, black stripe, on framework tower, 6 m in height), on the outer end of the south public pier.

Rear light (similar construction and tower, 8 m in height) (92 m from front light).

The lights are visible on the leading line only.

- 2 **Caution.** The alignment must not be used within about 7 cables of the wharf. Stakes fitted with daymarks should be followed, which lead to the public wharf at Montmagny through a narrow and tortuous channel.

8.199

- 1 **Useful marks:**

Church (spire) ($46^\circ 59'N$, $70^\circ 34'W$) in Montmagny.

Beacon ($46^\circ 59'7N$, $70^\circ 32'9W$) on Pointe aux Oies, the NE entrance point to Le Bassin.

Berths**8.200**

- 1 There are two public wharves at Montmagny:
At the W entrance point to Le Bassin. A L-shaped wharf, with outer face 61 m long which dries at LW. This is the ferry berth when tides permit.
On the W side of Le Bassin, just below the dam. A wharf 147 m long, which dries at the outer end.

Port services**8.201**

- 1 **Repairs:** slipway (capacity 75 tonnes) on SE shore of Le Bassin; vessels up to 21 m in length can be repaired.

Other facilities: hospital; post office.

Supplies: diesel fuel and gasoline are available by road tanker.

Small craft**8.202**

- 1 A marina, with a pontoon, 79 m long, and a launching ramp is located on the NE shore of Le Bassin. A large campsite is situated nearby.

Anchorage and small craft harbours**Anchorage off the south-east shore****8.203**

- 1 There is good anchorage along the edge of the bank ($47^\circ 12'N$, $70^\circ 22'W$) off the SE shore, from a position SE of Le Pilier de Pierre to a point abreast Île aux Oies about $3\frac{1}{2}$ miles SW. The holding ground is stiff clay, and so good that it is sometimes difficult to weigh anchor.

Port-Joli**8.204**

- 1 **General information.** Port-Joli ($47^\circ 11'N$, $70^\circ 18'W$), at the mouth of a stream of that name, admits small craft at about half-tide.

Trois-Saumons**8.205**

- 1 **General information.** Trois-Saumons, about 1 mile SW of Port-Joli, at the mouth of a stream of that name, admits small craft at about half-tide. A large sawmill stands near the river mouth. Local knowledge is required.

The river contains a marina on the S side of the river below a bridge, with a vertical clearance of 1.2 m, and is

accessible at HW. An overhead cable with a vertical clearance of 4.9 m lies about $1\frac{1}{2}$ cables within the entrance of the river, close downstream of the bridge.

Adjacent islands**Île aux Oies****8.206**

- 1 **General information.** Île aux Oies ($47^\circ 09'N$, $70^\circ 27'W$) is wooded and hilly; two ranges of hills, separated by a valley, run NE-SW along the length of the island. Two rounded summits rise to elevations of 62 m at the SW end of the SE range. The NW range rises to an elevation of 51 m, and falls in cliffy banks on the seaward side. A chain of hillocks at its SW end, on which there are several prominent houses, appear like islands from a distance.

8.207

- 1 **Batture de l'Île aux Oies** extends $4\frac{1}{2}$ miles SW from the SW end of Île aux Oies, and connects it with Île aux Grues. With spring tides the meadows on Batture de l'Île aux Oies are only just above water; they yield a large quantity of hay, which is shipped to Québec and other places on the shores of St Lawrence River. At certain times of the year haystacks on the meadows resemble small houses when seen from a distance.

Île aux Grues**8.208**

- 1 **General information.** Île aux Grues is generally flat in outline, its greatest elevation being 40 m near its SW end. The lower parts of the land are cultivated, but the summit and the SW slope are wooded. There is a prominent house with outbuildings at the NE end of the island, and a number of beacons, used for placing buoys, are situated on the island.

8.209

- 1 **Berth.** A public pier, 220 m long, with a least depth of 3.3 m alongside its outer end, is situated on the E side of the island, 2 miles NE of Pointe aux Pins, the SW extremity.

A light (8.196) is exhibited from a structure on the pier-head.

- 2 **Facilities:** ramp and mechanical hoist at the outer end of the pier; the mobile ramp is used by the ferry that plies between Île aux Grues and Montmagny.

La Grosse Île**8.210**

- 1 **General information.** La Grosse Île ($47^\circ 02'N$, $70^\circ 40'W$) is the highest of a group of islands extending W from the SW end of Île aux Grues; it rises to an elevation of 65 m. It was at one time the quarantine station, and the old hospital, a red brick building situated on the SE coast of the island, about $2\frac{1}{2}$ cables from the NE end, is distinctive. A church with a small spire, situated about 4 cables SW of the hospital, is only visible from E and W. A brown church stands on rising ground about 3 cables farther SW.

- 2 La Grosse Île is a national historic site. It is managed by Parks Canada and the access to this protected area is under regulations.

8.211

- 1 **Anchorage.** There is anchorage in depths of 9 to 11 m between Haut-fond de la Grosse Île, about 4 cables SE of La Grosse Île, and Batture Sainte-Marguerite (slate; parts awash at LW), about 5 cables farther E. This is one of the best anchorages in the area for riding out an E gale.

- 2 **Leading marks.** The alignment (021°) of the SW extremity of Île la Sottise (47°02'N, 70°39'W) and the NW extremity of Île à Deux Têtes, 2 miles NNE, leads to this anchorage.

8.212

- 1 There is also a confined anchorage between La Grosse Île and Haut-fond de la Grosse Île. A rock, awash, lies 3 cables NE of the public pier (8.213). However, anchorage farther NE, in Passage de la Quarantaine, is preferable.
- 2 **Caution.** Between La Grosse Île and Île aux Grues there are numerous islets separated by narrow passages, including Passage de la Quarantaine, which lie at the SW end of Chenal Traverse du Milieu. These fairways are strewn with drying or awash reefs and the out-going tidal streams are quite strong, making navigation hazardous. Local knowledge is required when navigating in this vicinity. Chenal du Sud is not recommended to commercial shipping.

8.213

- 1 **Berth.** A public pier 153 m long, with a depth of 6.1 m alongside its outer end, is situated on the SE coast of La Grosse Île, 3 cables from the S extremity of the island. There is a ramp on each side of the pier.
- 2 Access is restricted to vessels having a permit from Parks Canada. Mooring is prohibited to all other boats.

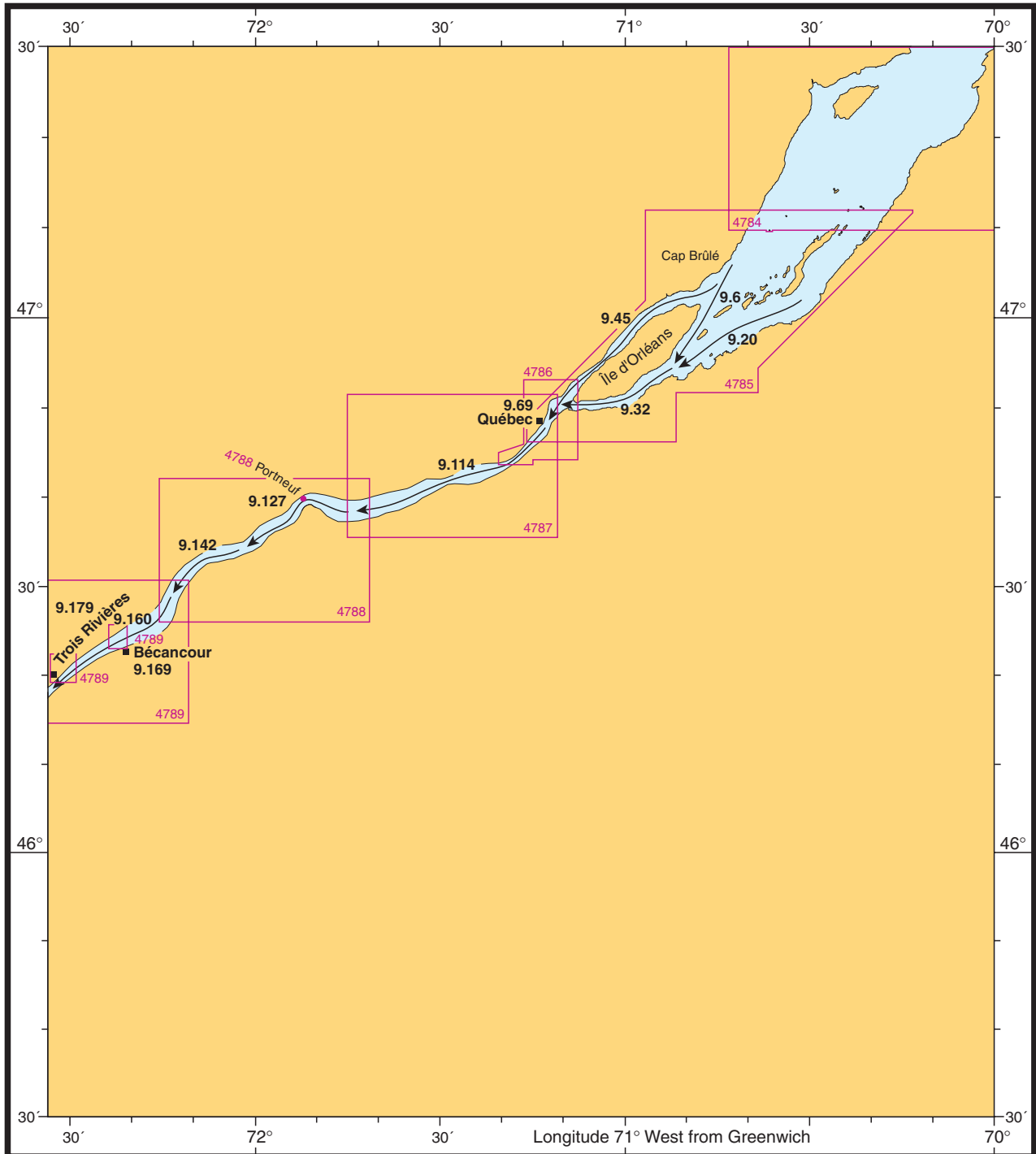
Other names

8.214

- 1 Canot, Île au (47°05'N, 70°34'W).
 Cheval, Île du (47°03'N, 70°35'W).
 Durand, Île à (47°04'N, 70°36'W).
 Grêlons, Rocher aux (47°08'N, 70°27'W).
 Grues, Barre de l'Île aux (47°02'N, 70°36'W).
 Îslet-sur-Mer, l' (47°08'N, 70°22'W).
 Longue, Île (47°03'N, 70°35'W).
 Patience, Île (47°03'N, 70°40'W).
 Pilier du Milieu, Le (47°12'N, 70°23'W).
 Sainte-Marguerite, Île (47°02'N, 70°38'W).



Chapter 9 - St Lawrence River - Cap Brûlé to Trois Rivières



October 2003

CHAPTER 9

ST LAWRENCE RIVER — CAP BRÛLÉ TO TROIS-RIVIÈRES

GENERAL INFORMATION

Charts 4785, 4787, 4788, 4789

Scope of the chapter**9.1**

- 1 This chapter covers the St Lawrence River from Cap Brûlé (47°07'N, 70°43'W) to Trois Rivières (46°20'N, 72°33'W) about 95 miles up-river, including the major ports of Québec and Trois-Rivières. It is arranged as follows:

Cap Brûlé to Québec (9.5).

Québec to Trois-Rivières (9.108).

Pilotage**9.2**

- 1 Pilotage is compulsory throughout this area.

Traffic regulations**9.3**

- 1 **Vessel Traffic Services Centres** at Québec and Montréal exercise mandatory control over shipping in the river. See 1.27 and *Admiralty List of Radio Signals Volume 6 (5)* for full information. The reporting points are shown on the charts.

Speed. See 1.89 concerning speed restrictions in St Lawrence River above Québec.

Rescue**9.4**

- 1 A Canadian Coast Guard search and rescue cutter operates between Québec and Île d'Anticosti from May to November. See 1.105 for further information.

CAP BRÛLÉ TO QUÉBEC

GENERAL INFORMATION

Chart 4785

Area covered**9.5**

- 1 This section covers St Lawrence River from Cap Brûlé to Québec and is arranged as follows:

Cap Brûlé to Saint-Jean (9.6).

Pointe Saint-Thomas to Saint-Jean (9.20).

Saint-Jean to Québec (9.32).

Chenal de l'Île d'Orléans (9.45).

Port of Québec (9.69).

The coast between Cap Tourmente and Pointe aux Prêtres, about 3½ miles SW, is low, the mountain range rising some distance inland.

- 2 **Île d'Orléans**, extending 17½ miles SW from Pointe Argentenay (47°01'N, 70°48'W), is generally well cultivated on the slopes and in the valleys; the summits are mostly wooded and rise to an elevation of about 152 m about 6 miles SW of Pointe Argentenay. The NE end of the island is wooded down to the coast.

See 9.21 for a description of features on the S shore of the river, SE of Île d'Orléans.

- 3 **Offshore islands.** Île au Ruau (47°01'N, 70°44'W) and Île Madame, 2 miles SW, are low, wooded and surrounded by reefs of slate.

Navigation**9.8**

- 1 A number of beacons stand on the shores of the mainland, on Île d'Orléans and the offshore islands; these are used for placing buoys and should not be taken as aids to navigation.

Controlling depths**9.9**

- 1 The channel has been dredged to a depth of 12.5 m over a width of 305 m.

Caution. Silting has been reported in the channel, and there may be less water than shown on the chart. For the latest information mariners should contact the Coast Guard Information Centre.

Natural conditions**9.10**

- 1 **Tidal levels.** Off Saint-François (47°00'N, 70°49'W) the tide in St Lawrence River reaches its maximum range. Up to this point the tide is increasing in range, and above this point the range begins to decrease.

- 2 **Tidal streams.** The following table gives the times of slack water, and the directions of the tidal streams in the vicinity of Cap Brûlé and Saint-François:

CAP BRÛLÉ TO SAINT-JEAN

General information

Chart 4785

Routes**9.6**

- 1 The main shipping route between Cap Brûlé (47°07'N, 70°43'W) and Saint-Jean (46°55'N, 70°54'W) follows the dredged and buoyed channel through Traverse du Nord, close E of Île d'Orléans.

Chenal de l'Île d'Orléans (9.45), a secondary route, branches W and passes N of Île d'Orléans.

Chenal du Sud (9.20), on the S side of the river, joins the main route in the vicinity of Saint-Jean.

Caution. Chenal du Sud is not recommended to commercial traffic. From seaward to Pointe de Saint-Vallier (46°55'N, 70°48'W) this channel is shallow and encumbered with islets and shoals.

Topography**9.7**

- 1 **Mainland.** Cap Tourmente, 1¾ miles SW of Cap Brûlé, marks the SW end of land rising steeply from the river. Its summit is a densely wooded hill with an elevation of 590 m, 7 cables NW of the cape.

Locality	LW slack		Duration of in-going stream		HW slack		Duration of out-going stream	
	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>
Banc du Cap Brûlé (47°06'N, 70°42'W)	0	40	5	20	0	20	6	50
	before LW Québec				before HW Québec			
Saint-François (47°00'N, 70°49'W)	0	15	5	10	0	20	7	15
	after LW Québec				after HW Québec			

- 3 In the channel between Cap Brûlé and the N end of Traverse du Nord, 3 miles SSW, the directions of the tidal streams conform to the river bed, and are, consequently, considerably across the line of the channel. The maximum in-going stream here is felt about 56 minutes after LW at Québec; the maximum out-going stream is about 3 hours and 8 minutes after HW at Québec. With average tides, the rate of both in-going and out-going streams in this locality is 3 kn.
- 4 The tidal streams again set somewhat across the line of the channel abreast the gap between Pointe Argentenay and Battures de la Traverse, 1¼ miles NE.
- The best information on the directions and rates of the tidal streams at other locations in this area may be gained from the chart.

Principal mark

9.11

- 1 **Major light:**
Saint-François Wharf Light (framework tower, 9 m in height) (47°00'N, 70°49'W) on the head of the pier.

Other navigational aids

9.12

- 1 **Racons:**
Banc du Cap Brûlé Leading Lights (47°05'N, 70°43'W).
Saint Jean Wharf Light (46°55'N, 70°54'W).

Directions

(continued from 8.170)

Cap Brûlé to Traverse du Nord

9.13

- 1 From a position about 3 cables ESE of Cap Brûlé the channel leads SSW in a buoyed channel for about 3 miles.
- Cap Gribane Leading Lights:**
- 2 Front light (orange rectangle on framework tower, 8 m in height) (47°09'N, 70°41'W).
Rear light (similar construction and tower, 11 m in height) (445 m from front light).
The lights are visible on the leading line only.
- 3 The alignment (024°) astern, of these lights leads through the buoyed channel to the N end of Traverse du Nord, passing:
WNW of Banc du Cap Brûlé, centred about 8 cables SE of Cap Brûlé.
Banc du Cap Brûlé Upstream (9.14) and Downstream (8.167) Leading Lights stand on this bank.

Traverse du Nord — north part

9.14

- 1 **Banc du Cap Brûlé Upstream Leading Lights:**
Front light (orange rectangle, black stripe, on white building, 7 m in height) (47°05'N, 70°43'W).
Rear light (white tower, orange bands, 20 m in height) (5.5 cables from front light).
- 2 The lights are shown from the same structures as the Banc du Cap Brûlé Downstream Leading Lights (8.167) and are visible on the leading line only.
The alignment (033½°), astern, of these lights leads through the buoyed channel of Traverse du Nord, passing (with positions from Pointe Argentenay (47°02'N, 70°48'W)):
SE of Battures de la Traverse (1.3 miles NE), thence:
NW of Banc du Centre, lying about 1 mile NW of Île au Ruau (2½ miles ESE), thence:
SE of Saint-François Wharf Light (1¾ miles S) (9.11), and:
Between the E coast of Île d'Orléans and Île Madame (3 miles S).

Traverse du Nord — south part

9.15

- 1 **Saint-Michel de Bellechasse Leading Lights:**
Front light (orange rectangle, black stripe, on framework tower, 23 m in height) (46°53'N, 70°55'W).
Rear light (similar construction and tower, 24 m in height) (9.6 cables from front light).
- 2 The alignment (213¼°) of these lights, which should be visible when abreast Saint-François, leads through the buoyed channel to a position about 6 cables SE of Saint-Jean Wharf Light (orange rectangle on framework tower, 9 m in height) (46°55'N, 70°54'W), where Chenal du Nord and Chenal du Sud meet.

9.16

- 1 **Useful marks:**
Île de Bellechasse Light (white framework tower, red bands, 8 m in height) (46°56'N, 70°46'W).
Church (spire) (47°00'N, 70°49'W), on the slope of a hill at Saint-François.
Church (spire) (46°55'N, 70°53'W) close to the water's edge at Saint-Jean.
(Directions continue at 9.37)

Anchorage and harbours

Off Rivière Dauphine

9.17

- 1 There is good anchorage off the mouth of Rivière Dauphine, 4 miles SSW of Pointe Argentenay, in depths of less than 10 m, mud.
Small craft may find shelter in a pool at the river mouth; local knowledge is required.

Small craft

Saint-François

9.18

- 1 **General information.** The village of Saint-François, population 515 in 1996, is situated 1½ miles SSW of Pointe Argentenay.
Tidal levels. Mean spring range about 5.2 m; mean neap range about 3.1 m. For further information see *Admiralty Tide Tables Volume 2*.

Landing. A public pier, 175 m long, has a least depth of 3.4 m (1998) alongside its outer end. A light is exhibited from the pierhead.

Saint-Jean 9.19

- 1 **General information.** The village of Saint-Jean, population 869 in 1996, is situated 3½ miles SSW of Rivière Dauphine.
- 2 **Landing.** A public pier, 126 m long and 11 m wide at the outer end, dries at LW. Saint-Jean Light stands near the outer end of the pier. The pier is in ruins.

POINTE SAINT-THOMAS TO SAINT-JEAN

General information

Chart 4785

Route 9.20

- 1 Chenal du Sud follows the S side of the river from abreast Pointe Saint-Thomas (46°59'N, 70°38'W) (8.188) to its junction with Traverse du Nord in the vicinity of Saint-Jean (46°55'N, 70°54'W).

Caution. This section of Chenal du Sud is not recommended to commercial shipping.

Topography 9.21

- 1 The coast between Pointe Verte (46°56'N, 70°44'W) and Pointe Saint-Michel, 7 miles WSW, is indented by Anse de Bellechasse (46°55'N, 70°47'W) and Anse de Saint Vallier, 3 miles SW, both of which dry over most of their area. Île d'Orléans is described at 9.7. Île au Ruau and Île Madame, lying 3 to 4 miles off this coast, are also described at 9.7.

Spoil ground 9.22

- 1 There is a spoil ground in Chenal du Sud between Île Madame (46°58'N, 70°47'W) and Île de Bellechasse (46°56'N, 70°46'W).

Tidal streams 9.23

- 1 The chart is the best guide for the directions and rates of the tidal streams in this area. The following table gives the times of slack water, and the duration of the tidal streams in the vicinity of Berthier-sur-Mer and Saint-Jean:

Locality	LW		Duration		HW		Duration	
	slack		of	in-going	slack		of	out-going
			stream				stream	
	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>
Berthier-sur-Mer (46°56'N, 70°44'W)	0	02	5	05	0	18	7	20
	after LW				after			
	Québec				HW			
					Québec			
Saint-Jean (46°55'N, 70°54'W)	0	50	5	05	0	40	7	20
	after LW				after			
	Québec				HW			
					Québec			

Principal mark 9.24

- 1 **Major light:**
Saint-François Wharf Light (47°00'N, 70°49'W) (9.11).

Other navigational aid 9.25

- 1 **Racon:**
Saint Jean Wharf Light (46°55'N, 70°54'W).

Directions (continued from 8.196)

9.26

- 1 **Caution.** Mariners are advised that depths exist in Chenal Saint-Thomas that are shoaler than charted, and mariners are advised to navigate with caution in this area.
- 2 From a position at the SW end of Chenal Saint-Thomas, about 9 cables NW of Pointe Saint-Thomas, the route through Chenal du Sud continues SW, passing:
About 7 cables NW of Île de Bellechasse (46°56'N, 70°46'W), a narrow rocky islet, with a light (white framework tower, red bands, 8 m in height) on its summit; Rocher Pointu lies about 1½ cables WNW of light, thence:
3 Between the SW extremity of Récif de l'Île Madame (46°56'N, 70°50'W), marked by DAME Light-buoy (S cardinal), and the edge of Banc de Saint-Vallier, extending almost 5 cables outside a line joining Pointe Saint-Vallier (prominent wooded bluff) (46°55'N, 70°48'W) and Pointe Saint-Michel, 4 miles WSW, thence:
4 About 6 cables SE of Saint-Jean Light (46°55'N, 70°54'W) (9.15), where Chenal du Sud is joined by Chenal du Nord.

9.27

- 1 **Clearing bearings.** The line of bearing 052° of Île Longue (47°03'N, 70°35'W), open SE of Île Sainte-Marguerite, 1 mile SW, passes SE of the mid-river shoals and reefs in this area.

The line of bearing 232° of the church (spire) (46°50'N, 71°01'W) at Beaumont, open N of Pointe de la Durantaye, 4 miles NE, passes NW of Banc de Saint-Vallier.

Clearing marks. The alignment (074°) of the SW extremity of Île de Bellechasse and the head of a ruined pier at Pointe Verte (46°56'N, 70°44'W) passes N of Banc de Saint-Vallier.

9.28

- 1 **Useful marks:**
Beacon (two orange daymarks, facing N and W, on a red framework tower, 12 m in height) (46°56'N, 70°44'W) on Pointe de Berthier Est.
Church (spire) (46°54'N, 70°50'W) at Saint-Vallier.
(Directions continue at 9.37)

Small craft

Trou de Berthier 9.29

- 1 There is a yacht marina, protected by a breakwater, at Trou de Berthier (46°56'N, 70°44'W). The approach is marked by buoys, leading lights (private), and a light exhibited from the end of the breakwater. The basin was dredged to a depth of 1 to 3 m in 1989 and the approach was dredged to a depth of 2.5 m in 1992.

Caution. A shoal, with a depth of 0.1 m over it, lies 4 cables NW of Pointe de Berthier Est. Attention is also

drawn to an abandoned cable which is laid off the NE entrance to Trou de Berthier.

Anse de Bellechasse

9.30

- 1 A boat yard, equipped to build, repair and store small craft and which can be entered at HW is located in SW part of Anse de Bellechasse.

Other name

9.31

- 1 Ruau, Banc de l'Île au (47°00'N, 70°44'W).

SAINT-JEAN TO QUÉBEC

General information

Chart 4785

Route

9.32

- 1 **Chenal des Grands Voiliers**, passes S of Île d'Orléans between Saint-Jean (46°55'N, 70°54'W) and the E limit of the port of Québec, 12½ miles up river; it is the natural channel of the river and the main shipping route. The fairway is marked by leading lights and buoys for most of its length.

Topography

9.33

- 1 The S coast of Île d'Orléans is a low cliff, increasing in elevation towards the SW end of the island. This coast is bordered by bare flat rock extending generally about 1 cable from the HW mark.

There is almost continuous habitation between Saint-Jean and Saint-Laurent, about 5½ miles SW.

The bay on the S shore, with the village of Beaumont (population 2025 in 1996) (46°50'N, 71°01'W) at its head, is filled by reefs and boulders.

Overhead cables

9.34

- 1 Power transmission lines, with a vertical clearance of 53 m, span the channel 3 miles E of the SW extremity of Île d'Orléans. Red lights are exhibited from the towers on each side of the channel. Theoretical clearances are reduced to 44 m when the cables are covered with 5 cm of ice.

Flow

9.35

- 1 The chart is the best guide for the direction and rate of the flow in several positions in the area.

The following table gives the times of slack water in the channel, and the duration of the tidal streams in the vicinity of Saint-Laurent:

Locality	LW slack		Duration of in-going stream		HW slack		Duration of out-going stream	
	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>	<i>h</i>	<i>m</i>
Saint Laurent (46°51'N, 71°00'W) Québec	0	55	5	00	0	50	7	25
		after LW				after HW		
		Québec				Québec		

- 2 See 9.23 for tidal streams in the vicinity of Saint-Jean.

Principal mark

9.36

Major light:

Beaulieu (Sainte-Pétronille) Light (grey square framework tower, 14 m in height) (46°51'N, 71°08'W).

Directions

(continued from 9.16 or 9.28)

Saint-Jean to Saint-Laurent

9.37

Cap au Diable Leading Lights:

Front light (orange trapezium, black stripe, on framework tower, 18 m in height) (46°50'N, 71°02'W) on the S shore.

Rear light (similar construction, inverted and tower, 21 m in height) (9 cables from front light).

The lights are visible on the leading line only.

- 2 From a position about 6 cables SE of Saint-Jean Light (46°55'N, 70°54'W) (9.15) the alignment (233½°) of these lights leads for a distance of 4-7 miles through the channel, which is marked by light buoys (lateral).

Useful mark:

Church (spire) at St Michel (46°53'N, 70°54'W).

Saint-Laurent to Québec

9.38

Pointe de la Martinière Leading Lights:

Front light (framework tower, 18 m in height) (46°50'N, 71°07'W), situated close SW of the point (small wooded hillock).

Rear light (framework tower, 31 m in height) (655 m from front light).

- 2 The lights are visible on the leading line only. The alignment (252°) of these lights leads for a distance of 4 miles through the buoyed channel, passing:

NNW of Battures de Beaumont, a line of drying boulders about 7 cables from the shore at Beaumont (46°50'N, 71°01'W).

- 3 From a position on the leading line, 2 miles ENE of Pointe de la Martinière Front Leading Light, the buoyed channel leads W, passing:

S of Rochers Maranda which fill Anse Maranda and the bay extending 1½ miles E from Beaulieu Light (9.36), thence:

Into the Port of Québec at the W end of Chenal des Grands Voiliers.

9.39

Useful marks:

Saint-Laurent-de-l'Île-d'Orléans Light (square framework tower, 11 m in height) (46°52'N, 71°00'W), near the outer end of a pier.

Church (spire) (46°50'N, 71°01'W) on a cliff at Beaumont; a waterfall runs over the cliff, 1 mile W of the church.

Church (spire) (46°51'·1N, 71°08'·2W) at Sainte-Pétronille.

(Directions continue at 9.95)

Anchorage and harbours

Trou Saint-Patrice

9.40

- 1 Trou Saint-Patrice (46°51'N, 71°02'W) lies at the mouth of Ruisseau Saint-Patrice, between high cliffs.

There is good anchorage, in about 10 m off the mouth of the stream.

Small craft

Rivière Lafleur and Rivière Maheu

9.41

- 1 **General information.** These rivers flow into Chenal des Grands Voiliers 1½ and 2¾ miles, respectively SW of Saint-Jean Light (46°55'N, 70°54'W) (9.15). The rivers run through deep ravines and afford shelter to small craft, which can lie aground within their entrances at LW.

Anchorage. There is good anchorage off the entrance to Rivière Maheu in 10 to 12 m of water.

Saint-Michel

9.42

- 1 Saint-Michel-de-Bellechasse, located on the S side of the channel about 2½ miles SSW of Saint-Jean Light (9.15) had a population of 1 662 in 1996.

There is a yacht marina, protected by two breakwaters, located opposite the church (9.37).

Saint-Laurent

9.43

- 1 **General information.** The village of Saint-Laurent (46°52'N, 71°00'W) on the N shore of Chenal des Grands Voiliers had a population of 1 602 in 1996. A church with a spire stands in the village.

Tidal levels. Mean spring range about 5.1 m; mean neap range about 3.6 m. For further information see *Admiralty Tide Tables Volume 2*.

- 2 **Marina.** A basin at Saint-Laurent contains a marina and a slip. Saint-Laurent-de-l'Île-d'Orléans Light (9.39) is exhibited from the head of the NE wall of the basin.

The marina is protected by a breakwater on the SW side and a wharf on the NE side. The slip is located at the inner end of the wharf. A floating breakwater, on the W side of the wharf, protects the entrance of the marina which is 14 m wide. Lights (private) mark each end. The entrance is marked with a port hand buoy (private).

Sainte-Pétronille

9.44

- 1 **General information.** The village of Sainte-Pétronille (Beaulieu) (46°51'N, 71°08'W) is situated on the SW point of Île d'Orléans.

Landings. An irregular-shaped public jetty, with a berthing length of 69 m, which dries, is situated on the S side of the point. Beaulieu Light (9.36) is exhibited from this jetty.

CHENAL DE L'ÎLE D'ORLÉANS

General information

Chart 4785

Route

9.45

- 1 **Chenal de l'Île d'Orléans**, entered N of Pointe Argentenay (47°02'N, 70°48'W), and running between Île d'Orléans and the mainland, is very narrow, with several shoals in mid-channel. The channel is marked by light-buoys and leading lights, but it is not recommended for vessels drawing more than 3.7 m.

Topography

9.46

- 1 The mainland coast between Pointe aux Prêtres (47°03'N, 70°49'W) and Rivière Sainte-Anne du Nord, 3 miles W, is low, with mountains rising farther inland.

Dwellings are almost continuous along the shore from here to Québec, and the HW line is bordered with grassy flats.

- 2 On the N side of Île d'Orléans the cliff is set some distance back from the shore, the intermediate land being flat and cultivated. The N coast of the island is bordered by grass flats, which dry out for a distance of 5 cables in places, and is indented by numerous creeks.
- 3 The NW coast of the island, between Pointe Chez East and Sainte-Famille, 6 miles SW, is featureless.

Overhead cables

9.47

- 1 Power transmission lines (vertical clearance 32 m; red lights on support towers) span the channel about 3 miles from its SW end. Theoretical clearances are reduced to 16 m when the cables are covered with 5 cm of ice.

Vertical clearance

9.48

- 1 Pont de l'Île d'Orléans, a road suspension bridge with a vertical clearance of 32 m, spans the channel 1¼ miles from its SW end. The distance between the two main piers is 323 m, with a channel 183 m wide.

Local knowledge

9.49

- 1 Due to limited depths and narrow fairways in parts of this channel, local knowledge is essential.

Prohibited anchorage

9.50

- 1 Anchorage is prohibited in the area, indicated on the chart, about 1 mile SW of Pont de l'Île d'Orléans.

Mariners are also cautioned not to anchor in the vicinity of Pointe Saint-Pierre (46°55'N, 71°03'W), where submarine cables are laid across the channel. The cable area is indicated on the chart.

Tidal streams

9.51

- 1 Off Sainte-Anne-de-Beaupré (47°01'N, 70°56'W), the in-going tidal stream begins 4 h 10 m before HW by the shore, and runs for 5 h 10 m. The out-going tidal stream begins 1 hour after HW by the shore, and runs for 7 h 15 m.

The tidal streams set, generally, along the line of the channel, and attain a rate of from 3 to 4 kn at springs.

See also the tidal information on the chart.

Principal mark

9.52

- 1 **Major light:**
Sainte-Anne-de-Beaupré Sector Light (9 m in height) (47°01'.3N, 70°55'.7W).

Directions

Cap Tourmente to Pointe aux Prêtres

9.53

- 1 **Île d'Orléans Leading Lights:**

Front light (orange trapezium on red framework tower, white bands, 9 m in height) (47°01'N, 70°50'W).

Rear light (similar construction, inverted, and tower, 9 m in height) (788 m from front light).

- 2 From a position 9 cables E of Cap Tourmente (47°05'N, 70°45'W) (9.7) the alignment (226°) of these lights leads through the buoyed channel for a distance of 3½ miles, towards the entrance to Chenal de l'Île d'Orléans, passing: Close SE of Le Banc de Sable, situated at the outer edge of Battures de la Pointe aux Prêtres (mud and

boulders), which extend up to 9 cables from the shore between Cap Tourmente and Pointe aux Prêtres, thence:

NW of Battures de la Traverse, centred 1½ miles NE of Pointe Argentenay.

Pointe aux Prêtres to Beaupré

9.54

1 **Sainte-Anne-de-Beaupré Sector Light:**

From a position close SE of V6 Light-buoy (starboard hand) moored 9 cables E of Pointe aux Prêtres, the track leads WSW for a distance of 4½ miles, within the white sector of Sainte-Anne-de-Beaupré Sector Light, (9 m in height) (47°01'3N, 70°55'7W) (9.52) passing (with positions from the front leading light):

- 2 NNW of Banc d'Orléans (¾ miles ENE), extending about 1 mile N from the coast between Pointe Argentenay and Pointe Chez East, 1½ miles W, thence:
- 3 SSE of the outer end of a large boulder breakwater (¾ miles NE), in poor condition, extending about 5 cables SE from the shore near the E entrance point to Rivière Sainte-Anne (Rivière Sainte-Anne-du-Nord). V8 Light-buoy (starboard hand) is moored off the end of the breakwater, thence:
- 4 Close NNW of a rock (1.7 miles ENE), with a depth of 1.9 m over it, marked on its N side by V13 Light-buoy (port hand).

The track then leads to position about 1½ miles ENE of Sainte-Anne-de-Beaupré Sector Light. The white light is fixed on the leading line between 253°50' and 254°10'; the directional light is flanked on both sides by two narrow sectors of coloured flashing lights from the same structure.

9.55

1 **Useful marks:**

Church (spire) at Saint-Joachim (Saint-Joachim de Montmorency) (47°03'N, 70°51'W).

Chimney at a large paper mill (47°02'N, 70°53'W) near the E entrance point to Rivière Sainte-Anne.

Beaupré to Sainte-Famille

9.56

- 1 From a position about 1½ miles ENE of Sainte-Anne-de-Beaupré Sector Light, the route leads SW, in mid-channel, for about 5 miles to the vicinity of the village of Sainte-Famille (46°58'N, 70°58'W) on the SE shore, where there is a church (spire) and a pier in ruins.

9.57

1 **Useful mark:**

Church (two prominent spires) at Sainte-Anne-de-Beaupré (47°01'N, 70°56'W).

Chart 4785

Sainte-Famille to Battures des Îlets

9.58

1 **Pointe Saint-Pierre Leading Lights:**

Front light (orange trapezium, black stripe on framework tower, 6 m in height) (46°56'N, 71°02'W).

Rear light (similar construction, inverted, and tower, 12 m in height) (167 m from front light).

The lights are visible on the leading line.

- 2 The alignment (218½°) of these lights leads, from a position in mid-channel abreast the church at Sainte-Famille, for a distance of ¾ miles, passing:

NW of grassy drying flats extending 5 cables from the SE shore at a position 2 miles SW of the church at Sainte-Famille, marked by V19 Light-buoy (port hand), thence:

- 3 SE of Battures des Îlets, situated in the centre of the river, 1½ miles NNE of the front leading light, where the width of the fairway is only about 1 cable. V22 Light-buoy (starboard hand) marks the W side of the channel.

9.59

1 **Useful mark:**

Château-Richter church (spire) (46°58'N, 71°01'W), on the NW shore.

Battures des Îlets to Pointe au Pavillon

9.60

1 **Sainte-Famille Leading Lights:**

Front light (orange rectangle, black stripe, on framework tower, 18 m in height) (46°58'N, 70°59'W), on the SE shore.

Rear light (orange diamond shape, black stripe, on tower, 15 m in height) (609 m from front light).

The rear light is visible on the leading line only.

- 2 The alignment (052½°), astern, of these lights leads from a position 8 cables NE of Pointe Saint-Pierre Front Leading Light for a distance of about 5 miles, passing:

NW of Pointe Saint-Pierre where the alignment passes close to shoal ground off the SE shore, but deeper water will be found NW, thence:

In mid-channel, between drying grassy flats on each side, on which stand the towers supporting overhead cables) (9.47), thence:

- 3 Close NW of V31 Light-buoy (port hand), moored about 7 cables W of Pointe au Pavillon (46°53'N, 71°07'W), a rounded point, backed by low earth cliffs.

9.61

1 **Useful marks:**

Church (spire) at L'Ange-Gardien (46°55'N, 71°06'W), on the NW shore.

Church (spire) at Saint-Pierre (46°53'N, 71°04'W).

Pointe au Pavillon to Québec

9.62

1 **L'Ange-Gardien Leading Lights:**

Front light (orange trapezium, black stripe, on red framework tower, white bands, 12 m in height) (46°54'N, 71°07'W), on the NW shore.

Rear light (similar construction, inverted, and tower, 14 m in height) (416 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (023¾°), astern, of these lights, leads from a position close NW of V31 Light-buoy (9.60), through the buoyed channel to the NE harbour limit of the Port of Québec, passing:

Between the grassy drying flats on each side, about 9 cables W of Pointe du Pavillon, and:

Under the road suspension bridge (9.48), 1 mile WSW of Pointe au Pavillon, where the limits of the channel are indicated by fixed white lights exhibited from the underside of the bridge.

(Directions continue for Port of Québec at 9.96)

Small craft

Beaupré 9.63

- 1 **General information.** The town of Beaupré (population 2811 in 1996) (47°02'N, 70°53'W) is situated at the mouth of Rivière Sainte-Anne (9.54).

A large paper mill (9.55) stands near the E entrance point to the river.

Landing. There is a small public jetty and a marina on the W bank of the river, 2 cables within the entrance.

Sainte-Anne-de-Beaupré 9.64

- 1 **General information.** The town of Sainte-Anne-de-Beaupré (47°01'N, 70°56'W) on the NW shore, had a population of 3298 in 1996.

Berth. A private pier is situated close S of the church (9.57): length of pier 341 m; length of berth at outer end 21 m; least depth alongside outer face 3.4 m. The outer end is reserved exclusively for tour boats. The NE and SW sides are bordered by large boulders.

A boat launching ramp is located at the centre of the outer face.

Rivière du Sault à la Puce 9.65

- 1 At Rivière du Sault à la Puce (46°59'N, 71°00'W) there is a small boat basin and marina protected by a breakwater.

Château Richter 9.66

- 1 **General information.** Château-Richter (46°58'N, 71°01'W), on the NW shore, is a town with a population of 3 870 (1996).

Landing. A public pier, 56 m long, 14 m wide, dries about 1 m at its outer end. A boat ramp is located on the NE side of the pier. Although the ramp is in good condition the pier is in ruins.

Boischatel 9.67

- 1 **Landing.** At Boischatel (46°54'N, 71°08'W), a village with a population of 4 069 in 1996, on the NW shore, there is a public pier, 95 m in length.

Rivière Montmorency 9.68

- 1 **General information.** Rivière Montmorency (46°53'N, 71°09'W) enters Chenal d'Orléans just below the W end of the road bridge (9.48).

Montmorency Falls, 76 m high, are situated about 5 cables upstream, but they are not visible until the river mouth is open. A large generating station is situated nearby.

Landing. There is a small pier at Montmorency, within the river entrance.

PORT OF QUÉBEC

General information

Charts 4785, 4786

Position

9.69

- 1 The Port of Québec occupies a stretch of St Lawrence River in the vicinity of the mouth of Rivière Saint-Charles (46°49'N, 71°12'W).

Function

9.70

- 1 The port is open throughout the year, but see 9.81 for ice limitations. It is the closest deepwater port to the Saint Lawrence Seaway and Great Lakes. Imports include: crude oil; grain; iron ore; clinker and salt. Exports include petroleum products, grain, iron ore, newsprint, granite and scrap metal.

- 2 Québec (population 175 039 in 1996), the capital of the province of Québec, is situated on the W shore, around the entrance to Rivière Saint-Charles. The city consists of Upper and Lower Town, the former stands imposingly on the ridge between St Lawrence River and Rivière Saint-Charles; Lower Town is built on low land N of Upper Town and contains much commercial and industrial development.

- 3 Lévis (population 42 635 in 1996) is situated on the E bank, opposite Québec.

Sainte-Foy (46°45'N, 71°18'W) (population 74 328 in 1996) is situated on the NW shore, about 5 miles SW of Rivière Saint-Charles.

Lauzon lies NE of Lévis.

Port limits

9.71

- 1 Downstream limit is indicated by lines extending SSE and NNW from the SW end of Île d'Orléans, as shown on the chart.

Upstream limit is in the vicinity of Cap Rouge (46°45'N, 71°20'W).

Approach and entry

9.72

- 1 The main approach is through Chenal des Grands Voiliers (9.32) S of Île d'Orléans.

A secondary approach is Chenal de l'Île d'Orléans (9.45) N of the Île d'Orléans, but navigation is restricted.

Traffic

9.73

- 1 In 2000, 380 vessels with a total dwt of 17 036 916 tonnes used the port.

Port Authority

9.74

- 1 Port of Québec is operated by the Québec Port Authority, 150 Dalhousie Street, Québec G1K 7P7. The port administration building is situated on the S side of outer Bassin Louise (46°49'N, 71°12'W).

Limiting conditions

Controlling depth

9.75

- 1 For information on how to ascertain the depths in the dredged channel E of Île d'Orléans see 9.9. Owing to the sandy conditions in the area, coastline and depths are subject to change.

Deepest and longest berths

9.76

- 1 The largest berths in each port sector are as follows:

Beauport: 53; Dry and liquid bulk.

Anse au Foulon: 103/4; General cargo.

South Shore: 87; Tankers.

Estuaire: 27/28; Ro-Ro.

- 2 The berths are described at 9.101 and positions of numbered berths are indicated on the chart.

Tidal levels**9.77**

- 1 Mean spring range about 4.9 m; mean neap range about 3.4 m. For further information see *Admiralty Tide Tables, Volume 2*. A computerised information system comprising 13 tide gauges is fitted between Québec and Montréal.

Abnormal water levels**9.78**

- 1 As a general rule, the water rises higher with strong NE winds, and falls lower with SW winds. The level at Québec is also affected appreciably by the river level, which is highest in the spring about the month of April, falls gradually until late in the autumn, and is lowest in the winter.

Density**9.79**

The water in the harbour is fresh.

Maximum size of vessel handled**9.80**

- 1 There is no limit to length or breadth. Draught is limited to 14.3 m in winter and 15.2 m in summer.

Ice**9.81**

- 1 From January to March, inclusive, ships navigating to Québec need to be reinforced for ice.

Arrival information**Port operations****9.82**

- 1 **Regulations.** Vessels manoeuvring or otherwise underway in the Port of Québec, and also while at an alongside berth or at anchor, are subject to the Port of Québec Operating By-laws, a copy of which may be obtained from the Port of Québec Authority.
- 2 Every such vessel shall at all times be under the orders of the Vessel Traffic Services Centre, Québec, which maintains radar surveillance and exercises wide powers over vessels in the port, and may order masters of vessels to move, to use tugs, to berth or anchor in locations which it designates. Masters of vessels must inform the Vessel Traffic Services Centre in advance of their intention to berth in the port. The regulations require that no vessels should move in the port at a speed that may endanger life or property. The speed limit in the harbour is 9 kn and within Bassin Louise it is 3 kn. Extracts from Canadian *Public Harbours Regulations* are given at Appendix II.
- 3 No vessel may engage in calibration or compass adjustment except with the permission and in the area designated by the Harbour Master.

Notice of ETA required**9.83**

- 1 The vessel's ETA at the pilot boarding area off Escoumins, should be reported as at 5.235.

Outer anchorage**9.84**

- 1 Anchorage berth D is located in the N part of the harbour, near the entrance to Chenal de l'Île d'Orléans, as indicated on the chart.

Pilotage**9.85**

- 1 Pilotage is compulsory. Inward-bound vessels are boarded by pilots off Escoumins (5.235), for the passage to Québec. Vessels bound for destinations farther up river exchange pilots at Québec.

Harbour pilots will dock any westbound vessel; however, any vessel can request the services of a harbour pilot.

Departing tankers with dwt of 40 000 tonnes or greater and any vessel departing Berth 109 in excess of 20 000 tonnes dwt are required to have a harbour pilot aboard.

Tugs**9.86**

- 1 The need to use tugs is dependent on the size of the vessel, the location of the berth, the state of the tide and expected tidal stream, and weather conditions. There is one tug of 7200 bhp and several up to 4200 bhp.

Linesmen are available at 3 hours notice, ordered through the ships agent. Boatmen are compulsory for passing the lines of ocean-going vessels, but are not normally required for other vessels.

Quarantine and customs**9.87**

- 1 Québec is a quarantine station and a port of entry for Canada. See Appendix III for quarantine reporting requirements.

The custom house and port administration building is situated on the S side of outer Bassin Louise.

Harbour**General layout****9.88**

- 1 **Main channel.** The width of the channel through the greater part of the Port of Québec is about 5 cables, but the channel reduces to a width of about 2 cables near the upstream limit of the port.

The main berths are grouped in the following four sectors:

- 2 Beauport. Beauport Terminal (46°50'N, 71°12'W) on the N side of Estuaire de la Rivière Saint-Charles (St Charles River Basin).
Estuaire (The Estuary). The S side of Estuaire de la Rivière Saint-Charles, including Bassin Louise.
Anse au Foulon (Wolfe Bay). On the W bank, 2 miles above Rivière Saint-Charles.
South shore. On the E bank at Lévis, opposite the city of Québec.

Development**9.89**

- 1 Wharves 103 and 49 are under development (2002) and there is development at Pointe-à-Carcy, (7 cables NNE of the Citadel).

Ferry**9.90**

- 1 A ferry services operates between Québec and Lévis; the usual track of the ferries is indicated on the chart.

Traffic signals**9.91**

- 1 A vessel, before entering or leaving Estuaire de la Rivière Saint-Charles, or the outer Bassin Louise, is required to sound on its whistle or siren two prolonged blasts; if towing, the vessel shall sound two prolonged blasts followed immediately by one short blast.

Vertical clearance

9.92

- 1 Two bridges span the narrows close above the mouth of Rivière Chaudière (46°45'N, 71°17'W).
- 2 **Pont de Québec** is a combined road and rail cantilever bridge, with a distance between piers of 549 m, and a vertical clearance of 46 m. On Pont de Québec a green light is shown 3 m N of the centre line of the middle span. White lights, 232 m apart, under each end of the middle span, mark the N and S limits of the channel, where the vertical clearance is 46 m. Red lights, are placed under the middle of the cantilever arms 82 m outside each white light, where the vertical clearance is 27 m. All these lights are exhibited from the upstream and downstream sides of the bridges.
- 3 **Pont Pierre-Laporte**, close upstream of the Pont de Québec, has a distance between piers of 665 m, and a vertical clearance of 49 m. On Pont de Pierre-Laporte a green light marks the centre of the channel. White lights are shown 113 m N and 117 m S of the green lights, to mark the channel limits, where the vertical clearance is 49 m. Red lights are shown 175 m N and 193 m S of the green lights, where the vertical clearance is 48 m. All these lights are exhibited from the upstream and downstream sides of the bridges.
- 4 **Overhead cables.** Power transmission lines with a vertical clearance of 48 m, span the river between the two bridges. Other power transmission lines with vertical clearance of 45 m (or 32 m under severe icing conditions) span the river close above the Pont Pierre-Laporte.

Natural conditions

9.93

- 1 **Tidal streams. In-going stream.** After a slack period of about 35 minutes abreast Anse au Foulon (Wolfe Bay) (46°47'N, 71°14'W), the first of the in-going tidal stream comes up the N side of the river, reaching the lower end of the berthing area 1 hour 7 minutes after LW at Québec; the turn at the upper end of the berthing area is about 10 minutes later.
- 2 The in-going tidal stream runs an average time of 4 hours 45 minutes, and reaches full strength of about 3½ kn at springs, off the Citadelle, about 3 hours after LW Québec. For average tides, the rate of the stream along the edge of the channel is about 2½ kn, which holds until about 1 hour before HW slack. The duration of HW slack in the channel is about 35 minutes.
- 3 Towards the end of the in-going tidal stream in mid-channel, an eddy forms in the bight above the wharves. The flow turns downwards inshore, beginning as a narrow stream 1 hour before HW, which gradually widens outward from the shore in the region of the wharves about 1 hour after HW.
- 4 Thus, from 1 hour before until about 1 hour after HW, there are reverse streams within the berthing area. At the downstream end of the wharves in Anse au Foulon the downward eddy is confined more closely to the shore until the general turn to the out-going stream.
- 5 **Out-going stream.** The tidal stream turns to out-going at the upper end of the wharves at Anse au Foulon about 1 hour after HW, having turned to out-going close along the shore 2 hours earlier, as described previously.
The out-going stream runs for an average time of 7 hours 45 minutes, and reaches full strength by the side of the channel 3 to 3½ hours after HW. The rate, 2½ kn, is about the same as for the in-going tidal stream.

A rate of almost 3 kn has been measured, when the tidal range was 5.3 m.

- 6 **Le Sault.** The channel under the two bridges is called Le Sault because of the strength of the tidal streams, which attain a rate of 5½ kn at times with the out-going tide, and almost 5 kn with the in-going tide. Tidal eddies are formed up to 7 cables below the bridges at the beginning of the in-going stream, and close above the bridges at the beginning of the out-going stream.

In other locations the chart is the best guide for the directions and rates of the tidal streams.

- 7 **Climatic table.** See 1.181.

Principal marks

9.94

- 1 **Landmarks:**

Château Frontenac Hotel (46°48'·7N, 71°12'·3W), an imposing building in Upper Town, Québec.
Citadelle (46°48'·4N, 71°12'·5W).
Television tower (elevation 269 m, red lights) (46°48'·5N, 71°13'·1W).

Major lights:

Beaulieu Light (46°51'N, 71°08'W) (9.36).
Pointe à Puiseaux (Sillery) Light (white framework tower, red bands, 5 m in height) (46°46'·3N, 71°14'·6W).

Directions for entering harbour

(continued from 9.39)

Approach from Chenal des Grands Voiliers

9.95

- 1 From a position in mid-channel, S of Beaulieu Light (46°51'N, 71°08'W) (9.36) the buoyed channel leads WNW, then SW, passing:
NNW of Battures de la Pointe de Lévy extending from the S shore in the vicinity of the shipyard piers (46°50'N, 70°10'W) at Lauzon. The track then leads to a position in mid-channel, SE of the entrance to Estuaire de la Rivière Saint-Charles.
(Directions continue at 9.98)

Charts 4785, 4786

Approach from Chenal de l'Île d'Orléans

(continued from 9.62)

9.96

- 1 From a position 1¼ miles N of Pointe du Bout de l'Île (46°51'N, 71°08'W), the alignment (023¾°), astern, of L'Ange-Gardien Leading Lights (9.62) leads into the N end of the Port of Québec, passing (with positions from Pointe du Bout de l'Île):
ESE of Battures de Beauport (1 mile WNW), drying flats of slate, covered with mud, which front the reclaimed land forming the shoreline NE of the entrance to Rivière Saint-Charles, and:
- 2 WNW of Cailloux du Pied de Saint-Roch (6 cables N), drying rocky ground extending almost 3 cables offshore.
The track then leads SW in a buoyed channel, passing NW of Battures de la Pointe de Lévy (1¼ miles SSW) to a position in mid-channel SE of the entrance to Estuaire de la Rivière Saint-Charles (2½ miles SW).
- 3 **Caution.** The in-going tidal stream sets obliquely towards Battures de Beauport, about 1 mile NE of the entrance to Estuaire de la Rivière Saint-Charles.

Useful marks**9.97**

- 1 Large church (two steeples) (46°51'·5N, 71°11'·4W) at Beauport.
Church (spire) (46°51'·1N, 71°08'·2W) (9.39).
Lauzon Wharf Lights (posts, 3 m in height) (46°50'N, 71°10'W) on the head and knuckle of the jetty.
The lights are privately maintained.
Church (46°49'·6N, 71°09'·9W) (9.99).
Paper mill (46°49'·5N, 71°12'·9W) (9.99).
(*Directions continue at 9.98*)

Directions for continuing up the St Lawrence River

Charts 4785, 4786

Québec to Cap Rouge

(continued from 9.95 and 9.97)

9.98

- 1 From the position in mid-channel SE of the entrance to Estuaire de la Rivière Saint Charles (46°49'·6N, 71°12'·0W), the main shipping channel, marked in places by light-buoys and deep and clear of dangers, leads SSW and SW, to the W limit of the Port of Québec, passing (with positions from Pointe à Puiseaux (46°46'N, 71°15'W)):
- ESE of Château Frontenac (3 miles NE) (9.94), thence:
- 2 WNW of Saint-David-de-l'Auberivière (1¼ miles NNE), thence:
- ESE of Yacht Club de Québec Marina (8 cables NNE). A light, (private), (white framework tower, red bands, 3 m in height) is exhibited from the heads of both the E and W breakwaters from 15th April to 10th December, thence:
- 3 SE of Pointe à Puiseaux, from which is exhibited Pointe à Puiseaux (Sillery) Light (9.94), and: NW of the mouth of Rivière Etchemin (7 cables SE), thence:
- 4 Under two bridges (2½ miles SW) (9.92) which span Le Sault (9.93); lights (9.92) on the bridges mark the sides of the channel, thence:
- NW of Pointe à Basile (3¾ miles WSW). A light exhibited from the front leading light-tower (9.119) is visible downstream to the Québec bridges.
- The channel then leads S of Cap Rouge (46°45'N, 71°20'W).

Useful marks**9.99**

- 1 Church (high spire) (46°49'·6N, 71°09'·9W) at Lauzon, with a cupola on another building nearby.
Church (spire) (46°46'·6N, 71°12'·1W) at Saint-David-de-l'Auberivière.
Paper mill (two chimneys) (46°49'·5N, 71°12'·9W) on the N side of Rivière Saint-Charles.
Monastery (spire) (46°46'·9N, 71°14'·6W).
(*Directions continue at 9.119*)

Basins and berths**Anchorage****9.100**

- 1 **Regulations.** Anchoring within the harbour limits is prohibited without permission from the Harbour Master. The Vessel Traffic Services Centre will assign an anchor berth.

Anchorage area. The N limit of the anchorage area is a line, indicated on the chart, extending ESE from North Limit Anchorage Light (white diamond-shape daymark, red anchor in centre) (46°48'·6N, 71°12'·2W) on a shed on Quai de la Reine. Anchor berths are shown on the chart.

- 2 **Prohibited anchorage areas** are situated:

In the N part of the harbour, for a distance of about 1¼ miles N of the anchorage area. Submarine cables and a pipeline are laid across the river in this area.

Abreast the berths at Anse au Foulon, the NE and SW limits are marked by light-buoys (starboard hand).

The positions of these prohibited anchorage areas are indicated on the chart.

Alongside berths**9.101**

- 1 Details of the largest berths are given in the table below; the positions of the numbered berths are indicated on the chart.

Port area	Berth	Length (m)	Depth (m)	Remarks
Beauport	53	325	15·2	Bulk solids and liquids
Estuaire de la Rivière Saint-Charles	29	304·8	10·5	Grain unloading and general cargo
	27	293·2	12	General cargo and Ro-Ro
	28	277·4	12	Grain loading
Bassin Louise	19	192	8*	Waiting
Anse au Foulon	101	198·1	11·3	General cargo
South shore	87	335	16·7	Tankers up to 180 000 dwt
Lauzon	73	164	8·8*	Fitting out

*Depth not maintained by dredging.

Port services**Repairs****9.102**

- 1 Repairs of all kinds can be carried out.
Two dry docks, a floating dock and shipbuilding berths, used for repairs, are situated at the Davie Industries shipyard at Lauzon.

Champlain dry dock (Cale Sèche Champlain) is 364·2 m long, but can be divided into two sections; width at entrance 36·5 m; depth over sill 6·7 m (LW); 12·1 m at MHWS.

- 2 **Lorne dry dock** (Cale Sèche Lorne) is 182·5 m long; width at entrance 18·8 m; depth over sill 7·8 m of MHWS.

Floating dock has a lifting capacity of 25 400 tonnes and can accommodate vessels with maximum dimensions; length 170·6 m, draught 7·9 m and breadth 30·48 m.

Salvage equipment and divers are available.

- 3 There are shipyards in the vicinity of Pointe de Lévy (46°50'N, 71°10'W), near the NE end of the harbour.

Other facilities**9.103**

Oily waste reception; Ro-Ro facilities are located at berth 27 in Estuaire de la Rivière Saint-Charles (9.101);

Deratting Certificates, Deratting Exemption Certificates and Fumigation Certificates can be issued; hospitals; salvage equipment and divers are available; pratique may be obtained by radio. See *Admiralty List of Radio Signals Volume 1* (2).

Supplies

9.104

- 1 Fuel and diesel oils are available; fresh water at all berths; electric power at some berths; all kinds of provisions and ship's stores.

Communications

9.105

- 1 **Air:** International airport 8 km.
Sea: Coastal shipping to various parts of the Gulf of St Lawrence, Rivière Saguenay and ports in the Maritime Provinces. From April to December, the St Lawrence Seaway connects the Port of Québec to ports on the Great Lakes.

Rescue

9.106

- 1 A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

QUÉBEC TO TROIS-RIVIÈRES

GENERAL INFORMATION

Charts 4787, 4788, 4789

Area covered

9.108

- 1 This section covers the St Lawrence River from Québec to Trois-Rivières, a distance of about 68 miles. It is arranged as follows:
Québec to Sainte-Croix (9.114).
Sainte-Croix to Pointe Langlois (9.127).
Pointe Langlois to Saint-Pierre-Les-Bequets (9.142).
Saint-Pierre-Les-Bequets to Trois-Rivières (9.160).
Trois-Rivières (9.179).

Topography

9.109

- 1 Between Québec and Trois-Rivières, the shoreline of the estuary changes to the comparatively low and lightly wooded St Lawrence lowlands, which are extensively farmed. There are cliffs along the river bank in places.

Depths

9.110

- 1 The main ship channel between the two ports has a least depth of 10.7 m, maintained by dredging where necessary, and least width of 244 m. The channel is well marked by leading lights and buoys.
Caution. During the winter, the lighted buoys are lifted and some of these are replaced by spar buoys.

Weather

9.111

- 1 Fogs may occur occasionally on the river above Québec in the early part of the day throughout the navigation season. The worst visibility is generally experienced in September and the first half of October, due to smoke from bush fires.

Small craft

Yacht clubs and marinas

9.107

- 1 **Bassin Louise** (Vieux Port) (46°49'N, 71°12'W). The inner basin has been developed as a marina for pleasure craft (Marina du Port de Québec). A lock, length 55.8 m, width 14 m, depth over sill 1.8 m, connects the outer basin to the inner basin. Normal facilities and services are available.
- 2 **Yacht Club de Québec** (private) (46°47'N, 71°14'W) in Anse au Foulon (Sillery). The alignment (299°) of leading lights (orange rectangle, black stripe, on red framework towers, with white bands) (towers 3 m and 6 m in height) leads between breakwater heads into the basin. There is a lighted pillar mooring buoy (private) marked 'Marina' approximately 1 cable off the entrance. Normal facilities and services are available.
- 3 **Lévis Marina** (46°47'.4N, 71°11'.9W), on the E shore. The basin, enclosed by breakwaters, contains berths and a slipway.
Rivière Chaudière. A marina (46°44'.6N, 71°16'.6W) is located on the E side of the river entrance. Normal facilities and services are available.
Parc Nautique du Cap Rouge, situated on the E side of the entrance to Rivière du Cap Rouge (46°45'N, 71°21'W), offers the usual services for pleasure craft.

Speed

9.112

- 1 When there is ice in the river ships should not proceed at excessive speeds, as this may loosen the ice on shoals and on the shore, causing ice dams and flooding.

Water level

9.113

- 1 The mean water level in the river falls gradually during the months between spring and autumn, the reduction amounting to 1.5 m at Trois-Rivières, but almost nil at Québec.

QUÉBEC TO SAINTE-CROIX

General information

Chart 4787

Route

9.114

- 1 The channel from Cap Rouge (46°45'N, 71°20'W), at the SW limit of the Port of Québec, leads WSW for a distance of about 17½ miles to the vicinity of Sainte-Croix (46°37'N, 71°44'W), a village on the S shore.

Topography

9.115

- 1 A general description of the terrain is given at 9.109. The S shore consists of cliffs, through which flow several rivers and streams.

Tidal streams

9.116

- 1 Through the Saint-Augustin dredged channel (46°43'N, 71°28'W), the maximum rate of the out-going tidal stream is about 3 kn, and that of the in-going stream 2¾ kn.
The table below gives the flow in the ship channel off Neuville (46°42'N, 71°35'W).

<i>Interval from HW Québec</i>	<i>Flow</i>
<i>h m</i>	
-02 15	In-going flow begins
-00 45	Maximum rate 2¼ kn
+02 05	Out-going flow begins
+07 00	Maximum rate 3 kn

Principal marks

9.117

1 Major lights:

Pointe à Basile Front Leading Light (orange rectangle, black stripe, on framework tower, 38 m in height) (46°43'8N, 71°19'8W).

Pointe à Basile Rear Leading Light (similar construction on tower 35 m in height).

Pointe à Basile Light (on same structure as the front leading light), visible downstream to Québec bridge.

Pointe aux Trembles Light (Neuville) (red framework tower, white bands, 8 m in height) (46°42'N, 71°34'W).

Other navigational aids

9.118

1 Racons:

Pointe aux Trembles Light (9.117).

Sainte-Croix Rear Leading Light (9.132).

Directions

(continued from 9.99)

Cap Rouge to Pointe Aubin

9.119

- From a position at the SW limit of the Port of Québec, abreast Cap Rouge (46°45'N, 71°20'W) the track leads 1¼ miles WSW to the following leading line.

Pointe à Basile Leading Lights:

Front light (orange rectangle, black stripe, on framework tower, 38 m in height) (49°44'N, 71°20'W). A helicopter pad is situated close NE of the light.

Rear light (similar construction and tower, 35 m in height) (7 cables from front light).

- The white lights are visible on the leading line only.

The alignment (077½°), astern, of these lights leads from abreast Pointe Deschambault, 1½ miles SW of Cap Rouge, to a position abreast Pointe aux Pins (Pointe Aubin) (46°41'N, 71°30'W), passing:

NNW of the town of Saint-Nicholas, (2 miles E of Pointe Saint-Nicholas) with a church (spire) and water-tower, thence:

- NNW of Pointe Saint-Nicholas Light (orange rectangle on red framework tower, white bands, 14 m in height) (46°42'N, 71°27'W), thence:

Through a dredged channel, 244 m wide, marked by light-buoys, across Haut-fond Saint-Augustin, an extensive shoal area N of Pointe Saint-Nicholas (46°42'N, 71°27'W), thence:

- NNW of shoal ground extending 7 cables N from Pointe Aubin, the N edge of which is marked by Q27 Light-buoy (port hand). A beacon (orange daymark, 11 m high) stands 6 cables ENE of Pointe Aubin.

Pointe Aubin to Pointe de Sainte-Antoine

9.120

- From a position 9 cables NNW of Pointe Aubin, the channel, marked by light-buoys, leads generally SW, passing:

NW of Banc de Saint-Antoine, situated about 1.4 miles W of Pointe Aubin, thence:

SE of Battures de la Pointe aux Trembles which extend to mid-river from the N bank in the vicinity of Pointe aux Trembles (46°42'N, 71°34'W), thence:

NW of Pointe de Saint-Antoine (46°40'N, 71°35'W).

- Saint-Antoine Traverse Leading Lights:**

Front light (orange rectangle, black stripe, on framework tower, 16 m in height) (46°40'N, 71°35'W).

Rear light (similar construction and tower, 17 m in height) (322 m from front light).

The lights are visible on the leading line only.

- The alignment (227½°) of these lights leads from the anchorage area (9.123) opposite Pointe Aubin through the main channel between Banc de Saint-Antoine and Battures de la Pointe aux Trembles.

Pointe de Saint-Antoine to Sainte-Croix

9.121

- From abreast Pointe de Saint-Antoine, (Pointe du Chalet des Phares) the channel, marked by light-buoys, follows the curve of the S bank to the vicinity of Sainte-Croix, about 7 miles WSW, passing between extensive flats with boulders and rocky patches lining the S shore, and Banc des Écureuils in mid-river.

- Saint-Antoine Upper Leading Lights:**

Front light (orange rectangle, black stripe, on white tower, 6 m in height) (46°40'N, 71°35'W).

Rear light (same construction and tower as the front light of Saint-Antoine Traverse Leading Lights) (250 m from front light).

The lights are visible on the leading line only.

- The alignment (072°), astern, of these lights leads through the middle part of this reach, marked by light-buoys, abreast the village of Sainte-Croix-Est, situated 3 miles SW of Pointe de Saint-Antoine, passing:

NNW of Sainte-Croix-Est Light (orange rectangle on red and white framework tower, 9 m in height) (46°38'N, 71°38'W) near the village, thence:

N of Sainte-Croix Rear Leading Light (46°37'N, 71°42'W) (9.132).

- The track then leads to a position about 6 cables NNE of Sainte-Croix Light (orange square on white framework tower, red bands, 12 m in height) (46°38'N, 71°44'W), at the beginning of Traverse Cap-Santé.

Useful marks

9.122

- Church (spire) (46°40'N, 71°34'W) at the village of Saint-Antoine-de-Tilly, 4 cables ESE of Pointe de Saint-Antoine.

Church (spire) (46°42'N, 71°35'W) at the village of Neuville, on the N shore, opposite Pointe de Saint-Antoine.

Church (spire) (46°40'N, 71°42'W) at Les Écureuils, a village on the N shore.

- Church (twin spires) at the village of Sainte-Croix (46°37'N, 71°44'W). A cross is situated about 9 cables WNW of the church.

(Directions continue at 9.132)

Anchorage

9.123

- 1 Anchorage areas are situated as follows:
S of the ship channel off Pointe Descambault (46°44'N, 71°22'W), in depths of 12 to 20 m.
N of the ship channel off Pointe Aubin (46°41'N, 71°30'W), in depths of 11 to 18 m.
The anchorage areas are marked on the chart.

Small craft

Neuville

9.124

- 1 **General information.** At Neuville, on Pointe aux Trembles (46°42'N, 71°34'W), there is a marina. It is protected by a breakwater with loose boulders on the W side and a pier on the E side.
Tidal levels. Mean spring range about 3.9 m; mean neap range about 2.4 m. For further information see *Admiralty Tide Tables, Volume 2*.
- 2 **Directions.** The alignment (321½°) of leading lights (private) (front light; black mast 2 m in height; rear light; on boathouse), situated 1 cable NW of Pointe aux Trembles pier light, lead to the marina basin. When approaching from the main channel, it is preferable to pass between Q32 and Q34 Light-buoys, then pass close to VAUQU Light-buoy (boat type). The entrance to the marina is protected by pontoons, marked by three lights (private).
- 3 **Berth.** At Neuville there is a pier, 181 m long, with a boulder breakwater close W of it. On the SW side of the pier a berthing length of about 60 m exists, with depths from 0.3 to 0.8 m alongside. The pierhead is protected by boulders and exhibits a light (9.117).
The marina is located between the pier and the breakwater. A light is exhibited from the Club Nautique (46°41'8N, 71°34'4W).

Les Fonds

9.125

- 1 **Berth.** At the village of Les Fonds (46°39'4N, 71°36'4W) (population 188 in 1981), situated on the S shore, 1 mile above Pointe de Saint-Antoine, there is a public pier, 107 m long, with a ramp for small craft.

Les Écureuils

9.126

- 1 **Berth.** At Les Écureuils (46°40'N, 71°42'W), a village (population 334 in 1981) on the N shore, there is an old pier, bordered by loose boulders on all its faces. It is unfit for berthing.

SAINTE-CROIX TO POINTE LANGLOIS

General information

Chart 4788

Route

9.127

- 1 The channel from the vicinity of Sainte-Croix (46°37'N, 71°44'W) leads NW, then SW, for a distance of about 15 miles to Pointe Langlois (46°35'N, 72°00'W).

Topography

9.128

- 1 A general description of the terrain is given at 9.109. Extensive drying banks of mud, strewn with boulders and rocky patches, line both banks of the river.

Tidal streams

9.129

- 1 In the river off Sainte-Croix, the duration of the out-going tidal stream is 8 hours, and that of the in-going stream 4½ hours. The maximum rate of the out-going stream is about 3 kn, and that of the in-going stream 2 kn.
The mean rate of the out-going tidal stream off Pointe au Platon (46°40'N, 71°51'W) is 2¼ kn, and that of the in-going stream is 1¼ kn.
- 2 At Rapides Richelieu (46°39'N, 71°54'W), the out-going stream runs for 10 hours, with a maximum rate of 8 kn under certain conditions. The in-going stream runs for 2 hours at spring tides, with a maximum rate of 1½ kn. At neaps there is no perceptible in-going stream.
In the channel cut through Barre à Boulard (46°38'N, 71°56'W), the out-going stream has a maximum rate of 5½ kn, and the in-going stream a maximum rate of 2 kn.
- 3 The table below gives the flow in the channel off Portneuf (46°41'N, 71°53'W), taken at a depth of 3 m below the water surface.

Interval from HW Québec	Flow
h m	
–3 20	In-going flow begins
–0 50	Maximum rate 1 kn
+2 25	Out-going flow begins
+4 15	Maximum rate 1¼ kn

Principal mark

9.130

- 1 **Major light:**
Île Richelieu Light (white and orange square structure, 4 m in height) (46°38'6N, 71°54'6W), on N side of island. The light is intensified on bearing 211°, but it should not be used as a direction light.

Other navigational aid

9.131

- 1 **Racon:**
Île Richelieu Light (46°38'6N, 71°54'6W).

Directions

(continued from 9.122)

Sainte-Croix to Pointe au Platon

9.132

- 1 **Sainte-Croix/Cap Santé Traverse leading line:**
Sainte-Croix Front Light (orange rectangle from E, orange trapezium, black stripe from W, on framework tower, 7 m in height) (46°38'N, 71°42'W).
Sainte-Croix Rear Light (similar construction and tower, 15 m in height) (482 m from front light).
- 2 Cap-Santé Traverse Front Light (orange trapezium, black stripe, on white mast, 11 m in height) (46°41'N, 71°53'W).
Cap-Santé Traverse Rear Light (similar construction on framework tower, 15 m in height) (600 m from front light).
The lights are visible on the leading line only.
- 3 From a position about 6 cables NNE of Sainte-Croix Light (46°38'N, 71°44'W), the alignment (117°), astern, of Sainte-Croix Leading Lights, and (297°), ahead, of Cap-Santé Traverse Leading Lights, leads through Cap-Santé Traverse, a dredged channel marked by light

buoys, through Brisants Sainte-Croix, entered 1½ miles WNW of Sainte-Croix Front Light, passing:

- 4 SW of the town of Donnacona. A church (spire) (46°40'5N, 71°44'4W) is situated in the town. A water tank, large, conspicuous, is located about 7 cables NE of the church and radio mast (red lights) about 9 cables NW of the same church, thence:
SW of Cap-Santé (46°40'N, 71°47'W), with church (two spires), thence:
- 5 To a position abreast Pointe au Platon (46°40'N, 71°51'W), a flat narrow peninsula extending from the S shore, at which there is a small pier in ruins. The elevation of the land close behind the point is 53 m. Pointe au Platon Light (two orange daymarks on red and white framework tower, 9 m in height) is exhibited from the point.
- 6 **Caution.** Excessive speed should be avoided and extra caution exercised when passing Cap-Santé (46°40'N, 71°47'W).

Pointe au Platon to Rapides Richelieu 9.133

- 1 From abreast Pointe au Platon, the channel follows a mid-river track as it curves SW, between drying flats, strewn with boulders and rocky patches, lining both shores, passing:
SE of Portneuf jetty, extending 5 cables from the shore, marked by Portneuf Wharf Light (square framework tower, 8 m in height) (46°41'N, 71°53'W) on the wharf at the outer end of the jetty.
 - 2 **Caution.** The out-going tidal stream is reported to set diagonally across the channel to the N shore abreast Portneuf wharf and then to deflect SE across the channel abreast Pointe au Platon. See 9.129 for further information.
 - 3 **Portneuf Leading Lights:**
Front light (orange rectangle, black stripe on framework tower, 18 m in height) (46°41'N, 71°52'W).
Rear light (similar construction and tower, with white top, 15m in height) (600 m from front light).
 - 4 The alignment (028½°), astern, of these lights leads from a position 1½ miles WNW of Pointe au Platon, for a distance of about 1¼ miles SSW.
- Useful mark:**
Church (spire) (46°42'N, 71°53'W) at Portneuf.

Rapides Richelieu 9.134

- 1 Rapides Richelieu is the name given to the section of the river NW of Île Richelieu (46°38'N, 71°55'W).
Lotbinière Leading Lights:
Front light (orange rectangle, black stripe, on red framework tower, 11 m in height, with white top) (46°37'N, 71°57'W).
Rear light (similar construction and tower, 17 m in height) (868 m from front light).
The lights are visible on the leading line only.
 - 2 The alignment (222°) of these lights leads for a distance of 1½ miles through Rapides Richelieu, where the distance between the drying banks is reduced to 2.5 cables, and the width of the ship channel is 305 m, passing NW of Île Richelieu, a low-lying V-shaped islet.
- Caution.** See 9.129 concerning strong tidal streams in Rapides Richelieu.

Rapides Richelieu to Pointe Langlois

9.135

- 1 The channel crosses Barre à Boulard (46°38'N, 71°56'W), through a dredged channel 244 m wide.
Barre à Boulard Leading Lights:
Front light (orange trapezium, black stripe on framework tower, 18 m in height,) (46°40'N, 71°53'W).
Rear light (similar construction and tower, 19 m in height) (5.6 cables from front light).
The lights are visible on the leading line only.
- 2 The alignment (054°), astern, of these lights and Île Richelieu Light (9.130) leads through this reach of the ship channel, passing:
Through Barre à Boulard dredged channel, thence:
NW of Lotbinière (46°37'N, 71°56'W), a village with a church (two spires). A silo stands 1 cable S, thence:
NW of Vieille-Église pier-head (46°37'N, 71°58'W) (9.141).
- 3 From a position about 8 cables WSW of the pier-head, the channel diverges from the leading line and leads SW for 1¼ miles to the vicinity of Pointe Langlois, passing:
SE of a cross (46°36'5N, 72°00'8W) on the road close SW of Grondines-Est, and:
SE of Batture Simon, extending about 9 cables SSE from the cross.
(Directions continue at 9.146)

Anchorage

9.136

- 1 Anchorage is available on the NW side of the channel, about 5 cables NE of Îlet Mayrand (46°37'N, 71°58'W), as indicated on the charts.
Anchorage is also available off Portneuf; see 9.139.

Small craft

Donnacona

9.137

- 1 **General information.** The town of Donnacona (population 5731 in 1981) is situated E of the mouth of Rivière Jacques-Cartier (46°40'N, 71°45'W). The town contains a paper factory.
Berths. There are two wharves, both in a state of disrepair.
An outfall pipe extends 7 cables SSW from a position 3 cables ESE of the mouth of the Rivière Jacques-Cartier.

Cap-Santé

9.138

- 1 **General information.** The village of Cap-Santé, with a population of about 2615, is situated on the N shore, almost 2 miles W of Donnacona.
Berth. The public pier is 43 m long and 26 m wide, with a concrete ramp on the E side.

Chart 4788 plan of Portneuf

Portneuf

9.139

- 1 **General information.** The town of Portneuf, with a population of about 1470, is situated at the mouth of Rivière Portneuf (46°41'N, 71°53'W). A public pier extends about 5 cables from the shore close W of the river mouth. An overhead cable, vertical clearance 7.9 m, crosses the river mouth.
Anchorage is available, out of the main tidal stream, about 4 cables SW of the pier-head, as indicated on the chart.

- 2 **Berth.** The pierhead is 83 m long, with a dredged depth (1997) of 10.7 m alongside; however, mariners are cautioned that continual silting dictates lesser depths will be found at the berth between the periodical dredging operations. Shallower depths, of less than 10 m, lie close ENE and WNW of the pierhead.

Deschambault 9.140

- 1 At the village of Deschambault (population 879 in 1986) (46°39'N, 71°56'W), on the NW shore, there is a small pier with a launching ramp for small craft.

Vieille-Église 9.141

- 1 **General information.** The pier at the village of Vieille-Église (population 111 in 1981) (46°37'N, 71°58'W) is surrounded by large boulders and is unusable. Another small wharf, close NE, dries at LW and has a ramp. This wharf was formerly used by a ferry crossing to the NW shore.

POINTE LANGLOIS TO SAINT-PIERRE-LES-BECQUETS

General information

Chart 4788

Route 9.142

- 1 The channel from the vicinity of Pointe Langlois (46°35'N, 72°00'W) leads generally SW for a distance of about 10 miles to the vicinity of Saint-Pierre-les-Becquets (46°30'N, 72°12'W).

Topography 9.143

- 1 A general description of the terrain is given at 9.109.

Tidal streams 9.144

- 1 The tables below illustrate the rate of the tidal stream in the channel off Grondines (46°35'N, 72°02'W) and off Deschaillons-sur-Saint-Laurent (46°34'N, 72°06'W), taken at a depth of 3 m.

Off Grondines:

Interval from HW Québec		Flow
<i>h</i>	<i>m</i>	
+1	00	In-going flow begins
+2	00	Maximum rate ½ kn
+2	45	Out-going flow begins
+9	20	Maximum rate 2½ kn

- 2 Off Deschaillons-sur-Saint-Laurent:

Interval from HW Québec		Flow
<i>h</i>	<i>m</i>	
+1	30	In-going flow begins
+2	10	Maximum rate ½ kn
+2	50	Out-going flow begins
+10	00	Maximum rate 3¼ kn

Other navigational aids 9.145

- 1 **Racon:**
Pointe de Grondines rear light (46°35'N, 72°02'W).

Directions (continued from 9.135)

Pointe Langlois to Cap Charles

9.146

- 1 **Calvaire Leading Lights:**

Front light (orange rectangle, black stripe, on white framework tower, 8 m in height) (46°33'N, 72°05'W).

Rear light (similar construction and tower, 20 m in height) (616 m from front light).

The lights are visible on the leading line only.

- 2 From a position in the channel, NW of Pointe Langlois, the alignment (238½°) of these lights leads for a distance of about 3 miles through Grondines Channel, which has a least width of 244 m, passing (with positions from Pointe Langlois Light (three orange rectangles on framework tower, 11 m in height) (46°35'N, 72°00'W)):

NW of Battures du Chêne (1¼ miles WSW), thence:

NW of Battures à Cadieux (2¼ miles WSW), thence:

About 7 cables SE of Pointe des Grondines (46°35'N, 72°04'W), a low point on the N shore.

9.147

- 1 **Useful marks:**

Church (spire) (46°34'N, 72°00'W) at Leclercville.

Church (spire) (46°35'N, 72°03'W) at Grondines.

Cap Charles to Cap Lévrard

9.148

- 1 From the vicinity of Cap Charles (46°34'N, 72°04'W) to Cap Lévrard, 4½ miles WSW, the channel lies towards the S shore; each of its three reaches is indicated by leading lights.

- 2 **Leclercville/La Pérade leading line**

Leclercville front light (orange rectangle, black stripe, on white framework tower, 9 m in height) (46°34'N, 72°01'W).

Leclercville rear light (similar construction and tower, 11 m in height) (6 cables from front light).

- 3 La Pérade front light (orange rectangle, black stripe, on white framework tower, 12 m in height) (46°34'N, 72°10'W).

La Pérade rear light (similar construction and tower, 25 m in height) (6.6 cables from front light).

The lights are visible on the leading line only.

- 4 From a position about 2 cables NNW of Cap Charles (46°34'N, 72°04'W) the alignment (092½°), astern, of Leclercville Leading Lights and (272½°), ahead, of La Pérade Leading Lights leads through the dredged channel, passing:

- 5 N of Poulier Calvaire, a drying bank lying close W of Cap Charles, thence:

N of the harbour at Deschaillons-sur-Saint-Laurent (46°34'N, 72°06'W) (9.156). A light (white mast, 9 m in height) is exhibited from the corner of the wharf in the harbour.

9.149

- 1 **Pointe des Grondines Leading Lights:**

Front light (orange rectangle, black stripe on framework tower on white pile, 8 m in height) (46°35'N, 72°04'W).

Rear light (similar construction on white framework tower, 30 m in height) (1.35 miles from front light).

The lights are visible on the leading line only.

- 2 The alignment (066½°), astern, of these lights leads for a distance of 1¼ miles, through the second leg of the

dredged channel, passing, (with positions from Cap à la Roche (46°33'N, 72°08'W)):

NNW of Battures du Cap à la Roche (drying in places) extending NW from Cap à la Roche, and: SSE of Poulier Villeneuve (6 cables NNW).

9.150

1 **Pointe des Grondines Upper Leading Lights:**

Front light (orange rectangle, black stripe, on white round tower, 8 m in height) (46°35'N, 72°06'W).

An abandoned lighthouse stands close W.

Rear light (similar construction and tower, 14 m in height) (1.1 miles from front light).

The lights are visible on the leading line only.

2 The alignment (047¼°), astern of these lights leads for a distance of 2 miles through the third leg of this section of the dredged channel, passing:

SE of a concrete structure (elevation 6 m), with radar reflector, on the alignment of La Pérade Leading Lights (9.148), about 7 cables E of the front light, close E of the E end of Île de la Batture, thence: Close NW of Cap Lévrard, where the cliffs are 29 m high.

Cap Lévrard to Saint-Pierre-Les-Becquets

9.151

1 From abreast Cap Lévrard, the channel crosses obliquely towards the W shore.

Batiscan Leading Lights:

Front light (orange rectangle, black stripe, on two white tubular towers, 6 m in height) (43°31'N, 72°14'W).

Rear light (orange rectangle, black stripe on white framework tower, 17 m in height) (441 m from front light).

2 The alignment (240°) of these lights leads through the dredged channel for a distance of about 1¼ miles to a position 1¾ miles from the front light, passing:

SE of a rocky area at the S end of Battures Sainte-Anne (46°32'N, 72°11'W), thence:

NW of the N end of Battures Saint-Pierre, an area of drying flats, strewn with boulders and grassy patches, extending from the SE shore, below and above Saint-Pierre-Les-Becquets (46°30'N, 72°12'W).

3 At a position 1¾ miles from the front leading light, the channel turns SSW, passing about 7 cables WNW of the church at Saint-Pierre-Les-Becquets, with Saint-Pierre-Les-Becquets Light (white mast, 6 m in height) (46°30'N, 72°12'W) near the root of the pier (9.159).

Useful marks

9.152

1 Orange beacon on a mast located about 4 cables SW of the front light of Pointe des Grondines Upper Leading Lights (9.150).

Church (two square towers) (46°34'N, 72°12'W) at Sainte-Anne-de-la-Pérade; a chimney, prominent from the river, is situated 5 cables SSW.

Church (spire) (46°30'N, 72°12'W) at Saint-Pierre-Les-Becquets; an illuminated cross stands nearby; three white tanks are situated about 1½ cables S of the church, with a silo close S of them.

(Directions continue at 9.164)

Anchorage

Grondines

9.153

- 1 The Grondines anchorage area is situated on each side of the ship channel, between Pointe Langlois (46°35'N, 72°00'W) and Grondines on the opposite shore, as indicated on the chart.

Small craft

Leclercville

9.154

- 1 **General information.** The village of Leclercville, population 295 in 1996, is situated on the S side of the mouth of Rivière du Chêne (46°34'N, 72°00'W).

Berth. The public pier and a boat ramp are situated near the church. The pier is 191 m long and dries at LW.

Grondines

9.155

- 1 **General information.** At the village of Grondines (46°35'N, 72°02'W), with a population of 718 in 1996, there is a small enclosed harbour. Inside the harbour there is a boat ramp protected by a breakwater on the E side, and by a 125 m long boulder jetty on the W side.

Tidal levels. Mean spring range about 2 m; mean neap range about 1.3 m. For further information see *Admiralty Tide Tables Volume 2*.

Deschaillons-sur-Saint-Laurent

9.156

- 1 **General information.** The village of Deschaillons-sur-Saint-Laurent, population 1 060 in 1996, is situated about 2 miles W of Cap Charles (46°34'N, 72°04'W). The land in this vicinity is 30 to 38 m in elevation, with cliffs along the shore.

Deschaillons-sur-Saint-Laurent Light (9.148) is exhibited from the public wharf which in ruins.

Marina. There is a marina close W of the pier. It is protected from the W by a L-shaped breakwater, from the E by the pier and by a floating breakwater on the N side. Depths in the marina are about 0.8 m to 1.8 m. There are two lights (private) on the floating breakwater, one on the E end and one on the W end.

- 2 Speed should be reduced when passing the marina, so as to prevent damage to small craft and moorings.

Caution. At certain stages of the tide, considerable eddies form off the pier-head. During spring tides the out-going stream may attain a rate of 5 kn off Deschaillons-sur-Saint-Laurent.

Sainte-Anne-de-la-Pérade

9.157

- 1 **General information.** The village of Sainte-Anne-de-la-Pérade, population 2181 in 1996, is situated on both sides of Rivière Sainte-Anne 1 mile from its mouth (46°33'N, 72°12'W).

The river is crossed at Sainte-Anne-de-la-Pérade by two bridges, the lower having a vertical clearance of 3.7 m, the upper with a vertical clearance of 5.8 m.

Facilities: Boat launching ramp on E side of river, below lower bridge.

Rivière Batiscan

9.158

- 1 **General information.** The Rivière Batiscan (46°31'N, 72°14'W) empties into the St Lawrence River on the NW shore, about 7 cables N of the Batiscan Leading Lights. A narrow channel passes between grassy foreshores bordering

the entrance to the river. Buoys (private) mark the channel that leads to a marina. The river is spanned by two bridges with a vertical clearance of 5.5 m, 5 cables within the entrance, and 5.8 m, 4 cables farther upstream.

Marina. The marina is located on the N shore, 4 cables from the mouth of the river, below the downstream bridge.

- 2 **Caution.** A dolphin lies S of the marina pontoons. Numerous submerged dolphins are situated above the bridge.

Saint-Pierre-Les-Becquets

9.159

- 1 **General information.** The village of Saint-Pierre-Les-Becquets (46°30'N, 72°12'W), population 1336 in 1996, has an old wharf, situated about 1½ cables N of the church (9.152).

The old wharf has been bordered by loose boulders on all its faces and now forms a pier.

A boat launching ramp is located E of the pier.

SAINT-PIERRE-LES-BECQUETS TO TROIS-RIVIÈRES

General information

Chart 4789

Route

9.160

- 1 The channel from the vicinity of Saint-Pierre-Les-Becquets (46°30'N, 72°12'W) leads generally SW for about 12 miles to the E limit of the port of Trois-Rivières.

Topography

9.161

- 1 A general description of the terrain is given at 9.109.

Tidal streams

9.162

- 1 Off Batiscan (46°30'N, 72°15'W), with spring tides, the duration of the in-going stream is 1½ hours; at neaps the flow is always out-going.

The table below gives the flow in the channel off Batiscan:

Interval from HW Québec		Flow
h	m	
+2	05	In-going flow begins
+2	40	Maximum rate ½ kn
+3	25	Out-going flow begins
+11	00	Maximum rate 2¼ kn

Navigational aid

9.163

- 1 **Racon:**

Gentilly Front Leading Light (46°26'N, 72°16'W).

Directions

(continued from 9.152)

Les Becquets to Pointe à la Citrouille

9.164

- 1 From a position in the ship channel, WNW of the church (9.152) at Saint-Pierre-Les-Becquets, the track leads generally SSW.

Gentilly Leading Lights:

Front light (orange rectangle on white tower, 5 m in height) (46°26'N, 72°16'W) on drying flats off the SE shore.

Rear light (orange square, black stripe, on white framework tower, 22 m in height) (1.42 miles from front light).

The lights are visible on the leading line only.

- 2 The alignment (197¾°) of these lights leads for a distance of about 2¼ miles through the dredged channel, passing:

ESE of the village of Batiscan. Batiscan Wharf Light (46°30'N, 72°15'W) (white mast, 9 m in height) is exhibited from the S corner of building on the wharf (9.177). Thence:

ESE of Battures Perron, extending from the W shore.

- 3 At a position in the ship channel about 2½ miles SSW of Saint-Pierre-Les-Becquets, the channel diverges to the W of the alignment of Gentilly Leading Lights, passing close ESE of Pointe à la Citrouille Light (orange rectangle, white band on white framework tower, 15 m in height) (46°27'N, 72°16'W).

Pointe à la Citrouille to Pointe à Bigot

9.165

- 1 The dredged channel follows the NW shore around Pointe à la Citrouille, turning towards WSW, passing:

NW of a concrete platform (46°26'N, 72°15'W) (elevation 6 m), on the flats about 5 cables E of Gentilly Front Leading Light (9.164), thence:

NNW of Gentilly. A church (spire) (46°24'N, 72°17'W) is nearly on the alignment of Gentilly Leading Lights.

9.166

- 1 **Champlain Upper Leading Lights:**

Front light (orange trapezium, black stripe, on white mast, 8 m in height) (46°26'N, 72°21'W) on the NW bank.

Rear light (orange square, black stripe on red framework tower, 22 m in height, with white top) (455 m from front light).

The leading lights are visible on the leading line only, though all round lights are shown from the same structures.

- 2 The alignment (264°) of these lights leads for a distance of 2½ miles through the dredged channel, passing:

N of Battures de Gentilly, drying flats which occupy the middle of the river in this vicinity, and:

S of Poulier Carpentier, a rocky shoal lying 1 mile ENE of the front light.

9.167

- 1 When at a distance of 8 cables from the front leading light, the channel curves towards SW, generally following the line of the NW shore, passing:

S of Champlain (9.178), with a church (two spires) (46°27'N, 72°21'W) and Champlain Light (orange trapezium on white framework tower, 14 m in height) (46°26'N, 72°21'W), on the N shore about 1 cable SW of the church. Excessive speed should be avoided and extra caution exercised when passing Champlain. Thence:

NW of Battures de Gentilly, thence:

- 2 About 2 cables SE of Pointe à Bigot (46°25'N, 72°23'W). Pointe à Bigot Light (orange rectangle on white framework tower, 14 m in height), is exhibited from the point.

Pointe à Bigot to Trois-Rivières

9.168

1 Bécancour Leading Lights:

Front light (orange daymark, black stripe, on white structure, 6 m in height) (46°22'N, 72°27'W) on the W bank of the mouth of Rivière Bécancour.

Rear light (orange rectangle, black stripe on framework tower, 17 m in height) (9.8 cables from front light).

2 The alignment (230°) of these lights leads from abreast Pointe à Bigot, for a distance of 3 miles, through the dredged channel, passing:

NW of the outer jetty at Port de Bécancour (46°24'N, 72°23'W) (9.169), thence:

Close SE of Batture Francoeur, a shoal lying 9 cables NE of the front light.

(Directions continue at 9.200)

Port de Bécancour

General information

9.169

1 Position.

Port de Bécancour (46°24'N, 72°23'W) is situated on the S side of the river, about 60 miles up river from Québec, and 7 miles NE of Trois-Rivières.

The town of Bécancour (population 11 489 in 1996) is situated 1½ miles above the mouth of Rivière Bécancour, which enters St Lawrence River 3 miles WSW of the port.

2 Function.

The port operates all the year round and is equipped for handling Ro-Ro, bulk and general cargoes. Containers are handled using ship's own gear or mobile cranes.

Main imports:

Alumina, coal, manganosite, clay, coke and salt.

Main exports:

Aluminium, lumber and grain.

3 Approach and entry.

The entrance is approached through a dredged area on the SW side of the main ship channel.

Traffic. In 2000 the port handled 37 ships totalling 1 164 056 dwt.

Port Authority. Société du Parc Industriel du Québec, 1000 7^{ème} Rue Parc Industriel Portuaire, Bécancour, GOX IBO.

Limiting conditions

9.170

1 Controlling depth.

The port and its approaches have been dredged to a depth of 10.6 m (2002), though shoaler depths have been reported to exist. The dredged areas can best be seen from the chart. The area is subject to silting and lesser depths should be expected.

Tidal levels. The mean tidal range is about 1 m. A computerised information system comprising 13 tide gauges is fitted between Québec and Montréal.

Maximum size of vessel handled. Length 232 m, draught 10.6 m.

Arrival information

9.171

1 Outer anchorage.

Anchorage is available off the main ship channel in the vicinity of Batiscan (46°30'N, 72°15'W) (9.176) or off Trois-Rivières (9.204).

Pilotage and tugs. Pilotage is compulsory, the pilot being embarked off Escoumins (5.235) and changed at Québec. Tugs are not compulsory, but are available from Trois-Rivières.

Harbour

9.172

1 The harbour comprises a dredged area on the S side of the river; the limits of the dredging are indicated by light-buoys (privately maintained).

A spit of land, extending N from the W end of reclaimed land, forms the W side of the harbour and has berthing on its inner face; a jetty extends NE from the outer end of the spit, with berthing on both sides.

An industrial estate is situated S of the harbour.



Bécancour (9.172)

(Original dated prior to 2003)

(Photograph – Guy Beauchesne)

Directions for entering harbour

9.173

1 From the main ship channel abreast Pointe à Bigot (46°25'N, 72°23'W), the approach to the harbour leads S.

Bécancour Moiré Direction Light:

Optical guidance system (private, yellow structure, black stripes), (46°24'.0N, 72°22'.5W).

2 Located near the shore SE of berth No. 5, the direction light consists of a guidance panel showing illuminated directional arrows which become vertical when the vessel is on the indicated course. The line of bearing (167½°) of the direction light leads in to the basin, passing:

W of C21 Light-buoy (port hand), moored about 8 cables N of the breakwater, thence:

E of the head of the jetty.

3 Useful mark:

The E limit of the dredged area off the berths at Port de Bécancour is indicated by lights in line (private) (46°23'.9N, 72°22'.3W).

Berths

9.174

1 Anchorage is available in an emergency, in the dredged area off the berths, as shown on the chart.

Alongside berths. There are five berths, ranging in length from 150 m to 292 m, all with depths of 10.6 m



Bécancour (9.174)

(Original dated prior to 2003)

(Photograph – Guy Beauchesne)

alongside, except Berth 2, which has a depth of 10.1 m at its head. One berth incorporates a Ro-Ro ramp, 22 m wide. The longest berth, No 5 (smelter plant berth), is 292 m in length.

Port services

9.175

- 1 **Repairs:** facilities are available.
Other facilities: oily waste disposal; hospitals.
Supplies: fuel oils by road tanker; fresh water; provisions.
Communications: international airports at Québec and Montréal; heliport at the port.

Anchorage and harbours

Batiscan anchorage

9.176

- 1 There is anchorage, in depths of 10.7 m, off Batiscan (46°30'N, 72°15'W). The limits of the anchorage area, marked by light-buoys (special) can best be seen from the charts.

Batiscan

9.177

- 1 At the village of Batiscan (population 891 in 1996) (46°30'N, 72°15'W), on the W bank, there is a public wharf, 75 m in length, which has been bordered by loose boulders on all faces. The wharf is unfit for berthing.
 A light (9.164) is exhibited at the wharf and a boat slip is on the N side.

Champlain

9.178

- 1 At the village of Champlain (population 1 608 in 1996) (46°27'N, 72°21'W) on the N shore, there is a public pier with a berth at the pier-head 49 m long, and a depth of 3 m alongside. A boat slip is located at the pier.

TROIS-RIVIÈRES

General information

Chart 4789 plan Port of Trois-Rivières

Position

9.179

- 1 The harbour of Trois-Rivières (46°20'N, 72°33'W) comprises a portion of the St Lawrence River in the vicinity of the mouth of Rivière Saint-Maurice.

Function

9.180

- 1 Trois-Rivières is a commercial port. The major trade is grain, alumina, salt, clay, salt, paper, coke, clinker and petroleum products.
 The city of Trois-Rivières, on the W side of the mouth of Rivière Saint-Maurice, had a population of 48 419 in 1996. The city of Cap-de-la-Madeleine, situated on the opposite side of the mouth of Rivière Saint-Maurice, had a population of 33 438 in 1996.
 2 **Paper mills.** Large paper mills are located:
 On Île de la Potherie, in the mouth of the Rivière Saint-Maurice.

At Trois-Rivières, near the SW entrance point to Rivière Saint-Maurice.

Near the SW end of Trois-Rivières, about 1½ miles SW of the last mentioned mill.

Topography

9.181

- 1 **North-west shore.** From Pointe Lottinville (46°24'N, 72°27'W), the NW shore of the river as far as Cap-de-la-Madeleine is composed of low cliffs, 9 m high. From Rivière Saint-Maurice to Pointe-aux-Ormes (46°18'N, 72°35'W), the shore is low-lying. The main alongside berths lie along the N bank of the river, at the city of Trois-Rivières.

- 2 **South-east shore.** From the mouth of Rivière Bécancour, to Sainte-Angèle-de-Laval, 3¾ miles SW, there are drying flats of mud, sand and clay, strewn with boulders and rocky patches.

The drying flats continue SW from Sainte-Angèle-de-Laval; the NE part, which has been used as a dumping ground, dries in places up to 1.2 m.

Port limits

9.182

- 1 East limit. A line drawn from Pointe Lottinville (46°24'N, 72°27'W), on the N shore to the vicinity of Pointe de Bécancour, on the opposite shore.

West limit. A line drawn from a position on the N shore, 8 cables SW of Pointe-aux-Ormes Pilot Station (46°18'N, 72°35'W), to the S shore.

The limit lines are indicated on the chart.

Approach and entry

9.183

- 1 The berths at Trois-Rivières are approached through the main ship channel of St Lawrence River. The distance by river from Québec is about 67 miles.

Traffic

9.184

- 1 In 2000, 131 vessels, with a total deadweight tonnage of 2 453 967 used the port.

Port Authority

9.185

- 1 The port is administered by the Port of Trois-Rivières, PO Box 999, Suite 300, 1545 Rue du Fleuve, Trois-Rivières, Québec, G9A 5K2.

Limiting conditions

Silting

9.186

- 1 Considerable silting is experienced at Trois-Rivières. The depths alongside the wharves are constantly changing and periodical dredging is required. There may be less water than shown on the chart. A particularly vulnerable area lies between Trois-Rivières and Île Saint-Quentin, at the mouth of the Rivière Saint-Maurice.

Deepest and longest berth

9.187

- 1 No 10 Berth (9.205).

Tidal levels

9.188

- 1 Mean spring range and mean neap range are both about 0.1 m. For further information see *Admiralty Tide Tables*

Volume 2. A computerised information system comprising 13 tide gauges is fitted between Québec and Montréal.

Vertical clearances

9.189

- 1 **Overhead cables.** A set of power transmission lines with a minimum vertical clearance of 45 m or of 38 m under severe icing conditions, span the St Lawrence River above the main berthing area, about 2 miles above Sainte-Angèle-de-Laval. The lines are supported by towers, 128 m in height, which are marked by red lights.

- 2 **Bridges.** Pont Duplessis, a road bridge, crosses Rivière Saint-Maurice from Trois-Rivières to Île Saint-Christophe, thence to Cap-de-la-Madeleine. Vertical clearances are 3.8m and 3.5m respectively.

Pont Laviolette, a high level bridge with a vertical clearance of 50 m, crosses St Lawrence River 6 cables NE of Pointe-des-Ormes. The main span is well marked with lights.

Ice

9.190

- 1 From January to March, inclusive, ships navigating to Trois-Rivières need to be reinforced for ice.

Arrival information

Vessel traffic service

9.191

- 1 The Montréal Vessel Traffic Services Centre controls traffic in the port. For further details see *Admiralty List of Radio Signals Volume 6 (5)*.

Pilotage

9.192

- 1 Pilotage is compulsory. In-bound vessels are boarded by pilots in the vicinity of Escoumins (5.235) and pilots are changed at Québec for the passage to Trois-Rivières. Vessels bound for destinations farther W change pilots again at Trois-Rivières; masters of such vessels should ensure that requests for exchange pilots are sent four hours in advance, addressed to Pilotes Trois-Rivières.

- 2 The river pilot will dock and undock vessels on arrival and departure.

The pilot station is situated at Pointe-des-Ormes, on the NE shore, 3½ miles above the entrance to Rivière Saint-Maurice.

Tugs

9.193

Tugs are not usually considered necessary. However, they are available with prior notice.

Regulations

9.194

- 1 Vessels manoeuvring or otherwise underway in Trois-Rivières harbour, and also while at an alongside berth or at anchor, are subject to the Ports Canada Operating By-law. A copy of these regulations may be obtained from the Port Authority. In Trois-Rivières harbour a specific speed limit of 7 kn is in force.

- 2 The Port Authority has wide powers in the harbour, and may order vessels to move, to use tugs, to berth or anchor in locations which it designates. Certain restrictions on berthing and anchoring are set forth, along with the requirement for Masters of vessels to inform the Port Authority in advance of their intention to berth in the harbour.

- 3 Except in an emergency no vessel is permitted to anchor within the harbour without prior permission from the Port Manager and then only in the place assigned.

See Appendix II for extracts from Canadian *Port Regulations*.

Explosives. Vessels carrying explosives are not permitted to berth or anchor within the port limits of Trois-Rivières.

Quarantine and customs

9.195

- 1 Trois-Rivières is a port of entry for Customs and a quarantine sub-station; see Appendix III for quarantine reporting requirements.

Harbour

General layout

9.196

- 1 The ship channel through the harbour, about 8 miles in length between the E and W limits, lies towards the NW shore. It has a least depth of 11.0 m, a least width of 225m, and is well marked by light-buoys. All berths lie on the N shore. A sewage outfall extends SE from Pointe des Chenaux. Two designated spoil grounds lie on the W shore abreast Trois-Rivières.

Flow

9.197

- 1 The flow is always out-going, the rate being about 1 kn from 3½ to 7½ hours after HW Québec, and 1¾ kn from 3½ hours before to 2½ hours after HW Québec.

Principal mark

9.198

- 1 **Landmark:**
Church (46°22'·1N, 72°29'·9W), the imposing basilica of Notre Dame-du-Cap at Cap-de-la-Madeleine.

Other navigational aids

9.199

- 1 **Racons:**
Pont Laviolette (48°18'·4N, 72°33'·7W) N and S.

Directions for entering harbour

(continued from 9.168)

Pointe de Bécancour to Trois-Rivières

9.200

- 1 **Bécancour Upper Leading Lights:**
Front light (orange trapezium, black stripe, on white tower, 6 m in height) (46°23'N, 72°24'W).
Rear light (similar construction and framework tower, 15 m in height) (669 m from front light).
- 2 From a position 3 cables NNW of Pointe de Bécancour (46°23'N, 72°26'W), and close SE of Batture Francoeur, the alignment (076°), astern, of these lights leads for a distance of 1.4 miles through the first leg of the harbour channel, passing:
S of three radio towers situated on the N shore, about 5 cables W of Pointe Lottinville; one tower is taller than the others, and:
- 3 N of Bécancour Front Leading Light (46°22'N, 72°27'W) (9.168), which exhibits an all-round light from the same structure.

9.201

- 1 **Cap de la Madeleine Wharf Leading Lights:**
Front light (orange rectangle, black stripe, on framework tower, 8 m in height) (46°22'N, 72°30'W) on the SW corner of the wharf.
Rear light (orange trapezium, black stripe on white framework tower, 13 m in height) (147 m from front light).
- 2 The alignment (242½°) of these lights leads for a distance of 1 mile through the second leg of the harbour channel, passing:
NNW of Batture aux Veaux, a shoal extending from the SE shore to mid river.

9.202

- 1 **Cap de la Madeleine Lower Leading Lights:**
Front light (orange rectangle, black stripe, on framework tower, 9 m in height) (46°24'N, 72°28'W).
Rear light (similar construction on white framework tower, 21 m in height,) (975 m from front light).
- 2 The alignment (037½°), astern, of these lights leads into a wider dredged area off the wharves at Trois-Rivières, passing:
NW of shoal ground extending from the SE shore to mid-river, and:
SE of Île de la Potherie, exhibiting Île de la Potherie Light (white mast, 9 m in height) (46°21'N, 72°30'W) on the jetty at Pointe des Chenaux, the E point of the island, thence:
SE of Île Saint-Quentin, at the mouth of Rivière Saint-Maurice.

Trois-Rivières to western harbour limit

9.203

- 1 **Sainte-Angèle Leading Lights:**
Front light (orange rectangle, black stripe, on white round tower, 7 m in height) (46°19'N, 72°34'W).
Rear light (similar construction and tower, 13 m in height) (222 m from front light).
- 2 The alignment (229°) of these lights leads for a distance of 1.5 miles on a track close to the SE side of the dredged area, opposite the wharves at Trois-Rivières, passing:
A church (conspicuous spire) and ferry pier (46°20'N, 72°31'W) at Sainte-Angèle-de-Laval.
- 3 From a position 1 mile NE of the front leading light, the ship channel leads SSW towards the middle of the river, then SW, under the main span of Pont Laviolette, to the W limit of the harbour (46°17'N, 72°35'W), 1½ miles above the bridge.
Caution. The speed of the current in the main channel under the Pont Laviolette increases owing to the narrowing caused by the protective rubble surrounding the bridge piers. The current also increases between the other bridge piers with speeds varying between 2 and 3½ kns.
(Directions continue at 10.15)

Berths

Anchorage

9.204

- 1 The anchorage area for the port is marked by buoys and located at the SW end of the harbour, between Pointe-des-Ormes Pilot Station and the upper harbour limit. Numbered anchor berths, the positions of which are shown

on the chart, are allocated by the Port Manager on request. During the winter season, these berths are not safe and anchoring is not permitted.

- 2 **Prohibited anchorage.** Anchorage is prohibited in the area, indicated on the chart, from about 1.1 miles downstream of Pont Laviolette to about 2 cables upstream of that bridge, due to the presence of several submarine cables and a submarine gas pipeline.

Alongside berths

9.205

- 1 Alongside berths are located on the NW bank of St Lawrence River at Trois-Rivières and Cap-de-la-Madeleine, as shown on the chart. These berths are dredged, but due to silting there may be less water than listed. Principal berths:

Berth	Length (m)	Depth (m)	Remarks
1	152	9.1	Paper loading
10	251	10.7	General cargo
11	229	10.7	Woodpulp
13	183	9.1	Ro-Ro ramp at N end
16	175	10.7	Grain loading
17	221	10.7	Grain, coke and alumina unloading
19	221	10.7	Bulk liquid, dry cargo
20	219	10.7	Oil, molasses and chemicals

- 2 Silting has been reported alongside berths 4 to 7. The port authorities should be contacted for the latest information.

9.206

- 1 **Sainte-Angèle-de-Laval** ferry pier has a berth 75 m long across its outer end; the approach to the berth has a depth of 3 m.

Berth 21 (46°22'·0N, 72°29'·7W) is in a state of disrepair and is no longer used.

Cascades Luppel Incorporated Wharf is situated 1 cable downstream from No 21 Berth and is no longer operational.

Port services

Repairs

9.207

- 1 General hull and machinery repairs can be undertaken but there are no slips or dry docks.

Other facilities

9.208

- 1 Oily waste reception facilities; port doctor and hospital are available; Deratting Exemption Certificates can be issued.

Supplies

9.209

- 1 Fuel oil at berth 16 to 20; fresh water to all berths; provisions and ship's stores of most kinds can be supplied with due notice.



Trois Rivières from SW (9.205)

(Original dated prior to 2003)

(Photograph – Port of Trois Rivières)

Communications**9.210**

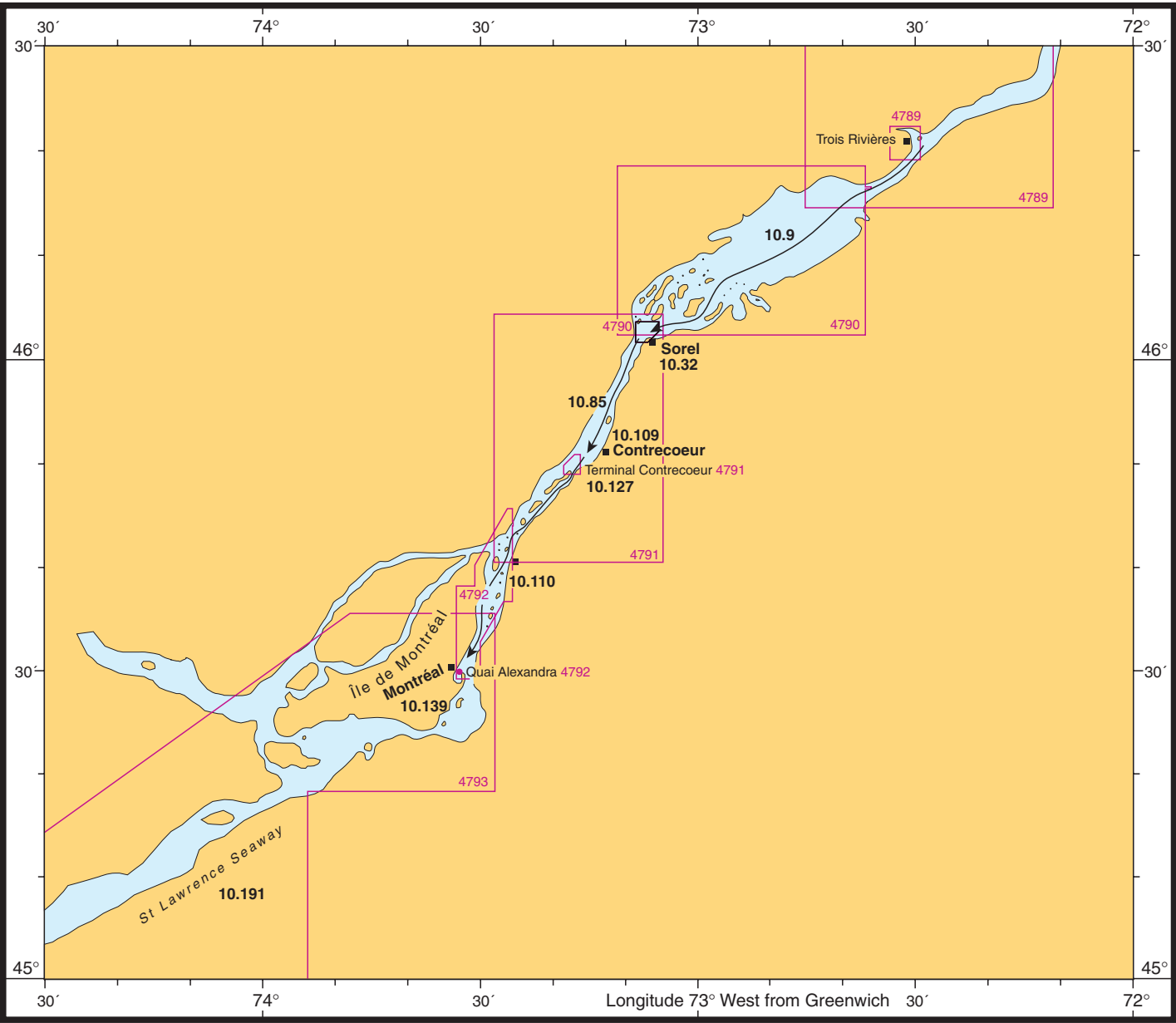
- / Trois-Rivières Airport is 8 km distant from the port. There are connecting flights to Québec and Montréal international airports.

Small craft**Marina****9.211**

- / A breakwater, 271 m long, extends from NE end of Île Saint-Quentin, in the mouth of Rivière Saint-Maurice. The marina is situated W of the breakwater.



Chapter 10 - St Lawrence River - Trois Rivières to Montréal and routes above Montréal



CHAPTER 10

ST LAWRENCE RIVER — TROIS-RIVIÈRES TO MONTRÉAL
AND ROUTES ABOVE MONTRÉAL

GENERAL INFORMATION

Charts 4789, 4790, 4791, 4792, 4793

Scope of the chapter**10.1**

- 1 This chapter comprises:
 - A full description of St Lawrence River from Trois-Rivières (46°20'N, 72°35'W) to Montréal (45°30'N, 73°33'W).
 - A brief description of the St Lawrence Seaway, the Great Lakes, and some minor waterways above Montréal.
- 2 The chapter is divided into two sections:
 - Trois-Rivières to Montréal (10.7).
 - St Lawrence Seaway and The Great Lakes (10.191).

Ice**10.2**

- 1 Shore-fast ice begins to form during the first half of December in most years, and its main outlines are established by early January. In general, fast ice is found over the shallow areas, while drift ice covers the shipping channel. Shore-fast ice becomes particularly extensive in Lac Saint-Pierre, where special works, including artificial islands, have been developed to prevent major disruptions once the ice cover has formed.
- 2 Lengthy delays in navigation and disastrous flooding can result if large flows of dislodged fast ice move into the ship channel, after being broken free by the wash of passing ships.
- 3 From Lac Saint-Pierre to Montréal similar conditions prevail, but there are more islands to assist in holding the ice in place. Ice booms are installed at some places to assist in this control.

10.3

- 1 Melting of the ice develops in early March, resulting in a gradual clearing of the ship channel below Montréal, as the existing ice is carried seaward and new formations cease. Decay of shore-fast ice follows, and fragments may be carried into the channel as break-up develops. This period is short-lived however, and the whole area is normally free of ice by the middle of April.

Vertical clearances**10.4**

- 1 After ice storms the vertical clearances of overhead cables in the routes to and above Montréal may be less than those indicated. See notes on the charts.

Flow**10.5**

- 1 The river current sets constantly downstream and ice also follows the downstream current. Tidal effect is negligible.

Traffic regulations**10.6**

- 1 **Vessel Traffic services.** The Vessel Traffic Services Centre, Montréal, controls traffic as far as the upper limit of the Port of Montréal. For further information see *Admiralty List of Radio Signals Volume 6 (5)*. The positions of the reporting points are indicated on the charts.
- 2 **Speed restrictions.** In winter, ships should not attempt to navigate at night without detailed knowledge of the ice conditions. One of the objectives of the Vessel Traffic Services System is to prevent this occurring by enforcing speed limits.

TROIS-RIVIÈRES TO MONTRÉAL

GENERAL INFORMATION

Charts 4789, 4790, 4791, 4792

Area covered**10.7**

- 1 This section describes the St Lawrence River between the upper limit (46°17'N, 72°35'W) of Trois-Rivières Harbour to the upper limit (45°30'N, 73°33'W) of the Port of Montréal. The section is arranged as follows:
 - Trois-Rivières to Sorel (10.9).
 - Port of Sorel and Rivière Richelieu (10.32).
 - Sorel to Contrecoeur (10.85).
 - Contrecoeur to Montréal (10.110).
 - Port of Montréal (10.139).

Regulations**10.8**

- 1 No vessel carrying crude oil, gasoline, or other flammable cargo, with a flash point below 23°C, may anchor anywhere above Lanoraie anchorage (45°59'N, 73°11'W) (10.104), close upstream of Sorel, without

permission of the Harbour Master of the Port of Montréal or his duly authorised representative.

TROIS-RIVIÈRES TO SOREL

General information

Charts 4789, 4790

Route**10.9**

- 1 From the W limit (46°17'N, 72°36'W) of Trois-Rivières Harbour, the channel leads into Lac Saint-Pierre, thence through the length of the lake to the downstream limit (46°07'N, 72°57'W) of the port of Sorel, about 20 miles SW.

Topography**10.10**

- 1 Lac Saint-Pierre is naturally shallow over its entire extent. Rivers flow into the lake from its NW and SE shores. At its head there are numerous islands and channels, through which the ship channel passes. Drying flats extend from both shores of the lake.

- 2 **Artificial islands.** Four artificial islands, to assist in ice control, are situated to the N of the channel, E of Yamachiche Bend (46°13'N, 72°49'W); five are situated to the S of the channel, W of the bend. There are also three structures, marked in ruins, for ice control to the NW of Courbe Louiseville (46°11'N, 72°54'W). The positions of all these features can best be seen from the chart.

Firing practice area

10.11

- 1 A Canadian Armed Forces firing practice area exists on the S side of Lac Saint-Pierre. For limits of the area and further details see the note on the chart and Canadian *Annual Edition of Notices to Mariners*.

Submarine cables

10.12

- 1 Submarine power cables are laid:
- Between Pointe du Lac Front Leading Light (46°16'N, 72°42'W) and Pointe-du-Lac Rear Leading Light, 1¼ miles NE.
 - Between Courbe Yamachiche Light (46°13'N, 72°49'W) and the mouth of Petite Rivière Yamachiche, 3 miles N.
 - Between Courbe Yamachiche W leading lights (46°12'N, 72°50'W) and Pointe Gabriel 4 miles SE.
 - Between Courbe Louiseville (No 2 Curve) Downstream Leading Lights (46°12'N, 72°54'W) and the mouth of Rivière du Loup, 1¼ miles NNE.
- 2 Between Courbe Louiseville (No 2 Curve) Upstream Leading Lights (46°11'N, 72°55'W) and the mouth of Rivière du Loup, 2 miles N.
- Between Courbe Maskinongé S side Light (46°09'N, 72°57'W) and the vicinity of Pointe Lussaudière, 3 miles SE.

Mariners are cautioned not to anchor in the vicinity of these cables.

Natural conditions

10.13

- 1 **Flow.** The river current sets NE in the general direction of the channel, except in the extreme NE part of the lake, where it sets E. The rate of the current in the lake varies from 1 to 2 kn.
- 2 **Ice.** The average thickness of smooth shore-fast ice in Lac Saint-Pierre is 74 cm, with a maximum thickness of 104 cm recorded in 1978. Ice begins to form around the middle of December and clears about the second week of April.

Other navigational aids

10.14

- 1 **Racons:**
- Nicolet Light (46°15'4N, 72°39'1W) (10.19).
 - Courbe Yamachiche Front W Leading Light (46°12'3N, 72°49'8W) (10.21).
 - Courbe Louiseville (No 2 Curve) Rear Leading Light (46°11'0N, 72°55'6W) (10.22).
 - Île aux Raisins Rear Leading Light (46°06'2N, 72°57'9W) (10.24).

Directions

(continued from 9.203)

General information

10.15

- 1 The ship channel across the lake is dredged to a depth of 11.3 m and a least width of 229 m. The width is

increased at the curves. The channel is well marked by leading lights and buoys.

Caution. During the winter, the lighted buoys are lifted and some of these are replaced by spar buoys.

Trois-Rivières to Port-Saint-François

10.16

- 1 From a position 46°17'N, 72°35'W, in the main channel at the W limit of Trois-Rivières Harbour, the track leads SW, to a position close NW of Port-Saint-François Wharf, from which a light (46°16'3N, 72°37'2W) (white tower, 3 m in height) is exhibited, where the channel narrows to a minimum width of 305 m, passing:

Close SE of a rocky shoal, depth 2.3 m, extending from the NW shore, marked by S2 Light-buoy (starboard hand).

Port Saint-François to Lac Saint-Pierre (Lake St Peter)

10.17

- 1 **Port-Saint-François Leading Lights:**
- Front light (orange rectangle, black stripe on white tower, 8 m in height) (46°16'3N, 72°37'2W), close SW of the wharf.
 - Rear light (orange square, black stripe on red framework tower, 13 m in height) (7½ cables from front light).
- The lights are visible on the leading line only.
- 2 From a position in the channel about 6 cables WSW of the front light, the alignment (068°), astern, of these lights leads for a distance of about 6 cables through the channel, passing SSE of Battures Laforce (46°16'N, 72°38'W), marked by S4 Light-buoy (starboard hand) and Batture au Fer, marked by S6 Light-buoy (starboard hand), 5 cables WSW.

At a distance of about 1¼ miles from the front leading light the channel curves towards the W.

- 3 **Caution.** The river current in the main channel between Port-Saint-François and the mouth of Rivière Nicolet, 1½ miles SW, sets E, and not in the direction of the channel, at a rate of about 2 kn.

10.18

- 1 **Nicolet Traverse Leading Lights.** From a position in the channel about 1 mile W of the front light, the alignment (096½°), astern, of these lights leads for a distance of about 1 mile into the NE end of Lac Saint-Pierre (Lake St Peter), to Courbe Pointe du Lac where the channel curves SW.

Front light (orange trapezium, black stripe on white round tower, 4 m in height) (46°15'N, 72°37'W).

Rear light (similar construction, framework tower 22 m in height) (583 m from front light).

The lights are visible on the leading line only.

10.19

- 1 **Useful marks:**
- Nicolet Sector Light (black and white square tower, 6 m in height) (46°15'4N, 72°39'1W), on a spit E of the channel leading into Rivière Nicolet.
 - The second light, visible all round, on the front light tower of Pointe du Lac Leading Lights (46°16'1N, 72°41'7W) (10.20).
 - Church spire (46°17'3N, 72°41'3W) in the town of Pointe-du-Lac (10.28).

Lac Saint-Pierre (Lake St Peter)—north-eastern part

10.20

- 1 **Pointe du Lac Leading Lights.** From a position in Courbe Pointe du Lac about 7 cables SW of the front light,

the alignment (056°), astern, of these lights leads for about 5 miles through the dredged channel to Courbe Yamachiche, to a position abreast Yamachiche Bend Light (10.21).

Front light (orange trapezium, black stripe, on white round tower with orange base, 3 m in height) (46°16'·1N, 72°41'·7W), standing on a pile structure.

Rear light (similar construction, inverted, black stripe, on white framework tower, 30 m in height) (1·22 miles from front light).

The leading lights are visible on the leading line only; a second light on the front light tower is visible all round.

10.21

- 1 **Courbe Yamachiche (Yamachiche Curve) West Leading Lights.** The alignment (236°) of these lights is coincident with that of the Pointe du Lac Leading Lights, and leads into Courbe Yamachiche.

Front light (red rectangle, black stripe on white round tower, 5 m in height) (46°12'·3N, 72°49'·8W).

Rear light (orange trapezium on white tower, 16 m in height) (761 m from front light).

The lights are visible on the leading line only; a second light on the front light tower is visible all round.

- 2 **Useful marks:**

Yamachiche Bend Light (on side of mast, 30 m in height) (46°12'·9N, 72°49'·2W), on an artificial island (10.10), close NW of the channel.

Church spire (46°17'N, 72°50'W) at the village of Yamachiche.

Lac Saint-Pierre (Lake St Peter)—middle reach

10.22

- 1 **Courbe Louiseville (No 2 Curve) Upstream Leading Lights.** From a position abreast Yamachiche Bend Light, the alignment (250°) of these lights leads for a distance of 3½ miles to Courbe Louiseville, abreast the entrance to Rivière du Loup (46°13'N, 72°55'W) (10.29), where the direction of the channel turns to SW.

Front light (orange trapezium on round tower, 3 m in height) (46°11'·2N, 72°55'·0W).

Rear light (orange round tower, 16 m in height) (914 m from front light).

One front and one rear light are visible on the leading line only. Second front and rear lights are visible all round from the same structures.

Lac Saint-Pierre (Lake St Peter)—south-western part

10.23

- 1 **Courbe Louiseville (No 2 Curve) Downstream Leading Lights.** From a position in the channel 1 mile SW of the front light, the alignment (044°), astern, of these lights leads for a distance of 1½ miles, to Courbe Maskinongé No 1, where the direction of the channel turns to SSW.

Front light (orange square on white round tower, 3 m in height) (46°11'·7N, 72°53'·8W).

Rear light (orange trapezium on white framework tower, 18 m in height) (611 m from front light).

- 2 **Useful mark:**

Maskinongé Curve Light (white round tower, red bands, 4 m in height) (46°09'·4N, 72°56'·5W), stands on the SE side of the curve.

10.24

- 1 **Île aux Raisins Leading Lights:**

Front light (orange rectangle on tower, 5 m in height) (46°06'N, 72°58'W).

Rear light (red rectangle on framework tower, 33 m in height) (573 m from front light).

The lights are visible on the leading line only; a second light on the rear light tower is visible all round.

- 2 From a position at the S end of Courbe Maskinongé, about 5 cables SSW of Maskinongé Curve Light, the alignment (193°) of these lights leads for a distance of 1¾ miles to the vicinity of S111 Light-buoy (46°07'N, 72°57'W), 3 cables NW of Îlets Percés, passing W of Battures Saint-François, which dries in parts.

(Directions continue at 10.57)

Anchorage

Courbe Yamachiche

10.25

- 1 **Anchorage** is available on the SE side of Courbe Yamachiche (46°13'N, 72°49'W), within an area dredged to a depth of 10·7 m, as shown on the chart.

The SE limit of the dredged area is marked by a light-buoy (special purpose).

Caution. Measuring equipment, to register the ice flow, has been laid on the seabed in the navigational channel in the vicinity of the anchorage. Local knowledge is required before anchoring.

Small craft harbours and channels

Port-Saint-François

10.26

- 1 **Berth.** A public wharf, 30 m in length, reported to be in ruins, is situated at Port-Saint-François (46°16'N, 72°37'W). A light (10.16) is exhibited from the pier-head.

Rivière Nicolet

10.27

- 1 **General information.** From a position about 1 cable NNW of Nicolet Sector Light (46°15'N, 72°39'W) (10.19), a buoyed channel leads into the mouth of Rivière Nicolet. The town of Nicolet, population 4 352, affords landing about 2 miles from the river mouth on the E side of the river.

Landing is not permitted on the W shore of the river on Île Moras and Île Lozeau, which are the property of the *Department of National Defence*. See the chart.

Marina. A marina is situated on the E bank, about 8 cables within the river entrance.

Pointe-du-Lac

10.28

- 1 **General information.** Pointe-du-Lac (46°17'N, 72°41'W), population 6 197, lies on the NE shore of Lac Saint-Pierre. There is a landing 1 mile ESE of the town and a marina to the W which is not charted.

Rivière du Loup

10.29

- 1 **General information.** Rivière du Loup (46°13'N, 72°55'W) flows into the NW side of Lac Saint-Pierre. The town of Louiseville, population 7911, is situated 2¾ miles above the river mouth. A church with two prominent spires stands in the town.

Directions. A direction light (white round tower, 5 m in height) (46°13'N, 72°55'W) is exhibited from the W bank, near the river mouth. The line of bearing 334½° of the direction light leads to the river mouth, through a buoyed channel, from a position in the main ship channel in the vicinity of Courbe Louiseville (46°11'N, 72°54'W).

- 1 **Marina.** A marina is situated on the W bank of the river, about 2 cables above its mouth. Another small wharf is located at Louiseville.

Chenal Tardif

10.30

- 1 **General information.** Chenal Tardif, a branch of Rivière Saint-François (10.31) enters Lac Saint-Pierre 2 miles E of the main stream at Pointe Lussaudière (46°08'N, 72°52'W). There is a least depth of 0.3 m as far as a landing, about 1½ miles within the entrance, at Notre-Dame-de-Pierreville. An overhead cable with a least vertical clearance of 11 m spans the river downstream of the landing. Two bridges with a least vertical clearance of 4.1 m also span the river.

Rivière Saint-François

10.31

- 1 **General information.** Rivière Saint-François (46°07'N, 72°55'W) flows into the S side of the upper end of Lac Saint-Pierre, affording excellent shelter for small craft.

The village of Notre-Dame-de-Pierreville, population 813, is situated 3 miles from the river entrance. The village of Saint-François-du-Lac, population 2001, is situated on the S bank, 6 miles upstream, with the village of Pierreville on the N bank, 5 cables farther up river.

- 2 There is a least depth of 0.6 m in the channel as far as Notre-Dame-de-Pierreville, thence a minimum depth of 0.3 m and drying shoals in the river to Pierreville.

Directions. A buoyed channel, entered at SJ2 Light-buoy (starboard hand), moored 2 cables N of Pointe des Îlets (46°08'N, 72°56'W), leads into the river from the NNW.

- 3 **Berths.** There is a marina on Île Saint-Jean on the W bank about 2 miles upriver. Public wharves afford landing at:

Notre-Dame-de-Pierreville with a depth alongside of 1.6 m.

Saint-François-du-Lac with a depth alongside of 0.7 m.

Repairs: small shipyard at Notre-Dame-de-Pierreville.

Other facilities: slipway at Saint-François-du-Lac.

Supplies: limited quantities of provisions are available at Notre-Dame-de-Pierreville.

PORT OF SOREL AND RIVIÈRE RICHELIEU

General information

Charts 4790 plan Port of Sorel, 4791

Position

10.32

- 1 The Port of Sorel comprises a section of St Lawrence River W of Lac Saint-Pierre, and the lower reaches of Rivière Richelieu (46°03'N, 73°07'W).

Function

10.33

- 1 Sorel is a port of entry for customs. The principal imports are grain, ilmenite, steel and anthracite; the main exports are grain, titanium oxide and scrap iron.

The town of Sorel is situated on the E side of the mouth of Rivière Richelieu with the town of Tracy on the W bank. The combined population of Sorel-Tracy is 36 021. Saint-Joseph-de-Sorel, population 1 875, also lies on the W bank. There are shipyards, grain elevators, metal works, textile and chemical plants in the harbour area.

Port limits

10.34

- 1 The harbour is bounded on the E by a line drawn from Îlets Percés (46°07'N, 72°57'W) in a 318° direction. The W harbour limit, which is also the Port of Montréal downstream limit, crosses St Lawrence River at approximately 46°01'N, 73°10'W. In Rivière Richelieu, the S limit of the harbour is 5.2 miles above the river mouth.

Approach and entry

10.35

- 1 The port is approached from NE through Lac Saint-Pierre, and entered through the ship channel, which passes between the islands at the head of the lake.

Traffic

10.36

- 1 In 2000, 195 ship movements were recorded, totalling 6 527 568 dwt.

Port Authority

10.37

- 1 Port Authority:
Transport Canada, Gare Maritime Champlain, 901 Cap-Diamant, 4th Floor, Québec QC, G1K 4K1.
Port Operator:
Harbour Master, Transport Canada, 287 Rue du Roi, Sorel, Québec, J3P 4P6.

Limiting conditions

Controlling depth

10.38

- 1 The main ship channel is dredged to 11.3 m over a least width of 244 m. Mariners are warned that some depths in the Port of Sorel are shoaler than charted.

Deepest and longest berth

10.39

- 1 Berth No 15 (10.67) on the E side of the mouth of Rivière Richelieu.

Mean levels

10.40

Water level above chart datum varies from about 2.1 m in April to 0.6 m in September. There is negligible tidal effect.

Density of water

10.41

- 1 Water is fresh.

Ice

10.42

- 1 During the period from December to March, inclusive, it is recommended that vessels navigating to Sorel be strengthened for ice.

Arrival information

Vessel Traffic Service

10.43

- 1 Traffic is under the control of the Montréal Vessel Traffic Services System. For further information see *Admiralty List of Radio Signals Volume 6 (5)*.

Outer anchorage

10.44

- 1 There is anchorage on the NW side of the channel, opposite Île des Barques (46°05'N, 73°00'W), in depths of between 10 m and 13.5 m, mud.

Prohibited anchorage. There is a prohibited anchorage area between Bassin Langtôt (46°03'N, 73°07'W) and Pointe aux Pins, 3 cables W, extending N to the N shore, the limits of which are indicated on Charts 4790 and 4791.

Pilotage

10.45

- 1 Pilotage is compulsory. Pilots board inbound vessels at Escoumins (5.235).

Tugs

10.46

- 1 Tugs are available.

Regulations concerning entry

10.47

- 1 The following regulations apply to navigation in Port of Sorel:

No vessel shall navigate at a speed exceeding 8 kn. Notwithstanding the provisions of the Collision Regulations, every power-driven vessel entering or leaving Rivière Richelieu at Sorel-Tracy shall keep to the E side of the Richelieu channel.

Small craft proceeding upstream from Sorel-Tracy are required to hug the N and W shores of the river in order to avoid deep-draught vessels in the main ship channel.

Quarantine

10.48

- 1 Sorel is a quarantine sub-station.

Harbour

General layout

10.49

- 1 The main berthing areas are Dock No 1 and Dock No 2 enclosing Bassin Lanctôt on the E side of the mouth of Rivière Richelieu. The silos and grain elevators on Dock No 1 are prominent features. There are also deep water berths 8 cables W of the river mouth.

There are several berths along the banks of Rivière Richelieu, within 4 cables of its mouth, and a shipyard that is no longer in commercial use is situated about 8 cables up river.

Ferry

10.50

- 1 A vehicle and passenger ferry plies between Sorel and Saint-Ignace-de-Loyola on the opposite bank of St Lawrence River. The usual ferry track is indicated on the chart.

Bridges

10.51

- 1 The following bridges span Rivière Richelieu within the limits of the Port of Sorel:

Pont Turcotte, a road bascule bridge, with a vertical clearance 16 m when closed, stands about 4 cables above the river mouth. The bridge may be opened on request at the user's expense.

Canadian National Railways swing bridge situated 2 cables upstream of Pont Turcotte. In 1985 it was reported that the swing span was permanently open. A submerged pile is situated close N of the bridge.

Pont Sorel-Tracy, a road bridge, vertical clearance 22 m, situated 8 cables above the railway swing bridge. Vessels proceeding upstream use the W

channel; vessels proceeding downstream use the E channel.

- 2 **Sound signal.** Vessels intending to pass through Pont Turcotte are requested to sound three long blasts on the whistle or siren on approaching the bridge.

Submarine cables

10.52

- 1 Submarine cables cross St Lawrence River from a position close W of the wharf at Saint-Ignace-de-Loyola (46°04'N, 73°08'W) to the opposite shore; the position of the cable area is indicated on the charts. Mariners are cautioned not to anchor in the vicinity.

Overhead cables

10.53

- 1 Power transmission lines span the St Lawrence River and Rivière Richelieu as follows:

St Lawrence River. Two cables situated close together, 6 cables W of the mouth of Rivière Richelieu, are supported by towers 126 m in elevation, marked by red and white lights. The cables have a vertical clearance of 51 m reducing to 38 m in ice.

Rivière Richelieu. A cable spans the river close N of the railway bridge; the vertical clearance is 40 m.

- 2 **Caution.** Mariners are advised to exercise caution when passing under power cables; see notes on Chart 4790.

Silting

10.54

- 1 Owing to continual silting, dredging is carried out periodically, but depths may be less than charted. See note on Chart 4790 plan of Port de Sorel.

Flow

10.55

- 1 **Current.** The river current in the ship channel abreast Île des Barques attains a maximum rate of 2¾ kn. Elsewhere in Port of Sorel the average rate is between 1 and 1½ kn.

Principal marks

10.56

- 1 **Landmarks:**

Two church spires (elevations 52 m and 41 m) (46°03'N, 73°06'W), at Sorel.

Two masts (red and white lights) (elevation 126 m) (46°03'N, 73°08'W), at Saint-Joseph-de-Sorel, carrying power transmission lines to two similar masts, 6 cables NNW.

Directions for entering harbour

(continued from 10.24)

Approach

10.57

- 1 **Île des Barques Leading Lights.** From a position in the ship channel, abreast Îles Percés (46°07'N, 72°57'W), the alignment (218½°) of these lights leads for a distance of 1.4 miles through the ship channel, marked by light-buoys, to a position abeam S117 Light-buoy (port hand) marking spoil ground.

Front light (orange rectangle on white tower, 5 m in height) (46°05'.3N, 72°59'.7W), on the NE side of the island.

Rear light (red rectangle, black stripe on white framework tower, 21 m in height) (480 m from front light).

Lights are visible on leading line only.

10.58**1 Sainte-Anne-de-Sorel Leading Lights:**

Front light (orange rectangle, black stripe on white tower, 7 m in height) (46°03'·5N, 73°03'·4W).

Rear light (orange square, black stripe on framework tower, 23 m in height) (771 m from front light).

The lights are visible on the leading line only. Additional lights, visible all round, are exhibited from both light towers.

- 2 From a position in the channel 4 miles NE of the front light, the alignment (232°) of these lights leads for a distance of 3·5 miles through the ship channel, passing NW of Île des Barques, low-lying, and SW of Île à la Pierre, a narrow and low island on the SE shore of which are located four uncharted, disused light structures. When abreast the SE corner of Île de Grâce (46°05'N, 73°03'W), the channel turns more towards the W.

10.59**1 Useful marks:**

Phare Lighthouse (46°05'·8N, 73°00'·1W), abandoned. Tower (27 m in height) (46°04'·9N, 73°00'·5W).

Spire (46°03'·4N, 73°03'·8W) in the village of Sainte-Anne-de-Sorel.

10.60

- 1 **Île du Moine Leading Lights.** From a position in the channel at least 1 mile W of front light, the alignment (082½°), astern, of these lights leads for a distance of 1·6 miles into Courbe Népigon, at the E edge of Port de Sorel.

Front light (orange rectangle on framework tower, 12 m in height) (46°04'·0N, 73°01'·5W) on the W end of the island.

Rear light (similar construction, black stripe on framework tower, 17 m in height) (488 m from front light).

The lights are visible on the leading line only.

Harbour**10.61****1 Île de Grâce Leading Lights:**

Front light (orange rectangle on white tower, 7 m in height) (46°04'N, 73°03'W) on the S side of the island.

Rear light (similar construction on white framework tower, 16 m in height) (598 m from front light).

The lights are visible on the leading line only. Additional lights, visible from the SE sector, are exhibited from both lights.

From a position in Courbe Népigon, 1·9 miles WSW of the front light, the alignment (073¼°) astern, of these lights leads for a distance of 2·4 miles through Course Île de Grâce, passing:

NNE of Port de Sorel and the entrance to Rivière Richelieu, and NNE of Pointe de Sorel to a position in Courbe Sorel, where the channel turns SSW.

Harbour west side**10.62****1 Île Dupas Leading Lights:**

Front light (orange square, black stripe on white building, 3 m in height) (46°03'·5N, 73°09'·4W) on the E shore of Île aux Cochons.

Rear light (orange rectangle, black stripe on red framework tower, 17 m in height) (624 m from front light).

The lights are visible on the leading line only.

- 2 From a position in Courbe Sorel, 1·2 miles SSW of the front light, the alignment (015°), astern, of these lights leads on a track of 195°, passing (with positions given from the front leading light):

WNW of a 7·9 m sandy patch, extending to mid-river, marked by M1 Light-buoy (port hand) (1·4 miles SSW) and M3 Light-buoy (port hand) (2 miles SSW), thence:

Through the S limit line (2½ miles SSW) of the Port of Sorel.

(Directions continue at 10.93)

Small craft channel**Chenal du Nord****10.63**

- 1 **General information.** This channel, which is suitable for small craft drawing less than 1·5 m, is about 5½ miles long and 137 m wide and follows the N shore of St Lawrence River from the W limit of the Port de Sorel to Lac Saint-Pierre.

Directions. The channel is entered between MP16 Buoy (starboard hand) (46°01'N, 73°11'W) and MP15 Buoy (port hand) in the vicinity of the S end of Île aux Foins (46°02'N, 73°11'W) and leads generally NE, passing (with positions from Île aux Foins):

- 2 SE of Berthierville (2½ miles N) (10.77), where a bridge (vertical clearance 5·6 m) and an overhead power cable (vertical clearance 12 m) joins La Commune de Berthier, Île aux Castors and Île aux Vaches from the mainland, thence:

NW of the NE end (5 miles NNE) of Île aux Vaches, where an overhead cable (vertical clearance 13 m) spans the channel at the entrance to Rivière Chicot, thence:

Either side of Le Nid d'Aigle (8 miles NE).

The channel then enters Lac Saint-Pierre in the vicinity of La Grande Pointe (10 miles NE).

Other minor channels**10.64**

- 1 Several of the minor channels between the islands N and NE of Sorel are obstructed by stone weirs, designed to control the flow of water into Lac Saint-Pierre. These weirs are shown on the charts.

Basins and berths**Anchorage****10.65**

- 1 There are two anchorage areas in the river off Sorel, about 3 cables NW and about 6 cables NE of the entrance to Rivière Richelieu, in depths of between 9 m to 10 m. Recommended anchor berths are indicated on the plan of Port de Sorel on the chart.

Alongside berths**10.66**

- 1 **Sorel.** Dock No 1 forms the E side of the mouth of Rivière Richelieu. Its N face is normally used by lake vessels discharging grain; its W face is normally used by ocean vessels loading grain. The berths are operated by James Richardson International.

Dock No 2, E of Dock No 1 and enclosing Bassin Lanctôt, is used for general cargo, ferry services and the Canadian Coast Guard.

10.67

- 1 Details of alongside berths, positions of which are indicated on the chart, are as follows:

Dock No 1 has five private berths, Nos 11 to 15; No 15 is 236 m in length with a depth of 10.2 m alongside.

Dock No 2 has six public berths, Nos 5 to 10; No 5 is 183 m in length with a depth of 8.8 m alongside.

10.68

- 1 **Rivière Richelieu.** There are three alongside berths on the E side of the river, between its mouth and Pont Turcotte (10.51) and one berth on the W bank, near the river mouth. All are privately operated.

Marine Industries shipyard is situated on the W bank, above the bridge.

There are four berths, Nos 16 to 19; No 19 is 210 m in length with a depth of 9.0 m alongside; see the chart.

10.69

- 1 **Tracy.** A wharf operated by QIT Fer et Titane, handling ore, scoria, coal and cast iron is situated 8 cables W of the mouth of Rivière Richelieu. The wharf, comprising Berths Nos 20 and 21, is 335 m long, with a depth of 9.1 m alongside.

Port services**Repairs****10.70**

- 1 Shipyards at Sorel have comprehensive facilities for general hull and engine repairs of all kinds.
- There are two patent slips capable of launching and dry docking vessels up to 12 000 dwt.

Other facilities**10.71**

- 1 Issue of de-ratting and exemption certificates; compass adjustment; facilities for the disposal of oily waste; hospital.

Supplies**10.72**

- 1 Fuel oils are available by tanker or tank truck; fresh water at most berths; fresh provisions; stores.

Communications**10.73**

- 1 The nearest airport is Montréal (Dorval), distant 110 km.

Harbour regulations**10.74**

- 1 The Port of Sorel is subject to the Canadian *Public Harbour Regulations*; for extracts of these regulations see Appendix II.

Small craft**Landing places****10.75**

- 1 **Sainte-Anne-de-Sorel** (46°03'N, 73°04'W), population of 2796, is situated on the S side of St Lawrence River, 2¼ miles ENE of the mouth of Rivière Richelieu. The public pier is 15 m long, with a depth of 2.1 m alongside its head. The pier forms the N wall of a small boat basin with a ramp, entered through breakwaters.

10.76

- 1 **Saint-Ignace de Loyola** (46°04'N, 73°07'W), population 883, is situated opposite the mouth of Rivière Richelieu, on the S shore of Île Saint-Ignace. The shoreline in this vicinity is about 8 m high. The public wharf is 55 m long, with a depth of 4.3 m alongside. The ferry from Sorel berths on the downstream side of this wharf.

10.77

- 1 **Berthierville** (46°05'N, 73°10'W), population 3 952, has a small public wharf with a ramp.

Marinas**10.78**

- 1 **Parc Nautique de Sorel (Sorel Marina)** (46°03'N, 73°05'W) is a boat basin, enclosed by breakwaters, with depths between 1.2 m and 1.8 m in the basin. The marina is entered from upstream and downstream through small boat channels.

Upstream Leading Lights:

Front light (white mast, 3 m in height) (46°03'0N, 73°05'6W) standing on an artificial island.

Rear light (yellow mast, 3 m in height) (139 m from front light).

The alignment (229°) of these lights leads through a buoyed channel to the entrance to the marina.

- 2 **Downstream Leading Lights:**

Front light (white mast, 3 m in height) (common with above).

Rear light (yellow mast, 4 m in height) (161 m from front light).

The alignment (095°) of these lights leads through a buoyed channel to the entrance to the marina.

10.79

- 1 **Parc Nautique Fédéral** (46°03'N, 73°06'W) is a small boat basin, enclosed by breakwaters, 5 cables W of Sorel Marina, with least depths between 0.8 m and 1.7 m.

10.80

- 1 Marinas are also situated in the following locations:
- At the W end of Chenal du Moine (46°04'N, 73°01'W). A depth of 3 m is reported alongside its berths. Two other marinas are located in Chenal du Moine.
- In Rivière Richelieu, on the W bank, 4 cables above its mouth.
- On mainland shore of Chenal du Nord (10.63) there are four marinas located between the S end of Île aux Foins to Berthierville, as indicated on the chart. Two more marinas are located opposite Le Nid d'Aigle (46°10'N, 73°02'W).

The usual facilities for pleasure craft are available at these marinas.

Rivière Richelieu

Chart 4790 plan of Port de Sorel

General information**10.81**

- 1 Rivière Richelieu is entered at the Port of Sorel (46°03'N, 73°07'W), and extends S for a distance of about 67 miles to the vicinity of the international boundary between Canada and the United States of America. At its head, Rivière Richelieu connects with Lake Champlain, the State of New York barge canal systems and the Hudson River, thus forming part of an international waterway between Canada and the United States.

- 2 From Sorel, the river leads for a distance of 11½ miles to Saint-Ours lock, which raises the water level 1.5 m. From Saint-Ours lock, a vessel may continue upstream for

27 miles to Bassin de Chambly, after which the river becomes a series of rapids, with a difference of level of 22 m between Chambly and Saint-Jean-sur-Richelieu. Canal de Chambly, 10 miles in length, with nine locks and a swing bridge, by-passes this section of the river. From the upper end of this canal, there is an unobstructed reach of navigable water to the head of the river at Lake Champlain.

Limiting conditions

10.82

- 1 **Maximum size of vessel handled.** The maximum size of vessels passing through the systems is limited by the dimensions of the Canal de Chambly locks:

Available length	33.9 m.
Width	7 m.
Depth over sills	2 m, but less when water level is extremely low.

The minimum overhead clearance is 8.8 m, under a bridge across the Canal de Chambly in the vicinity of Saint-Jean-sur-Richelieu.

- 2 **Ice.** The Saint-Ours Canal and Canal de Chambly are normally open to navigation from mid-May to mid-October. The actual opening and closing dates, and the hours of operation for the locks are promulgated in Canadian *Notices to Mariners*.

Regulations

10.83

- 1 Vessels using Saint-Ours Canal and Canal de Chambly are subject to Heritage Canal Regulations, copies of which may be obtained from the Canadian Government Publishing Centre, Supply and Services Canals, Hull, Québec K1A 0S9. Additional information may be obtained from Québec Canals, 1369 rue Bourgonne, Chambly, Québec J3L 1Y4.

Sailing directions and charts

10.84

- 1 A full description of Rivière Richelieu is given in the Canadian *Sailing Directions—Gulf and River St Lawrence*. For details of Lake Champlain, New York canals and the Hudson River, the *United States Coast Pilot 6 (Great Lakes)* and the appropriate United States charts should be consulted. For further information see Appendix I.

SOREL TO CONTRECOEUR

General information

Chart 4791

Routes

10.85

- 1 **Main ship channel.** From the up-river limit (46°01'N, 73°10'W) of the Port of Sorel, which is also the N limit of the Port of Montréal, to Pointe Saint-Ours, 4 miles SSW, the channel follows the natural course of St Lawrence River. S of this point the river widens and becomes, generally, more shallow, with the main shipping route following a dredged channel to the vicinity of Contrecoeur (45°51'N, 73°14'W). The channel is well marked with leading lights and buoys.
- 2 **Minor channel.** A narrow channel (10.99) follows the W side of the river, SW of Pointe Saint-Ours.

Topography

10.86

- 1 **Islands.** Île Saint-Ours (45°55'N, 73°13'W) is the N island of Îles de Contrecoeur, which extend for about 5 miles along the E side of the river. In May, these islands become partly covered, as the level of the river rises, presenting a different appearance to that of later months.

Depth

10.87

- 1 The main ship channel has a controlling depth of 11.3 m, maintained by dredging, and a least width of 244 m.

Overhead cables

10.88

- 1 Power transmission lines cross the river in the vicinity of the Hydro-Québec generating station (46°00'N, 73°10'W). The supporting towers are marked by red lights. The vertical clearance is 55 m, reducing to 52 m in severe icing conditions. See note on the chart.

Traffic regulations

10.89

- 1 **Prohibited anchorages.** Areas where anchoring is prohibited lie NW of Île Saint-Ours (46°55'N, 73°13'W) and S of Île Mousseau (45°51'N, 73°17'W). The limits of the areas are indicated on the chart.

Vessel with flammable cargoes require approval to anchor above Lanoraie anchorage (45°59'N, 73°11'W). See 10.8.

Current

10.90

- 1 The current in the stretch of river between the upstream limit (46°01'N, 73°10'W) of the Port of Sorel and Lanoraie, 4 miles SSW has an average rate of 1¼ to 2 kn. The directions and rates of the current at several other points in the river can best be seen from the charts.

Principal marks

10.91

Landmarks:

- Four chimneys (red lights) (46°00'N, 73°10'W), Hydro-Québec electricity generating station.
Two pylons (elevation 184 m) (red lights), close SSW of the generating station, spanning the river with power transmission lines (10.88).
Tower (22 m in height) (45°51'N, 73°17'W).

Other navigational aids

10.92

Racon:

- Lavaltrie Rear Light (45°52'N, 73°16'W) (10.94).
I.S.O. (Île Saint Ours) S (45°54'N, 73°13'W) (10.95).

Directions

(continued from 10.62)

Port of Sorel to Pointe Saint-Ours

10.93

- 1 From a position in mid-channel, at the S limit (46°01'N, 73°10'W) of the Port of Sorel, the channel leads SSW, on the alignment, astern, of Île Dupas Leading Lights (10.62) for a distance of about 2 miles.

10.94

- 1 **Lavaltrie Leading Lights.** From a position in the channel, about 7 miles NNW of front light, the alignment (208½°) of these lights leads for a distance of 2.4 miles

through the channel, to the junction with a small craft channel (10.99), 6 cables SE of the church at Lanoraie (45°58'N, 73°13'W).

Front light (red square, black stripe, on white framework tower, 2 m in height) (45°53'·0N, 73°15'·9W), exhibited from a small wharf on the E side of Île de Lavaltrie.

Rear light (orange square, black stripe on red framework tower on wharf, 15 m in height) (561 m from front light).

The lights are visible on the leading line only.

(Directions continue for the small craft channel at 10.100)

Pointe Saint-Ours to Courbe Bellmouth

10.95

1 Île Saint-Ours Course Lower Leading Lights:

Front light (orange trapezium on round tower) (45°57'·8N, 73°12'·7W), close NE of Lanoraie.

Rear light (orange rectangle on framework tower) (716 m from front light).

The lights are visible on the leading line only.

2 From a position in the channel, 9 cables S of the front light, the alignment (002½°), astern, of these lights leads into the ship channel above Lanoraie, passing E of a light-buoy (preferred channel to port), moored about 8 cables SSE of the church at Lanoraie.

10.96

1 Île Saint-Ours Course Leading Lights. The alignment (182½°), which is coincident with the alignment of Île Saint-Ours Course Lower Leading Lights, leads through the dredged channel to Courbe Bellmouth (45°55'N, 73°13'W), where the ship channel turns towards the SW into Petite Traverse Contrecoeur. Chenal Sud (10.101), a small craft channel, branches and continues S.

Front light (orange rectangle, black stripe, on white framework tower, 14 m in height) (45°53'·1N, 73°13'·0W), on a platform near the E shore of the river.

Rear light (orange trapezium, black stripe on framework tower, 18 m in height) (670 m from front light).

The front light is visible on the leading line only. The rear light is visible on the leading line and from the W.

2 Useful mark:

Bellmouth Curve Light (red and white rectangular daymark on white framework tower, 12 m in height) (45°55'·2N, 73°12'·5W), close S of the front light of Contrecoeur Leading Lights (10.98). This light is only visible on the bearing 024·8° and is exhibited from 1st November to 1st May, after the buoys have been lifted for the winter and before they are replaced in spring, to indicate the bend in the channel.

(Directions continue for small craft channel on the E side of the river at 10.101)

Courbe Bellmouth to Contrecoeur

10.97

1 Petite Traverse Leading Lights. From a position in the channel, about 7 cables SW of the front light, the alignment (045½°), astern, of these lights leads for a distance of 1·1 miles through the dredged channel of Petite Traverse Contrecoeur.

Front light (orange trapezium, black stripe on white tower, 6 m in height) (45°54'·7N, 73°12'·5W), on the E bank abreast Île Saint-Ours.

Rear light (similar construction, inverted, on framework tower, 20 m in height) (517 m from front light).

The lights are visible on the leading line and from W. Additional lights are exhibited from both structures, visible 045·5°–145·5° (front light) and 045·5°–169° (rear light).

2 Useful mark:

Île Saint-Ours South Light (white framework tower, 6 m in height) (45°54'N, 73°14'W) on the S part of the island.

10.98

1 Contrecoeur Course Leading Lights. From a position in the channel 2·3 miles SSW of the front light, the alignment (033°), astern, of these lights leads for a distance of 2·2 miles through the dredged channel to Traverse Contrecoeur, 1 mile W of the town of Contrecoeur (10.109).

Front light (orange trapezium, black stripe on framework tower, 17 m in height) (45°55'·3N, 73°12'·5W), on the E bank, abreast the N end of Île Saint-Ours.

Rear light (similar construction, inverted, black stripe on framework tower, 24 m in height) (772 m from front light).

The lights are visible on the leading line only.

2 Useful mark:

The rear light (45°53'N, 73°14'W) of Contrecoeur to Verchères Leading Lights (10.115) is visible for almost the whole of this reach.

(Directions continue at 10.114)

Small craft channel on west side of river

Route

10.99

1 From the vicinity of I.S.O. (Île Saint-Ours) Light-buoy (preferred channel to port) (45°57'N, 73°13'W), a small craft channel, marked by buoys and leading lights, the positions of which can best be seen from the chart, follows the W side of the river and rejoins the main channel at Course Contrecoeur, 5½ miles SSW.

Directions

(continued from 10.94)

10.100

1 From a position in the main ship channel SSE of the church at Lanoraie (45°57'N, 73°13'W), the small craft channel passes WNW of I.S.O. (Île Saint-Ours) Light-buoy and continues to follow the alignment of Lavaltrie Leading Lights (10.94) for a distance of ¾ miles to a point about 7 cables from the front light.

The channel then leads SSW for a further distance of 1·4 miles, passing ESE of Île de Lavaltrie (45°53'N, 73°16'W), to a position WNW of Course Contrecoeur, in the vicinity of MS21 Light-buoy (port hand) (45°52'N, 73°16'W).

(Directions continue for small craft channel on the W side of the river at 10.124)

Small craft channels on east side of river

Chenal Sud

(continued from 10.96)

10.101

1 Directions. This minor channel, marked by buoys in places, branches S from the main ship channel at Courbe

Bellmouth (45°54'N, 73°13'W). The channel leads between Îles de Contrecoeur (10.86) and the E shore, towards the village of Contrecoeur (10.109) about 3 miles SSW. The depths in Chenal Sud can best be seen from the chart.

Chenal Terrebonne

10.102

- 1 **Directions.** Chenal Terrebonne, a narrow channel, marked by buoys, is entered from Chenal Sud, 5 cables SW of the church at Contrecoeur (45°51'N, 73°14'W). It leads SW, for about 7 cables, through the islands and flats at the S end of Îles de Contrecoeur (10.86), before rejoining the main ship channel at the SW end of Traverse Contrecoeur.

Anchorage and harbours

Hydro-Québec, Tracy

10.103

- 1 **General information.** The Hydro-Québec generating station, Tracy (46°00'N, 73°10'W) is situated on the E bank, about 1 mile S of Sorel harbour limit. Four chimneys (10.91) surround the building.
- 2 **Berth.** Adjacent to the generating station, three dolphins, connected by catwalks, provide a berth about 110 m long, dredged to a depth of 10.7 m. Vessels of less than 38 000 dwt may berth, without the assistance of a tug, at a maximum speed of 0.3 kn. Vessels between 38 000 dwt and 75 000 dwt must be assisted by a tug and their approach speed must not exceed 0.2 kn. The impact with the structure must be distributed evenly.

Lanoraie anchorage

10.104

- 1 There is good anchorage in St Lawrence River, between the S limit of Port of Sorel (46°01'N, 73°10'W) and Lanoraie, about 3½ miles farther S, in depths from 11 to 14 m. This is the only anchorage between Sorel and Pointe-aux-Trembles in the Port of Montréal.

Terminal Contrecoeur

10.105

- 1 **Emergency anchorage** is found off Terminal Contrecoeur (45°50'N, 73°17'W) (10.129), in a maintained depth of 10.7 m. The anchorage is marked on the chart.

Small craft

Les Grèves

10.106

- 1 **Wharf.** At Les Grèves (45°59'N, 73°11'W), there is a public wharf with a face 15 m in length, and a depth of 0.3 m alongside.

Lanoraie

10.107

- 1 **Wharf.** At the village of Lanoraie (45°57'N, 73°13'W) on the W shore, there is a public wharf, with its upstream and outer end bordered by rocks. The berthing area and a ramp are located on the downstream side.

Lavaltrie

10.108

- 1 **General information.** The village of Lavaltrie (45°53'N, 73°16'W), population 5 821, on the W shore, W of Île de Lavaltrie. A church with two spires stands in the village.
- Directions.** Lavaltrie may be approached from S through a buoyed channel, with a least charted depth of 3 m, the outer end of which lies 5 cables SSW of the S end of Île Lavaltrie.

Berths. At the village there is a T-shaped pier and two ramps. The outer end of the pier is 15 m in length and the upstream side is bordered by rocks.

Contrecoeur

10.109

- 1 **General information.** The town of Contrecoeur (45°51'N, 73°14'W), population 5 331, stands on the E shore of the river, marked by a church spire.

Directions. Contrecoeur may be approached from N through Chenal Sud (10.101), or from SW through Chenal Terrebonne (10.102) between the S islands of Îles de Contrecoeur.

Berths. The town has a public wharf, 29 m in length at its head, with a depth of 2.1 m alongside. There are two marinas nearby. See 10.127 for information concerning Contrecoeur Iron Ore Wharf, 2½ miles upstream.

CONTRECOEUR TO MONTRÉAL

General information

Charts 4791, 4792

Routes

10.110

- 1 **Main ship channel.** Between Contrecoeur (45°51'N, 73°14'W) and Île Sainte-Thérèse (45°41'N, 73°28'W), a distance of about 13 miles, the main shipping route follows a dredged channel on the E side of the river. The channel is well marked with leading lights and light-buoys.

Small craft channel. The small craft channel (10.99), continues up the W side of the river, rejoining the main ship channel at Chenal Varennes (45°42'N, 73°27'W).

Topography

10.111

- 1 The main ship channel and the small craft channel are separated by Îles de Verchères, a group of islands extending for a distance of 8 miles in mid-river. The largest island, Île Bouchard (45°49'N, 73°20'W) is separated from Île Marie, to the SW, by Chenal Saint-Pierre, a buoyed boat channel.

Depth

10.112

- 1 The main ship channel has a controlling depth of 11.3 m, maintained by dredging, and a least width of 244 m.

Caution. Depths more shallow than charted may exist in the areas adjacent to the main channel, the small craft channel, and maintained areas.

Current

10.113

- 1 Between Cap Saint-Michel (45°43'N, 73°26'W) and Verchères, 5 miles downstream, the river current has an average rate of 2 to 2½ kn.

Directions

(continued from 10.98)

Contrecoeur to Verchères

10.114

- 1 **Contrecoeur Traverse Leading Lights.** From a position at the S end of Course Contrecoeur, the alignment (200°) of these lights leads for a distance of 8 cables through the dredged channel of Traverse Contrecoeur to a position 3½ cables W of Île aux Rats (45°51'N, 73°16'W).

Front light (orange rectangle, black stripe, on white round building, 11 m in height) (45°49'9N,

73°16'·9W), adjacent to the Iron Ore Company wharf (10.127).

Rear light (similar construction, black stripe, on framework tower, 21 m in height) (400 m from front light).

10.115

- 1 **Contrecoeur to Verchères Leading Lights.** From a position in the channel, 1·4 miles SW of the front light, the alignment (040½°), astern, of these lights leads for a distance of 4·6 miles through Chenal Verchères Contrecoeur abreast Île Bouchard, to a position 4 cables SE of the N end of Île Marie (45°47'N, 73°23'W).

- 2 Front light (orange rectangle, black stripe, on white square concrete block, 7 m in height) (45°51'·9N, 73°15'·1W) on a platform on the flats off Contrecoeur.

Rear light (orange trapezium, black stripe, on red framework tower, 15 m in height) (9½ cables from front light).

The front light is visible on the leading line only; the rear light is visible on the leading line, and over W arcs.

10.116

- 1 **Verchères Village Leading Lights.** The alignment (220½°) of these lights, which is coincident with that of Contrecoeur Verchères Leading Lights, leads through the same reach.

Front light (red rectangle, black stripe, on red tower, 7 m in height) (45°46'·7N, 73°21'·4W), on the NE end of the breakwater at Verchères (10.134).

Rear light (similar construction and tower, 19 m in height) (634 m from front light).

The lights are visible on the leading line only.

10.117

- 1 **Verchères Traverse Leading Lights.** From a position in the channel, 1 mile SW of the front light, the alignment (056°), astern, of these lights leads for a distance of 1·1 miles through Traverse Verchères, to a position 5 cables W of Verchères church spire (45°47'N, 73°21'W) (10.134).

Front light (orange rectangle on white mast, 12 m high) (45°47'·8N, 73°19'·7W) on the SE shore.

Rear light (similar construction, black stripe, on white round tower, 16 m in height) (494 m from front light).

The lights are visible on the leading line only.

A mooring buoy lies in position 45°46'·7N, 73°21'·6W.

Verchères to Cap Saint-Michel

10.118

- 1 **Île Bouchard Leading Lights.** From a position in the channel, 1·7 miles SW of the front light, the alignment (037½°), astern, of these lights leads through Chenal Cap Saint-Michel Verchères, to a position in the dredged channel 2 cables N of Cap Saint-Michel.

Front light (orange rectangle, on white round tower, 8 m in height) (45°47'·9N, 73°20'·7W) on the SE side of the island.

Rear light (red rectangle, black stripe, on framework tower, 17 m in height) (935 m from front light).

The lights are visible on the leading line only.

10.119

- 1 **Île Deslauriers Leading Lights.** The alignment (217½°) of these lights is co-incident with that of Île Bouchard Leading Lights, and leads through the same reach to the vicinity of Cap Saint-Michel (45°43'N, 73°26'W).

Front light (framework tower, 6 m in height) (45°42'·7N, 73°26'·4W), on the island.

Rear light (framework tower, 25 m in height) (1·5 miles from front light), near the N end of Île Sainte-Thérèse.

The lights are visible on the leading line only.

2 Useful marks:

Two church spires (45°44'N, 73°27'W) at Repentigny (10.136).

Chimney and water tower and silos at Cap Saint-Michel (45°43'N, 73°26'W).

Cap Saint-Michel to Île Sainte-Thérèse

10.120

- 1 From a position 2 cables N of Cap Saint-Michel (45°43'N, 73°26'W) the track follows the dredged channel E of Île Deslauriers, 2 cables W, to the vicinity of M123 Light-buoy (port hand) at the NE entrance to Chenal Varennes.

- 2 **Île Sainte-Thérèse Lower Leading Lights.** From a position, 1½ miles NNE of the front light, the alignment (213°) of these lights leads for a distance of 8 cables through Chenal Varennes towards the E side of Île Sainte-Thérèse.

Front light (orange trapezium, black stripe on white round tower, 4 m in height) (45°41'·1N, 73°27'·5W) on the E side of the island.

Rear light (similar daymark and tower, 10 m in height) (153 m from front light).

The lights are visible on the leading line only.

This leg of the main ship channel is crossed by the small craft channel (10.123) at a position about 8 cables SSW of Île Deslauriers.

10.121

- 1 **Traverse Varennes Leading Lights.** From a position in the channel, 1·3 miles N of the front light, the alignment (186°) of these lights leads for a distance of about 6½ cables through Traverse Varennes, passing close to the E side of Île Sainte-Thérèse.

Front light (orange trapezium, black stripe on white framework tower, 4 m in height) (45°40'·1N, 73°27'·4W) on La Grande Île which is part of Îles de Varennes.

Rear light (similar construction, inverted and tower, 11 m in height) (122 m from front light).

The lights are visible on the leading line only.

10.122

- 1 **Useful marks:**

Varennes (Île aux Vaches Traverse) Front and Rear Leading Lights (45°41'N, 73°27'W) (10.169).

Two church spires (45°41'N, 73°27'W) at Varennes (10.138).

(Directions continue at 10.168)

Small craft channels on west side of river

General information

10.123

- 1 **Routes.** From the vicinity of Course Contrecoeur, the channel for small craft (10.99), marked by light-buoys and buoys, continues to follow the W side of St Lawrence River, passing W of Îles de Verchères to the vicinity of Repentigny (45°44'N, 73°27'W), where it splits. From Repentigny the wider channel leads S rejoining or crossing the main ship channel at Chenal Varennes (45°42'N, 73°27'W).

The other channel, marked by buoys, continues SW from the vicinity of Repentigny, and leads W of Île Sainte-Thérèse. A branch leads into the entrance to Rivière des Prairies (45°42'N, 73°29'W).

- 2 **Submarine cables.** Submarine power cables are laid across the channels at the following places:

From the N end of Île Bouchard to the NW shore; a prohibited anchorage area (45°51'N, 73°17'W) is shown on the chart.

From Île Ronde (Île Larose) (45°49'N, 73°21'W) to the W shore.

The positions of other submarine cables are indicated on the charts; mariners are cautioned not to anchor in their vicinity.

Directions

(continued from 10.100)

10.124

- 1 From a position in the vicinity of MS21 Light-buoy (port hand), about 5 cables SSE of Lavaltrie Rear Leading Light (45°53'N, 73°16'W) (10.94), the small craft channel leads, generally, SSW, passing between Îles de Verchères and the NW bank of the river, as far as Repentigny (45°44'N, 73°27'W) where the channel splits. Each leg of the buoyed channel is marked by light-buoys and buoys, the positions of which can best be seen from the chart.

- 2 **Useful marks:**

Tower, 22 m in height, (45°51'5N, 73°17'6W).

Church spire at Saint-Sulpice (45°50'N, 73°21'W).

10.125

- 1 **East channel.** From the vicinity of Lebel Light-buoy (preferred channel to port) (45°44'2N, 73°26'2W) the E channel leads obliquely across the river through Chenal des Plaisanciers, to join, or cross, the main ship channel, Chenal Varennes, abreast the N end of Île Sainte-Thérèse. Vessels using this channel must cross the main ship channel at M129 Light-buoy (port hand).

(Directions continue for small craft channel on the E side of the river at 10.178)

10.126

- 1 **West channel.** The W channel from Lebel Light-buoy leads SW in the marked channel, passing (with positions from Lebel Light-buoy):

NW of Île à la Pierre (½ mile SW) thence:

NW of Île Annexe (8 cables SW) thence:

NW Île aux Cochons (1.4 miles SW) thence:

NW of Île au Bois Blanc (1.7 miles SW).

The channel then leads to a position WNW of Île à l'Aigle in the entrance (2¼ miles SW) to Rivière des Prairies.

(Directions continue for small craft channel on the W side of the river at 10.179)

Terminal Contrecoeur

Chart 4791 plan of Terminal Contrecoeur

General information

10.127

- 1 **Position.** 45°50'N, 73°17'W on the E shore 2½ miles above Contrecoeur.

Function. The terminal is used for the trans-shipment and storage of a wide variety of ores, general cargo and containers. Explosives may be handled at Berth No 2.

Traffic. Over 2 million tons of bulk and general cargo handled annually.

Port Authority. Port of Montréal, Contrecoeur Maritime Terminal, 1920 Marie Victorin, Contrecoeur, QC JOL 1CO. The port is operated by The Chemport company.

Limiting conditions

10.128

- 1 **Deepest and longest berth.** Berth No 1 (10.131).

River levels. Average river levels above chart datum are 2.1 m in April and May, and 0.9 m in August and September.

Maximum size of vessel handled. Length 259 m, beam 32 m at Berth No 1. Draught is subject to river levels and recommended under-keel clearance.

Arrival information

10.129

- 1 **Port operations.** Bulk cargo can be transferred from vessel to vessel, from vessel to rail cars or road trucks, or between vessels and the bulk storage area.

Notice of ETA should be signalled by cable to Conore, Montréal 48, 24, 12 and 6 hours prior to arrival.

Outer anchorage. There is anchorage in the vicinity of Lanoraie (10.107), 15 miles down-river. The area between Terminal Contrecoeur wharves and the main channel is designated an emergency anchorage area (10.105).

- 2 **Pilotage and tugs.** The river pilot docks and undocks vessels. Tugs are not normally required for berthing, but one tug is sometimes used when unberthing.

Directions for berthing

10.130

- 1 The wharf is approached through an area, dredged to a depth of 10.7 m, adjacent to the SE side of the main ship channel.

Berths

10.131

- 1 Berth No 1, on the NW face of the wharf, is 229 m long, with a depth of 10.7 m alongside. Dolphins lie in a line extending 78 m from the N end of the berth.

Berth No 2, on the W face of the wharf, is 148 m long, with a depth of 6.1 m (2002) alongside.

Port services

10.132

Other facilities. Hospitals at Montréal.

Supplies. Fresh water and provisions.

Small craft

Saint-Sulpice

10.133

- 1 **General information.** The village of Saint-Sulpice (45°50'N, 73°21'W), population 3 307, is situated on the NW shore of the small craft channel, opposite Île Bouchard.

Directions. The pier at Saint-Sulpice is approached through a channel, 30 m wide.

Berths. A public wharf, with a berthing face 23 m long, and a depth alongside of 1.2 m, is situated near the church. About 1.1 miles upstream there is another public pier with a pier-head 38 m long and a depth alongside of 1.2 m.

Verchères

10.134

- 1 **General information.** The town of Verchères (45°47'N, 73°21'W), population 4854, stands on the E shore, opposite Île Marie, marked by a church spire. A wharf and breakwater enclose a boat harbour with depths of 1.1 m to 1.5 m. A statue stands near the wharf.

Obstruction. A water intake pipe, about 2 cables SW of the wharf, extends 115 m NW from the shore. Vessels should not anchor in its vicinity.

Berth. There is a public wharf with a pier head berth 28 m long and a depth of 1.8 m alongside. It has a launching ramp, a slip and floating pontoons for small craft.

- 2 **Caution.** When ships are passing in the main ship channel, there may be a vertical water movement of 1.2 m in the harbour, with strong surges in the entrance. It may be hazardous to approach or to be berthed at the wharf in these conditions.

Communications. A ferry plies between Verchères and Île Bouchard; its route is shown on the chart.

Marina de la Rive Nord

10.135

- 1 Marina de la Rive Nord (45°46'N, 73°25'W) is located on the NW shore, opposite Île Beauregard. A small channel, marked with buoys, with a reported depth of 1.5 m, leads to the marina.

Repentigny

10.136

- 1 **General information.** The town of Repentigny (45°44'N, 73°27'W) lies on the NW shore of the river, marked by a church with two spires.

Berths. At the town, there is a public wharf and a small boat basin, with depths of 1.2 m reported.

Marina Laforest is located on the mainland NW of Île Lebel.

Marina de Repentigny is located on the mainland SW of Île Lebel, adjacent to the small boat basin above. There is a depth of 0.6 m in the entrance.

Marina Jean Beaudoin

10.137

- 1 Marina Jean Beaudoin (45°42'N, 73°29'W) is situated near the NE end of Île de Montréal. The basin of this marina has a reported depth of 1.2 m.

Varennnes

10.138

- 1 **General information.** The town of Varennes (45°41'N, 73°27'W), on the E shore, opposite Île Sainte-Thérèse, is marked by a church with two spires (10.122).

Berth. A public wharf situated NW of the church has a length of 25 m and a depth alongside of 1.8 m. There is also a ramp.

PORT OF MONTRÉAL

General information

Chart 4792

Position

10.139

- 1 Montréal (45°32'N, 73°32'W) lies on the W shore of the St Lawrence River. Above Montréal, navigation continues through the St Lawrence Seaway.

The city of Longueuil, population 127 977, is situated across the St Lawrence River from Montréal.

Function

10.140

- 1 Montréal is the chief commercial city in the province of Québec, with a population in the Montréal metropolitan area of about 3½ million people. The port handles more

than 20 million tonnes of bulk and containerised cargoes annually.

Montréal is a customs port of entry for Canada.

Topography

10.141

- 1 The city of Montréal, situated on the W bank, is built on a series of natural terraces on the slopes of Mount Royal, which rises to an elevation of 232 m at a distance of 1¾ miles from the river.

Port limits

10.142

- 1 For administrative purposes, the downstream limit of Port of Montréal coincides with the upstream limit of Port of Sorel, crossing St Lawrence River in the vicinity of position 46°01'N, 73°10'W. The S limit is marked by Pont Victoria (Victoria Bridge) (45°30'N, 73°31'W).

Approach and entry

10.143

- 1 Montréal is approached and entered from NE through the main ship channel or through the small craft channel (10.123) depending on the size of the vessel.

Traffic

10.144

- 1 In 2000, 1 749 ship movements were recorded, totalling 38 087 514 dwt; a total of over 20 000 000 tonnes of cargo were handled.

Port Authority

10.145

- 1 The port is administered by the Montréal Port Corporation, Port of Montréal Building, Cité du Havre, Montréal H3C 3R5.

E-mail address: pomimkg@port-montreal.com

Limiting conditions

Controlling depths

10.146

- 1 The minimum maintained depth in the main ship channel as far as M177 Light-buoy (port hand) (45°34'N, 73°31'W) is 11.3 m, over a width of 245 m. Thence, the depth is 11.0 m for 2 miles farther upstream to Île Sainte-Hélène (ISH) Light-buoy (N cardinal), where the channel splits. The W channel leading to Quai Alexandra is dredged to 10.7 m with a least width of 168 m under Jacques-Cartier Bridge. There is a charted depth of 10.6 m in this channel. Canal de la Rive Sud to the E, at the entrance of the St Lawrence Seaway is dredged to 8.2 m.

- 2 **Caution.** Depths more shallow than those charted may exist in the areas outside the main shipping channel, the small craft channels and maintained areas.

Deepest and longest berth

10.147

- 1 The deepest and longest berths are Nos 54 and 55 at Elevator No 4 (45°34'N, 73°31'W). For detailed information, see 10.181.

Density of water

10.148

- 1 Fresh.

Maximum size of vessel handled

10.149

- 1 Maximum size of vessel handled is restricted only by the controlling depth.

Ice**10.150**

- 1 The port is open all the year round, but owing to the likely conditions from December to March, inclusive, it is recommended that vessels navigating to Montréal be strengthened for ice.

Arrival information**Port operations****10.151**

- 1 Port operations are conducted by Marine Traffic Control on VHF; see *Admiralty List of Radio Signals Volume 6 (5)*.

Vessel Traffic Service**10.152**

- 1 Traffic is controlled through the Montréal Vessel Traffic Services Centre; for operating details and reporting points see *Admiralty List of Radio Signals Volume 6 (5)*.
The VTS Centre is situated in the Marine Customs House on Sutherland Pier (45°33'N, 73°32'W).

Notice of ETA**10.153**

- 1 ETA should be sent to the Harbour Master on departure from the last port and at 5 days, 2 days and 1 day prior to arrival. Messages can be passed through Halifax Radio (VCS) or other coast radio stations; see *Admiralty List of Radio Signals Volume 1 (2)*.

Outer anchorage**10.154**

- 1 The nearest anchorage downstream of Île Sainte-Thérèse is off Lanoraie (45°57'N, 73°13'W) (10.104).

Pilotage**10.155**

- 1 Pilotage is compulsory. The river pilot will dock and undock vessels on arrival and departure, but other moves will be performed by harbour pilots. Pilots board inbound vessels at Escoumins (5.235). Pilots are exchanged at Québec and Trois-Rivières.

Tugs**10.156**

- 1 The need to use tugs for berthing or unberthing is dependant on the size of vessel, location of berth, strength of current and wind conditions. Tugs of up to 1600 hp are available.

Regulations concerning entry and navigation**10.157**

- 1 **General.** Vessels manoeuvring or otherwise underway in the Port of Montréal, and also while at an alongside berth or at anchor, are subject to the Port of Montréal Operating By-law, a copy of which may be obtained from the Port Authority.
The Harbour Master has wide powers over vessels in the port, and may order vessels to move, to use tugs, to berth or to anchor in locations which he designates. Certain restrictions on berthing and anchoring are set forth, along with the requirement for Masters of vessels to inform the Harbour Master in advance of their intention to berth in the port.
- 2 **Speed restrictions.** The Operating By-law requires that no vessel shall move in the harbour at a speed that may endanger life or property. Owing to the reduced width of the channel in the vicinity of Berths 78, 79 and 46,

particular care is to be taken to prevent damage to moored vessels.

A speed limit of 8 kn is imposed S of a line drawn between the N limit of Berth 19 (45°31'N, 73°33'W) and Pointe du Havre, 2½ cables SE.

- 3 **Dangerous cargoes.** No vessel carrying crude oil, gasoline or other flammable cargo in bulk that has a flash point below 23°C shall anchor anywhere above Lanoraie (45°57'N, 73°13'W) (10.104) without permission of the Harbour Master.
- 4 **Right of way.** Every vessel proceeding downstream in the St Lawrence ship channel shall have the right of way over any vessel entering or leaving the St Lawrence Seaway.
Should two vessels meet in Courant Sainte-Marie, the channel W of Île Sainte-Hélène (45°31'N, 73°32'W), the upbound vessel must stop and allow the downbound vessel to pass.
- 5 **Sound signals.** Every vessel about to leave any berth, wharf or pier shall, before leaving, sound one prolonged blast on its whistle or siren. Every vessel backing out of any wharf, basin or dock shall sound three short blasts in succession on its whistle or siren.
- 6 **Anchoring.** No vessel shall anchor within the Port of Montréal limits without first obtaining the permission of the Harbour Master. Anchor berths will be allocated by the Harbour Master or his representative through the Marine Traffic Control, Montréal. No vessel, while underway, shall trail her anchor, except in an emergency.
There are three designated areas for anchoring. See 10.180.

Regulations concerning approach to the St Lawrence Seaway**10.158**

- 1 The Montréal Marine Communications and Traffic Services Centre prepares and maintains an order of transit roster for vessels proceeding into the St Lawrence Seaway. Masters of vessels establish their turn by calling *Montréal Traffic* on VHF Channel 10 when in all respects ready for transit, stating the name of the vessel, length, present location, destination, draught forward and aft. The MCTS Centre will notify the ship in sufficient time to make ready to proceed, and will arrange for the pilot to board. In order not to miss their turn, vessels are required to maintain a radio guard on the frequency of the sector they are in, as given in *Admiralty List of Radio Signals, Volume 6 (5)* whether berthed or anchored.
- 2 All vessels, unless trading under a Canadian Coastwise Licence, intending to transit the St Lawrence Seaway call at Montréal for examination by Customs and National Health and Welfare officials at the Pointe-aux-Trembles anchorage (10.180). Inspection by officials of the Department of Agriculture will normally take place at the port of destination.
- 3 Vessels intending to transit the St Lawrence Seaway for the first time may have their winches, fenders, mooring facilities and other equipment required by the regulations, inspected by American and Canadian Seaway Authority officials whilst at anchor off Pointe-aux-Trembles, or at a berth designated by the Harbour Master. The regulations are contained in the *Seaway Handbook*, obtainable from St Lawrence Seaway Management Corporation, 202 Rue Pitt, Cornwall, Ontario K6J 3P7.
- 4 Vessels using the St Lawrence Seaway are required to dispose of their garbage before entering the seaway. A small boat can be provided for this purpose in the harbour.

Quarantine**10.159**

- 1 Montréal is a quarantine station.

Harbour**General layout****10.160**

- 1 The main ship channel through the Port of Montréal is almost 9 miles long from the vicinity of Pointe-aux-Trembles (45°39'N, 73°29'W), at its lower end, to the docks at the upper end of the harbour. The wharves and jetties of the Port of Montréal line the W bank for much of its length. The two principal groups of piers are at Maisonneuve (45°33'N, 73°32'W) and at the head of the harbour.

Chenal du Sud, a channel for small craft, follows the E bank of the river for most of the length of the harbour, leading E of Îles de Boucherville (45°37'N, 73°28'W).

- 2 **Canal de la Rive Sud**, the entrance to the St Lawrence Seaway, branches SSE from the main ship channel near the N end of Île Sainte-Hélène (45°31'N, 73°32'W).

At the S end of the port, Cité-du-Havre (45°30'N, 73°33'W), a promontory about 1 mile in length, gives protection to the basins and berths comprising Quai Alexandra.

Development**10.161**

- 1 In 2001, the port embarked on a 5 year plan to expand and improve the port facilities.

Bridges**10.162**

- 1 **Pont Jacques-Cartier**, a road bridge, crosses the river between Montréal and Île Sainte-Hélène (45°31'N, 73°32'W), thence crosses the N end of Île Notre-Dame to the E shore. The length of the main span is 334 m. The bridge has a vertical clearance of 49 m, across a distance of 152 m under the centre of the main span, and of 51 m over the ship channel, and a vertical clearance of 43 m over Canal de la Rive Sud, between Île Notre-Dame and the E shore.

Lights exhibited from under the main span indicate the limits of the channel under the bridge, and lights on the bridge indicate the centre line of the channel.

- 2 **Pont de la Concorde** joins the lower end of Cité-du-Havre to Île Sainte-Hélène, 1 mile above Pont Jacques-Cartier.

Pont Victoria, a combined road and railway bridge, spans the river almost 2 miles above Pont Jacques-Cartier. This bridge joins Montréal and Saint-Lambert, crossing the lower end of Saint-Lambert Lock, the first lock on the St Lawrence Seaway; another road and rail bridge spans the upstream end of the lock. Both bridges have vertical lift sections over the lock, with vertical clearances of 41 m and 37 m respectively when open.

Overhead cables**10.163**

- 1 Power transmission lines span the St Lawrence River ship channel as follows at:

Îles de Varennes (45°39'N, 73°28'W), with a vertical clearance of 54 m, reducing to 48 m in conditions of severe icing. The supporting towers on each side of the river, and on the mid-river islands, are marked by red lights.

Longue-Pointe (45°35'N, 73°30'W), with a vertical clearance of 49 m, reducing to 42 m in conditions of severe icing. The supporting towers are marked by red lights.

Pont Victoria (45°30'N, 73°31'W), with a vertical clearance of 48 m over Canal de la Rive Sud, span the river close N of Pont Victoria. The supporting towers are marked by red lights.

Submarine pipelines**10.164**

- 1 A gas submarine pipeline crosses the main ship channel at 45°40'4N, 73°27'4W, the E small craft channel, 5 cables SE between Îles de Varennes and the E shore, and the W small craft channel, 1¼ miles WNW, between Île Sainte-Thérèse and the W shore.

Petrol and oil pipelines cross the main ship channel at 45°37'7N, 73°29'4W and Chenal du Sud, 1¼ miles ESE. See 10.180 for prohibited anchorage over the pipelines.

Tunnel**10.165**

- 1 Louis-Hippolyte Lafontaine Tunnel carries traffic on the Trans-Canada Highway under the river between Longue-Pointe (45°35'N, 73°30'W) and Île Charron. A system of dykes, protecting the E end of the tunnel, reaches to within 1.7 cables of the edge of the dredged channel. A pipeline extends from the dykes into the channel close N of the tunnel. See 10.180 for prohibited anchorage over the tunnel.

Natural conditions**10.166**

- 1 **Current.** In the main ship channel between Île Sainte-Thérèse and Îles de Varennes (45°39'N, 73°28'W), the river current sets fair along the channel at a rate of 2¼ kn, except in position S of Île aux Vaches, off the SE side of Île Sainte-Thérèse. At this position, the current sets N at the same rate.

In Courant Sainte-Marie, the passage between Île Sainte-Hélène and Montréal, the main flow of St Lawrence River normally has a rate of from 4 to 6 kn.

- 2 The current in the lower part of Montréal Harbour is about 2 to 3 kn, whilst in the upper harbour the rate is between 4 and 6 kn and occasionally 7 kn. There is a noticeable eddy, marked on the chart, 1½ cables N of Pointe du Havre (45°30'5N, 73°32'5W). Vessels proceeding to berths S of this point should exercise caution when passing out of the main stream and into relatively slack water.

- 3 **Ice.** In the Port of Montréal, the combined effect of the Rapides de Lachine (Chart 4793) (45°25'N, 73°36'W), and an ice control structure above the Champlain Bridge (Chart 4793) (45°28'N, 73°31'W) produce an area of well-dispersed new and young ice throughout the winter.

Water levels. The actual channel depths are reported daily. The lowest river levels are normally reached about mid September and remain until early December.

- 4 **Climatic table.** See 1.182.

Principal marks**10.167****Landmarks:**

- 1 Pylons (red lights) (45°39'N, 73°28'W) at Îles de Varennes (10.163).
Pylons (red lights) (45°35'N, 73°30'W) at Longue-Pointe (10.163).
Stade Olympique (Olympic Stadium) Tower (45°33'5N, 73°33'1W).

Directions for entering harbour*(continued from 10.122)***Île Sainte-Thérèse to Pointe-aux-Trembles****10.168**

- 1 From a position about 3 cables NW of the N point of Îles de Varennes (45°40'N, 73°27'W), the main ship channel leaves the alignment of Traverse Varennes Leading Lights (10.121) and leads SSW in Chenal Île Sainte-Thérèse, for a distance of 8 cables, to a position abreast the N end of Île aux Vaches (45°40'N, 73°28'W).

10.169

- 1 **Île aux Vaches Traverse Leading Lights.** From a position in the main ship channel, about 1.5 miles SW of the front light, the alignment (032½°), astern, of these lights leads for a distance of 1 mile through the channel between Île aux Vaches and the W side of Îles de Varennes, to a position abreast Pointe-aux-Trembles Light-buoy (S cardinal).

Front light (orange square on mast, on white framework tower, 7 m in height) (45°41'2N, 73°26'5W), on the E shore at Varennes.

Rear light (orange trapezium on framework tower, 18 m in height) (326 m NE from front light).

The lights are visible on the leading line only. A second all round light is exhibited from both leading lights.

10.170

- 1 **Île Sainte-Thérèse Upper Leading Lights.** From a position 9 cables SSW of the front light, abreast Pointe-aux-Trembles Light-buoy (S cardinal), the alignment (025°), astern, of these lights, which is coincident with the alignment, ahead, of the Tétraultville Leading Lights (10.171), leads through the N part of the harbour.

Front light (orange rectangle on white column, 10 m in height) (45°39'9N, 73°28'0W) on the E side of Île aux Vaches.

Rear light (orange rectangle, black stripe, on framework tower, 17 m in height) (6¾ cables from front light).

The lights are visible on the leading line only.

Pointe-aux-Trembles to Longue-Pointe**10.171**

- 1 **Tétraultville Leading Lights.** From abreast Pointe-aux-Trembles Light-buoy (S cardinal), the channel continues SSW for a distance of about 2½ miles on the alignment (205°) of these lights. Thence at a point about 9 cables from the front leading light, the channel follows the line of the W bank in a curve towards the S.

Front light (orange trapezium, on white round tower, 6 m in height) (45°35'8N, 73°30'6W).

Rear light (similar construction, inverted, black stripe on white round tower, 20 m in height) (630 m from front light).

The lights are visible on the leading line only. A second light, visible from W, is exhibited from the front light.

10.172

- 1 **Longue-Pointe Traverse Leading Lights:**

Front light (orange trapezium, black stripe, on white round tower, 7 m in height) (45°33'7N, 73°29'7W), on the E shore, near Pointe du Marigot.

Rear light (similar construction, inverted, black stripe on white round tower, 12 m in height) (190 m from front light).

The lights are visible on the leading line only. An emergency light is exhibited from a tower 3 cables S of the rear light.

- 2 From a position in the channel, ENE of Tétraultville Front Leading Light, the alignment (170°) of these lights leads through Traverse Longue-Pointe for about 8 cables to the vicinity of 45°35'N, 73°30'W. Whence the channel curves towards SSW, following the line of the W shore and passing about 2 cables W of the dykes protecting the E end of the road tunnel (10.165).

Longue-Pointe to Montréal**10.173**

- 1 **Longue-Pointe Course Leading Lights.** From a position in the channel, 9 cables SSW of the front light, the alignment (022½°), astern, of these lights leads into the upper reaches of the Port of Montréal.

Front light (orange rectangle on white round tower, 8 m in height) (45°35'7N, 73°29'6W) on Îlets du Large.

Rear light (similar structure and tower, 15 m in height) (478 m from front light).

St Lawrence Seaway approach channel**10.174**

- 1 **Route.** The position from which the distance is measured in miles throughout the St Lawrence Seaway is about 5 cables NNE of Cap sur Mer (45°32'N, 73°32'W), the N point of Île Sainte-Hélène.

The entrance channel of Canal de la Rive Sud, at the N end of the St Lawrence Seaway, is marked by buoys and dredged to a depth of 8.2 m. The channel narrows to a navigable width of 61 m as it passes under Pont Jacques-Cartier, and continues thence for a distance of 1½ miles to the first lock of the St Lawrence Seaway at Saint-Lambert.

Useful marks**10.175**

- 1 Three grain towers (45°33'4N, 73°31'2W).
Large church spire (45°32'4N, 73°30'5W) at Longueuil.
Tower (87 m in height, red lights) (45°31'5N, 73°32'1W), on the N part of Île Sainte-Hélène.
Sailors Memorial Clock Tower (51 m in height) (45°30'7N, 73°32'8W) on the N end of Victoria Pier (Jetée Victoria).

Small craft channel on the east side of the river**Chenal du Sud****10.176**

- 1 **Route.** The small craft channel (10.125), which follows the E shore of the river, leads about 7½ miles SSW from Varennes (45°41'N, 73°27'W) to the main ship channel SW of Île Charron (45°35'N, 73°29'W). It has a least width of 61 m, a controlling depth of 1.4 m, and is marked by buoys throughout its length.

10.177

- 1 **Overhead cable.** A power transmission line, with a vertical clearance of 28 m, spans the small craft channel abreast the S end (45°35'N, 73°29'W) of Île Charron. The supporting towers are marked by red lights.

Bridge. Close upstream of the overhead cable, a road bridge with a vertical clearance of 10 m crosses the small craft channel from Île Charron to the E shore. Red and green lights on the bridge indicate the channel limits.

- 2 **Submarine cables and pipelines**, some of which are indicated by marks on the shore, cross the channel; see the chart. Vessels should not anchor in their vicinities.

10.178

- 1 **Directions** (*continued from 10.125*). From a position 1½ miles SSW of Cap Saint-Michel (45°43'N, 73°26'W), the small craft channel leads through Chenal du Sud, passing:

E of Îles de Varennes (45°40'N, 73°27'W), thence:

E of Îles de Boucherville (45°37'N, 73°28'W).

After passing under the bridge at the S end of Île Charron, the small craft channel leads SW, then SSW, passing:

Between Île Charron and the N end of Île Verte, about 2 cables SSW, before rejoining the main ship channel.

Small craft channel on the west side of the river

West channel

10.179

- 1 **Route**. From the entrance to Rivière des Prairies (45°42'N, 73°29'W) the small craft channel continues about 3½ miles S to Pointe-aux-Trembles.

Overhead cables. Power transmission lines, with a vertical clearance of 28 m, span the channel between Île au Veau (45°39'N, 73°29'W) and Île de Montréal. The supporting towers are marked by red lights.

Submarine cables and pipelines cross the channel; see the chart. Vessels should not anchor in their vicinities.

- 2 **Directions** (*continued from 10.126*). From a position WNW of Île à l'Aigle Light-buoy (preferred channel to port) in the entrance to Rivière des Prairies (45°42'N, 73°29'W), the channel follows the W coast, generally S, passing:

W of Île aux Asperges (45°42'N, 73°28'W), thence:

W of Île Sainte-Thérèse (45°41'N, 73°28'W).

The channel rejoins the main ship channel about 1 cable W of Pointe-aux-Trembles Light-buoy (S cardinal) (45°39'N, 73°29'W).

Basins and berths

Anchorage

10.180

- 1 Anchorage areas have been dredged adjacent to the E side of the main ship channel as follows:

Pointe-aux-Trembles (45°38'N, 73°29'W), depth 10·7 m.

Montréal-Est (45°37'N, 73°30'W), depth 9·1 m.

Longueuil (45°33'N, 73°31'W), depth 9·1 m.

The limits of these anchorage areas are marked by buoys and are indicated on the chart. The anchor berths are allocated by the Harbour Master.

- 2 **Prohibited anchorages**. Owing to the presence of submarine pipelines, there is a prohibited anchorage area between Montréal-Est (45°38'N, 73°30'W) and Île Dufault, 6 cables ESE. The limits of the area are indicated on the chart.

No vessel is permitted to anchor in an area extending 61 m on each side of the centre line of the Louis-Hippolyte Lafontaine Tunnel (45°35'N, 73°30'W) (10.165), abreast Longue-Pointe.

Alongside berths

10.181

- 1 The alongside berths at Montréal are numbered, generally, in sequence from S to N. The positions and configuration of the berths can best be seen from the charts.

Cité-du-Havre has six berths. The longest are M2 to M5, which are 157 m in length, with depths of 7·6 m alongside. They are not used for cargo handling.

Jetée Bickerdike has nine berths. The longest is B4, of length 201 m, with a depth of 8·8 m alongside. B7 and B8 are container wharves and B8 also has a ro-ro ramp.

Pointe du Moulin à Vent (Windmill Point) has five berths, with a depths of 8·8 m alongside. The longest is 10W, which is 190 m in length. They are used for grain and general cargo.

Quai Alexandra has five berths with depths alongside between 8·2 m and 10·2 m. The longest is No 6, which is 212 m in length.

Jetée No 1 has two berths each of length 203 m, with depths of 9·7 m alongside.

Quai King Edward has five berths. The longest are Nos 7 to 10, which are 194 m in length, with depths of 8·2 to 9·7 m alongside.

Quai Jacques-Cartier has a single berth 190 m in length, with a depth of 8·2 m alongside.

Quai de l'Horloge has two berths of total length of 421 m, with depths of 8·2 m alongside.

Bassin de l'Horloge has four berths. The longest is No 23, which is 209 m in length with a depth of 7·5 m alongside. there is a charted depth of 6·7 m at the head of the Bassin.

Berths 24 to 37 include ten usable, unnamed berths, with depths of 9·1 m alongside. The longest and deepest berth is No 25, which is 296 m in length. Berth 31 has a depth of 7m alongside (2002).

Laurier Terminal has four berths. The longest, No 41, is 200 m in length, with a depth of 10·7 m alongside.

Quai Laurier has a single berth of length of 266 m, with a depth of 10·2 m alongside.

Quai Tarte has four berths. The longest, No 44N, is 263 m in length, with a depth of 9·4 m alongside.

Quai Sutherland has eight berths. The longest, No 52, is 338 m in length, with a depth of 10·7 m alongside. No 48 berth has a ro-ro ramp.

Elevator No 4 has eight berths. The two river berths Nos 54 and 55 have a total length of 395 m, with a depth of 10·7 m alongside.

Racine Terminal has eight berths, three of which, Nos 60 to 62, comprise a container terminal of total length 579 m, with depths of 10·7 m alongside.

Maisonneuve Terminal has six berths, four of which, Nos 66 to 70, comprise a container terminal of total length 817 m, with depths of 10·7 m alongside.

Boucherville Terminal has three berths each with a length of 193 m and a depth of 10·7 m alongside, for containers and general cargo.

Cast Terminal has five berths, three of which, Nos 78 to 80, comprise a container terminal of total length 489 m, with depths of 10·7 m alongside.



Montréal – Racine from E (10.181)

(Original dated prior 2002)

(Photograph – Port of Montréal)

Olco Petroleum has a single berth, No 94, of length 238 m, with a depth of 10.7 m alongside.

Montréal-Est Terminal has six berths. The longest, No 99, is 147 m in length, with a depth of 9.1 m to 10.7 m alongside.

Esso Canada Petroleum has three berths. Nos 101 and 102E each have a length of 192 m, with a depth of 10.7 m alongside.

Shell Canada has two berths. The longer, No 103S, is 190 m in length, with a depth alongside of 7.9 to 10.7 m.

Sunoco Inc has a single berth, No 104, with a depth of 6.1 m alongside, which can accommodate a vessel 137 m in length.

Ultramar Canada Inc has two berths, Nos 105 and 106, each is 116 m in length, with a depth of 9.4 m alongside.

Pédro Canada has three berths, Nos 109 and 110E, each is 139 m length, with depths alongside of 10.7 m.

Port services

Repairs

10.182

- 1 Various firms in Montréal can undertake ship repairs. Commercial diving, pumping, salvage and fire-fighting services are available.

Other facilities

10.183

- 1 **Cranes.** Self-propelled floating crane *VMS Hercule*, of 249 tonnes capacity, is available for commercial lifts within the harbour. Other mobile cranes may also be hired.

Oily waste can be accepted.

De-ratting and exemption certificates can be issued by the quarantine officer.

Hospitals. There are several hospitals in Montréal.

Supplies

10.184

- 1 Fuel and diesel oils are available either by pipeline to some berths, barge or at the various oil companies wharves. Fresh water is available at most berths and all kinds of provisions and stores are available.

Communications

10.185

- 1 **Sea.** The St Lawrence Seaway links Montréal with Canadian and United States ports up to the head of the Great Lakes. Coastal shipping services operate to ports in the Gulf of St Lawrence and the Atlantic Provinces.

Air. Montréal has two airports, Dorval on the outskirts W of the city and Mirabel about 48 km to the NW. These serve local and international airlines.



Montréal – CAST Terminal (10.181)

(Original dated prior 2002)

(Photograph – Port of Montréal)

Harbour regulations**10.186**

- 1 The Port of Montréal operating by-law includes regulations with respect to cargo-handling operations and safety requirements.

Oil spills are to be reported immediately to the Canadian Coast Guard via the MCTS on VHF.

Departure. Vessels departing from the Port of Montréal are required to give a first notice of 12 hours before the ETD to Pilots, and a final notice confirming or correcting this time at least 4 hours in advance of departure.

Movement. The Master of a vessel requiring to move within Montréal Harbour is required to give 3 hours notice of the move. See Canadian *Port Regulations*.

Small craft**Boucherville****10.187**

- 1 **General information.** The town of Boucherville (45°37'N, 73°27'W), population 34 989, marked by a church spire, is situated on the E shore, on Chenal du Sud. A public wharf, with a boat launching ramp, is situated about 3 cables S of the church. Small ferries operate between Boucherville and Île Grosbois and Île de la Commune; see routes marked on the chart.

Marinas:

Club Nautique de Mézy is located on the E shore, 1.3 miles downstream of the church. At this club there are pontoon berths, an anchorage area and a boat launching ramp.

Club Nautique de Boucherville, a marina, is located close to the church. There is a reported depth of 3.4 m at the berths.

Longueuil**10.188**

- 2 **Marinas:**

Port de Plaisance de Longueuil (45°32'4N, 73°31'0W) is situated E of Haut-fond Longueuil. The marina is approached through a channel, marked by light-buoys, from a position about ¾ cable SW of MT79 Light-buoy (port hand). A ferry service operates from the marina entrance to Quai Jacques-Cartier, 2½ miles SW.

Club Nautique de Longueuil is situated about 3 cables SW of the marina.

Port Sainte-Hélène**10.189**

- 1 **General information.** Port Sainte-Hélène (45°32'N, 73°32'W), on the NE side of Île Sainte-Hélène, contains Marina de la Ronde. The port has two entrances; the N entrance, from which lights are exhibited, is partly obstructed by pontoons, and the S entrance is completely

obstructed by a boom of yellow barrels. Shallow water extends offshore and vessels should proceed with caution when navigating in the approaches to Port Sainte-Hélène.

Directions. The marina is approached from NNE through a buoyed channel, marked at its outer end by Port Sainte-Hélène (PSH) Light-buoy (preferred channel to port), moored on the W edge of the dredged approach to Canal de la Rive Sud, abreast the N end of Île Sainte-Hélène.

- 2 **Marina de la Ronde** can accommodate 100 berths, and a ramp, and vessels up to 38 m in length can moor stern to the wall on the S side of the basin.

Services. The marina offers full facilities, including bow anchors for vessels mooring stern to the basin wall. Engine and hull repairs can be undertaken, and a travelling hoist,

capacity 36 tonnes, can handle vessels up to 20 m in length.

- 3 **Small craft anchorage.** An anchorage area for small craft awaiting berths at either Port Sainte-Hélène or Longueuil is situated about 5 cables NE of the N end of Île Sainte-Hélène. Submarine pipelines extend 1 and 2½ cables respectively NW from the shore at Longueuil into the anchorage.

Quai Jacques-Cartier

10.190

- 1 **Marina.** Port d'Escale du Vieux-Port de Montréal (45°30'N, 73°33'W) is located within Jacques-Cartier basin.

ST LAWRENCE SEAWAY AND THE GREAT LAKES

GENERAL INFORMATION

Charts 4793, 424

Area covered

10.191

- 1 The following paragraphs give a brief description of the waterways above the Port of Montréal, comprising the St Lawrence Seaway and some subsidiary waterways, Lake Ontario (10.198), Lake Erie, Lake Huron, Lake Michigan and Lake Superior. Full information is given in the relevant charts and publications issued by the hydrographic authorities of Canada and the United States of America.
- 2 The international boundary between Canada and the United States runs through Lakes Ontario, Erie, Huron and Superior, as can best be seen from chart 424.

Weather

10.192

- 1 The chief feature of the weather in the Great Lakes basin is its changeability. The settled weather associated with high pressure is usually interrupted every few days by the passage of low pressure storm systems, with overcast skies and precipitation.

Regulations

10.193

- 1 The *Seaway Handbook*, available from the St Lawrence Seaway Authority, Constitution Square, 360 Albert Street, Ottawa, Canada K1R 7X7, contains the regulations relating to vessels using the St Lawrence Seaway, including Lake Ontario, the Welland Canal and the E end of Lake Erie. All vessels in transit through the St Lawrence Seaway are required to carry this publication.

Meeting and passing. *Rules of the Road for the Great Lakes* are in force for vessels navigating above Montréal. See the *Seaway Handbook* for further information.

- 2 **Pilotage.** As a result of United States oil spill legislation, U.S. authorities no longer accept the Great Lakes Navigation, or B Certificate, issued by the Canadian Coast Guard. All non-Canadian and non-U.S. vessels are required to embark a Canadian or U.S. registered pilot when navigating in both the designated and undesignated U.S. waters of the Great Lakes. Vessels with B Certificate holders on board should be governed accordingly and make appropriate provisions for Pilotage services in their voyage planning in order to avoid delays.

- 3 For detailed regulations including exemptions from Compulsory Pilotage consult: *Great Lakes Pilotage Regulations*. For details of Pilotage services available consult: *Annual Edition of Canadian Notices to Mariners*.

MONTRÉAL TO LAKE ERIE

General information

Chart 4793

Description

10.194

- 1 The St Lawrence Seaway eliminates a bottleneck caused by a limiting draught of 4.3 m that formerly existed in the river between Montréal and Lake Ontario, thus opening a route for ocean-going and lake vessels to and from ports in the Great Lakes.

In addition, a section of the seaway, about 30 miles long between Montréal and Lake Ontario, harnesses the hydro-electric potential of the river by means of power and control dams.

- 2 The Welland Canal, joining Lake Ontario and Lake Erie, is also part of the St Lawrence Seaway system.

The seaway was built jointly by the St Lawrence Seaway Authority of Canada and the Saint Lawrence Seaway Development Corporation of the United States of America, and was officially opened in 1959.

Pilotage

10.195

- 1 Pilotage is compulsory in the St Lawrence Seaway and Welland Canal.

Vessel Traffic Services

10.196

- 1 Reporting point No 26 (45°31'6N, 73°31'6W) of the St Lawrence Vessel Traffic Services System, in the entrance to Canal de la Rive Sud, is also the first reporting point for up-bound vessels using the St Lawrence Seaway. The order of transit will already have been established by the Montréal Marine Communications and Traffic Services Centre (10.158). See *Admiralty List of Radio Signals Volume 6* (5) for further details.

- 2 **Traffic control.** St Lawrence Seaway traffic control system, for all vessels other than pleasure craft of less than 19.8 m in length, operates between Montréal and the E end of Lake Erie, including the Welland Canal. Full information is given in the *Seaway Handbook*.

Seaway from Montréal to Kingston

10.197

- 1 **Route.** The portion of St Lawrence River between Montréal and Kingston (44°14'N, 76°29'W) is 164 miles in length, comprising 136 miles of natural river and lakes, and 28 miles of canals. The average width of the river is 1.3 miles.

From a position where the channel passes E of Cornwall Island (45°01'N, 74°40'W) to Kingston the main channel is partly on the Canadian side of the international boundary and partly on the United States side.

2 **Canals.** There are three canals in the waterway:

Canal de la Rive Sud, entered from Montréal Harbour.

Canal de Beauharnois, entered at Beauharnois Locks (45°19'N, 73°55'W).

Wiley-Dondero Canal, entered at Snell Lock (44°59'N, 74°47'W).

3 **Locks.** There are seven locks, achieving a rise in elevation of 68.6 m. The minimum depth over lock sills is 9.1 m; the locks are 233.5 m in length and 24.4 m wide.

The maximum size of vessel permitted to navigate through the seaway locks is 222.5 m overall length, 23.16 m in extreme breadth, 7.92 m draught and 35.5 m masthead height.

4 **Controlling depth** in the Seaway channels is 8.2 m. Where a canal section is flanked by two embankments, there is a minimum width of 61 m at the bottom and 69 m at the surface. Where a canal section is flanked by one embankment, the minimum width at the bottom is 91 m. In open water, the minimum width of the channel is 122 m.

5 **Speed.** The speed limit in Canal de la Rive Sud is 6 kn over the ground. See the *Seaway Handbook* for speed regulations throughout the Seaway.

Ice. From Montréal to Kingston the general ice regime is much the same as it is below Montréal (10.3). The official opening and closing dates for the St Lawrence Seaway are 1st April and 15th December, but the actual dates will depend on prevailing ice conditions.

Chart 424

Lake Ontario

10.198

1 Lake Ontario, the smallest of the Great Lakes, is 174 miles long and 47 miles wide. Its waters flow NE into St Lawrence River.

The navigation season in Lake Ontario is from 15th April to 15th December, but prevailing ice conditions may delay or advance these dates by as much as two weeks. Offshore, the lake is not obstructed much by ice, and areas of open water have been reported even in severe winters.

The city of Toronto is situated on its NW shore. The Toronto Metropolitan Area has a population of about 4½ million.

Welland Canal

10.199

1 The Welland Canal (43°00'N, 79°10'W), about 24 miles in length, connects the W end of Lake Ontario with the E end of Lake Erie. The canal contains eight locks, which achieve the rise of 100 m between the water levels of the two lakes. The natural waterway between the lakes leads through Niagara River and over Niagara Falls, about 7 miles E of the canal.

The minimum width of the canal is 59 m, and the controlling depth is 8.2 m. The locks are 222.5 m in length, and 24.4 m wide. The maximum permissible draught is 8 m.

Small craft channels

Ottawa River

10.200

1 Ottawa River is entered at Sainte-Anne-de-Bellevue (45°25'N, 73°58'W), at the W end of Lake Saint-Louis, about 26 miles through the channels above Montréal.

The river leads to Ottawa, about 94 miles upstream, via Carillon Canal and lock. The least depth is reported to be about 1.2 m. The bridge spanning the river in position 45°48'1N, 77°03'4W has a vertical clearance of 4.3 m.

Rideau Waterway

10.201

1 The Rideau Waterway leads from Ottawa via Rideau Canal, Rideau River, and a series of small lakes and other channels, to Kingston, at the NE end of Lake Ontario, a distance of about 123 miles. The least depth is reported to be about 1.5 m, and there are numerous locks in the waterway.

Trent-Severn Waterway

10.202

1 The Trent-Severn Waterway comprises a series of navigable rivers and lakes, connected by short canals, between Trenton (44°05'N, 77°35'W), on the N side of Lake Ontario, and Port Severn (44°47'N, 79°42'W), in Georgian Bay, Lake Huron, a distance of about 240 miles.

The waterway is reported to be available to craft with a draught 1.8 m, and includes numerous locks and a mechanical transporter. It is normally open to navigation from mid-May to mid-October.

LAKE ERIE TO LAKE MICHIGAN AND LAKE SUPERIOR

General information

Chart 424

Routes

10.203

1 Shipping routes lead through Lake Erie, thence, through Detroit River, Lake Saint Clair and Saint Clair River, to Lake Huron. At its upper end, Lake Huron connects with Lake Michigan and Lake Superior, the innermost of the Great Lakes. Up-bound and down-bound tracks are indicated on the Canadian and United States charts.

The distance from Montréal to Chicago at the head of Lake Michigan is 1 086 miles, and to Duluth at the head of Lake Superior is 1 167 miles. Other distances between ports are given in the table on chart 424.

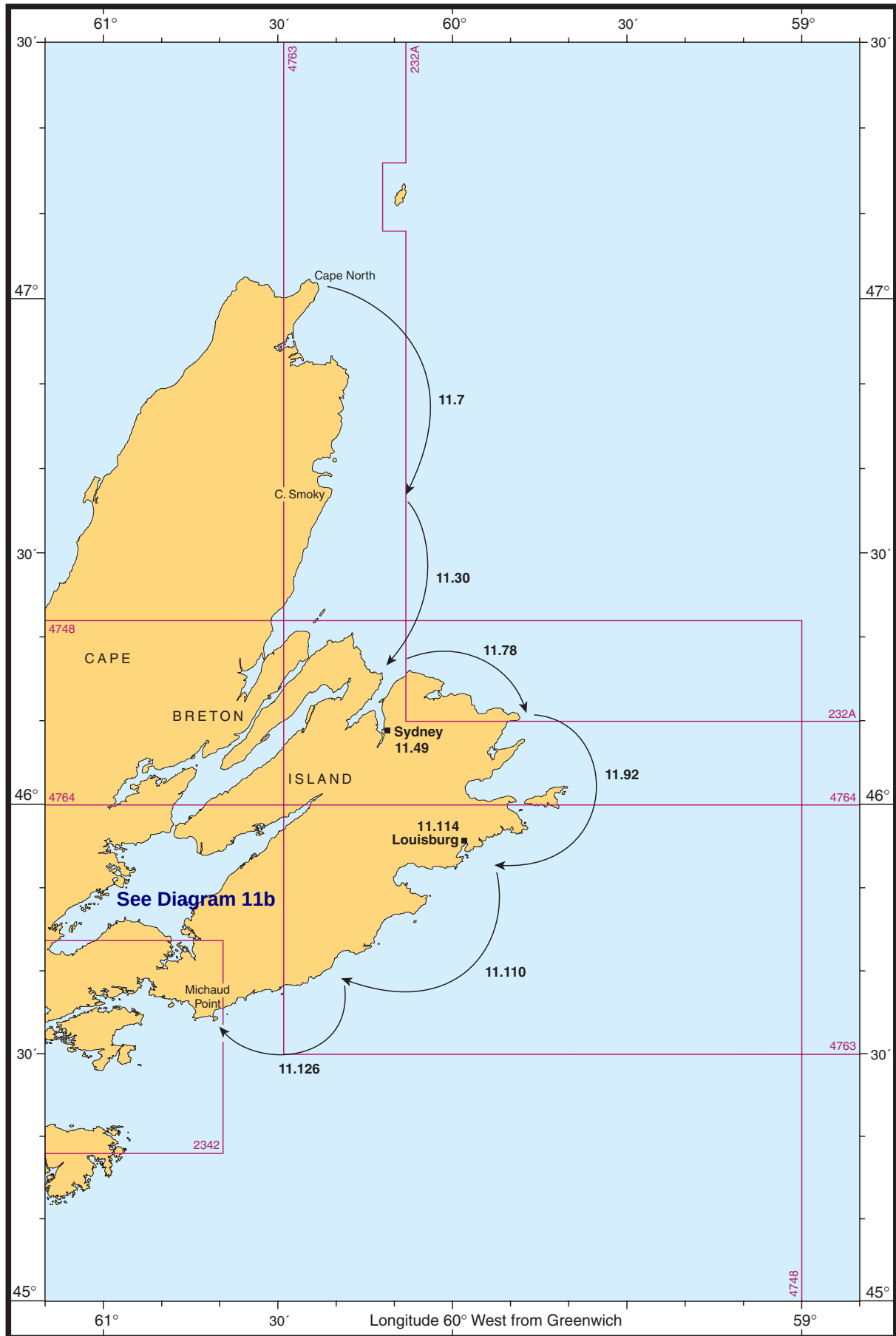
Regulations

10.204

1 **Vessel Traffic Services.** A VHF radio network based on the Canadian Coast Guard Vessel Traffic Services Centre at Sarnia (42°58'N, 82°24'W) covers the Canadian waters from the E end of Lake Erie to the N end of Lake Huron. Full details are given in the Canadian *Annual Edition of Notices to Mariners*.

2 **Pilotage** is compulsory for all vessels of foreign registry, and any other vessel which does not qualify for exemption, as prescribed in the *Great Lakes Pilotage Regulations*. See 10.193.

Chapter 11a - Cape Breton Island - east coast - Cape North to Michaud Point



October 2003

CHAPTER 11

CAPE BRETON ISLAND — EAST COAST — CAPE NORTH TO MICHAUD POINT
INCLUDING GREAT BRAS D'OR AND BRAS D'OR LAKE

GENERAL INFORMATION

Charts 4748, 4763, 2666

Scope of the chapter**11.1**

- 1 This chapter describes the coastal waters on the E side of Cape Breton Island from Cape North (47°02'N, 60°24'W) to Michaud Point (45°34'N, 60°41'W).

The N approaches to Bras d'Or Lake (45°50'N, 60°50'W), through Great Bras d'Or and Little Bras d'Or, are also described. Also the S approach through Saint Peters Canal is described.

The chapter is divided into three sections:

Cape North to Flint Island (11.4).

Flint Island to Michaud Point (11.89).

Great Bras d'Or — Bras d'Or Lake — Little Bras d'Or — Saint Peters Canal (11.135).

Outlying banks**11.2**

- 1 The E approach to Cape Breton Island and the Strait of

Canso crosses the banks off the coast of Nova Scotia. The NE edge of these banks, which are described in *Nova Scotia and Bay of Fundy Pilot*, extends from the vicinity of Saint Paul Island (47°12'N, 60°09'W) in a SE direction to the SE limit of this chapter. Insufficient soundings have been obtained on the banks for much confidence to be placed in a position obtained from depths alone.

Misaine Bank. The N part of Misaine Bank lies within the limits of this chapter. The bank is centred in position 45°10'N, 59°00'W, and has a least charted depth of 64 m, with a bottom of rock, sand, gravel and broken shells.

Cape Breton Island**11.3**

- 1 Cape Breton Island is part of the province of Nova Scotia. The chief centres are the city of Sydney, and the towns of North Sydney, Sydney Mines and Glace Bay. In 2001 the population of Cape Breton Island was 105 968.

The exports of the island include agricultural and dairy produce, fish, coal, iron and steel, and manufactured goods.

CAPE NORTH TO FLINT ISLAND

GENERAL INFORMATION

Chart 4763

Area covered**11.4**

- 1 This section describes the waters off the E coast of Cape Breton Island from Cape North (47°02'N, 60°24'W) to Flint Island, 58 miles SSE, including Saint Anns Bay (46°25'N, 60°25'W) and Sydney Harbour, 12 miles ESE. The section is arranged as follows:

Cape North to Cape Smoky (11.7).

Cape Smoky to Cranberry Point (11.30).

Sydney Harbour (11.49).

Low Point to Flint Island (11.78).

Topography**11.5**

- 1 The E coast of Cape Breton Island from Cape North (47°02'N, 60°24'W) to Saint Anns Bay, about 40 miles S, is bold, mountainous and free from outlying dangers until near Bird Islands (46°23'N, 60°22'W).

The hills near the coast reach a height of more than 425 m and are chiefly of granite, with clay slate in nearly vertical strata. See also description at 1.115.

Flow**11.6**

- 1 The predominant flow is SSE, out of Cabot Strait. However, after prolonged E or NE winds, a N-going current with a rate of 1 kn may flow from the vicinity of Saint Anns Bay to near Cape North, where it meets the SE current out of Cabot Strait and is turned E, causing noticeable rips.

This N-going current may persist for several days, but under other conditions it may be reversed.

A regular alternation of in-going and out-going tidal streams may also be felt at times.

- 2 **Caution.** Due allowance should be made for the unpredictable nature of the flow when approaching this coast, especially during the dense fogs which often accompany E winds, bearing in mind that depths of 37 m (20 fm) will be found within 5 cables of the coast in places.

CAPE NORTH TO CAPE SMOKY

General information

Chart 4763

Route**11.7**

- 1 The coastal passage along the NE side of Cape Breton Island between Cape North (47°02'N, 60°24'W) and Cape Smoky, 25 miles S, leads SSE across Aspy Bay and the approaches to Dingwall Harbour, turning S at Cape Egmont to cross North Bay and the entrance (46°39'N, 60°20'W) to Ingonish Harbour, in South Bay.

Topography**11.8**

- 1 The coastal terrain is included in the description at 11.5. The mountains at the head of North Bay (46°41'N, 60°18'W) are the highest on this coast.

Squalls**11.9**

- 1 Very violent squalls come off the high land in the vicinity of North Bay and Cape Smoky at times.

Principal marks**11.10****1 Landmark:**

Radio tower (red lights, elevation 431 m (1415 ft)) (47°01'N, 60°24'W).

Major light:

Cape North Light (white square structure, red bands, 15 m in height) (47°02'N, 60°23'W) on Money Point.

Directions**Cape North to Cape Egmont****11.11**

- 1 From a position about 3 miles NE of Cape North (47°02'N, 60°24'W), the track leads SSE, clear of charted dangers, passing (with positions from Cape Egmont (46°51'N, 60°18'W)):

ENE of Money Point (1¼ miles NNW), thence:

ENE of the entrance to Dingwall Harbour (7 miles NW) (11.15) in Aspy Bay, thence:

- 2 ENE of White Point (White Head) (3 miles NW), formed by two islets lying close off the S entrance point to Aspy Bay and marked by KB1 Light-buoy (port hand).

The track then leads to a position ENE of Cape Egmont, a comparatively low and bare granite headland.

11.12**1 Useful mark:**

Wilkie Sugar Loaf (46°57'N, 60°28'W), a remarkable conical mountain.

Cape Egmont to Cape Smoky**11.13**

- 1 From abreast Cape Egmont, the coastal passage continues S, passing:

E of New Haven (1¼ miles SSW) (11.21), marked by KC Light-buoy (safe water), thence:

E of Neil Head (2½ miles SSW) and a 2.7 m (9 ft) shoal lying about 3 cables E of a rocky promontory 3 to 6 m (10 to 20 ft) high, thence:

E of KD Light-buoy (¾ miles S), 1½ miles SE of the entrance to Neil's Harbour (11.22), thence:

- 2 E of Ingonish Island (10 miles S) and Eastern Rocks, one of which is 4 m (13 ft) high, lying up to 3½ cables E, and of shoal ground, with a depth of 9 m (30 ft) over it, extending about 1½ cables farther E, thence:

E of Middle Head (12 miles S) a narrow, rocky and precipitous peninsula separating North Bay and South Bay.

The track then leads across South Bay, marked by K4 Light-buoy (safe water), in which lies the entrance to Ingonish Harbour (11.28), to a position E of Cape Smoky (13½ miles S).

3 Useful mark:

Neil's Harbour Light (square tower, 10 m in height) (46°48'N, 60°19'W) on Neil Head.

(Directions continue at 11.35)

Small craft channel**11.14**

- 1 **Ingonish Island.** A narrow channel, with a depth of 6.1 m (20 ft) in the fairway, leads through the reef between Ingonish Island (46°41'N, 60°20'W) (11.25) and the

mainland. A light (post, 2 m in height) is exhibited from The Point, on the mainland about 4 cables W of the island, from 1st May to 15th December. Local knowledge is required.

Dingwall Harbour

Canadian Chart 4365 plan of Dingwall Harbour (see 1.32)

General information**11.15**

- 1 **Position.** Dingwall Harbour (46°54'N, 60°27'W) is an important fishing centre. Dingwall settlement, population about 285, is situated on the S side of the harbour.

Local knowledge is required owing to the changing depths in the harbour entrance; see cautionary note on the Canadian Chart.

Limiting conditions**11.16**

- 1 **Depths.** The entrance channel is subject to rapid silting; the least charted depth in the channel (2002) was 1.8 m (6 ft).

Tidal levels. Mean spring range about 0.7 m; mean neap range about 0.4 m. For further information see *Admiralty Tide Tables, Volume 2*.

Weather. The harbour cannot be entered in E gales.

Ice usually forms in January and breaks up in April.

Harbour**11.17**

- 1 The harbour, which is protected by two pairs of breakwaters, one pair on each side of the entrance channel, provides good shelter. Charted depths are from 1.8 to 9.4 m (6 to 31 ft), but these are liable to change.

A disused gypsum plant and pier, in ruins, are situated on the N side of the harbour, about 3½ cables WSW of the outer breakwaters, and an L-shaped public pier is situated close N of it.

A fish processing plant and wharf are situated on the S side of the harbour, opposite the disused gypsum plant.

Directions**11.18**

- 1 The harbour is approached from E, passing close to KA Light-buoy (safe water), moored 9 cables E of the entrance, and entered between outer and inner pairs of breakwaters about ½ cable apart. The channel width between the N and S breakwaters is 36 m and a light (round mast, 5 m in height), shown from 1st May, to 15th December, is exhibited from each of the outer breakwater heads.

- 2 The track then leads through a channel, marked by buoys and light-buoys, leading WSW for a distance of about 1½ cables from the inner breakwater heads into the deeper water of the main harbour basin.

Caution. Navigational aids may be moved to suit the best channel.

Berths**11.19**

- 1 The main berths are as follows:

Public pier outer face, length 47 m with a depth of 6.7 m alongside.

Dingwall Fish Company Wharf, depth about 3.4 m alongside.

There are several other small wharves with depths of about 1.5 m alongside.

Small craft

Chart 4763, Canadian Chart 4363 (see 1.32)

White Point

11.20

- 1 **General information.** At a position 7 cables S of White Point (46°53'N, 60°21'W), a breakwater extends 85 m from the coast.

Berth. There is a least depth of 3.4 m (2001) alongside the berth on the outer face of the breakwater.

New Haven

11.21

- 1 **General information.** New Haven (46°49'N, 60°19'W), population about 136, is a small fishing harbour at the head of Hungry Cove.

The landing is protected by two breakwaters, 49 m and 80 m long, having an entrance 11 m wide, and a depth of about 1.2 m (4 ft) between their heads. KC5 Light-buoy (port hand) marks the below water portion of one of the breakwaters at the entrance.

- 2 **Directions.** The harbour is approached from E by passing close to KC Light-buoy (safe water) moored 6 cables E of the entrance.

Neil's Harbour

11.22

- 1 **General information.** Neil's (Neil) Harbour (46°48'N, 60°20'W), a fishing station, is sheltered from the N by Neil Head (11.13), but it is open to S and SE.

A L-shaped pier extends from the SW part of the promontory of Neil Head and another pier extends from the N shore, forming a basin with depths of 0.7 to 1.6 m. The entrance is protected by a rubble breakwater.

- 2 **Directions.** Neil's Harbour is approached from SE from the vicinity of KD Light-buoy (safe water) moored 1 mile SE of Neils Harbour Light (11.13).

Berths. The L-shaped pier has a berthing face about 90 m long on its N side. The inner side of the N pier has a berthing face about 80 m long.

Black Brook Cove

11.23

- 1 **General information.** Black Brook (Blackbrook) Cove (46°47'N, 60°20'W), about 8 cables SW of South Point, affords landing for boats.

Green Cove

11.24

- 1 **General information.** Green Cove, a small indentation between Black Point (46°46'N, 60°19'W), and Green Point, about 7 cables S, is a minor fishing station, protected on its S side by a reef, and on the E side by outlying edges.

Canadian Chart 4365 plan of Ingonish and approaches (see 1.32)

Ingonish Island

11.25

- 1 **General information.** A cove on the NW side of Ingonish Island (46°41'N, 60°20'W) affords shelter for small craft, except in E winds. Local knowledge is required.

Ingonish Island is 61 m (200 ft) high and rocky. A spit and a reef extend from the W extremity of Ingonish Island, nearly halfway to The Point, a mainland promontory about 7 cables NW, from which a light is exhibited (11.14).

Tidal levels. Mean spring range about 0.9 m; mean neap range about 0.5 m. For further information see *Admiralty Tide Tables, Volume 2*.

North Bay Ingonish

11.26

- 1 **General information.** North Bay Ingonish is square shaped and about 2 miles across, with Ingonish, the principal settlement, on its N shore, and the village of Ingonish Centre at its head. There was a total population of 757 in 1991.

Harbour. A fishing harbour is enclosed within two breakwaters, one, 158 m long, projects SW from The Point, the NE entrance point to the bay. KH2 Light-buoy (starboard hand) marks the end of the N breakwater, projecting W from The Point. A ruined pier projects from Burke Head, 5 cables W of The Point.

- 2 **Anchorage** is found W of The Point (11.25), on a bottom of sand over mud. The anchorage is unsafe with E winds, which send in a heavy sea.

Alongside berths exist as follows:

The Point. A pier, about 122 m long, lies close NW of the breakwater, with depths of 1.8 m alongside its outer end. A drying shoal lies off the S side of the pier.

Dundas Head (46°41'N, 60°23'W). A public wharf, with a depth of 0.9 m alongside its outer face, lies on the W side of Dundas Head, a small promontory about 1 mile W of The Point.

South Bay Ingonish

11.27

- 1 South Bay Ingonish, similar in shape to North Bay, but smaller, has a pebble beach in its SW corner, through which a narrow buoyed channel with a depth of about 4.9 m (16 ft) leads into Ingonish Harbour.

Ingonish Harbour

11.28

- 1 **General information.** Ingonish Harbour (46°38'N, 60°24'W) is an important fishing centre. South Ingonish Harbour village is situated at the head of the harbour. Ingonish Beach village lies on the N side of the harbour, and Ingonish Ferry village lies on the S side. The communities had a total population of 557 in 1991.

There are no licensed pilots, but the services of fishermen with local knowledge can be obtained.

- 2 **Directions.** From the vicinity of K4 Light-buoy (starboard hand), moored 1¼ miles SE of Middle Head, the approach to Ingonish Harbour leads WSW, and the harbour is entered through a buoyed channel, but these buoys may be submerged at times by the strength of the tidal streams in the entrance.

Ingonish Harbour Light (red and white rectangle on framework tower, 7 m in height) is exhibited from the beach at the S side of the entrance from 1st May, to 15th December.

- 3 **Berths** exist at a number of points on the harbour shore, which are shown on the local chart, including:

Public wharf on the S side of the harbour, about 2 cables SSW of the harbour entrance light, with a least reported depth of 7.9 m alongside its outer face (1990).

Pier in ruins on the N side of the harbour at the entrance to a creek about 4 cables NNW of the harbour entrance light.

Due to shifting sands, there may be less water than charted in the harbour entrance.

Other names**11.29**

- 1 Middle Pond (46°54'N, 60°27'W).
North Pond (46°55'N, 60°28'W).
Rocky Bay (46°43'N, 60°20'W).

CAPE SMOKY TO CRANBERRY POINT**General information**

Chart 4763, Canadian Chart 4363 (see 1.32)

Route**11.30**

- 1 The coastal passage along the NE side of Cape Breton Island from Cape Smoky (46°38'N, 60°21'W) to Cranberry Point and the approaches to Sydney Harbour (46°16'N, 60°10'W) (11.49), 22 miles SSE, crosses the approaches to Saint Anns Bay (11.37), Great Bras d'Or and Little Bras d'Or, which are described in 11.140.

Topography**11.31**

- 1 The coast between Cape Smoky, a precipitous point rising to an elevation of 318 m (1045 ft), and Bentinck (Little River) Point, 12½ miles SSW, is less steep, the mountains receding some distances inland, leaving space for scattered farms.

Cape Dauphin (46°20'N, 60°25'W), rising to 330 m (1085 ft), is precipitous.

Bird Islands, extending 3½ miles NE from Cape Dauphin, and consisting of Hertford Island and Ciboux Island, are precipitous and almost bare.

A narrow channel (11.36), affording passage to small craft only, exists between Cape Dauphin and Hertford Island.

- 2 The character of the coast changes in the vicinity of Point Aconi (46°20'N, 60°17'W), the mountainous country to the NW giving way to land of moderate elevation, with cliffs of sandstone and shale.

The coast between Bird Islands and Cranberry Point (46°16'N, 60°12'W), has shoal ground with above water and drying rocks extending to a distance of 1 mile offshore in places.

Submarine cables**11.32**

- 1 A number of submarine cables, crossing Cabot Strait, extend N and NE from a position 1½ miles W of Cranberry Point (46°16'N, 60°12'W).

Fog**11.33**

- 1 Caution is necessary when approaching this coast in low visibility, as depths of 37 m (20 fm) lie less than 2 miles offshore in places.

Principal mark**11.34**

- 1 **Major light:**
Low Point Light (white tower, 22 m in height) (46°16'N, 60°08'W).

Directions

(continued from 11.13)

11.35

- 1 From a position E of Cape Smoky (46°38'N, 60°21'W), the coastal passage leads initially SSE, passing:

ENE of Ciboux Island (46°23'N, 60°22'W), from the N end of the summit of which a light (white tower, red bands, 9 m in height) is exhibited, and Ciboux Shoal, on which the sea breaks heavily at times, and a 10.4 m (34 ft) shoal, which together extend 2 miles NNE from the island. Thence the track leads SE, passing:

NE of Point Aconi (46°20'N, 60°17'W), from which a light (white round tower, 12 m in height) is exhibited, and:

- 2 NE of Point Aconi K6 Light-buoy, 2 miles NE of Point Aconi, which marks the entrance to Little Bras d'Or, thence:

NE of Cranberry Point (46°16'N, 60°12'W) and a light-buoy (starboard hand) marking Cran Rock and shoal ground extending 9 cables NE of the point.

The track then leads SE to the pilot boarding place (46°18'5N, 60°07'5W) (11.63) for Sydney Harbour.

- 3 **Useful mark:**

Chimney (white strobe flashing lights, 106 m in elevation) (46°19'N, 60°20'W).

(Directions continue for coastal passage at 11.81, for Saint Anns Bay at 11.41, for Great Bras d'Or at 11.147, for Little Bras d'Or at 11.195 and for Sydney Harbour at 11.70)

Small craft channel

Canadian Chart 4277 (see 1.32)

Cape Dauphin**11.36**

- 1 A channel about 5 cables wide lies midway between Cape Dauphin (46°20'N, 60°25'W) and Hertford Ledge, 8 cables NE. The depth in the channel is 10.1 m.

Saint Anns Harbour

Canadian Chart 4277 plan Entrance to St Anns Harbour (see 1.32)

General information**11.37**

- 1 **Position.** Saint Anns Harbour (46°16'N, 60°34'W) lies at the head of Saint Anns Bay.

- 2 **Topography.** Saint Anns Bay is fringed with shoal water out to a distance of 4 cables on the W side. Cliffs of white gypsum can be seen 1½ miles S of Bentinck Point. St Anns Mountain (Murray Mountain) rises steeply on the W side of Saint Anns Harbour.

The SE shore of the bay is steep-to; Cape Dauphin (46°20'N, 60°25'W) is high and steep.

- 3 **Approach and entry.** Saint Anns Harbour is approached through Saint Anns bay, between Bentinck Point (46°26'N, 60°27'W) and Ciboux Island (11.35), about 4½ miles SE. The bay narrows towards its head, where a narrow, buoyed channel leads across a bar into the harbour.

Limiting conditions**11.38**

- 1 **Controlling depth** in the entrance channel is 5.2 m.
Tidal levels. Mean spring range about 1.0 m; mean neap range about 0.6 m. For further information see *Admiralty Tide Tables, Volume 2*.

Weather. NE gales, although uncommon in June and July, become more frequent after mid-August, and are particularly strong in Saint Anns Harbour. In a strong NE wind, especially when the tidal stream is out-going, the bar is covered with heavy breakers.

Arrival information**11.39**

- 1 **Outer anchorage.** It is reported that good anchorage is available, in depths of about 22 m, about 5 cables off the SE shore, with Beach Point Light (11.41), bearing 220°, distant 2.3 to 3.0 miles.

Pilotage. The services of a fisherman with local knowledge can be obtained.

Harbour**11.40**

- 1 **General layout.** Saint Anns Harbour extends about 4½ miles between Beach Point (46°17'N, 60°33'W) and Upper Macleods Point, 4½ miles SSW, where the harbour divides into North Gut and South Gut, both of which extend about 1½ miles farther SSW. The village of Englishtown, population 139 (1991), is situated on the E side of the harbour entrance.

- 2 **Ferry.** A cable ferry crosses the harbour entrance between jetties at Englishtown and Beach Point. The cable has a maximum depth of 7.6 m when the ferry is docked, but rises near the surface as the ferry crosses, as indicated on the chart.

The following signals are shown from the ferry terminals: a green light indicating the ferry is docked and a red light indicating that the ferry is crossing.

Tidal streams. The maximum rate of the tidal stream in the entrance is 4 kn.

Directions (*continued from 11.35*)**11.41**

- 1 From a position on the coastal passage, NE of Bentinck Point (Little River Point) (46°26'N, 60°27'W), the track into Saint Anns Bay leads SW, passing (with positions from Bentinck Point):

NW of Bird Islands (4½ miles SE) and Ciboux Shoal extending 2 miles NNE, thence:

SE of Red Island (Island Point) (5½ miles SW), a small wooded peninsula, which appears, at a distance, to be an island.

The track then leads SW into the harbour, across the bar, between KP1 Buoy (port hand) and KP2 Buoy (starboard hand), moored about 8 cables NNE of Beach Point Light (framework tower, 7 m in height) (46°17'N, 60°33'W), at the outer end of the buoyed entrance channel, passing:

- 2 SE of Beach Point, the S extremity of a narrow spit of stones, 2.1 m high, and:

NW of the N end of Old Fort Point, about 1 cable SSE.

Caution. Mariners are cautioned not to cross the ferry route (11.40) unless the green lights are visible.

- 3 Then the track to the head of Saint Anns Harbour leads SW, passing SE of Port Shoal, lying from 3 to 5 cables SW of Beach Point Light and marked by KP8 Buoy (starboard hand).

Anchorage berths in Saint Anns Harbour**11.42**

Jersey Cove entrance. W of Port Shoal, in a depth of about 15 m, mud. This position is out of the tidal stream setting through the harbour entrance.

Goose Cove entrance. Off Seymour Point (46°16'N, 60°36'W), at the W entrance point to North River, in depths of 7 to 10 m, mud. This is better shelter than at the anchorage W of Port Shoal.

In view of the weather (11.38) in Saint Anns Harbour vessels should be well anchored.

Alongside berths in Saint Anns Harbour**11.43**

Englishtown: a L-shaped pier, which is in ruins, projects 53 m from the shore, about ¾ cables S of Beach Point Light. The depth alongside the head of the pier is 3.7 m. The berthing length across the outer face is about 45 m.

South Gut: a L-shaped pier projects about 61 m from the E shore of South Gut (South Arm) (46°13'N, 60°36'W). The head of the pier is 15 m long, with a depth of 3.0 m alongside. Pontoons are moored to the shore.

Small craft**11.44**

- 1 **Landings.** Boats may find a landing during offshore winds on beaches in Saint Anns Bay as follows:

Indian Brook (46°22'N, 60°31'W), on the W shore.

Big Grapplin Beach (46°20'N, 60°28'W), on the E shore about 2 miles ESE of Red Island.

- 2 **Shelter.** Boats may enter a lagoon lying behind Stony Beach, at HW. The entrance is through a narrow passage at the S end of the beach, about 1½ miles S of Red Island (46°21'N, 60°31'W) (11.41).

Small craft

Chart 4763, Canadian Chart 4367 (see 1.32)

Wreck Point and Rocky Brook**11.45**

- 1 Good landing for boats, during offshore winds, may be found at:

Wreck Point (46°31'N, 60°25'W).

Rocky Brook (French River), 1½ miles S of Wreck Point.

Breton Cove**11.46**

- 1 A breakwater 96 m long, with a depth of 1.5 m at its outer end, projects SE from the coast at Breton (Briton) Cove (46°27'3N, 60°27'4W).

Little River**11.47**

- 1 **General information.** At a position 5 cables S of Breton Cove a breakwater, 244 m long, lies parallel to the shore and 107 m off. A public pier, 46 m long, with a depth of 1.2 m alongside, and a fish pier close S, project from the coast inside the breakwater.

A rock breakwater 183 m long extends from the shore about 230 m S of the public pier.

Directions. The harbour at Little River is approached on the alignment (291°) of leading lights (white rectangles, red stripes, on framework towers) (46°26'7N, 60°27'7W), passing close to KN Light-buoy (safe water) moored about 6 cables ESE of the breakwater head.

Other names**11.48**

- 1 Bonar Rock (46°17'N, 60°15'W).
Shag Rock (46°18'N, 60°16'W).

SYDNEY HARBOUR

General information

Canadian Chart 4266 (see 1.32)

Position

11.49

- 1 Sydney Harbour (46°16'N, 60°10'W) is an inlet containing the ports of North Sydney, Sydney and Sydport. Sydney Harbour is a customs port and port of entry.

Functions

11.50

- 1 North Sydney, population 6797 in 1996, is a terminal for ferries to Newfoundland. The principal imports are fish and fish products, and North Sydney exports general freight, asphalt and cement.

Sydney, population 25 636 in 1996, is a steel manufacturing centre, and a shipping port for the coal fields in the surrounding area. The port contains a shipyard (11.74).

Sydport and the associated Sydport marine industrial park are being developed into a service and manufacturing centre for the offshore oil and gas industry.

Port limits

11.51

- 1 North Sydney:
 - On the N side, a line joining Sydney Bar Light (46°12'N, 60°13'W) and a point on the shore about 3 cables N of Northwest Bar, 9½ cables NW.
 - On the E side, a line joining Sydney Bar Light and Point Edward, 1¼ miles SSW.
- Sydney:
 - The E limit of North Sydney, as above.
 - Sydney Bridge (46°07'N, 60°14'W) at the head of South Arm.

Approach and entry

11.52

- 1 Sydney Harbour is approached from SA Light-buoy (safe water) (46°18'4N, 60°07'9W) and entered between Cranberry Point (46°16'N, 60°12'W) and Low Point, 3½ miles E.

Traffic

11.53

- 1 In 2000, 49 ship movements were recorded, totalling 931 227 dwt.

Port Authorities

11.54

- 1 Sydney Harbour is no longer administered by Transport Canada. North Sydney, Sydney and Sydport are administered separately as follows:
 - North Sydney. MV Osprey Limited, 385 Purves Street, PO Box 188, North Sydney, NS.
 - Sydney. Cape Breton Regional Municipality, 320 Esplanade Street, Sydney, NS, B1P 7B9.
 - Sydport. Laurentian Energy Corporation.

Limiting conditions

Controlling depth

11.55

- 1 Controlling depth in the entrance channel is 11.7 m.

Deepest and longest berth

11.56

- 1 Deepest and longest berths:
 - North Sydney. Ferry Terminal (11.73).
 - Sydney. International steel loading and iron ore discharge wharf (11.73).
 - Sydport. Main jetty (11.73).

Tidal levels

11.57

- 1 **North Sydney.** Mean spring range about 1.0 m; mean neap range about 0.6 m. For further information see *Admiralty Tide Tables, Volume 2*.

Density of water

11.58

- 1 Density of water is 1.023 g/cm³ (average).

Ice

11.59

- 1 The harbour is generally kept open by icebreakers during the winter months.

Arrival information

Port radio

11.60

- 1 Sydney Coast Guard Radio maintains a 24 hour watch on VHF, see *Admiralty List of Radio Signals, Volume 1 (2)*.

Notice of ETA

11.61

- 1 ETA should be transmitted, in UTC, at least 48, 24, 12 and 6 hours in advance of expected arrival at the pilot boarding station, to Atlantic Pilots Authority, Halifax, Nova Scotia. E-mail: dispatch@atlanticpilots.com

Outer anchorage

11.62

- 1 Anchorage is available in the approaches to North Sydney (11.72). A prohibited anchorage area, owing to submarine cables, is shown on the chart NE of a line (46°14'N, 60°12'W), extending SE from Sydney Mines.

Pilotage

11.63

- 1 Pilotage is compulsory for merchant vessels. The pilot boarding place is in position 46°18'N, 60°07'W, in the vicinity of the fairway SA Light-buoy. The pilot vessel is equipped with VHF, see *Admiralty List of Radio Signals, Volume 6 (5)*.

Tugs

11.64

- 1 Tugs are available.

Quarantine

11.65

- 1 Sydney is a quarantine station. Extracts from *Canadian Quarantine Regulations* are given at Appendix III.

Harbour

General layout

11.66

- 1 The outer part of Sydney Harbour extends SW for about 4 miles from its entrance to the narrow channel abreast Sydney Bar Lighthouse (46°12'N, 60°13'W). The town of Sydney Mines, population 7559 (1996), is situated about 1 mile inside the W entrance.
- 2 Inside the bars the harbour divides into North West Arm and South Arm, with the main berthing areas at:

North Sydney (46°12'N, 60°15'W).

Sydney, 3 miles SE of North Sydney, on the E side of South Arm.

Sydport, on the W side of South Arm, opposite Sydney.

Ferries operate within Sydney Harbour.

Canadian Coast Guard College

11.67

The Canadian Coast Guard College is situated on the S shore of Crawley Creek, on the W side of South Arm.

Climate

11.68

- 1 See climatic table 1.184.

Principal mark

11.69

- 1 **Major light:**

Low Point Light (46°16'N, 60°08'W) (11.34).

Directions for entering harbour

(continued from 11.35)

Sea to Sydney Bar Light

11.70

- 1 From the pilot boarding place (46°18'5N, 60°07'5W), in the vicinity of SA Light-buoy (11.52), the track leads SW towards the entrance to Sydney Harbour.

Sydney Leading Lights:

Front light (white structure, 18 m in height) (46°10'8N, 60°15'1W), near Dixon Point on the E shore of the North West Arm.

Rear light (white square tower, red stripe, 12 m in height) (766 m from front light).

- 2 The alignment (213½°) of these lights leads through the outer part of Sydney Harbour, passing (with positions from Low Point Light):

1 mile NW of Petries Reef (1 mile SW), and:

1 mile SE of S2 Light-buoy (starboard hand) (2¾ miles W), marking Cran Rock and shoal ground extending 9 cables NE of Cranberry Point, thence:

About 7 cables NW of Livingstone Shoal (1.9 miles SW), thence:

- 3 SE of shoal ground and detached patches, with depths of less than 10 m over them, extending 8½ cables ESE from Cranberry Point, (3½ miles W), the W entrance point, thence:

Close NW of SC Light-buoy (safe water) (3 miles SW), lying 8 cables SE of Swivel Point, thence:

SE of Mines Point (4½ miles SW).

- 4 The track then leads to a position, on the leading line, W of Sydney Bar Light (framework mast on white square building) (46°12'3N, 60°13'1W), marking the W edge of South East Bar, a narrow above-water spit, terminating in a drying sand and shingle bank, that extends about 9 cables SW from Daly Point.

Useful mark:

Church spire (46°13'N, 60°12'W), at Daly Point.

(Directions continue for South Arm at 11.71)

South Arm

11.71

- 1 **South Arm Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 6 m in height) (46°09'4N, 60°12'2W).

Rear light (similar construction and tower, 13 m in height) (151 m from front light).

From a position 3 cables W of Sydney Bar Light, the alignment (162½°) of these lights leads through the outer part of South Arm, passing (with positions from Sydney Bar Light):

WSW of S7 Light-buoy (port hand) (2 cables WSW), thence:

ENE of S8 Light-buoy (starboard hand) (9 cables SSW), marking shoal ground extending 3¼ cables NNE of Point Edward.

- 2 The track then leads to a position, in mid-channel, W of the International Piers at Sydney (2½ miles SSE) (11.73), 5 cables NE of Sydport. The channel then follows a curving track in the narrowing passage to the head of South Arm at Sydney River, about 3 miles S, where an overhead power cable, vertical clearance 4.6 m, and a bridge span the mouth of Sydney River at Coxheath. The fairway, marked by buoys in places, leads between shoals, the positions of which can best be seen from the chart.

Useful marks:

Two radio masts (red lights, 109 m in height), 2 miles SE of Sydney Bar Light.

Basins and berths

Anchorage

11.72

- 1 **North Sydney.** Good open anchorage is available off North Sydney (46°12'N, 60°14'W) and in North Sydney Roads, NE of the bars at the entrance. The outer limits of the anchorage area, indicated on the chart, cross the harbour at a point 1¼ miles NE of Sydney Bar Light (11.70).

Fishery Cove. Sheltered anchorage is available SW of Fishery Cove (46°12'N, 60°12'W), about 2 cables W of SS1 spar buoy (port hand) in depths of 11 to 13 m, mud.

- 2 **South Arm.** Good anchorage, sheltered by South East Bar, is available for vessels of moderate size throughout the greater part of South Arm, avoiding the shoal patches above Dobson's Point (Shingle Point) (46°08'N, 60°12'W), the positions of which can best be seen from the chart.

Caution. Care should be taken not to anchor near submarine cables laid across the harbour, the positions of which can best be seen from the charts.

Alongside berths

11.73

- 1 **North Sydney.** The following wharves are located at North Sydney (46°12'5N, 60°14'5W):

MV Osprey Ltd wharf; total berth space of 287 m, with depths of 7.5 to 8.1 m alongside.

Ferry Terminal and ro-ro wharves, longest berth is 244 m, with depths of 5.5 to 8.8 m alongside.

- 2 **Sydney.** The following wharves are located at Sydney, with positions from Battery Point (46°09'N, 60°12'W):

Coal loading and discharge berth (8 cables N) is 180 m in length plus dolphins. It can accommodate vessels of LOA 245 m, beam 35 m and draught 15 m. Air draught 18.3 m. Lights are exhibited from each end of the berth.

The former International Steel loading and iron ore discharge wharf (3 cables NW) has been reported closed and up for sale.

Government wharf (5 cables S) has a length of 242 m, with a depth of 9.3 m alongside.

Irving Oil pier (2 miles SSW) has a length of 20 m on the outer face, with a depth of 7.4 m alongside.

Former Petro Canada wharf, no longer in use, lies close SW of Irving Oil pier.



North Sydney Marine Terminal (11.73)

(Original dated prior 2002)

(Photograph – Transport Canada)

- 3 **Sydport Marine Industrial Park** main jetty, basin and quay, comprising 1274 m of berthing space, are situated on the W shore of South Arm, 6 cables WNW of Battery Point.

The main jetty has a length of 259 m, with a depth of 10-67 m alongside. It encloses the basin, with a least charted depth of 5-8 m inside, and with a quay extending N from its N side. A light (mast, 5 m in height) is exhibited from the N end of Main Jetty and another light (framework tower, 4 m in height) from the S end. Both lights are privately maintained.

Several small wharves and two patent slips are situated S of the basin at Sydport Industrial Port.

Port services

North Sydney 11.74

- 1 **Repairs.** The shipyard operates five repair cradles, the largest of which is 38 m in length and 10-6 m wide at the bilge. It can accommodate vessels with a draught of 3-6 m forward and 4-4 m aft, and a displacement of 500 tons. Hull and machinery repairs can be undertaken. Divers are available.
- Other facilities.** Hospital in North Sydney.
- Supplies:** fuel oils; fresh water; stores; provisions.
- 2 **Communications.** Ferry services operate to ports in the area and Newfoundland.

Sydney 11.75

- 1 **Other facilities.** Hospital; de-ratting and exemption certificates; garbage disposal.
- Supplies.** Oil fuel; coal; fresh water; general supplies.
- Communications.** Air services operate from Sydney airport, distance 11 km.

Small craft

Crawleys Creek 11.76

- 1 **General information.** The Canadian Coast Guard College is located inside Crawleys Creek (46°09'N, 60°13'W), where there are numerous moorings for training craft.
- Directions.** From a position in South Arm, NE of Amelia Point the alignment (235½°) of leading lights leads into Crawleys Creek.
- Front light (white rectangle, black stripe, on framework tower, 3 m in height) (46°09'·0N, 60°13'·3W), S of Sydport Industrial Park.
- Rear light (similar construction and tower) (174 m from front light).

Marina 11.77

- 1 A marina is located close W of Allen Point (46°12'N, 60°16'W), with a rock breakwater and slip close SW. Yacht moorings and anchorage area extend 7 cables SW from the point.

A yacht club with a slip is located on Dobson's Point (46°08'N, 60°12'W) on the W side of South Arm.

LOW POINT TO FLINT ISLAND

General information

Chart 4763, Canadian Chart 4367 (see 1.32)

Route

11.78

- 1 From the approaches to Sydney Harbour, about 2 miles N of Low Point (46°16'N, 60°08'W), the coastal passage leads 17 miles ESE, to a position ENE of Flint Island (46°11'N, 59°46'W).

Topography

11.79

- 1 The coastal terrain is of moderate elevation, with cliffs of sandstone and shale. Rocks and shoal ground with depths of less than 11 m (36 ft) extend 1½ miles from the coast in places.

Cape Percé (46°11'N, 59°49'W) (Northern Head on Canadian Chart 4367) is a precipitous headland, with cliffs of coal-bearing sandstone rising to 30 m (100 ft).

Principal marks

11.80

- 1 **Landmarks:**

Two chimneys (white strobe flashing lights, 158 m (518 ft)) (46°14'N, 60°02'W) at Lingan Power Station.

Two chimneys (red lights) (46°10'N, 59°57'W), on the W side of Big Glace Bay Lake (Dyson Pond).

Radio towers (red lights), situated about 4 cables E of Whelan Point (46°11'N, 59°54'W).

Flint Island Lighthouse (white tower, 18 m in height) (46°11'N, 59°46'W).

- 2 **Major lights:**

Low Point Light (46°16'N, 60°08'W) (11.34).

Flint Island Light — as above.

Directions

(continued from 11.35)

11.81

Caution. The passage is free of dangers outside the coastal shoals, but attention is drawn to a wreck, lying in approximate position 46°15'N, 59°51'W.

- 1 From a position in the vicinity of the pilot boarding place (11.63) for Sydney Harbour, N of Low Point (46°16'N, 60°08'W), the coastal passage leads ESE, passing (with positions from Low Point):

NNE of North Head (4 miles ESE), thence:

NNE of KV Light-buoy (safe water) (9 miles ESE), marking the approach to Glace Bay Harbour (11.87), thence:

NNE of Schooner Rock (13 miles ESE).

The track then leads to a position NNE of Flint Island (16 miles ESE). Flint Island is 17 m (55 ft) high, and composed of broken sandstone, depths of less than 16.5 m (54 ft) extend out to 1¼ miles from the island.

(Directions continue at 11.97)

Side channel inside Flint Island

Canadian Charts 4367, 4375 (see 1.32)

General information

11.82

- 1 A clear channel, leading from the coastal passage into the entrance to Morien Bay (11.102), with a navigable width of about 1 mile, separates Flint Island (46°11'N, 59°46'W) from the mainland at Cape Percé (Northern Head).

Tidal stream. An irregular tidal stream, with a rate of up to 2 kn, sets in the channel. Strong tide-rips frequently form over the uneven bottom SW of Flint Island, with heavy breaking seas.

Directions

11.83

- 1 From a position 2 miles NW of Flint Island, the channel leads SSE, in depths of more than 14.9 m (49 ft), passing between the shoal ground extending 4 cables SW from Flint Island and shoal ground extending about 3 cables from Cape Percé (11.79).

Small craft

New Waterford

11.84

- 1 **General information.** New Waterford (46°15'N, 60°05'W) is a coastal town, population 7 374 in 1996. A small boat harbour, which practically dries at LW, is entered through breakwaters 18 m (60 ft) apart. A public wharf, 30 m (100 ft) in length at the face, lies close within the entrance on the S side.

Indian Bay

11.85

- 1 **General information.** Indian Bay (46°14'N, 60°01'W) affords safe anchorage in offshore winds and good weather only. Shoal ground surrounds the bay, with depths of less than 5.5 m (18 ft) extending about 5 cables offshore in places.

Anchorage. The best anchorage is near the middle of the bay, in depths of 9 m (29 ft) or less. In greater depths the bottom is generally rocky and the holding ground is unreliable.

Bridgeport Basin

11.86

- 1 **General information.** Bridgeport Basin (46°13'N, 60°03'W) is a shallow harbour contained within Lingan Beach, a ridge of sand forming the head of Indian Bay.

The harbour is entered through a boat channel, with depths of about 2.1 m (7 ft), at the N end of Lingan Beach; a road bridge spans the W part of the basin. The rate of the tidal stream in the entrance is about 2 kn.

- 2 **Directions.** The entrance to Bridgeport Basin is approached on the alignment (270°) of leading lights, situated on the N shore:

Front light (white rectangle, red stripe, on framework mast, 3 m in height) (46°13'7N, 60°02'8W).

Rear light (similar construction and mast, 5 m in height) (31 m from front light).

The lights are shown from May to December.

Canadian Chart 4170 (see 1.32)

Glace Bay

11.87

- 1 **General information.** Glace Bay, entered between Table Head (46°13'N, 59°57'W) and Whelan Point, about 2¾ miles SE, has the town of Glace Bay, population 18 659 in 1996, and Glace Bay Harbour on its W side.

At the head of the bay a narrow inlet, which dries, leads through the sand-hills to Big Glace Bay Lake (Dyson Pond).

There is no safe anchorage in Glace Bay.

Tidal levels. Mean spring range about 1.0 m; mean neap range about 0.6 m. For further information see *Admiralty Tide Tables, Volume 2*.

- 2 **Directions for entering Bay Harbour.** From the vicinity of KV Light-buoy (safe water), moored 2½ miles NNW of Whelan Point, the alignment (208¼°) of Glace Bay Leading Lights leads through a narrow buoyed channel, passing between two breakwaters, to the harbour entrance:

Front light (white rectangle, red stripe, on framework tower, 3 m in height) (46°11'8N, 59°57'0W).

Rear light (similar construction and tower, 13 m in height) (102 m from front light).

The least charted depth in the entrance is 2.7 m (9 ft), but silting occurs.

- 3 **Berths.** The public wharf is the inside face of the N breakwater, 386 ft in length. A light (framework mast on white round tower, red top, 5 m in height) is exhibited from the N head of the N breakwater. Several small jetties lie on the SE side of the harbour.

Port services. Hospital; fuel; fresh water; provisions; stores.

Other names

11.88

- 1 Brian Point (46°13'N, 60°00'W).
David Head Shoal (46°15'N, 60°02'W).
O'Neils Point (46°13'N, 59°59'W).
Quarry Point (46°12'N, 59°56'W).

FLINT ISLAND TO MICHAUD POINT

GENERAL INFORMATION

Chart 4748

Area covered

11.89

- 1 This section describes the waters off the E coast of Cape Breton from Flint Island (46°11'N, 59°46'W) to Michaud Point, 53 miles SW, including Louisbourg, 18 miles SW. The section is arranged as follows:

Flint Island to Louisbourg (11.92).

Louisbourg to Red Cape (11.110).

Red Cape to Michaud Point (11.126).

Depths

11.90

- 1 **Saint Anns Bank.** The outer edge of this bank extends generally SW from a position about 32 miles E of Cape Breton Island (45°57'N, 59°47'W), to pass about 2½ miles off Michaud Point.

Curdo Bank lies about 8½ miles ESE of Cape Breton; the positions of other offlying shoal patches can best be seen from the chart.

Natural conditions

11.91

- 1 **Fog.** In foggy weather it is inadvisable to approach this coast inside depths of 73 m (40 fm).

Flow. A current of up to 1 kn, setting WSW, is often experienced about 3 miles off the SE coast of Cape Breton Island. It is not so constant closer to the shore.

FLINT ISLAND TO LOUISBOURG

General information

Route

11.92

- 1 From a position NNE of E of Flint Island (46°11'N, 59°46'W), the coastal passage leads initially about 13 miles SSE, to the vicinity of Scatarie Island (46°01'N, 59°44'W), then about 18 miles WSW to a position SE of Lighthouse Point (45°54'N, 59°58'W), the E entrance point to Louisbourg Harbour.

Topography

11.93

- 1 The undulating and comparatively fertile terrain, with long ranges of sandstone cliffs, continues S from Cape

Percé (46°11'N, 59°49'W) to the N side of Mira Bay, about 9 miles SSW, where the terrain changes to small round or conical hills, rising among swamps, shallow ponds and clumps of dwarf spruce.

Scatarie Island is similar in natural features to the adjacent mainland, with the highest summit attaining an elevation of 58 m (191 ft) near its W end.

Between Cape Breton (45°57'N, 59°47'W) and Louisbourg, 8 miles SW, the land is of moderate height and the coast is indented with coves and small harbours.

Danger area

11.94

- 1 A danger area (46°11'N, 59°26'W), with unexploded ordnance, lies 14 miles E of Flint Island, as indicated on the chart.

Fog

11.95

- 1 When there is fog and a SW wind to the S of Flint Island (46°11'N, 59°46'W) the weather is often clear N of the island, but there may be dense fog both sides of Scatarie Island, 10 miles S.

Principal marks

11.96

- 1 **Landmark:**

Flint Island Lighthouse (46°11'N, 59°46'W) (11.80).

Major lights:

Flint Island Light — as above.

Scatarie Light (white structure, 14 m in height) (46°02'N, 59°41'W) on the NE point of the island.

Lighthouse Point Light (white 8-sided tower, 17 m in height) (45°54'N, 59°57'W), at the NE entrance to Louisbourg Harbour.

Directions

(continued from 11.81)

Flint Island to Scatarie Island

11.97

- 1 From a position NNE of Flint Island (46°11'N, 59°46'W) the coastal passage leads SE, across the entrance to Mira Bay, passing (with positions from Flint Island):
Clear of a rocky patch (3 miles E), with a depth of 16.5 m (54 ft) over it, thence:
Clear of three 18.2 m (60 ft) patches (4, 5 and 7¼ miles SE respectively).

The track then leads to a position E of Cormorandière (Cormandiere) Rocks (9½ miles SSE), small and bold on the seaward side, which lie near the end of a spit of foul ground extending 7 cables ENE from Scatarie Island.

Scatarie Island to Louisbourg 11.98

- 1 From a position E of Scatarie Island (46°01'N, 59°44'W), the coastal passage leads S, then SW, passing (with positions from Scatarie Light (11.96)):

E of Wattie Rock (1 mile SSE) and a rocky patch 3 cables farther SE, with a depth of 7·6 m (25 ft) over it, thence:

E of Howe Point (2¾ miles SSW), marked by JJ2 Light-buoy (starboard hand), moored 3 cables S, thence across the entrance to Main-à-Dieu Passage.

The track then leads SW, passing:

SE of Cape Breton (7 miles SW), which is low, rocky and grass covered, thence:

- 2 SE of Portnova Islands (7½ miles SSW) the highest of which is precipitous, with an elevation of 14 m (45 ft), marked by J10 Light-buoy (starboard hand) moored 1 mile SE.

The track then leads SW, free of dangers outside the coastal shoals, to a position SE of Lighthouse Point (14 miles SW), at the entrance to Louisbourg Harbour, in the vicinity of JT Light-buoy (safe water), moored 3 miles SE of the harbour entrance.

Useful marks 11.99

- 1 Main-à-Dieu Light (46°00'N, 59°48'W) (11.101), except when obscured by the island.
Little Lorraine Light (45°57'N, 59°52'W) (11.107).
(*Directions continue for coastal passage at 11.113 and for Louisbourg Harbour at 11.119*)

Main-à-Dieu Passage

Canadian Chart 4377 (see 1.32)

General information 11.100

- 1 **Description.** Main-à-Dieu Passage (46°00'N, 59°49'W), between Scatarie Island and the mainland, is mostly used by local fishing vessels, and is not suitable for larger vessels, except under very favourable conditions. No time or distance is saved by using this passage, unless making for Mira Bay (46°02'N, 59°55'W) (11.103) from the S.

Depth. The least charted depth in the passage fairway is 11·2 m (37 ft).

The holding ground is poor for anchoring.

- 2 **Tidal streams.** The rate of the tidal stream in Main-à-Dieu Passage is usually less than 1½ kn; the times of slack water are very variable.

Fog is common, except with winds between W and N.

Weather. There is no shelter from the heavy seas brought in by E and S winds. Calm conditions accompany winds between W and N.

Directions 11.101

- 1 From a position on the coastal passage (11.98), about 8 miles SE of Flint Island (46°11'N, 59°46'W), the track into Main-à-Dieu Passage leads SW, passing (with positions from Cape Breton (45°57'N, 59°47'W)):
NW of Little Shag Rock (3½ miles N), and;

SE of Shag Shoal (4 miles NNW), and, depending on draught, SE of a rocky patch with a depth of 7·3 m (24 ft) over it, off the SE corner of the shoal, and;

- 2 NW of West Point Main-à-Dieu Light (white tower, red bands, 9 m in height) (3 miles N), on Scatarie Island.

(*Directions continue for Main-à-Dieu*

Bay and Harbour at 11.104)

The track then leads SW, passing:

NE of Bar Reef (2½ miles NNW), on which stands Barstone, (8 ft in height) marked by JJ3 Light-buoy (port hand), and;

SW of West Point (3 miles N), thence:

NE of Helen Rock (2 miles N), thence:

NE of Île aux Cannes (7 cables NNE), thence:

To a position SW of Howe Point (4¼ miles NE).

- 3 **Useful mark:**

Moque Head Light (framework mast, 6 m in height) (46°00'N, 59°49'W).

(*Directions for Main-à-Dieu Bay are given at 11.104*)

Anchorage and harbours

Canadian Chart 4375 (see 1.32)

Morien Bay 11.102

- 1 **General information.** Morien Bay, entered between Cape Percé (46°11'N, 59°49'W) (11.79) and Cape Morien, the extremity of a peninsula of bold sandstone cliffs, 2½ miles SSE, is open to E winds and does not afford safe anchorage.

Port Morien, population about 600, lies at the head of Morien Bay. Its harbour is comprised of two breakwaters enclosing a small basin, 71 m wide, and a public wharf. The depth in the basin is 3 m (10 ft). Local knowledge is required.

- 2 **Ice.** Pack ice in amounts greater than three tenths coverage usually persists in the area from mid-February until the end of April.

Directions. Port Morien is approached from NE through Morien Bay, passing:

SE of Cow Reef (46°10'N, 59°50'W), marked by JA2 Light-buoy (starboard hand) moored 4 cables E of the reef, thence:

NW of a rocky patch, 2½ miles SSW, with a depth of 4·9 m (16 ft) over it.

- 3 Care is necessary to avoid a rock, with a depth of less than 1·8 m (6 ft) over it, which lies 1 cable S of the head of the public pier inside the basin; the rock is marked by JA6 Light-buoy (starboard hand).

Useful mark:

Port Morien Light (round mast, 4 m in height) (46°08'N, 59°52'W), on the end of the wharf.

Mira Bay 11.103

- 1 **General information.** Mira Bay is approached either from E, between Cape Morien (46°08'N, 59°48'W) and Scatarie Island, 6½ miles SE, or from SE through Main-à-Dieu Passage (11.100). It is open to the E and does not afford safe anchorage.

Depths. A number of shallow, rocky patches are to be found in the bay, in depths between 8·8 to 11·0 m (29 to 36 ft). Their positions are best seen on the local chart.

False Bay (46°04'N, 59°53'W), on the N side of Mira Bay, has a small harbour used by fishermen, with an old sunken barge for a wharf, and a buoyed entrance channel.

- 2 **Mira River** (46°02'N, 59°58'W) flows into the head of Mira Bay between points of sand and shingle, nearly ½ cable apart.

The buoyed channel, over the bar at the river mouth, about 0.3 m to 0.6 m deep, is navigable by boats under power, in favourable conditions, with local knowledge, but currents are strong. Thereafter, the river is navigable to lakes some distance inland.

A swing bridge crosses the river near its mouth. A light (round mast, 4 m in height) is exhibited on the N side of the bridge, showing red or green signals to indicate whether the bridge is closed or open.

- 3 A public wharf, 15 m in length, with a depth of 0.9 m (3 ft) alongside, lies on the N shore of the river close within its entrance.

Catalogne Lake (Catalogne Lake) (46°00'N, 59°57'W) in the SW corner of Mira Bay, has a narrow outlet with a depth of 0.3 m (1 ft) through the beach of sand and shingle.

Canadian Chart 4377 (see 1.32)

Main-à-Dieu Bay and Harbour

11.104

- 1 **General information.** Main-à-Dieu Bay (46°00'N, 59°50'W) lies on the W side of Main-à-Dieu Passage, between Moque Head and Bar Point, about 1½ mile S. Local knowledge is required.

Main-à-Dieu Harbour is a semi-circular cove on the N side of Main-à-Dieu Bay, with depths of 2.4 to 4.3 m (8 to 14 ft). It contains an anchorage, mud, and alongside berths for small craft, and is protected by breakwaters projecting from each side of the entrance.

- 2 **Submarine cable.** A submarine power cable is laid from a position on the shore, 4 cables SW of the entrance to Main-à-Dieu Harbour, ENE to Northwest Cove (11.105) on Scatarie Island.

Ice. Pack ice in amounts greater than three tenths coverage usually persists in the area from mid-February until the end of April. Local fast ice lasts a little longer.

- 3 **Directions.** (*continued from 11.101*). From a position NW of West Point Main-à-Dieu Light (white tower, red bands, 9 m in height) on Scatarie Island, the track leads WSW, passing:

SE of JJ6 Light-buoy (starboard hand) (46°00'N, 59°49'W), marking Mad Dick Rock, 1 cable N, thence (with positions from JJ6 Light-buoy):
NW of JJ11 Light-buoy (port hand) (6 cables WSW), at the entrance to the bay.

The track then leads NW to the entrance to Main-à-Dieu Harbour, passing:

SW of JJ10 Buoy (starboard hand) (5 cables W), thence:

SW of JJ12 Buoy (starboard hand) (8 cables WNW).

- 4 The harbour is then entered from SW, between the heads of the breakwaters, from each of which a light (framework mast, 3 m in height) is exhibited.

Berths. The public jetty at the head of the harbour is cross-shaped and has about 46 m of berthage alongside. The outer part of the wharf, 30 m in length, has two sides 15 m in length with depths 2.4 to 3.4 (8 to 11 ft) alongside. A large private quay and warehouse are situated close E of the public wharf.

Port services. Provisions can be obtained.

Scatarie Island

Canadian Chart 4375 (see 1.32)

11.105

- 1 **General information.** Scatarie Island (46°01'N, 59°44'W) is not permanently inhabited, but is much frequented by fishermen in summer. The N coast is moderately steep-to; the S and SE coasts are exposed to heavy and almost incessant swell.

Anchorage:

Northwest Cove (46°01'N, 59°44'W), near the middle of the N coast, affords reasonable anchorage, but the holding ground is poor and it is dangerous in onshore winds. It is advisable to weigh immediately the wind shifts onshore.

- 2 Eastern Harbour (46°02'N, 59°41'W), situated between the long, narrow NE point of Scatarie Island and Hay Island, 5 cables E, provides only very insecure anchorage within its reefs. It is used by small fishing craft in good weather.

Berth. In Northwest Cove, a wharf, 62 m long, with a depth of 3 m alongside projects SW from the shore on the NE side of the cove.

Small craft

Baleine Cove

11.106

- 1 **General information.** Baleine Cove (45°57'N, 59°50'W), about 2 miles W of Cape Breton, is a small fishing harbour with an entrance too rocky and intricate to admit anything but small craft. Local knowledge is necessary.

Directions. The harbour is approached from SW, passing either side of JM2 Light-buoy (safe water) moored 5 cables SW of the entrance; the entrance channel is buoyed.

Little Lorraine

11.107

- 1 **General information.** Little Lorraine (45°57'N, 59°52'W), 3 miles W of Cape Breton, is a small fishing harbour, similar in nature to Baleine Cove (11.106). Local knowledge is required.

Little Lorraine Light (white round tower, red top, 5 m in height) is exhibited from the headland on the W side of the entrance.

Big Lorraine

11.108

- 1 **General information.** Big Lorraine (45°56'N, 59°56'W), about 6 miles WSW of Cape Breton, is a small fishing harbour, similar in nature to Little Lorraine Harbour (11.107). Local knowledge is required.

Its entrance is obstructed by a bar with depths of about 0.3 m (1 ft) over it. A narrow buoyed channel crosses the bar.

Directions. The harbour is approached from SE, passing SW of White Rock, 7 cables ESE of the entrance.

Other names

11.109

- 1 Battery Point (46°00'N, 59°50'W).
Blackrock Point (45°53'N, 59°59'W).
Catalogne Point (46°01'N, 59°56'W).
Fluke Cove (46°00'N, 59°45'W).
Gooseberry Cove (45°56'N, 59°53'W).
Great Shag Rock (46°01'N, 59°49'W).
Hatch Rocks (46°00'N, 59°47'W).
Lorraine Head (45°55'N, 59°55'W).

Lorraine Rock (45°54'N, 59°55'W).
 Ragged Rocks (46°00'N, 59°45'W).
 Steering Hummock (46°00'N, 59°47'W).
 Tin Cove (46°00'N, 59°44'W).

LOUISBOURG TO RED CAPE

General information

Chart 4748

Route

11.110

- 1 From a position SE of Lighthouse Point (45°54'N, 59°58'W), the E entrance point to Louisbourg Harbour, the coastal passage along the SE side of Cape Breton Island between Louisbourg and Red Cape, 20 miles SW, crosses the entrances to Gabarus Bay, 3 miles SW, and Fourchu Bay, 12 miles SW.

Topography

11.111

- 1 The land between Louisbourg (45°54'N, 59°58'W) and Cape Gabarus, about 7 miles SW, is of moderate height. Between Cape Gabarus and Michaud Point, about 30 miles farther WSW, the land is low, rocky and barren in appearance. There are many lakes and ponds near the shore, separated from the sea by gravel beaches, and some small rocky islands and ledges. In a few places there are reddish clay cliffs from 21 to 27 m (70 to 90 ft) high, but from seaward there are few distinguishable features.
- 2 Many ledges, rocks and islets lie on a shallow shelf which extends 1½ miles off the coast between Cape Gabarus (45°49'N, 60°05'W), which is low and rocky, and Winging Point, 3 miles SW.
 There are no safe harbours on this stretch of coast.

Principal marks

11.112

- 1 **Landmark:**
 Guyon Island Lighthouse (white tower, 13 m in height) (45°46'N, 60°07'W), near the SW end of the island.
- Major lights:**
 Lighthouse Point Light (45°54'N, 59°57'W) (11.96) at the entrance to Louisbourg Harbour.
 Guyon Island Light — as above.

Directions

(continued from 11.99)

11.113

- 1 From a position SE of Lighthouse Point at the entrance to Louisbourg Harbour (45°54'N, 59°58'W) (11.114) the coastal passage leads SW, passing (with positions from Guyon Island Light):
 SE of Cape Gabarus (3½ miles NNE) and the ledges, rocks and islets between Cape Gabarus and Guyon Island, marked by J12 Light-buoy (starboard hand) (3 miles E), thence:
 SE of Gabarus Round Rock (1½ miles SW), thence:
- 2 SE of Pot Rock (5½ miles SW), over which the sea only breaks in heavy weather, marked by N14 Light-buoy (starboard hand), thence:
 SE of Haliburton (Framboise) Shoal, (9 miles SW).
 The track then leads to a position SE of Red Cape (45°42'N, 60°20'W).

3 Useful mark:

Fourchu Head Light (white round tower, 10 m in height) (45°43'N, 60°14'W).
(Directions continue at 11.130)

Louisbourg Harbour

Canadian Chart 4376 (see 1.32)

General information

11.114

- 1 **Position.** Louisbourg Harbour (45°54'N, 59°58'W) is an inlet on the SE coast of Cape Breton Island.
Function. The harbour contains the town of Louisbourg, population 1 152 in 1996, where there are limited berthing facilities. The main industry is connected with fishing.
Approach and entry. The harbour is approached from the E, and entered S of Lighthouse Point.
Port Authority. Louisbourg Harbour is administered by the Department of Fisheries and Oceans, Small Craft Harbours Branch, PO Box 1085, Sydney B1P 6J7.

Limiting conditions

11.115

- 1 **Controlling depth.** The least depth in the fairway from the entrance to the public wharf is 6.7 m (22 ft).
Deepest berth. The public wharf (11.121).
Tidal levels. Mean spring range about 1.2 m; mean neap range about 0.8 m. For further information see *Admiralty Tide Tables, Volume 2*.
Ice. Occasionally, during the period from February to April, loose pack ice from the Gulf of St Lawrence may drift across the harbour approaches, but in general, local ice formation is of only minor significance.

Arrival information

11.116

- 1 **Pilotage** is not compulsory, but local pilots are available by prior arrangement.

Harbour

11.117

- 1 **General Layout.** Within the entrance the harbour divides into Southwest Arm and Northeast Arm; the latter has the town of Louisbourg on its NW shore and offers good anchorage.
 The restored fortress of Louisbourg, with a conspicuous spire, stands behind Rochefort Point, on the S side of the entrance.

Principal marks

11.118

- 1 **Landmarks:**
 Lighthouse Point Lighthouse (45°54'N, 59°57'W) (11.96).
 Spire (45°53'N, 59°59'W), on Louisbourg Fortress.
- Major light:**
 Lighthouse Point Light — as above.

Directions for entering harbour

(continued from 11.99)

11.119

- 1 From a position on the coastal passage, in the vicinity of JT Light-buoy (safe water) (45°53'N, 59°54'W), moored 3 miles SE of the harbour entrance, the track leads NW, to a position about 3 cables NE of Harbour Shoal (45°54'N, 59°57'W), which breaks in bad weather and is marked by JT1 Light-buoy (port hand), moored 1 cable E.
- 2 From S, an inshore channel about 2 cables wide, marked on each side by a spar buoy, leads into the entrance

channel between Harbour Shoal and the shoal ground extending E from Rocky Island, 3½ cables W.

Leading lights:

Front light (white trapezium, red stripe, on red framework tower, 5 m in height) (45°54'N, 59°59'W) on the W shore.

Rear light (similar construction, inverted, and tower, 6 m in height) (166 m from front light).

- 3 The alignment (268°) of these lights leads through the entrance channel, passing (with positions from Lighthouse Point Light):

S of a rocky patch (2 cables S), with a depth of 7 m (23 ft) over it, on the edge of shoal ground, thence:

N of Battery Island (5 cables SW), marked by JT7 Spar buoy (port hand) (4 cables SW), moored near the outer edge of shoal ground extending 5½ cables N from Rochefort Point (9½ cables SW), thence:

S of JTA Light-buoy (preferred channel to port) (6 cables WSW), moored near the outer end of a shoal spit extending about 2¾ cables SW from Nag Rock (4 cables WSW).

- 4 The track then leads NNE to the anchorage and jetties at Louisbourg, passing: (with positions from Russell Point (45°54'·5N, 59°58'·1W)):

WNW of JTB Light-buoy (W cardinal) (1½ cables WSW), marking shoal ground, thence:

ESE of Battery Shoal (2½ cables W), marked by JT11 Light-buoy (port hand), thence:

WNW of Careening Point (1½ cables NNW), and shoal ground extending ¾ cable SW, marked by JT12 Spar buoy (starboard hand).

- 5 **Useful mark:**

Jetty light (45°55'N, 59°59'W), ½ cable NE of Gerratt Head (45°54'·9N, 59°58'·7W).

Small craft channel

11.120

- 1 A vessel of not more than 6·5 m (20 ft) draught may, in smooth weather, shorten the route into Northeast Arm, passing (with positions from Russell Point (45°54'·5N, 59°58'·1W)):

SW of Nag Rock (1¼ cables S) marked by JU4 Spar buoy (starboard hand), thence:

NE of JTA Light-buoy (starboard hand) (3¼ cables SW), thence:

SW of JTB Light-buoy (W cardinal) (1½ cables WSW).

The track then leads into Northeast Arm following the directions at 11.119.

Berths

11.121

- 1 **Anchorage** is available in Northeast Arm, E of the public wharf, in depths of about 10 m (33 ft), mud. There is some swell and undertow after strong E gales, but the holding ground is good and the sea is usually smooth.

Alternative but less satisfactory anchorage lies SSW of the public wharf.

- 2 **Alongside berths.** The following wharves, listed from SW to NE, are situated on the NW side of Northeast Arm:

National Sea Products wharf, 91 m in length, with depths of 4·8 to 5·5 m alongside.

T-shaped public wharf, 61 m in length at the head, with a depth of 6·7 m alongside the head.

Wharf, 1 cable NE of the public wharf, 110 m in length, with a depth of 6·1 m alongside the outer 55 m.

A floating wavebreak is moored in the vicinity of the head of the public pier.

- 3 There are numerous smaller piers and wharves around Northeast Arm, see the local chart.

Port services

11.122

- 1 **Repairs:** small machine shops in Louisbourg.

Other facility. Hospital at North Sydney (11.74), distant 35 km, and Glace Bay (11.87).

Supplies: fuel oils and provisions in limited quantities; fresh water.

Communications. Airport at Sydney, 48 km distant.

Rescue. A lifeboat is stationed at Louisbourg, on continuous stand-by. Constant RT watch is kept on the usual emergency frequencies. See 1.105 for further information.

Anchorage and harbours

Canadian Chart 4375 (see 1.32)

Gabarus Bay

11.123

- 1 **General information.** Gabarus Bay, entered between White Point (45°53'N, 60°00'W) and Cape Gabarus, 4¾ miles SW, is free from dangers, except for some rocks near the shore.

The N shore of the bay is steep, with hills rising abruptly from the sea to elevations of 61 m; the land on the S shore is much lower.

The bay contains a fair weather anchorage for small vessels and a boat harbour at Gabarus, marked by a church, near the head of the bay.

Tidal levels. Mean spring range about 1·3 m; mean neap range about 0·7 m. For further information see *Admiralty Tide Tables, Volume 2*.

- 2 **Directions.** Gabarus Bay is entered from E passing, (with positions from Cape Gabarus):

S of Simon Point (4 miles NE), thence:

S of Kennington Rocks (2¾ miles N), bare slate, steep-to on S side, and:

N of the rocky reef extending about 3 cables NE and about 6 cables E from Cape Gabarus to Green Rock, marked by JX3 Light-buoy (port hand) moored 1 mile ENE of the cape, thence:

N of Rouse Point (2¾ miles NW), which is steep-to on its N side, but has a reef extending about 1 cable from its E side.

- 3 The track then leads to a position between Harbour Point (3¾ miles WNW), a peninsula with low slate cliffs, and Harbour Rock (4 miles NW), a low ledge, whence the track leads SSW into Gabarus Cove.

Useful marks:

Rouse Point Light (white block, 3 m in height) (45°51'N, 60°08'W), shown from 1st May to 15th December.

Gabarus (Harbour Point) Light (white round tower, 10 m in height) (45°51'N, 60°09'W), shown from 1st May to 15th December.

- 4 **Anchorage** is available in Gabarus Cove, W of Harbour Point (45°51'N, 60°09'W), in depths of about 7 m (23 ft), sand and mud. This anchorage is tolerably safe in summer months, but it is unsafe in E or NE gales. Local knowledge is required.

Alongside berths:

A breakwater, in ruins, extends 108 m SW from the W side of Harbour Point. The only suitable berth is on the outer inside face, for 24 m, with a least depth of 3.7 m (12 ft) alongside. Foul ground lies close off the N side of the structure. The ruins of a former breakwater lie close N.

A secure boat harbour is enclosed between Harbour Point and Rouse Point, 4 cables E. It is entered through a buoyed channel, dredged to a depth of 1.1 to 1.5 m (3½ to 5 ft). There are a number of small wharves and a depth of 1.5 m (5 ft). The main wharf extends 46 m from the W shore, close inside the harbour.

Small craft

Canadian Chart 4374 (see 1.32)

Fourchu Inlet**11.124**

- 1 Fourchu Inlet is entered N of Fourchu Head Light (45°43'N, 60°14'W) (11.113). A narrow buoyed channel leads through the inlet to Fourchu Harbour, where there is sheltered anchorage for boats, and a pier. Depths in the harbour vary owing to silting. Local knowledge is required.

A shallow buoyed channel leads from the wharf in Fourchu Harbour to North Fourchu.

- 2 **Directions for approaching Fourchu Inlet.** The inlet is approached either from E, passing (with positions from Fourchu Head Light (45°43'N, 60°14'W)):

Clear of Fourchu Rock (1½ miles NE) and a patch, 1½ cables S, with a depth of 3.5 m over it, thence:

N of Flat Ledge (7 cables ENE), which stands on shoal ground extending 2½ cables E.

Or from S, passing (with positions from Fourchu Head Light):

W of N14 Light-buoy (starboard hand) (1¼ miles SSE), marking Pot Rock, thence:

W of NC2 Light-buoy (starboard hand) (5 cables ESE).

- 3 **Directions for entering Fourchu Inlet.** The inlet is entered from ENE on the alignment (255°) of Fourchu Harbour Leading Lights:

Front light (white trapezium, red stripe, on framework tower, 2 m in height) (7 cables W), on a pier on the NE side of Butter Island.

Rear light (similar construction, inverted, and tower, 7 m in height) (226 m from front light).

The lights are shown from 1st May to 15th December.

- 4 **Berths.** L-shaped public wharf in Fourchu Harbour is 52 m long, with a berth 28 m long, and a depth of 3 m (10 ft) alongside the pier-head.

Caution. A rock with a drying height of 5 ft has been reported in the approach in position 45°43'.4N, 60°14'.0W.

Other names**11.125**

- 1 Black Rocks (45°48'N, 60°04'W).
Bull Rock (45°47'N, 60°05'W).
Flat Ledge (45°48'N, 60°04'W).
Framboise Cove (45°43'N, 60°19'W).
Green Rock (45°49'N, 60°04'W).
Guyon Ledges (45°47'N, 60°06'W).

RED CAPE TO MICHAUD POINT**General information**

Chart 4748, Canadian Chart 4374 (see 1.32)

Route**11.126**

- 1 From a position SE of Red Cape (45°42'N, 60°20'W), the coastal passage follows the SE side of Cape Breton Island to Michaud Point, 17 miles SW.

Topography**11.127**

- 1 The coastal terrain is included in the description at 11.111.

Saint Esprit Island (45°37'N, 60°29'W), which is moderately steep-to on its S side, is 9 m (30 ft) high and partly wooded. It is joined to the mainland by a reef which dries in parts.

- 2 **Caution.** The coast between Saint Esprit Island and Michaud Point (45°34'N, 60°41'W) is encumbered with rocks and islets lying up to 2 miles offshore, and is dangerous to approach.

Traffic regulations**11.128**

- 1 **Traffic separation scheme.** The W-bound lane of the traffic separation scheme for vessels entering Chedabucto Bay (Chapter 12) passes 9 miles S of Michaud Point, as indicated on the chart.

- 2 **Vessel Traffic Service.** Zone regulations. The E boundary of the Strait of Canso and Eastern approaches Vessel Traffic Services Zone is established by a line drawn 181° from the S shore of Cape Breton Island, at position 45°38'.4N, 60°29'.3W, to the Territorial Sea Boundary.

VTS Zone regulations are mandatory, details appear at 1.26.

Principal marks**11.129**

- 1 **Major lights:**

Guyon Island Lighthouse (45°46'N, 60°07'W) (11.112).

Cranberry Island Light (45°19'N, 60°56'W) (12.11).

Directions

(continued from 11.113)

11.130

- 1 From a position SE of Red Cape (45°42'N, 60°20'W), the coastal passage leads WSW, passing (with positions from Saint Esprit Island (45°37'N, 60°29'W)):

SSE of rocky patches, with depths less than 9 m, over them, lying up to 1 mile offshore, thence:

SSE of Saint Esprit Island (11.127), from the E end of which a light (red and white rectangle on framework tower, 9 m in height) is exhibited, thence:

- 2 SSE of N16 Light-buoy (starboard hand) (2 miles SSW), moored 7 cables S of Bad Neighbour Shoal, over which the sea breaks only in heavy weather, thence:

SSE of Black Breaker Rock (4 miles WSW), thence: SSE of Basque Shoal (7 miles WSW), which breaks in heavy weather), lying 1 mile S of Basque Islands, three low islands.

The track then leads to a position SSE of Michaud Point (45°34'N, 60°41'W). Michaud Point is a wooded peninsula 12 m (40 ft) high, joined to the mainland by a sandy beach.

(Directions continue for Chedabucto Bay at 12.17 and for coastal passage NW at 12.118)

Anchorage and harbours

Canadian Chart 4374 (see 1.32)

Michaud Cove

11.131

- 1 **General information.** Michaud Cove, on the N side of Michaud Point peninsula (45°34'N, 60°41'W) (11.127) affords some shelter from W winds and good anchorage for coasters and fishing vessels, which occasionally use the cove during the summer season. Access is restricted and it is unsafe to remain at this anchorage with E to SE winds, especially if the barometric pressure is falling.
- 2 **Directions for approach from the south.** The cove is approached from S by passing:
 - W of Basque Shoal (45°34'N, 60°39'W) (11.130), thence:
 - E of shoal ground, with depths of 5.2 m (17 ft) or less over it, extending about 2 cables SE from Michaud Point, and:
 - W of the foul ground surrounding Basque Islands (11.130) and extending to within 5 cables of the Michaud Point.
- 3 **Directions for approach from the east.** Michaud Cove may also be approached from E, passing (with positions from Michaud Point (45°34'N, 60°41'W)):
 - S of Black Breaker Rock (4 miles ENE), thence:
 - Between Basque Island (1¼ miles ENE) and Shag Ledge (1¾ miles NE).
- 4 **Anchorage.** The recommended anchorage, with good holding ground, is about 5 cables NE of the point, in depths of 7 to 9 m (23 ft to 30 ft), sand and clay.

Small craft

Capelin Cove

11.132

- 1 **General information.** Capelin Cove (45°39'N, 60°25'W)

provides shelter for boats behind a rocky point on the E side of the entrance.

L'Archevêque Cove

11.133

- 1 **General information.** L'Archevêque Cove (45°37'N, 60°35'W) affords shelter for small craft with not more than 1.8 m (6 ft) draught, but a drying bar almost closes the entrance at LW.
- Directions.** The cove is approached through a buoyed channel from the vicinity of NH1 Light-buoy (port hand) moored about 8 cables SE of the E entrance point.
- 2 **Berth.** A breakwater wharf 123 m long, with a depth of 0.6 m (2 ft) at the outer end, extends from the shore on the W side.

Grand River

11.134

- 1 **General information.** Grand River enters the sea between Black Point (45°37'N, 60°36'W), which is low, and Red Head, 21 m (69 ft) in height, 1¼ miles WSW. The river mouth is narrow and is obstructed by a sand bar with a depth of only 0.9 m (3 ft) over it. The channel inside the bar has depths of 1.8 m (6 ft) to within 5 cables of a bridge 2½ miles upstream. The current is rapid and the channel is made dangerous by a number of large rocks. No attempt should be made to enter the river except at HW.
- 2 **Directions.** Grand River is approached from SE, passing SW of Black Breaker Rock, situated 1 mile SE of Black Point. Rocky patches, with a least depth of 3 m (10 ft) over them, lie up to 8 cables SSW of Black Point.
- Berth.** A pier 61 m long, with a depth of 1.8 m alongside its head, is situated on the E shore of the river, near its mouth.

GREAT BRAS D'OR — BRAS D'OR LAKE — LITTLE BRAS D'OR — SAINT PETERS CANAL

GENERAL INFORMATION

Chart 4748

Area covered

11.135

- 1 This section describes the waters contained within Cape Breton Island, comprising Bras d'Or Lake (45°50'N, 60°50'W) the main body of water, which is separated by Barra Strait from Great Bras d'Or (46°20'N, 60°24'W) and Little Bras d'Or, 3 miles E, which give access to Bras d'Or Lake from the N. St Peters Canal (45°39'N, 60°52'W) (11.249) gives access to Bras d'Or Lake from the S through Saint Peters Inlet.
- 2 The section is arranged as follows:
 - Great Bras d'Or and Barra Strait (11.140).
 - Saint Patricks Channel (11.163).
 - Little Bras d'Or and Saint Andrews Channel (11.188).
 - Bras d'Or Lake — Barra Strait to Saint Peters Canal (11.202).
 - East Bay (11.221).
 - West Bay (11.233).
 - Saint Peters Canal (11.249).

Depths

11.136

- 1 Great Bras d'Or and Bras d'Or Lake, connecting the waters NE of Cape Breton Island with the Strait (Gut) of Canso (45°34'N, 61°20'W) (Chapter 12), have the following least charted depths:
 - 10.4 m at the entrance to Great Bras d'Or, at the N end of the waterway.
 - 4.1 m in Saint Peters Canal lock.

Ice

11.137

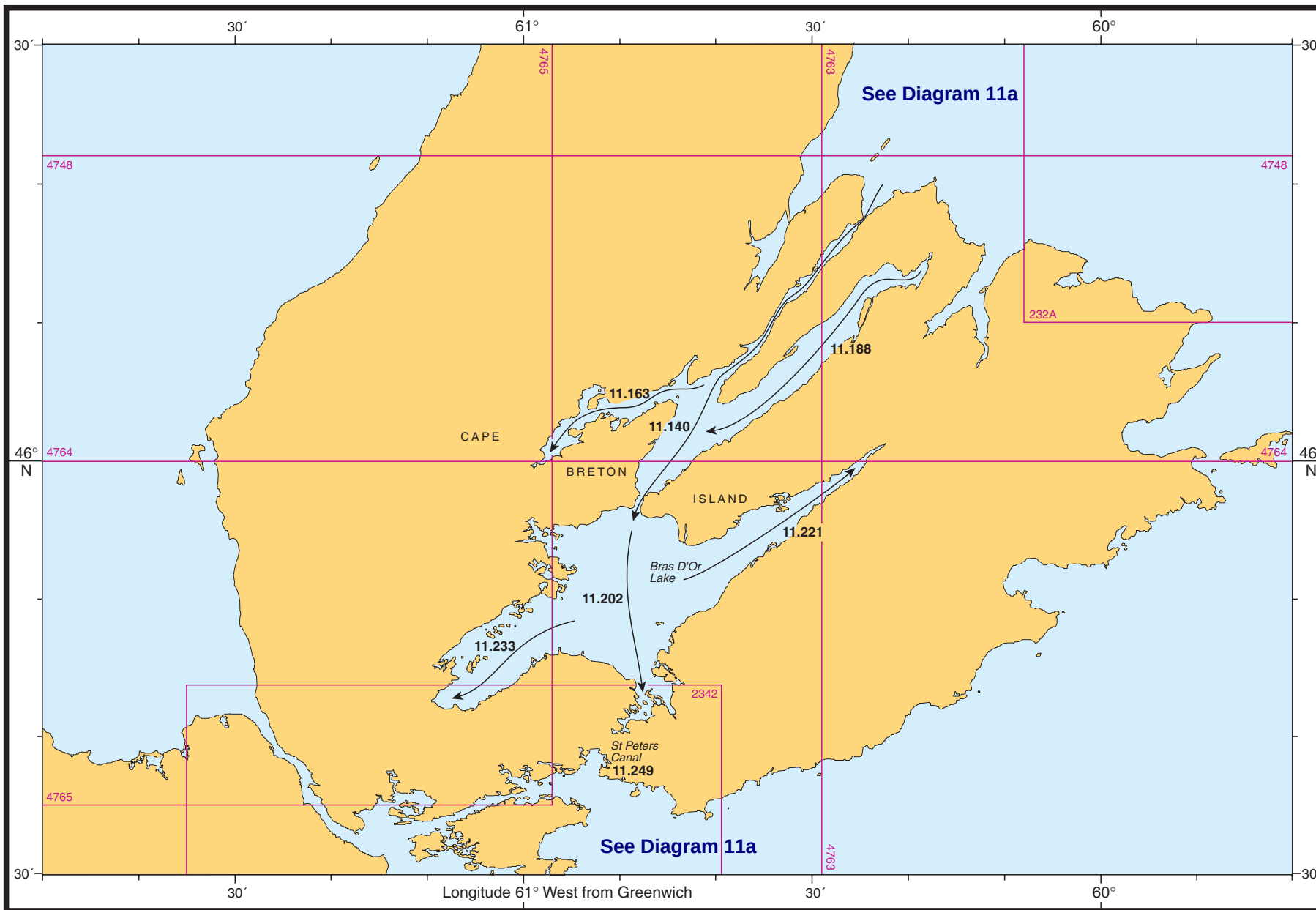
- 1 The navigation season is approximately 1st May to 1st December. During this period the various passages are lighted and buoyed, the direction of buoyage being southward and westward.

Pilotage

11.138

- 1 Pilotage is compulsory for entry into, and passage through, Great Bras d'Or, Little Bras d'Or, Bras d'Or Lake and Saint Peters Inlet. Vessels should report their ETA to Atlantic Pilotage Authority 12 and 6 hours in advance and ETD 12 and 4 hours in advance, using UTC.

Chapter 11b - Cape Breton Island - Great Bras d'Or - Bras d'Or Lake - Little Bras d'Or - Saint Peters Canal



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- 2 Pilot boarding places are situated as follows:
 For Great Bras d'Or and Little Bras d'Or, at the approach to Sydney Harbour (46°18'·5N, 60°07'·5W) (11.63).
 For Saint Peters Canal, at the Strait of Canso inner approach (45°29'N, 61°11'W) (12.4).
 For further details see *Admiralty List of Radio Signals, Volume 6* (5).

Aquaculture

11.139

- 1 Numerous aquacultures or fish cultures have been established in coves and bays throughout the Bras d'Or Lake system. These cultures are suspended from rafts, secured together in groups, and may be moved without prior notice.

GREAT BRAS D'OR AND BARRA STRAIT

General Information

Chart 4748, Canadian Charts 4277, 4278, 4279 and plans (see 1.32)

Route

11.140

- 1 Great Bras d'Or is entered from the N between Cape Dauphin (46°20'N, 60°25'W) (11.36) and Point Aconi, 5 miles E.
 After passing over a bar and through a narrow channel separating Noir Point (46°17'N, 60°25'W) and Carey Point, 1¾ cables NW, Great Bras d'Or continues SW for about 16 miles in the comparatively narrow passage NW of Boularderie Island, before widening into a lake at its SW end, or branching W into Saint Patricks Channel (46°05'N, 60°45'W).
 2 At its SW extremity, 10 miles farther SW, Great Bras d'Or leads through Barra Strait (45°58'N, 60°48'W) into Bras d'Or Lake.

Topography

11.141

- 1 An unbroken line of hills, more than 300 m in elevation in places, extends SW from Cape Dauphin (46°20'N, 60°25'W) (11.31) along the NW side of Great Bras d'Or, to the N side of Big Harbour (Port Bevis) (46°09'N, 60°37'W).
 2 The coast between Table Head (46°20'N, 60°22'W) and Black Rock Point, about 1¾ miles SW, is composed of red cliffs. Shoal ground extends up to 4 cables from the coast, but only ¼ cable off Noir Point.

On the SE side of Great Bras d'Or, Boularderie Island is thickly wooded in the interior, and rises to an elevation of 150 m.

Natural conditions

11.142

- 1 **Tidal streams.** The normal rate of tidal streams in the narrows separating Noir Point and Carey Point is 4 to 5 kn.
 In the spring season, or after prolonged NE gales, the level of Bras d'Or Lake may be raised considerably, increasing the rate to 6 kn, causing strong tide-rips and eddies, especially off Carey Point.
 During continued fine weather the tidal streams flow outward for most of the time when the tide is rising and inward for most of the falling tide; strong winds cause irregularities in this pattern.

- 2 The tidal streams in the entrance do not set fairly through it; the out-going stream sets N after passing Carey Point, and the in-going stream sets towards the SE side of the channel.

- 3 Tidal streams through Barra Strait are often irregular. They run strongest at mid out-going and mid in-going, attaining a rate of up to 3 kn, and care is necessary when passing through the opening in the bridge as the tidal streams set at an angle to the channel as follows:

N-going stream sets towards Gillis Point (46°02'N, 60°47'W).

S-going stream sets towards Derby Point (45°56'N, 60°48'W).

Masters are advised to consult the *Canadian Tide and Current Tables* before transiting the strait.

Swell. The long reaches of Great Bras d'Or allow a considerable swell to build up, which, with the great depths in many places, makes anchorage insecure, except in certain sheltered places.

Bridges

11.143

- 1 **Great Bras d'Or.** A road bridge which spans the NE reach of Great Bras d'Or has a vertical clearance of 36 m.
 2 **Barra Strait.** Railway and road bridges, about 60 m apart and 500 m in length, cross the N end of the strait between Kelly Point (45°58'N, 60°48'W) and Uniacke Point, 3 cables NW. The bascule, lifting section of the road bridge, is in line with the swing span of the railway bridge, on the SE side of the strait. Lights are exhibited from the piers of the road bridge.
 3 The bridge is usually opened when a vessel is seen approaching, but it may remain closed until the vessel is very close, requiring great caution, especially when approaching with the stream. The channel is marked at each end by traffic signals which show green when the bridge is open, red when closed.
 During the navigation season, the bridge is opened between 0700 and 2300, except for continuous operation during the months of July and August.

Overhead cables

11.144

- 1 A power transmission line with a vertical clearance of 35 m crosses Great Bras d'Or from Munro Point (Munroe) (46°10'N, 60°34'W) to the opposite shore.

Submarine cables

11.145

Great Bras d'Or. Submarine cables are laid as follows:

Two submarine cables are laid across the entrance, about 2 cables SW of Noir Point (46°17'N, 60°25'W).

A submarine cable is laid across Great Bras d'Or from the vicinity of Ross Ferry (46°09'N, 60°35'W).

Barra Strait. A submarine cable is laid across Barra Strait, close S of the bridge.

Principal marks

11.146

- 1 **Landmark:**
 Black Rock (Blackrock) Point Lighthouse (red framework tower, 3 m in height) (46°18'N, 60°24'W).

Major light:

Black Rock Point Directional Light — as above.

Directions

(continued from 11.35)

Northern approach**11.147**

- 1 **Caution.** A number of light-buoys were reported removed from the channel in 1998.

From a position on the coastal passage NE of Ciboux Island Light (46°23'N, 60°22'W) (11.35), the approach track leads SW, into a buoyed channel in the narrowing inlet between Cape Dauphin (46°20'N, 60°25'W) (11.31) and Haddock Bank, 3 miles E, passing (with positions from Black Rock Point (46°18'N, 60°24'W)):

- 2 NW of Haddock Bank (3¼ miles NE). Point Aconi, from which a light is exhibited (11.35) lies ESE. Thence:
NW of Table Rock (1½ miles NE) and shoal ground extending 2 cables WNW of Table Head, thence:
Between Q1 Light-buoy (port hand) and Q2 Light-buoy (starboard hand).

- 3 **Noir Point Leading Lights:**

Front light (white tower, red stripe, 10 m in height) (46°17'·4N, 60°24'·8W).

Rear light (similar construction and tower, 16 m in height) (515 m from front light).

These lights are visible on the leading line only.

The alignment (212½°) of these lights leads through the buoyed channel to a position close SE of Q8 Light-buoy (starboard hand), lying between Gooseberry Beach and Three Fathom shoal, close NW.

- 4 The track then leads about 2 miles SW into Great Bras d'Or, by night in the white sector (048½° to 049½°), astern, of Black Rock Point Directional Light (11.146), passing NW of Eddy Rock, least depth 2·1 m, lying about 1 cable off the SE shore, 9 cables SW of Noir Point.

Useful mark:

Chimney (white lights, 106 m in height) (46°19'N, 60°20'W).

Aulds Point to Seal Point**11.148**

- 1 **Caution.** Strong tidal streams, on both the rising and falling tides, run in the channel in the vicinity of the bridge, and can be dangerous for boats.

- 2 Seal Islands lie close SW of the bridge (11.143).

From a position about 3 cables NW of Aulds Point (MacKenzie Point) (46°16'N, 60°26'W), the channel marked by light-buoys, leads SW for about 4 miles to a position SE of Seal Point (46°14'N, 60°30'W), passing (with positions from Seal Point):

- 3 Under the navigable span of the bridge (11.143), 7 cables NE of Seal Point, marked by red lights at the top of the span, thence:
SE of Seal Reefs (5 cables ENE), marked by Q14 Light-buoy (starboard hand), thence:
NW of Lime Rock (3 cables SE), marked by Q15 Light-buoy (port hand).

Seal Point to Bevis Point**11.149**

- 1 **Man of War Point Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 9 m in height) (46°11'·5N, 60°32'·7W).

Rear light (similar construction and tower, 20 m in height) (769 m from front light).

- 2 The alignment (223°) of these lights leads through the channel passing SE of Otter Island (46°13'N, 60°32'W), which is low and wooded, whence the track leads SW in mid-channel to Bevis Point, 5¼ miles SW, the S entrance point to Big Harbour (11.159), passing under the overhead cable (11.144) at Munro Point.

- 3 **Useful mark:**

Otter Harbour Direction Light (46°13'N, 60°32'W) (11.157).

Bevis Point to Red Head**11.150**

Macfarlane Point Leading Lights stand on the SE shore, about 1 mile SW of Ross Point (46°08'N, 60°35'W):

Front light (white rectangle, red stripe, on framework tower, 9 m in height) (46°07'·6N, 60°36'·3W).

Rear light (similar construction and tower, 10 m in height) (277 m from front light).

The alignment (065¼°), astern, of these lights leads in the channel from a position 1½ miles SW of Bevis Point (46°08'N, 60°37'W), passing (with positions from Bevis Point):

- 1 NW of Q19 Spar buoy (port hand) (2½ miles SW), marking a rocky shoal, extending 5 cables N from Fraser (Frazer) Point and Black Island, thence:
SSE of a patch (2¾ miles WSW) with a depth of 8·8 m over it, marked by Q20 Light-buoy (starboard hand), and:
NNW of a patch, with a depth of 9·1 m over it, marked by Q21 Light-buoy (port hand), thence:
NW of a rocky shoal (3¼ miles SW), (previously known as MacRae Point Shoal) with a depth of 6·4 m over it, marked by QA Light-buoy (preferred channel to starboard), 4 cables SE of MacRae Point.

- 2 The track then leads to a position at the S end of the narrows, between Red Head (46°06'N, 60°43'W) and Coffin Shoal, 1¾ miles ESE, marked by Q23 Spar buoy (port hand). The preferred route for N-bound vessels lies SE of the shoal, marked by QA Light-buoy.

Caution. The above-mentioned shoals have not been closely examined and larger vessels should not pass over them. See the source classification diagram on the national chart.

- 3 **Useful mark:**

Mackenzie Point Light (red and white rectangle on mast, 6 m in height) (46°07'N, 60°39'W).

(Directions continue for Saint Patricks Channel at 11.171)

Red Head to Derby Point**11.151**

- 1 The depths in this part of Great Bras d'Or, are very irregular. In some parts the depth exceeds 100 m (55 fm), but there are several shoals, particularly on the E side and close to the entrance to Barra Strait, at the SW end of Great Bras d'Or.

From a position ESE of Red Head the track leads SW, to Barra Strait. The deepest water will be found by passing (with positions from MacKay Point (46°04'N, 60°44'W)):

- SE of Burnt Shoal (5 cables SE), thence:
2 NW of Big Shoal (3 miles SSE), an extensive rocky bank, marked on its NW side by Q25 Spar buoy (port hand), lying 1 mile NW of Longbeach Point (46°01'N, 60°42'W), thence:
SE of Gillis Point Light (white tower, 11 m in height) (3¼ miles SW), marking the S entrance point to

Maskells Harbour (Boulaceet Harbour) (11.160), thence:

SE of a rocky shoal (5 miles SSW), with a depth of 9.1 m over it, and associated shoal ground extending SE from Blacksmith Point (46°00'N, 60°48'W), and:

NW of Christmas Island (5½ miles S), a long curving spit of land, thence:

- 3 Clear of Barra Shoal (6¼ miles SSW), rocky patches lying directly across the N entrance to Barra Strait, marked by QH Buoy (preferred channel to starboard).

The track then leads SSW into Barra Strait.

Barra Strait

11.152

- 1 **Caution.** The ship channel through the bridges has a width of about 31 m, with a charted depth of 8 m. Owing to the speed of the tidal streams through the bridge, it is advisable to pass through at a good speed.
- 2 From a position in the N entrance to Barra Strait the track leads SSW, in the channel through the swing bridges, to a position between Derby Point (45°56'N, 60°48'W) and Hectors Point, 6 cables NW, at the entrance to Bras d'Or Lake, passing WNW of Q31 Spar buoy (port hand) (45°57'N, 60°48'W). A groyne for deflecting the tidal stream, in ruins and below water at its outer end, extends SW from pivot pier, 1¾ cables SE.
- 3 **Useful marks:**
 - Large white church and steeple (45°58'N, 60°45'W), close S of Christmas Island.
 - Iona church and steeple (45°58'N, 60°48'W), close NW of Uniacke Point.
 - Derby Point Light (red and white rectangle on framework tower, 6 m in height) (45°56'N, 60°48'W).

(Directions continue at 11.207)

Anchorage and harbours

Kellys Cove

11.153

- 1 **General information.** Kellys Cove, on the W side of Kellys Point (46°17'N, 60°26'W) is sheltered from all except SW winds.

Anchorage. Good anchorage can be obtained in depths of about 9 m, sand and mud, off the entrance to the cove, out of the main tidal stream, as indicated on Canadian Chart 4277.
- 2 **Berth.** A public pier 24 m in length, with a depth of 4.3 m alongside its 20 m long outer face, extends from the shore at New Campbellton, near the head of the cove. A light (framework tower, 4 m in height) is exhibited from the S end of the pier-head.

Big Bras d'Or

11.154

- 1 At Big Bras d'Or (46°17'N, 60°25'W) a public wharf, 86 m in length, with a least depth of 3.4 m alongside its head, projects from the SE shore. A light (square framework tower, 5 m in height) is exhibited on the elbow of the pier-head. Attention is drawn to Eddy Rock (11.147).

Chain Point

11.155

- 1 Anchorage is available off Chain Point (46°16'N, 60°28'W), in depths of about 9 m.

New Harris

11.156

- 1 At New Harris Settlement (46°14'N, 60°31'W), on the NW shore, there is a public wharf in ruins.

Otter Harbour

11.157

- 1 **General information.** Otter Harbour (46°13'N, 60°32'W), lies on the NW side of the channel, NW of Otter Island (11.149). Numerous sunken barges are reported to lie at the head of the cove that extends to NW.

Directions. The white sector (282° to 283½°) of Otter Harbour Direction Light (mast on white hut, 5 m in height) (46°13'N, 60°31'W), standing on an islet at the head of the harbour, leads into the harbour, passing:

 - Close N of a rocky patch, with a depth of 3.4 m over it, thence:
 - S of an islet situated 3½ cables ENE of the direction light.
- 2 **Useful mark:**

Platform standing close NW of the direction light.

Anchorage. Secure anchorage is available, in depths of 10 to 11 m, mud, about 2 cables ESE of the direction light, but the available space is only 2 cables in extent.

Ross Ferry

11.158

- 1 A L-shaped public pier 35 m long, with a depth of 4.3 m alongside its head, projects from the SE shore at Ross Ferry (46°09'N, 60°35'W), opposite Big Harbour (11.159). This is the former cable ferry wharf serving the communities of Ross Ferry and Big Harbour (11.159); both wharves are reported to be in ruins.

Big Harbour

11.159

- 1 **General information.** Big Harbour (Port Bevis) (46°09'N, 60°37'W), a deeply penetrating cove on the NW side of Great Bras d'Or, curves round the SW end of the mountain range that extends, unbroken, from Cape Dauphin, 15 miles NNE.

Fish farming takes place off the N and S shores of the harbour, and it is advisable to navigate with care in these areas.

Gypsum abounds in the cliffs on the S side of the harbour.
- 2 **Anchorage.** Secure anchorage is available towards the N shore, in depths of 13 m near the entrance, decreasing to 7 m at a position about 5 cables farther W, where the harbour divides into two shallow arms.

Berth. A ruined pier is situated on the N shore of the cove.

Maskells Harbour

11.160

- 1 **General information.** Maskells Harbour (46°02'N, 60°46'W) indents the W shore of Great Bras d'Or for a distance of about 1 mile. A steep-to spit of shingle extends S from the N shore of the inlet, about 3 cables within the entrance, but depths of more than 5.5 m continue for a distance of 2½ cables farther in.



Cape Breton Island, Iona Wharf (11.162)

(Original dated prior 2002)

(Photograph – Transport Canada)

Directions. Maskells Harbour is entered by passing N of a reef, marked by QD1 Buoy (port hand), which extends about 1½ cables NE from Gillis Point, the S entrance point, from which a light (11.151) is exhibited.

Christmas Island

11.161

- 1 Good anchorage, except in NE winds, is available about 5 cables SW of Christmas Island (45°59'N, 60°45'W), in depths of about 15 m, mud.

Iona

11.162

- 1 A wharf, now owned by Central Cape Breton Community Ventures, extends from the shore at Iona village, close N of Uniacke Point (45°58'N, 60°48'W). The length of the outer face is 87 m. The least depth alongside the head of the jetty is 4.8 m.

SAINT PATRICKS CHANNEL

General information

Chart 4748, Canadian Chart 4278 and plans (see 1.32)

Route

11.163

- 1 Saint Patricks Channel, entered on the W side of Great Bras d'Or between Red Head (46°06'N, 60°43'W) and MacKay Point, about 1¼ miles SSW, leads 19 miles, generally WSW, passing through Little Narrows (46°00'N, 60°58'W), a narrow and tortuous passage, which opens into the broader waters of Whycocomagh Bay.

Topography

11.164

- 1 The shores of the channel are moderately high, rising to hills of considerable elevation a short distance inland.

Depths

11.165

- 1 Depths in Saint Patricks Channel are generally over 11 m, except in the narrows, in the bays and at the extreme SW end.

Ferry

11.166

A chain ferry crosses Little Narrows between short piers at Little Narrows village, 3 cables within the SW entrance.

Overhead cables

11.167

- 1 A power transmission line, with a least vertical clearance of 36 m, crosses the SW end of Little Narrows.

Submarine cable

11.168

- 1 A submarine cable is laid across Little Narrows, close SW of the ferry piers.

Bird sanctuary

11.169

A bird sanctuary is situated on Spectacle Island (46°05'N, 60°44'W) (1.91).

Natural conditions

11.170

Flow. There are no tidal streams, nor any perceptible rise in tide, but the water level is affected by prevailing winds, being higher during NE winds and lower during SW winds. The difference is seldom more than 0.3 m.

- 1 **Local weather.** Heavy squalls may be expected in rough weather, making conditions often dangerous to sailing craft and boats.

Directions

(continued from 11.150)

Red Head to MacIvers Point

11.171

- 1 From a position between Red Head (46°06'N, 60°43'W) and Coffin Shoal, 1¼ miles ESE, the track through the outer part of Saint Patricks Channel leads WSW, passing (with positions from Red Head):
 NNW of Spectacle Island (1¼ miles SW) and reefs and shoal ground, with depths of less than 10 m, extending 5 cables NE and 3 cables N, thence:
 SSE of a patch (1 mile WSW), with a depth of 8.5 m over it, marked by A2 Light-buoy (starboard hand), thence:
- 2

SSE of the SW end of Kidston Island (1 mile W), from which a light (11.176) is exhibited.

NNW of Bone Island (1¼ miles SW) and shoal ground with a least depth of 0.3 m over it, extending about 4 cables NNE, thence:

SSE of Stony Shoal (2½ miles WSW), which sometimes uncovers, marked by A4 Light-buoy (starboard hand), thence:

- 3 NNW of Neil Island (2¾ miles SW) and shoal ground extending about 2½ cables WNW, marked by A5 Buoy (port hand), thence, keeping closer to the N shore:

SSE of Sandy Point (5¼ miles WSW), thence:

NNW of Brian Point (46°03'N, 60°52'W) and the shore bank, extending about 1 cable N, marked by A9 Light-buoy (port hand).

- 4 The track then continues WSW, in a broad and clear channel, to a position NNW of MacIvers Point (46°02'N, 60°55'W) and clear of shoal ground extending up to 2 cables offshore.

Morrisons Cove Leading Lights

11.172

- 1 Morrisons Cove Leading Lights stand on the SE shore in the vicinity of Morrisons Cove (Oyster Creek) (46°01'N, 60°56'W):

Front light (white trapezium, red stripe, on framework mast, 3 m in height) at the NE entrance point to the cove.

Rear light (similar construction, inverted, and tower, 6 m in height) (640 m from front light).

- 2 The alignment (195½°) of these lights leads through the first leg of the buoyed channel to a position 2½ cables SW of MacIvers Point Leading Lights (46°02'N, 60°55'W). The track then leads through the main buoyed channel to the approaches to Little Narrows, passing E of MacIvers Bank, centred 5 cables SSW of MacIvers Point Leading Lights. Little Narrows is approached from NNE and entered about 4 cables NE of Donald Williams Point (46°01'N, 60°58'W) on the alignment (206¾°) of Little Narrows Leading Lights.

Little Narrows Leading Lights

11.173

- 1 **Caution.** When approaching Little Narrows the whistle should be sounded in plenty of time to warn the ferry (11.166), and care should be taken to avoid causing danger by excessive wash.

- 2 Little Narrows Leading Lights stand on the S shore: Front light (white trapezium, orange stripe, on red framework mast) (46°00'N, 60°58'W).

Rear light (similar construction, inverted, and tower) (128 m from front light).

The alignment (206¾°) of these lights leads into the N end of the buoyed channel, passing:

- 3 SE of Donald Williams Point and shoal ground extending 3 cables NE, marked at the NE extremity by A22 Light-buoy (starboard hand), and:

NW of Eel Shoal, centred 4 cables ENE of Donald Williams Point, marked by A23 Buoy (port hand).

- 4 Thence from a position about 5 cables NNE of the front leading light, the buoyed channel follows a tortuous track SW. Then from the SW end of Little Narrows, the channel widens and leads WSW through Whycocomagh Bay to a position SE of Lovett Point (45°58'N, 61°05'W):

Clear of shoal ground, with depths of less than 5 m, extending about 3 cables from the NW coast, and: NE of a bank, with depths of less than 5 m, extending about 4 cables N from the W end of MacInnis Island (11.180), 8 cables SSE of Lovett Point.

Useful marks

11.174

Little Narrows Light (white round tower, red bands, 10 m in height) (46°00'N, 60°59'W), on the SE shore of the narrows.

Whycocomagh Light (triangular framework mast, 6 m in height) (45°58'N, 61°05'W) on Lovett Point.

Church, prominent (45°58'N, 61°08'W) on the W shore of the inlet leading to Whycocomagh village.

Alternative channel

MacIvers Point Leading Lights

11.175

- 1 Front light (white trapezium, red stripe, on a column, 3 m in height) (46°02'N, 60°55'W).

Rear light (similar construction, inverted, on framework tower, 7 m in height) (33 m from front light).

- 2 From a position 2½ cables SW of MacIvers Point Leading Lights, the alignment (066½°), astern, of the above lights leads through an alternative buoyed channel to Little Narrows, in a least charted depth of 9.1 m, passing between MacIvers Bank, and the shoal ground surrounding Bell Rock, 7 cables W of MacIvers Point Leading Lights.

Useful mark:

Little Narrows Light (46°00'N, 60°59'W) (11.174).

Anchorage and harbours

Baddeck Bay and Harbour

11.176

- 1 **General information.** Baddeck Bay is entered NW of Red Head (46°06'N, 60°43'W), and extends as a narrowing inlet for about 2 miles NNE. The bay is deep almost to its head, but a shoal with a least depth of 6.1 m lies in its entrance, about 7 cables WNW of Red Head.

- 2 Baddeck Harbour lies N of Kidston Island (46°06'N, 60°45'W), at the SW entrance point to Baddeck Bay. The town of Baddeck, population about 1 000, stands on the NW shore. It is a pulpwood and lumber shipping port.

Directions. There are entrance channels at the NE and SW ends of Kidston Island; the NE entrance is preferable as the SW entrance, between Kidston Island and Pinauds Point (1.4 cables WNW) is very narrow. A submarine cable is laid across the SW entrance to the harbour.

The NE entrance is approached from SE and entered passing clear of a shoal (46°06'N, 60°44'W), with a depth of 6.1 m over it, at the entrance to Baddeck Bay.

- 3 **Useful marks:**

Kidston Island (NE) Light (white structure, 14 m in height) (46°05'N, 60°44'W) on the NE point of the island.

Kidston Island (SW) Light (white tower, red bands, 10 m in height) (46°05'N, 60°45'W) on the SW point of the island.

- 4 **Anchorage.** The bay affords good anchorage in 10 m to 16 m, mud. The best anchorage for small craft is near the head of the bay, within long shingle beaches that extend from the E shore, but it is very confined.



Baddeck Wharf (11.176)

(Original dated prior 2002)

(Photograph – Transport Canada)

Anchorage with good holding ground, lies about 1 cable NW of Kidston Island (NE) Light, in depths of about 8 m, mud and sand, but space is restricted.

- 5 **Berth.** The public wharf at Baddeck, now owned by Baddeck Area Business and Tourism Association, extends SE from the mainland, 2½ cables WNW of Kidston Island Light. Least depth of 7.2 m is found off the outer face of the wharf.

Repairs. Minor repairs only.

Supplies: provisions; diesel oil; fresh water at the public wharf.

- 6 **Small craft.** Marina with a berth 30 m long and 21 m wide, is situated close W of the public wharf. A clubhouse and yacht basin are situated close E of the public wharf, where there is a wharf, 20 m in length and a ramp. Small craft anchoring is under the jurisdiction of Baddeck Harbour Development Committee.

MacKay Point

11.177

- 1 At MacKay Point (46°04'N, 60°44'W) a pier extends 61 m N, with a depth of 2.1 m alongside its head. A light, privately maintained, is occasionally exhibited from the pier-head.

Little Narrows Gypsum Company

11.178

- 1 Little Narrows Gypsum Company wharf projects from the SE shore, about 5 cables NE of Little Narrows Front Leading Light (46°00'N, 60°58'W) (11.173). Length of

berth on NE side of pier is 110 m, with a depth of 8.1 m alongside and a deck elevation of 1.2 m. The SW side of the wharf is not used and an overhead conveyor runs onto it. Vessels can be loaded to a maximum draught of 9.7 m. Vessels of less than 195 m in length can be loaded without turning the vessel. There are no facilities at the berth.

Little Narrows

11.179

- 1 Little Narrows public wharf (45°59'N, 60°59'W), usable but in a state of disrepair, with a berth 15 m in length at the pier-head and depths of 1.5 to 3.5 m alongside, is situated at the village, close S of the ferry pier (11.166) on the SE shore.

Whycocomagh Bay

11.180

- 1 **General information.** Whycocomagh Bay (45°58'N, 61°02'W) has sheltered deep water anchorage available off the SW side of Indian Island (45°57'N, 61°07'W), at the head of the bay. The anchorage is entered by passing E and S of a bank with a least depth of 1.8 m, extending 3 cables E from the S point of Indian Island and between that island and Sheep Island lying 6 cables SE.

Berth. A L-shaped wharf, with an outer face 21 m in length and depths of between 3.5 to 4.5 m alongside, is situated at Whycocomagh (45°58'N, 61°07'W), population about 400. It is used by the local sailing clubs.

- 2 **Small craft.** Boats may find shelter in a number of small inlets, reached through shallow channels on the S

side of Whycocomagh Bay (45°58'N, 61°02'W); the inlets are spawning grounds for oysters.

- 3 Anchorage in shallower water is available in West Cove, S of MacInnis Island (45°57'N, 61°04'W).

Small craft

Crow Point

11.181

- 1 Crow Point (46°04'N, 60°46'W) affords good anchorage on either side.

Washabuck Centre

11.182

- 1 Washabuck Centre (46°03'N, 60°48'W), is a village on the S shore, about 4 miles within the entrance to Saint Patricks Channel. There is a L-shaped public pier with a berth 12 m in length on its outer face and a depth of 3 m alongside.

MacIvers Cove

11.183

- 1 MacIvers Cove (46°03'N, 60°50'W) is reported to offer good anchorage on the S side opposite Murphy Point.

Washabuck River

11.184

- 1 The creek forming the entrance to Washabuck River is entered W of Murphy Point (46°03'N, 60°49'W). The entrance channel is narrow and marked by buoys, but the creek widens into a basin close within the entrance. Sheltered anchorage, in depths of 7 to 12 m, mud, lies in the basin close within the entrance, in the lee of Plaster Point (46°03'N, 60°50'W).

Cow Bay

11.185

- 1 Cow Bay (46°05'N, 60°52'W), an indentation on the N shore of Saint Patricks Channel, affords good anchorage in a depth of 14 m, mud. A gravel spit, least depth 6.7 m, stretches across the entrance to the bay.

Nyanza Bay

11.186

- 1 Nyanza Bay (46°05'N, 60°54'W), on the N shore of Saint Patricks Channel, affords good anchorage S of the village of Nyanza in 5 to 14 m, mud. Drying flats extend almost 6 cables from the mouths of Baddeck River and Middle River, two rapid but shallow streams which flow into the NE and NW sides of the bay, respectively. Baddeck River is navigable by boats for a few miles above its entrance. A public wharf at Nyanza, 79 m in length, has a depth of 4.6 m alongside its outer end.

Other names

11.187

- 1 Black Point (46°01'N, 60°40'W).
Grass Cove (45°59'N, 60°49'W).
Hume Island (46°03'N, 60°56'W).
John Alex Pond (46°00'N, 60°48'W).

LITTLE BRAS D'OR AND SAINT ANDREWS CHANNEL

General information

Canadian Charts 4276, 4277 (see 1.32)

Route

11.188

- 1 Little Bras d'Or is a very narrow and tortuous passage, entered W of Alder Point (46°18'9N, 60°16'7W) and leading generally S for about 5 miles on the E side of Boularderie Island (11.141). At its S end, Little Bras d'Or widens into Saint Andrews Channel (46°15'N, 60°18'W), entered at Burchells Point (46°15'N, 60°18'W), then continues down the E side of Boularderie Island to Kempt Head, where it enters Great Bras d'Or.

Topography

11.189

A conspicuous radio tower, is situated on Mount Cameron, about 9 cables E of the S end of Long Island (46°10'N, 60°25'W). The tower is not shown on the chart.

Depths

11.190

- 1 **Little Bras d'Or.** The channel at the N entrance to Little Bras d'Or has a least charted depth of 4 m.

The channel at the S end of Little Bras d'Or has charted depths of from 2.7 to 3.8 m, close N of the bridge at the village of Bras d'Or.

Saint Andrews Channel. The channel is generally deep SW of Groves Point (46°14'N, 60°21'W), with depths of more than 200 m in places.

Bridge

11.191

- 1 At its S end, Little Bras d'Or is spanned by a road bridge (46°15'N, 60°18'W) with a vertical clearance of 6.4 m.

The following lights are shown from the bridge:

- South-bound traffic. Two white lights on the NW part of the bridge indicate the S-bound channel.
2 North-bound traffic. Two white lights on the SE part of the bridge indicate the N-bound channel.

Overhead cables

11.192

- 1 Power transmission lines span Little Bras d'Or with vertical clearances as follows:

Abreast Mill Creek (46°17'N, 60°18'W), 13 m.
2 cables N of the road bridge, 17 m.
Close N of the road bridge, 7.5 m.

Local knowledge

11.193

- 1 Local knowledge is essential for Little Bras d'Or.

Local weather

11.194

The N entrance is closed by breakers when there is a heavy sea, especially when the tidal stream is setting strongly against the wind.

Directions

(continued from 11.35)

Little Bras d'Or

11.195

- 1 The N entrance channel and the channel leading from the S end of the narrows into Saint Andrews Channel are

buoyed, but within the narrows of Little Bras d'Or there are no buoys or beacons.

Little Bras d'Or Leading Lights are exhibited at McCreadyville, on the W side of the entrance:

Front light (white rectangle, red stripe on framework tower, 4 m in height) (46°18'·7N, 60°17'·3W).

Rear light (similar construction and tower, 7 m in height) (354 m from front light).

- 2 From a position in the vicinity of K6 Light-buoy (starboard hand) (46°22'N, 60°15'W), the alignment (212°) of these lights leads to the outer end of the entrance channel, passing (with positions from Alder Point (46°18'·9N, 60°16'·7W)):

Close NW of U1 Light-buoy (port hand), moored about 6 cables NNE of Alder Point, thence:

Close SE of U4 Light-buoy (starboard hand), moored 2½ cables WNW of Alder Point, marking the outer end of the buoyed entrance channel.

- 3 The track then leads S, for about 9 cables, through the entrance channel, marked by light-buoys and buoys, by night, in the white sector (182½°–183°) of Alder Point Direction Light (square tower, 3 m in height) (46°17'·9N, 60°17'·2W). Thence the track follows the unmarked channel, where the greatest depth is not always in the centre, passing under the navigable spans of the road bridge (46°15'N, 60°18'W) (11.191). There is a depth of 2·7 m close N of this span. There is a depth of 3·8 m close NNE of this span.

The track then leads to a position at the S end of a buoyed channel 5 cables SSW of the bridge, and about 1 cable W of Burchells Point.

- 4 **Useful marks:**

Opencast mine, with the cliff face cut away, 2 cables SW of High Cape (46°20'N, 60°17'W).

Water tower (46°18'·2N, 60°16'·8W), about 7 cables S of Alder Point.

Saint Andrews Channel

11.196

- 1 From a position 1 cable W of Burchells Point (46°15'N, 60°18'W), the channel, marked by buoys, leads SW for about 2¼ miles to a position S of Groves Point, passing (with positions from Burchells Point (46°15'N, 60°18'W)):

NW of a deep rocky shoal (8 cables SW), with a depth of 1·5 m over it, marked by U41 and U43 Buoys (port hand), thence:

- 2 SE of a shoal (1½ miles SW), with a depth of 4·6 m over it, extending about 4 cables S from Codnor Point.

The track then leads W, passing:

S of a patch (2¼ miles SW), with a depth of 3·4 m over it, 2 cables S of Groves Point, and:

N of Almons Point (2½ miles SW) and shoal ground, with a least depth of 6·1 m over it, extending about 5 cables N from it.

- 3 The track then leads generally SW, in mid-channel, in deep water, passing:

NW of Long Island (46°11'N, 60°25'W), thence:

NW of Beaver Cove (46°05'N, 60°33'W) and shoal ground, with a least depth of 0·9 m over it, at its N end, extending 4 cables NNW, and with depths of less than 9 m extending 7 cables farther NE, thence:

Clear of MacPhee (MacPhie) Shoal (46°02'N, 60°40'W) and a rocky patch, with a depth of 8·2 m over it, lying 1 mile W.

- 4 The track then leads into Great Bras d'Or, SW of Kempt Head (46°04'N, 60°40'W).

Useful mark:

Point Clear Light (red and white rectangle on framework tower, 6 m in height) (46°05'N, 60°36'W), 3 miles NE of Kempt Head.

(Directions for the SW part of Great Bras d'Or are given at 11.151)

Anchorage and harbours

Little Bras d'Or

11.197

- 1 **Berths.** There are many fishing stages and wharves in the narrows of Little Bras d'Or, which can best be seen on the Canadian Chart. The principal berths at the N entrance (46°18'·5N, 60°17'·0W), in sequence from N to S are:

Public wharf extending S from Alder Fish Plant, on E side of N entrance, 90 m in length, with depths from 3·2 to 2·1 m on its E side.

- 2 Wharf to the E of the public wharf, 145 m in length, with a depth of 2·6 m alongside. These wharves enclose a basin which is marked by buoys.

L-shaped public wharf at the entrance to Crawley Creek (Crawley Brook) 57 m in length and 32 m on the N end, with depths of about 2·7 m alongside. There is a boat ramp close E.

Public wharf near Arsenault Creek (46°17'N, 60°17'W) on E shore.

Burchells Point

11.198

- 1 A jetty extends N from a village close SE of Burchells Point (46°15'N, 60°18'W), about 5 cables SSW of the road bridge. Secure anchorage is available in the lee of the point, in depths of 2 to 3 m, mud.

Long Island

11.199

- 1 Secure but confined anchorage is available in the narrow strait between Long Island (46°11'N, 60°25'W) and the mainland.

Island Point Harbour

11.200

- 1 Island Point Harbour (46°08'N, 60°32'W) extends for about 1½ miles SW inside a narrow peninsula on the NW side of Saint Andrews Channel. The harbour provides secure anchorage in depths of between 5 and 14 m.

Shunacadie Harbour

11.201

- 1 **General information.** Shunacadie Harbour (46°02'N, 60°39'W) has the village of Shunacadie (Shenacadie) at its head.

Berth. A pier at the village is in ruins, and the channel leading to it, at one time dredged to 3·4 m, is probably not maintained.

BRAS D'OR LAKE — BARRA STRAIT TO SAINT PETERS CANAL

General information

Canadian Charts 4279, 4275 (see 1.32)

Route

11.202

- 1 Bras d'Or Lake is entered from N through Barra Strait (45°57'N, 60°48'W), and from the S through Saint Peters

Canal (45°39'N, 60°52'W). The NW shore is indented with numerous inlets and coves and there are many islands.

The main route leads about 12 miles S across Bras d'Or Lake from Derby Point, (45°56'N, 60°48'W) to Cape George (45°44'N, 60°49'W), thence generally SE, a farther 7 miles, through Saint Peters Inlet, entered at the S end of the lake, to Saint Peters Canal.

Depths

11.203

- 1 The lake is very variable in depth, and contains many shoals, but the central part of Bras d'Or Lake is generally deep and clear of dangers.

Overhead cables

11.204

Power transmission lines, with a least vertical clearance of 30 m, cross Beaver Narrows, about 1 mile NNE of Saint Peters Canal.

Ice

11.205

- 1 Saint Peters Inlet is usually frozen over from about 15th January to 25th April.

Principal marks

11.206

- 1 **Landmarks:**
Derby Point (45°56'N, 60°48'W), rising to 160 m, and a conical peak (180 m in elevation), 1 mile E, distinguished by red clay and sandstone.
Radio tower (red lights, elevation 266 m) (45°49'N, 61°04'W) on Marble Mountain.

Directions

(continued from 11.152)

Barra Strait to Cape George

11.207

- 1 From a position between Derby Point (45°56'N, 60°48'W) and Hectors Point, 6 cables NW, the track leads initially SSW, passing (with positions from Derby Point Light):
WNW of Cod Shoals (1½ miles SSW) extending 1½ miles farther S, and:
ESE of McKinnons Shoal (3½ miles SW), lying about 2½ miles farther W.
The track then leads S, passing:
E of Malagawatch Point (6¼ miles SW), thence:
E of Gillis Shoal, 8 cables S of Malagawatch Point, thence:
W of ODAS Light-buoy (5¼ miles S).
The track then leads SSE, passing (with positions from MacRaes Point (45°45'N, 60°51'W)):
WSW of Kelly Shoals (2 miles ENE), marked on the W side by Q35 Light-buoy (port hand), and on the S extremity by QN Spar buoy (preferred channel to starboard).
The track then leads SE, passing:
3 Clear of a shoal (1½ miles ESE), with a depth of 6-4 m over it.
The track then leads to a position NE of Cape George (2 miles ESE), from which a light (white square structure, 8 m in height) is exhibited.
Useful mark:
Derby Point Light (45°56'N, 60°48'W) (11.152).
(Directions for West Bay are given at 11.234 and for East Bay at 11.222)

Cape George to MacNabs Point

11.208

- 1 The channel through Saint Peters Inlet is very narrow and there are many sharp turns, but it is lighted and buoyed during the navigation season, and navigation is reported not to be excessively difficult.
- 2 From a position at the N entrance to Saint Peters Inlet, between Cape George (45°44'N, 60°49'W) and Evans Island, 1½ miles ENE, the track leads on various tracks, keeping towards the W side of the inlet, passing (with positions from Cape George Light (45°44'N, 60°49'W)):
NW of Trap Point (1¼ miles SE), the W extremity of Chapel Island, thence:
SE of Dock Point (1¼ miles S) and shoal ground extending 1½ cables SE, marked by Q38 Buoy (starboard hand), thence:
3 NW of Gregory Island (1½ miles SSE), from which a light (white round structure, red bands, 10 m in height) is exhibited, and shoal ground extends 1 cable NW, marked by Q39 Buoy (port hand), thence:
SW of Doctor Island (1¾ miles SSE) and shoal ground extending 1 cable SW, and:
NE of MacNabs Point (2 miles S) and shoal ground extending 1 cable NE and 2 cables E, marked by Q42 Buoy (starboard hand).
4 The track then leads SW into Saint Peters Inlet.
Useful mark:
White church (spire) on the S end of Chapel Island (45°43'N, 60°47'W).

MacNabs Point to Saint Peters Canal

11.209

- 1 From a position about 2½ cables SE of Q42 Buoy, E of MacNabs Point (45°42'N, 60°48'W), the channel, which is marked by buoys, becomes narrow and intricate, passing:
S of Beaver Island (45°41'N, 60°50'W), from the SE end of which a light (red and white rectangle on framework tower, 10 m in height) is exhibited, thence:
Through Beaver Narrows, 3 cables SW of Beaver Island, with a charted depth of 5.5 m, thence:
2 SW of Helens Island from which a light (triangular framework mast, 7 m in height) (45°40'N, 60°51'W) is exhibited.
The track then leads around the SE side of Handleys Island (45°40'N, 60°52'W) to the buoyed approach to Saint Peters Canal, on the S side of the island.
(Directions continue at 11.256)

Side channel

11.210

- 1 Vessels may pass E of Kelly Shoals (45°46'N, 60°48'W) and W of Campbells Island, about 7 cables E, in a least charted depth of 11.4 m.

Anchorage and harbours

North Basin and Denys Basin

11.211

- 1 **General information.** North Basin (45°54'N, 61°03'W) and Denys Basin, close S, are landlocked inlets on the NW side of Bras d'Or Lake. The settlement of Orangedale is situated in Blues Cove at the head of North Basin.
River Denys, which is navigable by boats for some miles, flows into the SW end of Denys Basin.
Local knowledge is required.
- 2 **Flow.** There is some flow in and out of the narrow parts of the channels leading to the North Basin and Denys

Basin, but the rate seldom exceeds $\frac{1}{2}$ kn, and its direction depends on the wind; rising water and in-going current may be expected with N winds, falling water and out-going currents with SW and S winds.

- 3 **Directions.** The inlets are approached from E by passing N of Campbells Island ($45^{\circ}55'N$, $60^{\circ}57'W$), thence a narrow, deep and intricate channel leads generally WSW, for about 4 miles, to the E end of North Basin, passing N of Boom Island ($45^{\circ}54'N$, $61^{\circ}00'W$).

Denys Basin is entered through a narrow channel between the W end of Boom Island and MacLean Point, 4 cables SW, the E end of a peninsula separating North Basin and Denys Basin.

- 4 **Anchorage.** There is good anchorage to be found in both basins. Recommended anchorage positions are as follows:

North Basin. About 3 cables ESE of Martins Island, depth 7 m, mud as shown on the Canadian chart.

Denys Basin. N of Allans Cove ($45^{\circ}53'N$, $61^{\circ}01'W$), about 4 cables NNE of the church near the shore, in depths of 5 to 8 m, mud.

- 5 **Wharf.** At Orangedale ($45^{\circ}54'N$, $61^{\circ}05'W$), a wharf extends 37 m from the S shore of Blues Cove, with the outer 10 m having depths of 2.1 m on each side.

Malagawatch Harbour

11.212

- 1 **General information.** Malagawatch Harbour ($45^{\circ}52'N$, $60^{\circ}58'W$), an inlet consisting of an inner and an outer basin, separated by a narrow passage, which leads NW for about 3 miles from the W shore of Bras d'Or Lake; the head of the inner basin is separated from Denys Basin by a narrow neck of land. Local knowledge is essential.

- 2 **Directions.** The recommended track into Malagawatch Harbour is from ESE, passing (with positions from Sheep Island ($45^{\circ}51'N$, $60^{\circ}56'W$)):

NE of Pellier Point Reef (extending nearly 4 cables ESE), thence:

SW of Gillis Shoal (3 cables NE), thence:

Through the channel, 135 m wide, in the narrows abreast Widows Point (1 mile WNW).

- 3 From the narrows, the outer basin leads NW for 7 cables to another constricted channel, between Campbell Point and Neilys Point ($1\frac{1}{2}$ miles NW), with a least depth of 7 m, which leads N into the inner basin.

Anchorage is available about 4 cables within Widows Point, on the N side of the outer basin, in depths of 8 to 13 m.

Pellier Harbour

11.213

- 1 **General information.** Pellier Harbour, lies between Pellier Island ($45^{\circ}51'N$, $60^{\circ}56'W$) and the mainland peninsula close W. The harbour is sheltered from S by a shingle spit extending W from the S end of Pellier Island. The harbour may be approached either from E, passing N of Militia Island ($45^{\circ}50'N$, $60^{\circ}56'W$), or, from S, passing W of Militia Island.

- 2 **Directions.** The recommended approach to Pellier Harbour is from E, passing:

S of Pellier Point Reef, 6 cables NE of Militia Island, which is wooded and prominent, thence:

N of Militia Island and reefs and shoal ground, with depths of less than 5 m, extending more than 1 cable N.

Chapel Island

11.214

- 1 Good anchorage in Saint Peters Inlet, in depths of 10 to 20 m, mud, is reported to lie from 1 to 2 cables off the SW side of Chapel Island ($45^{\circ}43'N$, $60^{\circ}47'W$).

Small craft

Red Islands

11.215

- 1 Red Islands ($45^{\circ}48'N$, $60^{\circ}46'W$) consist of one large and one very small island; with their connecting reefs, they enclose a small boat harbour, open to the S.

Campbells Cove — Johnstown Harbour — Hay Cove

11.216

- 1 Campbells Cove, Johnstown Harbour and Hay Cove are small harbours which indent the SE shore of Bras d'Or Lake from a point $1\frac{1}{2}$ miles SE of Red Islands (11.215), for a distance of about $2\frac{1}{2}$ miles farther S. A disused lighthouse stands on Murdocks Point ($45^{\circ}47'N$, $60^{\circ}45'W$).

The approach channels are intricate, but with local knowledge they are navigable by small craft.

Morrison Harbour

11.217

- 1 Morrison Harbour ($45^{\circ}46'N$, $60^{\circ}54'W$) is a small boat anchorage on the E side of Morrison Head, a small peninsula, 11 m high, with red cliffs, connected to the mainland by a shingle beach.

MacNabs Cove

11.218

- 1 **General information.** MacNabs Cove ($45^{\circ}44'N$, $60^{\circ}44'W$), on the NE side of Saint Peters Inlet, is entered through an intricate channel between shoals. Local knowledge is essential.

Anchorage is available in depths of 6 to 7 m.

Soldiers Cove

11.219

- 1 **General information.** Soldiers Cove ($45^{\circ}42'N$, $60^{\circ}45'W$) lies on the E side of Saint Peters Inlet. The cove is entered through intricate channels between shoals. Local knowledge is essential.

Anchorage is available in depths of 7 to 13 m.

Berth. A public wharf, with a depth of 3.5 m alongside its head, is situated on the E side of the head of the cove.

Strachans Cove

11.220

- 1 **Saint Peters Marina** is located in Strachans Cove ($45^{\circ}40'N$, $60^{\circ}52'W$), about 4 cables W of the N entrance to Saint Peters Canal, with depths of 2.4 m alongside its berths. Fuel and freshwater are available.

EAST BAY

General information

Canadian Chart 4279 (see 1.32)

Description

11.221

- 1 East Bay, a tapering inlet on the NE side of Bras d'Or Lake, is entered between Benacadie Point ($45^{\circ}54'N$, $60^{\circ}44'W$) and Middle Cape, $4\frac{1}{2}$ miles SE. The bay is navigable for about 14 miles to the vicinity of Campbell Point ($46^{\circ}00'N$, $60^{\circ}24'W$); the first 4 miles within the entrance are clear of shoals, but depths throughout are very irregular.

Directions

11.222

- 1 From a position between Benacadie Point (45°54'N, 60°44'W) and Middle Cape, 4½ miles SE, the channel into East Bay, marked by buoys in places, leads NE, passing: SE of McPhee Island (45°57'N, 60°33'W), and a reef extending out to 4 cables, marked by E1 Buoy (port hand), on its S side, and E3 Light-buoy (port hand), on its E side, and: NW of Marble Point, 1 mile SE of McPhee Island, thence:
- 2 NW of MacDougall Point (45°57'N, 60°30'W), and shoal ground extending 2 cables NW, and: SE of shoal ground with a least depth of 1·6 m over it, extending about 8 cables from the opposite shore, thence: SE of Cossitt Point (45°59'N, 60°29'W) (11.231), on the NW shore, and a bank, with a least depth of 2 m over it, extending about 4 cables ENE, thence: SE of McAdam Point, 1 mile NE of Cossitt Point, and a reef extending about 2 cables offshore.
- 3 The track then leads a farther 2 miles NE to the vicinity of Campbell Point, where the bay has narrowed to 3 cables. Thence a tapering tongue of water leads between shoals on each side to a causeway of shingle across the head of the bay, about 1 mile above Campbell Point.

Anchorage

11.223

- 1 The long fetch, the depth of water, and the nature of the bottom make anchorage unsafe in East Bay, except in some small harbours.

Small craft

Benacadie Pond

11.224

- 1 Benacadie Pond (45°54'N, 60°43'W) is a narrow inlet, restricted to small boats, leading about 1¼ miles N. There are depths of up to 4·2 m in the inlet, but the entrance dries at low water.

Amaguedeas Pond

11.225

- 1 Amaguedeas Pond (45°55'N, 60°40'W), a large area of water with depths of 1·6 to 6·6 m, is enclosed by a ridge of clay and gravel, about 1·2 m high. A shallow boat channel enters the pond at the N end of the ridge, underneath a bridge, with a vertical clearance of 1·1 m.

Christmas Pond

11.226

- 1 **General information.** Christmas Pond (45°55'N, 60°38'W) is a small boat harbour enclosed by a sand and shingle ridge extending about 8 cables NE from Dhu Point. Local knowledge is required.
Directions. The approach is from N or S of Christmas Island, 5 cables farther NE, which is obstructed by a shoal on the SW side. The entrance has a limiting depth of 1·5 m.
Anchorage is available at the head of the pond, in depths of up to 9·8 m, mud.

Lochmore Harbour

11.227

- 1 Lochmore Harbour (45°54'N, 60°34'W) is enclosed by a long shingle ridge, with an entrance at its NE end, and a depth of about 1·6 m over the bar.
The village of Big Pond Centre, with a church, lies on the mainland shore, and hills rise inland to a height of 210 m.
The harbour provides good shelter for small craft of suitable draught.

Big Pond

11.228

- 1 **General information.** Big Pond (45°55'N, 60°32'W), population about 155, marked by a church, 43 m in height, is situated about 1 mile SSW of Marble Point.
Berth. There is a L-shaped pier 77 m in length, with a berth 15 m long on its outer face, and a depth of 2·7 m alongside.

West Eskasoni Harbour

11.229

- 1 **General information.** West Eskasoni Harbour (45°58'N, 60°34'W) is a small but secure harbour formed by McPhee Island to the E and S. McPhee Island is joined by a narrow shingle ridge to the W island of the Indian Islands, about 8 cables farther W, forming the N shore of the harbour.
Directions. West Eskasoni Harbour is entered from SW by passing NW of a reef, with a least charted depth of 1·2 m, extending about 4 cables W from McPhee Island.

Indian Islands

11.230

- 1 **General information.** Indian Islands lie in the approaches to Crane Cove (45°57'N, 60°35'W), on the S side of which stands the village of Eskasoni, population about 2 200, marked by a white church and spire.
Caution. Aquaculture cages are reported inside the islands. Local knowledge is required.
Directions. A channel, buoyed at the entrance, leads N of McPhee Island, to Crane Cove, ½ miles W, at the head of the inlet.
- 2 **Anchorage** in Indian Islands are located in positions 45°57'·4N, 60°34'·5W and 45°57'·6N, 60°32'·5W.
Berth. Public wharf at Crane Cove, has a berth 37 m long, with a depth of 1·2 m alongside.

Cossitt Point

11.231

- 1 **General information.** At Cossitt Point (45°59'N, 60°29'W), on the NW shore, a sand and shingle ridge encloses a small, shallow harbour.
Directions. The entrance, about 6 cables NE of Cossitt Point, is approached from SE, passing:
N of a shoal with a least depth of 2 m, extending about 5 cables ENE from the point, marked by EA1 Spar buoy (port hand), and:
S of shoal ground extending about 2 cables from McAdam Point, about 1 mile NE of Cossitt Point.
- 2 **Useful mark:**
White church (45°59'N, 60°28'W) on the shore NW of the entrance.
Anchorage is available in the harbour.
Berth. A public wharf, 64 m in length, is situated about 7 cables NE of Cossitt Point.

Head of East Bay**11.232**

- 1 The small area at the NE extremity of East Bay, between the causeway (11.222), 1 mile above Campbell Point (46°00'N, 60°24'W), and a bridge at East Bay, 7 cables farther NE, is navigable by boats.

There is a boat passage through the causeway, spanned by a bridge at East Bay village with a vertical clearance of 1.2 m.

WEST BAY**General information**

Canadian Chart 4279 (see 1.32)

Description**11.233**

- 1 West Bay, entered between Militia Point (45°50'N, 60°57'W) and Poor Point, 3¼ miles S, extends about 11 miles SW from the W side of Bras d'Or Lake. The bay contains many islands and shoals, and depths throughout are very irregular.

On the N side, a range of steep wooded hills, 180 to 270 m high, runs along the whole of the shore.

- 2 On the S side, cliffs of red sand and clay, with some sandstone, alternate with shingle beaches along shore. A range of wooded hills rises to an elevation of 180 m about 1 km inland, with a number of settlements on the slopes and near the shore.

A group of wooded islands, many of which are connected by shingle beaches, and with cliffs of sand, clay and boulders, extends about 3 miles SW from Cameron Island (45°49'N, 61°01'W).

- 3 Crammond Islands (45°45'N, 61°05'W) and Floda Island close E, are 15 to 20 m high, with cliffs of red sand and clay to seaward.

- 4 Care should be taken to avoid MacRaes Shoal extending 1 mile from the shore about 1 mile NE of McInnes Point.

Directions**11.234**

- 1 From a position E of Gillis Shoal (45°51'N, 60°55'W), the track to the head of West Bay leads SW, passing (with positions from Poor Point (45°46'N, 60°56'W), the S entrance point of the bay):

SE of Paddle Shoal (2½ miles NNW), marked on its S side by DA2 Light-buoy (starboard hand), and:

- 2 NW of Poor Point and shoal ground, with depths of less than 9.1 m, extending almost 5 cables N, marked on its N side by D1 Light-buoy (port hand), thence:

- 3 Clear of Outer Shoal (1½ miles NW), a rocky patch, thence:

SE of Nameless Shoal (2½ miles NW), marked on its N side by DA3 buoy (port hand), thence:

SE of Middle Shoal (2¼ miles WNW), a rocky patch, thence:

- 4 Clear of MacLeods Shoal (1½ miles W), rocky patches, thence:

Clear of Pringle Shoal (2 miles W), a rocky patch, marked on its N side by D5 Spar buoy (port hand), thence:

Clear of Ross Shoal (2¾ miles W), thence:

SE of Smith Shoal (6 miles WSW), the SE shoal of Crammond Islands, marked by D8 Buoy (starboard hand), thence:

- 5 NW of McInnes Shoals (6 miles SW), thence:

NW of MacRae Island (7½ miles SW), and shoal ground N, marked by D11 Light-buoy (port hand).

The track then leads to a position NW of Ballam Shoal (8 miles SW), an extensive rocky bank, and SE of Magus Island (45°46'N, 61°08'W).

- 6 **Useful marks:**

Radio tower (45°49'N, 61°04'W) (11.206) on Marble Mountain.

Cameron Island Light (white structure, 8 m in height) (45°49'N, 61°00'W) on the NE end of the island.

Channels north and north-west of Crammond Islands**11.235**

- 1 There is a clear passage between Floda Island (45°46'N, 61°04'W) and Ronald Island, lying 1 mile farther N.

The channel between Crammond Islands and the coast NW is also deep and clear, except for Mid Shoal, lying 9 cables NW of the N end of the islands.

Channel west of Crammond Islands**11.236**

- 1 The channel between Crammond Islands and the coast W, passing E of Dumpling Island (45°46'N, 61°06'W), is deep and clear, except for the following shoals:

A shoal 4 cables S of Dumpling Island, with a depth of 8 m over it.

A shoal, 3 cables NE of Spruce Point (45°44'N, 61°07'W), with a depth of 8.4 m over it.

A shoal, 6 cables NNW of Spruce Point, in Malcolm Cove, with a depth of 4.6 m over it.

Anchorage and harbours**Clarke Cove****11.237**

- 1 **General information.** Clarke Cove (45°49'N, 61°02'W) lies on the NW shore of West Bay. The harbour is approached from E through a buoyed channel passing N of Cameron Island (45°49'N, 61°01'W). It may also be approached from the S and W of Cameron Island. Local knowledge is required.

Directions. From a position N of Poor Point (45°46'N, 60°56'W) (11.234), the track leads W, passing (with positions from Poor Point):

Either side of Paddle Shoal (2½ miles NNW), marked by DA2 Light-buoy, thence:

- 2 N of Nameless Shoal (2¾ miles NW), marked by DA3 Buoy (port hand), and:

S of George Shoal, 3 cables N of Nameless Shoal, marked by DA4 Buoy (starboard hand).

Clarke Cove is then entered from the E through a narrow and intricate passage, marked by spar buoys, between the SW end of George Island (3½ miles NW) and the N side of Cameron Island.

- 3 **Useful marks.**

Cameron Island Light (45°49'N, 61°00'W) (11.234).

Clarke Cove Wharf Light (framework mast, 4 m in height) (45°49'N, 61°02'W).

- 4 **Anchorage.** Good anchorage is available:

E of Clarke Cove wharf light, clear of a reef extending about 3 cables SW from MacDonalds Point, in 10 m to 18 m, mud. The S side of the cove should be favoured in the approach to the anchorage.

Between the shore SW of Clarke Point (45°49'N, 61°02'W) and the group of islands lying from 5 cables to 1 mile offshore, which includes Clarke Island.

- 5 **Wharf.** A public wharf, 23 m in length, with a depth of 3.0 m alongside its outer face, is situated 2 cables N of Clarke Point.

MacRaes Island

11.238

- 1 Anchorage, confined, but safe, is available midway between the N end of MacRaes Island (45°47'N, 61°03'W) and the S part of Cow Island, close E, in a depth of 12 m, mud. In this position, the SW points of Cow Island and Calf Island close E are in alignment (105°).

Small craft

Little Harbour

11.239

- 1 **General information.** Little Harbour (45°51'N, 60°58'W), a landlocked basin, is entered through a channel, between sandbars, barely 90 m wide, with a least charted depth of 6.4 m, about 1 mile WNW of Militia Point.

Directions. The entrance to Little Harbour may be approached from S, through MacKenzie Cove, avoiding a rocky patch lying about 5 cables S, with a depth of 5 m over it. Pistol Island (45°50'N, 60°59'W) lies in the W part of the cove.

Anchorage. Good small craft anchorage is available in two small coves opening to the S, on the E and W side of the harbour, in depths of 2 to 5 m.

MacLeods Pond

11.240

- 1 **General information.** MacLeods Pond (45°46'N, 60°58'W) is a boat harbour lying S of a curving peninsula forming MacLeods Point. There is a least charted depth of 0.6 m in the entrance.

Directions. MacLeods Pond is approached from NW, passing between reefs on both sides.

Pringle Harbour

11.241

- 1 **General information.** Pringle Harbour (Pringle Cove) (45°46'N, 60°59'W), between Pringle Island and the mainland, is a secure harbour for small craft. Local knowledge is required.

Anchorage is available, except in strong E winds, in the centre of the harbour, in depths to 5.5 m.

Crammond Islands

11.242

- 1 **General information.** A secure harbour for boats lies on the SE side of the channel between the two Crammond Islands (45°45'N, 61°05'W) and is protected by a sandbar. Local knowledge is required.

Directions. The preferred entrance is from the N, in mid-channel, after allowing for a rocky bar extending NE from the W island.

Anchorage is good close inside the harbour, in a depth of 5 m. Elsewhere around the Crammond Islands anchorage is not good, due to the great depths.

North Cove

11.243

- 1 **General information.** North Cove is an inlet W of Ross Point (45°46'N, 61°08'W).

The entrance channel, between shoals with depths of less than 5.5 m on each side, is barely ½ cable wide.

Anchorage. The cove provides secure anchorage in depths of 5 to 7 m, mud.

MacLeod Creek and Ross Pond

11.244

- 1 **General information.** MacLeod Creek and Ross Pond (Ross Creek) are two inlets with a common entrance W of MacKenzies (Widow) Point (45°46'N, 61°07'W). The entrance channel is barely ½ cable in width between shoals on each side.

Anchorage. The inlets provide secure anchorage, in depths of 5 m, mud.

MacIntosh Cove

11.245

- 1 **General information.** MacIntosh Cove, immediately E of McInnes Point (45°43'N, 61°03'W) is accessible to small craft.

Directions. The cove is approached from W passing close S of McInnes Shoals (11.234).

Anchorage is good but very confined, in a depth of 8 m, mud.

Dundee

11.246

- 1 **General information.** Dundee Resort Marina is situated at the entrance to Black River on the SW side of Ballams Point (45°42'N, 61°05'W).

Submarine pipeline is laid from the vicinity of the marina to the SE shore.

- 2 **Directions.** The river entrance is approached from N, passing (with positions from Ballams Point):

E of Ballam Shoal (7 cables NW) (11.234), and:

W of MacRae Island (2 cables NNE), and a reef extending 4 cables WNW, marked by D11 Light-buoy (port hand).

From a position about 5 cables WNW of Ballams Point a buoyed channel leads E to the anchorage.

- 3 **Anchorage.** A confined anchorage for small craft lies off the river mouth; it is surrounded by shoals, and is sheltered by MacRae Island, close N.

Berths. The marina can accommodate vessels up to 12.5 m in length and can provide the usual marina services.

Head of West Bay

11.247

- 1 **General information.** Head of West Bay, entered N of MacIntosh Point (Ballam Head) (45°42'N, 61°07'W), provides reasonable shelter for boats, but has no secure anchorage.

The village of West Bay lies on the shores of Head of West Bay at the extreme W end of West Bay.

Berth. A pier at West Bay village has depths of 4 m alongside its head.

Other names

11.248

- 1 Green Island (45°48'N, 61°01'W).
Rook Island (45°48'N, 61°02'W).
Tailor Shoal (45°47'N, 61°02'W).

SAINT PETERS CANAL

General information

Canadian Chart 4275 (see 1.32)

Description

11.249

- 1 Saint Peters Canal (45°39'N, 60°52'W) connects Saint Peters Inlet with the open sea at Saint Peters Bay (12.141), on the S coast of Cape Breton Island.

The canal is about 3 cables in length, and from its N entrance it leads SSW, curving a little towards S at about its mid point. A tidal lock is located close S of the bend.

- 2 Dimensions of the canal and tidal lock are as follows:
Width of the canal at water level: 16.8 m.
Length of the lock: 91.4 m.
Width of the lock: 14.45 m.
Depth over sills of the lock: 5.5 m.

- 3 The maximum size of vessel that can be accommodated in the lock in Saint Peters Canal is 82.3 m in length, with a draught of 4.88 m.

Water levels

11.250

- 1 The mean level of Saint Peters Inlet, at the N end of the canal is about 0.6 m below the level of high water ordinary spring tides in Saint Peters Bay. Winds may cause a fluctuation of about 0.6 m in the water level in Saint Peters Inlet. There can be a total difference of up to 1.4 m between the water level of the lake and ocean.

Bridge

11.251

- 1 A road bridge, with a manually operated swing span, crosses the canal near the N end; vertical clearance is 6.1 m when closed.

Overhead cables

11.252

- 1 Overhead power lines with a vertical clearance of 32 m cross the canal S of the swing bridge. See cautionary note on the national chart.

Submarine cable

11.253

- 1 A submarine cable is laid across the canal close N of the swing bridge.

Pilotage

11.254

- 1 Pilotage is compulsory; for further information see 11.138.

Regulations

11.255

- 1 Saint Peters Canal is under the jurisdiction of Parks Canada, PO Box 8, Saint Peters, Nova Scotia BOE 3BO.

Any vessel transiting the canal is required to have on board a copy of *Canal Regulations*, obtainable from the Canadian Government Publishing Centre, Supply and Services Canada, Hull, Quebec K1A 0S9.

Canal operations. The opening date and hours of operation for the canal and lock are promulgated each year in *Canadian Notices to Mariners*. The canal is normally open from mid-May to mid-October.

- 2 **Control lights** are exhibited close to each entrance to the lock. No vessel may enter the lock unless a green light is shown. A flashing light indicates that the lock is being prepared.

Speed limit in the canal is 6 kn.

Line handling. It may be necessary to land line-handlers while transiting the canal, as it is difficult to maintain steerage way.

Directions

(continued from 11.209)

11.256

- 1 The N entrance to Saint Peters Canal is approached from the E through a buoyed channel, close S of Handleys Island and S of Sandys Point (45°40'N, 60°51'W). The turn SW to enter the canal is very sharp.

Small craft channel

11.257

- 1 A narrow and shallow passage between shoal ground extending 3 cables SE from Doctor Island (45°43'N, 60°47'W) and Indian Point, on the mainland about 4 cables SE, is usable only by small craft. Local knowledge is required.

Basins and berths

Basin

11.258

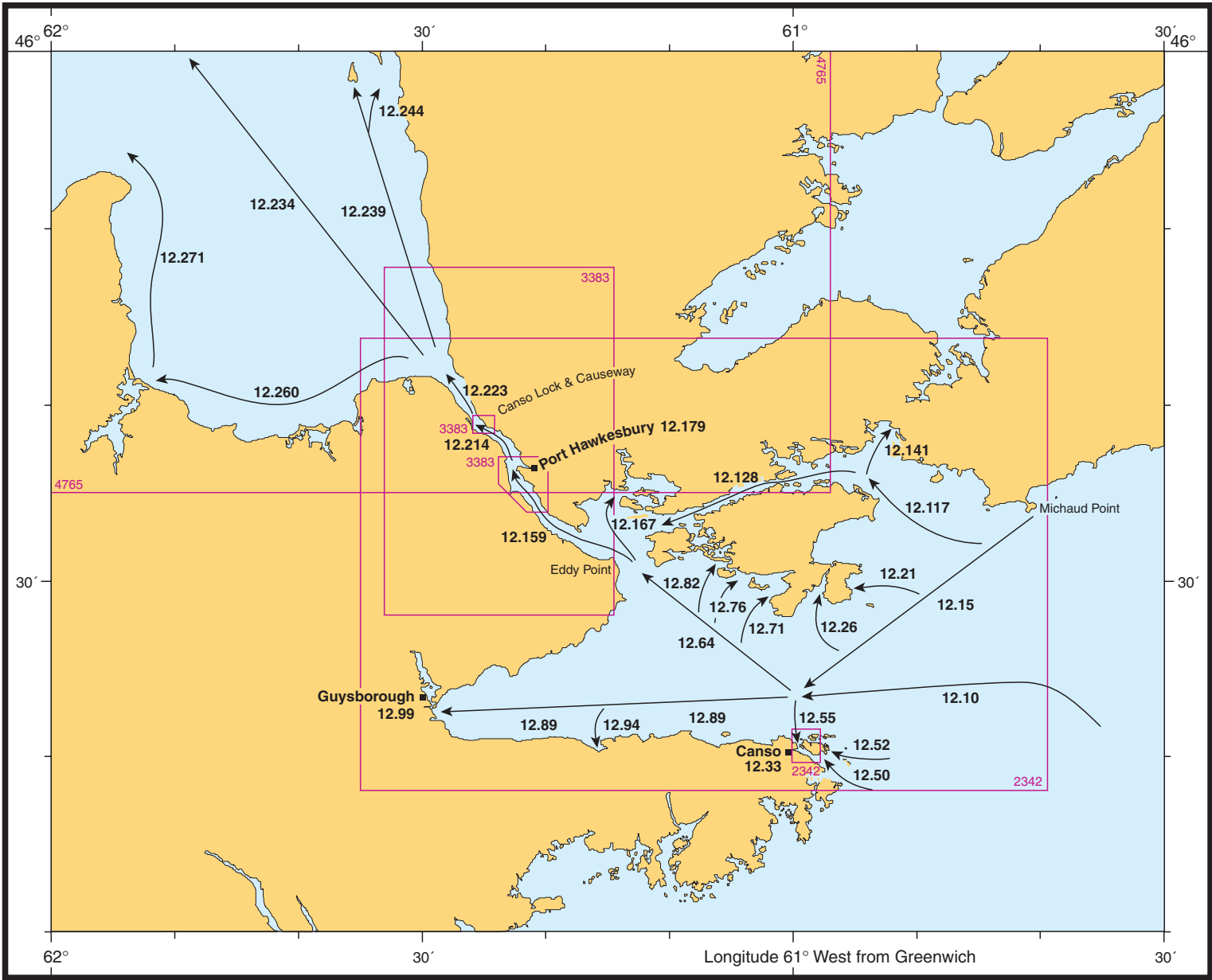
A basin at the S end of the canal has alongside berths for vessels waiting to transit the canal.

Berth

11.259

Wharf, at the N end, on the W side, has a deck elevation of 1.2 m; a gravel boat ramp is located nearby.

Chapter 12 - Chedabucto Bay - Lennox Passage - Strait of Canso and Saint Georges Bay



CHAPTER 12

CHEDABUCTO BAY — LENNOX PASSAGE —
STRAIT OF CANSO AND SAINT GEORGES BAY

GENERAL INFORMATION

Charts 2342, 3383, 4765

Scope of the chapter**12.1**

- 1 The area covered by this chapter comprises the waters between Cape Breton Island and the remainder of Nova Scotia, including Chedabucto Bay (45°25'N, 61°10'W), Lennox Passage (45°35'N, 61°04'W), Strait (Gut) of Canso (45°36'N, 61°23'W) and Saint Georges Bay (45°50'N, 61°40'W).
- 2 It is arranged as follows:
Chedabucto Bay and approaches (12.7).
Michaud Point to Isle Madame and Lennox Passage (12.116).
Strait of Canso with Inhabitants Bay (12.155).
Saint Georges Bay (12.232).

Routes**12.2**

- 1 **Main route.** The main route through the area leads from the Atlantic Ocean, through the traffic separation scheme in the E approaches to Chedabucto Bay, to Port Hawkesbury and Mulgrave (45°37'N, 61°22'W) in the Strait of Canso. After passing through Canso Lock (45°39'N, 61°25'W) the route continues through the Saint Georges Bay traffic separation scheme to Northumberland Strait and the S part of the Gulf of St Lawrence.
- 2 **Inner route.** Lennox Passage leads N of Isle Madame (45°33'N, 61°01'W). St Peters Bay (45°39'N, 60°52'W), at the E end of this passage, gives access to Bras d'Or Lake (Chapter 11).

Vessel Traffic Services Zone Regulations**12.3**

- 3 The waters covered by this chapter, S of Canso Canal North Lock Gate (45°39'N, 61°25'W), are subject to the regulations of the Strait of Canso and Eastern Approaches Vessel Traffic Services (VTS) Zone. Participation in the VTS Zone regulations is mandatory for certain vessels. See *Admiralty List of Radio Signals, Volume 6 (5)* for details.
- 1 **Navigational aids.** Modernisation of marine aids to navigation were reported to be under consideration, by the Canadian Coast Guard, for some of the areas described in

this chapter. Mariners are cautioned that these changes may entail some aids to navigation being discontinued. Known changes are described in the relevant part of the chapter.

Pilotage**12.4**

- 1 Pilotage is compulsory in the Strait of Canso area within lines drawn as follows:
From Green Island (45°29'N, 60°54'W) to Fox Island, 11 miles SW, in Chedabucto Bay, and:
From Low Point (45°43'N, 61°28'W) to Cape Jack, 5 miles WSW, in Saint Georges Bay.
- 2 Pilot boarding positions for vessels approaching from E are established as follows:
Vessels over 223 m in length; 45°24'N, 61°01'W.
Vessels of 223 m in length and under; 45°29'N, 61°11'W.
For vessels approaching from Saint Georges Bay; 45°41'N, 61°28'W.
- 3 ETA at the pilot boarding position should be reported to Pilots, Atlantic Pilot Authority, at least 96 hours in advance of entry into Canadian waters, subsequent amendments to ETA should be notified; GMT should be used. See *Admiralty List of Radio Signals, Volume 6 (5)* for details.

Charted depths**12.5**

- 1 Due to an adjustment to chart datum, in the area S of Canso Causeway (45°39'N, 61°25'W) extending E to a line between Guyon Island (45°46'N, 60°07'W) and Cape Canso, (45°18'N, 60°56'W) and to seaward of the St Peters Canal, (45°39'N, 60°52'W) 0.4 m (1.3 ft) must be added to charted depths, when using Canadian charts.

Natural conditions**12.6**

- 1 **Ice.** The *Ice Advisory and Shipping Support Service* is provided from mid-December to the end of the ice season. Certain buoys in Chedabucto Bay and the Strait of Canso may be removed during the ice season.
- 2 **Fog.** Attention is called to the dangers of fog in this area, consequently it is advisable to give a wide berth to Grime Rock (45°21'N, 60°53'W). See 12.13.

CHEDABUCTO BAY AND APPROACHES

GENERAL INFORMATION

Chart 2342

Area Covered**12.7**

- 1 This section describes the routes through the E approaches into Chedabucto Bay and the associated traffic separation scheme leading to the outer pilot position (45°24'N, 61°01'W). It also describes the port of Canso (45°20'N, 61°00'W).

- 2 It is arranged as follows:
Approach to Chedabucto Bay — main shipping route (12.10).
Michaud Point to Chedabucto Bay (12.15).
Canso Harbour (12.33).
Outer pilot position to Eddy Point (12.64).
Inner part of Chedabucto Bay (12.89).

Traffic separation scheme**12.8**

- 1 A traffic separation scheme is in operation for vessels entering and leaving the E approaches to Chedabucto Bay;

details are shown on the charts. The scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea* (1972), as modified for Canadian waters (1.77) applies. Canadian regulations make it mandatory for all vessels of more than 500 grt to use this scheme. See Appendix II.

- 2 **Caution.** It should be noted that the in-bound lane for traffic approaching from the S crosses out-bound traffic SE of CA Light-buoy.

Local weather

12.9

- 1 Drift ice in May and E winds in June bring fog from a cold sea, and there is seldom any settled warm weather before July.

APPROACH TO CHEDABUCTO BAY — MAIN SHIPPING ROUTE

General information

Chart 2342

Routes

12.10

- 1 From the vicinity of 45°20'N, 60°33'W, the route leads NW into the traffic separation scheme (12.8) leading into Chedabucto Bay (45°25'N, 61°10'W) from the S and E, as indicated on the charts.

The in-bound lanes meet at Chedabucto Bay CA Light-buoy (45°24'N, 60°42'W).

- 2 The main route then leads W for 13 miles, in the traffic separation scheme to the outer pilot boarding position close W of CE light-buoy (45°24'N, 60°59'W).

Principal mark

12.11

- 1 **Major light:**

Cranberry Islands Light (white square tower, 15 m in height) (45°19'N, 60°56'W) on the S part of low rocky islands; a dwelling stands nearby.

Other navigational aid

12.12

- 1 **Racon:**

Cranberry Islands Light — as above. See *Admiralty List of Radio Signals, Volume 2* for details.

Passage Directions

12.13

- 1 From a position SSE of Michaud Point, the track can be joined at the position of the CA Light-buoy either from SE or from E, within the traffic separation schemes as shown on the chart.

From the vicinity of CA light-buoy (45°24'N, 60°42'W) the track leads W, passing:

N of CC Light-buoy (safe water) (45°24'N, 66°50'W); it was reported that this light-buoy may be discontinued, thence:

- 2 N of Grime Rock (45°21'N, 60°53'W) marked by CV1 Light-buoy (port hand) moored 1½ miles E; it was reported in 1997 that this light-buoy may be discontinued. Grime Rock should be given a wide berth as dangers extend 6 miles W, and the 55 m (30 fm) depth contour is only 2 cables outside some of the most dangerous ledges. There is a risk

of sudden fog obliterating the navigational aids. See 12.6.

(Directions continue for entering Canso Harbour from E at 12.52)

- 3 The track then leads to a position N of CE Light-buoy (safe water) (45°24'N, 60°59'W), marking the inner end of the traffic separation scheme, and thence to the vicinity of the outer pilot boarding position (12.4).

12.14

Useful marks:

- 1 Green Island Light (white round tower, 11.5 m in height) (45°29'N, 60°54'W) on the summit of the island.

Cape Hogan (Auguet) Light (white rectangle, red bands, on framework tower) (45°28'N, 61°01'W).

Flag Hill (45°21'N, 61°01'W), a prominent hill on the N side of Durell Island (12.35).

(Directions continue for approach to the Strait of Canso at 12.66, for the inner part of Chedabucto Bay at 12.93 and for entering Canso Harbour from N at 12.55)

MICHAUD POINT TO CHEDABUCTO BAY

General information

Chart 2342

Route

12.15

- 1 From a position SSE of Michaud Point (45°34'N, 60°41'W), the route leads WSW for about 17 miles to the vicinity of the outer pilot boarding position (45°24'N, 61°01'W) close W of CE light-buoy (45°24'N, 60°59'W) where this route converges with the main shipping route (12.10) into the bay.

Principal mark

12.16

- 1 **Major light:**

Cranberry Islands Light (45°19'N, 60°56'W) (12.11).

Directions

(continued from 11.130)

12.17

From a position SSE of Michaud Point (45°34'N, 60°41'W), the track into Chedabucto Bay leads WSW, passing (with positions given from Green Island Light (45°29'N, 60°54'W)):

- 1 SSE of Michaud Ledges (10 miles NE) (drying in places; usually breakers) extending 1 mile from the coast between Michaud Point and Red Point (9 miles E) marked by N18 Light-buoy (starboard hand) (8 miles ESE) moored 1.7 miles SSE of Red Point, thence:

SSE of Orpheus Rock, (1¾ miles E) small; awash; steep-to, marked by NQ1 Light-buoy (port hand) moored about 2 cables E, thence:

- 2 In mid channel between Cape Hogan (Auguet) cliffs 30 m high, the S extremity of Isle Madame and the islands and rocks in the vicinity of Canso (45°20'N, 61°00'W) at the S entrance point to Chedabucto Bay.

Thence the track leads to the vicinity of the outer pilot boarding position (45°24'N, 61°01'W) close W of CE Light-buoy (45°24'N, 60°59'W).

12.18

- 1 **Clearing marks.** The alignment (273°) of the S side of Green Island (45°29'N, 60°54'W) and Heath Head, 2 miles W, passes close S of Orpheus Rock.

Useful marks:

Green Island Light (white round tower, 11.5 m in height) (45°29'N, 60°54'W) on the summit of the island (12.14).

Cape Hogan (Auguet) Light (45°28'N, 61°01'W) (12.14).

- 2 Flag Hill (45°21'N, 61°01'W) (12.14).
(*Directions continue for the approach to Strait of Canso at 12.66, for the inner part of Chedabucto Bay at 12.93 and for entering Canso Harbour from N at 12.55*)

Side channels**Channel between Green Island and Orpheus Rock 12.19**

- 1 The channel leads SW between Orpheus Rock (45°29'N, 60°51'W) and shoal ground with depths of less than 9 m (29 ft) over it, extending 3 cables E from Green Island (45°29'N, 60°54'W). A shoal patch with a depth of 9.8 m (32 ft) over it is found in mid channel.

Clearing marks. The alignment (269°) of the N side of Green Island (44°29'N, 60°54'W) and Heath Head, 2 miles W, passes close N of Orpheus Rock (12.17), but over the 9.8 m patch.

Channel west of Green Island 12.20

- 1 **Caution.** The channel between Green Island (45°29'N, 60°54'W) and Cap Rouge (Red Head), about 1 mile WNW, is liable to be fouled by the gear of numerous fishing vessels.
- 2 **Directions.** From a position about 1 mile N of Green Island, the channel leads SSW, passing (with positions given from Green Island (45°29'N, 60°54'W)):
ESE of shoal ground (4 cables NW) with depths of less than 8.8 m (29 ft), extending about 6 cables E from Cap Rouge, a remarkable cliff, 21 m high, and:
WNW of shoal ground extending about 3 cables W from Green Island with depths of less than 6.4 m (21 ft).
- 3 Attention is called to a rocky patch, with 10 m (33 ft) over it, which lies in the channel, about 3 cables NW of the W end of Green Island.

Petite Anse

Canadian Chart 4307 (see 1.32)

General information 12.21

- 1 **Position.** Petite Anse (45°30'N, 60°56'W) is a cove on the E side of Petit-de-Grat Island.

Arrival information 12.22

Submarine cable. A submarine power cable is laid between Petite Anse (45°30'N, 60°56'W) and Green Island (45°29'N, 60°54'W).

Harbour 12.23

- 1 On the NE side of the cove a breakwater with a length of 183 m, and a depth at its outer end of 0.5 m, extends SE from Birch Island, close E of Birch Point (45°30'N, 60°56'W).
On the N side of the cove a causeway crosses between Birch Island and the mainland.

Directions**12.24**

- 1 From a position 1 mile N of Green Island Light (45°29'N, 60°54'W), the track leads W towards the leading lights.

Leading lights are situated at the head of the cove:

Front light (white trapezium, red stripe, on framework tower, 4 m in height) (45°29'.7N, 60°56'.0W).

Rear light (similar construction, inverted, and tower) (208 m from front light).

The lights are shown from 1st May to 15th December.

The alignment (271½°) of these lights leads towards the buoyed entrance channel, passing, (with positions given from the front leading light):

- 2 N of NS1 Light-buoy (port hand) (8 cables E), thence:
N of shoal ground (5 cables SE) extending about 3 cables NE from an unnamed headland.

Berth**12.25**

- 1 A public wharf, 47 m long, with a depth of 0.6 m at its outer end, is situated near the head of the cove.

Petit-de-Grat Harbour

Canadian Chart 4308 with plan of Petit-de-Grat Inlet (see 1.32)

General information**12.26**

- 1 **Position.** Petit-de-Grat Harbour (45°30'N, 60°58'W) is situated within Petit-de-Grat Inlet, between Petit-de-Grat Island and Isle Madame.
- Function.** Petit-de-Grat is a small fishing harbour. The population of Petit-de-Grat was 979 in 1991. The population of Boudreauville, close W, was 161 in the same year. It is reported that the fish processing plant adjacent to the jetty at Cowley Point has been destroyed.
- 2 **Approach and entry.** Petit-de-Grat is entered from S through a narrow buoyed channel between many rocks and shoals, as shown on the chart. The N entrance, abreast Rantelau Point (45°31'N, 60°57'W) is described at 12.120. The usual entrance is from the S.

Limiting conditions**12.27**

- 1 **Controlling depth.** The principal entrance channel from the S has reported depths of 7.6 m (25 ft) abreast Mouse Island (45°29'.7N, 60°57'.8W) (12.28) reducing to 4 m (10 ft) at the head of the harbour. There is a charted depth of 7.3 m on the leading line ½ mile SW of Mouse Island.
- 2 **Vertical clearance.** A low bridge, with a reported vertical clearance of 3.4 m (12 ft) crosses the inlet between the villages of Petit-de-Grat and Boudreauville close W.
- Deepest and longest berth.** Fish jetty in Joe Bois Cove (12.31).
- 3 **Local weather and sea state.** Access to the harbour is difficult during strong southerly winds as the sea usually breaks across the entrance in the vicinity of Mouse Island.

Arrival information**12.28**

- 1 **Submarine cable.** A submarine power cable is laid between Mouse Island and Petit-de-Grat Island.
Local knowledge is essential.

Harbour**12.29**

- 1 **General layout.** The harbour lies in Petit de Grat Inlet, between Petit de Grat Island and Isle Madame, N of Arrow Point, with berths on both sides of the inlet.

Entrance channel. The principal entrance channel, marked by buoys, is from S.

Directions for entering harbour from south**12.30**

- 1 From the vicinity of CJ Light-buoy (safe water) moored 1 mile E of Guet Point (45°28'N, 61°00'W), the track leads N on the alignment of the outer leading lights.

- 2 **Outer leading lights:**

Front light (white rectangle, red stripe on framework tower, 3 m in height) (45°30'N, 60°58'W).

Rear light (similar construction, and tower 10 m in height) (60 m from front light).

The alignment (356°) of these lights leads into the inlet, passing (with positions given from the front leading light):

E of a patch (7 cables S) with 4 m (13 ft) over it, marked by CJ1 Light-buoy (port hand), thence:

W of Big Arrow Rock (6 cables SSE), dries 0.6 m (2 ft) and its outlying shoal with a depth of 4.9 m (16.1 ft) over it, marked by CJ2 Light-buoy (starboard hand).

- 3 **Inner leading lights:**

Front light (white rectangle, red stripe on framework tower, 4 m in height) (45°30'1N, 60°57'6W).

Rear light (similar construction and tower, 3 m in height) (64 m from front light).

The alignment (034°) of these lights leads through the S part of the inlet, to a position about 2 cables SSE of Cowley Point breakwater (45°30'1N, 60°57'8W) on the W shore, passing (with positions given from the front leading light):

- 4 NW of a shoal with 1.2 m over it (7 cables SSW), W of Arrow Point marked by CJ4 Buoy (starboard hand), thence:

SE of Ingraham Shoal (6 cables SW), thence:

- 5 Between CJ5 Light-buoy (port hand) (3½ cables SW) and CJ6 Light-buoy (starboard hand) lying close W of Mouse Island, thence:

NW of CJ8 Buoy (starboard hand) (3 cables SSW), thence:

Close SE of CJ9 Light-buoy (port hand) (2 cables SW).

- 6 After passing CJ9 Light-buoy, the track leads N to a position 1 cable ESE of Cowley Point breakwater, from which a light (framework mast, 4 m in height) is exhibited, passing W of CJ10 Buoy (starboard hand) (1 cable SSW).

Berths**12.31**

- 1 A public pier with an outer end 32 m long and with depths of 1.8 to 2.7 m alongside is located at Arrow Point on the E shore of the inlet. Fishing jetties exist N of Cowley Point breakwater (45°30'N, 60°58'W), the largest of which is 61 m long with depths of 1.8 to 5.2 m alongside, and in Joe Bois Cove (45°30'N, 60°57'W), where the jetty is 52 m long and has a depth of 3.4 m along both sides of the outer 30 m length. The adjoining wharf, 37 m long, has a depth of 3.4 m alongside. Another public pier, 67 m long, with depths of 3.4 m alongside, is located at Boudreauville on the W shore.

Port services**12.32**

- 1 **Supplies** are available in small quantities.

CANSO HARBOUR AND APPROACHES**General information**

Canadian Chart 4281 plan of Canso Harbour (see 1.32)

Position**12.33**

- 1 Canso Harbour (45°20'N, 61°00'W) is situated at the S entrance point to Chedabucto Bay.

Function**12.34**

- 1 The harbour provides shelter for small vessels and serves the town of Canso. The harbour is open all the year. Imports are oil salt and general cargo. Exports are mainly fish.

Topography**12.35**

- 1 The older part of the town of Canso is built on hills of red sand facing the harbour, and the new part is situated farther W, facing Durell Island (45°21'N, 61°01'W). Most of the islands are rocky and partly covered with dwarf spruce; the outer islands are occupied by fishermen during the season.

Approach and entry**12.36**

- 1 The port is approached and entered through three separate channels all of which lead to Canso Harbour.

Port Authority**12.37**

- 1 Canso Harbour is administered by the Department of Fisheries and Oceans, Small Craft Harbours Branch, 1721 Lower Water Street, PO Box 550, Halifax.

Limiting conditions**Depths****12.38**

- 1 **Approach from south-east.** The least depth is 6.1 m (20 ft) in the SE entrance to the harbour.
- Approach from north.** The least depth is 11.9 m (39 ft) in the N entrance to the harbour.
- 2 **Approach from east.** The least depth shown on the chart is 8.8 m. See caution 12.52.

Deepest and longest berth**12.39**

- 1 Fisheries wharves (12.61).

Tidal levels**12.40**

- 1 Mean spring range about 2.04 m; mean neap range about 0.7 m. See *Admiralty Tide Tables, Volume 2*, for details.

Maximum size of vessel handled**12.41**

- 1 Vessels with a length of 91 m and a draught of 6.7 m can be accommodated in the anchorage.

Ice**12.42**

- 1 Thin ice occasionally forms during the month of February. This sometimes interferes with the working of the port.

Local weather**12.43**

- 1 **Fog.** Great care is necessary in approaching Canso Harbour, especially in fog, as the 55 m (30 fm) depth contour is only 2 cables outside some of the most dangerous ledges.

Arrival information**Notice of ETA required****12.44**

- 1 Vessels should send ETA to the agent 5 days, 72, 48 and 24 hours in advance. See *Admiralty List of Radio Signals, Volume 6 (5)* for details.

Submarine cable**12.45**

- 1 A submarine power cable is laid between Cranberry Islands (45°19'N, 60°56'W) and a point on the mainland about 3 cables SE of Grave Island breakwater. The route of the cable is indicated on the chart and mariners are cautioned not to anchor in its vicinity.

Pilotage**12.46**

- 1 Pilotage is not compulsory. If required, local fishermen will pilot ships, meeting them by arrangement off the harbour or on the fishing grounds outside Canso Ledges (45°20'N, 60°52'W).

Harbour**General layout****12.47**

- 1 Canso Harbour lies between the mainland and Piscatiqui Island (45°21'N, 60°59'W) about 4 cables NE.
A breakwater extends about 1½ cables N from the shore at Lanigan Beach (45°20'N, 60°59'W), with its outer end lying across Grave Island (covers at half tide).
Tickle Channel, a narrow passage with a least depth of 0.3 m (1 ft), separates Durell Island from the mainland.

Tidal streams**12.48**

- 1 The in-going tidal stream sets N and the out-going tidal stream sets S; the directions are probably influenced by winds.
The rates of the tidal streams in the N entrance, where they are strongest, do not exceed 1 kn.

Principal mark**12.49**

- 1 **Major light:**
Cranberry Islands Light (45°19'N, 60°56'W) (12.11).

Directions for entering harbour from south-east

(Continued from Nova Scotia and Bay of Fundy Pilot)

Approach**12.50**

- 1 **Caution.** This approach should only be used in good clear weather.
Leading line. From a position about 2 miles SE of Cranberry Island Light, (45°19'N, 60°56'W) (12.11) the alignment (322°) of the W side of Cranberry Islands with the W side of Derabies Islands, 2 miles NW, leads into the SE approach channel, towards Canso Harbour, passing NE

of PK1 Buoy (port hand) moored 1½ miles SE of Cranberry Islands.

- 2 **Line of bearing.** From a position NE of PK1 Buoy the line of bearing 312° of the SW end of Pettipas (Petit Pas) Island (45°20'3N, 60°57'5W), a grass inlet with a red clay cliff 11 m high on its E side, leads through the outer reach for almost 3 miles, passing (with positions given from Cranberry Islands Light):
3 Clear of a rock (8 cables SSE) with a charted depth of 5.8 m (19 ft) over it, thence:
SW of shoal ground extending about 3 cables SW from Cranberry Islands, with depths of less than 9.1 m (30 ft) over it. The channel is marked by PK2 Buoy. Thence:
4 NE of shoal ground (8 cables WSW) with depths of less than 9.1 m (30 ft) over it extending about 3 cables NE from Black Rocks, two rocks 0.1 and 0.3 m high, thence:
5 NE of Man of War (1 mile W), a rock which covers at half tide; usually marked by breakers, with PK7 Light-buoy (port hand) moored close E.
The track continues NW for about 2 cables then alters W onto the alignment of lights.

(Directions continue at 12.52)

Side channel**12.51**

- 1 A difficult, narrow but navigable channel, marked by buoys, leads between Glasgow Head (45°19'N, 60°58'W) and the rocky bank to the E, on which lie Black Rocks and Bootes Bank.

Directions for entering harbour from east

(continued from 12.13)

Seaward to Grassy Island**12.52**

- 1 **Cautions.** From E, the channel leads through a deepwater channel N of Cranberry Islands, but the risk of sudden fog obliterating the navigational aids must be borne in mind.
2 It is advisable, when passing the dangers on the N side of the channel between Broad Shoal and Pas Reef (45°20'N, 60°57'W) to keep the rear light bearing 268°, open S of the front light, thus following a track in mid-channel.
3 From a position N of Grime Rock (45°21'N, 60°53'W) marked by CV1 Light-buoy (port hand) moored 1½ miles E, the track leads SE, passing E of CV1 Light-buoy, before turning S onto the alignment of Canso Harbour East Leading Lights:
Front light (white structure, red stripe 9 m in height) (45°20'N, 60°59'W) on the mainland, close SE of Lanigan Beach.
Rear light (similar construction, and tower, 14 m in height) (384 m from front light).
4 The alignment (266½°) of these lights leads through the channel, passing (with positions given from Cranberry Island Light (45°19'N, 60°56'W)) (12.11):
S of Bass Rock (2¼ miles NE), marked by PJ2 Light-buoy (starboard hand) moored 1½ cables SSE, thence:
5 Between Sand Shoal (1¾ miles ENE) and White Rock, 2 cables NNW of it, thence:
S of Broad Shoal (breakers), (1 mile NNE), thence:
Close S of a 5.8 m (19 ft) patch (7 cables NNE), thence:

- 6 Between Frying Pan Shoal (5 cables NNW), a low shingle islet near its SW edge, marked by PJ3 Light-buoy (port hand) moored about 3 cables NNE of the islet and Budget Rock (7 cables NNW), thence:
S of Pas Reef (1¼ miles NW), marked by PJ6 Light-buoy (starboard hand).

(continued from 12.50)

- 7 The track continues (with positions given from the front leading light (45°20'N, 60°59'W), near Lanigan Beach):
N of Mackerel Rock (8 cables E), which seldom shows, but it is marked by PJ9 Buoy (port hand) on its NE side, thence:
8 S of PJ10 Buoy (starboard hand) (6 cables E) marking the S end of Grassy Reef, which extends from the SE end of Grassy Island, a clay cliff, thence:
N of South Shoal (4 cables ESE) marked by PM11 Buoy (port hand).
The track then continues to a position SW of PJ12 Light-buoy (starboard hand) (4 cables E). The track then leads NW.

Grassy Point to harbour entrance

12.53

- 1 **Line of bearing.** From a position SW of PJ12 Light-buoy, the line of bearing 300° of Flag Hill (45°21'N, 61°01'W) (12.14) leads NW for about 7 cables to the harbour entrance, but crosses the edge of a bank with depths of less than 9.1 m (30 ft) over it off Lanigan Beach, passing:
2 Between Lanigan Beach, and the shingle bank that extends about 1 cable W from Fort Point, the W extremity of Grassy Island, thence:
NE of shoal ground with depths of less than 5.5 m (18 ft) over it, extending about 2 cables NE from the breakwater head, thence:
3 SW of a 4.6 m rocky patch, lying about 1 cable NNE of the breakwater head, marked by PJ18 Buoy, (starboard hand) moored close SE.
The track then continues to a position N of the breakwater head and between the breakwater head and Hart Island (3 cables NNW).

Harbour entrance

12.54

- 1 From a position N of the breakwater head, the track leads W into Canso Harbour, passing (with positions given from the breakwater head):
S of PCA Light-buoy (preferred channel to port) (1 cable NNW) thence to the chosen anchorage, or, if proceeding to the wharves at Canso:
2 N of Harbour Shoal Light-beacon (white tower, red band on top, 3 m in height) (4 cables W) standing on a rock at the N end of shoal ground E of the wharves, thence:
S of a number of buoys (starboard hand) marking Harbour Shoal and rocky patches which fill the N part of the harbour.
3 **Useful marks:**
The alignment (226°) of Grave Island breakwater head and the church spire (below) about 3 cables SW, indicates the turning point for the harbour entrance.
4 Church (spire) (45°20'N, 60°59'W) standing on a 30 m ridge near the E end of the town.

Directions for entering harbour from north

(continued from 12.14 and 12.18)

Approach

12.55

- 1 From the vicinity of the outer pilot boarding position close W of CE Light-buoy (45°24'N, 60°59'W), the track leads SSE for about 2 miles to the vicinity of PC Light-buoy (safe water) (45°22'N, 61°00'W).

Seaward to Piscatiqui Island

12.56

- 1 **Leading lights,** front light intensified on the leading line:
Front light (white trapezium, red stripe, on framework tower, 6 m in height) (45°20'6N, 60°59'5W) on the NW end of Hart Island.
Rear light (similar construction, inverted, and tower, 9 m in height) (117 m from front light).
2 The alignment (169¾°) of these lights leads through the buoyed approach channel for about 2 miles, passing (with positions given from the front light):
ENE of Net Rocks (7 cables NNW), thence:
Between PC2 Light-buoy (starboard hand) (6 cables NNW) and PC3 Buoy (port hand), close E, thence:
3 Between Bald Reef (5 cables N) and a patch with 4 m (13 ft) over it, lying 1 cable W of the reef, thence:
WSW of Bald Rock (4 cables N), thence:
WSW of PC5 Light-buoy (port hand) (2¾ cables N).
The track then continues to a position ENE of PC6 Light-buoy (starboard hand) (1½ cables N).

Piscatiqui Island to harbour entrance

12.57

- 1 **Leading line.** From the above position, the line of bearing 138° of Glasgow Head (red clay cliff) (45°19'N, 60°58'W) seen midway between Piscatiqui Island and Hart Island leads in mid-channel for about 3 cables, to a position NE of the SE extremity of Hart Island abreast Piscatiqui Island Light (framework tower, 3 m in height).
2 **Canso Harbour Leading Lights:**
Front light (white mark, red stripe on framework tower, 3 m in height) (45°20'2N, 60°59'1W) on Grave Island breakwater head.
Rear light (similar construction and tower, 5 m in height) (62 m from front light).
3 From a position NE of the SE extremity of Hart Island, abreast Piscatiqui Island Light, the alignment (164½°) of the above lights leads SSE, passing (with positions given from the front leading light):
ENE of rocky patches (2 cables NNW), marked by PC12 Buoy (starboard hand), thence:
WSW of Starling Rock Light-beacon (white round tower, red band at top, 3 m in height) (1½ cables N), thence:
4 Between the rocky patches (1 cable N), with 4.6 m (15 ft) of water over them and the SE extremity of the area of rocks and shoals extending 2 cables SSE from Hart Island, marked by PCA Light-buoy (preferred channel to port).
The track then continues to a position N of the breakwater head.

Useful mark

12.58

- 1 Flag Hill (45°21'N, 61°01'W) (12.14).
(Directions continue, for entering harbour at 12.54)

Small craft channels

12.59

- 1 **False Passage** (45°20'·6N, 60°59'·8W) is a shallow channel, marked by buoys, between Beacon Ledges (False Passage Ledge) (45°20'·6N, 60°59'·6W) and Durell Island. This passage is used by fishermen, and should not be attempted without local knowledge.

East of Piscatiqui Island. A narrow boat channel leads between Piscatiqui Island (45°21'N, 60°59'W) and George Island, close E.

East of George Island. A narrow boat channel leads between George Island and Oliver Island, close E.

Basins and berths

Basin

12.60

- 1 An area dredged (1965) to a depth of 4.9 m extends about ½ cable off the wharves of Canso, as indicated on the chart.

Alongside berths

12.61

- 1 The longest wharf is stated to be 57 m long, with a maximum depth alongside of 5.8 m.
A number of smaller wharves with a maximum depth of 3 m alongside are situated in the Tickle Channel, between Durell Island and the mainland.
- 2 Alongside depths are reported depths. The port authorities should be contacted for the latest information.

Port services

12.62

Other facilities. Cottage hospital at Canso.

Supplies: ships stores; fuel oil; diesel oil; fresh provisions and water in limited quantities.

Other names

12.63

- 1 Black Rock (45°21'N, 60°59'W).
Calf Rock (45°20'N, 60°56'W).
Cow Rock (45°20'N, 60°56'W).
Crow Island (45°21'N, 60°57'W).
Crow Reef (45°20'N, 60°57'W).
- 2 Fanning Rock (45°20'N, 60°55'W).
Flag Island (45°21'N, 61°01'W).
Kelp Rocks (45°21'N, 60°56'W).
Park Ledge (45°21'N, 60°56'W).
Scott Rock (45°20'N, 60°55'W).
- 3 Welsh Island (45°21'N, 60°58'W).

OUTER PILOT POSITION TO EDDY POINT

General information

Chart 2342, Canadian Chart 4307 (see 1.32)

Route

12.64

- 1 From the vicinity of the outer pilot position, (45°24'N, 61°01'W), the route through Chedabucto Bay leads W for 2½ miles towards CF Light-buoy (safe water), then NW for 8 miles towards the inner pilot position (45°29'N, 61°11'W) about 1¾ miles ENE of Red Head (45°29'N, 61°14'W). The route then leads to a position N of Eddy Point (45°31'N, 61°15'W).

Pilotage

12.65

- 1 Pilotage is compulsory. See 12.4 for the boarding positions. See *Admiralty List of Radio Signals, Volume 6* (5) for details.

Directions

(continued from 12.14 and 12.18)

Outer pilot position to Red Head

12.66

- 1 From a position in the vicinity of the outer pilot boarding position (12.4) the track leads W for 2½ miles, passing CF Light-buoy (safe water), before turning NW onto the line of Durell Island Leading Lights.

Durell Island Leading Lights:

Front light (white trapezium, black stripe, on framework tower, 7 m in height) (45°21'N, 61°01'W).

- 2 Rear light (similar construction and tower, 20 m in height) (839 m from front light).

From a position about 1 mile W of CF Light-buoy (safe water) moored 3 miles NNW of the front leading light, the alignment (140°), astern, of these lights leads through the SE part of the buoyed channel, passing (with positions given from Durell Island front leading light):

Between C1 Light-buoy (port hand) and C2 Light-buoy (starboard hand) (5¾ miles NW), thence:

- 3 About 1½ miles SW of Cerberus Rock (7½ miles NNW), which is steep-to and nearly always indicated by breakers, marked by CH4 Light-buoy (starboard hand) moored 3 cables S, and by a wreck with masts visible, on its NE side.
- 4 The track continues NW to the vicinity of the inner pilot boarding position, situated about 2 miles E of Red Head. Red Head (45°29'N, 61°14'W) is a small peninsula (elevation 17 m (56 ft)), bare of trees, with a red cliff fronting the sea. It is joined to the mainland by a low shingle isthmus.

The track then continues NW, passing:

- 5 Between C7 Light-buoy (port hand) and C8 Light-buoy (starboard hand), (9¾ miles NW), thence:

NE of CS1 Light-buoy (port hand) (11 miles NW). A wreck with a depth of 8.2 m (27 ft) over it, lies 3 cables SW and Argos Shoal lies 2½ cables WNW of the buoy.

- 6 The alignment of Durell Island leading lights is coincident with the Port Malcolm leading lights (12.68) ahead.

12.67

Useful marks:

Cape Hogan Light (45°28'N, 61°01'W) (12.18).
Marache Point Light (white tower, 7 m in height) (45°29'N, 61°02'W).
Arichat Head Light (white rectangle, red bands, on framework tower) (45°30'N, 61°06'W).

Red Head to Eddy Point

12.68

Port Malcolm Leading Lights:

Front light (white trapezium, red stripe, on framework tower, 10 m in height) (45°35'N, 61°17'W), near the shore at Seacoal Bay.

Rear light (similar construction, inverted, and tower, 19 m in height) (791 m from front light).

The fixed lights are visible on the leading line only.

These leading lights are coincident with the Durell Island Leading Lights.

- 2 From a position NE of CS1 Light-buoy (port hand) (45°29'N, 61°12'W), the alignment (320°) of these lights leads through the buoyed channel SW of Janvrin Island (45°32'N, 61°10'W), passing (with positions given from Eddy Point) (45°31'N, 61°15'W):

- 3 SW of Peninsula Shoals, (3 miles SE) (a rocky area extending 1 mile SSE from Peninsula Point (low red cliffs; appears as an island), the S extremity of Janvrin Island, thence:

SW of Wasting Rocks (2 miles E) drying 2.1 m, which stand on a large drying bank of sand and stones, extending about 5 cables S from Janvrin Point, the SW extremity of Janvrin Island. Wasting Rocks are marked by C10 Light-buoy (starboard hand), thence:

SW of Janvrin Shoal (1½ miles E), extending about 6 cables W from Janvrin Point, thence:

- 4 NE of C11 Light-buoy (port hand), which is moored 6 cables NE of Eddy Point.

The track then leads to a position N of Eddy Point (45°31'N, 61°15'W), which consists of sand and gravel, enclosing a small pond.

12.69

- 1 **Useful marks:**

Eddy Point Leading Lights (45°31'N, 61°15'W) (12.165). The flashing lights are visible all round. Radio tower (elevation 87 m), on the summit of a small hill, 5 cables SSW of Eddy Point. (*Directions continue for Strait of Canso at 12.163 and for Inhabitants Bay at 12.168*)

Anchorage

Chedabucto Bay deep water anchorages

12.70

- 1 Six designated anchor berths, as indicated on the chart, for vessels over 19.8 m in length, are established in Chedabucto Bay, SW of the route between the outer pilot boarding position (45°24'N, 61°01'W) and Eddy Point.

Arichat Harbour and Cape Auguet Bay

Canadian Chart 4308 (see 1.32)

General information

12.71

- 1 **Position and function.** Arichat Harbour (45°30'N, 61°02'W) lies 2½ miles N of Cape Hogan (Auguet). It is a small fishing port, situated on the N shore, with a good anchorage. The harbour is used by fishing vessels of up to 70 m length. Population in 1991 was 886. In 2000, several aquaculture pens were in place off the N side of Jerseyman Island in the vicinity of Cage Shoal and Poule Reef.

- 2 **Topography.** The surrounding country has a bare appearance.

- 3 **Approach and entry.** The harbour may be approached from two directions. The S entrance lies NW of Marache Point (45°29'N, 61°02'W); this is the wider channel, but it is tortuous and encumbered with shoals. The N entrance, through Crid Passage lies N of Jerseyman Island (45°30'N, 61°03'W).

Limiting conditions

12.72

- 1 **Deepest and longest berth** is the public wharf (12.79). **Ice.** The harbour is open practically all the year round.

Fog. During the late spring and in summer, E winds often bring fog.

Harbour

12.73

- 1 **General Layout.** The harbour extends 2¼ miles E from Beach Point, the N extremity of Jerseyman Island, to the head of the inlet.

Tidal stream. The in-going tidal stream enters through the S entrance and flows N and W through the harbour. The out-going tidal stream sets in the opposite direction. The rate of the tidal streams seldom exceeds 1 kn.

- 2 **Submarine cable.** A submarine cable, marked by signs at each landing, is laid across Crid Passage. Mariners are warned not to anchor in this vicinity.

Landmark:

Church (two red-topped towers) (45°30'·6N, 61°02'·0W) in Arichat is very prominent.

Directions for entering harbour by the south entrance

12.74

- 1 **Seaward to Cape Auguet Bay.** From a position about 2 miles S of Cerberus Rock (45°28'N, 61°06'W) (12.66) the line of bearing (037°) of the church (one small cupola) (45°30'·7N, 61°01'·2W) in Arichat, just open of the E point of Jerseyman Island, leads towards the S entrance, passing (with positions given from Marache Point (45°29'N, 61°02'W)):

- 2 NW of Hautfond Shoals (1 mile SW), marked on the SW side by CK2 Buoy (starboard hand), thence: SE of Henley Ledges (black rocks, generally breakers), marked by CK3 Buoy (port hand), thence:

NW of Marache Point, keeping in deep water, clear of the numerous shoal patches.

- 3 The track then leads ENE for about 1 mile towards Cape Auguet Bay (with positions given from Marache Point (45°29'N, 61°02'W)):

- 4 NNW of shoal ground extending 1½ cables NW of Marache Point, marked by CK4 Buoy (starboard hand), thence:

SSE of Pilot Rock (8 cables N), marked by CK5 Buoy (port hand), and:

- 5 NNW of shoal ground extending 1½ cables from Cape Arichat (6 cables NE). Cape Arichat is not named on BA Chart 2342.

12.75

Cape Auguet Bay to Arichat Harbour. From a position in Cape Auguet Bay, about 8 cables NNE of Marache Point, the line of bearing 340° of the church (45°30'·6N, 61°02'·0W) (12.73) leads into Arichat Harbour, passing (with positions given from the church):

- 1 ENE of Pilot Rock (1 mile S) (12.74), thence:
- 2 ENE of Poule Reef (6 cables S), marked by CK7 Buoy (port hand), close W of the reef, thence: WSW of Campbell's (Fiddle) Shoal (6 cables SE) and marked by CK8 Buoy (starboard hand).

- 3 This track leads over shoal patches with depths of 8.8 m (29 ft) over them and to within ½ cable of depths of 6.7 m (22 ft) over them.

(*Directions continue for Arichat Harbour at 12.77*)

Directions for entering harbour by the north entrance

12.76

- 1 **Seaward to Crid Passage.** From a position SW of Arichat Head (45°30'N, 61°06'W), the line of bearing 072° of the church at Arichat (12.73) leads towards Crid Passage passing, (with positions given from Arichat Head):

SSE of Crichton Shoal (8 cables WSW), marked by CN2 Light-buoy (starboard hand), thence:

SSE of Picard Reef (4 cables SE), thence:

- 2 NNW of shoal ground, with depths of less than 5.5 m (18 ft) over it, extending 6 cables WSW from Jerseyman Island, with a rocky patch with a depth of 3.4 m (11 ft) over it at its W extremity; CM2 Buoy (starboard hand) marks the NW side of the shoal ground. Thence, through Crid Passage.

12.77

- 1 **Crid Passage to harbour.** The recommended track into the E part of Arichat Harbour runs parallel with the N shore, at a distance of about 1 cable, until Marache Point is shut in by Kavanagh Point (1½ miles NNE of Marache Point). Beyond this, there are good depths close up to both shores, until about 1¾ cables from Babin Point at the head of the harbour.

Clearing bearings:

- 2 The line of bearing 076° of Arichat church, open S of Crid Islands (rocky), 1.2 miles W of the church, passes 4 cables S of Crichton Shoal.
The line of bearing 269° of the S side of Crichton Island, open N of Beach Point, passes N of Cage Shoal and the rocks and foul ground that fill the whole bay on the NE side of Jerseyman Island.

- 3 **Useful mark:**

Beach Point Light (white structure, 8 m in height) (45°30'N, 61°03'W).

Anchorage berths

12.78

- 1 **Cape Auget Bay**, 1 mile NE of Marache Point, affords fairly good anchorage in depths from 18 to 22 m (59 ft to 12 fm), mud; the best position is in the deepest water, clear of the rocky patch with 7 m (23 ft) over it, lying 4 cables SSW of Kavanagh Point, the N entrance point to the bay. A heavy S swell affects this anchorage at times.
- 1 **Arichat Harbour.** Good anchorage is available in depths from 18 to 22 m (59 ft to 12 fm) about 5 cables E of Beach Point; this position is indicated on the chart. Recommended anchorage for small craft is at the head of Arichat harbour.

Alongside berths

12.79

- 1 The public pier (45°31'N, 61°01'W) at Arichat is L-shaped and extends from the N shore about 6 cables E of the church; the berth on its outer face is 37 m in length, and 15 m wide with a depth of 4.9 m alongside. A pier 18 m long, drying 0.6 m alongside, is situated near Robin Point on the S shore of the harbour, about 4 cables ENE of Kavanagh Point.

Port services

12.80

- 1 **Other facilities:** a small hospital in Arichat.
Supplies: provisions, fuel and diesel oil are available; fresh water is available from the fish plant.

Small craft

12.81

- 1 **Robins Point.** The local boat club operates from a small cove to the W of Robins Point (shown as Robin Point on Canadian charts) on the SE side of the harbour. There is a small wharf, a ramp, and several floating finger piers.

West Arichat Harbour

General information

12.82

- 1 **Position.** West Arichat Harbour (45°31'N, 61°06'W), a small but secure harbour for fishing vessels, is situated N of Crichton Island.

Harbour

12.83

- 1 **General layout.** The inner harbour is contained between Crichton Island and the SW side of Isle Madame. A causeway, which joins Crichton Island to Isle Madame, forms the head of the inner harbour.

Directions for entering harbour

12.84

- 1 **Approach.** From a position NW of Crichton Shoal (45°30'N, 61°07'W), the track leads NE towards a buoyed entrance channel, passing between shoal ground (2 cables NW of Crichton Head) and an area of rocks and shoals extending 3 cables farther NW. Local knowledge is required.
- 2 **Directions for entering inner harbour.** From West Arichat Harbour, a buoyed channel leads SE into the inner harbour, passing between the SE side of Isle Madame at Bosdet Point, and the N point of Crichton Island at Crichton Point, a long spit of sand and shingle with some buildings on it, 1½ cables WSW.
- 3 **Clearing bearing.** The line of bearing 061° of the N extremity of Bosdet Point, just open N of Crichton Island, clears about 2 cables NW of Crichton Shoal.
- 4 **Useful mark:**
Crichton Head Light (red rectangle, white bands, on framework tower, 7 m in height) (45°30'·7N, 61°06'·3W).

Berths

12.85

- 1 **Anchorage berth** may be obtained in depths of from 2 to 3.7 m (6 to 12 ft), in the inner harbour, up to a distance of about 5 cables E from the entrance. The anchorage is said to be secure.
- 2 **Alongside berths.** Alongside depths are reported depths. The port authorities should be contacted for the latest information. A L-shaped public pier, (45°31'N, 61°05'W) extends 43 m with a berth 15 m long, at the pierhead and a depth of 1.5 m alongside. The pier projects S from Bosdet Point. A light (framework tower, 3 m in height) is exhibited on the pierhead. A small wharf is located on the N shore of the inner harbour, nearly 4 cables E of the public pier.

Small craft

Le Blanc Harbour

12.86

- 1 **Description.** Le Blanc Harbour (45°32'N, 61°06'W) is used by small craft in the fishing season.
Vertical clearance. A bridge with a vertical clearance of 2.4 m (8 ft) spans Mousselières Passage.
- 2 **Directions.** From a position in the outer part of West Arichat Harbour (12.82), the entrance to Le Blanc Harbour, at the NE corner of the bay, has charted depths of 0.3 m (1 ft) in the fairway, but there are greater depths within Le Blanc Harbour. Mousselières Passage (45°32'N, 61°08'W), at the W end of Le Blanc Harbour, leads into Haddock Harbour where there are depths of 1.5 m (5 ft) in the narrow boat channel between the mussel beds.

Janvrin Harbour and Deep Cove**12.87**

1 **Description.** Janvrin Harbour (45°32'N, 61°10'W) and Deep Cove, 1½ miles E, are suitable only for small craft.

2 **Directions.** The common entrance to these harbours is barred by Doreys (Dorey) Ledge, which extends from Delorier Island, close E of Delorier Point (45°31'N, 61°10'W), to Dorey Point, 1½ miles farther E; the channel over the bar is marked by buoys. The entrance to Janvrin Harbour is marked by buoys moored about 2 cables NNE of Delorier Island.

3 **Berth.** A public wharf extends 47 m from the N shore, with a charted depth of 1.5 m alongside.

Other names**12.88**

Bentinck Shoals (45°31'N, 61°10'W).
Moyac Point (45°28'N, 61°02'W).

INNER PART OF CHEDABUCTO BAY**General information**

Chart 2342, Canadian Charts 4307, 4335 (see 1.32)

Route**12.89**

1 From a position in the vicinity of the outer pilot position (45°24'N, 61°01'W) the route leads W for about 19 miles to the head of the bay and Guysborough Harbour entrance (45°23'N, 61°29'W).

Topography**12.90**

1 The S shore between Durell Island (45°21'N, 61°01'W) and Guysborough Harbour is composed of rocks, partially covered with sand, clay and boulders, with high reddish cliffs showing in places. The coast between Crow Cliffs (45°21'N, 61°18'W) and the mouth of Salmon River, 6¾ miles farther W, is hilly, bold and rocky.

2 On the N shore, the distinctive features are several points of land, with low cliffs to seaward, joined to the mainland by shingle beaches, and enclosing large ponds. NW of these ponds, the land slopes to a ridge about 60 m high. Ragged Head (45°25'N, 61°23'W) is a remarkable rocky peninsula, which appears as an island from a distance.

3 The inner part of Chedabucto Bay, W of a line drawn between Durell Island (45°21'N, 61°01'W) and Red Head (45°29'N, 61°14'W) (12.66) has a number of small harbours and anchorages along its shores, mainly on the S side, and Guysborough Harbour at its head.

Depths**12.91**

1 The 11 m (36 ft) depth contour lies generally about 1 cable offshore, but extends to about 5 cables in the vicinity of Durell Island and Fox Island, 3 miles W.

Swell**12.92**

1 During periods of heavy swell from E, common in this bay, Hydra Shoal, also known as Big Shoal, (45°26'N, 61°16'W) is marked by heavy breakers; mariners are advised to approach this shoal with caution, especially from SW, as there are no good clearing marks for that side.

Directions

(continued from 12.14 and 12.18)

12.93

2 From the vicinity of the outer pilot position (45°24'N, 61°01'W) the track leads W, passing (with positions given from Red Head (45°29'N 61°14'W)):

S of Hydra Shoal (Big Shoal) (3¾ miles SW) (12.92), thence:

S of a rocky patch, with a depth of 9.8 m (32 ft) over it (5 miles SW), thence:

3 Close to CQ Light-buoy (safe water) (12 miles SW) at the approaches to Guysborough Harbour.

Clearing bearing. The line of bearing 018° of Thomas Head (45°33'N, 61°12'W), open E of Red Head, 3¾ miles SSW, (12.64) clears ESE of Hydra (Big) Shoal.

4 **Useful marks:**

Radio tower, elevation 77 m (45°20'N, 61°05'W).

Rook Island Light (white building) (45°21'N, 61°16'W).

Guysborough Light-house (disused) (45°22'N, 61°29'W) close S of the entrance to Guysborough Harbour.

(Directions continue for entering

Guysborough Harbour at 12.103)

Queensport**General information****12.94**

1 **Position and function.** Queensport (45°21'N, 61°16'W) provides anchorage and alongside berthing. The village of Queensport, with a population of 103 in 1991, is situated on the NE side of the harbour.

Arrival information**12.95**

1 **Local knowledge** is necessary for the channels into Queensport.

Directions for entering harbour**12.96**

1 From a position 1 mile N of Rook Island Lighthouse (45°20'9N, 61°16'3W), about 4 cables W of Brodie Point, the main channel, 3 cables wide, with depths of from 11 to 24 m (36 ft to 13 fm) leads S, passing (with positions given from Rook Island Light-house):

2 E of the NE edge of Corveau Rocks (4 cables W) which extend 4 cables E from Lamb Point, thence: W of shoal ground extending 1 cable W from Rook Island. A light (white building, 10 m in height) is exhibited on Rook Island.

The track then leads ESE for about 6 cables into the harbour.

Side channel**12.97**

1 Another channel, about 1 cable wide, with a least depth of 6.1 m in the fairway, lies between Rook Island and Brodie Rocks (awash in places) about 2½ cables E.

Berths**12.98**

1 **Anchorage berth.** Anchorage with depths of more than 11 m (36 ft) may be obtained in the E part of the harbour, which is the only part free from the heavy swell that occasionally rolls in. Anchorage space is limited, but the holding ground in Queensport is good.

2 **Alongside berth.** A public breakwater-wharf is situated in the NE side of the harbour, 0.3 miles SE of Brodie

Point. The wharf extends 40 m E from the breakwater, with alongside depths of 2.1 to 5.5 m on the S face and 3 to 4.6 m on the N face. The wharf is reported to give good shelter.

Guysborough Harbour

General information

12.99

- 1 **Position.** Guysborough Harbour (45°23'N, 61°30'W), is situated at the W head of Chedabucto Bay.

Function. Guysborough Harbour is mainly used by fishermen. The village of Guysborough, with a population of 513 in 1991, is situated on the W shore above Fort (Eliza) Point.

Approach and entry. The port is approached through a narrow channel which crosses the bars at the entrance.

Limiting conditions

12.100

- 1 **Controlling depth.** The least depth in the channel over the inner bar is about 5.1 m (17 ft).

Deepest and longest berth. The public wharf at Guysborough, see 12.104.

- 2 **Local weather and sea state.** At times the outer bar is impassable owing to heavy breakers, particularly when E swells meet the out-going tidal stream. The entrance is sometimes impassable due to heavy breakers.

Arrival information

12.101

- 1 **Outer anchorage.** Good anchorage is available in almost any part of the harbour. Good anchorage in depths of from 11 to 15 m (36 to 49 ft) is available NE of Guysborough.
- 2 **Local knowledge** is essential for the safe navigation of any vessel entering or leaving Guysborough Harbour.

Harbour

12.102

- 1 **General layout.** From its entrance abreast Peart Point (45°23'N, 61°29'W) the harbour leads N, between hills on both sides, for about 3½ miles to Milford Haven Bridge, at the mouth of Guysborough River.

Fish farms exist on the W side of the harbour, N of Lodge Point (45°24'N, 61°30'W); mariners are advised to proceed with care in their vicinity.

Tidal streams can reach a rate of 4 to 5 kn in the entrance channel.

Directions for entering harbour

(continued from 12.93)

12.103

- 1 From the vicinity of CQ Light-buoy, (safe water) moored 1 mile ESE of Guysborough Lighthouse, (disused), (45°22'N, 61°29'W), the line of bearing 270° of that lighthouse leads over the outer sand-bar, with depths of about 5.5 m (18 ft) over it, to a position about 1 cable from the shore. Thence the track turns N, through the entrance channel, passing:
 - CQ2 Light-buoy (starboard hand), marking the starboard side of the channel, thence:
- 2 About ¼ cable off the beach in the vicinity of Peart Point, thence:
 - Through the channel, about 90 m wide, between Peart Point and Stony Patch, ½ cable NE, thence:

- 3 Through the channel, with the same width over the inner bar between Fort (Eliza) Point and Hadley Beach, 1½ cables E. For depths, see 12.100.

After crossing the inner bar the harbour channel leads NW to the anchorage off Guysborough.

Berths

12.104

- 1 The public wharf at Guysborough is situated 7 cables NW of Fort Point. The berthing face is 50 m long, with depths of 1.5 m at the S corner to 4.6 m alongside. A ramp is situated at the N end of the wharf. The wharf is lit and electricity is available.

Port services

12.105

- 1 **Other facilities:** hospital at Guysborough.
Supplies: stores in small quantities; fresh water is reported to be available by water boat.

Small craft

12.106

- 1 **General information.** Alongside depths are reported depths. The port authorities should be contacted for the latest information.
- 2 **Anchorage berths:**
 - Ingersol Creek. One or two small craft may anchor off the mouth of Ingersol Creek, close SW of Fort (Eliza) Point. In this position a vessel is out of the main tidal stream and Stony Patch provides shelter from the E.
- 3 Mussel Cove. Small craft may find shelter in Mussel Cove, W of Lodge Point (45°24'N, 61°30'W). The cove is entered on the alignment (224½°) of leading beacons (white daymarks with a red stripe, on framework towers) situated close W of Lodge Point. Depths in the cove are between 3.7 m (12.1 ft) and 11 m (36 ft). Mooring buoys for small craft lie in the cove and a pontoon, with a depth of 2.4 m alongside, is situated on the S side. Normal facilities are available.

Anchorage and harbours on south side of Chedabucto Bay

Fox Bay

12.107

- 1 **Description.** Fox Bay Harbour (45°21'N, 61°07'W) is sometimes used as an anchorage for fishing vessels.
Depths of 7.3 to 12.8 m (24 to 42 ft), sand, are found within the bay.

Anchorage may be obtained within the bay in the depths shown, but mariners are warned that the anchorage is insecure, being open to N winds and subject to heavy swell from the E. Mariners are further warned that several abandoned submarine cables are laid across the E part of the bay.

Half Island Cove

12.108

- 1 **Description.** Half Island Cove (45°21'N, 61°12'W) is an insecure anchorage port, with a small jetty.
- 2 **Directions.** Half Island Cove is entered between the W extremity of Gaulman Point and Huss Head, 7 cables W. A rock which dries 1.8 m (6 ft) is situated close E of Huss Head.
- 3 **Anchorage** may be obtained E of rocky ground extending 1 cable from Half Island, on the W side of the bay, but it is insecure, being open to NE winds and swell.

- 4 **Landing.** A public breakwater-wharf extends 104 m S from the E entrance point of the cove. The E face offers fair shelter for small craft; the outer end has a depth of 6.1 m alongside. The SW corner is foul.

Anchorage and harbours on the north-west side of Chedabucto Bay

Ragged Head Pond (Ragged Head)

12.109

- 1 **Description.** Ragged Head Pond (Ragged Pond) (45°25'N, 61°23'W) is enclosed by Ragged Head and the shingle ridges running NE and NW to the mainland. Small craft can enter at HW by a narrow channel on the W side of Ragged Head.
- 2 **Depths** of 3.7 to 9.1 m (12 to 30 ft) are reported to exist in the bay.

Clam Harbour Bay (Moose Bay)

12.110

- 1 **Description.** Clam Harbour Bay (Moose Bay) (45°25'N, 61°24'W) is entered between Ragged Head and Moose Head (Point) about 2¼ miles WSW. The bay has a beach of shingle, broken in places by shallow inlets leading into ponds.
- 2 **Anchorage** may be obtained in depths of 9 to 13 m (30 to 42 ft), sand and mud, clear of the sand flat that extends nearly 5 cables from the E shore of the bay. The anchorage is safe only in fine weather, as there is usually a heavy swell.

Small craft on the south side of Chedabucto Bay

Philips Harbour (Philip Cove)

12.111

- 1 Philips Harbour (Philip Cove) (45°21'N, 61°15'W) provides shelter for small craft.
- The cove is protected by rocks across the entrance, which dry soon after HW.

Halfway Cove

12.112

- 1 Halfway Cove (45°21'N, 61°23'W) can be used as a landing place for small craft.

Salmon River

12.113

- 1 Salmon River (45°21'N, 61°28'W) can only be accessed by small craft.
- The entrance to Salmon River is obstructed by a shingle spit that extends N from the S shore. The depth over the bar is 0.9 m (3 ft), but within the bar the river expands into a basin about 2 miles long, navigable by small craft. A road bridge spans the harbour about 3 cables SW of the entrance.

Cooks (Toby) Cove

12.114

- 1 Cooks (Toby) Cove (45°22'N, 61°29'W) is a small boat harbour situated about 5 cables W of Bigby Head.
- Bigby Head is a remarkable cliff 33 m high on the S side of the entrance. There are depths of 1.2 m (4 ft) over the bar at the entrance.
- A L-shaped public wharf on the S shore of the cove extends 70 ft (21 m) from the shore. The outer face, 11 m long, has a least depth of 3.7 m alongside.

Other names

12.115

- 1 Fogherty Head (45°21'N, 61°09'W).
Inner Fox (rock) (45°21'N, 61°04'W).
Murdoch Head (45°27'N, 61°17'W).
Outer Fox Rocks (45°21'N, 61°04'W).
Parker Point (45°21'N, 61°20'W).
Peas Brook (45°21'N, 61°19'W).
Philip Head (45°21'N, 61°14'W).
Porper Point (45°26'N, 61°19'W).
Tickle Island (45°21'N, 61°02'W).

MICHAUD POINT TO ISLE MADAME AND LENNOX PASSAGE

GENERAL INFORMATION

Chart 2342

Area covered

12.116

- 1 This section describes the coastal routes S and W of Cape Breton Island including the Bay of Rocks (45°32'N, 60°56'W) and Flat Point (45°30'N, 60°55'W).
- It is arranged as follows:
- Michaud Point (45°34'N, 60°41'W) to Lennox Passage (12.117).
- Lennox Passage and E approaches (12.128).

MICHAUD POINT TO LENNOX PASSAGE

General Information

Chart 2342, Canadian Charts 4275, 4308 (see 1.32)

Route

12.117

- 1 From a position SSE of Michaud Point (45°34'N, 60°41'W) the route leads W and then NW for about 11½ miles to a position WSW of Samson Rocks (45°37'N,

60°53'W) at the SE entrance to Lennox Passage and St Peters Bay.

Directions

(continued from 11.130)

12.118

- 1 From a position SSE of Michaud Point (45°34'N, 60°41'W) (11.130) the coastal passage leads initially W, passing (with positions given from Cap Ronde (45°35'N, 60°53'W)):
- S of Michaud Ledges (7 miles ESE) (12.17).
- 2 The track then leads NW, passing:
- SW of Red Point (6 miles E). Rocky patches with least depths of 10.4 m (34 ft) over them, lie about 1¼ miles SW, 2 miles WSW and 1 mile W of Red Point. Thence:
- 3 NE of Petit Nez Shoal (2 miles SE) a large rocky area over which the sea occasionally breaks in heavy gales, extends nearly 2 miles E from Petit Nez (Beak Point) (45°34'N, 60°54'W); the E edge of the shoal is marked by Beak Point Shoal NQ3 Light-buoy (port hand). Thence:
- 4 NE of shoal ground extending about 4 cables E from Cap Ronde. Cap Ronde is a remarkable cliff, with

an elevation of 20 m, from which a light (red and white rectangle on framework tower) is exhibited. Thence:

- 5 SW of Horsehead Shoals, 1½ miles NNW of Cap Ronde, marked by NQ6 Buoy (starboard hand) moored on the SW edge of the shoals and NQ8 Buoy (starboard hand) on the NW side of the shoals.

Thence the track leads to a position SW of Samson Rocks, marked by NQ10 Buoy (starboard hand). From this position the track leads NW to Lennox Passage or NE to St Peters Bay.

12.119

- 1 **Clearing bearing.** The line of bearing 302° of the SW point of St Peters Island (45°36'N, 60°49'W) and Mark Point (Pointe Brûlée) 2¾ miles NW, clears close SW of Michaud Ledges in depths of not less than 7 m (23 ft); this line clears NE of N18 Light-buoy.

(Directions continue for Lennox Passage at 12.137 and for St Peters Bay at 12.142)

Small craft harbours on east coast of Isle Madame

Bay of Rocks

12.120

- 1 Bay of Rocks is entered between Petit Nez (Beak Point) (45°34'N, 60°54'W) and Gros Nez Island, a rocky islet 2¾ miles SSW, is entirely open to the E and affords no safe anchorage.
- 2 **Pondville.** An inlet on the W shore of Bay of Rocks, close W of Shaw Point (45°32'N, 60°58'W), contains a shallow boat harbour protected by two breakwaters. Bewes Shoal and Les Rochers (Rocky Islets) lie in the approaches.
- 3 **North entrance to Petit-de-Grat Inlet.** From the vicinity of Rantelau Point (45°31'N, 60°57'W) a narrow buoyed channel with a depth of about 1.8 m (6 ft) leads into the N entrance to the inlet between Petit-de-Grat Island and Isle Madame, as far as the low clearance bridge about 7 cables S of the entrance (12.27). A breakwater protects the entrance, from the head of which a light is exhibited (framework mast, 3 m in height). Overhead cables with a vertical clearance of 8.8 m (29 ft) span the channel 4 cables SSW of the breakwater.

Small craft on the south-west coast of Cape Breton Island

Little Harbour

12.121

- 1 **Description.** Little Harbour (45°35'N, 60°44'W) is sheltered by a breakwater extending 177 m NNW from the coast, 6 cables NNE of Red Head.
Directions. From the vicinity of NM Light-buoy (safe water) (45°35'N, 60°46'W) moored about 9 cables WNW of Red Head, the approach to the harbour leads ENE, passing close N of NM2 Buoy, 7 cables NNE of Red Head, before leading SE, passing close NE of the breakwater head, from which a light is exhibited (mast, 3 m in height).
- 2 **Berth.** The wharf has a depth alongside of 1.5 m. Sunken rocks lie along the extreme outer face of the wharf.

Martin Point

12.122

- 1 **Description.** At Martin Point (45°36'N, 60°45'W), about 1 mile N of Red Point, a breakwater extends 2 cables WSW from the coast.

Directions. From the vicinity of NM Light-buoy, (45°35'N, 60°46'W) the approach to the breakwater leads NE, passing SE of Les Rochers (45°36'N, 60°45'W), a ledge which dries in places, extending from the coast NW of Martin Point, to a position about 3 cables SW of the breakwater head.

L'Ardoise

12.123

Description. L'Ardoise (45°36'N, 60°46'W) a small fishing village and several other small villages, extend around the shores of the shallow bay between Red Point and St Peters Island, 3 miles NW. The bay contains a number of coves, much used by local fishermen. Some of these coves are protected by breakwaters.

Local knowledge is required.

Chapel Cove

12.124

- 1 **General information.** Chapel Cove (45°36'N, 60°46'W) is a small boat harbour sheltered by a breakwater-wharf 274 m long, extending ESE from the E side of L'Ardoise Head. There are depths of 0.9 to 1.5 m along the 91 m length on the inside of the breakwater; a groyne, in disrepair, 76 m long, extends from the shore N of the breakwater head.
- 2 **Directions.** From the vicinity of NM Light-buoy (safe water) (45°35'N, 60°46'W), the approach to Chapel Cove leads N, passing (positions given from L'Ardoise Head (45°36'N, 60°47'W)):
W of a rocky patch (1.1 miles SE) with a depth of 2.7 m (9 ft) over it, thence:
W of Les Rochers (45°35'N, 60°45'W), 1 mile SE, thence:
E of a ledge which dries in places, extending about 2½ cables E from L'Ardoise Head, marked by NN5 Buoy (port hand), thence:
Through a buoyed channel, with a depth of 2.4 m (8 ft), to the harbour entrance between the break-water head and the groyne, 1 cable farther N.

St Peters Island

12.125

- 1 **Description.** St Peters Island (45°36'N, 60°49'W) is connected to the mainland 3 cables N by a shingle ridge. A cove on the N side of the island affords shelter for small craft. Local knowledge is required.
Directions. From a position SW of Red Point (12.118) the sheltered water NW of St Peters Island is approached by passing:
W of Haddock Rock NP2 Light-buoy (starboard hand) moored about 4 cables W of St Peters Island, thence:
NW of Haddock Rock (dries 0.3 m (1 ft)), 2½ cables NNW of the W point of the island.
Anchorage may be obtained for small craft in the sheltered water NW of the island.

Three Island Cove

12.126

- 1 **Description.** Three Island Cove (45°37'N, 60°50'W) entered through a dredged and buoyed boat channel, is a small sheltered harbour used by fishing vessels. A wharf, 30 m long, is situated on the N shore. Local knowledge is required.

Other names**12.127**

- 1 Burkeys Cove (45°36'N, 60°47'W).
Gracieville (45°35'N, 60°42'W).
Red Island (45°34'N, 60°45'W).

**LENNOX PASSAGE AND
EAST APPROACHES****General information**

Chart 2342, Canadian Charts 4275, 4308 (see 1.32)

Route**12.128**

- 1 From a position WSW of Samson Rocks (45°37'N, 60°53'W) the route leads W for about 16 miles through Lennox Passage, marked by buoys, to a position N of Eddy Point (45°31'N, 61°15'W).
- 2 Much of the channel, although buoyed, is so narrow, winding and full of shoals that the passage is seldom used by ships of any size, but it provides a safe and smooth passage for small coasting vessels.

Topography**12.129**

- 1 There are several remarkable cliffs of red clay immediately W of St Peters Bay, between Brickery (Brick) Point (45°38'N, 60°54'W) and Bissett Island, 2¼ miles SW.

Depths**12.130**

- 1 For the latest controlling depths, the chart and the port authorities should be consulted. The least depth in the channel is 4.6 m (15 ft), but the passage should not be attempted in vessels with draught exceeding 3.7 m (12 ft).

Local knowledge**12.131**

- 1 Local knowledge is required.

Submarine cables**12.132**

- 1 Submarine cables are laid across the narrows about 2 and 5 cables SW of Grandique Point (45°36'N, 61°01'W). Cable signs reading Cable Do Not Anchor are positioned on each shore at the cable crossings. Another cable, which is unmarked is laid in this vicinity. A submarine power cable is laid across the channel close SW of the bridge at Burnt Point.

Vertical clearance**12.133**

- 1 A bascule bridge, hinged on the N side, crosses Lennox Passage between Burnt Point (45°35'N, 61°05'W) and Burnt Island, 2 cables ESE:
 - Width of navigable span 18.3 m (60 ft).
 - Vertical clearance when closed 6.4 m (21 ft).
 - Vertical clearance of about 31 m (102 ft) beneath the outer end when open.
 - Depth of channel under bridge 4.6 m (15.1 ft). White lights are shown from each side of the bridge.
 - A causeway leads from Burnt Island, over Benoit Island, to Isle Madame.
- 2 The bridge is operated from mid-May to mid-October, beginning each day at 0830 hours; closing times are consistent with those at St Peters Canal.

Buoyage**12.134**

- 1 The direction of buoyage is from E to W.

Traffic lights**12.135**

- 1 Traffic lights are shown from each side of the bridge (12.133); vessels should not approach the bridge unless a green light is showing. The use of an engine is recommended owing to the currents.

Natural conditions**12.136**

- 1 **Tidal streams.** The tidal streams are erratic; the rates are greatest round the spit off Grandique Point (45°36'N, 61°01'W), seldom exceeding 2 kn, and at the bascule bridge, where the rates are about 2.5 to 3 kn. The W-going tidal stream reaches its maximum rate about 1 hour after HW Point Tupper. The E-going tidal stream reaches its maximum rate about 1¼ hours after LW Point Tupper. Slack water occurs about 1¼ hours before HW and LW Point Tupper.
- 2 **Local weather.** Lennox Passage provides shelter from sea conditions to seaward of Isle Madame. Weather conditions are reported to be similar, with winds tending to become E/W in direction. If there is coastal fog, there is likely to be fog locally in the passage.

Directions

(continued from 12.119)

Cap Ronde to Ouetique Island**12.137**

- 1 From a position SW of Samson Rocks (45°37'N, 60°53'W) the track leads W into the E approach to Lennox Passage, marked by buoys; the track then leads generally W, passing (with positions given from Cap Ronde (45°35'N, 60°53'W)):
 - 2 N of NT3 Buoy (port hand) (1½ miles NW) marking the N side of Goulet Beach Shoal, shingle, thence: N of NT5 Buoy (port hand) (2 miles NW) marking Gabion Shoal, rocky, thence: N of Morris Rock (2¼ miles NW), marked by NT7 Buoy (port hand), thence: N of NT9 Buoy (2¾ miles WNW) marking D'Escousse Shoal, thence:
 - 3 Into the channel, about 5 cables S of Ouetique Island (45°37'N, 60°57'W) (3½ miles NW). The island is 14 m high, dark and precipitous, with a few pine trees on it; Ouetique Island Light (red and white rectangle, white bands, on framework tower, 8 m in height) is exhibited on the S side of the island.
 - 4 **Clearing bearings:**
 - The line of bearing 321° of the E side of Bissett Island (45°37'N, 60°56'W) and the chapel steeple at Bourgeois Inlet (45°38'N, 60°57'W), 7 cables NW, passes NE of the 5.5 m (18 ft) depth contour surrounding Goulet Beach Shoal and Gabion Shoal.
 - The line of bearing (281°) of the S extremity of Ouetique Island (45°37'N, 60°57'W) and the N side of Cascarette Island (wooded; low cliffs at E end; sandy point on SW side), 6 cables W, passes N of Gabion Shoal.
 - The line of bearing 248° of the N side of Bernard Island (45°36'N, 60°58'W) and the S extremity of Île Sec (Poulamon Islet) (45°35'N, 61°00'W), 1¼ miles WSW, passes NNW of D'Escousse Shoal.

5 **Useful marks:**

- Jerome Point Light (45°39'N, 60°52'W) (12.142).
 Bourgeois Inlet Light (red and white rectangle on framework tower, 7 m in height) (45°38'N, 60°57'W).
 Radio tower (red lights) (45°39'N, 60°56'W).

Ouetique Island to Grandique Point**12.138**

- 1 From a position about 5 cables S of Ouetique Island, (45°37'N, 60°57'W), the track continues W through Lennox Passage, marked by buoys, for about 3 miles, passing (with positions given from Ouetique Island Light):
 N of shoal ground extending 1½ cables N from Bernard Island (1 mile SSW); the island has three separate parts, connected by ridges, thence:
 S of a rocky patch with a depth of 4.3 m (14 ft) over it (1 mile SW), thence:
 2 S of Goillon Reef (1¼ miles WSW), 1 m in height marked by NT12 Light-buoy, (starboard hand), on the SE side of the reef, thence:
 About 1½ cables N of Hawk Island (1.9 miles SW) moderately steep-to on its N side which is connected to Eagle Island, S of it, by a drying spit; Hawk Island Light (red rectangle, white bands on framework tower, 10 m in height) is exhibited from the island, thence:
 3 N of shoal ground, marked by NT15 Buoy (port hand) with depths of 2.1 m (7 ft) over it, near its outer end, extending about 2 cables NE from Crow Island (2½ miles WSW), thence:
 S of Birch Shoal, (2¾ miles WSW) with a depth of 3.4 m (11 ft) over it, marked by NT Buoy (main channel to port) lying about 1½ cables SSW of Birch Point, the S extremity of Birch Island, thence:
 4 N of NT19 Buoy (3 miles WSW) marking the extremity of shoal ground surrounding the spit at Grandique Point; a great part of the spit is covered at HW but it is generally marked by tide-rips. Grandique Light (white structure, red upper part, 8 m in height) is exhibited from the point.
 5 **Clearing bearings:**
 The line of bearing 266° of Moulin Point (45°36'N, 61°03'W), open S of Birch Island, passes S of Goillon Reef.
 The line of bearing 074° of Ouetique Island, just shut in by Birch Island, passes N of the spit off Grandique Point.

Grandique Point to Burnt Point**12.139**

- 1 **Leading marks.** From a position N of NT19 Buoy (45°36'N, 61°01'W) the track leads initially SSW for about 2½ cables. Thence the alignment (087°) astern, of the N side of Hawk Islet and the N point of the land (not the drying spit) at Grandique Point leads through this part of Lennox Passage, for about 1 mile, passing (with positions given from Grandique Point):
 2 S of Ferry Reef (3 cables WNW), marked by NT22 Buoy, (starboard hand), thence:
 Close N of a shoal patch, (1.2 miles W), with 3 m (10 ft) over it, marked by NTA Buoy, (main channel to starboard), thence:
 Close N of NT23 Buoy (1.6 miles W), marking Middle Ground.

- 3 **Clearing bearing.** The line of bearing 071° of the whole of Ouetique Island, (45°37'N, 60°57'W), just open S of Birch Island, passes S of Ferry Reef.

Burnt Point to Thomas Head**12.140**

- 1 From the vicinity of the bascule bridge, the W part of Lennox Passage, marked by buoys, leads WSW for about 6 miles, passing:
 NNW of the shoal ground with a depth of 2.1 m (7 ft) over it, about 2½ cables WNW of Heron Island, thence:
 2 Between NT37 and NT38 Buoys between shoals about 7 cables E of Rock Point (45°34'N, 61°07'W), thence:
 SSE of shoal ground, with depths of less than 5.5 m (18 ft) over it, extending about 3 cables SE from Rock Point, thence:
 3 NNW of NT41 Buoy marking shoal ground extending about 2½ cables N from Glasgow Point (45°34'N, 61°08'W), thence:
 SSE of Fish Shoal, 1 mile W of Glasgow Point, marked by NT44 Buoy (starboard hand), thence:
 4 NNW of MacDonald Shoal, marked by NT45 Buoy, (port hand) 5 cables N of Thomas Head (45°33'N, 61°12'W), thence:
 NNW of Thomas Shoal, marked by NT47 Buoy, (port hand) 5 cables SW of Thomas Head.
 The track then continues to a position N of Eddy Point (45°31'N, 61°15'W) (12.69).
 5 **Clearing bearing.** The line of bearing 066° of Burnt Island, just open of Low Point, 2 miles WSW, passes close SSE of Fish Shoal.
Useful mark:
 Janvrin Island Leading Lights (45°32'5N, 61°12'0W) (12.163) on Thomas Head; the flashing lights are visible all round.
(Directions continue for Strait of Canso at 12.163)

St Peters Bay

Canadian Chart 4275 (see 1.32)

General information**12.141**

- 1 **Description.** St Peters Bay (45°39'N, 60°52'W), is entered W of Pointe Brûlée (Mark Point), which forms the S approach to St Peters Canal and Bras d'Or Lakes.
 2 **Route.** From a position close WSW of Samson Rocks (45°37'N, 60°53'W) (12.117) the route leads ENE then N for about 3 miles. At the N end of St Peters Bay a buoyed channel leads into a basin between Jerome Point (45°39'N, 60°52'W) and Pointe du Loup, 7 cables W. After clearing the N end of this channel the track leads into St Peters Canal which leads into Bras d'Or Lakes.
 3 **Depths.** For the latest controlling depths the chart and port authorities should be consulted. The entrance channel to St Peters Bay is stated to have a least depth of 5.5 m (18 ft).

Directions

(continued from 12.119)

12.142

- 1 From a position close SW of Samson Rocks, (45°37'N, 60°53'W), the track to St Peters Bay leads ENE then N, through a buoyed channel, with a least depth of 5.5 m (18 ft), for about 9 cables, passing (with positions given from Pointe Brûlée):

W of Samson Rocks (7 cables SW) (12.117), thence:
E of NQ12 Light-buoy (starboard hand) (7 cables W),
thence:

E of NQ13 Buoy (port hand) (7 cables WNW).

- 2 From the inner end of the entrance channel, 8 cables NW of Pointe Brûlée, the buoyed channel through St Peters Bay leads NE, then N, passing:

SE and E of a shoal with a least depth of 1.2 m (4 ft) over it, marked by NQ17 Buoy (port hand) moored close E of the shoal, lying 7 cables E of Sutherland Head, the W entrance point to the bay, thence:

W of the shoal ground on the E side of the bay marked by NQ18 Buoy (starboard hand), moored close W of the shoal.

- 3 **Useful mark:**

Jerome Point Light (white tower, 11 m in height) (45°39'N, 60°52'W), shown from 1st May to 15th December.

(Directions continue for St Peters Canal at 11.249)

Anchorage

12.143

- 1 Excellent anchorage is available in the bay. The normal anchorage is in the basin within Jerome Point, at the head of the bay.

Grande Grève Harbour (45°38'N, 60°52'W), on the E side of St Peters Bay, provides excellent sheltered anchorage in the position indicated on the chart.

River Tillard

12.144

- 1 River Tillard which enters the W side of St Peters Bay, S of Tillard Point (45°39'N, 60°54'W), is shallow and obstructed by shifting sand bars. A channel, marked by stakes, with a depth of 0.9 m (3 ft) permits small craft to navigate as far as the bridge 1½ miles above the river mouth.

Anchorage and harbours

The Goulet

12.145

- 1 **Description.** The Goulet (45°35'N, 60°56'W) is a shallow bay, partially obstructed by shoals, with an anchorage for small craft and a pier.

Local knowledge is required.

- 2 **Directions.** From a position about 7 cables ESE of Ouetique Island, (45°37'N, 60°57'W) the channel into The Goulet, suitable for small craft, leads S, passing W of Morris Rock.

- 3 **Anchorage** may be obtained at the recommended anchorage position as shown on the chart.

Berth. A L-shaped public pier, with a berth 47 m long on its outer face and a depth of 2.9 m alongside, is situated at Poirierville, at the head of the bay. The depth on the inside face of the pierhead is 1.8 m.

D'Escousse Harbour

12.146

- 1 **Description.** D'Escousse Harbour (45°35'N, 60°58'W) is a small anchorage S of Bernard Island (45°36'N, 60°58'W) with a pier for fishing vessels. The village of D'Escousse lies along the S shore.

- 2 **Local knowledge** is required.

Directions. From the main channel, SSE of Ouetique Island (45°37'N, 60°57'W) a buoyed channel with reported depths of 2.4 m (8 ft) leads into the harbour, passing

between the E end of Bernard Island and D'Escousse Shoal (45°36'N, 60°57'W).

- 3 **Anchorage** may be obtained in the position indicated on the chart, in depths of about 5 m (16 ft). The anchorage is said to be secure.

Berth. A L-shaped public pier with an outer face 29 m long and a depth of 2.4 m to 4 m alongside, is situated at D'Escousse village, about 4 cables SSW of the E end of Bernard Island. The pier is used by yachts and fishing vessels; numerous mooring buoys are laid off the wharf.

Anchorage north of Bernard Island

12.147

- 1 **Description.** Anchorage is available off the N side of Bernard Island (45°36'N, 60°58'W), as indicated on the chart.

Directions. From a position about 1¼ miles NE of the E end of Bernard Island, the line of bearing 248° of Île Sec (Poulamon Islet) (45°35'2N, 61°00'1W), just open N of Bernard Island, leads to the anchorage, but passes over patches with depths of 8.2 m (27 ft) over them that lie 6 cables NE of the E end of Bernard Island.

- 2 **Anchorage** may be obtained in depths of about 15 m (49 ft) on the alignment (021°) of the chapel at Bourgeois Inlet (45°38'N, 60°57'W) and the E point of Ouetique Island 1¼ miles SSW as indicated on the chart.

Anchorage off Hawk Island

12.148

- 1 **Description.** There is safe anchorage in the roadstead 4 cables ENE of Hawk Island (45°36'N, 61°00'W) as indicated on the chart.

Directions. From a position about 2 cables N of Bernard Island (45°36'N, 60°58'W) the line of bearing 261° of the N point of Crow Island, 2 miles W, just open N of Hawk Island, leads towards the anchorage.

Useful mark:

Hawk Island Light (45°36'N, 61°00'W) (12.138).

- 2 **Anchorage** may be obtained on the alignment (230°) of the SE side of Île Sec, 5 cables SSW of Hawk Island and the SE point of Eagle Island, close S of Hawk Island which marks the anchoring point, in depths of 9 to 13 m (30 to 43 ft). The following marks also indicate the anchorage position:

- 3 Cordeau Point (45°37'N, 60°59'W) bearing 015° a little open W of Cascarette Island (45°37'N, 60°59'W), and:

The N end of Crow Island in line with the N end of Hawk Island.

Poulamon Bay

12.149

- 1 **Description.** Poulamon Bay (45°35'N, 61°00'W) contains anchorages and a pier. The village of Poulamon extends along the shores of the bay.

The harbour, which lies S of Eagle Island and Crow Island, is virtually divided into E and W parts by shoal water extending from Eagle Island to Île Sec 2 cables SSW; the E part has the more spacious anchorage.

Tidal streams in Poulamon Bay are weak; the rate seldom exceeds 1 kn in the channel off its entrance.

- 2 **Directions.** From the anchorage off Hawk Island (45°36'N, 61°00'W), the line of bearing 015° astern, of Cordeau Point 1 mile NNE, a little open W of Cascarette Island, leads into the E part of Poulamon Bay, passing W of the NT13 Buoy (port hand) marking the outer end of rocks and shoals extending 4 cables W from Bernard Island. The least depth on this leading line is 4 m (13 ft).

- 3 **Anchorage** may be obtained in depths of 6 m (20 ft), mud, on the leading line (015°) mentioned above, and with the S side of Crow Island open S of Eagle Island.

River Bourgeois

12.150

- 1 **Description.** River Bourgeois (45°38'N, 60°57'W) gives access to Bourgeois Inlet, 5 cables within the river entrance. The villages of River Bourgeois and South River Bourgeois lie on the E and W sides, respectively, of the river.

A narrow channel, with a depth of 2.1 m (7 ft), leads into River Bourgeois. Although buoyed, the entrance is complicated by strong tidal currents with the greater rate on the in-going stream.

- 2 **Directions.** From a position 7 cables E of Ouetique Island (45°37'N, 60°57'W), the track into River Bourgeois leads NNW, passing (with positions given from Ouetique Island Light):

ENE of Philip Rocks (4 cables NE) awash at HW, marked on the E side by NU1 Buoy (port hand), thence:

WSW of Bissett Island (1 mile NE), red clay cliffs, thence:

Close W of the E entrance point, from which a light is exhibited (red and white rectangle on framework tower, 7 m in height) (45°38'N, 60°57'W).

- 3 **Berth.** A public wharf, with a berth 12 m long and a depth of 3 m alongside, is situated on the E bank of River Bourgeois, close within the entrance. The wharf is 20 m long with a maximum depth of 4.3 m; it is difficult to secure to the outer end of the wharf at HW.

- 4 **Small craft** can be accommodated in a basin, which almost dries which is situated at South River Bourgeois,

about 5 cables NW of the river entrance; a narrow channel with depths of from 1.2 to 1.5 m (4 to 5 ft) (1975) leads into it.

Couteau Inlet

12.151

- 1 Couteau Inlet (45°37'N, 61°01'W) is accessible to small vessels. Local knowledge is required.

Haddock Harbour

12.152

- 1 **Description.** Haddock Harbour (45°32'N, 61°08'W) is used by small craft in the fishing season.

The main entrance to the harbour is through a narrow buoyed channel with a least depth of 5.2 m (17 ft), leading SE from the E end of Campbell Island (45°33'N, 61°09'W). From the S end of Haddock Harbour a boat channel leads under a bridge through Mousseliars Passage to Le Blanc Harbour (12.86).

Anchorage north of Janvrin Island

12.153

- 1 Two anchor berths are situated at the W end of Lennox Passage, N of Janvrin Island (45°32'N, 61°10'W) as indicated on the chart.

Small craft

Canadian Chart 4308 (see 1.32)

Seal Cove

12.154

- 1 Seal Cove (45°36'N, 61°04'W) on the N side of Lennox Passage, is used by small fishing vessels. The village of Louisdale is situated at the head of the cove.

Access to the cove is through a narrow channel with a least depth of 0.3 m (1 ft).

STRAIT OF CANSO WITH INHABITANTS BAY

GENERAL INFORMATION

Charts 2342, 3383

Area covered

12.155

- 1 This section describes the final approaches to the Strait of Canso, and the Strait of Canso itself, a natural waterway about 15 miles in length, with a least width of 4½ cables. The Strait is entered abreast of Eddy Point (45°31'N, 61°15'W) at its SE end and North Canso (45°42'N, 61°29'W) at its NW end. The strait forms a sheltered deep water harbour, containing the ports of Port Hawkesbury and Mulgrave.

- 2 Canso Causeway with a navigable lock (12.219), is built across the N part of the strait.

It is arranged as follows:

Eddy Point to Point Tupper (12.159).

Port Hawkesbury and Mulgrave (12.179).

Point Tupper to Canso Lock (12.214).

Canso Lock to North Canso (12.223).

Pilotage

12.156

- 1 Pilotage is compulsory within this area. See *Admiralty List of Radio Signals Volume 6 (5)* for details. See 12.4 for pilot boarding positions.

Traffic regulations

12.157

- 1 A mandatory vessel traffic reporting scheme exists in this area up to and including Canso Lock. For details of the system and the reports required see *Admiralty List of Radio Signals Volume 6 (5)* for details.

Anchorage

12.158

- 1 Due to the depth of water and the nature of the bottom (rock and gravel), anchoring in the strait is generally unsafe, except in certain places.

EDDY POINT TO POINT TUPPER

GENERAL INFORMATION

Charts 2342, 3383

Route

12.159

- 1 From a position N of Eddy Point (45°31'N, 61°15'W), the route leads W for 2 miles into the Strait of Canso. From there the route leads generally NW in the deep water channel in the middle of the strait towards Point Tupper (45°36'N, 61°22'W), the approximate midpoint of the strait.

Topography

12.160

- 1 The land on the W side of the strait rises abruptly to high ridges, which exceed 180 m in height at Cape

Porcupine (45°38'N, 61°25'W). The E shore is not as high, except near the N end of the strait.

- 2 There are many prominent chimneys and other structures, some marked by red lights, at industrial sites on the E shore between Ship Point (45°34'N, 61°20'W) and Point Tupper; the positions of these chimneys can best be seen from the chart.

Submarine cables and pipelines

12.161

- 1 A pressurised submarine natural gas pipeline crosses the Strait of Canso in a SW/NE direction about 2½ cables NW of Ship Point (45°34'N, 61°20'W). Three submarine cables or pipelines cross the strait with 5 cables of Point Tupper. Mariners are cautioned not to anchor in these areas.

Natural conditions

12.162

- 1 **Tidal streams.** Due to the existence of the causeway, tidal streams in the Strait of Canso are weak.
Ice. Navigation is suspended N of Canso Lock (45°39'N, 61°25'W) from January to early April, due to ice, (as promulgated in Canadian *Notices to Mariners* or *Notices to Shipping*). Since the causeway blocks the flow of ice from the N, navigation is possible in the S part of the strait for the greater part of the year.

Directions

(continued from 12.69 and 12.140)

Eddy Point to Bear Head

12.163

- 1 **Middle Melford Leading Lights:**
Front light (white trapezium, red stripe, on framework tower, 7 m in height) (45°32'4N, 61°18'9W).
Rear light (similar construction, inverted, and tower 13 m in height) (92 m from front light).
- 2 **Janvrin Island Leading Lights:**
Front light (white trapezium, red stripe, on framework tower, 9 m in height) (45°32'5N, 61°12'0W).
Rear light (similar construction, inverted, and tower 14 m in height) (300 m from front light).
- 3 From a position N of Eddy Point (45°31'N, 61°15'W), the alignments (268° and 088°), ahead and astern, respectively, of these pairs of lights leads W into the Strait of Canso, passing (with positions given from Eddy Point):
- 4 N of a patch with a depth of 17 m (56 ft) over it (1 mile NNW), marked by C13 Light-buoy, (port hand) moored 1 cable NE of the shoal, thence:
Between C13 Light-buoy (port hand) and C14 Light-buoy (starboard hand) (1½ miles NNW), thence:
- 5 S and SW of C16 Light-buoy (starboard hand) (2¼ miles NW) S of the shoal ground surrounding Bear Head from which Bear Head Directional Light (intensified on 297°) (red rectangle, white bands on red framework tower, 7 m in height) is exhibited.

12.164

- 1 **Useful mark:**
Red and white cooling tower, marked by red lights, at the heavy water plant, situated nearly 5 cables NE of the wharf at Peebles Point (45°35'N, 61°21'W).

Bear Head to Ship Point

12.165

- 1 **Cahil Rock Leading Lights:**
Front light (white trapezium, red stripe, on framework tower, 12 m in height) (45°34'2N, 61°21'3W).
Rear light (similar construction, inverted, and tower, 12 m in height) (176 m from front light).
The front light is visible all round the horizon.
- 2 **Eddy Point Leading Lights:**
Front light (white trapezium, red stripe, on tower, 12 m in height) (45°31'2N, 61°15'2W).
Rear light (similar construction, inverted, and tower, 18 m in height) (361 m from front light).
- 3 From a position SW of C16 Light-Buoy (starboard hand), SW of Bear Head, (45°33'N, 61°17'W), the alignments (305° and 125°) ahead and astern respectively, of these lights lead through the channel, passing (with positions given from Bear Head):
SW of Bear Reef (2½ cables WSW) awash, thence:
NE of C17 Light-buoy (port hand), (8 cables WSW), thence:
SW of C18 and C20 Light-buoys (starboard hand) (1½ miles WNW and 2 miles WNW respectively), thence:
SW of Ship Point, (2 miles NW).
- 4 **Caution.** Care is necessary when passing Bear Reef, as soundings give no warning of approach to it, and there are no good clearing marks.

Ship Point to Point Tupper

12.166

- 1 **Park Point Leading Lights:**
Front light (white trapezium, red stripe, on framework tower, 10 m in height) (45°32'6N, 61°19'3W).
Rear light (similar construction, inverted, and tower, 19 m in height) (317 m from front light).
- 2 From a position SW of Ship Point (45°34'N, 61°20'W) the alignment (146½°) astern, of these lights leads through the channel, passing (with positions given from Ship Point):
SW of Ship Rock (1½ cables NW), thence:
SW of C22 Light-buoy (starboard hand) (1½ miles NNW). Shoal ground, with depths of less than 9.1 m (30 ft) over it, extends from the shore close S of Peebles Point (45°35'N, 61°21'W). Thence:
NE of Laceys Rocks, (1¼ miles NW) which dry 1.2 m and lie close offshore on the SW side of the strait, thence:
- 3 NE of C21 Light-buoy (port hand) (2 miles NW), thence:
SW of shoal ground, extending about 1 cable SW from the wharf at Point Tupper, with depths of less than 9.1 m (30 ft), thence:
To a position in mid-channel, about 5 cables SW of Point Tupper.
- 4 **Useful marks:**
Two radio towers, the taller having an elevation of 1017 ft (310 m), marked by red lights, situated 1¼ miles WSW of Point Tupper (45°36'N, 61°22'W).
Wright Point Jetty S Light (45°34'3N, 61°20'6W).
Wright Point Jetty N Light (45°34'6N, 61°20'8W).
Point Tupper Wharf Light (mast) (45°36'4N, 61°22'5W).
- 5 All the lights listed above are privately maintained.
(Directions continue for Port Hawkesbury at 12.204, and for Canso Lock at 12.218)

Inhabitants Bay

Chart 2342, Canadian Chart 4308 (see 1.32)

General information

12.167

- 1 **Route.** From a position N of Eddy Point (45°31'N, 61°15'W) the route leads N for about 2 miles into Inhabitants Bay, before turning NE to enter Inhabitants Harbour also known as The Big Basin (45°35'N, 61°11'W).
- 2 **Topography.** The high cliffs of Caribou Head, also known as Carleton Head (45°35'N, 61°16'W) are conspicuous to the east of the Port Malcolm Range Lights (12.68). Evans Island also known as MacNamaras Island, (45°35'N, 61°14'W) is well forested and is conspicuous with three hills, one on each end and one in the middle. Bumbo Islet 7½ cables NE is also conspicuous, though small, being only 17 m in height.
- 3 **Local knowledge** is required.

Directions

(continued from 12.69)

12.168

- 1 From a position N of Eddy Point (45°31'N, 61°15'W) the track leads N into Inhabitants Bay, and thence into Inhabitants Harbour, passing (with positions given from Turbalton Head (45°34'N, 61°14'W), the W extremity of Rabbit Island):
 - W of a spit of shoal ground, (about 2½ cables W) with drying rocks, marked by CH10 Buoy (starboard hand), thence:
 - W of Evans Island (8 cables N).
- 2 The track then leads NE, passing:
 - SE of Long Ledge, (about 1½ miles NNW) marked by CH13 Buoy (port hand), thence:
 - Between Indian Point (45°35'N, 61°13'W) and Bumbo Islet (1¾ miles NNE), thence:
 - Between shoal ground on the N side of the basin marked by buoys (port hand) and Bumbo Islet.
 The track continues into Inhabitants Harbour.
- 3 **Clearing bearing.** The line of bearing 140° of Janvrin Point, the SW point of Janvrin Island, and Peninsula Point (45°31'N, 61°11'W), 1 mile SE, passes SW of the shoal spit off Turbalton Head.

Anchorage

12.169

- 1 A number of lettered anchor berths are established in Inhabitants Bay and its approaches, as indicated on the charts.

Turbalton Bay

12.170

Description. Good anchorage is reported in Turbalton Bay, (45°34'N, 61°14'W) in depths of about 9 m (30 ft), mud, NNW of Turbalton Head as indicated on chart 2342.

Line of bearing. The line of bearing 002° of Turbalton Head and Red Head, about 4½ miles S, marks the E limit of safe navigation within the bay.

Caribou Cove

12.171

- 1 Caribou Cove also known as Seacoal Bay (45°34'N, 61°17'W) on the W side of Inhabitants Bay, affords anchorage in depths of 5 to 9 m (16 to 30 ft), mud.

The Basin

12.172

- 1 The Basin is a small harbour enclosed between Evans Island (45°35'N, 61°14'W) and Freeman (Boudreaus) Island

5 cables ENE. It is entered through a very narrow channel between the W end of Freeman Island and Round Island, close WSW. Good anchorage is reported to exist on the SW side of the basin in 3 to 4 m, mud.

Inhabitants Harbour

12.173

- 1 **General information.** Inhabitants Harbour (The Big Basin) approached through Inhabitants Bay and entered through a channel with a least depth of 9.4 m (31 ft) NW of Evans Island (45°35'N, 61°14'W) is little used, but it affords secure anchorage for small vessels in several places. The shores of the bay are thinly populated and present a barren appearance. Tidal streams in the harbour are weak, and the rate in the entrance, where it is greatest, seldom exceeds 1 kn.
- 2 **Anchorage** may be obtained, reported as good, as follows:
 - In the entrance channel.
 - About 1½ cables SW of Bumbo Islet, in depths of less than 9 m (30 ft); as indicated on Chart 2342.
 - In Inhabitants Harbour.

Small craft

12.174

- 1 **Inhabitants River**, which flows into the NW corner of The Big Basin, is navigable by small craft for a distance of 4 or 5 miles. Local knowledge is required.

Anchorage and harbours

Anchorage off Pirate harbour

12.175

- 1 Two anchorages with depths of over 58 m, marked on the charts, lie 5 cables NNE and 4½ cables ENE of Pirate Harbour (12.176). See 12.158.

Pirate Harbour

12.176

- 1 From a position W of Susies (Pirate) Island (45°35'2N, 61°22'8W), a narrow boat channel leads through shallows and drying ground to a bridge at the head of the harbour. A wharf 35 m long and 10 m wide extends, with a depth of 7 m, from the W side of the cove. Attached to the S side of this wharf is a L-shaped floating wharf. The E side is 20 m long with depths of 3.4 to 4.6 m and the S side is 17 m long with a least depth of 2.4 m.

Eddy Cove

12.177

- 1 A breakwater situated 6 cables W of Eddy Point (45°31'N, 61°15'W) protects a L-shaped pier. The useful part of the pierhead is 24 m long, with a depth of 4.9 m on the outside face and 2.1 to 5.5 m on the inside. The outer end of the breakwater is reported to cover at HW.

Small craft

Anchorage

12.178

- 1 Open anchorages, with poor holding ground, are available for small craft as follows:
 - West of Eddy Point (45°31'N, 61°15'W).
 - Bear Cove (45°33'N, 61°17'W).
 - North-west of Bear Island (45°32'9N, 61°17'6W).
 - Critchett Cove (45°32'8N, 61°19'6W).
 - Byers Cove (45°33'0N, 61°20'0W).
 - Madden Cove (45°34'7N, 61°20'6W).
 - Cass Cove (45°35'4N, 61°21'3W).

PORT HAWKESBURY AND MULGRAVE

General information

Chart 3383, Canadian Chart 4306 (see 1.32)

Position

12.179

- 1 Port Hawkesbury (45°37'N, 61°22'W) is situated on the E side of the Strait of Canso.

Mulgrave lies on the W side of the strait, opposite Port Hawkesbury.

Function

12.180

- 1 The ports contain facilities for the handling of oil, wood pulp, paper, gypsum, fish and general cargo, rock and sand, all the year round.

The towns of Port Hawkesbury and Mulgrave had populations of 3809 and 896, respectively, in 1991.

It is reported that major repairs are being carried out to facilities in Mulgrave in 2002.

Port limits

12.181

- 1 The limits of the combined ports are:
S limit; a line drawn SW from Bear Head (45°33'N, 61°17'W) to Melford Point, on the opposite shore.
N limit; Canso Causeway (45°39'N, 61°25'W).

Approach and entry

12.182

- 1 The ports are approached through the following routes:
From E; through Chedabucto Bay or Lennox Passage.
From N; through Saint Georges Bay and Canso Lock.

Traffic

12.183

- 1 In 2001, the combined ports of Port Hawkesbury, Point Tupper and Mulgrave were used by 1 017 ships with a total of over 28 000 000 dwt.

Port Authority

12.184

- 1 The ports are administered by Strait of Canso Superport Corporation Limited, PO Box 238, 420 Mulgrave Marine Terminal, Mulgrave, Nova Scotia. Canada.

Limiting conditions

Controlling depth

12.185

- 1 Maximum draught for vessels proceeding to the oil terminal is restricted to 25.9 m.

Vertical clearance

12.186

- 1 Overhead power cables cross Canso Lock (12.219) with a vertical clearance of 46 m.

Deepest and longest berth

12.187

- 1 Statia Products Terminal (45°34'N, 61°21'W) (12.207).

Tidal levels

12.188

- 1 Mean spring range about 1.6 m; mean neap range about 0.7 m. See *Admiralty Tide Tables, Volume 2* for details.

Density of water

12.189

- 1 The density of the water is 1.025 gms/cm³, but influenced by the spring thaw.

Maximum size of vessel handled

12.190

- 1 Largest vessel handled is said to be of 357 230 dwt. Port is capable of handling ultra large crude carriers of 400 000 tonnes.

Ice

12.191

- 1 The N approach, through Canso Lock, is closed to navigation during the winter months. For further details, see 12.162.

Canso lock

12.192

- 1 For maximum permissible dimensions of ships transiting the lock, see 12.219.

Arrival information

Port operations

12.193

- 1 Port Hawkesbury is a modern industrial port with 24 hours a day working.

Port radio

12.194

- 1 Gulf Control operates a VHF radio station at the Statia Terminal. See *Admiralty List of Radio Signal, Volume 6 (5)* for details.

Notice of ETA required

12.195

- 1 ETA should be sent 72 and 24 hours before arrival. The message should include the Masters name. Any changes in ETA should be notified. Gulf Control should be contacted when 35 miles from the terminal. See *Admiralty List of Radio Signals, Volume 6 (5)*.

Outer anchorages

12.196

- 1 Lettered anchor berths are established in Chedabucto Bay (45°26'N, 61°10'W) (12.70) and Inhabitants Bay (45°34'N, 61°15'W) (12.169).

Submarine cables and pipelines

12.197

- 1 Three submarine cables or pipelines cross the strait within 5 cables of Point Tupper. A disused submarine cable crosses the Strait from McNairs Point, also known as MacNairs Point (45°37'N, 61°23'W) to Grant Point on the E shore. In Ship Harbour (45°36'N, 61°22'W) a submarine cable crosses the harbour about 4 cables E of Point Tupper. Mariners are cautioned not to anchor in these areas.

Pilotage

12.198

- 1 Pilotage is compulsory and available 24 hours. For pilot boarding areas, see 12.4.

Tugs

12.199

- 1 Two tugs are available at all times at Point Tupper. Ten days notice is required for additional tugs. Additional information can be obtained by contacting Point Tupper Marine Services Ltd.

Customs and quarantine

12.200

- 1 Port Hawkesbury is a Canadian port of entry.

Notice of medical requirements

12.201

- 1 Early advice of any medical or dental treatment that is required should be sent in advance to the vessels agents.

Harbour

General layout

12.202

- 1 **Port Hawkesbury.** Industrial sites, with associated piers, are situated on the E shore between Ship Point and Point Tupper. A public pier is situated in Ship Harbour (45°36'N, 61°22'W).

Mulgrave. The public pier is situated in Murray Cove (45°36'5N, 61°23'4W).

Principal mark

12.203

- 1 **Landmark:**

The chimneys of the power generating station at Peebles Point (45°35'N, 61°21'W) 8 cables NW of Wright Point are conspicuous.

Directions for entering harbour

(continued from 12.166)

Ship Harbour

12.204

- 1 From a position in mid-channel, about 5 cables SW of Point Tupper (45°36'N, 61°22'W) and clear of the shoal

ground extending about 1 cable SW from the wharf at Point Tupper, the track into Ship Harbour leads N, NE and then SE, passing (with positions given from Point Tupper): W of C26 Light-buoy (starboard hand), thence:

- 2 Between CL4 Light-buoy (starboard hand) (4 cables ENE) marking the N edge of Premier Shoal and the S edge of the public pier projecting SW into the bay, thence:

Into Ship Harbour, where vessels with a draught of less than 6.1 m may anchor near the head of the harbour.

- 3 Mariners are warned to keep clear of the submarine cable (12.197).

- 4 **Clearing bearing.** The line of bearing 191° of Point Tupper and the W side of Susies (Pirate) Island, 1¼ miles S, passes W of Premier Shoal.

Basins and berths

12.205

- 1 For the latest controlling depths the chart and port authorities should be consulted. Alongside depths are reported depths.

Anchorage berths

12.206

- 1 Anchorage is available off Port Hawkesbury and Mulgrave, in depths of more than 50 m, 8 cables and 1.2 miles S of Point Tupper (45°36'N, 61°22'W). The anchorage positions are marked on the chart. Good anchorage in depths of 11 to 14 m (36 to 46 ft), mud, is



Port Hawkesbury Deep Water Petroleum Terminal (12.207)

(Original dated prior 2002)

(Photograph – Transport Canada)

available 2 cables SSE of McNairs (MacNair) Point (45°37'N, 61°25'W). This anchorage is sheltered from N winds.

- 2 Anchorage is available in depths of 12 to 18 m (40 to 60 ft), sand, gravel and mud, in the roadstead to the W of Premier Shoal, but in this position, NW winds may raise a heavy sea. See 12.158, 12.161, 12.217 for further details.

Alongside berths on east shore of Canso Strait

12.207

- 1 **Statia terminals.** Statia Terminals at Wright Point (45°34'·5N, 61°20'·5W) can accommodate some of the largest ships in the world. The pier is 585 m long and has a depth of 30 m alongside.
The terminal can accommodate two ships at a time.
- 2 **StoraEnso.** StoraEnso Terminal at Madden Point (45°36'N, 61°22'W) is used for the export of newsprint and paper products. The pier is 198 m long and has a depth of 8·5 m alongside.
- 3 **Canadian Gypsum Dock.** Canadian Gypsum Dock at Point Tupper has a length of 164 m between mooring dolphins and 7 m depth alongside.
- 4 **Georgia Pacific.** Georgia Pacific Terminal at Point Tupper has a length of 335 m, 5 breasting dolphins, 2 mooring dolphins and 9·5 m depth alongside. The gypsum is loaded by conveyor.
- 5 **Port Hawkesbury.** The public pier at Port Hawkesbury is situated on the N shore of Ship Harbour. The pier is L-shaped, 132 m long with an outer face 34 m long, with depths of 4·9 to 5·8 m alongside. This facility was reported to have been rebuilt in 2001.
- 6 **Mulgrave.** The public pier at Mulgrave is situated in Murray Cove (45°36'·5N, 61°23'·4W) on the W side of the strait. The pier is 426 m long with depths of 9·0 m alongside. Murray Cove is not named on Chart 3383.

Port services

Repairs

12.208

- 1 Hull and machinery repairs can be undertaken by at least three companies within the Port Hawkesbury/Mulgrave complex. A wide range of services includes boilerwork.

Other facilities

12.209

- 1 **Pollution control.** A pollution control boom is normally kept afloat E of Madden Point. One emergency and spill response vessel is permanently stationed at Point Tupper and operated by Point Tupper Marine Services. A standby vessel is located in Sydney, Nova Scotia.

Oily waste disposal.

Supplies

12.210

- 1 Fuel; provisions; fresh water. Availability of supplies should be ascertained through the agent, prior to arrival.

Communications

12.211

- 1 Small municipal airport close N of the town of Port Hawkesbury; Sydney Airport 144 km; Halifax International Airport 240 kms.

Small craft

McNairs Cove

12.212

- 1 A community operated marina is situated at McNairs Cove, 4 cables N of the Mulgrave Terminal. A breakwater extends from the N side of the cove to protect a U-shaped wharf on its W side.

Strait of Canso Yacht Club

12.213

- 1 The Strait of Canso Yacht Club is located near the inner end of the public pier at Port Hawkesbury.



Port Hawkesbury Wharf (12.207)

(Original dated prior 2002)

(Photograph – Transport Canada)

POINT TUPPER TO CANSO LOCK

General information

Chart 3383, Canadian Chart 4306 (see 1.32)

Route

12.214

- 1 From a position in mid-channel, about 5 cables SW of Point Tupper and clear of the shoal ground (45°36'N, 61°22'W) (12.204) extending about 1 cable SW from the wharf at Point Tupper, the route leads N and then NW for a total of about 3 miles towards Canso Lock.

Topography

12.215

- 1 The nature of the terrain is described at 12.160. The quarry from which stone was removed for the construction of the causeway is conspicuous below the summit of Cape Porcupine (45°38'N, 61°25'W). There are conspicuous gypsum cliffs on the NW side of Plaster Cove (45°39'N, 61°24'W).
- 2 A causeway, with a navigable lock (12.219) is built across the N part of the strait.

Pilotage

12.216

- 1 Pilotage (12.4) is compulsory.

Submarine cable

12.217

- 1 A disused submarine cable crosses the Strait from McNairs (MacNairs) Point (45°37'N, 61°23'W) to Grant Point. Mariners are cautioned not to anchor in these areas. See 12.197.

Directions

(continued from 12.166)

12.218

- 1 From a position in mid-channel, about 5 cables SW of Point Tupper and clear of the shoal ground (45°36'N, 61°22'W) (12.204) extending about 1 cable SW from the wharf at Point Tupper, the track leads initially N, then NW, passing:
- 2 SW of Dixon Rock, lying close to the N shore, marked by C28 Light-buoy (starboard hand), 5 cables N of Keaton Point (45°38'N, 61°24'W), thence:
Close SW of the head of the mooring jetty (8½ cables NNW of Keaton Point) extending about 1 cable SE from the entrance to Canso Lock; a light (mast) is exhibited from its outer end.

- 3 **Useful mark:**

Church, prominent, at Port Hastings (45°39'N, 61°24'W).

(Directions continue for N part of the Strait of Canso at 12.229)

Canso Lock

General information

12.219

- 1 **Description.** Canso Lock, (45°39'N, 61°25'W), has a length of 249.9 m and a width 24.4 m.
Mooring berths are situated at each end of the lock. SE end: 198 m in length. NW end: 213 m in length.
Canso Lock is owned and operated by the Canadian Coast Guard.

- 2 **Controlling depth** for the canal is 8.5 m.

Vertical clearance. Overhead power cables cross Canso Lock with a vertical clearance of 46.0 m.

- 3 **Maximum size of vessels handled.** Ships with a draught not exceeding 8.5 m, a length not exceeding 224 m, and a beam of 23.2 m may transit the lock, in accordance with *Canal Regulations*, at any time during the navigation season.

- 4 Ships with a draught greater than 8.5 m, but not exceeding 9.1 m, may transit the lock when the tidal level allows, as decided by the Canal Superintendent.

- 5 **Line handlers.** Vessels over 30.5 m in length are required to place an adequate number of line handlers ashore before the bows of the vessel enter the lock; at the discretion of the lockmaster ships over 153 m in length may be required to land three line handlers.

- 6 Line handlers may be hired on request to the lockmaster at least 6 hours prior to the ship's arrival. This service is provided at the vessels expense. The linesmen are not canal employees, and the responsibility for their safety and the service provided lies with the vessel.

12.220

Operating dates. The lock usually closes in January and opens in early April, on dates promulgated by Canadian *Notices to Mariners* and *Notices to Shipping*.

- 1 **Port radio.** Communications with the lockmaster should be established by radio on approaching. See *Admiralty List of Radio Signals, Volume 6 (5)* for details.

- 2 **Lock signals.** Signal lights are exhibited at each entrance; vessels should enter the lock when the green light shows, or on the instructions of the lockmaster.

Bridge. A swing bridge crosses the SE entrance to the lock; the following operating signals are shown from the bridge:

Fixed red light — bridge is fully closed.

Flashing red light — bridge is being prepared for opening, or is in motion.

Fixed white light: — bridge is fully open.

Anchorage and harbours

Cape Porcupine Quarry

12.221

- 1 Cape Porcupine Quarry wharf, also known as Martin Marietta wharf, is privately owned, and is situated on the W side of the strait about 3 cables E of the W end of the causeway. The berth, with a face 192 m long, consists of five concrete piers connected by catwalks, and is used for the export of aggregates and the import of coal. The depth alongside is 15 m. Two smaller piers are located about 305 m farther W.
- 2 Alongside depths are reported depths. The port authorities should be contacted for the latest information.

Other name

12.222

- 1 Madagascar Rock (45°38'N, 61°25'W).

CANSO LOCK TO NORTH CANSO

General information

Chart 3383

Route

12.223

- 1 From a position off Canso Lock (45°39'N, 61°25'W) the route leads NW for about 4 miles, to the pilot position off North Canso Light (45°41'N, 61°29'W).

Topography**12.224**

- 1 The nature of the terrain is included in the description at 12.160.

Depths**12.225**

- 1 The route is deep and free from dangers.

Pilotage**12.226**

- 1 Pilotage (12.4) is compulsory for vessels in the Strait of Canso See *Admiralty List of Radio Signals, Volume 6 (5)* for details.

Submarine cables**12.227**

- 1 Submarine power cables cross the strait about 1 cable and 7½ cables NNW of the causeway.

Vertical clearance**12.228**

- 1 Overhead power cables with a vertical clearance of 49.0 m (161 ft) span the strait about 8 cables NNW of the causeway; the supporting towers are marked by quick flashing lights.

Directions

(continued from 12.218)

Canso Lock to Ghost Beach**12.229**

- 1 **Balache Point Leading Lights.** From a position off the N end of Canso Lock (45°39'N, 61°25'W) the track leads NW, in deep water on the alignment (131½°) astern of the following lights for 1 mile into the middle of the strait, passing less than 1 cable from shoal ground at the S end of Ghost Beach on the NE shore:

- 2 Front light (white trapezium, red stripe on framework tower, 6 m in height) (45°39'N, 61°25'W) on NW entrance point to Canso Lock.

Rear light (white trapezium, inverted, red stripe, on square structure, 5 m in height) (219 m from front light).

The lights are visible on the leading line only and are shown from 1st April to 31st December.

Ghost Beach to North Canso**12.230**

- 1 **Cape Porcupine Leading Lights.** The alignment (144°), astern, of the following lights leads for a distance of 2½ miles to the vicinity of the pilot boarding position (12.4), ENE of North Canso Light (white round tower, red bands, 10 m in height) (45°41'N, 61°29'W):

Front light (white trapezium, red stripe, on framework tower, 6 m in height) (45°38'7N, 61°25'1W) near the mid point of the causeway.

- 2 Rear light (similar structure and tower, 14 m in height) (1583 m from front light) on the SW shore.

The lights are shown from 1st April to 31st December.

- 3 **Useful mark:**

North Canso Light (white round tower, red bands, 10 m in height) (45°41'N, 61°29'W). (Obscured when bearing less than 120°).

(Directions continue for St Georges Bay main route at 12.238, St Georges Bay E side at 12.242 and S side at 12.263)

Anchorage and harbours**Aulds Cove****12.231**

- 1 A public pier and fish plant are situated on the NW side of Aulds (Auld) Cove (45°39'N, 61°26'W); the pier is 30 m long, with a depth of 2.7 m (9 ft) alongside at its outer end. A pontoon is situated on the S side of the pier. Anchorage off Aulds Cove is exposed to N winds.

SAINT GEORGES BAY**GENERAL INFORMATION**

Charts 3383, 4765

Area covered**12.232**

- 1 This section describes St Georges Bay (45°50'N, 61°40'W) which is entered from S through the Strait of Canso, and from N between Cape George (45°52'N, 61°54'W) and Black Point also known as Cape Linzee about 17 miles NE. A number of small harbours are situated around the shores of the bay. It is arranged as follows:

Saint Georges Bay — main route (12.234).

Saint Georges Bay — E side (12.239).

Saint Georges Bay — S side (12.260).

Saint Georges Bay — W side (12.271).

Traffic separation scheme**12.233**

- 1 The traffic separation scheme in St Georges Bay is recommended for use by traffic entering or leaving the N end of the Strait of Canso.

The traffic lanes extend out to the N entrance to St Georges Bay; details can best be seen from the chart.

- 2 This scheme is not IMO-adopted, but the Canadian regulations for it follow the principles defined in Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* as modified for Canadian waters.

SAINT GEORGES BAY — MAIN ROUTE**General information**

Charts 3383, 4765, Canadian Chart 4462 (see 1.32)

Route**12.234**

- 1 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) at the N end of the Strait of Canso, the route leads through the in and out bound lanes of a traffic separation scheme (12.233) as indicated on the chart, to a position NE of Cape George (45°52'N, 61°54'W) or W of Henry Island (45°59'N, 61°36'W).

Depths**12.235**

- 1 Within the traffic separation scheme the least charted depth is 21.0 m (11.5 fathoms).

Traffic regulations**12.236**

- 1 A traffic separation scheme (12.233) exists in this area.

Principal mark**12.237****1 Major light:**

Cape George Light (white tower, 14 m in height) (45°52'N, 61°54'W).

Directions

(continued from 12.230)

12.238

1 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) at the N end of the Strait of Canso, the track out of St Georges Bay leads in the NW bound lane of the traffic separation scheme, passing, (with positions given from Cape Jack (45°42'N, 61°34'W)):

2 NE of Jack Shoal (1¼ miles NNE), a dangerous shoal, see 12.263, thence:

SW of Judique Bank (11 miles N) (12.242).

From this position the traffic separation scheme splits, and a lane either continues NW, or leads N into the Gulf of St Lawrence depending on destination, passing:

3 NE of Cape George, (17 miles NW) (12.232) from which a light is exhibited (12.237) or W of Judique Bank (above) and W of Henry Island (8½ miles NNW) (12.234) from which a light (12.242) is exhibited.

(Directions continue for Northumberland Strait at 14.16)

SAINT GEORGES BAY — EAST SIDE**General information**

Charts 3383, 4765 Canadian Chart 4462 (see 1.32)

Route**12.239**

1 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) at the N end of the Strait of Canso, the inshore route out of St Georges Bay leads NNW for about 20 miles giving access to Port Hood and several other small harbours and landings, to a position WSW of Black Point also known as Cape Linzee (46°02'N, 61°33'W).

Topography**12.240**

1 The land is high and is dotted at intervals with farms and houses. About 1 km inland the terrain rises to the summit of a ridge, 259 m in height, which runs parallel with the coast as far as Long Point (45°48'N, 61°30'W).

The coast between Long Point and Emersion Point also known as Big Rorys Point, 7½ miles N, is fronted by cliffs of red clay, with outcrops of detached rocks and boulders, and with shoal ground extending about 2 miles offshore in places.

Principal mark**12.241****1 Major light:**

Cape George Light (45°52'N, 61°54'W) (12.237).

Directions

(continued from 12.230)

12.242

1 **Caution.** The coastal waters between Long Point and McKays (MacKays) Point, 6 miles N, are so full of rocks and have such irregular depths that it is inadvisable to

navigate closer than 2 miles offshore, depending on draught.

2 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) the track leads NNW passing, (with positions given from Campbell Point (45°51'N, 61°30'W)):

WSW of VN2 Light-buoy (starboard hand) (2¼ miles WSW), marking the W extremity of Judique Shoals, thence:

WSW of Judique Bank (45°53'N, 61°34'W) a rocky area with much foul ground, should be avoided by small vessels in heavy weather, thence:

Clear of a shoal (6 miles WNW) with depths of 16 m (53 ft) over it, thence:

3 WSW of Henry Island (8½ miles NNW) which has cliffs, 30 m high, on its W side. A light (white tower, red stripes, 12 m in height) is exhibited from its summit, thence:

WSW of Point Vertical (10¾ miles NNW) the NW point of Port Hood Island where cliffs of gypsum can be seen.

4 The track then continues to a position WSW of Black Point (Cape Linzee) (46°02'N, 61°33'W).

5 **Clearing bearings.** The line of bearing (154°) of the whole of the high land at Cape Porcupine (45°38'N, 61°25'W) (Chart 3383) open W of Heffernan Point, 4 miles NNW, passes W of Judique Shoals in a least depth of 8.2 m (27 ft), but over the W part of Judique Bank.

The line of bearing (001°) of the church (46°01'1N, 61°32'1W) (12.248) at Port Hood, open W of Domhnall Ruadhs Head (Cape Susan) 4 miles S passes close W of Judique Shoals in a least depth of 6.4 m (21 ft).

Useful mark**12.243**

1 Church (spire) at Creignish (45°44'N, 61°27'W) is the only prominent feature S of Long Point.

(Directions continue, for Northumberland Strait at 14.13)

Port Hood

Canadian Chart 4448 plan of Port Hood (see 1.32)

General information**12.244**

1 **Position.** Port Hood lies in 46°00'N, 61°33'W.

Function. It is the only harbour along this stretch of coast to offer some degree of shelter for small vessels. Shoal ground extending from each side of the entrance between Portsmouth Point, the S point of Port Hood Island, and the mainland, 1 mile NE, provides some protection from S, but sustained S or SW gales send in a heavy swell.

2 **Approach and entry.** From a position about 2 miles SE of Henry Island Light, Port Hood is approached from S.

Limiting conditions**12.245**

1 **Deepest and longest berth.** See 12.250.

Ice. The harbour usually freezes over by the end of January and is clear of ice by the beginning of May.

Arrival information**12.246**

1 **Outer anchorage** may be obtained in depths of from 5 to 11 m (16 to 36 ft) mud and sand, off the E side of Port Hood Island; the recommended berth, which is indicated on the chart, is about 9 cables NNE of Portsmouth Point. The anchorage is said to be fairly secure but restricted.

2 **Local knowledge** is essential.

Harbour**12.247**

- 1 **General layout.** The harbour is enclosed by:
Port Hood Island on the W side; the coasts of the island are composed of cliffs, except for a sandy beach at the head of the bay at the N part of the E coast.
A ruined breakwater on the N side, joining Smith Point, the NE point of Port Hood Island, and the mainland at Port Hood 7 cables E. In 2002, the breakwater was partly submerged.
- 2 **Submarine cable.** A submarine cable is laid across the N end of the harbour from Smith Point to the shore close N of the public wharf at Port Hood.

Directions for entering harbour**12.248**

- 1 **Leading lights:**
Front light (white square, red stripe, on framework tower, 5 m in height) (46°01'·0N, 61°32'·5W) on the head of the public pier at Port Hood.
Rear light (similar structure and tower, 4 m in height) (829 m from front light).
- 2 From a position about 2 miles SE of Henry Island Light, the alignment (007¾°) of these lights leads through the entrance channel, marked by buoys, towards the pier at Port Hood, passing (with positions given from Portsmouth Point (45°59'N, 61°34'W)):
SE of Henry Island (1¾ miles SW) (12.234) thence:
W of the rocky shoal (1 mile SE) with depths of less than 5·5 m (18 ft) over it, and steep-to, which extends about 3½ cables from the mainland coast, 5 cables N of Ragged Point (45°58'N, 61°32'W), thence:
E of shoal ground (2¼ cables SSE) with depths of less than 5·5 m (18 ft) marked at its S end by VK7 Light-buoy (port hand), thence:
E of Spithead (3½ cables NNE) a sand flat, steep-to and usually visible, thence:
E of VK9 Light-buoy (port hand) (6 cables NE), thence:
W of Dean Shoal (1 mile NE) dries; steep-to; marked at its W end by VK12 Buoy (starboard hand) extending a little more than 1 cable from the mainland shore, thence:
- 5 Close W of VK14 Buoy (starboard hand) (1¼ miles NNE).
- 6 **Useful marks:**
Church (prominent red wooden building with spire) (46°01'·1N, 61°32'·1W) in Port Hood village.
White church (spire) (46°00'·8N, 61°34'·1W) at the head of the bay in the NE part of Port Hood Island.
Smith Point Light (red and white rectangle on framework tower, 3 m in height) (46°00'·9N, 61°33'·4W).

Side channels**12.249**

- 1 Two channels, marked by buoys (lateral), lead NW between Henry Point, the N extremity of Henry Island (45°59'N, 61°36'W) and Susannah Point, the SW point of Port Hood Island 9 cables NE. They should not be attempted, except in a vessel of less than 3 m draught, in good weather. Local knowledge is essential. The area between the buoys is encumbered with rocks.

Berth**12.250**

- 1 A T-shaped pier extends 180 m WSW from the shore at Port Hood. The outer face, 75 m long, has depths of 1·8 m alongside. There are depths of 0·3 to 2·4 m along the inner N face and 0·6 to 2·1 m on the S inner face. A light is exhibited from the head of the pier.

Port services**12.251**

- 1 **Supplies:** fresh provisions.

Small craft**12.252**

- 1 **Description.** A boat basin, with berths on three of its walls and depths of 0·9 to 1·8 m alongside, is situated inside a breakwater extending S from Smith Point (46°01'N, 61°33'W). The berth, located 1 cable W of the breakwater, is in a state of disrepair.
- 2 **Directions.** The approach to the boat harbour at Smith Point 1½ miles N of Portsmouth Point, lies SW of VM6 Buoy (starboard hand) marking the outer end of a shoal spit extending 5½ cables SSE from Smith Point.

Anchorage and harbours**Murphys Pond****12.253**

- 1 **Description.** A boat basin for fishing craft, enclosed by two breakwaters, is situated at Murphys Pond (46°02'N, 61°33'W) close N of Port Hood.
Directions. The approach to the basin is marked by VX1 Light-buoy (port hand) moored 1¼ cables S of the W breakwater head. Murphys Point Light (red framework tower, 4 m in height) is exhibited from the W breakwater head.
- 2 **Berths** are located on three sides of the basin, with depths of 0·3 to 2·1 m alongside. The berths on the E side of the basin have depths of 1·2 to 2·1 m alongside; the other berths 0·3 to 0·9 m.

Small craft**Creignish****12.254**

- 1 A public breakwater-wharf at Creignish (45°44'N, 61°27'W) is 68 m long and dries on all faces. In 1983, this structure was in disrepair.

Judique South**12.255**

- 1 **Description.** Judique South (45°51'·5N, 61°30'·2W) is a fishing village with a small boat basin protected by a rock mound breakwater and a L-shaped public jetty.
Directions. The harbour is approached from W passing N of Judique Shoals (12.242) which lie about 1¼ miles SW of the harbour. A light (red and white rectangle on tower, 6 m in height) is exhibited from the head of a jetty in the harbour.
- 2 The entrance channel is 25 m wide and has a depth of 0·3 m (1 ft).
Berths. Inside the basin there are three berths, each about 30 m long, which form the E side of the basin. A fourth wharf 19 m long joins the N face. Depths alongside are from 0·3 to 1·5 m.

McKays Point**12.256**

- 1 At McKays (MacKays) Point (45°54'N, 61°31'W) there is an angled public jetty 42 m long, with a least depth of

0.9 m alongside the W end of the N face, and drying at the E end.

There is a depth of only 0.6 m (2 ft) in the approach.

Katies Point

12.257

- 1 There is a L-shaped public pier, protected by a breakwater, close S of Katies Point (Kate Point) (45°57'N, 61°32'W).

The outside face of the pier, 20 m long, has a depth of 1.2 m alongside.

Canadian Chart 4448 plan of Port Hood (see 1.32)

Little Judique Harbour

12.258

- 1 **Description.** Little Judique Harbour about 5 cables N of Domhnall Ruadhs Head (Cape Susan) (45°57'N, 61°32'W) is a small sheltered harbour for small craft, entered between two breakwaters. The channel has a width of 11 m and there is a depth of 0.9 m in the approach.

A light is exhibited at the outer end of the N breakwater from a circular mast, 3 m in height.

- 2 **Directions.** The white sector (121°–123°) of the direction light, (red square, white stripe on framework tower, 7 m in height), situated on the S side of the river mouth, leads towards the entrance.

- 3 **Berths.** A public wharf, with a fish collection centre nearby, extends along the S side of the harbour, between the entrance and a bridge across the river 1½ cables E. The inner part of the wharf, 140 m long, has depths of 0.6 to 1.8 m alongside. A wharf on the N side, 82 m long, has depths of 0.9 to 1.8 m alongside.

Harbourview

12.259

- 1 A boat basin enclosed by two breakwaters is situated on the mainland coast at Harbourview (45°59'N, 61°32'W). The S breakwater is in ruins.

The entrance to the basin is 30 m wide. A drying rock lies close outside.

SAINT GEORGES BAY — SOUTH SIDE

General information

Charts 3383, 4765, Canadian Chart 4462 (see 1.32)

Route

12.260

- 1 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) at the N end of the Strait of Canso, the route leads NW for about 4 miles, then W for about 15 miles towards Antigonish Harbour entrance, to the vicinity of VS Light-buoy (safe water) (45°42'1N, 61°53'3W). This route gives access to several other small harbours and landings.

Offlying bank

12.261

- 1 Pomquet Banks lie between 2½ and 7 miles N of Pomquet Island (45°39'N, 61°45'W) with a least charted depth of 37 ft.

Principal mark

12.262

- 1 **Major light:**

Cape George Light (45°52'N, 61°54'W) (12.237).

Directions

(continued from 12.230)

12.263

- 1 **Caution.** Jack Shoal is dangerous in all weathers, and it is not advisable to approach inside a depth of 18.3 m (60 ft); for clearing bearing, see below.

- 2 From the vicinity of the pilot boarding position (45°41'7N, 61°28'3W) at the N end of the Strait of Canso, the route leads initially NW, passing (with positions given from Cape Jack, red sandstone, 18 m high (45°42'N, 61°34'W)):

NE of VU4 Light-buoy (starboard hand) (2 miles NNE), marking the outer extremity of Jack Shoal. The track then leads W, passing:

- 3 N of Bowman Bank, (6 miles W) extending ¾ miles N from the coast, thence:

N of shoal ground, (7½ miles WSW) with depths of less than 11 m (36 ft), extending about 1 mile NE from Pomquet Island (45°39'N, 61°45'W) red sandstone; wooded; 15 m high; Pomquet Island Light (white square tower, 8 m in height) is exhibited from the NE end of the island. Thence:

- 4 N of the rocky bank (10 miles W) with a least depth of 2.7 m (9 ft) over it, extending 1¼ miles ENE from Monks Head, also known as Monk Head (45°41'N, 61°50'W) a prominent white gypsum cliff, 14 m (45 ft) high.

- 5 The track then continues to the vicinity of VS Light-buoy (45°42'1N, 61°53'3W).

- 6 **Clearing bearing.** The line of bearing 120° of Canso Light passes 1 mile NE of the drying rocks on Jack Shoal. This bearing is also the S limit of the white sector of North Canso Light.

- 7 **Useful mark:**

Barrios Beach Breakwater Light (45°39'N, 61°38'W) at the entrance to Tracadie Harbour.

(Directions continue for Saint Georges Bay W side at 12.274)

Anchorage and harbours

Canadian Chart 4448 plan of Havre Boucher (see 1.32)

Havre Boucher

12.264

- 1 **Position and function.** Havre Boucher (45°41'N, 61°32'W) is a restricted but convenient harbour for small vessels about 1½ miles W of North Canso Light.

- 2 **Local knowledge** is required.

- 3 **Directions.** From a position 1 mile NNE of the harbour entrance, the track leads SSW on the alignment of the leading beacons.

- 4 **Leading beacons:**

Front beacon (red stripe, white tower, 9 m in height) (45°40'9N, 61°31'7W) on SW shore of the harbour.

Rear beacon (red stripe, white tower, 9 m in height) (436 m from front beacon).

The alignment of these beacons (194½°) leads through the narrow entrance channel, between stony points, in a least depth of 1.8 m (6 ft); the channel is marked by VQ4 Light-buoy (starboard hand) and stakes.

- 5 **Anchorage** may be obtained within the harbour, once clear of the entrance channel, when the harbour opens into an anchorage with depths of from 2 to 3.7 m (6 to 12 ft).

- 6 **Berth.** A T-shaped public pier extends from the W shore, close inside the entrance, with a berth 30 m in length at its outer end and a depth of 3.4 m alongside. The public pier is approached through a buoyed channel.

Canadian Chart 4447 (see 1.32)

Pomquet Road and Bayfield

12.265

- 1 **Position and function.** Pomquet Road (45°39'N, 61°44'W) in the bay SE of Pomquet Island, is partially sheltered by that island and by a breakwater extending 187 m NE from Pomquet Point close SW of the island.

The bay is considered safe in the summer, in the absence of NE gales.

Bayfield village, with a church, lies near the entrance to Afton River, on the S side of the bay; small craft can enter the river at HW.

- 2 **Depths.** For the latest controlling depths, the chart should be consulted.

Directions. From a position about 1 mile NE of Pomquet Island (45°39'N, 61°45'W) the track leads S, passing (with positions given from Pomquet Island Light):

W of Bowman Bank (45°40'N, 61°41'W) (2 miles E), thence:

E of the drying reef (3 cables ESE) that extends about 1½ cables from the E side of Pomquet Island, thence:

E of VR4 Light-buoy (starboard hand), marking the SE edge of a drying spit extending S from Pomquet Island, thence:

To the chosen anchorage or berth.

- 3 **Useful mark:**

Pomquet Island Light (white square tower, 8 metres in height) (45°39'N, 61°45'W).

- 4 **Side channel.** A shallow passage, about 1 cable wide, leads between the drying spit S of Pomquet Island and the breakwater at Pomquet Point.

- 5 **Anchorage** may be obtained in depths of 7m (23 ft), sand, with the S end of Pomquet Island (45°39'N, 61°45'W) bearing 353°, distant 5 cables. An alternative anchorage berth is with the S end of Pomquet Island bearing 305°, distant 7 cables. This anchor position is indicated on the chart.

- 6 **Berth.** Bayfield Wharf (45°39'N, 61°45'W), L-shaped and 108 m long, projects from the SE side of Pomquet Point; the berth at the outer end is 16 m long with a depth of 3 m alongside. A breakwater extends from the shore close N of the wharf. VR8 Light-buoy (starboard hand) is moored close to the end of the wharf.

Small craft

Canadian Chart 4447 (see 1.32)

Breens Pond

12.266

- 1 Breens Pond breakwater, about 122 m long, with very little water around it at LW, extends W from the coast 5 cables SSW of Cape Jack (45°42'N, 61°34'W).

Linwood Harbour

12.267

- 1 **Description.** Linwood (Little Tracadie) Harbour is a small and shallow harbour with a drying bar across the entrance, at the head of the bay between Cape Blue (45°40'N, 61°36'W) and Barrios Head, red sandstone cliff about 1¼ miles SSW. Linwood village is situated on the E side of the harbour.

Useful mark:

Church (spire) (45°38'·7N, 61°34'·7W) at Linwood.

Tracadie Harbour

12.268

- 1 **Description.** Tracadie Harbour (45°38'N, 61°38'W) is enclosed by Tracadie Big Island (Delorey Island).

The harbour penetrates about 2 miles inland, its SE arm leading to the mouth of Tracadie River, which is not navigable.

The outer part of the harbour is 1 mile wide and has depths of 4 m (13 ft) in the middle. The village of Tracadie is situated on the S side of the harbour.

- 2 **Directions.** The harbour is entered through a narrow buoyed channel, which, in 1990, had a least depth of 0·9 m in mid-channel and between the E end of Tracadie Big Island and a breakwater, 48 m in length, extending NW from the E side of the entrance at Barrios Beach (45°39'N, 61°38'W).

- 3 **Useful marks:**

Church spire, conspicuous (45°37'·4N, 61°38'·4W) at Tracadie, on the S side of the harbour.

Barrios Beach Breakwater Light (red and white rectangle on framework tower, 8 m in height) near the inner end of the breakwater.

Berths. A public jetty, 30 m long is situated at Barrios Beach, (45°39'N, 61°38'W) with depths of 1·2 m alongside its three faces; a derrick stands on the jetty.

- 4 An angled jetty for fishing vessels, 37 m long, is situated on the W shore of the harbour, about 1¼ miles WSW of the entrance. There are depths of 1·2 m alongside the S face and 1·5 m alongside the N face.

Pomquet Harbour

12.269

- 1 **Description.** Pomquet Harbour (45°38'N, 61°48'W) is very shallow and is accessible to small craft only. Local knowledge is required.

Directions. The harbour is entered at the E end of a range of low sand-hills and a sandy beach, 1½ miles WSW of Pomquet Island (12.261); the narrow channel through the shifting sand bar has a depth of 0·6 m (2 ft).

- 2 Within the entrance the harbour divides into two arms. The S arm is navigable by small craft between flats for a distance of about 3 miles to its head; the W arm is navigable only by small craft for a distance of about 2½ miles to the village of Pomquet at its head, where there is a church.

Canadian Chart 4446 (see 1.32)

Antigonish Harbour

12.270

- 1 **Description.** Antigonish Harbour (45°41'N, 61°53'W) is an extensive shallow estuary with several rivers flowing into its head. Hills rise to an elevation of 232 m from the W shore of the harbour.

- 2 **Depths.** Depths in the channel increase as far as Williams Point, about 4 miles within the entrance, where the harbour divides into two shallow arms. Owing to continuous silting, the channel is subject to change.

- 3 **Tidal flow.** The flow at the entrance seldom exceeds 2 kn, except for the out-going stream during the spring thaw.

Local knowledge is required.

Directions. The harbour is entered over a dangerous sand bar, and between low sandy points, about 2½ miles WNW of Monks Head, (45°41'N, 61°50'W). The least charted depth in the entrance channel is 0·3 m (1 ft) (2002).

- 4 From the vicinity of VS Light-buoy (safe water) moored in approximate position 45°42'·1N, 61°53'·3W, the track leads through a channel across the bar and into Antigonish

Harbour. Antigonish is situated at the head of the SW arm above Williams Point.

Caution. The direction of the channel and depths over the bar are liable to change.

Anchorage off the bar is not good, as it is exposed to NE gales and the bottom is rocky.

SAINT GEORGES BAY — WEST SIDE

General information

Canadian Chart 4462 (see 1.32)

Route

12.271

- 1 From the vicinity of VS Light-buoy (45°42'·1N, 61°53'·3W), the route leads N for about 11 miles to a position NE of Cape George (45°52'N, 61°54'W), giving access to several small boat harbours and landings.

Topography

12.272

- 1 There are conspicuous white cliffs close N of the entrance to Ogdens Pond, also known as Ogden Pond (45°43'N, 61°54'W).

Principal mark

12.273

- 1 **Major light:**
Cape George Light (45°52'N, 61°54'W) (12.237).

Directions

(continued from 12.263)

12.274

- 1 From the vicinity of VS Light-buoy (45°42'·1N, 61°53'·3W) the track leads N, passing (with positions given from Cribbons Point (Cribbean Head) (45°45'N, 61°54'W)):
 - E of MacIsaacs (McIsaacs) Rock, (1·5 miles SSE), sometimes marked by breakers. Two shoal patches with 9·1 m (30 ft) and 9·8 m (32 ft) over them lie 1¼ miles SE and 2 miles ESE, respectively. MacIsaacs (McIsaacs) Point lies about 4 cables NW. Thence:
- 2 E of Cribbons Point (Cribbean Head), a prominent rock cliff, from which a light (framework tower, 3 m in height) is exhibited, thence:
 - E of VU2 Light-buoy (starboard hand), (7 miles N), moored about 3 cables NE of Cape George.
- 3 The track then continues to a position NE of Cape George (7 miles N), a precipitous headland rising to an elevation of 183 m (600 ft), and WSW of Black Point (46°02'N, 61°33'W). Cape George Light (12.237) is exhibited from the cape.
- 4 **Useful marks:**
 - Radio tower (elevation 127 m (417 ft); red lights) (45°44'N, 61°54'W).
 - Cribbons Point (Cribbean Head) wharf light (45°45'N, 61°54'W) (12.277).

Ballantynes Cove Wharf Light (45°51'·5N, 61°55'·1W).

*(Directions continue for
Northumberland Strait at 14.16)*

Anchorage and harbours

*Canadian Chart 4404 plan of Ballantynes Cove Wharf
(see 1.32)*

Ballantynes Cove

12.275

- 1 **Description.** Ballantynes Cove (45°51'N, 61°55'W) is situated on the S side of Cape George. There is an active fishery and the wharf is frequently used by yachtsmen.
- 2 **Anchorage** may be obtained in Ballantynes Cove during offshore winds, but the holding ground is not good.
 - Berths.** A L-shaped public jetty, 162 m long, (45°52'N, 61°55'W) with a spur extending 38 m from the W side, form an inner basin. The E side of the jetty is protected by boulders. There are depths of 1·2 to 3 m alongside the W side of the jetty, and 2·1 to 3 m alongside the spur, on which stands a fisheries building. A light (framework tower, 5 m in height) is exhibited from the outer end of the wharf.

Small craft

Ogdens Pond

12.276

- 1 Ogdens Pond also known as Ogden Pond (45°43'N, 61°54'W) is separated from the sea by a sand beach, through which is cut a narrow boat channel with depths of 0·4 m (1½ ft); strong tidal streams run through the cut. Within the pond there are depths of 3 m (10 ft).

Canadian Chart 4404 plan of Cribbean Head Wharf (see 1.32)

Cribbons Point

12.277

- 1 **Description.** Cribbons Point (Cribbean Head) (45°45'N, 61°54'W) is a prominent rock cliff.
 - Useful mark:**
Cribbean Head main light (framework tower, 3m in height), with its lower portion enclosed, is exhibited from the cliff.
- 2 **Berth.** A public jetty extends 82 m S from the S side of Cribbons Point (Cribbean Head) (45°45'N, 61°54'W). The outer end is 56 m across the face, with depths of 0·6 to 1·5 m along the W side and outer wall; the seawall on the E side is protected by boulders.
 - A light (framework tower, 3 m in height) is exhibited from the outer end of the jetty.

Canadian Chart 4462 (see 1.32)

South Lake

12.278

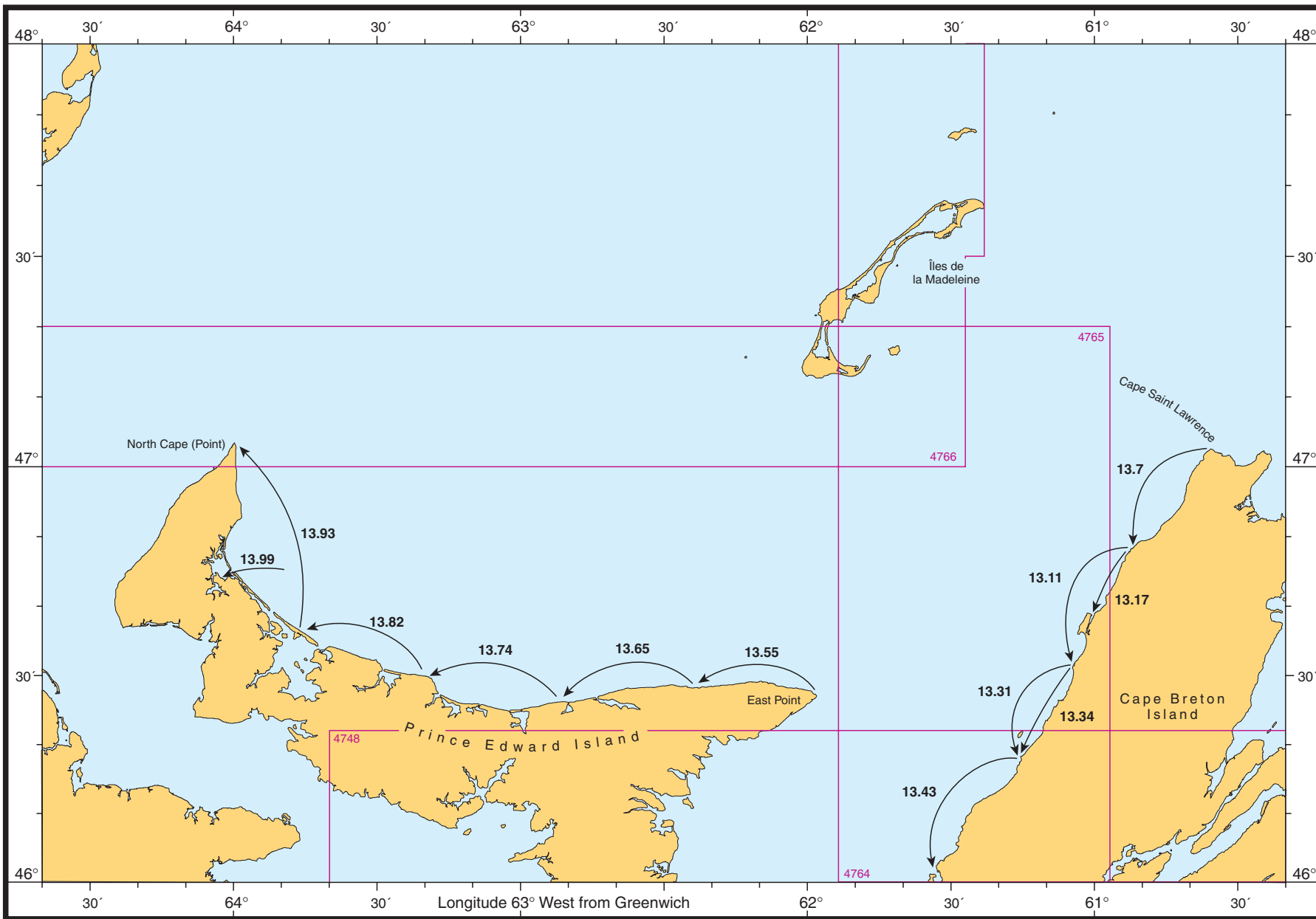
- 1 A small boat harbour at South Lake (45°46'N, 61°55'W) 1 mile NW of Cribbons Head, is entered through a narrow channel cut through the beach, with training walls on each side.

Home

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October 2003

CHAPTER 13

CAPE BRETON ISLAND — NORTH-WEST COAST AND
PRINCE EDWARD ISLAND — NORTH COAST

GENERAL INFORMATION

Charts 4764, 4765

Scope of the chapter**13.1**

- 1 This chapter comprises the coastal routes, anchorages and harbours of the coastal waters on the NW coast of Cape Breton Island from Cape Saint Lawrence (47°03'N, 60°36'W) to Black Point (Cape Linzee) (46°02'N,

61°33'W), and the coastal waters N of Prince Edward Island from East Point (46°27'N, 61°58'W) to North Point Reef (47°07'N, 63°58'W). The E approach to Northumberland Strait is covered in Chapter 14. The chapter is divided into the following sections:

Cape Breton Island — NW coast (13.2).
Prince Edward Island — N coast (13.51).

CAPE BRETON ISLAND — NORTH-WEST COAST

GENERAL INFORMATION

Chart 4764

Area covered**13.2**

- 1 This section describes the coastal routes, anchorages and harbours along the NW coast of Cape Breton Island, from a position N of Cape Saint Lawrence (47°03'N, 60°36'W) to a position WNW of Black Point (46°02'N, 61°33'W).

It is arranged as follows:

Cape Saint Lawrence to White Capes (13.7).
White Capes to Friars Head (13.11).
Friars Head to Marsh Point (13.31).
Marsh Point to Black Point (13.43).

Topography**13.3**

- 1 The NW coast of Cape Breton Island, between Cape Saint Lawrence (47°03'N, 60°36'W) and Black Point, about 72 miles SW, is high, with long stretches of precipitous cliffs, rising a short distance inland to a ridge with summits of about 457 m.

The cliffs are notched at intervals by ravines and gullies where small rivers and streams enter the sea. Small fishing villages and resorts are scattered thinly along the shore.

Depths**13.4**

- 1 There is, generally, deep water offshore, the shoal ground and rocks being confined to within 5 cables of the coast, except near the islands, rivers and other areas where the sea and weather have eroded the cliffs.

Harbours and anchorages**13.5**

- 1 The few harbours that exist on this coast are, generally, constricted and shallow, the largest being Chéticamp, midway between Cape Saint Lawrence and Black Point. There are no secure anchorages.

Natural conditions**13.6**

- 1 **Flow.** There is a set towards the coast, even in good summer weather, due sometimes to the Gaspé Current (1.136), which sets SE between Îles de la Madeleine (Magdalen Islands) (47°30'N, 61°45'W) and Prince Edward Island, (60 miles SW) and at other times to the out-going tidal stream, setting NE towards the coast.

- 2 The flow is irregular in direction and rate, but does not normally exceed 1 kn in summer, even close inshore.

Local weather. In autumn and early winter the prevailing NW winds cause a heavy onshore sea and swell, and it is advisable to keep well offshore.

CAPE SAINT LAWRENCE
TO WHITE CAPES

General information

Chart 4764

Topography**13.7**

- 1 The coastal terrain between Cape Saint Lawrence (47°03'N, 60°36'W) and White Capes, 20 miles SW, is described at 13.3.

Passage directions

(continued from 6.23)

13.8

- 1 From a position NW of Cape St Lawrence (47°03'N, 60°36'W) the track leads SW for 20 miles to a position NW of White Capes (46°48'N, 60°53'W); there are no known dangers outside the coastal rocks and shoals, all of which lie close inshore. See 13.6 for information about flow.

Useful marks:

Cape Saint Lawrence Light (framework tower, 6 m in height) (47°03'N, 60°36'W).

Pleasant Bay Main Light (white tower, 8 m in height) (46°50'N, 60°48'W).

(Directions continue for the coastal passage at 13.16)

(Directions for the coastal passage along the N Coast of Prince Edward Island are given at 13.60)

Anchorage and harbours**Pleasant Bay****13.9**

- 1 **Position and function.** Pleasant Bay (46°50'N, 60°48'W) has a small harbour for small craft situated at the mouth of Grande Anse River.

Directions. The entrance channel, with a reported depth of 2.4 m (9 ft), passes between two breakwaters, 40 m apart, each 97 m long, and between two piers, 12 m apart, leading into the boat basin. Lights are exhibited from the head of each breakwater.

- 2 **Leading lights:**
 Front light (white rectangle, red stripe, on framework tower, 4 m in height) (46°50'N, 60°48'W).
 Rear light (similar construction and tower, 3 m in height) (71 m from front light).
 The lights are exhibited from 1st May to 15th December.
 The alignment (143½°) of these lights leads towards the harbour, passing close SW of VC Light-buoy (port hand), moored about 6 cables NW of Pleasant Bay Main Light.
- 3 **Useful marks:**
 Pleasant Bay Breakwater Light (mast, 4 m in height) is exhibited at the harbour entrance. It was reported (1999) that this light is to be discontinued.
 Pleasant Bay Main Light (46°49'·9N, 60°47'·8W), (white tower, 8 m in height).
Berth. A L-shaped pier with a berth 25 m long across the face and depths of 1·2 to 2·1 m at its outer end is situated on the N side of the basin.
Other facilities: boat slip with mechanical hoist.

Small craft

Lowland Cove

13.10

- 1 Lowland Cove (47°01'N, 60°37'W), about 2 miles SSW of Cape Saint Lawrence, has a small village around its shores, with a boat slip and mechanical hoist.

WHITE CAPES TO FRIARS HEAD

General information

Chart 4764

Route

13.11

- 1 From a position NW of White Capes (46°48'N, 60°53'W), the route leads 18 miles SW to a position NW of Friars Head (46°31'N, 61°05'W).

Topography

13.12

- 1 The W coast of Chéticamp Island (46°38'N, 61°02'W) consists of perpendicular or overhanging cliffs of sandstone, nearly 60 m high, which are being constantly eroded by the sea.

The rising land on the mainland coast is scattered with farms; the highest feature is Mount Squirrel (46°33'N, 61°01'W), 372 m in height.

Depths

13.13

- 1 Soundings give little warning of approach to the shoal ground surrounding Jérôme Ledge (46°40'N, 61°00'W).

Flow

13.14

- 1 The current or tidal stream may set towards this coast. See 13.6 for information about flow.

Principal marks

13.15

Landmarks:

- Enragée Point Lighthouse (white 8-sided tower, 13 m in height) (46°39'N, 61°02'W).
 Radio tower, conspicuous (elevation 473 m (1553 ft) red lights) (46°35'N, 60°59'W).

- 1 **Major light:**
 Enragée Point Light — as above.

Directions

(continued from 13.8)

13.16

- 1 From a position NW of White Capes (46°48'N, 60°53'W), the track leads SSW, passing:
 WNW of Jérôme Ledge, lying about 2 miles NE of Enragée Point Light, thence:
 WNW of Chéticamp Island, which is joined to the mainland by a narrow beach at its S end, thence:
 WNW of Friars Head (46°31'N, 61°05'W).
- 2 **Clearing marks.** The alignment (210°) of Enragée Point Lighthouse and The Capes, on the W coast of Chéticamp Island, 2¼ miles SSW, passes NW of Jérôme Ledge.
 (Directions continue at 13.33)

Chéticamp Harbour

Canadian Chart 4449 plan of Chéticamp Harbour (see 1.32)

General information

13.17

- 1 **Position.** Chéticamp Harbour (46°38'N, 61°01'W), is a narrow inlet between Chéticamp Island and the mainland. Chéticamp Bay and Island lie about 11 miles SSW of White Capes.
Function. The port is only suitable as an anchorage for coasters.
Approach and entry. The harbour is approached from the NW and entered abreast Gros Cap, the NE corner of Chéticamp Island.

Limiting conditions

13.18

- 1 **Controlling depths.** The minimum charted depth in the entrance channel is 4·6 m (15·1 ft) (1998), but due to continual silting there may be less water. The channel depths should be verified locally before entering.
Deepest and longest berth. Public pier. (13.23).
Ice usually forms about the middle of January, and has been known to restrict navigation until mid-May. The harbour is normally open from mid-April to early January.

Arrival information

13.19

- 1 **Outer anchorage** is available, in depths of about 8 m (26 ft), E of La Pointe, (46°36'N, 61°03'W), the SW point of Chéticamp Island. See 13.27.

Harbour

13.20

- 1 **General layout.** The harbour, which extends nearly 3 miles SSW to the beach joining the S end of Chéticamp Island to the mainland, has a boat basin, some piers and a marina on its E shore. The anchorage area lies about 1 mile SSW of Gros Cap.

Major lights:

- Enragée Point Light (46°39'N, 61°02'W) (13.15).
 Chéticamp Harbour Sector Light (13.21).

Directions for entering harbour

13.21

- 1 **Caveau Point Leading Lights:**
 Front light (white rectangle, red stripe, on framework tower, 6 m in height) (46°38'·9N, 61°00'·1W).
 Rear light (similar construction and tower, 8 m in height) (233 m from front light).
 From a position N of Enragée Point (46°39'N, 61°02'W) the alignment (108°) of these lights leads in the approach channel to the end of the leading line, passing:

SSW of the SW extremity of Caveau Shoals, 7 cables ENE of Enragée Point. Thence rounding VD2 Light-Buoy (starboard hand).

- 2 **Chéticamp Harbour Sector Light.** From a position at the end of Caveau Point Leading Lights leading line, the track leads SSW to Chéticamp main wharf, for a distance of about 8½ cables, in a dredged channel marked by buoys (lateral), and, by night, in the white sector (190½°) of Chéticamp Harbour Sector Light (white round tower, 8 m in height) (47°37'8N, 61°00'8W).

If proceeding to the public pier (13.23), after passing Chéticamp main wharf, the track continues SW for a farther 6¼ cables in a depth of about 6 m.

- 3 The track continues S, passing close W of a drying spit, extending from the E shore about 5 cables N of the sector light, and between VD13 Light-buoy (port hand) and VD14 Light-buoy (starboard hand).

Anchorage

13.22

- 1 The most sheltered anchorage is in depths of about 7.3 m (24 ft), mud, off the piers (13.23). In this position there is no swell, but there is little swinging room and it can be unsafe in strong NE winds.

A wreck lies close off the W shore with a depth of 0.3 m (1 ft) over it, opposite the public pier.

Berths

13.23

- 1 Piers extend from the E shore as follows (with positions given from Chéticamp Harbour Sector Light):

United Fishermen's Wharf (¾ cables NNE); length at outer face 53 m; depth 3.7 m (1992).

Irving Oil Pier (½ cable WNW); depth approx 3.7 m. (In disrepair).

Public Pier (2¼ cables SW); length at outer face 60 m; depth approx 4.6 m.

There are several other small piers and wharves used by fishing vessels.

Port services

13.24

- 1 **Repairs:** a patent slip with a capacity of 72 tonnes is situated at the head of the small craft basin.

Supplies: provisions in small quantities; diesel oil in barrels.

Small craft

Basin

13.25

- 1 A basin (46°38'2N, 61°00'5W) for small craft lies within a tongue of shingle, 4½ cables NNE of Chéticamp Harbour Sector Light. There are depths of 2.7 m (9 ft) in the approach channel and 1.2 to 3 m (4 to 10 ft) inside the basin.

A breakwater, 96 m long, protects the basin on the W side; another breakwater extends from the shore close S of the basin.

Marina

13.26

- 1 A small marina (46°37'4N, 61°01'1W) is situated 4½ cables SSW of Chéticamp Harbour Sector Light.

La Pointe

13.27

- 1 **General information.** Chéticamp Point also known as La Pointe (46°36'N, 61°03'W), the SW point of Chéticamp

Island, forms the W entrance point to a bay on the S side of the island.

A small basin, with a least depth of 1.2 m (4 ft), is enclosed within the arms of a L-shaped public pier situated on the E side of La Pointe; buildings and plant connected with fishery stand in the vicinity. The basin is 49 m wide and the N part dries. A small breakwater lies ½ cable SW, which provides some additional protection.

Anchorage is available, in depths of about 8 m (26 ft), E of La Pointe, but winds from between SW and NW send in a heavy sea. The holding ground, loose sand and gravel, is poor, and this anchorage is considered unsafe after the month of August.

- 2 A light (framework mast, 3 m in height) is exhibited from the outer end of the main arm of the pier.

Caution. A rock with a least depth of 1.5 m (5 ft) over it lies 2¾ cables S of the light on the pier.

Canadian Chart 4449 plan of Grand Étang Harbour (see 1.32)

Grand Étang Harbour

13.28

- 1 **General information.** Grand Étang Harbour (46°33'N, 61°03'W) also known as Squirrel Pond is a secure natural harbour about 4 miles S of Chéticamp Island, with a basin, about 170 m long and 90 m wide, for small fishing craft.

The harbour is protected by two breakwaters extending NW from the coast.

A causeway and bridge with a vertical clearance of 2 m (6 ft), span the harbour about 2 cables within the entrance.

- 2 The least depth in the entrance channel was about 1.2 m (4 ft) (1998), but this should be verified before entering, as the harbour and approaches are subject to silting.

The basin was originally dredged to 3.7 m (12 ft) (1958); depths above the basin are from 0.3 to 1.5 m (1 to 5 feet).

- 3 **Directions.** The harbour is approached from NW and entered on the alignment (130½°) of Grand Étang Leading Lights, situated on the E side of the basin:

Front light (white rectangle, red stripe on framework tower, 6 m in height) (46°32'9N, 61°02'6W) about 2½ cables SE of the E breakwater head.

Rear light (similar construction and tower) (197 m from front light).

Caution. Within the basin, there is a depth of 0.3 m (1 ft) just N of the leading line.

Useful mark:

SW Breakwater Light (46°33'N, 61°03'W) mast, on the head of the breakwater.

- 4 **Berths.** There are berths at Grand Étang as follows: Public Jetty (SW side of basin), length 53 m, depth 0.6 m to 2.1 m.

Public Jetty (Close SE of above jetty) (L-shaped) length 67 m, depth 1.2 to 1.5 m.

United Maritime Fishermen's wharf, (close N of public wharves), length on berthing face 27 m, depth 1.8 m.

In addition, numerous privately owned wharves, some in ruins, lie on each side of the basin.

Chart 4764

Boat landings

13.29

- 1 There are places between Chéticamp Island (46°38'N, 61°02'W) and Friars Head, 5 miles S, where small craft can land in good weather.

Friars Head has a small, deep cove on its N side, in which there are ruins of a breakwater.

Other names

13.30

Cap Rouge (46°43'N, 60°56'W).

Presqu'île (46°42'N, 60°57'W).

FRIARS HEAD TO MARSH POINT

General information

Chart 4764

Route

13.31

- 1 From a position WNW of Friars Head (46°31'N, 61°05'W), the route leads SSW for about 15 miles to a position WNW of Marsh Point (46°18'N, 61°16'W). The coastal waters give access to Margaree Harbour (46°26'N, 61°07'W).

Topography

13.32

The coastal terrain is described at 13.3.

Directions

(continued from 13.16)

13.33

- 1 From a position WNW of Friars Head (46°31'N, 61°05'W), the track leads SSW, passing:
WNW of Margaree Island, (13.36), from where a light (white tower, 8 m in height) is exhibited from the summit. The light may be obscured by cliffs if the vessel is dangerously close to the island.
Thence:
WNW of Marsh Point.
(Directions continue at 13.44)

Channel inshore of Margaree Island

Canadian Chart 4463 (see 1.32)

General information

13.34

- 1 **Route.** From a position NE of Margaree Island, (46°21'N, 61°16'W) a navigable channel, about 1 mile in width, with a minimum charted depth of 11 m (38 ft), leads SW between Margaree Island and unnamed shoals on the mainland side.
Tidal streams. The tidal streams and currents are strong near the island, and in the channel between the island and the mainland.
- 2 **Swell.** Except in good weather, the swell rolls completely round the island.

Directions

13.35

- 1 The recommended track leads through the centre of the channel, passing (with positions given from Margaree Island Light House (46°21'N, 61°16'W)):
Between shoal ground, (7 cables E) with depths of less than 11 m (36 ft), extending about 3½ cables SE from the E side of Margaree Island, and shoal ground (1¼ miles E) with depths of less than 11 m (36 ft) extending about 1¼ miles NW from the mainland coast.
- 2 **Useful mark:**
Margaree Island Light (46°21'N, 61°16'W) (13.33).

Margaree Island

General information

13.36

- 1 Margaree Island also known as Sea Wolf Island (46°21'N, 61°16'W) is surrounded by submerged rocks, making it difficult to approach; shoal ground extends for a distance of about 1 cable around its N end. The island lies about 8 miles SW of Margaree Harbour.
Topography. The island is about 79 m (260 ft) in elevation; precipitous; of stratified limestone topped with stunted trees.

- 2 **Swell and currents.** See 13.34.

Directions

13.37

- 1 See Directions at 13.35 for the channel inshore of the island.

Useful mark:

Margaree Island Light (46°21'N, 61°16'W) (13.33).

Anchorage

13.38

- 1 The bottom in this area is composed of rock and occasional loose sand and gravel, with irregular depths, affording poor holding ground.

Small craft

Anse des Doucet

13.39

- 1 **Description.** Anse des Doucet also known as Friars Head Boat Harbour (46°30'N, 61°05'W), a fishing station 2 miles S of Friars Head, has a short breakwater protecting a boat anchorage. A small boat landing stage, in the shelter of the breakwater, has a depth of 1.2 m (4 ft) at its outer end.

Boat landings

13.40

- 1 There are several places on the coast between Friars Head and Margaree River where small craft can land in good weather.

Canadian Chart 4449 plan of Margaree Harbour (see 1.32)

Margaree Harbour

13.41

- 1 **Description.** Margaree Harbour (46°26'N, 61°07'W) is situated in the entrance to Margaree River. The harbour is used by fishermen and as a summer resort.
To the NE of the entrance, inside the long tongue separating the harbour from the sea, there is a narrow basin, formerly dredged, enclosed by a breakwater.
The village of Margaree Harbour stands on the SW shore, close within the breakwater; the village of Belle Côte is on the opposite shore. Small craft can ascend the river with the tide for about 6 miles to Margaree.
- 2 **Approach and entry.** The harbour is approached through a channel over the coastal bank, and entered between two breakwaters.
- 3 **Controlling depth.** The least charted depth in the channel over the bar inside the entrance is 0.6 m (2 ft) (1998), but greater depths exist in the harbour.
The harbour and approaches are subject to continual silting, and there may be less water than shown on the charts; depths should be verified before entering.
- 4 **Flow.** The flow in Margaree River is influenced by the tide at springs only, but the effect of the in-going tide is not felt until half tide; the stand of the tide is very short, and the full out-going flow starts almost immediately after HW. Neap tides have little effect.

The rate of the flow in the entrance is 4 kn at times.

Local knowledge is required.

Vertical clearance. A bridge with a vertical clearance of 2.7 m (9 ft), crosses the river about 5 cables above the entrance.

- 5 **Directions for entering harbour.** Leading lights. From a position NNW of Margaree Harbour, the alignment ($166\frac{3}{4}^\circ$) of the following lights on the SW side of the river mouth leads through the channel between the W breakwater head from where a light (mast, 3 m in height) is exhibited and the E breakwater from where a light (post, 2 m in height) is exhibited. This light is shown from May to December:

Front light (white structure, red stripe 5 m in height) ($46^\circ 26' 4N$, $61^\circ 06' 8W$).

Rear light (similar construction and tower, 6 m in height) (65 m from front light).

The lights are shown from 1st May to 15th December.

- 6 **Caution.** Owing to the shifting nature of the entrance channel, the leading line should not be used without the most recent local information.

After passing between the breakwaters a winding channel, marked by buoys (lateral) leads between drying banks over the bar inside the entrance with a least depth of 0.6 m (2 ft) (1998), thence the channel with a centreline least depth of 1.8 m (6 ft) leads to a basin.

If not proceeding to the basin, the channel, marked by buoys (lateral), in the N part, continues upriver passing under a bridge (above), about 5 cables above the entrance.

- 7 **Berths.** The public wharf (Co-operative Fishermens Wharf), and several smaller wharves are situated about 2 cables ENE of the entrance, within the sheltered basin. The wharf has a face 47 m long with depths of 1.2 to 2.4 m alongside.

Other name

13.42

- 1 Grey Point ($46^\circ 26'N$, $61^\circ 08'W$).

MARSH POINT TO BLACK POINT

General Information

Chart 4764

Topography

13.43

- 1 The coast is lofty and precipitous, with Mabou Highlands rising to an elevation of about 305 m (1000 ft) between McIsaac Pond ($46^\circ 14'N$, $61^\circ 19'W$) also known as Inverness Harbour and Mabou River, 10 miles SW.

Passage directions

(continued from 13.33)

13.44

- 1 From a position WNW of Marsh Point ($46^\circ 18'N$, $61^\circ 16'W$), the coastal passage leads 20 miles SSW, in deep water, to a position WSW of Black Point ($46^\circ 02'N$, $61^\circ 33'W$). The route also gives access to Mabou Harbour ($46^\circ 05'N$, $61^\circ 27'W$) and McIsaac Pond. The passage also leads NNW towards Prince Edward Island to a position E of NDN Light-buoy moored 1.7 miles NE of East Point Light ($46^\circ 27'N$, $61^\circ 58'W$).

- 2 **Useful mark:**

Inverness Breakwater Light (framework tower, 3 m in height) ($46^\circ 13' 7N$, $61^\circ 19' 6W$) is exhibited from

the head of the N breakwater. The light is maintained from May to December.

(Directions continue for passages S of Black Point in Chapter 12, for Northumberland Strait at 14.76, and for the N coast of Prince Edward Island at 13.60)

Anchorage and harbours

Canadian Chart 4463 (see 1.32)

McIsaac Pond

13.45

- 1 **Description.** McIsaac Pond ($46^\circ 14'N$, $61^\circ 19'W$) also known as Inverness Harbour is a basin, separated from the sea by a sandy beach, and entered through a channel 18 m wide, between parallel breakwaters; the depth in the entrance is about 2.1 m (7 ft) (1990).

The town of Inverness is situated E of the harbour; the twin domes of a church in the town are conspicuous.

- 2 **Directions for entering harbour.** From a position NW of the entrance, the harbour is entered using the Inverness harbour leading lights:

Front light (white trapezium, red stripe, on framework tower, 3 m in height).

Rear light (similar construction and tower) (24 m from front light).

The alignment (124°) of these lights leads through the entrance channel into the basin.

- 3 Due to changes in the channel, it is advisable to use these lights with extreme caution.

Useful mark:

Inverness Breakwater Light (13.44).

- 4 **Landing** may be effected at the T-shaped public wharf which extends 51 m from the N side of McIsaac Pond. The outer face, 52 m long, has depths of 1.8 m to 2.1 m alongside. There are depths of 0.9 to 1.8 m along the other faces.

Small craft

Marsh Point

13.46

- 1 Close SE of Marsh Point ($46^\circ 18'N$, $61^\circ 16'W$), there is a public breakwater-wharf 131 m long with depths of 0.6 to 1.5 m on the SE face.

Broad Cove Marsh

13.47

- 1 Broad Cove Marsh (also known as Broad Cove ($46^\circ 17'N$, $61^\circ 16'W$)), $2\frac{1}{2}$ miles SSW of Marsh Point, has a breakwater, 123 m long.

Fishing boats are hauled out on a ramp on the S side of the breakwater.

Finlay Point

13.48

- 1 Finlay Point ($46^\circ 08'N$, $61^\circ 28'W$) has two wharves. A shallow dredged channel, 22 m wide, leads between two breakwaters to a small boat basin. In 1990, there was a depth of 1.5 m (5 ft) in mid channel.

A public wharf, which dries alongside, extends 80 m along the E side of the W breakwater. A second wharf, with depths of 0.3 to 1.2 m alongside extends 88 m E along the head of the basin.

Canadian Chart 4448 plan of Mabou Harbour (see 1.32)

Mabou Harbour

13.49

- 1 **Description.** Mabou Harbour ($46^\circ 05'N$, $61^\circ 27'W$) is situated at the mouth of Mabou River. From its entrance, as

far as a road bridge, with a vertical clearance of 2.1 m (7 ft) situated 3½ miles upstream, the harbour resembles a mountain lake. With the tide, small craft can ascend Mabou River as far as the sand flats about 2 cables above the bridge. Mabou village is the largest of the three settlements of Mabou, Mabou Harbour Mouth and Mabou Harbour.

- 2 **Topography.** Rivers flow into Mabou Harbour as follows:

North side, Becket River also known as Northeast River.

South side, Southwest Mabou River also known as Southwest Arm.

Head of the harbour, Mabou River.

On the N side of the harbour the hills rise steeply to an elevation of 265 m (870 ft).

- 3 **Depths.** The entrance channel has a least depth of about 0.6 m (2 ft) over the bar. The harbour has depths from 9 to 15 m (30 to 48 ft) in the middle.

Local knowledge is required.

Directions. From a position WNW of of the harbour entrance, the track leads ESE, through a channel marked by buoys (lateral), passing:

Either side of VJ2 Light-buoy (starboard hand) moored about 8 cables WNW of McKeens Point

(46°05'N, 61°28'W), thence:

N of a partly ruined breakwater lying on the S side of the entrance, thence:

N of McKeens Point.

- 4 After passing McKeens Point the buoyed channel follows the N side of a sandbank (dries at half tide) extending about 5 cables ESE from the point.

- 5 **Berth.** A basin for fishing boats is situated on the N shore, about 3 cables within the entrance. A public wharf, close inside the entrance on the N side, consists of a basin protected by two wharves. There are depths of 0.3 to 3.7 m alongside the outer faces and 0.3 to 1.8 m along the basin faces. Depths may be reduced by silting. A light (white structure, red stripe, 15 m in height) (46°05'1N, 61°28'0W) is exhibited from this wharf. Another wharf lies about 7 cables SE on the S side of the harbour. It is 21 m long with a depth of 3.7 m at the outer face. This wharf is reported to be in ruins.

- 6 **Facility:** Launching ramp near the E side of the basin.

Other names

13.50

Sight Point (46°11'N, 61°25'W).

PRINCE EDWARD ISLAND — NORTH COAST

GENERAL INFORMATION

Chart 4765

Area covered

13.51

- 1 This section describes the coastal routes on the N coast of Prince Edward Island from East Point (46°27'N, 61°58'W) to North Cape (North Point) (47°04'N, 64°00'W).

The coastal waters on the N side of Prince Edward Island, give access to a large number of inlets and bays, most of which are small, shallow and accessible to very small craft only.

- 2 The larger harbours of Malpeque Bay (46°33'N, 63°48'W) (13.86) and Alberton (46°48'N, 64°04'W) (13.99), are accessible, in good conditions, to coasters.

It is arranged as follows:

East Point to Shipwreck Point (13.55).

Shipwreck Point to Point Deroche (13.65).

Point Deroche to Orby Head (13.74).

Orby Head to Hog Island (13.82).

Hog Island to North Cape (13.93).

Navigation

13.52

- 1 The channels through the harbour entrances on this coast are liable to be blocked or shifted by storms. It is never safe for mariners without recent local knowledge to cross the bars.

The seas break in moderate weather at all the harbour entrances, and in some cases it becomes impossible to discern the best channel.

- 2 Leading lights and buoys are liable to be changed without advance notice.

Anchorage

13.53

- 1 With the exception of a few places off the harbour entrances, the anchorage is poor along this coast; the

bottom is of red sandstone, thinly covered in places with sand, gravel and broken shells, making poor holding ground.

Tidal streams

13.54

- 1 The in-going tidal stream sets S into the great bight formed by the N coast of Prince Edward Island, between North Cape and Saint Peters Bay, 29 miles W of East Point. Farther towards the E, the in-going, or SW-going stream, which comes from between Îles de la Madeleine and Cape Breton Island, also sets towards the coast, especially near East Point.

- 2 The out-going tidal stream appears to set in the opposite direction.

The tidal streams meet and separate N of the entrance to Saint Peters Bay; the directions of the in-going and out-going tidal streams at various points offshore are indicated on the chart.

EAST POINT TO SHIPWRECK POINT

General information

Chart 4765

Route

13.55

- 1 From the vicinity of NDN Light-Buoy (46°28'N, 61°56'W), the coastal route along the N coast of Prince Edward Island leads WNW, and then W for a total of about 19 miles to a position N of Shipwreck Point (46°28'N, 62°25'W). The coastal waters are clear of detached dangers.

Topography

13.56

- 1 The coast is formed by red sandstone cliffs, with occasional patches of sandy beach at the mouths of small streams.

Depths**13.57**

- 1 The coastal waters on the N side of Prince Edward Island between East Point and Shipwreck Point are clear of detached dangers.

The coastal shoals extend about 5 cables offshore, with the 18 m (60 ft) depth contour lying, generally, about 1 mile from the shore.

Tidal streams**13.58**

- 1 See 13.54.

Principal mark**13.59**

- 1 **Major light:**

Shipwreck Point Light (white round tower, 14 m in height) (46°28'N, 62°25'W).

Directions

(continued from 13.44)

13.60

- 1 From the vicinity of NDN Light-buoy (E cardinal), moored about 1¼ miles NE of East Point, the coastal passage leads WNW, passing (with positions given from East Point):

NNE of JA1 Light-buoy (13.63) (4 miles WNW), marking the approach to North Lake Harbour (13.63), thence:

NNE of Bayfield Point (10 miles WNW).

- 2 From NNE of Bayfield Point the coastal passage leads W, passing:

N of JC2 Light-buoy (starboard hand) (46°29'N, 62°25'W) marking the approach to Naufrage Harbour (13.64), thence:

N of Shipwreck Point (46°28'N, 62°25'W).

13.61

- 1 **Useful marks:**

North Lake Harbour West Breakwater Light (framework tower, 5 m in height) (46°28'N, 62°04'W).

Naufrage Harbour West Breakwater Light (framework tower, 3 m in height) (46°28'N, 62°25'W).

(Directions continue at 13.70)

Other name**13.62**

- 1 Beaton Point (46°28'N, 61°59'W).
Sylvester Point (46°29'N, 62°10'W).

Small craft**North Lake Harbour****13.63**

- 1 **Description.** North Lake Harbour (46°28'N, 62°04'W) is enclosed by two breakwaters, which are spanned by a bridge. The harbour is accessible to small craft.

Depths. The entrance channel, 14 m wide, between the breakwater heads has a depth of 1.0 m (3 ft). The channel is 14 m wide.

- 2 **Directions.** The harbour is approached from the NNE, passing close to JA1 Light-buoy (port hand) (46°29'N, 62°03'W) moored about 1 mile NNE of the entrance.

Leading lights are exhibited from the head of the E breakwater. The alignment (204½°) of the following lights leads to the harbour entrance:

Front light (white rectangle, red stripe, on framework tower, 6 m in height), (46°28'1N, 62°04'1W) visible on the leading line only.

Rear light (similar construction and tower, 9 m in height) (328 m from front light).

- 3 **Useful mark:**

North Lake Harbour West Breakwater Light (13.61).

Berths. A jetty is situated on the E side of the harbour basin, and a number of jetties extend from the W breakwater.

Naufrage Harbour**13.64**

- 1 **Description.** Naufrage Harbour (46°28'N, 62°25'W), a small opening in the coast, is protected by two breakwaters, 12 m (40 ft) apart, and is accessible to small craft. A road bridge with a vertical clearance of 3.4 m (11 ft) spans the entrance close within the breakwaters.

- 2 **Depth.** The entrance channel has a reported depth of 1.5 m (5 ft).

Directions. The entrance, between the breakwater heads, is approached from the NNE, passing close to JC2 Light-buoy (starboard hand) moored about 1 mile NNE.

- 3 **Useful marks:**

Naufrage Harbour West Breakwater Light (13.61) on the breakwater head.

Naufrage Harbour East Breakwater Light (framework tower, 3 m in height) on the breakwater head.

- 4 **Berths.** The harbour contains a pier, 213 m in length, which dries alongside.

SHIPWRECK POINT TO POINT DEROCHE**General information**

Chart 4765

Route**13.65**

- 1 From a position N of Shipwreck Point (46°28'N, 62°25'W) the coastal passage leads W for 20 miles to a position N of Point Deroche, (46°26'N, 62°54'W) and gives access to the small craft harbours of Saint Peters Bay and Savage Harbour.

Topography**13.66**

- 1 A range of sand-hills, rising to an elevation of 21 m, extends E from the entrance of Saint Peters Bay, 13 miles W of Shipwreck Point.

Depths**13.67**

- 1 The coastal shoals extend about 5 cables offshore, with the 18 m (60 ft) depth contour lying, generally, about 1 mile from the coast.

Tidal streams**13.68**

- 1 See 13.54.

Principal marks**13.69**

- 1 **Major lights:**

Shipwreck Point Light (46°28'N, 62°25'W) (13.59).

Saint Peters Light (square tower, 10 m in height) (46°27'N, 62°45'W).

Directions*(continued from 13.61)***13.70**

- 1 From a position N of Shipwreck Point (46°28'N, 62°25'W) the coastal track leads W, passing:
 N of Cable Head (46°28'N, 62°38'N), thence:
 N of a 8.5 m (28 ft) rocky shoal lying about 2¼ miles ENE of Point Deroche, thence:
 N of Point Deroche (46°26'N, 62°54'W).

13.71

- 1 **Useful mark:**
 Savage Harbour Light (cylindrical mast, 2 m in height) (46°26'N, 62°50'W).
(Directions continue at 13.77)

Small craft*Canadian Chart 4425 plan of Saint Peters Bay (see 1.32)***Saint Peters Bay****13.72**

- 1 **Description.** Saint Peters Bay (46°26'N, 62°42'W) is suitable for small craft only; passage through its narrow, shallow and shifting entrance channel can be very dangerous. The inlet extends nearly 7 miles ESE to Saint Peters village with a white church steeple at its head, where Saint Peters River enters the bay.
- 2 **Approach and entry.** The entrance to Saint Peters Bay is approached from a position about 2 miles NNE of Saint Peters Light and close to JD1 Light-buoy (port hand).
- 3 **Depths** inside the bay are generally from 3.7 to 5.2 m (12 to 17 ft), but less in the entrance channel, which has depths of less than 1.2 m (4 ft) in places.
- Tidal streams** in the entrance attain a rate of nearly 3 kn, but the out-going stream may reach 4 kn at times.
- 4 **Local knowledge** is essential and entry should only be attempted in good weather.
- Fish farming** takes place in the inner parts of the bay; yellow cautionary buoys mark the corners of the areas concerned, and mariners are advised to proceed with care in their vicinity.
- Principal mark:**
 Saint Peters Light (46°27'N, 62°45'W) (13.69), 5 cables W of the harbour entrance.
- 5 **Directions.** The leading lights and buoys are moved as necessary to suit the changing conditions, and the greatest care is needed. From a position about 2 miles NNE of Saint Peters Light, a buoyed channel crosses a sand-bar extending 3½ cables N from the entrance.
- 6 The bay is entered between a ruined breakwater, partially covered by sand, on the W side, and two groynes, parallel with the shore, on the E side. On passing the sandspits on each side of the entrance, the channel turns sharply to the E and leads into the harbour. The channel is buoyed.
- 7 The alignment (200°) of the following lights leads towards the entrance, passing close to JD1 Light-buoy (port hand) moored 1¼ miles NNE of Saint Peters Light:
 Front light (white square, red stripe, on framework tower, 3 m in height) (46°26'3N, 62°44'5W) on the W side of the harbour entrance.
 Rear light (white rectangle, red stripe on framework tower, 9 m in height) (390 m from front light).
- 8 **Red Head** (46°26'N, 62°43'W), on the S shore of the bay, has a small boat basin 183 m long and 122 m wide, enclosed by two breakwaters, each about 1½ cables in

length. The width of the channel between the breakwaters is 61 m, and the depth inside the basin is 1.2 m (4 ft).

- 9 **Morrell River** (46°25'N, 62°41'W) on the S side of the bay, is navigable by small craft for a distance of about 3 miles upstream; the channel at its mouth is narrow, and has depths of only 0.3 m (1 ft) in the channel.

A railway bridge spans the river near its mouth, and a road bridge crosses about 6 cables farther upstream.

There is good shelter for small craft, in depths of 2 to 4 m between the bridges.

*Canadian Chart 4425 plan of Savage Harbour (see 1.32)***Savage Harbour****13.73**

- 1 **Description.** Savage Harbour (46°26'N, 62°50'W) is only suitable for small craft. The entrance lies at the W end of a long sandy ridge, protected by a retaining wall. Savage Harbour is mostly entered at high water during fair weather. Once inside, the harbour offers fairly good shelter from N winds, but winds between SE and SW can create choppy waters.

Local knowledge is essential.

- 2 **Directions.** Caution. The buoys may be moved to meet changing conditions over the bar. From a position N of the harbour, the track leads S, passing:

Close to JE2 Light-buoy (starboard hand), moored about 8 cables NNE of the entrance, thence:

Through a buoyed channel with depths of about 1.2 m (4 ft), passing:

W of the outer end of the retaining wall at the harbour entrance, on which stands Savage Harbour Light (13.71).

- 3 **Berth.** Savage Harbour public pier, with a depth of 1.2 m alongside the face parallel to the shore, is situated on the W side of the harbour, 5 cables inside the entrance. A pier extends 61 m from the E side of the wharf to a depth of 1.2 m.

Supplies: water; diesel; petrol.

POINT DEROCHE TO ORBY HEAD**General information***Chart 4765***Route****13.74**

- 1 From a position N of Point Deroche (46°26'N, 62°54'W) the coastal passage leads WNW for 18 miles to a position NNE of Orby Head (46°30'N, 63°20'W) and gives access to several inlets, which can be entered, under favourable conditions, by small craft.

Depths**13.75**

- 1 In the bight between Cape Stanhope (46°26'N, 63°09'W) and Orby Head the 5.5 m (18 ft) depth contour lies up to 8 cables offshore.

Tidal streams**13.76**

- 1 **Caution.** The in-going tidal stream sets towards this coast. For further information see 13.54.

Directions*(continued from 13.70)***13.77**

- 1 From a position N of Point Deroche (46°26'N, 62°54'W) the coastal passage leads WNW, passing NNE of Orby Head (46°30'N, 63°20'W) red sandstone, 36 m high.

13.78

Useful mark:

Covehead Harbour Light (red and white tower, 8 m in height) (46°26'N, 63°09'W), on Cape Stanhope.
(*Directions continue at 13.85*)

Small craft

Canadian Chart 4425 plan of Tracadie Bay (see 1.32)

Tracadie Bay

13.79

- 1 **Description.** Tracadie Bay (46°24'N, 63°00'W), is approached and entered through a channel marked by buoys, on the alignment of lights. The bay is entered at the W end of a range of sand-hills, 15 to 18 m high, and is accessible to small craft only. The bay extends about 4 miles inland to the village of Grand Tracadie at its head; Winter River and Winter Bay open into the W side of the harbour.

Local knowledge is essential and entry should only be attempted in good weather.

- 2 **Depths** in the entrance channel are from 0.9 to 1.5 m (3 to 5 ft) and generally in the broad areas of the bay inside the entrance channel 3.7 m (12 ft).

Tidal streams reach a maximum rate of about 2 kn in the entrance channel.

Fish farming in the form of mussel farming occupies a good portion of the inner part of the bay.

- 3 **Directions.** Caution. The leading lights and buoys may be moved to meet changes in the channel.

From a position about 1 mile N of the harbour entrance, in the vicinity of JH1 Light-buoy (port hand) (46°26'N, 63°02'W), the alignment (184¾°) of the following lights leads through a narrow buoyed channel, across the bar to a position close to the E entrance point, where there is a small breakwater extending NW.

- 4 Front light (white rectangle, red stripe, on framework tower, 5 m in height (46°24'.6N, 63°02'.5W), on the beach W of the harbour entrance.

Rear light (similar construction and tower, 9 m in height) (109 m from front light).

- 5 From a position inside the E entrance point, the channel turns sharply E, then continues for a distance of about 1 mile, passing close to the tongue of sand hills on the N side, and drying flats on the S side. Beyond these flats the bay deepens to about 3.7 m (12 ft) and expands to a width of about 2 miles.

- 6 **Berth.** A U-shaped pier, with an outer face 61 m long offering depths of 3 m alongside except near the NE corner where there is 1.5 m alongside, is situated on the W shore, about 9 cables SE of the harbour. The N face of the wharf is 46 m long with depths of 0.6 to 2.4 m alongside. Good shelter is reported at this facility.

A buoyed channel with a depth of 1.8 m (6 ft) leads from the entrance channel, across the drying bank S of it to the pier. A light (framework tower, 4 m in height) is exhibited from the pierhead.

- 7 **Supplies:** water; diesel; petrol.

Canadian Chart 4425 plan of Covehead Bay (see 1.32)

Covehead Bay

13.80

- 1 **Description.** Covehead Bay entered between Cape Stanhope (46°26'N, 63°09'W) and Cove Head, close W, is approached over a shallow bar and is accessible to small craft only. The harbour divides within the entrance, with

channels leading E to Covehead Bay, and W to Brackley Bay.

- 2 **Depth** in the channel at harbour entrance is 0.6 m (2 ft).
Vertical clearance under a road bridge across entrance 2.7 m (9 ft).

Directions for entering harbour. Caution. Owing to changing conditions, the navigational aids may be moved as necessary to indicate the best channel.

- 3 From a position about 1 mile NNE of the harbour entrance, in the vicinity of JJ1 Light-buoy (port hand) (46°27'N, 63°08'W), the alignment (194°) of the following lights leads through a channel marked by buoys over the bar and into the entrance channel:

Front light (white rectangle, red stripe, on red framework tower, 5 m in height) (46°25'.5N, 63°08'.9W).

Rear light (similar construction and tower, 8 m in height) (63 m from front light).

- 4 **Useful marks:**

Covehead Harbour Light (46°26'N, 63°09'W) (13.78).

Covehead Bridge Light (round post, 2 m in height) on the bridge between the entrance points.

Berths. There are two small piers on the E side of the entrance, close S of the bridge.

Canadian Chart 4467 plan of Rustico Bay (see 1.32)

Rustico Bay

13.81

- 1 **Description.** Rustico Bay, S of Rustico Island (46°26'N, 63°15'W) and is accessible to small craft only, due to the shallow waters of the entrance channel and the harbour. Local knowledge is essential.

The entrance, at the NW end of Rustico Island, leads straight into North Rustico Harbour, where there are some fishing stages on the beach, and a small boat basin. At North Rustico village, about 8 cables W of the entrance, there are two wharves within a boat basin.

- 2 Hunter River flows into North Rustico Harbour from SW.

Inside the entrance, Rustico Bay extends SE for about 4 miles; Wheatley River flows into the SE part of the bay.

Depths. The buoyed entrance channel crosses a shifting sand-bar, with depths in places of less than 0.6 m (2 ft), and leads through a narrow passage into North Rustico Harbour.

- 3 **Fish farming** is located on the Hunter River close downstream of Rusticoville bridge (46°26'N, 63°19'W); the area is marked by cautionary buoys, and mariners are advised to proceed with care in this vicinity.

- 4 **Directions for entering harbour.** Caution. Owing to changing conditions, the navigational aids may be moved as necessary to mark the best channel.

From a position about 6 cables NE of the harbour entrance, in the vicinity of JK2 Light-buoy (starboard hand) (46°28'N, 63°17'W) the track leads SW towards the harbour entrance, passing:

- 5 SE of the head of the N breakwater, from which a light (mast, 2 m in height) is exhibited, thence: NW of a drying sandbank extending from the NW end of Rustico Island, and:

SE of the head of the inner breakwater, from which a light (square tower, 7 m in height) is exhibited.

- 6 **Useful mark:**

North Rustico Harbour Light (white tower, 10 m in height) (46°27'.3N, 63°17'.6W) on the NW side of the entrance.

- 7 **Basins and berths.** The following basins and berths exist in Rustico Bay (with positions given from North Rustico Light):

North Rustico Harbour (1 cable WNW): an enclosed boat basin with a charted depth of 1·2 m (4 ft).

North Rustico village (7 cables W): a basin dredged to a charted depth of 1·2 m (4 ft) and two wharves, reached through a staked channel from North Rustico Harbour. A light (red framework tower, 5 m in height) is exhibited from the head of the E wharf.

- 8 Rustico Bay, NW end (8 cables SE); a pier extends 104 m NE from the mainland; depth 0·9 m (3 ft) at outer end.

Wheatley River (46°24'·3N, 63°14'·6W); a pier extends 111 m from the S shore, about 3 cables E of a bridge at the river mouth. The charted depth off this berth is 0·3 m.

ORBY HEAD TO HOG ISLAND

General information

Chart 4765

Route

13.82

- 1 From a position NNE of Orby Head the coastal passage leads WNW for 20 miles to a position NNE of Hog Island, (46°37'N, 63°47'W) and gives access to New London Bay and the extensive waters of Malpeque Bay, situated about 5 and 20 miles respectively WNW of Orby Head.

Depths

13.83

- 1 **Caution.** It is dangerous to approach the coast between Cape Tryon and Cape Aylesbury, (46°34'N, 63°40'W) 7 miles WNW, in depths of less than 13 m (42 ft).

Tidal streams

13.84

- 1 The in-going tidal stream sets towards this coast. For further details see 13.54.

Directions

(continued from 13.77)

13.85

- 1 From a position NNE of Orby Head, (46°30'N, 63°20'W) the track leads NW, passing:

NNE of Cape Tryon, (46°32'N, 63°30'W), a conspicuous cliff of red sandstone, 33 m (110 ft) high, thence:

NNE of JP2 Light-buoy (starboard hand) (46°35'N, 63°37'W) marking the approach to Malpeque Bay, (13.86). (See 13.83). Thence:

NNE of Hog Island, a long sand ridge.

(Directions continue at 13.97)

- 2 **Useful mark:**

Cape Tryon Lighthouse (46°32'N, 63°30'W).

Malpeque Bay

Canadian Chart 4491 (see 1.32)

General information

13.86

- 1 **Description.** Malpeque Bay (46°33'N, 63°48'W), the largest inlet on the N coast of Prince Edward Island, is accessible to small vessels when conditions are favourable.

It is enclosed to seaward by Hog Island, a long sand ridge extending NW from Billhook Island (46°34'N, 63°43'W). The bay penetrates about 8 miles inland and leads into several rivers and creeks.

- 2 Malpeque village stands on the neck of land S of Royalty Point (46°34'N, 63°42'W), 6 cables S of Billhook Island.

A Canadian Forces air station is situated at Summerside (46°26'N, 63°50'W), S of Malpeque Bay. Red lights on the control tower may be visible from the bay.

- 3 The bay is approached through a buoyed channel across the bar that extends about 3½ miles E from Billhook Island (46°34'N, 63°43'W), and entered through Ship Channel, between that island and Cape Aylesbury, 1¼ miles ESE.

Depths. The channel over the bar has a least charted depth of 2·4 m (8 ft).

Local knowledge is required.

- 4 **Vertical clearance:**

A road bridge with a vertical clearance of 1·2 m (4 ft) spans the channel at Burial Point, (46°32'N, 63°40'W). Lights are exhibited on both sides of the centre span of the bridge.

A bridge with a vertical clearance of 2·4 m (8 ft) spans Lennox Channel, (46°37'N, 63°52'W) at Sharp Point (7 miles WNW of Billhook Island).

- 5 **Tidal streams.** In Ship Channel the tidal streams set at a rate of from 1 to 2 kn. They are strongest just inside the harbour and off Royalty Point.

Farther into the bay the tidal streams are much weaker, and seldom reach a rate of 1 kn.

- 6 **Ice.** The bay freezes over about the middle of December, and is not clear of field ice until the beginning of May.

Breakers. In bad weather the bar is extremely dangerous, as all signs of a channel are obliterated by heavy breakers.

Directions

13.87

- 1 **Caution.** Owing to changing conditions the leading lights and buoys may be moved at any time to mark the best channels.

- 2 **Darnley Point Leading Lights.** From a position 3 miles NE of Cape Aylesbury (46°34'N, 63°40'W) the alignment (233°) of the following lights lead SW for about 8 cables, passing close to JP2 Light-buoy (starboard hand), moored about 1¼ miles NE of the front light:

Front light (white tower, red stripe, 6 m in height) (46°34'N, 63°39'W).

Rear light (similar construction and tower) (515 m from front light).

- 3 From a position 5½ cables NE of the front leading light, the buoyed channel leads between the bar and the coast.

Approach Leading Lights:

- 4 Front light (white rectangle, red stripe on framework tower, 8 m in height) (46°34'·6N, 63°42'·8W) on Billhook Island.

Rear light (similar construction on framework tower, 15 m in height) (451 m from front light).

- 5 The alignment (279¾°) of these lights leads through the channel, passing (with positions given from the front light): S of a shoal patch, (2¼ miles E) with a depth of 1·5 m (5 ft) over it, thence:

N of Clark Reef, (2 miles E), extending almost 3 cables N from Cape Aylesbury, marked by JP5 Buoy (port hand).

- 6 Thence, from a position $1\frac{1}{4}$ miles E of Malpeque Harbour Approach Front Leading Light, Ship Channel leads WSW into Malpeque Harbour, passing, (with positions given from the front light):

SSE of shoal ground, ($1\frac{1}{4}$ miles E) with depths of less than 1.8 m (6 ft) over it, marked by JP6 Light-buoy (starboard hand) ($1\frac{1}{2}$ miles E), thence: NNW of Royalty Sand (8 cables S).

- 7 **Harbour Leading Lights.** From a position 6 cables NW of Royalty Point ($46^{\circ}34'N$, $63^{\circ}42'W$) and NNW of Royalty Sand, the alignment ($038\frac{1}{2}^{\circ}$), astern, of the following lights leads in a channel marked by buoys through Malpeque Harbour, passing SE of Horseshoe Shoals, ($46^{\circ}34'N$, $63^{\circ}45'W$) extending from 1 to 3 miles WSW from Billhook Island, and marked at the E end by JP10 Buoy (starboard hand):

Front light (white trapezium, red stripe on framework tower, 4 m in height) ($46^{\circ}34'4N$, $63^{\circ}42'8W$) near the SE end of Billhook Island.

- 8 Rear light (similar construction, inverted, and tower, 7 m in height) (76 m from front light).

- 9 **Darnley Basin** ($46^{\circ}33'N$, $63^{\circ}40'W$). A channel leads SE for about $1\frac{1}{2}$ miles from its entrance on the SE side of Ship Channel; it is entered through a narrow buoyed channel across Darnley Spit. At the head of Darnley Basin, a channel with a depth of 0.9 m (3 ft) leads into Baltic Creek ($46^{\circ}32'N$, $63^{\circ}40'W$).

- 10 **Lennox Channel.** On the NW side of Malpeque Bay a narrow and very shallow passage leads through Lennox Channel, W of Lennox Island (6 miles WNW of Billhook Island). The passage continues NW for a farther 11 miles, through The Narrows to Cascumpeque Bay (13.99).

Anchorage

13.88

- 1 Outer anchorage may be obtained outside the bar in depths from 9 to 13 m (30 to 42 ft), sand.

Berths

13.89

- 1 **Anchorage berths.** Malpeque Harbour, lying immediately inside Ship Channel, has sufficient space for a number of vessels to anchor. There are depths of from 4 to 14 m (13 to 45 ft), sand and clay, with good holding ground. The bar outside prevents any sea coming in, and Horseshoe Shoals about 3 miles SW of Billhook Island, provide shelter from the SW.

- 2 **Alongside berths** are located in Malpeque Bay as follows:

Burial Point ($46^{\circ}32'N$, $63^{\circ}40'W$); a small T-shaped public pier with depths of 1.2 to 1.8 m alongside. Bentinck Cove ($46^{\circ}27'N$, $63^{\circ}51'W$); a small public wharf has a reported depth at its outer end of 1.8 m.

Ellis River ($46^{\circ}30'N$, $63^{\circ}53'W$); two small wharves with reported depths of 1.2 m at the pierhead.

- 3 Port Hill ($46^{\circ}36'N$, $63^{\circ}52'W$); a public wharf 180 m long with reported depths of 1.5 m alongside. A light is exhibited from the head of this wharf. Lennox Island ($46^{\circ}36'N$, $63^{\circ}52'W$) with reported depth alongside of 2.1 m.

Bideford ($46^{\circ}37'N$, $63^{\circ}55'W$) on W side of Goodwood River; a L-shaped public wharf, 82 m long, with a depth of 0.9 m at the pierhead.

Port services

13.90

- 1 **Supplies.** Fresh provisions at Malpeque village.

Small craft

Canadian Chart 4467 plan of New London Bay (see 1.32)

New London Bay

13.91

- 1 **Description.** New London Bay ($46^{\circ}30'N$, $63^{\circ}28'W$) is approached and entered through a channel marked by buoys, over a shallow sand-bar and on the alignment of lights. The bay is entered at the W end of a narrow ridge of sand hills. The village of Stanley Bridge is situated about 3 miles within the entrance.

- 2 **Topography.** New London Bay is the outlet for four rivers which enter it from the following directions:

Hope River from SE.

Stanley River from S.

Southwest River from SW.

French River from NW.

All of these rivers are navigable for short distances by small craft.

- 3 **Local knowledge** is essential.

- 4 **Vertical clearance.** Bridges span the rivers as follows:

Hope River and Stanley River. About 7 cables above the river mouths; vertical clearance 2.4 m (8 ft) under both bridges.

Southwest River. At New London, about 2 miles above the river mouth; vertical clearance 1.8 m (6 ft).

- 5 **Fish farming** in the form of oyster farming takes place in Southwest River, about 1 mile above its mouth, and mariners are advised to proceed with care in this vicinity.

- 6 **Principal mark:**

Cape Tryon Light ($46^{\circ}32'N$, $63^{\circ}30'W$).

- 7 **Directions.** Caution. The leading lights and buoys are liable to be moved to meet changes in the channel.

New London Leading Lights as follows:

Front light (white rectangle, red stripe, on framework tower, 8 m in height) ($46^{\circ}30'8N$, $63^{\circ}29'2W$) on the beach at the W side of the entrance.

Rear light (white square tower, red stripe) (305 m from front light).

- 8 The alignment ($209\frac{3}{4}^{\circ}$) of these lights leads through the channel over the bar, with a least depth in the fairway of 1.5 m (5 ft), passing (with positions given from Cape Tryon Light ($46^{\circ}32'N$, $63^{\circ}30'W$)):

Close NW of JM1 Light-buoy (safe water) ($1\frac{1}{2}$ miles E), thence:

Between the shore on the W side and the outer end of a breakwater extending from a sand spit on the E side ($1\frac{1}{2}$ miles SE).

The channel at the entrance is about 2 cables wide.

- 9 **Berths** are located in New London Bay as follows:

Stanley Bridge wharf ($46^{\circ}28'N$, $63^{\circ}28'W$); 53 m long; depth alongside 1.2 m.

French River wharf ($46^{\circ}31'N$, $63^{\circ}31'W$); 110 m long; depth alongside 1.5 m.

South Landing on French River ($46^{\circ}31'N$, $63^{\circ}30'W$); no details available.

New London wharf ($46^{\circ}28'N$, $63^{\circ}31'W$); 67 m long; depth alongside 1.2 m on the SW side.

Other names

13.92

- 1 Barbara Weit River ($46^{\circ}27'N$, $63^{\circ}42'W$).

March Water ($46^{\circ}31'N$, $63^{\circ}45'W$).

Shipyard River ($46^{\circ}31'N$, $63^{\circ}42'W$).

Trout River ($46^{\circ}36'N$, $63^{\circ}54'W$).

Webber Cove ($46^{\circ}27'N$, $63^{\circ}44'W$).

HOG ISLAND TO NORTH CAPE REEF

General information

Chart 4765

Route

13.93

- 1 From a position NNE of Hog Island (46°37'N, 63°47'W) the track leads NNW for 28 miles to a position E of North Cape (47°04'N, 64°00'W) also known as North Point, and then to a position N of North Point Reef. This route also gives access to Alberton Harbour (46°48'N, 64°04'W) and Cascumpeque Bay (46°46'N, 64°03'W).

Topography

13.94

- 1 The coast between the SE end of Hog Island and the N end of Cascumpeque Island, about 19 miles NW, is formed by ridges of sand, with sand beaches, enclosing an extensive stretch of shallow water. Cascumpeque Bay, at the N end, is connected to Malpeque Bay by The Narrows (13.87).
- 2 The coastal sand ridge is broken only at Hardys Channel, known also as Conway Inlet (13.110), Cavendish Inlet (13.111) and Palmer Inlet (13.112), situated 8, 13 and 16 miles, respectively, NW of Billhook Island (46°34'N, 63°43'W).
- 3 There are no high sand hills N of Cascumpeque Bay. The land in the vicinity of Cape Kildare (46°53'N, 63°58'W) is red and surmounted by clumps of trees.

Depths

13.95

- 1 Depths of less than 5.5 m (18 ft) extend about 7 cables offshore in places between Hog Island and Cascumpeque Island, 14 miles NW. The depths along the coast between the N end of Cascumpeque Island and North Point are irregular and rocky; depths of less than 11 m (36 ft) extend nearly 2 miles offshore in places.

Principal marks

13.96

- 1 **Landmarks:**
Cascumpeque Lighthouse (red framework tower, 18 m in height, with white bands) (46°48'N, 64°02'W) on sand-hills near N end of Cascumpeque Island. A disused lighthouse stands close SW.
Radio mast (83 m in height), from which red lights are exhibited, stands close S of North Point Light.
- 2 **Major light:**
North Cape (North Point) Light (white tower, 19 m in height) (47°03'N, 64°00'W) on a low red cliff.

Directions

(continued from 13.85)

Hog Island to Cape Kildare

13.97

- 1 From a position NNE of Hog Island (46°37'N, 63°47'W), the track leads NNW, passing (with positions given from Conway Inlet (Hardys Channel) (46°39'N, 63°53'W)):
ENE of JV2 Light-buoy (starboard hand) (46°48'N, 64°00'W) (10 miles NW) marking the outer end of the approach to Alberton Harbour.
The track then leads to a position E of Cape Kildare (46°53'N, 63°58'W) (14 miles NNW) (red sandstone cliff, 9 m high).

Cape Kildare to North Cape Reef

13.98

- 1 From a position E of Cape Kildare (46°53'N, 63°58'W) the track leads N for about 15 miles, passing:
E of a patch with 5.5 m (18 ft) over it, lying 5 miles N of Cape Kildare, thence:
E of shoal ground, (lying 11 miles N of Cape Kildare) with depths of less than 5.5 m (18 ft) over it, extending about 1¼ miles E from North Cape (low red cliff) the N extremity of Prince Edward Island. The rocky ground extending N and NNE from North Cape is steep-to, causing dangerous breaking seas at times.
- 2 The track then leads to a position N of North Point (Cape) Reef (lying 15 miles N of Cape Kildare) 4½ miles NNE of North Cape.

Useful mark:

North Point East, also known as North Cape East Light (framework tower, 4 m in height) (47°02'N, 63°59'W).

(Directions continue for Chaleur Bay and Cap Gaspé at 15.3, and for Miramichi Bay at 15.4)

Alberton Harbour and Cascumpeque Bay

Canadian Chart 4492 (see 1.32)

General information

13.99

- 1 **Description.** Alberton Harbour (46°48'N, 64°04'W), situated at the N end of Cascumpeque Bay, is approached and entered through a buoyed channel over a dangerous sand-bar and on the alignment of lights. The harbour is well sheltered and provides anchorage and berthage for small vessels; it is much used for shelter by fishing vessels and coasters. The entrance is at the N end of Cascumpeque Island (46°47'N, 64°02'W).

Limiting conditions

13.100

- 1 **Controlling depth.** In 2002, the least charted depth in the channel over the outer bar, 9 cables E of Cascumpeque Light (46°48'N, 64°02'W) was shown as 3.0 m (10 ft), but this is liable to vary.
Deepest and longest berth. Public wharf at Northport (13.108).
- 2 **Ice.** The harbour freezes over from about 3rd January, and is clear of ice about 6th April.
Breakers. Under certain conditions of tide and weather the entrance channel becomes impossible to navigate due to breakers.
- 3 **Tidal streams.** The normal maximum rate of the tidal stream in the entrance channel N of Cascumpeque Island is 1½ kn, but in exceptional conditions it can exceed 4 kn.

Arrival information

13.101

- 1 **Outer anchorage.** In fine weather, temporary anchorage is available off the outer bar, in depths of about 11 m (36 ft), sand.
Pilotage. A pilot, if arranged, usually boards vessels outside the bar, about 1½ miles off the entrance.
- 2 **Local knowledge** is essential. Navigational lights and buoys may be moved to mark the best channel.

Harbour

13.102

- 1 **Description.** Alberton Harbour lies between the entrance channel and Cascumpeque Point, about 1½ miles SW.

The town of Alberton lies on the W shore, at the mouth of Kildare River, which flows into the N end of Cascumpeque Bay; there are piers at Northport, about 1 mile WSW of the entrance.

- 2 Cascumpeque Bay (46°46'N, 64°03'W), is entered through a buoyed channel from Alberton Harbour, and has a maximum depth of 4.9 m (16 ft) in the centre, but there are large areas of very shallow water and drying flats.

Palmer Inlet (46°45'N, 64°01'W) (13.112) enters the S end of the bay, but it is narrow and shallow.

- 3 Several rivers, navigable by small craft for some distance, flow into the bay:

Foxley River (46°44'N, 64°04'W), on the S side, is marked by buoys and stakes for some 2 miles above its mouth; depths in the channel are from 3 to 11.3 m (10 to 37 ft).

Mill River (46°46'N, 64°05'W), on the W side of the bay, is marked by buoys and stakes.

Landmark:

Cascumpeque Lighthouse (46°48'N, 64°02'W) (13.96).

Directions for approach

13.103

- 1 **Alberton Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 3 m in height) (46°48'3N, 64°01'9W) on Kildare Point (grassy sand-dunes) about 5 cables N of Cascumpeque Light.

Rear light (similar construction and tower, 11 m in height) (102 m from front light).

- 2 From a position 5 miles ESE of Cascumpeque Light the alignment (289°) of these lights leads into the buoyed entrance channel, passing (with positions given from Cascumpeque Light) (46°48'N, 64°02'W):

SSW of JV2 Light-buoy (starboard hand) (1¾ miles ESE), thence:

Between JV4 Light-buoy (starboard hand) (8½ cables E) and JV5 Light-buoy (port hand), thence:

Between JV6 and JV7 Buoys (7 cables ENE).

Directions for entering harbour

13.104

- 1 **Alberton Inner Leading Lights:**

Front light (white rectangle orange stripe on framework tower) (46°48'3N, 64°03'3W) on the W shore, 9 cables WNW of Cascumpeque Lighthouse.

Rear light (similar construction, and tower) (155 m from front light).

- 2 The alignment (273°) of these lights leads into the buoyed entrance channel to Alberton Harbour, passing, (with positions given from Cascumpeque Light):

Between JV8 Light-buoy (starboard hand) (5 cables NE) and JV9 Light-buoy (port hand), thence:

Between the drying grounds (2½ cables NNE) on the S shore and the drying grounds extending S from Kildare Point on the N shore.

Directions within the harbour

13.105

- 1 **Northport Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 2 m in height) (46°47'7N, 64°03'6W) on the roof of a shed near the outer end of the Railway Wharf, 1 mile WSW of Cascumpeque Light.

Rear light (white tower, red stripe, 11 m in height) (273 m from front light).

- 2 The alignment (245°) of these lights leads towards the wharves of Northport, passing, (with positions given from Cascumpeque Light):

NNW of the grassy sand dunes (1 cable N) forming the S entrance point, thence:

SSE of Sandy Island, (4½ cables WNW), near the edge of the drying flats of sand, mud and grass filling the mouth of Kildare River.

Directions for entering Cascumpeque Bay

13.106

- 1 From the vicinity of the piers at Northport a buoyed channel leads S and SE into Cascumpeque Bay, passing through narrows between Savage Island, 5 cables SW of Cascumpeque Light, and Hill Point, 2 cables farther SW.

Anchor berth

13.107

- 1 Secure but confined anchorage is available in the channel inside the entrance to Alberton Harbour, in depths of from 5.5 to 9.1 m (18 to 30 ft).

Alongside berths

13.108

- 1 The T-shaped public wharf (46°47'7N, 64°03'6W) at Northport extends 123 m from the shore to an outer end 100 m long with depths of 1.8 to 4.9 m alongside.

A T-shaped wharf 38 m long with depths of 2.4 to 3.0 m alongside is situated close NE.

A L-shaped breakwater and patent slip, both in disrepair, lie close NE of this wharf.

- 2 A small public pier is situated at Gordon Point (46°45'N, 64°05'W), the W entrance point to Foxley River, 3 miles S of Northport. The pier is T-shaped and extends 70 m from the shore to an outer end 9.4 m long with depths of 0.6 to 0.9 m alongside. The breakwater close E is in disrepair.

Port services

13.109

- 1 **Repairs.** A patent slip in Alberton Harbour can handle vessels with a length of 23.8 m, a beam of 9.1 m and a draught of 2.7 m. The maximum lifting capacity is 109 tonnes.

Other facilities. Hospital in Alberton.

Supplies. Small quantities of stores; small amounts of fuel oil, in barrels; diesel oil, with 24 hours notice.

Small craft

Chart 4765, Canadian Chart 4491 (see 1.32)

Hardys Channel

13.110

- 1 **Description.** Hardys Channel (46°39'N, 63°53'W) also known as Conway Inlet is a small entrance in the sand-dunes, giving access, for small craft, into Conway Cove, situated 1½ miles W.

Hardys Channel connects with the shallow passage leading NW from Malpeque Bay (13.86).

- 2 The channel through the inlet is marked by buoys and by Hardys Channel (Conway Inlet) Light (framework tower, 5 m in height) (46°39'4N, 63°52'7W), situated close within the entrance.

Local knowledge is essential.

- 3 **Directions.** The inlet is approached from the E, passing close to JS1 Light-buoy (port hand) moored about 1.1 miles ENE of Hardys Channel Light.

The approach channel to the inlet is marked by two buoys; JS4 Buoy (starboard hand) (6 cables NE of Hardys Channel Light) and JS5 Light-buoy (port hand) (4 cables NE).

- 4 Within the entrance, the channel between the drying sandbanks is very intricate.

Little Channel, (46°39'N, 63°54'W) marked by buoys, leads into Conway Cove (46°39'N, 63°55'W). The channel was formerly dredged to a depth of 1 m (3 ft), but now has about 0.6 to 0.9 m due to silting. The channel leading to the boat basin (below) is marked by stakes.

- 5 **Caution.** The buoys are liable to be moved to meet changes in the channel.

Boat basin. A small boat basin is located on the N side of Little Channel.

Berth. There is a small pier (46°39'2N, 63°55'3W) on the W side of the entrance to Conway Cove.

Cavendish Inlet

13.111

- 1 **General information.** Cavendish Inlet (46°43'N, 63°57'W) is a small inlet leading from the sea to The Narrows (13.87). Small craft may find shelter within the inlet. This inlet is not named on the charts.

Chart 4765, Canadian Chart 4492 (see 1.32)

Palmer Inlet

13.112

- 1 **Description.** Palmer Inlet (46°45'N, 64°01'W) is a small inlet leading from the sea to the S end of Cascumpeque Bay. Small craft may find shelter within the inlet.

There are depths of about 0.6 m (2 ft) over the bar, but there is shoaler water inside.

Small craft

Chart 4765

Tignish Harbour

13.113

- 1 **Description.** Tignish Harbour (46°57'N, 64°00'W) is situated about 5 miles N of Cape Kildare.

The chief industry is fishing, and the harbour, which is at the mouth of Tignish River, contains a small basin for fishing craft.

The village of Tignish lies about 2 miles upstream; a church (spire) in the village can be seen from both sides of Prince Edward Island.

- 2 **Directions.** The harbour and boat basin, are entered through Tignish Run, a channel about 3 cables long and 45 m wide, between two breakwaters; the depth in Tignish Run was 0.9 m (3 ft) in 1991. Tignish Run is approached from E, passing close to JX2 Light-buoy (starboard hand), moored about 1 mile ESE of the entrance.

Caution. The navigational aids are liable to be moved to meet changes in the channel.

Useful mark:

Big Tignish Breakwater Light (framework tower, 5 m in height) (46°57'0N, 63°59'5W) stands on the head of the N breakwater.

- 3 **Basins and berths.** A small basin and a public wharf are situated at Jude's Point, on the NW side of the harbour, about 4 cables WNW from Big Tignish Light. Depths alongside are from 1.4 to 2.5 m.

Two basins, one on the N side and the other on the S side, lie close W of Tignish Run. Depths are from 1.2 to 2.5 m.

Seacow Pond

13.114

- 1 **Description.** Seacow Pond (47°02'N, 63°59'W), 1¾ miles SSE of North Cape, has a boat harbour protected by two breakwaters. North Cape East Light (13.98) is exhibited from the head of the S breakwater. In 1992 the depth in the entrance was about 0.9 m (3 ft).

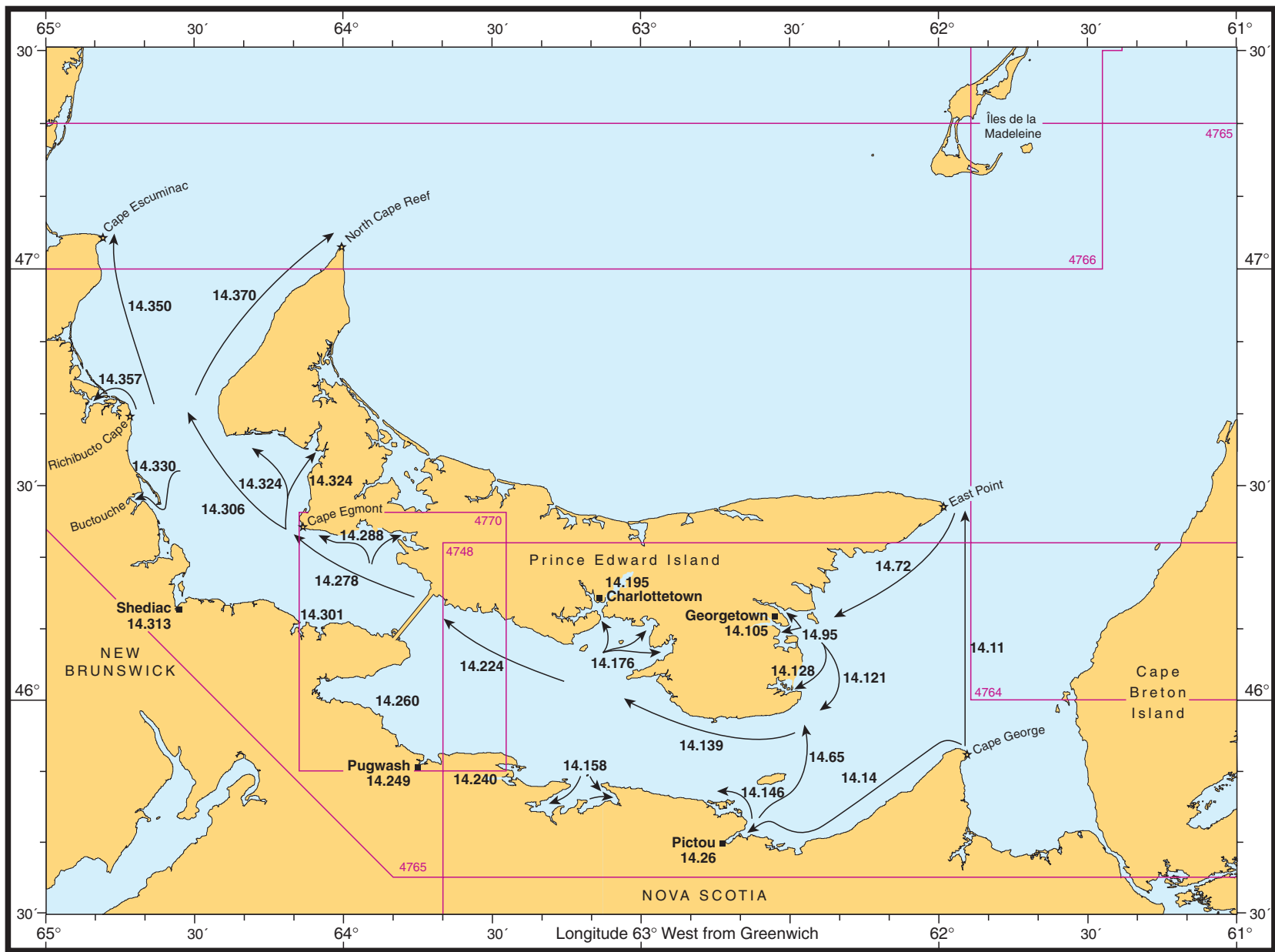


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Chapter 14 - Northumberland Strait



October 2003

CHAPTER 14

NORTHUMBERLAND STRAIT

GENERAL INFORMATION

Chart 4765

Scope of the chapter

14.1

- 1 This chapter comprises the through routes, coastal routes, anchorages and harbours from East Point (46°27'N, 61°58'W) of Prince Edward Island, through Northumberland Strait to North Cape Reef (47°07'N, 63°58'W) off the N coast of Prince Edward Island. It also describes the coasts of Nova Scotia and New Brunswick that lie on the S shore of the Strait.
- 2 The approach to Northumberland Strait from Saint Georges Bay (12.232) is described in Chapter 12, and the NE approach from the entrance to Saint Lawrence River is described in Chapter 13. The NW approaches from Gaspé (15.283) and Chaleur Bay (15.92) are described in Chapter 15. The chapter is arranged as follows:
 - Northumberland Strait — E entrance (14.10).
 - Northumberland Strait — central section (14.138).
 - Northumberland Strait — N section (14.305).

Description of strait

14.2

- 1 Northumberland Strait is about 160 miles long. The navigable width of the narrowest part of the strait, known as Abegweit Passage (46°11'N, 63°42'W), is 5½ miles. The limits of Northumberland Strait are established by the Canadian authorities, as follows:
 - East limit:**
 - Sight Point, Cape Breton Island (46°11'N, 61°25'W) to East Point, Prince Edward Island (46°27'N, 61°58'W).
- 2 **North limit:**
 - Pointe Escuminac, New Brunswick (47°04'N, 64°48'W) to North Point (Prince Edward Island) (47°04'N, 64°00'W).

Depths

14.3

- 1 The least depth in the navigable route of the Northumberland Strait is 12.8 m (42 ft).

Ferries

14.4

- 1 The Canadian authorities request mariners to exercise caution when navigating near the charted ferry route across Northumberland Strait. Fishermen and others in small craft are cautioned that ferries, particularly when either approaching or leaving a terminal area, and when operating at reduced speeds, are not as manoeuvrable as other vessels. Ships fitted with radiotelephone should make navigational use of bridge-to-bridge communications in compliance with good navigational practices, particularly when in restricted visibility or when crossing a charted route.

Pilotage

14.5

- 1 Pilotage is compulsory (effective 1st June 1997) in the vicinity of Confederation Bridge. For details, see 14.228 and *Admiralty List of Radio Signals Volume 6 (5)*.

Traffic regulations

14.6

- 1 The *Northumberland Strait Vessel Traffic Services Zone* has been established to facilitate traffic through Northumberland Strait. For additional information, see 14.229 and *Admiralty List of Radio Signals Volume 6 (5)* and *Canadian Annual Notices to Mariners*.

Natural conditions

14.7

- 1 **Fogs.** Northumberland Strait is fairly free of the dense fogs which are so frequent in other parts of the gulf. The prevailing SW wind of summer, which in the Bay of Fundy is generally accompanied by thick fog, is heated by the land, with consequent dispersal of the fog before reaching the S side of the strait. The strait is also shielded from most of the fog which reaches Cape Breton Island from E.
- 1 **Flow** in Northumberland Strait contains elements of both tidal streams and current. The currents vary considerably with natural conditions in the gulf and have quite appreciable effects upon the times of slack water.
 - The in-going tidal stream enters through each end of Northumberland Strait, the streams meeting in the area between Hillsborough Bay (46°05'N, 63°07'W) and Baie Verte, 30 miles W. The out-going tidal streams set in the opposite directions. The directions and rates of the tidal streams are indicated at several positions on the chart.
- 2 In Abegweit Passage (46°11'N, 63°42'W), the tidal streams turn to E about 55 minutes before LW at Yarmouth (Bay of Fundy), and turn to W about 35 minutes before HW at Yarmouth. Farther NW, between Richibucto Cape (46°40'N, 64°43'W) and Cape Egmont, 29 miles SE, the tidal streams turn about 30 minutes before the time of HW and LW at Yarmouth.
- 3 The tidal streams have their greatest rates, just over 2 kn, in Abegweit Passage, abreast Cape Egmont, and between Richibucto Cape and West Point, 14 miles ESE.
- 1 **Ice** forms in Northumberland Strait by the end of December, but there is a general SE drift, caused by winds, currents and tidal streams. As the ice shifts from side to side in response to these forces, coastal leads, although discontinuous, are nearly always present. Onshore pressures as a result of this motion can be extreme. The ice normally clears during April.

NORTHUMBERLAND STRAIT — EAST ENTRANCE

GENERAL INFORMATION

Chart 4765

Area covered**14.10**

- 1 This section describes the waters between the E coast of Prince Edward Island, SW of East Point (46°27'N, 61°58'W), and the coasts of Cape Breton Island and Nova Scotia 20 to 30 miles SE. Also described is Pictou Harbour. The section is arranged as follows:

Offshore route — Saint Georges Bay to East Point (14.11).

Cape George to Pictou Harbour (14.14).

- 2 Pictou Harbour including Trenton and New Glasgow (14.26).

Pictou Harbour to Cape Bear (14.65).

East Point to Cardigan Bay (14.72).

Cardigan Bay (14.95).

Cardigan Bay to Cape Bear (14.121).

OFFSHORE ROUTE — SAINT GEORGES BAY TO EAST POINT

Chart 4765

Tidal streams**14.11**

- 1 Tidal streams set at a rate of 2½ kn between the N end of Milne Bank (46°23'N, 61°55'W) and East Point; they set very strongly towards and over the reefs surrounding East Point, causing strong tide-rips. The tidal streams are reported to be influenced by strong winds in the vicinity of East Point, and to be irregular both in rate and direction. The predicted directions and rates of the tidal streams at several points offshore are indicated on chart 4765.

Principal marks**14.12**

- 1 **Landmark:**

East Point Lighthouse (white 8-sided tower, 19 m in height) (46°27'N, 61°58'W).

Major lights:

Cape George Light (45°52'N, 61°54'W) (12.237).

Panmure Head Light (white 8-sided tower, 19 m in height) (46°09'N, 62°28'W).

Souris East Light (white square tower, 14 m in height) (46°21'N, 62°15'W).

Passage directions

(continued from 12.243)

14.13

- 1 From a position NE of Cape George (45°52'N, 61°54'W), and WSW of Black Point (46°02'N, 61°33'W) the track leads NNW in deep water for about 30 miles to a position E of NDN Light-buoy (E cardinal) moored 1.7 miles NE of East Point light (46°27'N, 61°58'W), passing E of Milne Bank which covers a large area, from 4 to 5½ miles SSE of East Point. The bottom is of sandstone, thinly covered in places with red sand. The E edge of the bank is steep-to and tide-rips are frequently seen when the tidal stream is flowing SW. In strong NE gales the sea can be very heavy. See caution at 14.76.

(Direction continue for coastal passage towards Northumberland Strait at 14.76)

CAPE GEORGE TO PICTOU HARBOUR

General information

Chart 4765, Canadian Chart 4404 plans of Arisaig Harbour Wharf and Baillie Brook Wharf (see 1.32)

Route**14.14**

- 1 This coastal passage follows the N coast of Nova Scotia, from a position NE of Cape George (45°52'N, 61°54'W) to the pilot position for Pictou Harbour (45°42'·5N, 62°34'·0W). There are no harbours, other than Pictou, on this part of the coast, except landing places for small craft and places of shelter for fishing vessels.

Topography**14.15**

- 1 The land, which is well settled and cultivated, rises to a ridge 2 or 3 miles inland, and reaches a summit of 335 m (1100 ft) 15 miles SW of Cape George.
Big Merigomish Island (45°40'N, 62°26'W) is about 48 m high, with thin layers of coal visible in the cliffs at Coal Point, on its NW side. A ridge of sand joins the E end of the island to the mainland.
- 2 Between Evans (Black) Point (45°40'N, 62°33'W) and the entrance to Pictou Harbour, 4½ miles W, the land is lower and shoal water extends farther offshore.

Directions

(continued from 12.238 and 12.274)

14.16

- 1 From a position NE of Cape George (45°52'N, 61°54'W) and WSW of Black Point (46°02'N, 61°33'W), the coastal track leads WSW for about 35 miles, passing, (with positions given from Pictou Island East End Light (14.17)):
NNW of Arisaig village church, (white steeple), (45°45'·6N, 62°09'·8W), thence;
- 2 NNW of shoal ground, (12 miles SE) with depths of less than 9 m (30 ft), extending up to 1¼ miles offshore between Knoydart Point (45°43'N, 62°15'W) and Kings Head, 11 miles farther WSW; Baillie Brook Light (red and white rectangle on red framework tower, 7 m in height) (45°42'N, 62°16'W) stands 1½ miles WSW of Knoydart Point. Thence:
- 3 NNW of Roaring Bull Point (45°41'N, 62°34'W), where there is a remarkable red patch, thence:
To vicinity of the pilot position (45°42'·5N, 62°34'·0W) off Pictou.

14.17

- 1 **Useful marks:**

Sugarloaf Hill (45°46'N, 62°05'W).

Pictou Island East End Light (red and white rectangle on red framework tower, 10 m in height) (45°49'N, 62°31'W) on the SE point of the island.

Pictou Bar Light (white 8-sided tower, red upper portion) (45°41'N, 62°40'W).

(Directions continue for entering Pictou at 14.46, for route to Cape Bear at 14.68 and for Caribou Channel at 14.147)

Small craft anchorages and harbours between Cape George and Pictou Harbour

Livingstone Cove**14.18**

- 1 **General information.** Livingstone Cove, close S of Livingstone Point (45°52'N, 61°59'W), has a public pier,

affording shelter and a berth for fishing vessels. However, little shelter is afforded from W and NW winds.

Directions. The pier, from which a light (square tower, 5 m in height) is exhibited, should be approached with care, as the partially submerged ruins of an old breakwater lie near it.

- 2 **Berth.** The E face of the outer section, 21 m long, has depths of 0.6 to 1.2 m alongside. The E face of the inner section, 52 m long, has depths of 0.3 to 1.8 m alongside.

Malignant Cove

14.19

- 1 Malignant Cove (45°47'N, 62°05'W) has a small stream running into its head, and is a good landing place for small craft.

Arisaig Harbour

14.20

- 1 **General information.** Close S of Arisaig Point (45°46'N, 62°10'W), there is a small boat harbour, contained within two breakwaters. The N breakwater extends 147 m S from Arisaig Point, and has a depth of 2.1 m at its head; the S breakwater extends 85 m W from the shore about 1½ cables SE of the point.

Arisaig village, with a conspicuous church, is situated close E of the harbour.

- 2 **Directions.** The alignment (090°) of Arisaig Harbour Leading Lights leads into the harbour:

Front light (white rectangle, red stripe, on framework tower, 5 m in height) (45°45'6N, 62°10'2W).

Rear light (similar construction and tower, 6 m in height) (96 m from front light).

- 3 **Berths** exist in the harbour as follows:

On the E side of the N breakwater, in depths of 0.6 to 1.2 m.

On a public pier with a depth of 0.6 to 0.9 m at its head, situated between the N and S breakwaters.

Baillie Brook Wharf

14.21

- 1 **General information.** Baillie Brook Wharf (45°42'N, 62°16'W) is a fishing harbour at the mouth of a small river. The river is in spate during the thaw, but is nearly dry in summer, with sand-bars sometimes obstructing its entrance. Two parallel breakwaters, 37 m apart, extend NW from the river mouth; the E breakwater is the longer.

A narrow channel leading to the fish plant and public wharf has a depth of 0.3 m (1 ft).

- 2 Baillie Brook Light (red and white rectangle on red framework tower, 7 m in height) is exhibited on the shore near the wharf.

Directions. The harbour is entered from WNW by passing between the two breakwaters from where lights are exhibited.

Inside the breakwater heads the channel follows close to the E breakwater and the E shore.

- 3 **Berth.** The wharf at Baillie Brook village has a berth 192 m long, with a depth of 0.6 to 1.2 m alongside.

Canadian Chart 4445 (see 1.32)

Merigomish Harbour

14.22

- 1 **Description.** Merigomish Harbour lies between Big Merigomish Island (45°40'N, 62°26'W) and the mainland SE and SW.

The harbour is approached through a channel over a bar W of Big Merigomish Island, and entered abreast Merigomish Point, the W extremity of the island.

Local knowledge is required.

Limiting conditions. The least depth in the channel over the bar is 4.3 m (14 ft). Northerly winds cause a heavy sea on the bar.

- 2 **Harbour.** Within the entrance, the harbour extends 5 miles ENE, and another branch extends 4 miles SW through a bay filled with islands, coves and headlands. The channels within the harbour are narrow and intricate, but there are ample depths for vessels that can cross the bar.

French River flows into the SE side of the harbour; small craft can navigate the river as far as the bridge at Merigomish village about 1 mile upstream.

- 3 **Harbour channels.** Some of the channels in the harbour E of Savage Point (45°38'6N, 62°27'2W) are marked by buoys or stakes.

Marine farms. A number of oyster farms are located in Merigomish Harbour; the areas are marked by a buoy at each corner, and mariners are advised to proceed with care in their vicinity.

Submarine cable. A submarine cable is laid across the harbour about 2 miles E of Merigomish Point.

- 4 **Tidal streams** frequently attain a rate of 5 kn in the narrows S of Savage Point, the SW extremity of Big Merigomish Island; within the harbour the rate is generally less than 1½ kn.

Directions for entering harbour. From the vicinity of SA2 Light-buoy (starboard hand), moored 1 mile N of Kings Head (45°39'N, 62°29'W), a buoyed channel leads S over the bar, passing 2 cables E of the headland.

- 5 After passing E of Kings Head, the buoyed channel, which is about 210 m wide between steep-to banks, leads SSE for about 5 cables, then turns sharply towards the E, passing between Dulse Rocks, which extend up to 2½ cables NW from Betty Point on Olding Island and Savage Point, the S extremity of Big Merigomish Island. The width of the channel is reduced to 90 m in the narrows, and strong tidal streams may be encountered at this point.

- 6 **Supplies.** Small quantities of provisions may be obtainable at Merigomish.

Small craft. Berths with depths alongside the piers reported to be from 0.6 to 1.5 m, are located at various places within the harbour as follows:

In Savage Cove (45°38'9N, 62°27'0W).

Close SE of Hardwood Point (45°38'6N, 62°25'6W).

At Merigomish village (45°38'N, 62°25'W), close to the bridge.

Small craft harbours between Merigomish and Roaring Bull Point

Little Harbour

14.23

- 1 **General information.** Little Harbour (45°39'N, 62°32'W), entered between Black Point, also known as Evans Point, and the W end of Roy Island, 8 cables SE, is suitable only for small craft.

Directions. The entrance is approached from NNE, passing between the reef extending about 1½ cables E from Black Point and Roy Ledge, a rocky shoal lying 8 cables ESE of Black Point, keeping clear of an isolated rocky patch ½ mile E of Evans Point with a depth of 5.5 m (18 ft) over it.

- 2 Within the entrance, two narrow and intricate channels lead through drying flats into small inner basins, where there are depths of 1.8 to 3 m (6 to 10 ft). The E channel, entered about 8 cables SSE of Black Point, is the better.

Caution. Several oyster farms are located in Little Harbour; the areas are marked by buoys at each corner and mariners are advised to proceed with care in their vicinity.

Canadian Chart 4404 (see 1.32)

Roaring Bull Point

14.24

- 1 A public pier, used by fishing vessels, is situated at the point close W of Roaring Bull Point (45°41'N, 62°34'W); the depth alongside the outer end of the pier is 0.9 m.

Other name

14.25

- 1 Chance Harbour (45°40'N, 62°35'W).

PICTOU HARBOUR INCLUDING TRENTON AND NEW GLASGOW

General information

Chart 4765, Canadian Charts 4404, 4437, 4443 (see 1.32)

Position

14.26

- 1 Pictou Harbour lies in 45°40'N, 62°42'W.

Function

14.27

- 1 Pictou Harbour is the finest harbour on the S shore of the Gulf of St Lawrence, E of Cap de Gaspé. It provides anchorage and port facilities. Berths also exist in the East River at Trenton and New Glasgow.

The town of Pictou is built on the slope of a ridge, rising to 61 m on the N shore. The population of Pictou was 2 500 in 2002.

Port limits

14.28

- 1 The seaward limit of Pictou Harbour is a line drawn from Roaring Bull Point (45°41'N, 62°34'W) to Logan Point 3½ miles NW.

Approach and entry

14.29

- 1 Pictou Harbour is approached through Pictou Road and entered NW of Lighthouse Beach (Pictou Bar Spit) (45°41'N, 62°40'W).

Traffic

14.30

- 1 In 2002, the port was used by 20 foreign going vessels.

Port Authority

14.31

- 1 Pictou Harbour is administered by the Canadian Department of Transport, Attn Brian Mosher, PO Box 1013 Dartmouth, Nova Scotia, Canada B2Y 4K2.

Limiting conditions

Depths

14.32

- 1 **Controlling depth** in the entrance channel is 6.5 m (21 ft) (2003). The depths in the harbour vary from 6.1 to 13.1 m (20 to 43 ft), as far as the causeway (14.48).

In East River of Pictou, the first two reaches had a least charted depth of 3.4 m (11 ft), and the third reach had a least charted depth of 3 m (10 ft) on the leading lines in 2002.

Vertical clearance

14.33

- 1 Overhead power cables span the channel at Trenton (45°37'4N, 62°39'1W), with a vertical clearance of 21 m (69 ft) and 23 m (75 ft).

A bascule bridge crosses the channel at the N end of the old locks.

Farther up East River in position 45°36'1N, 62°38'8W, power cables span the channel with a vertical clearance of 27.7 m (91 ft).

Deepest and longest berth

14.34

- 1 Pier C at Pictou (14.55).

Tidal levels

14.35

- 1 Mean spring range about 1.9 m; mean neap range about 1.0 m. See *Admiralty Tide Tables Volume 2* for details.

Ice

14.36

- 1 The harbour is usually closed by ice from the beginning of January to mid April. Mariners will encounter varying amounts of ice between early January to mid-April. Icebreaker assistance is available.

Arrival information

Notice of ETA required

14.37

- 1 Notice of ETA at the pilot boarding position (14.40) should be sent to Atlantic Pilot Authority 24, 12 and 3 hours in advance and ETD should be sent 4 hours in advance. See *Admiralty List of Radio Signals Volume 6 (5)* for details.

Outer anchorage

14.38

- 1 Pictou Road, about 2 miles NE of the harbour entrance, affords good anchorage in depths of 9 m (30 ft), clay and mud.

The recommended anchor berth is with Pictou Bar Light (14.17) bearing 244°, distant 2 miles.

Prohibited anchorage. A prohibited anchorage area, as indicated on the chart, lies within a radius of 305 m from the slipways at Battery Point (45°40'6N, 62°42'0W).

Submarine cables

14.39

- 1 Submarine cables, as indicated on the chart, are laid as follows and should be avoided (with positions given from Pictou Bar Light (45°41'N, 62°40'W)):

Between the vicinity of Pictou Bar Light, across the mouth of Moodie Cove, to Moodie Point (3½ cables SW).

Between Seaview Point, also known as Grave Point (7 cables W) SE across the harbour to the opposite shore.

- 2 Between Town Point (2 miles WSW) SE across the harbour to Christie Point (45°40'N, 62°42'W).

Pilotage and tugs

14.40

- 1 **Pilotage** is not compulsory but pilots are available and board in position 45°42'5N, 62°34'0W.

Tugs. There are no tugs available in Pictou, but they are available on 24 hours notice.

Local knowledge**14.41**

- 1 Local knowledge is required. Mariners without local knowledge are advised to employ a pilot.

Customs and Excise**14.42**

- 1 Pictou comes under the jurisdiction of Canada Customs in Halifax.

Harbour**General layout****14.43**

- 1 Pictou Harbour extends SW for a distance of 3 miles from its entrance to a causeway forming its W limit. East River of Pictou branches SE from the S side of the harbour and leads through navigable channels to the industrial towns of Trenton and New Glasgow.

Tidal streams**14.44**

- 1 The strong tidal streams over the bar, sometimes attain a rate of 2½ knots. Within the harbour, tidal streams of about 0.5 knots can be expected.

Principal marks**14.45**

- 1 **Landmarks:**

Pictou Bar Lighthouse (45°41'N, 62°40'W) (14.17) at the NW extremity of Lighthouse Beach.

Conspicuous tower (45°39'·2N, 62°43'·0W) at a paper mill.

Directions for entering Pictou Harbour

(continued from 14.17)

Approach channel**14.46**

- 1 From the vicinity of the pilot boarding place (45°42'·5N, 62°34'·0W), the track leads WSW, to the vicinity of SJ Light-buoy (safe water) moored 2¼ miles ENE of Pictou Bar Light, thence through the approach channel, taking care to avoid a rock with a depth of 7·6 m (25 ft) over it, positioned 8¼ miles S of Pictou Island East End Light (14.17).

- 2 **Leading lights:**

Front light (exhibited from same structure as Pictou Bar Lighthouse) (14.17) (45°41'·2N, 62°39'·8W).

Rear light (white rectangle, red stripe, on red framework tower, 12 m in height) on Battery Point (1¼ miles WSW of the front light).

The front light is visible on the leading line only; the rear light is visible over an arc of 3°.

- 3 The alignment (249½°) of these lights leads through the approach channel, passing, (with positions given from Pictou Bar Light (45°41'N, 62°40'W), (see 14.17):

NW of Mackenzie Shoal, rocky, (2 miles ENE), thence:

E of Macdonald Reef, (2 miles NE) which extends 4 cables ESE from Logans Point, (see 14.146) marked by SP6 Light-buoy (starboard hand), thence:

- 4 NW of shoal ground, with depths of less than 5·5 m (18 ft) over it, extending about 6 cables N and NW from Mackenzie Head, sharp pointed cliff of clay and sandstone, 12 m (40 ft) high (1½ miles E), thence:

SE of shoal ground, with depths of less than 5·5 m (18 ft) over it, extending 4 cables SSE from Cole Point, clay and sandstone cliff, 9 m high (1 mile NE).

Entrance channel**14.47****Pictou Harbour Leading Lights:**

Front light (white tower, red stripe, 6 m in height) (45°41'·3N, 62°40'·7W) on the N shore.

Rear light (similar construction and tower, 11 m in height) (142 m from front light).

- 2 The alignment (262°) of these lights leads through the buoyed channel, 122 m wide, over the bar, passing, (with positions given from the front leading light (45°41'·3N, 62°40'·7W)):

S of Murdock Shoal (1 mile ENE), extending about 3 cables from the N shore, and:

N of shoal ground (8 cables E) with depths of less than 5·5 m (18 ft) over it, extending from the SW shore.

Pictou Harbour**14.48**

- 1 From a position in the harbour entrance, abreast Pictou Bar Light, the buoyed channel leads SW through Pictou Harbour. The causeway, which connects Skinner Point, 2 cables WSW of Abercrombie Point, to the opposite shore closes Middle River and West River to navigation.

Directions for East River of Pictou**Pictou to Trenton****14.49**

- 1 A narrow channel has been dredged from the mouth of East River of Pictou, at the SW end of Pictou Harbour, to Trenton, about 4½ miles upstream. The channel is in three long reaches, the first two, as far as Stonehouse Point (45°37'N, 62°39'W), being straight. The channel continues for about 1 mile, with decreasing depths, to New Glasgow.

Silting takes place and local information should be obtained before attempting to navigate this river. The buoys and stakes may be moved to mark the best channel.

14.50

- 1 **Norway Point Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 7 m in height) (45°40'·3N, 62°43'·4W).

Rear light (similar construction and tower) (626 m from front light).

From a position close NE of SJ20 Light-buoy (starboard hand) (45°39'·8N, 62°42'·9W), at the entrance to the East River of Pictou, the alignment (324°) astern, of these lights leads through the outer reach, marked by light-buoys and buoys, to the end of the leading line, passing, (with positions given from the front light):

- 2 Close NE of SJ20 Light-buoy (starboard hand) (5½ cables SE), marking the entrance to the channel, thence:

SW of Indian Cross Point (2 miles SE).

14.51

- 1 **Trenton Leading Lights:**

Front light (white rectangle, red stripe, square tower, 4 m in height) (45°37'·4N, 62°38'·9W) at the N end of the town of Trenton.

Rear light (white square, red stripe on framework tower, 10 m in height) (891 m from front light).

- 2 From the position SW of Indian Cross Point, the alignment (119¾°) of these lights leads through the second

reach, marked by light-buoys and buoys, passing, (with positions given from Dunbar Point (45°38'·0N, 62°40'·7W)):

Close SSW of SJ25 Light-buoy (port hand) (7½ cables NW), thence:

NNE of SJ38 Light-buoy (starboard hand) between Stonehouse Point and Greens Point, (1¼ miles ESE). There is a large electrical power station on Stonehouse Point.

14.52

- 1 A turning basin, about 1 cable long and up to 64 m wide, has been dredged off Trenton, 3 cables above the bridge, close E of McKay Point (45°37'N, 62°39'W).

Trenton to New Glasgow

14.53

- 1 Above the Irving Oil Wharf at Trenton, the channel becomes more intricate, and leads S for about 1 mile to New Glasgow, with decreasing depths, passing under overhead power cables (14.33).

Berths at Pictou

Anchorage berths

14.54

- 1 The usual anchorage is E of the wharves at Pictou, in depths of 6·1 to 12 m (20 to 40 ft), mud.

If anchoring elsewhere in the harbour, mariners should note the prohibited anchorage area (14.38) and submarine cables (14.39).

Alongside berths

14.55

- 1 The following berths are located on the piers and quays at Pictou (with positions given from Norway Point (45°40'·3N, 62°43'·4W)).

Hector Quay Marina, formerly Pier A (5 cables NE) is used for pleasure craft in summer. The pier has a length of 80 m and a reported depth alongside of from 0·9 to 3·6 m.

- 2 **Irving Jetty** (5½ cables ENE), with a length of 40 m is now the site of the replica ship Hector.

Pier B Marina (7 cables ENE) has a length of 60 m and depths alongside of from 1·8 m to 4·6 m.

Pier C Transit Shed (8 cables ENE), has a length of 60 m and depths alongside of from 6·4 to 10·4 m.

- 3 **Quay**. The quay at Pictou (9 cables ENE) has a length of 212 m and depths alongside of from 5·4 to 6·4 m.

Provincial Quay. The quay at the shipyard (12 cables ENE) has a length of 80 m and a depth alongside of 7 m.

Other berths. Several small wharves are situated W of Pier B. In position 45°40'·5N, 62°42'·7W a marina exists with a pier from which a light is exhibited.

- 4 **South shore**. Pictou Landing, 1 mile SW of Pictou Bar Light, is a L-shaped pier for small vessels. The pier is 56 m long and 32 m across the outer face, with depths of 2·4 to 4·6 m alongside and 4 m on the inner face. Ruins of an old wharf exist close W.

Ruined piers and breakwaters extend from the shore 6 and 11 cables SW of Pictou Bar Light.

Abercrombie Point (45°39'·4N, 62°43'·0W). A ferry pier in ruins with a depth of 0·9 m at its head is situated 1½ cables SE of Abercrombie Point.



Pictou Harbour Pier B, Pier C and Quaywall Wharf (14.55)

(Original dated prior 2002)

(Photograph – Transport Canada)

Berths at Trenton and New Glasgow

Irving Oil Wharf

14.56

- 1 Irving Oil Wharf (45°36'4N, 62°37'5W) at Trenton has a length of 15 m on the T-end and has a reported depth of 2.1 m close off the berth. This berth is said to be in ruins.

New Glasgow

14.57

- 1 The wharf, formerly on the E bank of the river at New Glasgow, has changed its name to Riverfront Marina and now occupies both banks of the river.

Port services

Repairs

14.58

- 1 A shipyard (Woodside Industries) at Battery Point 1½ miles WSW of Pictou Bar Light (45°41'N, 62°40'W) can undertake major hull and machinery repairs; two slipways, with a maximum capacity of 3 300 tonnes and a 45 tonne crane are situated on the point.

The cradle length is 98.8 m, maximum beam 18.2 m with a lifting capacity of 3300 tonnes.

Other facilities

14.59

- 1 Hospital at New Glasgow; deratting can be carried out; Deratting and Deratting Exemption Certificates issued; oily waste reception facilities by tanker truck; garbage disposal arranged by agents; mobile cranes up to 25 tonnes are also available.

Supplies

14.60

- 1 Fuel oil from tanker trucks on Pier C; diesel oil, fresh water, provisions, electrical power on Pier C.

Communications

14.61

- 1 A ferry service operates between points in Pictou Harbour and up East River of Pictou to New Glasgow. Airports are situated at Trenton 11 kms; Halifax International 100 kms.

Small craft

Campbell Point

14.62

- 1 At Campbell Point, 1¼ miles WSW of Pictou Bar Light, two stone breakwaters, 23 m apart, shelter a marina with reported depths of 1.5 m at the entrance and 1.8 m at the berthing pontoons.

Pictou Landing

14.63

- 1 There is a wharf at Pictou Landing, formerly Royal William Yacht Club, 7.5 cables SW of Pictou Bar Light, on the S side of the harbour. The L-shaped wharf has an outer end 4.3 m long, with depths of 0.9 m on the NW face and 0.3 m on the NE face. A mooring area lies to the W of the wharf. The wharf now serves the inshore fishing industry.

Boat Harbour

14.64

- 1 Boat Harbour (45°40'5N, 62°38'4W) is an inlet on the S side of Pictou Road, 1¼ miles SE of Pictou Bar Light. From the head of the inlet, a shallow lake extends about 1 mile SW but it is full of mud and weeds, and only

accessible to small craft at HW. The lake is reported (2003) to be in the process of being cleaned.

PICTOU HARBOUR TO CAPE BEAR

General information

Chart 4765, Canadian Charts 4403, 4404 (see 1.32)

Route

14.65

- 1 From the vicinity of the pilot boarding position (45°42'5N, 62°34'0W) off Pictou Harbour, the route leads NNE for about 8 miles, passing well clear of the E extremity of Pictou Island, and thence to a position in mid channel S of Cape Bear (46°00'N, 62°28'W).

Depths

14.66

- 1 Least charted depth is about 48 ft (15 m).

Principal mark

14.67

- 1 **Landmark:**

Cape Bear Lighthouse (white square tower, 12 m in height) (46°00'N, 62°28'W).

Directions

(continued from 14.17)

14.68

- 1 From the vicinity of the pilot boarding position (45°42'5N, 62°34'0W), off Pictou Harbour, the track leads NNE, passing (with positions given from Seal Point (45°50'N, 62°30'W)):

SSE of Macdonald Reef, marked by SP6 Light-buoy (starboard hand) (8½ miles SSW), thence:

SSE of the entrance to Caribou Channel (6½ miles SSW) (14.146), thence:

SSE of Pictou Island East End Light (1 mile S) (14.17), thence:

- 2 SSE of SP Light-buoy (E cardinal) (6 cables E) marking shoals, rocks and reefs with depths of less than 11 m (36 ft) over them, extending 1 mile offshore in places. It is advisable to pass a good distance off Pictou Island, especially at night, and when the flow is W-going and soundings may give little warning of approach to danger. Pictou Island is composed of clay and sandstone 46 m in height near its centre and is wooded on its N side, with low cliffs.

- 3 The track then leads N to a position in mid channel S of Cape Bear (46°00'N, 62°28'W).

(Directions continue for Northumberland Strait at 14.145)

Pictou Island

General information

14.69

- 1 **Description.** Pictou Island (45°49'N, 62°33'W) lies about 10 miles NE of Pictou Harbour.

A submarine cable is laid from close NE of Roger Point (45°48'1N, 62°33'5W) SW to the mainland.

Shelter

14.70

- 1 A detached breakwater (45°49'3N, 62°30'6W) lies a short distance offshore, about 3 cables S of Seal Point, the NE extremity of Pictou Island. A light is exhibited from the S end of the breakwater.

Small craft**14.71**

- 1 **Description.** A pier is situated 7 cables E of West End, the SW extremity of Pictou Island.

Directions. The approach to the pier is from S, passing over the shoal bank, with depths of less than 5.5 m (18 ft) over it, extending about 5 cables S from the shore in this vicinity. Thence, between breakwater heads, each about ½ cable long, the W breakwater having a L-shaped head, with a depth of about 1.4 m at the outer end, from where a light (framework tower, 4 m in height, (45°48'N, 62°35'W)) is exhibited. There is very little depth in the basin enclosed by the breakwaters.

- 2 **Useful mark:**

Pictou Island South Light (white tower, 8 m in height (45°48'N, 62°35'W)) is situated close NW of the breakwater light.

Berth. West Wharf, a pier, 38 m long with a depth of 1.8 m at the head of the pier is situated within the breakwaters.

- 3 **Landing.** Roger Point (45°48'1N, 62°33'5W), about mid-way along the S coast of Pictou Island, is low and sandy, and affords the best landing for boats.

EAST POINT TO CARDIGAN BAY**General information**

Chart 4765, Canadian Chart 4403 (see 1.32)

Route**14.72**

- 1 From a position E of East Point (46°27'N, 61°58'W), the route leads SW for 24 miles to the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W).

Topography**14.73**

- 1 The coast between East Point and Basin Head, about 7½ miles SW, is formed by sand-hills and beaches. Cliffs extend SW from Basin Head, and there is a remarkable sand beach at Little Harbour (46°21'N, 62°10'W).

The coast between Souris Head (46°20'N, 62°17'W) and Spry Point, 6½ miles SW, forms several bays, separated by sharp headlands with cliffs, and points of red sandstone.

Tidal streams**14.74**

- 1 See 14.11.

Principal marks**14.75**

- 1 **Landmarks:**

East Point Lighthouse (46°27'N, 61°58'W) (14.12).
Souris East Lighthouse (46°21'N, 62°15'W) (14.12).

Major lights:

Cape George Light (45°52'N, 61°54'W) (12.237).
Panmure Head Light (46°09'N, 62°28'W) (14.12).
Souris East Light — as above.

Directions

(continued from 14.13)

14.76

- 1 **Caution.** Due to the strong tidal streams that may be met in the vicinity of East Point and Milne Bank, (14.13) it is advisable, in thick weather, to keep in depths of more than 37 m (20 fm) by passing E of Milne Bank. In strong

NE gales the sea is very heavy off the E edge of Milne Bank and off East Point.

- 2 From a position E of NDN Light-buoy (E cardinal) moored 1.7 miles NE of East Point Light, (46°27'N, 61°58'W), the coastal route leads SW, passing, (with positions given from East Point Light):

SE of NDN Light-buoy (E cardinal) (1¾ miles ENE), thence:

SE of East Point Light (14.12), keeping clear of a dangerous wreck lying 2½ miles SE of Seal Point, thence:

NW of Milne Bank (5 miles SSE) (14.13) but see caution above, thence:

SE of Boughton Point, a cliff of red sandstone 9 m (30 ft) high, the SE point of Boughton Island, (46°12'N, 62°25'W). An E cardinal buoy, marked NJA (46°11'2N, 62°23'2W) marks the E end of Boughton Ledge, which extends 8 cables NE from Boughton Point.

- 3 The track then leads to the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W).

Clearing bearing. The line of bearing 305° of Beaton Point, 1 mile NW of East Point, open NE of East Point, passes N of Milne Bank, but close to the dangerous wreck mentioned above.

- 4 **Clearing mark.** The alignment (265°) of Chepstow Point 1½ miles E of Souris East Light and Swanton Point 4 cables SE of the light passes close S of the shoaler part of Milne Bank. These marks are so distant that they can only be distinguished in clear weather.

(Directions continue for coastal passage at 14.126, and for entering Cardigan Bay at 14.100)

Anchorage**Southwest of East Point****14.77**

- 1 With N winds there is good anchorage, in moderate depths, off the coast between East Point (46°27'N, 61°58'W) and South Lake outlet, about 5 miles SW.

Rollo Bay**14.78**

- 1 Anchorage is also available in Rollo Bay (46°20'N, 62°19'W), which is entered between Sheep Head, about 5 cables W of Souris Head, and Howe Point, about 2½ miles SW.

The bay affords anchorage in depths of 13 m (42 ft), sand, but it is shallower on the W side due to silting from Fortune River.

Caution. Rollo Bay is unsuitable as an anchorage when winds are between SE and SW.

Souris Harbour

Canadian Chart 4419 (see 1.32)

General information**14.79**

- 1 **Position and function.** Souris Harbour (46°21'N, 62°15'W), on the E side of Colville Bay, is a fishing port and a convenient harbour of refuge.

Port limits. The outer limit is a line drawn across the entrance to Colville Bay, from Swanton Point (46°20'5N, 62°14'4W) to Souris Head, 1¾ miles WSW, as indicated on the chart.

- 2 **Traffic.** In 1991, 25 vessels including 9 international movements, totalling 63 373 grt used the port and 47 500 tonnes of cargo were handled.

Port Authority. Souris is administered by Transport Canada, Harbours and Ports, PO Box 1270, Charlottetown, Prince Edward Island.

Limiting conditions

14.80

- 1 **Controlling depth.** The approaches have a depth of about 22 ft (6.7 m) at LW.

Deepest and longest berth. N side of the public jetty (14.84).

Tidal levels. Mean spring range about 1.5 m; mean neap range about 0.5 m. See *Admiralty Tide Tables Volume 2* for details.

- 2 **Ice.** The harbour usually freezes over early in January and is clear of ice by early May.

Arrival information

14.81

- 1 **Notice of ETA required.** ETA should be reported, using GMT, to Atlantic Pilot Authority 5 days, 72, 28 and 24 hours before arrival at the pilot boarding position, and confirmed or corrected not more than 6 hours before arrival.

Outer anchorage. Good anchorage is available in Colville Bay during offshore winds. See also 14.78.

- 2 **Pilotage** is not compulsory, but pilots are available. The boarding position is in position 46°19'0N, 62°13'5W, as indicated on the chart. The master of a vessel that is to depart or make a move and requires a pilot, must request a pilot 6 hours before the required ETD.

Harbour

14.82

- 1 **General layout.** The port installations of Souris Harbour are situated at the town of Souris, on the E side of Colville Bay. They are sheltered on the S side by a breakwater extending about 3 cables W from Knight Point, on the E side of the bay.

Directions for entering harbour

14.83

- 1 From the vicinity of NA Light-buoy (safe water), (46°19'8N, 62°15'4W) moored about 1 mile SSE of Souris East Light, the route into Colville Bay leads N for about 1 mile to the vicinity of the breakwater head, from which a light (framework tower, 9 m in height) is exhibited.

After rounding the breakwater head, the main berths are approached through an area, dredged to a depth of 6.7 m (22 ft), and extending 90 m (300 ft) off the N side of the breakwater.

- 2 **Useful marks:**

Water tower (46°21'4N, 62°14'7W).

Church (dome) (46°21'6N, 62°15'2W).

Church (spire) (46°21'4N, 62°15'3W).

Berths

14.84

- 1 The main berthing pier is the public jetty, about 280 m in length, close inside and parallel to the inner part of the

breakwater; smaller piers and wharves lie up to 2 cables farther NW.

Main berths are located as follows, (with positions given from Souris East Light (46°21'N, 62°15'W)):

N side of public jetty, (1½ cables NW) has a length of about 240 m and a reported depth alongside of 6.1 m in 2003.

Eastpack Jetty, (1¾ cables NNW), S side, has a length of about 100 m and a charted minimum depth of 3.1 m (2002).

- 2 Ferry Terminal (3 cables NW) has a length of 76 m and reported depths of from 4.2 to 4.6 m alongside.

Port services

14.85

- 1 **Repairs.** Minor.

Other facilities. Deratting and Deratting Exemption Certificates can be issued; three launching slipways.

Supplies: fuel and diesel oils; ships stores in small amounts; provisions; freshwater.

- 2 **Communications.** Regular ferry service operates by sea to Îles de la Madeleine from April to December. Charlottetown Airport is 80 kms distant.

Rescue. A lifeboat, operational during the ice-free season, operates from the port. See 1.105.

Small craft

14.86

- 1 **Eastpack Jetty.** A sheltered basin for small craft is situated on the N side of Eastpack jetty, 2 cables NNW of Souris East Light. Depths in the basin are from 0.9 to 2.7 m.

Small craft

Canadian Chart 4403 (see 1.32)

Basin Head Harbour

14.87

- 1 **General information.** Basin Head Harbour (46°23'N, 62°07'W) is accessible to small craft only.

The entrance, with a depth of 1.5 m (5 ft), but subject to rapid silting, is protected by two breakwaters 11.6 m apart; a footbridge with a vertical clearance of 4.0 m (13 ft) connects the two breakwaters.

- 2 A sandspit, which extends about 5 cables SSE from the entrance, dries for over half its length and has a depth of 2.4 m (8 ft) at its outer end. The breakwaters have a least depth of 0.9 m (3 ft) along the inner faces. In 1990, there was a depth of 1.2 m (4 ft) beneath the bridge in mid-channel.

- 3 The harbour can only be approached, near the time of HW, by small craft with a draught not exceeding 0.9 m (3 ft). The basin within the breakwater provides good shelter and has a depth of 1.5 m (5 ft).

Fortune Bay

14.88

- 1 **General information.** Fortune Bay (46°20'N, 62°21'W) is a wide area of water close within the mouth of Fortune River; the entrance, between projecting sandspits, is on the W side of Rollo Bay, about 4 cables WNW of Cape Abell.

Two breakwaters protect the entrance, but the N breakwater is in disrepair.

The harbour is only suitable for small craft, and is navigable, near the time of HW, as far as Fortune Bridge, 2 miles upstream.

- 2 **Caution.** The area is subject to rapid silting. Local knowledge is required.

Directions. From a position about 1½ miles ESE of Cape Abell (46°19'·5N, 62°20'·5W) the track leads WNW towards the harbour entrance, in a channel marked by buoys (lateral) and, by night, in the white sector (280°–282°) of Fortune Bay Direction Light (red and white rectangle on framework tower, 5 m in height) (46°19'·7N, 62°21'·1W) situated on the SW corner of the N pier at the harbour entrance, passing:

- 3 Close N of NC1 Light-buoy (port hand) moored 1·1 miles E of the Direction Light, thence:

Between the breakwaters into the river.

At the entrance, the channel lies 15 m off the breakwater on the N side.

A depth of 1·5 m (5 ft) has been reported in the approach channel. The entrance between two wharves is narrow with a reported depth of 3·4 m (11 ft) in mid channel. A breakwater, in disrepair, extends E from the N wharf.

- 4 **Berths.** Public piers are situated as follows:

Inside breakwater on N side has a length of 21 m at the pierhead, and reported depths of from 1·2 to 3·0 m.

S side of Fortune Bay has a pier with a length of 33 m at the pierhead and depths of from 0·9 to 2·7 m alongside.

- 5 A concrete boat ramp is situated 2½ cables N of the entrance.

A boat harbour is situated adjacent to the S wharf; its S face, 88 m long, has a depth of 0·6 m; the E face, 40 m in length, dries.

Eglinton Cove

14.89

- 1 Eglinton Cove (46°19'N, 62°21'W), 8 cables SSW of Cape Abell, is almost barred by sand and can only be used by small craft.

Howe Bay

14.90

- 1 Howe Bay is entered between Howe Point (46°18'N, 62°20'W) and Durrell Point 2 miles SSW. It is almost barred by sand and can only be used by small craft.

Canadian Chart 4421 (see 1.32)

Spry Cove

14.91

- 1 Spry Cove (46°16'N, 62°23'W) is almost barred by sand and can only be used by small craft.

Boughton River

14.92

- 1 **Description.** Boughton River (46°15'N, 62°25'W) flows into the head of Boughton Bay, which lies between Spry Point and Launching Point, about 2¾ miles SSW. The river is approached over a dangerous sand-bar, and entered through a narrow channel S of Banks Point, 2 miles WNW of Spry Point.

The harbour occupies a broadened area of the river between Banks Point and Poplar Point, about 3 miles WNW.

- 2 The village of Annandale is situated in the vicinity of Banks Point, and other villages lie on both sides of the harbour.

Depths. The depth in the channel over the bar is 0·9 m (3 ft). An onshore breeze causes a breaking sea over the bar. There are depths in the harbour of more than 5·5 m (18 ft) in places.

Above Poplar Point (46°16'N, 62°29'W) there are depths of 2·1 m (7 ft) almost as far as Bridgetown, about 6 miles within the entrance.

- 3 **Marine farms.** Mussel and oyster farms exist between Annandale and Poplar Point; the areas are marked by orange cautionary buoys, and mariners are advised to proceed with care.

Tidal streams in the entrance set at a rate of about 2 knots.

Local knowledge is essential.

Directions. Caution. The navigational aids are liable to be shifted to meet changing conditions in the channel. The channel is usually discernable.

- 4 Boughton River Leading Lights:

Front light (white tower, red stripe, 5 m in height) on Banks Point (46°15'·5N, 62°25'·4W).

Rear light (similar tower, 20 m in height) (7·4 cables from front light).

- 5 From the vicinity of NE Light-buoy (safe water) moored 2 miles SE of the front leading light, and 6 cables SSW of Spry Point, the alignment (304°) of the above lights leads WNW through a narrow channel, marked by light-buoys and buoys, between drying sandbanks, passing, (with positions given from the front light (46°15'·5N, 62°25'·4W)):

Between NE11 Light-buoy (port hand) and NE10/2 Buoy, marking the entrance S of Banks Point (1 cable SE).

- 6 The track then leads W, passing S of NE12 Light-buoy, (starboard hand) and N of Old Ferry Spit, thence SW, passing:

SE of Middle Ground, (3 to 6 cables SW), a drying bank, thence:

SE of a drying bank (5 cables SW), keeping clear of drying banks on S side extending nearly 3 cables from the shore in McPherson Cove.

The track then leads W and NW into the river.

- 7 **Berths** exist in Boughton River as follows:

Annandale at Banks Point has a berth 45 m long at the pierhead and with reported depths alongside of from 1·2 to 2·4 m.

Chapel Point on S shore, about 3 miles above Annandale, has a public berth 76 m long, 14 m long at the pierhead, with a reported alongside depth of 1·5 m.

- 8 At Poplar Point, opposite Chapel Point, the wharf was reported to be in ruins in 1990, and has depths alongside of from 0·6 to 0·9 m.

A boat basin lies close E of the wharf of Annandale.

Launching Pond

14.93

- 1 **General information.** Launching Pond (46°13'N, 62°25'W), 5 cables N of Launching Point, is an artificial boat harbour, entered between parallel breakwaters.

There are depths of 0·3 m (1 ft) (reported 1971) in the entrance channel and 1·2 m (4 ft) within the boat harbour.

- 2 **Directions.** From a position about 1 mile ESE of the harbour entrance, (46°13'2N, 62°24'6W) the approach track leads WNW, passing, (with positions given from the harbour entrance):

NNE of a ledge (1 mile SE) with drying rocks at its inner end and depths of 1·8 m (6 ft) over it, near its outer end, extending nearly 1 mile ESE from Launching Point, thence:

- 3 SSW of NY2 Light-buoy (starboard hand) (3½ cables ESE), thence:

SSW of a ledge (2½ cables NE) with depths of less than 0·3 m (1 ft) over it, extending about 4 cables ENE from the N entrance point, thence:

Between the breakwaters from which lights (framework towers) are exhibited.

Supplies: fresh water; petrol and diesel.

Other name

Canadian Chart 4403 (see 1.32)

14.94

- 1 Shallop Rock (46°22'N, 62°08'W).

CARDIGAN BAY

General information

Chart 4765, Canadian Chart 4422 (see 1.32)

Description

14.95

- 1 **Cardigan Bay** entered between Boughton Point (46°11'N, 62°24'W) and Panmure Head, 3½ miles SW, gives access to a number of rivers and bays, including (positions given at entrances):

Cardigan River (46°12'N, 62°30'W).

Brudenell River (46°11'N, 62°33'W).

Montague River, (46°11'N, 62°32'W) which joins Brudenell River at its mouth.

Livingstone Bay, Sturgeon Bay and Saint Marys Bay, which share a common entrance (46°09'N, 62°31'W).

- 2 **Georgetown Harbour** (46°10'N, 62°32'W) occupies the common mouths of Brudenell River and Montague River.

Route

14.96

- 1 From the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W), the track leads WNW for about 5 miles to a position NE of NH Light-buoy (safewater), moored about 9 cables NE of Panmure Head (46°09'N, 62°28'W).

Depths

14.97

- 1 There are depths of more than 9·1 m (30 ft) throughout the central part of Cardigan Bay.

Pilotage

14.98

- 1 Pilotage is not compulsory, but pilots are available; the boarding place is in position 46°08'5N, 62°20'5W, about 5 miles E of Panmure Head, as indicated on the chart.

ETA should be reported to Atlantic Pilot Authority or Pilots Georgetown at least 12 hours before arrival at the pilot boarding position, and confirmed or corrected not more than 6 hours later; GMT should be used. See *Admiralty List of Radio Signals Volume 6 (5)* for details.

Principal marks

14.99

- 1 **Landmark:**

Panmure Head Lighthouse (46°09'N, 62°28'W) (14.12).

Major Light:

Panmure Head Light (46°09'N, 62°28'W) (14.12).

Directions

(continued from 14.76)

14.100

- 1 From the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W), the recommended track leads WNW, passing:

SSW of Boughton Point, thence:

To a position NE of NH Light-buoy (safewater) moored about 9 cables NE of Panmure Head (46°09'N, 62°28'W), partly wooded, with cliffs of red sandstone, 12 m high, along its NE side. Panmure Ledge, sandstone, extends about 6 cables SE from Panmure Head, the E point of Panmure Island. A 8·5 m (28 ft) patch lies about 1¼ miles NNE of Panmure Head (46°09'N, 62°28'W).

- 2 **Clearing bearing.** The line of bearing (183°) of the coast close N of Cape Bear (46°00'N, 62°28'W), open E of Graham Point, 5 miles N of Cape Bear, passes E of Panmure Ledge.

(Directions continue for Cardigan River at 14.103 and for Georgetown Harbour at 14.109)

Anchorage

14.101

- 1 Cardigan Bay affords good anchorage, when winds are offshore, in depths of 11 to 18 m (36 to 60 ft), mud.

Cardigan River

General information

14.102

- 1 **Route.** From a position NE of NH Light-buoy (safewater), moored about 9 cables NE of Panmure Head (46°09'N, 62°28'W), the route leads NW into Cardigan River (46°12'N, 62°30'W).

- 2 **Depths.** Least charted depths in the fairway are as follows (positions given from Maitland Point) (46°12'5N, 62°30'6W):

Maitland Point to Ferry Point (1 mile WNW) 7·9 m (26 ft).

Ferry Point to Crawford Point (3 miles WNW) 6·1 m (20 ft).

Crawford Point to Cardigan (4¾ miles WNW) 1·8 m (6 ft).

- 3 **Marine farm.** An oyster farm is situated close S of Ferry Point, and mussel farms are located at several places above that point; the areas are marked by cautionary buoys and mariners are advised to proceed with care in their vicinity.

Local knowledge is required.

Directions

(continued from 14.100)

14.103

- 1 **Caution.** Owing to changing conditions, the buoys may be moved as necessary to mark the best channel.

From a position NE of NH Light-buoy (safewater), moored about 9 cables NE of Panmure Head (46°09'N, 62°28'W) the track leads NW into Cardigan River passing (positions given from Panmure Head Light (46°09'N, 62°28'W)):

- 2 NE of a patch, with a depth of 8.5 m (28 ft) over it (1.3 miles NNE), thence:
SW of shoal ground, (2¼ miles N) with depths of less than 1.5 m (5 ft) over it; thence:
NE of shoal ground, (2¼ miles NNW) with depths of less than 6.0 m (20 ft) over it, extending 6 cables ENE from Burnt (Cardigan) Point, thence:
- 3 NW of MacPhee Shoal (¾ miles NNW); the N end of the shoal is marked by NJ3 Buoy (port hand). Thence:
NE of MacPhee Beach, thence:
SW of Maitland Flat which dries, marked by NJ4 Buoy (starboard hand) moored 4 cables WSW of Maitland Point (46°12'5N, 62°30'6W).
The track then leads WNW through a channel marked by buoys, for about 5 miles to the causeway at Cardigan.

Small craft

14.104

- 1 **Launching Bay** (46°12'N, 62°26'W) lies inside a ridge of sand and a drying sand-bar between the N side of Boughton Island and Launching Point, on the mainland almost 1 mile N.
From a position in the NW arm of Cardigan Bay, Launching Bay is approached through a narrow and intricate channel leading E, passing (with positions given from Red Point (46°12'4N, 62°28'3W)):
- 2 N of Mosquito Sands, (3 cables S), thence:
N of Boughton Spit (dries) (8 cables ESE), extending 9 cables WNW from the NW extremity of Boughton Island.
- 3 **Seal River** flows into the N side of Cardigan River, about 1½ miles above Maitland Point.
A road bridge, with a vertical clearance of about 0.9 m (3 ft), spans the river 3 cables above its mouth.
A small pier with a berth 6 m long and a depth of 1.2 m at its outer end is situated on the E shore, close below the bridge.
- 4 **Cardigan.** A public pier (46°13'9N, 62°37'1W) with a berth 41 m long is situated near the S end of the causeway. Alongside depths at the outside corner and adjacent to the causeway are 1.8 m and 0.3 m respectively.

Georgetown Harbour

General information

14.105

- 1 **Position.** Georgetown Harbour (46°10'N, 62°32'W) is on the W side of Cardigan Bay.
Function. The harbour provides anchorage, and has port facilities for exporting agricultural products and pulpwood.
Approach and entry. Georgetown Harbour is approached and entered through a buoyed channel with irregular depths, leading from the SW part of Cardigan Bay.
- 2 **Traffic.** In 2001, the port was used by 5 vessels totalling 19 931 dwt.
Port Authority. Transport Canada, Harbours and Ports. PO Box 1270, Charlottetown C1A 7M8.

Limiting conditions

14.106

- 1 **Controlling depths.** Depths are irregular, but are more than 9.1 m (30 ft).
Deepest and longest berth. Railway Jetties (14.113).

Tidal levels. Mean spring range about 1.54 m; mean neap range about 1.07 m. See *Admiralty Tide Tables, Volume 2*.

Ice. The harbour freezes over in mid-January, and ice clears mid-April.

Arrival information

14.107

- 1 **Notice of ETA required.** As for Cardigan Bay (14.98).
Outer anchorage is available, in depths of 8 to 9 m (26 to 29 ft), mud, about 1 mile SW of Burnt Point, also known as Cardigan Point (46°10'6N, 62°29'8W).
Pilotage. As for Cardigan Bay (14.98).

Harbour

14.108

- 1 **General layout.** The port installations and town of Georgetown are on the N side of the harbour between Gaudin Point (46°10'7N, 62°32'3W) and Thrumcap Spit, which lies 7 cables ESE and provides considerable shelter.
Tidal stream. The rate of the tidal stream is less than 1 kn.
- 2 **Fish farms.** Several fish farms are located in Georgetown Harbour; these areas are marked by cautionary buoys, and mariners are advised to proceed with care in their vicinity.

Directions for entering harbour

(continued from 14.100)

14.109

- 1 **Approach in thick weather.** The following directions may be useful for the mariner approaching the harbour in thick weather, when the leading lights may not be visible:
Approach from N. The S edge of Cardigan Shoal may be followed, keeping in depths of not less than 11 m (36 ft).
Approach from S. The N edge of Panmure Shoal may be followed, in depths of about 11 m (36 ft), until about 2 miles from the front light, when the shoal becomes too steep for soundings to be a safe guide, but the channel buoys should be visible.
- 2 From a position NE of NH Light-buoy (safewater) moored 9 cables NE of Panmure Head (46°09'N, 62°28'W), the track leads W for about 1¼ miles, thence on the alignment of lights.
- 3 **Georgetown Leading Lights:**
Front light (white round tower, red bands, 7 m in height) (46°09'8N, 62°31'8W) on Whitemans (Saint Andrew) Point; an abandoned lighthouse stands about 60 m S.
Rear light (white square tower, red stripe, 13 m in height) (618 m from front light).
The lights are visible on the leading line only.
- 4 From the position NW of Panmure Head the alignment (280°) of the above lights leads through the buoyed approach channel, passing, (with positions given from the front light):
N of Panmure Shoal (2 miles ESE) and Panmure Spit (1.1 miles SE) extending about 7 cables NNE and 6 cables NNW, respectively, from Billhook Point (1.6 miles SE). The shoal and spit are marked by NH3 Light-buoy (port hand), thence:
- 5 S of Cardigan Shoal (1½ miles E), marked by NH4 Buoy (starboard hand) on the S side, extending 8½ cables SE and S from Burnt Point also known as Cardigan Point (1.6 miles ENE).

14.110

- 1 The track then leads WNW and NW, through a buoyed channel, passing, (with positions given from Georgetown Front Leading Light (46°09'·8N, 62°31'·8W)):

NNE of shoal ground (3 cables SE) with depths of less than 5·5 m (18 ft), and steep-to on its N side, extending about 3 cables NNE from Grave Point (3 cables SE), thence:

SSW of Knoll Shoal (rock), (4 cables to 5½ cables ENE) marked by NH10 Light-buoy (starboard hand), thence:

SW of Thrumcap Spit (4 cables NNE) on which stands a wooded islet, with cliffs. The W end of the spit is marked by NH12 Light-buoy (starboard hand).

- 2 **Turning mark.** The line of bearing 302° of the monument on Brudenell Point (46°10'·9N, 62°33'·5W), marks the point, at the inner end of the leading line of the approach channel, where the channel leads NW into the harbour.

Directions above Georgetown**14.111**

- 1 From a position in mid-channel SW of Georgetown, the track continues to lead NW, through the channel marked by buoys, passing, (with positions given from Georgetown Front Leading Light (46°09'·8N, 62°31'·8W)):

SW of a sandspit (9 cables NW) which mostly dries, extending about 2 cables SSW from Gaudin Point (46°10'·7N, 62°32'·3W), marked by NH14 Buoy (starboard hand), thence:

NE of shoal and drying ground (1 mile WNW) extending about 1½ cables NE and about 3 cables NW from Aitken Point (46°10'·3N, 62°32'·9W); the ruins of a pier extend N from the point.

Thence Brudenell River (14.119) leads NW, and Montague River (14.115) leads W.

Anchorage berths**14.112**

- 1 The best anchorage for vessels of medium draught is in depths of about 9 m (30 ft), with good holding ground, between Thrumcap Spit and the spit extending SSW from Gaudin Point; the recommended anchor berth lies on the alignment (011°) of the inner end of Queens Pier (46°10'·7N, 62°31'·9W) and the church (square tower) about 2 cables NNE. Smaller vessels can anchor nearer the N shore.
- 2 Good anchorage is also available in the NW part of the harbour, nearly up to Brudenell Point.

Alongside berths**14.113**

- 1 The following alongside berths are available on piers at Georgetown:

The railway jetty at Gaudin Point has a length of 262 m on its W side with a reported depth of 8·0 m. The E side is 200 m long with a depth of 8·0 m.

Queens Pier (2 cables ENE of railway jetties) is 190 m long, with a reported depth, at the outer end, of 3·0 m.

Port services**14.114**

- 1 **Repairs:** Georgetown shipyard, 5 cables E of Gaudin Point, provides shipbuilding and repair facilities, including

two patent slips with lifting capacities of 90 and 544 tonnes.

Other facilities: mobile cranes up to 45 tonnes capacity.

Supplies: fuel oil; fresh water; electrical power on Railway Jetty.

Communications. Nearest airport Charlottetown 61 km.

Montague River**General information****14.115**

- 1 Montague River is entered between Brudenell Point and Aitken Point, 7 cables SE. The river is navigable as far as a road bridge at the town of Montague, about 4 miles upstream.

Directions**14.116**

- 1 **Caution.** Depths in the channel may be reduced by silting; the buoys and stakes are moved as necessary to mark the best channel.

From a position SE of Brudenell Point, the track leads SW through a channel into the river for about 3 cables, S of shoal ground, marked by NH18 Light-buoy (starboard hand), moored 3 cables S of Brudenell Point.

- 2 Thence the fairway, which has a least depth of 2·1 m (7 ft), is buoyed and staked as far as the town of Montague.

Berths**14.117**

- 1 Berths are located at the village of Lower Montague, on the S bank near the river mouth, and at the town of Montague as follows:

At Lower Montague (46°10'N, 62°34'W), the outer face of the public pier, 24 m long, has a reported depth alongside of 2·7 m.

The sides of the same pier, 40 m long, have depths alongside of from 0·3 to 2·7 m.

- 2 At Montague (46°10'N, 62°39'W), the E Public Wharf (also known as Poole and Thomson wharf) is 104 m long and has a depth of 2·7 m alongside. The W Public Wharf (also known as Stevens Wharf) has a length of 49 m and a depth alongside of 2·1 m.

A light (framework tower, 3 m in height) (46°10'N, 62°34'W) is exhibited from the NE corner of the public pier at Lower Montague; a ruined pier lies 1 cable E.

Small craft**Queens Pier****14.118**

- 1 A spur on the E side of Queens Pier encloses a basin for small craft.

Brudenell River**14.119**

- 1 Brudenell River flows into the NW end of Georgetown Harbour between Brudenell Point (46°11'N, 62°34'W) and Parkers Point, about 5 cables E.

- 2 The channel as far as Brudenell Islet, 1¼ miles upstream, has a least depth of 5·2 m (17 ft); above that point the least depth is 1·8 ft (6 ft) for a distance of 1½ miles. A pontoon extends from the shore close W of Brudenell Islet. There is a least depth of 0·6 m (2 ft) at the outer end.

Local knowledge is required.

Livingstone Bay, Sturgeon Bay and Saint Marys Bay 14.120

- 1 **Description.** These three bays on the S side of Cardigan Bay have a common entrance E of Grave Point (46°10'N, 62°32'W).

The entrance channel is narrow and the depths decrease rapidly from 9.1 m (30 ft) to 3.4 m (11 ft) in places.

Local knowledge is essential.

- 2 **Directions.** From a position 6 cables E of Grave Point, the channel leads SW, passing, (with positions given from Grave Point):

SE of shoal ground (5 cables E) with depths of less than 5.5 m (18 ft) over it, and:

NW of Panmure Spit (14.109) (7 cables ESE).

Thence the buoyed channel leads SSW for 1½ miles to the common entrance to Sturgeon Bay and Saint Marys Bay.

- 3 **Basins and berths** are located as follows:

Panmure Island: a public pier (46°08'5N, 62°30'0W) on W side of island, with a small boat basin which was in a state of disrepair and not in use in 1990.

Sturgeon Bay: a pier (46°07'4N, 62°32'0W) on S side of bay; length of berth on outer face 18 m; depth 0.6 m.

- 4 Sturgeon River (46°07'1N, 62°32'5W) at SW corner of Sturgeon Bay: a public pier on E bank; length 58 m; depth 0.6 m, but the extreme outer ends dry alongside, a channel marked by stakes leads to the pier.

CARDIGAN BAY TO CAPE BEAR

General information

Chart 4765, Canadian Charts 4422, 4403 (see 1.32)

Route

14.121

- 1 From the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W) the route leads S for about 15 miles to a position S of Cape Bear, (46°00'N, 62°28'W), where the route joins the main route leading W through Northumberland Strait abreast Cape Bear.

Depths

14.122

- 1 The depths within 3 miles of the coast between Panmure Head (46°09'N, 62°28'W) and Graham Point, 3½ miles S, are very irregular; the 11 m (36 ft) depth contour lies about 1½ miles from the coast in places, and a similar patch lies about 3 miles ESE of Panmure Head.

Measured distance

14.123

- 1 A measured distance marked by the alignment of two pairs of beacons is situated NW of Terras Point (Tower Point) (46°06'N, 62°27'W).

NW limit marks (white beacons with orange diamond centres) on Smith Point, 11 cables NW of Terras Point.

SE limit marks (similar construction) close NW of Terras Point.

Distance 1853 m (6299 ft).

Running track 146°59'–326°59'.

- 2 **Caution.** It should be noted that foul ground, with depths of less than 5.5 m (18 ft) over it, extends about 6 cables from the coast in places in this vicinity.

Tidal streams

14.124

- 1 The predicted directions and rates of the tidal streams at several points offshore are indicated on the chart.

Principal marks

14.125

- 1 **Landmark:**

Panmure Head Lighthouse (46°09'N, 62°28'W) (14.12).

Major light:

Panmure Head Light (46°09'N, 62°28'W) (14.12).

Directions

(continued from 14.76)

14.126

- 1 From the vicinity of the pilot boarding position about 3 miles SE of Boughton Point (46°11'N, 62°24'W) the coastal passage leads S passing (with positions given from Panmure Head Light (46°09'N, 62°28'W)):

E of 10.4 m (34 ft) patch (3 miles ESE), thence:

E of Graham Ledge, (3½ miles SSE), marked by NP Light-buoy (safe water), thence:

- 2 E of Bear Reef NN2 Light-buoy (starboard hand), (8 miles SSE) moored about 1 mile NE of Cape Bear (red sandstone cliffs); this reef extends 8 cables E from the coast, and depths of 0.6 m (4 ft) lie within 3 cables of its outer edge; The buoy is moored on the outer part of the reef, about 8 cables ESE of Murray Head. And:

- 3 W of Fishermans Bank, (46°01'N, 62°17'W) lying 7 to 9 miles E of Cape Bear; it is of sandstone, thinly covered with stones, gravel and broken shells. It is advisable to keep in depths of more than 24 m (13 fm) in the vicinity of Fishermans Bank, thence:

To a position in mid channel S of Cape Bear (8½ miles S).

- 4 **Clearing mark.** The alignment (344°) of Panmure Head and Terras Point (Tower Point), 2½ miles SSE, passes nearly 1 mile E of Bear Reef.

14.127

- 1 **Useful marks:**

Cape George Light (45°52'N, 61°54'W) (14.12).

Cape Bear Light (46°00'N, 62°28'W) (14.67).

(Directions continue for

Northumberland Strait at 14.145)

Murray Harbour

Canadian Chart 4420 (see 1.32)

General information

14.128

- 1 **Position.** Murray Harbour (46°01'N, 62°30'W), a partially drying shallow inlet, is formed by the confluence of five rivers at the SE corner of Prince Edward Island.

Function. Murray Harbour village (46°00'N, 62°31'W) is situated at the head of navigation of South River, which flows into the S side of the harbour, 2 miles WSW of the entrance.

- 2 The village of Murray River (46°01'N, 62°37'W) is situated at the head of navigation of Murray River.

Topography. Clay and sandstone cliffs about 40 feet (12 m) high extend W from Murray Head towards Beach

Point (Oldstore Point) and S towards Cape Bear, the SE point of Prince Edward Island.

- 3 **Approach and entry.** The harbour is approached over a sand-bar and entered through a narrow channel NW of Beach Point about 1 mile WNW of Murray Head ($46^{\circ}01'N$, $62^{\circ}27'W$).

Limiting conditions

14.129

- 1 **Depth.** The least depth in the channel over the bar is 2.4 m (8 ft), but this may be reduced by silting.
Murray Harbour village ($46^{\circ}00'N$, $62^{\circ}31'W$) is approached through a channel, about 30 m wide, dredged to a depth of 2.7 m (9 ft) in 1968.
Deepest and longest berth. North bank of Murray Harbour (14.135).
- 2 **Local weather and sea state.** Strong E winds send in a heavy sea and cause a line of breakers to extend from Irvings Cape, also known as Cody Beach ($46^{\circ}03'N$, $62^{\circ}28'W$) to Murray Head; in these conditions it may be impossible to cross the bar.

Harbour

14.130

- 1 **General layout.** Murray Harbour is separated from the sea by Poverty Beach, a narrow sandspit, which may be breached by the sea, extending more than $1\frac{1}{2}$ miles S from Irvings Cape. Within the harbour lie five wooded islets, joined at low water by drying mud-flats.
Fish farms are located 1 to 3 miles downstream from Murray River village; the areas are marked by cautionary buoys and mariners are advised to proceed with care in their vicinity.
 - 2 **Tidal streams.** The rate of the tidal streams in the harbour entrance is about 2 kn.
- Landmark:**
Church (spire) ($46^{\circ}03'.4N$, $62^{\circ}29'.1W$) at Murray Harbour North is conspicuous.

Directions for entering Murray Harbour

14.131

- 1 **Murray Harbour Leading Lights:**
Front light (white tower, red stripe, 5 m in height) ($46^{\circ}01'.3N$, $62^{\circ}28'.7W$) on Beach Point.
Rear light (similar construction and tower, 14 m in height) ($7\frac{1}{2}$ cables from front light) on Penny Point.
- 2 From a position about 2 miles NNE of Murray Head ($46^{\circ}01'N$, $62^{\circ}27'W$), the alignment (234°) of these lights leads SW through a channel marked by buoys (lateral), over the bar, to the end of the leading line, passing, (with positions from the front light ($46^{\circ}01'.3N$, $62^{\circ}28'.7W$)):
 - Either side of NM Light-buoy (safe water) (1.3 miles NE), thence:
 - NW of NM 3 Light-buoy (port hand) (5 cables NE), thence:
- 3 SE of NM 6 Light-buoy (starboard hand) ($2\frac{1}{4}$ cables NE) marking drying shoal ground, extending 1 mile NE from Sable Point ($46^{\circ}01'.2N$, $62^{\circ}29'.0W$).
- 4 Thence the channel leads SW, passing (positions given from the front leading light on Beach Point ($46^{\circ}01'.3N$, $62^{\circ}28'.7W$)):
 - NW of Beach Point, a sandy beach, thence:
 - SE of Sable Point, (2 cables WSW) the S extremity of Poverty Beach.

- 5 The track then leads W, to a position between NM13 Light-buoy (port hand) and NM14 Buoy (starboard hand).

14.132

- 1 **Machons Point Leading Lights:**

Front light (white rectangle, red stripe, on red framework tower, 6 m in height) ($46^{\circ}01'.1N$, $62^{\circ}30'.7W$), on the N side of the point, about $1\frac{1}{2}$ miles W of Beach Point.

Rear light (similar construction and tower, 5 m in height) (132 m from front light).

- 2 From a position between NM13 Light-buoy and NM14 Buoy, in the dredged channel, the alignment (273°) of these lights leads through the first leg of the channel to a position about $4\frac{1}{2}$ cables E of the front light.
- 3 **Murray Harbour Village Leading Lights:**
Front light (white square, red stripe on framework tower, 6 m in height) ($46^{\circ}00'.4N$, $62^{\circ}31'.4W$).
Rear light (similar construction and tower, 7 m in height) (101 m from front light).
- 4 From a position about $4\frac{1}{2}$ cables E of Machons Point front leading light, the alignment ($233\frac{3}{4}^{\circ}$) of these lights leads through the second leg of the channel, which is marked by stakes, to a point $1\frac{1}{2}$ cables from the front leading light, whence the channel leads SSW to Murray Harbour village.

Directions for Murray River village and Greek and Mink Rivers

14.133

- 1 From a position about $4\frac{1}{2}$ cables E of Machons Point front leading light, a channel, marked by buoys and stakes, leads to Murray River village ($46^{\circ}01'N$, $62^{\circ}37'W$) and to the combined mouths of Greek River and Mink River in the vicinity of McInnis Point ($46^{\circ}02'N$, $62^{\circ}32'W$). The chart is sufficient guide.

Anchorage berth

14.134

- 1 Anchorage within the harbour is only suitable during fine weather as the holding ground, though mud, is reported to be poor.

Alongside basins and berths

14.135

- 1 **Beach Point** village, 5 cables SW of Beach Point, has two L-shaped breakwater-wharves which enclose a fishermans basin with berths on the inside faces. The inside face of the E breakwater is 52 m long with a depth of 2.1 m alongside. The W wharf is 82 m long with a depth of 1.5 m alongside. A light (square framework tower, 4 m in height) is exhibited from the head of the E breakwater. A staked channel with a depth of 2.1 m (7 ft) leads to the pierhead. Between the breakwaters, the channel had a depth of 2.4 m (8 ft) in 1990.
- 2 **Murray Harbour** village, 2 miles WSW of Beach Point, has public wharves as follows:
 - Along N bank, there are piers of 73, 55 and 61 m in length, with depths alongside of from 1.5 to 1.8 m. The outer part dries at the extreme E end.
 - Along S bank, there is a pier of 61 m in length, with depths of from 0.9 m at W end to 2.1 m at the E end.

- 3 **Mink River.** Clows Wharf is situated on the E shore, close N of McInnis Point. The L-shaped berth is 12 m long, with a depth of 2.7 m (2001) at the outer end. An adjoining wharf has an outer end 11 m wide, with depths of 2.1 m alongside. Several private moorings lie off the ends of these wharves.

Port services

14.136

- 1 **Cargo hoist.** A cargo hoist (safe working load 227 kilograms) is situated on the wharf on the S bank of Murray Harbour.

Small craft

14.137

- 1 **Greek River.** Cahoon Wharf is situated on the N bank, 8 cables NW of McInnis Point. The pier is 65 m long, 15 m across the face of the L-shape, with a depth of 1.5 m at its head.

- 2 **Murray River** village has a public wharf on the S shore with a berth 64 m long and a depth, in the central part of the wharf, of 1.8 m (6 ft). The E end dries and the bridge end has a depth of 0.6 m (2 ft) alongside. There is a depth of 2.1 m at the seaward end of the jetty.

- 3 **Machons Point.** A public pier extends SE from the shore, 3 cables SW of Machons Point, (46°01'0N, 62°30'5W) depth 1.2 m alongside the outer end.

- 4 **Graham Pond** (46°06'N, 62°27'W) is a boat harbour, entered between parallel breakwaters with a channel 9 m wide and a depth of 0.9 to 1.2 m (3 to 4 ft) in the entrance, and depths of 0.3 to 1.2 m alongside the wharves inside the pond. A light is exhibited from the head of each breakwater.

- 5 **Irving's Cape (Cody Beach),** (46°03'N, 62°28'W) a L-shaped pier extends about 2 cables S and SW from the coast. A breakwater is situated close outside its outer arm, but it is in ruins.

NORTHUMBERLAND STRAIT — CENTRAL SECTION

GENERAL INFORMATION

Chart 4765

Area covered

14.138

- 1 The central part of Northumberland Strait comprises the area between a line joining Cape Bear (46°00'N, 62°28'W) to Pictou Harbour (45°40'N, 62°42'W) in the E and from Cape Egmont (46°24'N, 64°08'W) to Fagan Point (46°14'N, 64°14'W) in the W. It includes Abegweit Passage (46°11'N, 63°42'W), Hillsborough Bay (46°05'N, 63°07'W) and Charlottetown (46°14'N, 63°08'W), the Confederation Bridge and Northumberland Strait Routing System.
- 2 The section is arranged as follows:
Cape Bear to Hillsborough Bay (14.139).
Hillsborough Bay (14.176).
Charlottetown (14.195).
Hillsborough Bay to Confederation Bridge (14.224).
Confederation Bridge to Cape Egmont (14.278).

CAPE BEAR TO HILLSBOROUGH BAY

General information

Chart 4765, Canadian Charts 4404, 4405 (see 1.32)

Route

14.139

- 1 From a position in mid-channel S of Cape Bear, (46°00'N, 62°28'W), the route leads W in deep water to a position SW of Prim Point (46°03'N, 63°02'W), which marks the E entrance to Hillsborough Bay. The route passes N of Pictou Island (45°49'N, 62°33'W) (14.69).

Topography

14.140

- 1 **North shore.** The S coast of Prince Edward Island between Cape Bear (46°00'N, 62°28'W) and Wood Islands, 12 miles WSW, is formed of sandstone cliffs, 12 to 15 m high, in places. The coast is quite bold between White Sands, 4 miles SSW of Cape Bear and Little Sands, 5 miles farther W. There are few beaches or landings, and no harbours along this very exposed stretch of coast.
- 2 Between Wood Islands (45°57'N, 62°45'W) and Prim Point, 14 miles WNW, there are rocks, reefs and shoals extending nearly 2 miles offshore in places.

- 3 **South shore.** The N coast of Nova Scotia between Caribou West Gully (45°46'N, 62°47'W) and Cape John 15 miles W, is nearly straight and unbroken, with shallow water extending about 4 cables offshore. Low cliffs of clay and sandstone, up to 15 m high in places, line the coast for most of its length.

Gull Island (45°46'N, 62°42'W) on the S shore, with Caribou Island and Gully Head situated, respectively, 1 and 2½ miles W, appear from a distance N as several islands, but, on nearer approach, their wooded parts are seen to be joined by ridges of sand.

- 4 Amet Sound, comprising several bays and harbours, indents the coast W of Cape John, with Amet Island (45°50'N, 63°11'W) standing on an area of rocks and shoals at its entrance.

Amet Island is bare of trees, flat topped and grassy, with sandstone cliffs on all sides.

Ferry

14.141

- 1 A ferry (14.4) crosses the strait between Caribou Harbour (45°45'N, 62°41'W) and Wood Islands, 13 miles NNW. The ferry track is indicated on chart 4765.

Tidal streams

14.142

- 1 The rate of the tidal streams S of Indian Rocks (45°56'N, 62°47'W) is about 3 kn.

The predicted rates and directions of the tidal streams at several other positions in the strait are indicated on the chart.

Submarine cables

14.143

- 1 Submarine cables, originating from the vicinity of 45°46'N 62°47'W are laid across the strait, terminating at South Point, close by Wood Islands, and 1¼ miles W of South Point. Their positions are best seen on the chart.

Principal marks

14.144

- 1 **Landmark:**

Wood Islands Lighthouse (white square tower, 16 m in height) (45°57'N, 62°45'W).

Major light:

Prim Point Light (white round tower, 18 m in height) (46°03'N, 63°02'W).

Directions*(continued from 14.68 and 14.127)***Cape Bear to Wood Islands****14.145**

- 1 From a position in mid channel S of Cape Bear (46°00'N, 62°28'W), the track leads W, in deep water, passing, (with positions given from Cape Bear):
N of shoal ground, (10 miles SSW) with depths of less than 11 m (36 ft), extending 1 mile in places from the N coast of Pictou Island, thence:
In mid-channel, S of Wood Islands (sandstone cliffs) (12 miles WSW).
- 2 The track leads WNW, passing, (with positions given from Prim Point (46°03'N, 63°02'W)):
SSW of Indian Rocks (12 miles ESE) (drying in parts; breakers and tide-rips), marked by N8 Light-buoy (starboard hand) moored 2 miles SW of the rocks, thence:
- 3 SSW of the mouth of Belle River (9 miles ESE), 1 mile NW of Bell Point (sandstone cliff, 10 m high), thence:
NNE of East Patch (12 miles S), a rocky patch on the NE side of Amet Island Shoals, thence:
To a position about 5 miles SW of Prim Point (46°03'N, 63°02'W), in the vicinity of the pilot position. A light (14.144) is exhibited from Prim Point.

*(Directions continue for Hillsborough Bay at 14.185
and for Northumberland Strait main route at 14.234)*

Caribou Channel*Canadian Chart 4483 (see 1.32)***General information****14.146**

- 1 **Route.** Caribou Channel extends from about 2¼ miles ENE of Logans Point (45°43'N, 62°38'W) to a position about 1 mile N of Gull Island (45°46'N, 62°42'W). The channel lies between Pictou Banks, SW of Pictou Island (45°49'N, 62°33'W), and the shoal bank extending from the mainland.
A dredged channel leads from the SW side of Caribou Channel into Caribou Harbour (14.153).
- 2 **Depths** in the fairway of Caribou Channel are not less than 9.1 m (30 ft), but there is less water in places over detached shoals in the NW approach to the channel.
Submarine cables. Care should be taken not to anchor near the submarine cables laid from Widow Point (45°44'N, 62°39'W) NE towards Pictou Island.
- 3 **Tidal streams** set strongly over Pictou Banks; the in-going stream sets generally NW and the out-going stream sets in the opposite direction.

Landmark:

Caribou (Gull Island) Lighthouse (white square tower 13 m in height) (45°46'N, 62°41'W).

Other navigational aid:

Racon on SS1 Light-buoy (45°45'1N, 62°39'9W).

Directions for south-east leg of Caribou Channel*(continued from 14.17)***14.147**

- 1 **Caution.** It is necessary to make due allowance for the strong tidal streams (14.146) which may be encountered in Caribou Channel.
From a position about 6 miles ESE of Caribou Light (45°46'N, 62°41'W), in the vicinity of the pilot position

(45°42'5N, 62°34'0W) off Pictou, the line of bearing 290° of Caribou Light leads through the SE leg of the channel, passing, (with positions given from Logans Point (45°43'N, 62°38'W)):

- 2 NNE of shoal ground, (2 miles NE) with depths of less than 9.1 m (30 ft) over it, between Logans Point and Widow Point, thence:
About 1½ cables NE of SP4 Light-buoy (starboard hand) (2 miles NNE), moored at the SE end of the Caribou Channel, thence:
About 7 cables NNE of Skinners Reef, (1.7 miles N) marked by SQ2 Light-buoy (starboard hand), thence:
- 3 SSW of Pictou Banks, extending up to 3½ miles S and SW from West End (West Point) the W extremity of Pictou Island from which a light is exhibited (red and white rectangle on red framework tower, 4 m in height) (45°48'N, 62°36'W), and:
About 4 cables NNE of SS1 Light-buoy (port hand) (racon) (2.4 miles NNW) marking the E limit of the buoyed channel leading to Caribou Harbour.
- 4 **Turning marks.** The alignment (163°) of Logans Point and Mackenzie Head, 2 miles SSE, indicates the turning point onto the NW leg of the channel.

*(Directions continue for Caribou Harbour at 14.156)***Directions for north-west leg of Caribou Channel 14.148**

- 1 **Line of bearing.** The line of bearing 160°, astern, of Logans Point leads through the NW leg, passing, (with positions given from Caribou (Gull Island) Lighthouse (45°46'N, 62°41'W)):
SW of Pictou Banks (9 cables E), and:
NE of Caribou Reef (3 cables NNE) dries; large stones, and shoal ground (about 7 cables NNE) marked by Gull Rock SP2 Light-buoy (starboard hand).
- 2 The track passes over the W end of Pictou Banks taking care to avoid a wreck (2 miles N) with a depth of 7.9 m (26 ft) over it.
- 3 **Useful marks:**
Pictou Island East End Light (14.17).
Pictou Island South Light (14.71).
Pictou Island West Breakwater Light (14.71).
Pictou Island West End Light (14.147).

Small craft channel**North of Indian Rocks****14.149**

- 1 The buoyed channel between Indian Rocks (45°56'N, 62°47'W) and the coast of Prince Edward Island, 1 mile N, is about 5 cables wide and is suitable for small craft only.
Depths are irregular, from 8 to 20 m (27 ft to 11 fm), rock and gravel.
Local knowledge is required.

Anchorage and harbours on north side**Anchorage east of Wood Islands****14.150**

- 1 Good anchorage is available, during NW winds, up to 1 mile E of Wood Islands (45°57'N, 62°45'W), in depths of 5 to 17 m (16 to 56 ft).

Canadian Chart 4483 plan of Wood Islands Ferry Terminal (see 1.32)

Wood Islands Ferry Terminal

14.151

- 1 **Description.** The harbour containing the ferry terminal (45°57'N, 62°45'W) is enclosed on the S side by the two Wood Islands, and on the E and W sides by ridges of sand connecting the islands with the mainland at South Point.

Depths. The entrance channel and the approach to the ferry terminal are dredged to a depth of 4.3 m (14 ft), but there may be less water due to silting.

Local knowledge is required.

- 2 **Directions.** Wood Islands Harbour Leading Lights:
Front light (white square tower, red stripe, 6 m in height) on E training pierhead (45°56'9N, 62°45'1W).
Rear light (similar construction, 10 m in height) (162 m from front light).
The front light is visible on the leading line only.
- 3 From a position S of Wood Island Terminal entrance, the alignment (002¼°) of the above lights leads N, passing, (positions given from Wood Islands Light (45°57'N, 62°45'W) on the S side of the E island):
E of Indian Rocks (1 mile WSW) (14.149), thence:
Close W of NS2 Light-buoy (starboard hand) (3 cables SW), thence:
Between the training piers, 183 m long, with a dredged channel 61 m wide.
- 4 Thence the track leads NNE through the dredged area, marked by buoys, to the ferry dock.
- 5 **Berths.** The ferry terminal (45°57'N, 62°45'W) has two berths, with depths up to 4.6 m alongside.

Small craft. On the E side of the ferry berths there is a L-shaped wharf, 170 m long, which encloses a small craft harbour. The NW side of the wharf is used to land fish. Depths alongside are from 1.2 to 3.7 m. A shallow patch with depths of 1.2 m (4 ft) over it, lies close off the SW face of the wharf. Depths within the harbour are about 2.1 m (7 ft).

Anchorage and harbours on south side

Canadian Chart 4405 (see 1.32)

MacDonalds Cove

14.152

- 1 **General information.** At MacDonalds Cove (45°48'N, 62°59'W), close E of Horn (Hornes) Point, an L-shaped breakwater extends about 100 m from W shore.
- Berth.** There are depths of 3 m alongside the outer end of the breakwater.

Caribou Harbour

Canadian Chart 4483 (see 1.32)

General information

14.153

- 1 **Position.** Caribou Harbour (45°44'N, 62°41'W) lies on the SW side of Caribou Channel.
- Function.** It is the S terminal of the ferry which crosses Northumberland Strait to Wood Islands (45°57'N, 62°45'W) (14.151).
- 2 **Approach and entry.** The harbour is approached through Caribou Channel, and entered between Munroes (Doctor) Island (45°44'N, 62°40'W) and Gull Island, about 1 mile NW.
The narrow passage between the S extremity of Munroes Island and the mainland was closed to navigation in 1984, due to silting.

Limiting conditions

14.154

- 1 **Depth.** The entrance channel was reported to be dredged to a depth of 4.6 m (15 ft) (1983), but this may be reduced by silting.

Tidal levels. Mean spring range about 1.5 m; mean neap range about 0.4 m. See information in *Admiralty Tide Tables Volume 2*.

Harbour

14.155

- 1 **General layout.** The harbour is enclosed by Munroes Island, Gull Island and Caribou Island. The greater part is shallow, but there is ample space for any vessel that can cross the bar.
The Caribou Harbour - Wood Islands ferry terminal is situated on the mainland shore, at the end of a buoyed channel.
Caribou River flows into the W end of the harbour; it is navigable by small craft for a distance of 2 or 3 miles above its mouth.
 - 2 **Landmark:**
Caribou Lighthouse (45°46'N, 62°41'W) (14.146).
- Other navigational aid:**
Racon SS1 Light-buoy (14.146).

Directions for entering Caribou Harbour

(continued from 14.147)

14.156

- 1 From a position in Caribou Channel SSW of the SW extremity of Pictou Banks and NNE of SS1 Light-buoy (port hand) the track leads WSW through a channel marked by pairs of light-buoys and leading lights, for a distance of 4½ cables, passing (positions given from Caribou Lighthouse (45°46'N, 62°41'W)):
Between SS1 and SS2 Light-buoys (lateral) (1 mile SE), thence:
Between SS7 and SS8 Light-buoys (lateral) (9 cables S).
The track then leads SW for about 2½ cables, passing through Big Caribou Entrance.
- 2 **Caribou Harbour Leading Lights:**
Front light (white trapezium, red stripe, on framework tower, 3 m in height) (45°44'4N, 62°41'3W) at the ferry terminal.
Rear light (white trapezium, inverted, and tower, 6 m in height) (83 m from front light).
- 3 From a position between SS11 and SS12 Light-buoys, the alignment (209½°) of these lights leads to the ferry terminal, 5 cables SSW.

Berths

14.157

- 1 **Ferry Terminal.** The terminal extends about 1 cable NNE from the shore. At its outer end three arms contain two ferry berths, each having a deck elevation of 3.2 m.

Small craft

- 2 **Fishermans Wharf** is a spur, 69 m long, with a least depth of 1.2 m alongside, extending E from close S of the ferry berth.
Small craft can secure to the ferry wharf for a distance of 30 m to the N of Fishermans Wharf, in a depth of 2.1 m. There is a least depth of 0.9 m alongside the wharves in the basin close S of Fishermans Wharf.
- 3 **Widows Point.** Several small piers for fishing boats are situated at the SE end of Caribou Harbour, close inside Widow Point (45°44'N, 62°39'W).

Spring Point. A small pier at Spring Point, 1 mile WNW of Widow Point, has a depth of about 1.5 m at its outer end. However, the pier is reported to be in ruins.

Amet Sound

Canadian Chart 4497 (see 1.32)

General information

14.158

- 1 **Description.** Amet Sound (45°48'N, 63°11'W), with its inner bays and harbours, provides good anchorage for small vessels.

- 2 **Route.** The following passages give access to the sound:
 Eastern Passage, between Cape John, the E entrance point, and Amet Island.
 Middle Passage, between Amet Island and Waugh Shoal, 1¼ miles WNW.
 Western Passage, between Waugh Shoal and Saddle Island, 2 miles SSW.

Topography. Amet Sound is about 12 miles long, with John Bay and Tatamagouche Bay at the E and W ends, respectively, and with Brûlé Harbour and Barrachois Harbours indenting the S shore.

- 3 **Local knowledge** is required.

Tidal streams. The passages into Amet Sound are difficult, with erratic tidal streams.

Directions for Eastern Passage

14.159

- 1 **Leading marks:**
 Cape John (sharp pointed sandstone cliffs, 12 to 15 m high) (45°48'N, 63°08'W).
 Weatherbies (Brûlé) Point (clay banks, 3 m high), 3 miles SW of Cape John.

From a position about 5 miles NE of Cape John, the alignment (219°) of the above marks leads SW towards the end of Eastern Passage, passing, (positions given from Cape John):

- 1 mile SE of Eastern Peak (charted as East Patch) rocky shoals (2¾ miles NNE), thence:
 8 cables NW of a shoal with a depth of 6.4 m (21 ft) over it (2½ miles NE).
- 2 Thence the track leads to a position NW of a shoal patch with a depth of 6.1 m (20 ft) (1¼ miles NE), close SE of the turning point onto the following leading line.

Leading line. From the position NW of a shoal patch with a depth of 6.1 m (20 ft) over it which lies 1¼ miles NE of Cape John, the line of bearing (265°) of Treen Bluff, cliffs, 7 miles W of Cape John, open S of Saddle Island, low and wooded, leads through Eastern Passage, passing, (positions given from Cape John):

- 3 S of Amet Island Shoals (1 mile NNW), marked by UA2 Light-buoy (starboard hand), and:
 N of shoal ground, with depths of less than 5.5 m (18 ft), extending about 3½ cables from the N side of Cape John peninsula, with Shag Rocks (awash at outer end) extending 2 cables from the cape, thence:

To a position, in deep water, in the middle of Amet Sound, about 1¾ miles S of Amet Island.

- 4 **Useful mark:**
 Skinner Cove Direction Light (45°48'N, 63°03'W).
(Directions continue for John Bay at 14.163, for Brûlé Harbour at 14.164, for Barrachois Harbour at 14.165 and for Tatamagouche Bay at 14.166)

Directions for Middle Passage

14.160

- 1 **Line of bearing.** From a position NNW of Amet Island, the line of bearing 168° of Weatherbies Point (45°46'N, 63°11'W) also known as Brûlé Point, 4 miles S of Amet Island, leads through Middle Passage, in depths of not less than 11 m (36 ft), passing:

ENE of Waugh Shoal, marked by a buoy (starboard hand) moored 1¾ miles NW of Amet Island, thence:

WSW of rocky ledges, with depths of less than 5.5 m (18 ft) extending 4 cables W from Amet Island, thence:

To a position, in deep water, in the middle of Amet Sound about 1¾ miles S of Amet Island.

- 2 **Clearing marks.** The alignment (about 135°) of the SW side of Amet Island and Reef Point (4 cables SSE of Cape John) passes NE of Waugh Shoal.

(Directions continue for John Bay at 14.163, for Brûlé Harbour at 14.164, for Barrachois Harbour at 14.165 and for Tatamagouche Bay at 14.166)

Directions for Western Passage

14.161

- 1 **Leading marks:**
 E end of Saddle Island (45°49'N, 63°15'W).
 Malagash Point (1 mile SSE of Saddle Island).

From a position NW of Saddle Island, the alignment (153°) of the above marks leads SSE to the W end of Western Passage, passing about 1½ miles WSW of Waugh Shoals.

- 2 **Turning mark.** The line of bearing 231° of the W end of Treen Bluff (14.159), 1¼ miles WSW of Saddle Island, marks the point on the leading line where the track leads ESE into Western Passage.

Leading line. The line of bearing 104° of the NE point of Cape John peninsula, leads ESE through Western Passage, passing, (positions given from the E end of Saddle Island (45°49'N, 63°15'W)):

- 3 SSW of Waugh Shoal (2¼ miles NNE), thence:
 NNE of Washball Rock, roundbacked and awash, (4 cables NE), thence:
 NNE of Washball Reef, (1 mile ENE), marked by a spar buoy (starboard hand) at its E extremity, thence:

To a position, in deep water, in the middle of Amet Sound about 1¾ miles S of Amet Island.

(Directions continue for John Bay at 14.163, for Brûlé Harbour at 14.164, for Barrachois Harbour at 14.165 and for Tatamagouche Bay at 14.166)

Useful mark

14.162

- 1 Amet Island Light (square framework tower, 6 m in height) (45°50'1N, 63°10'7W).

John Bay

14.163

- 1 **General information.** John Bay (45°47'N, 63°07'W), on the E side of Amet Sound, is entered between Cape John and Weatherbies Point, about 3 miles W.

The bay is clear of detached shoals, but shoal ground around its shores is steep-to in many places.

River John flows into the head of the bay, with mud and sand-flats drying out for a distance of about 8 cables from its mouth.

The village of River John, in which there are several churches, is situated about 1 mile upstream.

- 2 **Directions** (*continued from 14.159, 14.160 and 14.161*)
From a position in deep water, in the middle of Amet Sound, about 1¼ miles S of Amet Island, John Bay is approached from NW, passing (positions given from Cape John (45°48'N, 63°08'W)):

N and E of Brûlé Shoals (2¼ miles SW), thence:
SW of Reef Point (4 cables SSE), thence:

To the anchor position or berth.

- 3 **Anchorage.** There is anchorage in depths of 6-4 m (21 ft), mud, about 1½ miles outside the river mouth.

Smaller vessels sometimes moor 5 cables farther in, in depths of 4-9 m (16 ft).

Although the bay is open NW, it is considered safe in summer.

Berth. Close E of Reef Point (4 cables SSE of Cape John): a L-shaped breakwater with a depth of 1-2 to 2-1 m at its outer end.

- 4 **Small craft.** River John is entered over a bar with a depth of 0-3 m (1 ft) over it. Inside the bar a narrow channel, with depths of 0-3 m to 2-1 m (1 to 7 ft), marked first by buoys, then by stakes, leads to a bridge, with a charted vertical clearance of 11 ft (3-4 m) at River John village.

A wharf in ruins lies on the S bank at the village.

Brûlé Harbour

14.164

- 1 **General information.** Brûlé Harbour (45°45'N, 63°11'W) is entered between Weatherbies Point, at the NE extremity of a low wooded peninsula, and Rocky Point, 1¼ miles SE. The harbour is largely filled with drying mud-flats and weeds.

Banks of clay, 3 m high, form the N side of the peninsula, which appears from seaward as an island in the middle of Amet Sound.

- 2 **Directions** (*continued from 14.159, 14.160 and 14.161*)
From a position in deep water, in the middle of Amet Sound, about 1¼ miles S of Amet Island, Brûlé Harbour is approached from NNW, passing, (positions given from Weatherbies Point (45°46'N, 63°11'W)):

N and E of Brûlé Shoals (7 to 12 cables NNW), (rocky patches), thence:

E of shoal ground, with depths of less than 5-5 m (18 ft) extending almost 6 cables E from Weatherbies Point.

- 3 Thence from a position about 8 cables SE of Weatherbies Point, the harbour is entered through a buoyed and staked channel with a least depth of 4 m (13 ft). The channel leads WSW, passing S of Weatherbies Spit and the drying flats that extend 5 cables SSE from Weatherbies Point.

Depths increase to 4-9 m (16 ft) for a short distance inside the harbour, but the channel soon narrows and divides into several branches.

Anchorage is available outside the entrance channel in depths of about 5-8 m (19 ft), mud. The recommended position is with Weatherbies Point bearing 301° and Brûlé wharf (1 mile S) bearing 228°.

Small craft. A L-shaped public pier with a depth of 0-9 m on the inner side of its head is situated at Brûlé village, on the SE shore. It is reported to be in ruins (1997).

Small craft may derive some shelter from Weatherbies Spit and the drying flats S of it.

Barrachois Harbour

14.165

- 1 **General information.** Barrachois Harbour, an inlet on the S side of Amet Sound, is entered between Peninsula Point (45°46'N, 63°12'W) and Chambers Point, 2 miles SW.

Directions (*continued from 14.159, 14.160 and 14.161*)

From a position, in deep water, in the middle of Amet Sound, about 1¼ miles S of Amet Island, the harbour is approached from NE, and entered through a narrow winding channel with a least depth of 3-7 m (12 ft), passing:

W of Jollimore Reef (dries 0-6 m (2 ft) on outer part; steep-to) extending 3 cables WNW from Peninsula Point, thence:

Clear of Middleground Shoal (rock), situated 1¼ miles SW of Peninsula Point, thence:

E of a drying reef extending 2 cables E from Chambers Point, which is very low and difficult to distinguish against the high land behind it.

- 2 About 1 mile SSW of Chambers Point, the inlet contracts to a very narrow channel, with depths of 3 to 8 ft (0-9 to 2-4 m) and passes under a road bridge with a vertical clearance of 1-5 m (5 ft), into a sheltered basin with steep sides. Depths decrease inside Chambers Point.

Berth. A small public wharf is situated on the W side of the narrows, just below the bridge.

- 3 **Small craft.** A marina has been constructed on the S shore of Barrachois Harbour at Waldegrave, close E of the bridge. A man-made harbour has been dredged to a reported depth of 2-1 m (7 ft); the entrance channel is about 15 m (50 ft) wide. There are berths, storage and launching facilities. Fuel and water are available.

Tatamagouche Bay

14.166

- 1 **General information.** Tatamagouche Bay (45°45'N, 63°18'W), on the SW side of Amet Sound, extends SW for about 5 miles from its entrance between Malagash Point and Peninsula Point, 2¼ miles SSE.

At the head of the bay, a boat channel leads through drying flats into McNabs Bay (The Basin).

- 2 **Directions** (*continued from 14.159, 14.160 and 14.161*)
From a position in deep water in the middle of Amet Sound, about 1¼ miles S of Amet Island, Tatamagouche Bay is entered from NE, passing (positions given from Peninsula Point (45°46'N, 63°12'W)):

SE of Malagash Point (2¼ miles NNE), passing clear of the spar buoy moored 7 cables ESE of the point, thence:

To the anchor position or berth (see below).

Local knowledge is required.

- 3 **Useful mark:**

A light (framework tower, 5 m in height) is exhibited from the head of Malagash pier.

Anchorage. The bay provides good anchorage, with soft mud bottom, for shallow draught vessels. Depths decrease steadily towards the head of the bay, where there are drying flats.

- 4 **Small craft.** A L-shaped public pier, 82 m long, extends from the ruins of a large warehouse near South Shore (Malagash Centre), about 3 miles SW of Malagash Point. In 1976 there was a least depth of 1-5 m (5 ft) in the approaches to the pier, and a depth of 0-6 m (2 ft) in the basin NW of the pier.

- 5 **Waugh River** flows into the S side of Tatamagouche Bay, between Blockhouse Point (45°44'N, 63°19'W) and Sand Point, 1 mile E.

A gravel bar lies across the entrance, within which there are drying mud-flats and oyster beds.

The entrance is approached from N, passing close to a buoy (starboard hand) moored 6 cables ENE of Blockhouse Point, on the outer edge of the bar.

- 6 A channel with a depth of 0.6 m (2 ft) leads S over the bar into a very narrow buoyed channel, with a least depth of 1.5 m (5 ft), which leads SSE for 1½ miles, between the mud-flats, to the wharf at Tatamagouche.

Anchorage is available off the river mouth in depths of about 3 m (10 ft). The bottom is soft mud.

Berth. The public wharf, on the W bank at Tatamagouche, is 21 m long, and dries at LW.

Small craft

14.167

- 1 **Amet Island.** Boats can generally land on the S side of Amet Island (45°50'N, 63°11'W) at all states of the tide.

Useful mark:

Amet Island Light (45°50'·1N, 63°10'·7W) (14.162).

Small craft harbours and anchorages on the north shore

Canadian Chart 4404 (see 1.32)

White Sands

14.168

- 1 A sandspit which nearly dries affords some shelter for small craft in a small bay at the village of White Sands (45°58'N, 62°32'W), 4 miles SW of Cape Bear. A sandy bank, steep-to on its outer edge, extends nearly 5 cables offshore.

McLean Cove

14.169

- 1 A pier at McLean Cove, near the village of Little Sands (45°58'N, 62°39'W), is the only shelter for small craft between Cape Bear and Wood Islands to be available at all states of the tide. The pier is in a state of disrepair.

Canadian Chart 4405 (see 1.32)

Belle River

14.170

- 1 **Description.** Belle River (45°58'N, 62°51'W) (14.145) contains a small tidal basin, with a drying bar outside. Breakwaters extend seaward from each side of the river entrance.

Local knowledge is required.

- 2 **Directions.** The entrance is approached from SSW, passing, (with positions given from Stewart Point, (45°58'·4N, 62°50'·9W) close W of the entrance):

W of Belle Point Reef (1½ miles SE), thence:

E of Rifleman Reef (about 9 cables SW); the depths off Rifleman Reef are very irregular, and the deep water close to the reef gives no warning of approach to it. It is advisable to pass well clear, thence:

Between the breakwater heads into the harbour.

- 3 **Berths.** There are small wharves in the harbour with depths of 0.3 m to 1.2 m at the outer end.

Flat River

14.171

- 1 **General information.** Flat River (46°01'N, 62°53'W), which flows into the sea about 2½ miles NW of Stewart Point, is only suitable for small craft.

Directions. The river entrance is approached from SW by passing NW of rocks, with depths of less than 1.8 m (6 ft), lying 6 cables SW of Jenyns Point, the S entrance point of the river.

Pinette River

14.172

- 1 **General information.** Pinette River (46°03'N, 62°57'W) flows into the sea over a rocky and dangerous bar, which dries in places.

- 2 The entrance channel across the bar is very narrow, with a reported depth of 1.5 m (5 ft), but considerable silting has been reported in the approach to the river. Within the bar a narrow channel, with a least depth of about 2.7 m (9 ft), leads to Pinette village situated 1½ miles NE of Pinette Point, the SE entrance point. A road bridge, with a vertical clearance of 1.2 m (4 ft) spans the river from Pinette to Selkirk Point. This bridge also spans the entrance to Middle Pinette River and Middle Creek.

- 3 **Local knowledge** is required.

Directions. The entrance is approached from SW over the W part of Pinette Shoals, which extend 2 miles SW from Pinette Point, taking care to avoid a 1.2 m (4 ft) rocky patch lying 1¼ miles SW of Pinette Point, and a rock with a depth of less than 1.8 m (6 ft) over it, lying close SE.

- 4 **Leading lights:**

Front light (white rectangle, red stripe, on framework tower, 5 m in height, on Pond Point, (46°03'N, 62°57'W) the N entrance point.

Rear light (similar construction and tower, 10 m in height) (302 m from front light).

The alignment (018°) of these lights leads through the entrance channel and across the bar.

- 5 The channel across the bar and thence to Pinette is marked by buoys and stakes.

- 6 **Berths** are located as follows:

McAulay Wharf (46°03'·5N, 63°55'·7W) is situated on the N shore of the river, about 1 mile NNE of Pinette Point. The wharf has depths of 0.9 to 2.1 m on its E side.

At Pinette, a wharf (46°03'·2N, 63°54'·7W) is situated by the bridge. The W portion, parallel to the channel, is 38 m long with depths of 1.2 to 3 m alongside. The E part is 30 m long with depths of 0.6 to 2.1 m alongside.

Small craft harbours on south side

Canadian Chart 4405 (see 1.32)

Toney River

14.173

- 1 **General information.** The mouth of Toney River (45°46'N, 62°53'W) is extended N by two piers, 10 m apart, with a depth of 0.9 m (3 ft) between them.

Directions. The entrance is approached from N, passing close to SU1 Light-buoy (port hand), moored 2½ cables N of the pierheads.

Useful mark: A light (red triangle in red and white rectangle on framework tower, 4 m in height) is exhibited from the W pierhead.

Skinner Cove**14.174**

- 1 **General information.** Skinner Cove (45°48'N, 63°03'W), 2 miles W of Horn Point, contains a small boat harbour, protected by two breakwaters; part of the boat harbour dries at LW.

- 2 **Directions.** The white sector (187°–189°) of Skinners Cove Direction Light (white and orange rectangle on framework tower, 5 m in height), on the corner of the W breakwater, leads to the entrance.

The entrance between the breakwaters is 14 m wide, with a depth of 0.3 m.

Other names**14.175**

- 1 Macquarrie Point (45°46'N, 62°51'W).
Doctor Reef (45°44'N, 62°39'W).
Seal Rock (also known as Sheas Rock) (45°44'N, 62°39'W).
Amet Spit (45°50'N, 63°10'W).
French River (45°43'N, 63°18'W).

HILLSBOROUGH BAY**General information**

Chart 4765, Canadian Charts 4405, 4466 (see 1.32)

Description**14.176**

- 1 Hillsborough Bay is the largest and most important bay in Prince Edward Island. The bay is entered between Prim Point (46°03'N, 63°02'W) and Saint Peters Island, 7 miles NW and the track leads through a deep channel to the port of Charlottetown (14.195) at its head.

The NE part of the bay is seldom used by shipping, except for local fishing vessels.

Route**14.177**

- 1 From a position about 5 miles SW of Prim Point, (46°03'N, 63°02'W), the route leads N into Hillsborough Bay (46°05'N, 63°07'W), on the N side of Northumberland Strait to a position (46°03'5N, 63°09'0W), W of Prim Point.

Topography**14.178**

- 1 Saint Peters Island, the W entrance point, has cliffs of red clay and sandstone, 11 m high, on its E side; the central part of the island is wooded. The island is joined to the mainland at Rice Point, 1¼ miles WNW, by Saint Peters Island Bar, which dries.

Blockhouse Point (46°11'N, 63°08'W) and Seatrout Point (5 cables NE), at the entrance to Charlottetown, have red sandstone cliffs 3 to 9 m high, backed by land that rises in gradual undulations to partly cultivated and partly wooded country.

Controlling depth**14.179**

- 1 The channel leading through Hillsborough Bay to Charlottetown has a least depth of 11 m (36 ft).

Pilotage**14.180**

- 1 **Pilotage** is compulsory. ETA at the pilot boarding position should be reported to Pilots Charlottetown via Atlantic Pilots Authority 5 days, 72, 48 and 24 hours before

entering Canadian waters and updated at least 12 hours in advance of arrival, and corrected or confirmed 6 hours prior to arrival, using GMT. See *Admiralty List of Radio Signals Volume 6* (5) for details.

The pilot boarding position is indicated on the chart in position 46°00'0N, 63°08'7W. The pilot boat is white with a blue vertical stripe amidships.

Local knowledge**14.181**

- 1 Local knowledge is required. Navigation of the NE part of the bay should not be attempted without local knowledge or the services of a pilot.

Small arms range**14.182**

- 1 Two can buoys (special) marked A & B, lie 8 cables and 1.7 miles respectively, E of Squaw Shoal and mark the S extremity of a small arms firing range which extends 1.5 miles SSW from Squaw Point (46°11'N, 63°03'W).

Tidal streams**14.183**

- 1 The in-going tidal stream sets strongly over Governor Shoal and into the E side of the bay.

Principal marks**14.184**

- 1 **Landmarks:**
Prim Point Lighthouse (46°03'N, 63°02'W) (14.144).
Church (spire) (46°10'1N, 63°10'1W), N of Bacon Point.
Radio tower (elevation 80 m (262 ft); red flashing lights) 8 cables W of Blockhouse Point (46°11'N, 63°08'W).
Radio mast (elevation 147 m (483 ft); red lights) near the summit of Tea Hill (46°12'3N, 63°03'2W).
- 2 **Major lights:**
Prim Point Light (14.144).
Blockhouse Point Light (white square tower, 12 m in height) (46°11'N, 63°08'W).

Directions

(continued from 14.145)

Pilot to Spithead**14.185**

- 1 Prim Point, the E entrance point of Hillsborough Bay, has low sandstone cliffs, 3 to 5 m high on its seaward side. From a position about 5 miles SW of Prim Point (46°03'N, 63°02'W) in the vicinity of the pilot boarding position, Hillsborough Bay is entered from S, passing, (positions given from Prim Point (46°03'N, 63°02'W)):
W of Prim Reefs, (3 miles W), marked at their W end by Prim Reef C2 Light-buoy (starboard hand).
(Directions continue for Orwell Bay at 14.187)
- 2 The track continues, passing:
E of Saint Peters Shoals (4½ miles NW) marked at their SW end by C1 Light-buoy (port hand), thence:
W of several rocky patches (3 miles WNW) (least depth 9.1 m (30 ft)), thence:
To a position in mid channel SSE of Saint Peters Island.
- 3 Governors (Governor) Island, (46°08'N, 63°04'W) in the centre of the bay, is low and partly wooded. The island is surrounded by shoals and rocks, and foul ground lies between the island and Squaw Point, about 3 miles N.

4 **Haszard Point Leading Lights:**

Front light (red tower, black stripe, 14 m in height) (46°11'7N, 63°04'5W) on Haszard Point.

Rear light (similar tower, 11 m in height) (651 m from front light).

- 5 From the position in mid channel ESE of Saint Peters Island, the alignment (019¼°) of these lights leads NNE through the first reach of the buoyed channel, passing, (positions given from the S point of Governors Island, (46°08'N, 63°04'W)):

WNW of Governors Shoal (Governor Shoals) (about 2½ miles SSW), thence:

- 6 WNW of Fitzroy Rock (2 miles WSW), marked by C4 Light-buoy (starboard hand). The deepest water will be found by deviating to E of the leading line when mid-way between Fitzroy Rock and Spithead.

Thence the track leads to a position close E of C5 Light-buoy (port hand), which marks the alteration of the direction of the channel to the NNW.

- 7 **Clearing marks.** The alignment (357°) of the following marks passes W of Prim Reefs:

Blockhouse Point, the W entrance point to Charlottetown.

Church (spire) about 2½ miles N of Blockhouse Point.

- 8 **Useful mark:**

Saint Peters Island Light (white square tower, red top, 9 m in height (46°07'N, 63°11'W), on the SE side of the island.

Spithead to Blockhouse Point

14.186

- 1 **Brighton Beach Leading Lights:**

Front light (red stripe on white tower, 12 m in height) (46°13'8N, 63°08'9W).

Rear light (similar construction and tower, 18 m in height (398 m from front light)).

The lights are visible on the leading line, and over a small arc on each side of it.

From the position close E of C5 Light-buoy (port hand) the alignment (337°) of these lights leads through the outer reach of the channel, to the entrance to Charlottetown harbour, passing, (positions given from Blockhouse Point (45°11'N, 63°08'W)):

- 2 Between Spithead (2½ miles S), a rocky patch, and Squaw Shoal (2¼ miles SSE), lying on the NE side of the channel, thence:

ENE of Trout Rock, (6 cables S), lying on the W side of the channel, thence:

Between Blockhouse Point and Seatrout Point, (5 cables NE), where the channel width is reduced to 2 cables between steep-to banks.

- 3 **Clearing marks.** The alignment (339°) of Seatrout Point and Battery Point, 8 cables NNW, passes W of Squaw Shoal.

(Directions continue for entering Charlottetown Harbour at 14.211)

Anchorage and harbours

Orwell Bay

14.187

- 1 **Description.** Orwell Bay (46°06'N, 62°56'W), an inlet on the SE side of Hillsborough Bay, has the Orwell, Vernon and Seal Rivers flowing into its head through a common entrance with a bar. Orwell and Vernon Rivers are navigable for a distance of more than 1 mile above their entrances.

- 2 **Depths.** There is a least depth of 2.7 m (9 ft) in the channel over the bar. There are depths of 2.4 m (8 ft) in Vernon River as far as the causeway at Vernon Bridge village (46°10'5N, 62°52'8W).

Local knowledge is essential.

- 3 **Directions.** *(continued from 14.185).* From a position W of Prim Reefs, marked at their W end by Prim Reef C2 Light-buoy (starboard hand), about 4½ miles W of Prim Point, the track leads ENE, passing, (positions given from Prim Point (46°03'N, 63°02'W)):

NNW of Prim Reefs (3 miles W and 1½ miles NW), thence:

SSE of Huntley Rock (3½ miles NNW), with a rocky patch with a least depth of 4.6 m (15 ft) over it lying 5 cables SW.

(Directions continue for Pownal Bay at 14.188)

- 4 From a position SSE of Huntley Rock, the track continues ENE, passing:

NNW of shoal ground with depths of less than 5.5 m (18 ft) over it, extending, in places, up to 1¼ miles offshore between Prim Point and Buchanan Point, (5 miles ENE), and:

SSE of shoal ground, with similar depths over it, extending 2 miles SW from Gallows Point, (Gallas Point) (5½ miles NE), thence:

SE of shoal ground lying SSE of McInnes Point (6½ miles NE), thence:

To the outer end of the buoyed and staked channel over the bar.

- 5 The buoyed and staked channel through the inner part of Orwell Bay leads NE across the bar, then NE and finally N to the confluence of the Orwell, Vernon and Seal Rivers, N of China Point (46°08'5N, 62°53'8W).

Small craft. Secure anchorage for small craft, in depths of about 9 m (30 ft), is available just within China Point.

Pownal Bay

14.188

- 1 **General information.** Pownal Bay (46°10'N, 62°58'W) on the NE side of Hillsborough Bay is shallow, with large drying areas, but there is some shelter at its head, where a narrow staked channel leads to a ruined pier.

Local knowledge is required.

- 2 **Directions.** *(continued from 14.187).* From a position SSE of Huntley Rock, the track into Pownal Bay leads NE, passing, (with positions from Prim Point (46°03'N, 63°02'W)):

NW of foul ground with depths of less than 5.5 m (18 ft) over it, extending 2 miles WSW to WNW from Gallows (Gallas) Point, (5½ miles NE), thence:

SE of a sandy patch (5¼ miles N), with a depth of 5.2 m (17 ft) over it, thence:

SE of a rock, (6¼ miles NNE) with a least depth of 3.4 m (11 ft) over it.

- 3 From the entrance to the bay, about 1¼ miles SE of Crown Point, (46°10'N, 63°01'W), a narrowing passage, between foul ground extending from the shore on each side, leads to a narrow channel marked by buoys and stakes, and thence to the pier at the head of the bay.

Squaw Bay

14.189

- 1 Squaw Bay (46°10'N, 63°02'W) affords good anchorage for small craft, in depths of 3 to 5 m (9 to 16 ft), mud, off its entrance. Local knowledge is required.

A small arms range (14.182) lies close W.

Saint Peters Road**14.190**

- 1 **General information.** Saint Peters Road (46°09'N, 63°10'W) on the W side of Hillsborough Bay, is sheltered to the S by Saint Peters Island and the drying ground joining that island to the mainland WNW. Shelter from the SE is provided by Saint Peters Spit, which dries for a distance of about 1¼ miles NE from Saint Peters Island, with depths of less than 1·8 m (6 ft) over it, extending 1 mile farther NE.

- 2 **Local knowledge** is required.

- 3 **Anchorage.** Saint Peters Road, which has depths of 3 to 5 m (10 to 16 ft), is only suitable as an anchorage for coasters and small craft.

Small craft**Prim Point****14.191**

- 1 About 5 cables NE of Prim Point (46°03'N, 63°02'W) a pier, 156 m long, with a depth of 1·8 m alongside its outer end, extends NNW from the coast. In 1991, this pier was reported to be in ruins. A small detached breakwater lies close NW of the outer end of the pier.

Vernon Bridge**14.192**

- 1 At Vernon Bridge village (46°10'N, 62°53'W) there is a public wharf with a depth of 0·6 m alongside.

Bacon Cove**14.193**

- 1 On the S side of Bacon Cove (46°09'N, 63°13'W) a channel, dredged to 1·2 m (4 ft) (1968) and marked by buoys, leads to a small pier (46°08'·9N, 63°13'·1W).

The depth alongside the outer end, 40 m long, of the L-shaped pier is 0·3 to 0·9 m; a light is exhibited from the pierhead.

Other name**14.194**

- 1 Astyanax Rock (46°09'N, 63°04'W).

CHARLOTTETOWN**General information**

Canadian Chart 4460 (see 1.32)

Position**14.195**

- 1 Charlottetown (46°14'N, 63°08'W) is situated at the head of Hillsborough Bay, at the confluence of three rivers.

Function**14.196**

- 1 Charlottetown is the principal port and capital town of Prince Edward Island. The main imports are aggregates, petroleum products and fertilisers. Potatoes are exported. In 1991, 69 international movements totalling 1 003 038 grt were recorded, and, in 1990, 130 vessels used the port. East (Hillsborough) River, North (Yorke) River and West (Eliot) River flow into their respective sides of the harbour.

Approach and entry**14.197**

- 1 The harbour is approached through a deep water channel in Hillsborough Bay (14.176) and entered abreast Blockhouse Point (46°11'N, 63°08'W).

Port Authority**14.198**

- 1 The port is administered by Transport Canada, Harbours and Ports, PO Box 1202, Charlottetown, PEI C1A 7MH.

Limiting conditions**Controlling depth****14.199**

- 1 Approach channel. For further details see 14.179. The buoyed channel leading into the mouth of East River, has depths of from 11 to 18 m (37 to 60 ft) in the fairway.

Vertical clearance**14.200**

- 1 A causeway with a road bridge, with a vertical clearance of 4m (13ft), spans East River E of the wharves at Charlottetown.

The piers of a disused rail bridge, close S of the road bridge, and which are 60 m apart, remain in position.

Deepest and longest berth**14.201**

- 1 Charlottetown Marine Terminal (14.218).

Tidal levels**14.202**

- 1 Mean spring range about 1·8 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Volume 2* for details.

Maximum size of vessel handled**14.203**

- 1 The maximum permissible draught is 9·1 m (30 ft).

Ice**14.204**

- 1 The harbour usually freezes over in late December and is free of ice in mid-April.

Arrival information**Notice of ETA required****14.205**

- 1 Notice of ETA at the pilot station should be reported as at 14.180.

Pilotage and tugs**14.206**

- 1 Pilotage is compulsory. For further information see 14.180. There are no tugs.

Regulations**14.207**

- 1 Charlottetown is a port of entry for Canada.

Harbour**General layout****14.208**

- 1 From a position about 1 mile inside Blockhouse Point (46°11'N, 63°08'W) the buoyed channel expands into a fine natural harbour, completely landlocked, and capable of accommodating vessels of considerable size. Shallow flats of mud and weed generally extend about 4 cables off the shores of the harbour.

The port installations are situated at Charlottetown, on the NE side of the harbour.

Tidal streams

14.209

- 1 The tidal streams usually set at a rate of $2\frac{1}{2}$ kn in the entrance to the harbour, and $1\frac{3}{4}$ kn off the town. The tidal streams continue for about 15 minutes after HW and LW by the shore.

Principal marks

14.210

- 1 **Landmarks:**

Chimney, elevation 63 m (208 ft), red lights ($46^{\circ}14'3N$, $63^{\circ}07'1W$) at the power station.

Cathedral (twin steeples) ($46^{\circ}14'0N$, $63^{\circ}07'5W$).

Major light:

Blockhouse Point (white tower, 12 m in height) ($46^{\circ}11'4N$, $63^{\circ}07'8W$).

Directions for entering harbour

(continued from 14.186)

Blockhouse Point to Battery Point

14.211

- 1 From a position between Blockhouse Point ($46^{\circ}11'N$, $63^{\circ}08'W$) and Seatrout Point, (5 cables NE) the alignment (337°) of Brighton Beach Leading Lights (14.186) continues to lead through this reach, with a navigable width of 2 cables, for about 1 mile to a position at the end of the leading line, WNW of Battery Point ($46^{\circ}12'5N$, $63^{\circ}07'6W$), but it is necessary to keep to the W of the alignment when passing the shoal ground extending about 3 cables SSW from Battery Point, marked by C8 Light-buoy.

Battery Point to Middle Ground

14.212

- 1 **Warren Cove Leading Lights:**

Front light (white tower, red stripe, 9 m in height) ($46^{\circ}11'9N$, $63^{\circ}08'3W$), on the top of the cliff on the S side of the cove.

Rear light (similar construction and tower) (330 m from front light).

- 2 From a position WNW of Battery Point, at the end of the Brighton Beach leading line, the alignment ($197\frac{3}{4}^{\circ}$), astern, of these lights leads NNE through a channel marked by light-buoys, towards the entrance to East River, passing, (positions given from Battery Point ($46^{\circ}12'5N$, $63^{\circ}07'6W$)):

About 1 cable ESE of Canceaux Spit, (4 cables NW) which extends about 4 cables NE from Canceaux Point and is marked on its E side by C9 Light-buoy (port hand), thence:

- 3 Close WNW of shoal ground extending from the E shore between Battery Point and Rosebank Point (9 cables NNE). The shoal is marked on its W side by C12 Light-buoy (starboard hand), thence:
Clear of a patch with a depth of 10 m (33 ft) over it situated 6 cables WSW of Rosebank Point, thence:
ESE of Middle Ground (9 cables NNW), marked by C13 Light-buoy (port hand).

- 4 **Clearing marks.** The alignment (172°) of Blockhouse Point Light and Alchorn Point, 3 cables NNW, passes E of Canceaux Spit.

East River

14.213

- 1 East River, which enters the harbour from NE is navigable for 10 miles above the causeway at Charlottetown (14.200). Local knowledge is essential above the causeway.

From a position in the fairway ESE of Middle Ground, the channel, marked by light-buoys, which may be moved due to the mud flats on the E side of the harbour reported to be extending, leads into the mouth of East River, E of Charlottetown.

- 2 A dolphin is situated 2 cables SW of the bridge on the NW side of the channel.

Useful marks

14.214

- 1 Church (spire) ($46^{\circ}14'2N$, $63^{\circ}07'5W$).
Church (tall spire) ($46^{\circ}14'1N$, $63^{\circ}08'0W$).
Government House (colonnaded) ($46^{\circ}13'9N$, $63^{\circ}08'2W$), standing in trees behind lawns.

Directions for rivers

North River

14.215

- 1 North (Yorke) River enters the harbour from NW. A narrow channel, marked by buoys, has depths of more than 5.5 m (18 ft) as far as Beachgrove Point, about 2 miles above its entrance.

A causeway crosses the river 4 cables above Beachgrove Point.

West River

14.216

- 1 West (Eliot River) enters the harbour from SW. A narrow channel, marked by buoys, has depths of more than 7.3 m (24 ft) as far as a causeway at Dickinsons (McMullan) Point, about 4 miles above its entrance.

A passage for small craft near the N end of the causeway has a vertical clearance of 1.5 m (5 ft).

Berths

Anchorage berths

14.217

- 1 **South-west of Charlottetown.** There is good anchorage in depths of 8 to 17 m (26 to 56 ft) in the area of the harbour where the three rivers meet, SW of Charlottetown.

Off Charlottetown. The usual anchorage is in depths of 12 to 18 m (40 to 60 ft) off the piers at Charlottetown, where the channel is 2 cables wide.

Alongside berths

14.218

- 1 The principal alongside berths at Charlottetown are as follows, shown in order from W to E (with positions given from Canceaux Point ($46^{\circ}12'5N$, $63^{\circ}08'7W$)):

Coastguard Marine Terminal (1.6 miles NNE) has a maximum length of 136 m and a reported depth of 7.8 m alongside its SW side. This berth is for Coastguard use only. The outer face of this berth has a length of 91 m with a depth of 9.2 m alongside. The NE side of this wharf, known as Buntain Bell Wharf has a depth of 4.9 m alongside.

- 2 **Marine Wharf** (1.7 miles NNE) has length of 152 m on its SW/NE sides and has a reported depth alongside of 3.7 m. There is a large red building with a weathercock on this wharf. The outer face has a reported depth alongside of 6.4 m.

- 3 **Texaco Canada Wharf** (1.7 miles NNE) has a length of 76 m between end dolphins, but can accommodate vessels of 131 m. Reported depth alongside is 8.4 m.

- 4 **Charlottetown Marine Terminal** (1.8 miles NNE). The SW side has a length of 152 m and depths alongside from 3.0 to 9.1 m. The outer face has a length of 70 m and a depth alongside of 9.1 m. The NE face has a length of 183 m and a depth alongside from 3.0 to 9.0 m.

Several other piers, in ruins, extend from the shore at Charlottetown. The port authorities should be contacted for the latest information.

- 5 **Tanker Terminal.** A loading platform for Irving Oil Company tankers is situated about 3 cables ENE of the head of Marine Terminal. Mooring buoys are laid in the vicinity of the platforms, and a pipeline extends to an abutment on the causeway, about 2 cables N.

- 6 **Rocky Point** (close W of Canceaux Point). A pier, with two arms at its head, extends 1¼ cables N from the point. This wharf is reported to be in ruins.

Port services

Repairs

14.219

- 1 Small repairs can be effected.

Other facilities

14.220

- 1 Hospital at Charlottetown; garbage disposal facilities and waste oil disposal by tanker trucks are available.

Supplies

14.221

- 1 Fuel oil alongside Marine Terminal and Texaco Marine Terminal; fresh water; provisions.

Communications

14.222

- 1 Regular sea services to St Johns, Newfoundland, and Îles de la Madeleine; Charlottetown airport, 6 km.

Small craft

14.223

- 1 A yacht club is situated close W of the Department of Transport Marine Terminal, at the SW end of the docks of Charlottetown. The yacht club is equipped with several pontoons with depths of between 0.6 to 4.9 m alongside.

A marina is situated between the Texaco and Coast Guard Wharves with 122 pontoon berths. Vessels up to 21 m in length can be accommodated. Reported depths alongside are 1.2 to 5.2 m. A light is exhibited from the entrance to Peakes Quay Marina (46°13'9N, 63°07'3W).

HILLSBOROUGH BAY TO CONFEDERATION BRIDGE

General information

Charts 4765, 4770 Canadian Charts 4405, 4406 (see 1.32)

Route

14.224

- 1 From a position about 5 miles SW of Prim Point, (46°03'N, 63°02'W) in the vicinity of the pilot station, the main route through Northumberland Strait leads WNW for about 30 miles to a position under the navigable arches of the Confederation Bridge (14.231). On the S side the coastal waterway gives access to Wallace Harbour, (45°49'N, 63°25'W), Fox Harbour (45°51'N, 63°27'W) Pugwash Harbour (45°51'N, 63°40'W) and the now abandoned ferry terminal at Cape Tormentine (46°08'N, 63°46'W) and several smaller rivers and inlets.

- 2 On the N side of Northumberland Strait, the coastal waterway gives access to Victoria Harbour (46°12'N, 63°29'W), the now abandoned ferry terminal at Borden Point and several other smaller rivers and inlets.

Topography

14.225

- 1 **North side.** Between Rice Point (46°08'N, 63°13'W) and Black Point, 8 miles WNW, the coast of Prince Edward Island is unbroken, except for the small indentation at Canoe Cove (14.274).

Between Tryon Head (46°12'N, 63°33'W) and Bells Point, 4½ miles W, the coast is indented by Cumberland Cove, Augustin Cove and Prevost Cove. All these coves dry, and are separated by bluff points, the E-most being Richard Point.

- 2 **South side.** On the S side the coast between Amet Island to Smith Point (45°52'N, 63°25'W) is composed of low clay and sandstone cliffs, the highest part being in the vicinity of Gravois Point (45°48'N, 63°21'W). Wallace and Fox Harbours are entered from a shallow bay, situated S of Smith Point.

The coast between Smith Point and Pugwash Point, 11 miles W, is unbroken and composed generally of clay and sandstone cliffs, about 15 m (50 ft) high, rising inland to a ridge 46 m in height.

Depths

14.226

- 1 W of Cape Cliff (45°53'N, 63°28'W) the coastal bank, with depths of less than 11 m (36 ft) over it, widens until, off Pugwash Harbour, its outer edge lies as much as 5 miles offshore.

Laurent Shoal (rock and sand) and Aggermore Rock lie, respectively, 2½ and 3½ miles SE of Cape Saint Laurent (46°03'N, 63°54'W). Spear Shoal (sand and stones) lies about 1½ miles SE of Cape Spear (46°05'N, 63°48'W) and is steep-to.

- 2 Shoal ground, with depths of less than 5.5 m (18 ft), extends 1 mile offshore from the N shore in places. Inman Reef, lies 1½ miles SSE of Black Point (46°10'N, 63°24'W).

Tidal streams

14.227

- 1 **Caution.** The directions and rates of the tidal streams, which meet in the vicinity of Tryon Shoals, are variable. The out-going tidal stream from Baie Verte (46°01'N, 63°53'W) also frequently sets towards Tryon Shoals.

During the S-going tidal stream period, it is inadvisable to approach the N side of Tormentine Reef inside depths of 17 m (54 ft).

- 2 The tidal streams are strong in the vicinity of Tormentine Reef (46°06'N, 63°43'W), the in-going tidal stream setting S and the out-going stream setting N. The S-going stream sets over the reef at a rate of 3 kn, causing a great rippling at times over the part that dries, 3 miles ESE of Cape Tormentine, generally indicating its position.

- 3 In the NW of the area, the in-going tidal stream sets generally SE and the out-going tidal stream sets generally NW, as indicated on the chart at several positions.

Pilotage

14.228

- 1 Pilotage is compulsory (effective 1st June 1997) for all vessels 1 500 grt and greater. Confederation Bridge Compulsory Pilotage Area consists of all the navigable waters bound by the following coordinates:

46°11'0N, 63°47'0W.
 46°15'2N, 63°49'2W.
 46°14'0N, 63°43'5W.
 46°10'5N, 63°41'5W.

2 For a W-bound transit, the pilot boarding station is located 3.4 miles SE of the navigation span, in position 46°10'5N, 63°41'5W. For an E-bound passage, the boarding station is located 3.9 miles NW of the navigation span, in position 46°15'2N, 63°49'2W.

3 To ensure navigation safety, bridge approaches must be made using the Northumberland Strait Routing System (14.229). For further details on navigational requirements in the vicinity of the bridge, mariners should consult *Admiralty List of Sailing Directions, Volume 6 (5)* or contact the Regional Director, Transport Canada, Marine Safety, 45 Alderney Drive, PO Box 1013, Dartmouth NS B2Y 4K2.

Traffic regulations

14.229

1 Transits of the bridge are restricted to cargo vessels of maximum 47 000 tons displacement at a maximum speed of 8 kn over the ground within 5 miles of the bridge and passenger vessels of maximum 33 500 tons displacement at a maximum speed of 11 kn over the ground within 5 miles of the bridge.

2 For vessels having a displacement of 1 425 tons or less, other than tug/tow combinations, transit of the bridge may be made between piers P3–P5 on the Prince Edward Island side, and between piers P42–P44 on the New Brunswick side. The following restrictions apply:

Maximum displacement: 1 425 tons.

Vertical clearance: 28 m.

Speed over the ground: 15 kn.

Draught between piers P3–P5: 10 m.

Draught between piers P42–P44: 5.5 m.

No vessel having a displacement greater 1 425 tons shall transit the bridge in visibility of less than 1½ miles.

3 **Traffic separation scheme.** The waters 5 miles either side of the bridge are designated as an area of alternating one-way traffic for vessels having a displacement greater than 1 425 tons transiting the Confederation Bridge. Except in emergencies, no ship may overtake another ship, meet another ship, come about or anchor within 2½ cables either side of the centreline of the main navigation span.

4 **Vessel Traffic Service.** The Northumberland Strait Vessel Traffic Services Zone has been established to facilitate traffic through Northumberland Strait. Participation in the service is mandatory. See *Admiralty List of Radio Signals Volume 6 (5)* and *Canadian Annual Notices to Mariners* for details.

Prohibited anchorage. No ship may anchor within 2½ cables either side of the centreline of the main navigation span of Confederation Bridge (14.231).

Submarine cables

14.230

1 A submarine cable area is indicated on the chart across Abegweit Passage, from the vicinity of Cape Tormentine (46°08'N, 63°46'W) to the N shore, about 1½ miles SE of Port Borden.

Vertical clearance

14.231

1 **Confederation Bridge** has been constructed across Northumberland Strait joining Jourimain Island, New Brunswick, (46°10'N, 63°49'W) and Borden Point, Prince Edward Island, 6.9 miles NE.

Over the navigable waters of Northumberland Strait, 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.

2 Maximum vertical clearance is 48 m (157 ft) at the centre of the span between Piers 21 and 22. See 14.234 for details.

The horizontal distance of each typical marine span is 250 m (820 ft) and the minimum vertical clearance is 23 m (75 ft), and 35 m (115 ft) at midspan.

The navigation span for shipping over 20 m in length, lies between Piers 21 and 22, about 3.1 miles SSW of Borden Point. The horizontal clearance is established at 172 m (565 ft).

Principal marks

14.232

1 Landmarks:

Tower elevation 326 m (1070 ft), red lights (46°13'N, 63°21'W).

Confederation Bridge (46°13'N, 63°45'W).

Major lights:

Prim Point Light (46°03'N, 63°02'W) (14.144).

Pugwash Light (red framework tower, white top, 15 m in height) (45°52'N, 63°41'W).

Coldspring Head Light (white tower, 11 m in height) (45°58'N, 63°52'W).

Other navigational aids

14.233

1 Racons:

Racon, identification Morse Code T (—), operates from Pier 21.

Racon, identification Morse Code B (— . . .), operates from Pier 22.

Directions

(continued from 14.145)

14.234

1 From a position 5 miles SW of Prim Point (46°03'N, 63°02'W) in the vicinity of the pilot position, the track leads generally WNW and enters Abegweit Passage SW of Bells Point, passing (positions given from Bells Point (46°13'N, 63°39'W)):

Clear of a shoal patch with a depth of 11 m (36 ft) over it, according to draught, situated about 7 miles WSW of Prim Point, thence:

2 SSW of Brocklesby Head (8½ miles ESE), clay cliffs 5m high, reefs extending about 1 mile S from it, thence:

SSW of Tryon Shoals, the greater part of which dry, marked by N14 Light-buoy (starboard hand) (6 miles SE), thence:

NNE of numerous shoals, (between 22 miles SSE and 17 miles S), some of them detached, with depths of less than 5.5 m (18 ft) over them, lying up to 1½ miles off the S coast, thence:

3 NNE of Tormentine Reef, (shown as Tormentine Reefs on BA 4765) marked by X5 Light-buoy (port hand) (6¾ miles S), with Rock Reef, an extensive rocky area, lying between Tormentine Reef and Indian Point on the S shore.

4 The approach channel to the bridge is marked by lights and light-buoys as follows:

Privately maintained aids to navigation in the approach to, and in the navigation span, are marked for making a passage from E to W.

A fairway light-buoy is moored 4.8 miles SE of the navigation span on the E approach. Light-buoys (port and starboard hand) are moored 2.4 miles SE of the navigation span on the E approach.

- 5 A fairway light-buoy is moored 6.6 miles NW of the navigation span on the W approach. Light-buoys (port and starboard hand) are moored 2.6 miles NW of the navigation span on the W approach.

A red light is shown in both directions from Pier 21. A green light is shown in both directions from Pier 22. A white light is shown from the centre of the navigation span.

- 6 The track leads NW, passing through the channel marked by lights and light-buoys as mentioned above, passing:

NE of XB Light-buoy (safe water) (4 miles S), thence:

To the pilot boarding position (14.228), thence:

SW of Bells Point (14.225), thence:

- 7 NE of the NE edge of Sand Reef (Jourimain Shoals), (6 miles SW) sandstone, thinly covered with sand, marked by XD2 Light-buoy (starboard hand), moored close to the SE end of the reef. At night, it is advisable to keep in depths greater than 17 m (55 ft) in the vicinity of Sand Reef, as its N side is steep-to. Thence:

Under Confederation Bridge.

- 8 On the SW side of Abegweit Passage, Jourimain Island (46°10'N, 63°49'W), with Cape Jourimain at its E end, is joined to the mainland of New Brunswick by sand-bars and marshes, and appears as two islands when seen from a distance.

A shoal area with depths of less than 5.5 m (18 ft) extends from about 1¼ miles NE from Cape Tormentine to almost 1½ miles NW of Jourimain Island.

Navigation is restricted to vessels with a draught not exceeding 15 m and beam 35 m.

- 9 **Small craft.** Passage beneath the bridge for small craft is recommended between Piers 3 and 4, and 42 and 43 for a W-bound transit and between Piers 4 and 5, and 43 and 44 for an E-bound transit. These piers are marked with port and starboard hand daymarks.

- 10 **Clearing bearing.** The line of bearing 309° of Borden Point (46°15'N, 63°42'W), open SW of Bells Point, passes clear of the SW edge of Tryon Shoals in depths of 9.1 m (30 ft).

- 11 **Useful marks:**

Saint Peters Island Light (46°07'N, 63°11'W) (14.185).

Cape Tormentine Breakwater Light (white rectangle, red stripe, on framework tower, 10 m in height) (46°08'.1N, 63°46'.3W).

(Directions continue for

Northumberland Strait at 14.286)

(Directions for Wallace Harbour are given

at 14.244 and for Pugwash Harbour at 14.254)

Anchorage and harbours on north side

Rice Point

14.235

- 1 A pier (46°08'.0N, 63°16'.5W), 104 m in length and 61 m wide, extends from the shore about 2¼ miles W of

Rice Point; it affords little shelter. This pier has been reported to be in ruins.

Canadian Chart 4405 plan of Victoria Harbour and Victoria Wharf (see 1.32)

Victoria Harbour

14.236

- 1 **General information.** Victoria Harbour (46°12'N, 63°29'W) is a small shallow anchorage off the mouth of Westmoreland River, entered between Tryon Shoals and Brocklesby Head (14.234).

As sand from Tryon Shoals encroaches E, the narrow channel leading to the harbour may have less depth than charted.

- 2 Victoria village is situated on the W side of the mouth of the river, 2¼ miles NW of Brocklesby Head. A causeway and bridge with a vertical clearance of 1.8 m (6 ft) cross the river at Victoria.

Tidal streams are weak and irregular, but sometimes attain a rate of 1½ kn for short periods along the edges of the shoals in the entrance.

Surveys conducted in 1994 indicated that Victoria Harbour channel is shoaler than charted, with a limiting depth of 4 ft. The immediate approaches to the wharf have a limiting depth of 1 ft.

14.237

- 1 **Directions.** Owing to changing conditions the leading lights and buoys may be moved to suit the best channel.

The harbour is approached from SSE and entered through a buoyed channel in three reaches, each leg being indicated by a pair of leading lights. Two buoys indicate the positions where the channel direction alters first to the WNW and then N.

- 2 **Leard's Leading Lights:**

Front light (white trapezium, red stripe, on white tower, 11 m in height) (46°12'.8N, 63°29'.4W) at the NW end of the bridge.

Rear light (similar construction and tower, 14 m in height) (852 m from front light).

- 3 The alignment (338½°) of these lights leads towards the harbour and through the first leg of the entrance channel, passing, (with positions given from Cameron Point (46°11'.7N, 63°27'.9W)):

Close WSW of shoal ground (1 mile S) marked by NX2 Light-buoy (starboard hand), thence:

Close WSW of a rocky shoal, (5 cables WSW) with depths of 1.5 m (5 ft) over it, thence:

- 4 Close ENE of shallows (7 cables WNW), with depths of 0.6 m (2 ft), extending E from the E extremity of the drying banks of Tryon Shoals. The shallows are marked by NX7 Light-buoy (port hand), thence:

Close by NX11 Light-buoy (port hand) (7 cables NW).

- 5 **Wrights Leading Lights.** The alignment (295½°) of the following lights leads N of Tryon Shoals to the alignment of the third pair of leading lights, passing close SW of NX10 Light-buoy (starboard hand):

Front light (white tower, red stripe, 4 m in height, on Paul Bluff) (46°12'.3N, 63°29'.8W).

Rear light (similar construction and tower, 10 m in height) (695 m from front light).

- 6 **Palmers Wharf Leading Lights.** The alignment (001¾°) of the following lights leads through the buoyed channel to the wharf at Victoria, in a least depth of 1.8 m (6 ft), which improves to about 3.0 m (10 ft) when within

3 cables of the wharf. The track passes between NX17 spar buoy (port hand) and NX18 Light-buoy (starboard hand):

Front light (white trapezium, red stripe, on framework tower, 5 m in height) (46°12'8N, 63°29'4W) near the NW end of the bridge.

Rear light (similar construction, inverted and tower, 11 m in height) (120 m from front light).

14.238

1 Anchorage. Secure anchorage in depths of 2 to 4 m (7 to 13 ft), sand and mud, is available about 8 cables S of Victoria village, and N of the E end of Tryon Shoals.

Berths. The public jetty at Victoria extends 122 m SE from the shore, close SW of the NW end of the bridge. The jetty has depths of 1.2 to 1.8 m on the E side and 1.5 to 2.4 m on the W side.

Anchorage and harbours on south side

Canadian Chart 4905 plan of Cape Tormentine (see 1.32)

Cape Tormentine Ferry Terminal

14.239

1 Position and function. Cape Tormentine Ferry Terminal (46°08'N, 63°46'W) lies 2 miles N of Indian Point. An abandoned terminal of the discontinued ferry service to Prince Edward Island is situated at Cape Tormentine village. The ferry pier extends about 4 cables NE from the shore. At the outer end of the pier two arms, about 1 cable apart, curve to the SE to form a basin. Two detached breakwaters, each about 1 cable long, lie in a NNE–SSW direction, about 1 cable SE of the head of each docking arm.

2 Depths. The basin, between the arms of ferry dock, from which lights are exhibited, had depths of about 6 m (1999) for the major part, but shallows at its head and SW side to 1.7 m.

3 Directions. From a position NE of the entrance, the port is entered between the arms of the ferry dock. Lights are exhibited from the NE end of the detached breakwater (square framework tower) and from the head of the breakwater off the Fishermans Wharf (framework tower, 3 m in height).

XD2 Light-buoy (starboard hand) is moored 1¼ miles NE of the head of the outer arm of the breakwater. XD4 Light-buoy (starboard hand) lies close NE of the head of the N breakwater.

Small craft. Close SW of the ferry terminal, there is a boat basin, with depths of 1.2 m alongside its E wall. The entrance to the basin has a depth of 0.8 m and depths of 1.0 m lie close E from the E wall. The E wall of the basin is a public wharf, 91 m long.

Wallace Harbour

Canadian Chart 4402 (see 1.32)

General information

14.240

1 Position. Wallace Harbour occupies the mouth of Wallace River, SW of Mullins Point (45°50'N, 63°25'W).

Function. The harbour provides shelter in all winds, and has some minor port facilities. The village of Wallace lies on the S shore, 1¼ miles above Palmer Point.

The land on the shore gradually rises to the summit of a 122 m ridge.

2 Off Betts Point, about 2 cables above the bridge (14.241) the river divides into two branches. The S branch, marked by stakes, is the more important, and is navigable for about 7 miles, above which the tide is no longer felt and the bed

is nearly dry in mid-summer. The N branch is navigable for about 4½ miles above Wallace. Both branches are occupied by oyster beds.

3 Approach and entry. Wallace Harbour is approached and entered through either of two channels:

The shorter channel over Oak Island Bar, or:

The deeper but less direct channel over Ship Bar.

Both these approach channels join at the outer end of Ship Channel, which leads into Wallace Harbour.

Limiting condition

14.241

1 Depth. The least depth in the channel over Ship Bar is 4.3 m (14 ft), and on the leading line over Oak Island Bar 2.4 m (8 ft).

Vertical clearance. A bridge with a vertical clearance of 4 m (13 ft) spans the river from Wallace to North Wallace.

Tidal levels. Mean spring range about 1.9 m; mean neap range about 1.2 m. See *Admiralty Tide Tables, Volume 2* for details.

Arrival information

14.242

1 Outer anchorage. Fairly safe anchorage is available outside the harbour as follows:

In depths of 7 to 9 m (23 to 30 ft), mud, about 1½ miles ESE of Mullins Point, where Oak Island Bar provides some shelter from the E.

In depths of 6 to 8 m (20 to 26 ft), mud, in Ship Channel, about 8 cables ESE of Mullins Point.

Submarine cable. A submarine cable is laid across the harbour, close W of the bridge from Wallace to North Wallace (14.241).

2 Pilotage. It is strongly recommended that the services of a local pilot be obtained unless previous experience and local knowledge have been acquired.

Harbour

14.243

1 A narrow buoyed channel leads from the inner end of Ship Channel through the length of the harbour, between drying clay and mud flats on either side.

The main channel leads S of a drying middle ground situated 5 cables W of Palmer Point.

A narrow channel branches S, near the E end of the middle ground, into Lazy Bay, which is mainly filled with drying mud flats; gypsum cliffs, 9 m in height, stand at the head of this bay.

2 Tidal streams attain a rate of 1½ kn in the entrance; in Ship Channel the rate is usually from 1 to 1¼ kn. The out-going flow may be somewhat stronger in the spring, during the thaw.

Directions for approaches

14.244

1 Approach from east. The recommended track for a vessel approaching from E, passes, (positions given from Mullins Point (45°49'5N, 63°25'5W)):

1 mile N of Treen Bluff (6 miles E) a low cliff, thence:

N of Treen Reef, (5¼ miles E), extending about 6 cables NW from Treen Bluff, thence:

Close to Wallace Harbour UH Light-buoy (safe water) (3¼ miles E).

2 Approach from north. Wallace Harbour is approached from N by passing, (positions given from Mullins Point (45°49'5N, 63°25'5W)):

E of a reef, (2½ miles ENE) with depths of less than 5.5 m (18 ft), extending about 6 cables ESE from

the E point of Oak Island, low and wooded, (2 miles NE); it is advisable to pass at least 8 cables off the point, thence:

Close to Wallace Harbour UH Light-buoy (3¼ miles E).

Directions for entrance

14.245

1 Channel over Oak Island Bar.

From the vicinity of Wallace Harbour UH Light-buoy, the track leads over Oak Island Bar, passing, (positions given from Mullins Point (46°49'N, 63°25'W)):

S of shoal ground, (1¼ miles E) with depths of less than 1·8 m (6 ft), extending about 9 cables SSE from Oak Island, thence:

N of Horton Bank (1¼ miles ESE), sand, marked by UH5 Light-buoy (port hand) extending almost 5 cables from the S shore between Horton Point (45°49'N, 63°25'W), and Cantwell Point, 1 mile SE.

2 Channel over Ship Bar. From the vicinity of Wallace Harbour UH Light-buoy (safe water), the channel over Ship Bar leads SW then NW, passing, (positions given from Mullins Point (45°49'·5N, 63°25'·5W)):

S of the SE extremity (2½ miles ESE) of Oak Island Bar, marked by UH2 Light-buoy (starboard hand), thence:

SW of the SW edge (about 2 miles ESE) of Oak Island Bar, thence:

3 NW of shoal ground, (1¾ miles ESE) with depths of less than 3·7 m (12 ft), on the E side of Horton Bank (1¾ miles ESE), marked by UH3 Light-buoy (port hand).

Thence the track leads WNW towards UH5 Light-buoy (port hand) marking the N extremity of Horton Bank and the turning point into Ship Channel.

Directions for Ship Channel

14.246

1 From a position about 1 mile E of Mullins Point, the line of bearing about 257½° of Wallace Harbour Lighthouse (white rectangle, red bands on tower, 8 m in height) (45°48'·8N, 63°27'·8W), or, at night, in the white sector (257°–258°) of the light, situated on Macfarlane Point, leads through Ship Channel towards the harbour.

Thence the track continues through a channel which narrows and leads W, with depths of 4·3 to 9·1 m (14 to 30 ft), marked by buoys to the harbour.

14.247

1 Useful marks:

Lighthouse (abandoned) (white with a red roof), stands on the N shore of the harbour, about 8 cables W of Mullins Point is conspicuous. This lighthouse is not shown on Canadian Chart 4402.

Wallace Pier Light (red framework tower, 5 m in height) (45°48'·9N, 63°28'·4W), on the pierhead.

Berths

14.248

1 Anchorage berth. Anchorage is available, in depths of 6 to 11 m (19 to 36 ft), mud, anywhere from 1 to 5 cables WSW of Palmer Point, (45°49'N, 63°26'W) the channel in this area being 230 m wide.

Alongside berth. A L-shaped public pier, (45°48'·9N, 63°28'·4W) with a berth 43 m long and a depth of 3·4 m on its outer end, extends N from the shore at Wallace,

about 2 miles WSW of Mullins Point. A gravel loading area lies close E of the pier.

Pugwash Harbour

Canadian Chart 4498 (see 1.32)

General information

14.249

1 **Position.** Pugwash Harbour (45°51'N, 63°40'W) is situated at the entrance to Pugwash River. The town is situated on the E side of the entrance.

Function. The main industry at Pugwash is the export of salt. Pulpwood is also exported.

2 **Traffic.** In 2001, the port was used by eight vessels.

Approach and entry. The harbour is approached through Pugwash Road, which lies between Pugwash Point (45°53'N, 63°40'W) and Bergeman Point, 1¾ miles WSW, and entered through a narrow and winding channel over Pugwash Bar.

3 **Local knowledge** is essential.

Port Authority. The port is administered by the Canadian Coastguard, Harbours and Ports, 44 Portland Street, Dartmouth B2Y 4K2.

Limiting conditions

14.250

1 **Depth.** The least charted depth in the entrance channel is maintained at about 4·5 m (15 ft). Silting requires frequent dredging.

Vertical clearance. A bridge with a vertical clearance of 3·6 m (12 ft) spans Pugwash River from close E of Oxley Point (45°50'·9N, 63°39'·9W) to Chapel Point, 2 cables ESE.

Deepest and longest berth. Railway Wharf (14.258).

2 **Tidal levels.** Mean spring range about 2·44 m; mean neap range about 1·91 m. See *Admiralty Tide Tables Volume 2* for details.

Maximum size of vessel handled. Maximum tonnage 4974 grt. Maximum draught 6·4 m (21 ft).

Ice. The navigation season is from 1st April to 1st December.

Arrival information

14.251

1 **Notice of ETA required.** Send ETA 12 hours and 4 hours prior to arrival; ETD 4 hours prior departure, to Atlantic Pilot Authority, using GMT. See *Admiralty List of Radio Signals Volume 6 (5)* for details.

2 **Outer anchorage.** Pugwash Road affords excellent anchorage in depths of 4 to 6 m (13 to 20 ft), sand and clay. The anchorage is bounded on the E side by the shoal ground, with depths of less than 3·7 m (12 ft) over it, extending 3 cables W and 4 cables SW from Fishing Point (45°52'N, 63°41'W), and on the W side by Philip Bar, sand and stones, with depths of less than 1·8 m (6 ft) over it, extending about 1½ miles ESE from Lewis Head, 2 miles W of Fishing Point.

3 The anchorage is sheltered from NE winds by Pugwash Reef, which extends 4 cables WNW from Pugwash Point, and from NW winds by Lewis Reef, 1¼ miles N of Lewis Head.

The best anchorage is in a depth of 5·8 m (19 ft), with Fishing Point bearing 085°, distant about 5 cables. There is also anchorage about 5 cables farther SSE, in depths of 4 m (13 ft).

4 **Pilotage and tugs.** Pilotage is compulsory; no tugs are available, but assistance may be obtained from local fishermen. Pilots boarding position is 45°54'·5N, 63°40'·7W.

Harbour**14.252**

1 **General layout.** Pugwash Harbour comprises a landlocked basin where Pugwash River curves sharply, just above Page Point, on the W side of the entrance. Within the harbour there is good accommodation for any vessel that can cross the bar. The main wharf is at Oxley Point, on the E bank, close inside the entrance.

2 **Tidal streams** set at a rate of up to 2 kn in the harbour entrance, but may be stronger on the out-going stream during the spring thaw.

Close by Oxley Point is a small basin formed by a bend in the river where the tidal stream can set at up to 4.5 kn.

Principal mark**14.253**

1 **Major light:**

Pugwash Light (45°52'N, 63°41'W) (14.232) on Fishing Point.

Directions for entering harbour**14.254**

1 Due to drifting sand, the depths in the approaches and in Pugwash Road may vary considerably from those shown on the chart.

Bergeman Point Leading Lights:

Front light (white trapezium, red stripe, on framework tower, 5 m in height) (45°51'7N, 63°42'6W).

Rear light (similar construction, inverted, and tower, 9 m in height) (169 m from front light).

2 From the vicinity of UK Light-buoy (safe water) (45°57'5N, 63°38'3W), the track leads SSW to the vicinity of the pilot boarding position, thence the alignment (205°) of the above lights leads towards Pugwash Road, passing, (positions given from Pugwash Light (45°52'N, 63°41'W)):

3 ESE of UK2 Light-buoy (starboard hand), marking a 3.7 m (12 ft) patch (2 miles NNW), thence:

ESE of UK4 Buoy (1.2 miles NW) (starboard hand), thence:

Close WNW of UK3 Light-buoy (port hand) (9 cables NW), at the intersection with the leading line for the second reach.

14.255

1 **Biglow Point Leading Lights:**

Front light (white trapezium, red stripe, on red framework tower, 5 m in height) (45°51'3N, 63°41'0W) on the S shore.

Rear light (similar construction and tower, 8 m in height) (479 m from front light).

2 The alignment (160½°) of these lights, which are visible on the leading line only, leads through a channel marked by light-buoys into Pugwash Road, passing, (positions given from Pugwash Light (45°52'N, 63°41'W)):

WSW of Pugwash Light, thence:

Between UK8 Buoy (starboard hand) (about 5 cables WSW) and UK7 Light-buoy (port hand).

The track continues to a position SW of UK9 Light-buoy (port hand) (5 cables SW).

14.256

1 **Steven Point Leading Lights.** From a position SW of UK9 Light-buoy (port hand), the alignment (086½°) of the following lights which are visible on the leading line only, leads for about 4¾ cables through a channel marked by buoys and light-buoys across Pugwash Bar.

Front light (white rectangle, orange stripe, on framework tower, 5 m in height) (45°51'9N, 63°40'1W) on the E shore.

Rear light (similar construction and tower, 6 m in height) (470 m from front light).

2 The track then leads SE for about 1¼ cables to the beginning of Fishing Point leading line.

14.257

1 **Fishing Point Leading Lights:**

Front light (white rectangle, red stripe, on red framework tower, 4 m in height) (45°52'2N, 63°40'5W) on the NE shore.

Rear light (similar construction and tower, 8 m in height) (258 m from front light).

The alignment (350½°), astern, of these lights, which are visible on the leading line only, lead for about 6 cables to the end of the leading line at Pineo Point (45°51'N, 63°40'W).

2 From abreast Pineo Point, the entrance channel leads SE then SSW, passing E of a reef, with a depth of 2.4 m (8 ft) at its outer end, extending about 60 m E from Page Point, the W entrance point to the harbour.

The river above the bridge (14.250) is much encumbered with flats of mud and weed which nearly dry, restricting passage to small craft only.

(*Directions continue for Baie Verte at 14.261*)

Berths**14.258**

1 Alongside berths in Pugwash Harbour are as follows, (with positions given from Fishing Point (45°52'N, 63°41'W)):

Railway Wharf at Oxley Point (1.5 miles SSE) has a length of 150 m on both the W and the S faces. The reported depth alongside the W face is 7.4 m, and alongside the S face is 5.2 m. Caution. A rock ledge with a depth of 1.5 m (5 ft) over it, is reported to lie about 46 m off the S face of Railway Wharf.

2 **Fishermans Wharf** (1.5 miles SSE) on the S shore has a length of 61 m and a reported depth alongside of 5.5 m at the outer end.

Port services**14.259**

1 **Repairs.** Minor repairs can be undertaken.

Other facilities: hospital; facilities for collection of oily waste are available.

Supplies: fresh water in small quantities, but not piped to alongside berths; fuel oil and diesel oil.

Baie Verte

Chart 4770

General information**14.260**

1 Baie Verte (46°01'N, 63°53'W) contains no deep harbours and is shallow at its head, where flats of mud and weed dry out to a distance of almost 1 mile from the shore.

Directions**14.261**

1 From a position about 5 miles N of Pugwash Point, the track leads W for about 8 miles to the entrance to Baie Verte, passing (with positions given from Lewis Head (45°52'N, 63°44'W)):

N of Ballast Ground (2¼ miles NNE), rocks, extending 3 miles N, thence:

Between Coldspring Head (8 miles NW) and Aggermore Rock (10 miles NNW).

2 The track then leads WNW in decreasing depths, passing, (with positions given from Coldspring Head (45°58'N, 63°52'W)):



Pugwash Wharf (14.258)

(Original dated prior 2002)

(Photograph – Transport Canada)

NNE of shoal ground, (2½ miles NW) with depths of less than 5.5 m (18 ft), extending about 1 mile from the S shore between Coldspring Head and Roche Head, (46°00'N, 63°58'W), and:

- 3 SSW of the coastal bank, (4½ miles NNW) with similar depths, extending almost 2 miles S from Cape Saint Laurent on the N shore. An extensive area of rocky shoals, thinly covered by sand, with depths of less than 11 m (36 ft), extends about 11 miles E and 8 miles SE from Cape Saint Laurent (46°04'N, 63°54'W).

- 4 West of Roche Head the depths are less than 5.5 m (18 ft) shoaling steadily to the head of the bay.

Useful mark:

Fort Monckton Light (red tower, white bands, 7 m in height) (46°03'N, 64°04'W).

Small craft**14.262**

- 1 **Northport** (45°56'N, 63°52'W), a village on the SE side of the entrance to the Shinimicas River, is reached through a narrowed buoyed channel with a reported depth of 0.3 m (1 ft) in 1992, leading between drying mud flats. A road bridge, with a vertical clearance of 0.9 m (3 ft), spans the river at Northport.

The river is approached from ENE and entered at UP2 Light-buoy (starboard hand) moored 1½ miles SSE of Coldspring Head Light (14.232), near the outer edge of the mud flats.

- 2 The public pier (45°56'N, 63°52'W) at Northport, with a depth of 1.2 m alongside its outer end, adjoins the SE end of the road bridge.

14.263

- 1 **Tidnish River** enters the S side of Baie Verte, SW of Tidnish Head (46°00'N, 64°02'W).

A narrow boat channel, its entrance marked by XA2 Light-buoy (starboard hand), with depths of from 0.6 to 2.1 m (2 to 7 ft), leads through flats of mud and weed that dry out for a distance of about 1 mile from the river mouth. The channel is marked by stakes as far as the bridge about 2 miles above the entrance.

- 2 From a position 1 mile N of Tidnish Head, a buoyed channel leads to the entrance.

On the E bank of the river, about 4 cables below the bridge, there is an area where small craft can be hauled out.

14.264

- 1 **Gaspereau River** (46°03'N, 64°04'W) flows into the NW corner of the head of Baie Verte, N of Fort Monckton Point.

A buoyed boat channel, with a depth of 0.6 m (2 ft), leads to the village of Port Elgin (population 470 in 1986), about 1 mile upstream.

A railway bridge with a vertical clearance of 1.2 m (4 ft) spans the river below Port Elgin, with a foot bridge about 1½ cables farther upstream.

- 2 The river is approached from the vicinity of XC2 Buoy (starboard hand), moored 1¼ miles ESE of Fort Monckton Point, from which a light is exhibited (14.261).

A public wharf 71 m long, lying parallel to the channel, with a depth of 0.6 m alongside, is situated on the N bank about 1.2 miles from the entrance to the channel.

Port Borden

Canadian Chart 4905 plan of Borden (see 1.32)

General information

14.265

- 1 Port Borden (46°15'N, 63°42'W) is the site of an abandoned terminal for the discontinued ferry service between New Brunswick and Prince Edward Island. The ferry service closed on 1st June 1997 on the day that Confederation Bridge opened. The ferry berths at both locations have been allowed to fall into disrepair. Both former ferry ports continue to operate small inshore fishing fleets from their harbours.

Limiting conditions

14.266

- 1 **Controlling depth.** The least charted depth in the turning basin inside the entrance was 5.6 m (18 ft) in 1992.

Arrival information

14.267

- 1 **Pilotage.** The services of a pilot are available.
Local knowledge is required.

Harbour

14.268

- 1 **General layout.** The harbour is enclosed by a railway pier, which extends 3½ cables SE from Borden Point. A breakwater extends 122 m SW from the outer end of the pier, and a detached breakwater lies in a NE-SW direction, 1 cable SE of the outer end of the pier.

Directions for entering harbour

14.269

- 1 The Port Borden Leading Lights have been removed following the opening of the Confederation Bridge.

Useful marks:

Port Borden Breakwater Light (red and white rectangle, red triangle in centre, on framework tower, 4 m in height (46°14'6N, 63°41'8W)) on the outer end of the detached breakwater.

Port Borden Pier Light (white tower, 8 m in height) (46°15'N, 63°42'W) at the outer end of the N pier.

Berths

14.270

- 1 **Anchorage** is available inside the harbour, but is not permitted in the turning basin close within the entrance; the N edge of the turning basin is marked by spar buoys (starboard hand).

Ferry terminal is closed to ferries.

Small craft

14.271

- 1 **Anchorage** may be obtained for small craft, in depths of 4 to 5 m (13 to 16 ft), inside the harbour, N of the turning basin.

Port Borden Harbour. A public wharf, with a L-shaped head, used by fishermen, extends 220 m SE from the head of the harbour; the depth alongside the pierhead is 1.3 m.

Small craft harbours on south side

Chart 4770, Canadian Chart 4405 (see 1.32)

Fox Harbour

14.272

- 1 Fox Harbour (45°51'N, 63°27'W), entered between Mullins Point and Mackenzie Point, 1½ miles N, consists of a channel which leads through drying flats of red clay and weeds.

There are depths of 4.3 to 7.6 m (14 to 25 ft) in the harbour channel, but only 1.2 m (4 ft) over the bar from Ship Channel (14.246).

River Philip

14.273

- 1 **Description.** River Philip (45°52'N, 63°43'W) is entered between Bergeman Point and Lewis Head. The entrance channel passes over the S part of Philip Bar, and has depths of 1.2 m (4 ft) or less in places.

The village of Port Philip is situated on the S bank, about 1¼ miles SW of Bergeman Point.

- 2 A bridge with a vertical clearance of 2.7 m (9 ft) spans the river abreast the village.

The river is navigable by small craft for a distance of about 9 miles, but it discharges little water except during the spring thaw.

Local knowledge is essential.

- 3 **Directions.** From a position in Pugwash Road, about 1 miles SW of Pugwash Point, the channel, which is marked by buoys, leads W over Philip Bar, passing, (with positions given from Bergeman Point Front Leading Light (45°51'7N, 63°42'6W)):

N of Rocky Ledge, (about 2 cables NE), thence:

S of a drying patch (about 2½ cables NNE).

The channel over the inner bar, W of Bergeman Point, has depths of 0.9 m over it (3 ft), and leads SW into Philip River, where there are greater depths as far as Port Philip. The fairway, which is narrow and tortuous, is marked by buoys in places.

- 4 **Caution.** Below-water obstructions from an old bridge, situated close downstream of the bridge at Port Philip, are not marked and make the channel hazardous for mariners without local knowledge.

Berth. A public jetty, (45°51'0N, 63°44'4W) with a depth of 2.1 m alongside its outer side, is situated near the S end of the bridge at Port Philip.

Small craft harbours on north side

Chart 4765, Canadian Chart 4405 (see 1.32)

Canoe Cove

14.274

- 1 **General information.** Canoe (Allen) Cove (46°09'N, 63°18'W), a small indentation which dries out, affords some shelter for small craft. A church stands close to the NE shore.

The cove is protected by a reef extending from its W entrance point, and by the ruins of a detached breakwater, which dry 0.9 m (3 ft), at its entrance.

De Sable River

14.275

- 1 **General information.** De Sable River (46°11'N, 63°26'W) nearly dries. It is spanned by a bridge with a vertical clearance of 1.2 m (4 ft), situated about 1 mile above the entrance.

Directions. The entrance is approached from S by passing W of Inman Rock lying 1¼ miles SSE of the E entrance point to the river.

Chart 4770

Tryon River

14.276

- 1 **General information.** Tryon River (46°13'N, 63°33'W) enters the sea over a drying bar between Tryon Head and Birch Point, about 1 mile ESE.

Within the bar depths increase for a short distance, but the river can only be entered by small craft near HW.

Local knowledge is required.

Other names

14.277

- 1 Birch Head (45°55'N, 63°49'W).
Heart Shoal (46°04'N, 63°49'W).

CONFEDERATION BRIDGE TO CAPE EGMONT

General information

Charts 4765, 4770, Canadian Charts 4406, 4905 (see 1.32)

Route

14.278

- 1 From a position clear of Confederation Bridge, the route through Northumberland Strait, having narrowed to about 5 miles in width, broadens, and leads NW and W to a position SW of Cape Egmont (46°24'N, 64°08'W). The route includes Bedeque Bay and Summerside Harbour.

Topography

14.279

- 1 **North shore.** On the NE side of Abegweit Passage, the coast between Borden Point (46°15'N, 63°42'W) and Seacow Head, 6 miles NW, is indented by several coves, separated by points of red sandstone and clay cliffs.

NW of Seacow Head, which is low and flat, lies Bedeque Bay.

- 2 The remains of two breakwaters, which dry at LW, lie close inshore, about 5 cables and 3½ miles E of Cape Egmont.

South shore. The harbours on this coast, from Confederation Bridge to Fagan Point (46°14'N, 64°14'W), are shallow.

Depths

14.280

- 1 Attention is drawn to the coastal banks extending 3½ miles S and 3 miles N of the coasts on the N side and S side of the strait respectively.

Pilotage

14.281

- 1 For pilotage details see 14.228 and *Admiralty List of Radio Signals Volume 6 (5)*.

Traffic regulations

14.282

- 1 For traffic regulations and Vessel Traffic Service details, see 14.229 and *Admiralty List of Radio Signals Volume 6 (5)*.

Prohibited anchorage. See 14.229. Canadian regulations prohibit anchoring in the submarine cable area (14.230).

Submarine cable

14.283

- 1 Submarine cables are laid in a 2 mile wide area from the vicinity of Cape Bruin (46°11'N, 63°59'W) on the S shore, to Fernwood, 11 miles NE. The limits of the area are indicated on the chart.

A privately maintained light indicates the SW end of the prohibited anchorage area at Murray Corner (46°10'4N, 63°57'3W); a similar light indicates the NE end of the area at Richmond Cove (46°19'1N, 63°47'2W).

Vertical clearance

14.284

- 1 For details, see 14.231.

Principal marks

14.285

- 1 **Landmarks:**

Confederation Bridge (46°13'N, 63°45'W).

Seacow Head Lighthouse (white 8-sided tower, 18 m in height) (46°19'N, 63°49'W).

Mount Carmel Church (twin spires) (46°23'N, 64°02'W).

Cape Egmont Lighthouse (white tower, red top, 12 m in height) (46°24'N, 64°08'W).

Directions

(continued from 14.234)

14.286

- 1 From a position beneath Confederation Bridge (for further details, see 14.234) the route through Northumberland Strait continues NW, in the buoyed channel, passing, (with positions given from Cape Bruin (46°11'N, 63°59'W)):

NE of the coastal bank (6¼ miles ENE) extending about 2½ miles NNW from Jourimain Island, thence:

NE of XF Light-buoy (safe water) (7½ miles NE), thence:

- 2 The track then leads W to a position in mid-channel SW of Cape Egmont (sandstone cliffs, 15 m in height).

14.287

- 1 **Useful marks:**

MacCallums Point (Indian Spit) Light (white tower, 13 m in height) (46°23'N, 63°49'W).

Botsford Breakwater Light (framework tower, 5 m in height) (46°10'N, 63°56'W).

(Directions continue at 14.311)

Summerside Harbour

Canadian Chart 4459 (see 1.32)

General information

14.288

- 1 **Position.** Summerside Harbour (46°23'N, 63°48'W) occupies an inlet on the NE side of Bedeque Bay. The main part of the town occupies the N shore of the harbour.

Function. The main industries include a woodworking factory, beef packing and cold storage plant. The principal exports are farm products and lobsters.

- 2 **Approach and entry.** Summerside Harbour is approached through a tapering channel in the SE part of Bedeque Bay. The harbour is entered through a narrow buoyed and dredged channel between MacCallums Point (Indian Spit) Light (46°23'N, 63°49'W) and Phelan Point, almost 1 mile NW.

- 3 **Traffic.** In 2001 the port was used by five vessels.

Port Authority. Transport Canada, Harbours and Ports, PO Box 1270, Charlottetown, C1A 7M8.

Limiting conditions**14.289**

- 1 **Controlling depths.** The dredged entrance channel is reported to be maintained to a depth of 6.7 m (22 ft); the depth of the turning basin is 1996 was 6.4 m (21 ft). Depths close W of the public jetty are dredged to 7.6 m (25 ft) (1991). Contact the harbour authorities for the latest information.

Deepest and longest berth. Transport Canada (14.294).

- 2 **Tidal levels.** Mean spring range about 1.4 m; mean neap range about 0.8 m. See *Admiralty Tide Tables Volume 2* for details.

Density of water is 1.024 g/cm³.

Maximum size of vessel handled. Length 167 m; beam 22.9 m; draught 7.3 m.

- 3 **Ice.** Break-up of ice in the harbour normally begins in early April, with complete clearance by the fourth week of the month. Harbour ice forms again just after the middle of December, with solid ice cover forming before the end of the month. These dates can vary by up to five weeks.

Arrival information**14.290**

- 1 **Notice of ETA required.** Send ETA to agents 5 days, 72, 48, 24 hours before arrival. The master of a vessel that is to depart or move and requires a pilot must give 6 hours notice.
- 2 **Outer anchorage.** Anchorage may be obtained in the roadstead between the E side of Miscouche Bank (46°23'N, 63°53'W) and the shoal ground off the E shore of Bedeque Bay, S of MacCallums Point. This position affords good anchorage in depths of 6 to 7 m (20 to 23 ft), sand and clay. The recommended anchorage position is on the alignment (065°) of the N end of Holman Island (46°22'N, 63°48'W) and MacCallums Point, and with Seacow Head (14.285) bearing 153°; it is possible to anchor farther in, draught permitting.
- 3 **Pilotage** is not compulsory, but pilots are available. The pilot boarding position is in position 46°19'N, 63°53'W, as indicated on the chart.

Tugs. A tug may be available.

Customs and Excise. Summerside is a port of entry.

Harbour**14.291**

- 1 **General layout.** Summerside Harbour is enclosed on the W side by a breakwater built over Indian Spit. The port installations are situated at Summerside on the N shore. Wilmot River (14.297) and Dunk River (14.296) flow into the E and S sides of the harbour, respectively.

Principal mark:

MacCallums Point (Indian Spit) Lighthouse (white 8-sided tower, 13 m in height) (46°23'N, 63°49'W) at the N end of the breakwater.

Directions for entering harbour**14.292**

- 1 **Caution.** Silting is liable to occur in the channel. From a position NE of XF Light-buoy (safe water), the track leads NNW for a distance of 2½ miles to the pilot boarding position (14.290), before turning NNE towards the harbour entrance, passing, (positions given from Seacow Head (46°19'N, 63°49'W)):

WNW of DE Light-buoy (safe water) (2 miles WNW), thence:

- 2 ESE of DE1 Buoy (port hand) (2¾ miles NW), marking the S end of the bank, with depths of less than 5.8 m (18 ft) over it, extending about 3 miles SSE from Ives Point (5½ miles NW), thence:

Through the roadstead on the SE side of Bedeque Bay to the vicinity of DE3 Light-buoy (port hand) (3¼ miles NNW) marking the outer end of the entrance channel, 1 mile WSW of Indian Spit Light (46°23'N, 63°49'W), which extends 5 cables NNW from MacCallums Point (sandstone cliffs, 8 m (25 ft) high).

- 3 **Summerside Outer Leading Lights.** The alignment (029°) of the following lights leads through the dredged and buoyed entrance channel towards the port:

Front light (white trapezium, red stripe on white tower with red top, 9 m in height) (46°24'N, 63°49'W).

Rear light (similar construction and tower, 10 m in height) (430 m from front light).

- 4 **Summerside Inner Leading Lights.** The alignment (072°) of the following lights leads through the continuation of the dredged and buoyed entrance channel and thence to the piers at Summerside:

Front light (red stripe, on white framework tower, 9 m in height) (46°23'·2N, 63°47'·4W), on a shed on the public jetty.

Rear light (similar construction and tower, 20 m in height) (8 cables from front light).

- 5 When passing the breakwater head, it is necessary to keep a little N of the alignment until about 2 cables E of the head, when the alignment should be resumed. The leading line passes close to Island Shoal, NNW of Holman Island, but is safe if not opened to S. The shoal is not named on the chart.

- 6 Holman Island, situated about 4 cables E of MacCallums Point, is connected to it by sandbanks. Island Shoal, with depths of less than 1.8 m (6 ft) near its N edge, extends about 5 cables NW from the island to the S edge of the dredged entrance channel.

- 7 **Useful marks:**

Radio mast, elevation 76 m (250 ft) red lights (46°24'N, 63°45'W).

Conspicuous orange and white tower, elevation 38 m (124 ft) red lights (46°23'·5N, 63°47'·6W) surmounting a building.

Old lighthouse (46°22'·2N, 63°48'·7W), now a dwelling, on the W side of the MacCallums Point. Abandoned lighthouse 4 cables SE of the old lighthouse mentioned above.

Radio mast, red lights (46°23'·8N, 63°52'·9W) on the E side of Ives Point.

Anchorage berth**14.293**

- 1 Anchorage may be obtained nearly midway between the breakwater and the piers at Summerside. There is also anchorage in depths of about 8 m (27 ft) in the entrance to Dunk River (14.296). Local knowledge is required.

Alongside berths**14.294**

- 1 **Transport Canada.** The largest and deepest berth in Summerside is Transport Canada public jetty (46°23'·2N, 63°47'·4W), W side (outer 183 m); depth 7.3 m (1995). The E side of the same wharf (length 350 m) is not so deep. Other wharves are much more shallow.

Port services**14.295**

- 1 **Repairs.** Minor repairs can be undertaken.

Other facilities: hospital.

Supplies: small quantities of fuel oils may be obtained from road tankers; fresh water is piped to the public jetty; fresh provisions are available.

Communications: airports at Summerside 4 kms; Charlottetown 64 kms.

Rescue. A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.

Small craft**14.296**

- 1 **Dunk River.** The mouth of Dunk River (46°22'N, 63°47'W), SE of Summerside, is shallow; a narrow, winding channel, usable by small craft, leads upstream.

The river is obstructed by oyster beds and local knowledge is required.

14.297

- 1 **Wilmot River.** The mouth of Wilmot River (46°23'N, 63°46'W), E of Summerside, dries out completely.

The river is shallow and is obstructed by oyster beds. A bridge with a vertical clearance of 1 m (3 ft) spans the river about 1½ miles upstream.

14.298

- 1 **Marina.** Summerside Marina is situated in a basin close E of the root of the public jetty. The basin is enclosed by a breakwater on its S side, and affords good shelter for small craft in depths of 0.6 to 3 m (2 to 10 ft). A light is exhibited on the head of the breakwater.

14.299

- 1 **Sunbury Cove,** entered between Ives Point (46°24'N, 63°53'W) and Sunbury Point, 2¼ miles W, nearly dries, leaving a very narrow boat channel through flats.

Anchorages and harbours between Confederation Bridge and Fagan Point

Anchorage west of Jourimain Island**14.300**

- 1 Good anchorage is available in depths of 9 m (30 ft), sand, between a drying shoal about 6 cables NW of Jourimain Island and the SE limit of the prohibited anchorage area (14.229), NE of Cape Bruin (46°11'N, 63°59'W).

Little Shemogue Harbour**14.301**

- 1 **General information.** Little Shemogue Harbour (46°10'N, 64°04'W), entered between Shemogue Head and Cadman Point, ¾ miles E, is completely filled with drying

flats, except for a narrow and intricate channel over shifting bars of sand, which is marked by buoys. The harbour is only suitable for small craft.

- 2 **Local knowledge** is required.

Directions. The harbour is approached from N, passing close to Little Shemogue XE Light-buoy (safe water), moored about 2½ miles ENE of Shemogue Head.

Caution. Due to the existence of oyster beds in the harbour, mariners are advised to navigate with care.

Anchorage. There is good anchorage off the entrance to the harbour, in depths of 9 to 11 m (30 to 36 ft), sand.

- 3 **Berth.** A L-shaped public pier, 90 m long with an outer face 77 m long and a depth of 2.1 m alongside its head, is situated on the E shore, 1.4 miles SW of Cadman Point. A derrick stands at the outer end of the pier, and a boat slip is located at the inner end, on the S side. A light is exhibited from the outer end of the breakwater.

Small craft**Botsford****14.302**

- 1 **General information.** A curving breakwater, 232 m long, at Botsford (46°10'N, 63°56'W), affords shelter for small craft. A light (14.287) is exhibited from the outer end of the breakwater.

Berth. The inner end of the breakwater has a berth, 40 m long, on its E face, with a depth alongside of 0.3 m. The berth is equipped with a derrick.

- 2 **Caution.** Botsford lies within the prohibited anchorage area due to the presence of submarine cables. For details see 14.230.

Shemogue Harbour**14.303**

- 1 Shemogue Harbour (46°11'N, 64°08'W), entered W of Shemogue Head, is mostly filled with drying mud-flats, with a narrow buoyed channel leading to a boat anchorage. The channel is very shallow in places.

Petit-Cap**14.304**

- 1 **General information.** At the village of Petit-Cap (Little Cape) (46°12'N, 64°10'W) a breakwater, 253 m long, extends ENE, then ESE, from the shore. At the outer end, two arms extending SW, enclose a basin with depths of about 1.5 m (5 ft). The outer arm is 57 m long.

- 2 Lights (square framework towers) are exhibited from the heads of the breakwaters.

Facilities: a 10-tonne crane stands on the inner breakwater; two boat slips.

NORTHUMBERLAND STRAIT — NORTHERN SECTION

GENERAL INFORMATION

Chart 4765, Canadian Chart 4905 (see 1.32)

Area covered**14.305**

- 1 The northern part of Northumberland Strait comprises the area between a line joining Cape Egmont (46°24'N, 64°08'W) to Fagan Point (46°14'N, 64°14'W) in the S and from Pointe Escuminac (47°04'N, 64°48'W) to North Cape Reef (47°07'N, 63°58'W), 34 miles E, in the N.

It includes Shediac and Buctouche Harbours.

- 2 The section is arranged as follows:
Cape Egmont to Richibucto Cape (14.306).
Richibucto Cape to Pointe Escuminac (14.350).
Richibucto Cape to North Cape Reef (14.370).

CAPE EGMONT TO RICHIBUCTO CAPE**General information****Route****14.306**

- 1 From a position in mid-channel SW of Cape Egmont, (46°24'N, 64°08'W) the route leads NW in deep water to a

position in mid-channel E of Richibucto Cape (46°40'N, 64°43'W) and NW of West Point (46°37'N, 64°23'W).

Topography

14.307

- 1 **South-west shore.** The coast of New Brunswick between Fagan Point (46°14'N, 64°14'W) and Richibucto Cape, 33 miles NW, is indented with a succession of shallow harbours.

North-east shore. Egmont Bay, a large open bight, occupies the coast between Cape Egmont and West Point, 17 miles NW.

Depths

14.308

- 1 The coastal bank, with depths of less than 11 m (36 ft), extends halfway across the strait in places, and depths of less than 5.5 m (18 ft) extend 2½ miles offshore in places. Several detached shoals, with depths of less than 5.5 m (18 ft), lie up to 6 miles off the New Brunswick coast.

Between Cape Egmont and Egmont Bank (4¼ miles WSW, there are depths of 12 m to 15 m (40 to 50 ft). Deeper water is found W of Egmont Bank.

Tidal streams

14.309

- 1 The rate and direction of the tidal streams in the vicinity of West Reef (46°41'N, 64°29'W) are very irregular. In the fairway fairly close W of the reef, the tidal stream sometimes attains a rate of 2¼ kn, the out-going stream setting N, and the in-going stream setting S; a heavy sea is caused when the wind is against the tidal stream.

Principal marks

14.310

- 1 **Landmarks:**

Conspicuous radio tower, elevation 69 m (227 ft) red lights (46°27'·7N, 64°03'·2W) 5 miles NE of Cape Egmont.

West Point Lighthouse (white square tower, black bands, 20 m in height) (46°37'N, 64°23'W), on the beach.

The twin domed towers and black roof of the church at Saint Jacques, 5 miles N of Cape Egmont, are conspicuous, but not charted.

- 2 **Major light:**

Richibucto (Cape) Head Light (white tower, 10 m in height) (46°40'N, 64°43'W).

Directions

(continued from 14.287)

14.311

- 1 From a position in mid-channel SW of Cape Egmont (46°24'N, 64°08'W) the track leads NW, passing, (with positions given from Cape Egmont):

Clear of Egmont Bank (4¼ miles WSW), a narrow ridge of fine red sand which lies in mid-channel, WSW of Cape Egmont, depending on draught, and:

Clear of shoal ground (8 miles SW) with a least depth of 5.2 m (17 ft), over it, thence:

- 2 Clear of a shoal patch (8½ miles WSW) with a depth of 9.4 m (31 ft) over it, about 5 miles ENE of Grande Digue Bank, thence:

NE of shoal ground and shoal patches with depths of less than 11 m (36 ft) extending NE from Dune de Buctouche (46°28'N, 64°37'W) on the SW side, and:

SW of the outer edge of shoal ground, with similar depths, filling most of Egmont Bay, thence:

- 3 NE of a patch, with a depth of 4.6 m (15 ft) over it (19 miles WNW) lying 4½ miles NNE of the S end of Dune de Buctouche, marked on its E side by X17 Light-buoy (port hand), thence:

SW of West Spit, (19 miles NW) sand over sandstone, which extends 3 miles NW from West Point sand-hills 3.7 m high, thence:

- 4 SW of West Reef (about 22 miles NNW), steep-to in places. In thick weather it is advisable to follow the 18 m (60 ft) depth contour of the bank extending from the W shore of the strait. The narrow passage between West Reef and West Spit should not be attempted, as the depths are irregular and the tidal streams (14.309) strong, with heavy seas at times, thence:

- 5 To a position in mid-channel E of Richibucto Cape and NW of West Point Light.

14.312

- 1 **Useful marks:**

Bas-Cap-Pelé Approach Light (red and white rectangle on framework tower, 7 m in height) (46°14'·1N, 64°15'·8W), on the breakwater.

Cape Bald Lighthouse (framework tower, 8 m in height) (46°13'·9N, 64°17'·9W), at L'Aboiteau.

Cap de Caissie (Caisse) Light (square tower, 14 m in height) (46°19'·2N, 64°30'·8W).

Buctouche Bar Light (square tower, 11 m in height) (46°28'N, 64°37'W).

(Directions continue at 14.356 and 14.374)

Shediac Harbour

Canadian Chart 4909 plan of Cocagne and Shediac (see 1.32)

General information

14.313

- 1 **Position.** Shediac Harbour (46°14'N, 64°32'W) lies in the SW part of Shediac Bay; the bay is entered between Pointe aux Bouleaux (46°14'N, 64°25'W) and Cap de Caissie, 6 miles NW.

Function. Shediac Harbour is the best harbour on this part of the coast, providing berths for vessels of shallow or medium draught.

- 2 There is ample accommodation for small craft in the harbour, but it is encumbered by a number of ballast heaps.

The town of Shediac is situated in the SW corner of the harbour and Scoudouc River flows into the harbour W of the town. The river is spanned by a bridge across its mouth.

Shediac River flows into the bay W of the N end of Shediac Island, with a road bridge close inside its mouth.

- 3 **Approach and entry.** The harbour is approached over the shoal ground of Shediac Bay, through three reaches of a buoyed channel.

Limiting conditions

14.314

- 1 **Controlling depth.** The least depth in the fairway of the entrance channel is 3.8 m (12 ft).

Shediac Bay is generally shallow, with depths of less than 5.5 m (18 ft) over most of its area. Shediac Island occupies much of the bay, and passage W of it is very shallow, requiring local knowledge.

Vertical clearance. A bridge with a vertical clearance of 2.4 m (8 ft) spans River Scoudouc from Shediac to Chapman Corner. A bridge with a vertical clearance of

1.5 m (5 ft) spans Shediac River between Shediac Bridge and Indian Point.

- 2 **Deepest and longest berth.** Pointe-du-Chêne (14.321). **Tidal levels.** Mean spring range about 0.7 m; mean neap range about 0.1 m. See *Admiralty Tide Tables, Volume 2* for details.

- 3 **Ice.** Shediac Harbour is generally completely closed by ice from the first week in December to early April.

Local weather. NE gales, which are common in the autumn, bring a swell into the harbour near HW, making the deeper areas unsafe.

Arrival information

14.315

- 1 **Notice of ETA required.** ETA at the pilot station should be reported to the vessels agents 5 days, 72, 48 and 24 hours in advance, using UTC. The ETA should be confirmed or corrected 4 hours prior to arrival. The master of any vessel that is to depart or move must request a pilot 4 hours before the ETD.

- 2 **Pilotage** is compulsory. The pilot boarding position is in position 46°17'N, 64°25'W, as indicated on the chart.

Local knowledge is essential.

Harbour

14.316

- 1 **General layout.** The main port facilities are at a jetty projecting WNW from the village of Pointe-du-Chêne (46°14'N, 64°31'W), and the anchorage areas lie NNE and SW of the jetty.

Directions for entering harbour

14.317

- 1 **Caution.** Light-beacons, beacons and buoys may be moved to suit changing conditions in the channels.

From the vicinity of the pilot boarding position 46°17'N, 64°25'W, the track leads W, passing, (with positions given from the front beacon (46°15'3N, 64°32'1W)):

N of Medea Rock (2½ miles ENE), marked by XM Buoy (N Cardinal) (Canadian Chart 4905), thence:

To the vicinity of XN12 Light-buoy (1.1 miles E).

- 2 **Pointe du Chêne Leading Lights:**

Front light (white square tower, red stripe, 8 m in height) (46°14'4N, 64°30'7W) on the N side of Pointe du Chêne.

Rear light (similar tower, 12 m in height) (148 m from front light).

- 3 From the vicinity of XN Light-buoy (safe water) the alignment (189¼°) of these lights leads through the N reach of the buoyed channel, passing, (with positions given from the front leading light):

Close to XN Light-buoy (safe water) (2½ miles NNE), thence:

1½ cables W of Zephyr Rock (1½ miles NNE).

- 4 Thence the track continues to a position close SE of XN12 Light-buoy (starboard hand) (1 mile NNE).

14.318

- 1 **Leading beacons.** From a position close SE of XN12 Light-buoy (starboard hand), the alignment (263½°) of beacons, (red) situated close N of Snake Point, the S end of Shediac Island, leads to the end of the leading line, S of XN18 Light-buoy (starboard hand).

- 2 **Shediac Harbour Leading Lights:**

Front light (white square, red stripe, on red framework tower, 5 m in height) (46°14'5N, 64°31'7W) on the NW corner of the public wharf at Pointe du Chêne village.

Rear light (similar construction and tower, 9 m in height) (117 m from front light).

- 3 From a position S of XN18 Light-buoy, the alignment (194½°) of these lights leads through the buoyed channel, only 1 cable wide, off the NW edge of Chêne Bank. The track then leads to the vicinity of the public wharf, passing, (positions given from the front leading light):

WNW of Chêne Bank, (6 cables NNE), and:

ESE of the drying bank and shoal ground (1 mile NNW) with depths of less than 3.7 m (12 ft) extending about 3 cables E from the SE side of Shediac Island.

- 4 **Eastern approach channel.** The alignment (263½°) of the leading beacons (14.318) near the S end of Shediac Island, indicates a channel suitable for small craft approaching from the E, passing, (positions given from the front beacon (46°15'3N, 64°32'1W)):

S of Medea Rock (2½ miles ENE), marked by XM Buoy (N Cardinal) (Canadian Chart 4905), thence:

S of Zephyr Rock (14.317) (1½ miles ENE), thence:

Close S of XN12 Light-buoy (14.317) (1.1 miles E) and into the middle reach of the entrance channel, already described.

14.319

- 1 **Useful marks:**

Pointe du Chêne Light (framework tower, 3 m in height) (46°14'5N, 64°31'7W) on a breakwater head, close E of the public wharf.

Prominent church (cupola) (46°13'1N, 64°32'2W) in Shediac town.

Anchorage berth

14.320

- 1 **Pointe du Chêne.** The recommended anchorage position is in the entrance channel, NW of the public wharf in approximate position 46°14'5N, 36°32'0W.

Alongside berth

14.321

- 1 **Pointe-du-Chêne.** A pier extends 2½ cables WNW from Pointe-du-Chêne, leading to the S end of a public wharf, with a length of 150 m; depths alongside W face 3.3 to 5.2 m (1983); depths alongside S face 3.8 m for outer 94 m. The wharf lies parallel with the entrance channel.

Southwest Pier branches off the main pier, SE of the public wharf. Submerged and above water ruins extend more than 30 m off the outer end of the pier.

Port services

14.322

- 1 **Repairs.** A boat slip is situated on the W side of the basin at Pointe-du-Chêne.

Supplies: fresh water piped to the wharves; fresh provisions.

Small craft

14.323

- 1 **Pointe-du-Chêne.** A boat basin, (46°14'4N, 64°31'7W) with a marina with berthing space for about 150 small craft at its E end is enclosed by the public wharf and by boulder breakwaters on the N side. It has depths of 0.8 to 2.5 m (3 to 8 ft). The basin is entered through a narrow gap between the breakwaters. In 1988, there were charted depths of 0.3 to 2.2 m (1 to 7 ft) in the entrance channel.

- 2 **Shediac.** A public pier (46°13'7N, 64°32'7W) extends about 60 m NW from the shore at Shediac, 1 mile SW of Pointe-du-Chêne. There is a depth of 1.5 m (5 ft) (1987) in the approach channel to the wharf and a depth of 0.9 m (3 ft) on its W side.

A boat basin is situated adjacent to and NE of the public wharf, protected by a L-shaped boulder breakwater and a ships hull grounded close off the outer end of the public wharf. A marina is operated in the basin.

3 At the head of the harbour, there is a good anchorage for small craft in depths of 1.5 to 3 m (5 to 10 ft) in approximate position 46°14'N, 64°33'W.

4 A public wharf, with a depth of 2.1 m alongside the channel side, is situated close E of the road bridge (46°16'N, 64°34'W) that crosses Shediac River. The narrow channel leading to the wharf is staked with bushes; similar stakes mark oyster beds in the vicinity. The channel is suitable only for small craft; local knowledge is necessary. A marina is located adjacent to the public wharf.

5 **Scoudouc River anchorage.** A channel with a least depth of 0.6 m (2 ft) leads to an anchorage for small craft above the bridge at the mouth of Scoudouc River.

Egmont Bay

General information

14.324

1 Egmont Bay, an open bight between Cape Egmont (46°24'N, 64°08'W) (14.305) and West Point (14.306), 17 miles NW, affords good anchorage for vessels in offshore winds, but it is not advisable to approach inside the 11 m (36 ft) depth contour, due to shoal ground.

Several small harbours for small craft only are located around the shores of the bay.

Useful mark:

The church at Saint Jacques (14.310).

Small craft

14.325

1 **Fishing Cove** (46°25'N, 64°08'W) 1 mile N of Cape Egmont, has a boat harbour with depths of 0.6 to 1.2 m (2 to 4 ft), enclosed within breakwaters; the W breakwater extends S from the wharf.

From a position SW of the harbour, the track leads into the boat harbour between the breakwater heads.

The public wharf is 160 m long.

14.326

1 **Canoe Gully** (46°27'N, 64°08'W) is a narrow, shallow channel between sand-bars, which leads to a wharf and a boat basin at the mouth of Haldimand Creek, where there is a road bridge.

The depth in Canoe Gully was reported to be 0.3 m (1 ft) in 1971, but there may be less water, due to siltation. DH2 Light-buoy (starboard hand) is moored off the entrance to Canoe Gully.

2 **Canoe Gully Outer Leading Lights.** From a position WNW of the entrance, the alignment (106°) of the following lights leads through the first reach.

Front light (white rectangle, red stripe, on framework tower, 5 m in height) (46°26'9N, 64°06'4W).

Rear light (similar construction and tower, 8 m in height (176 m from front light)).

3 **Canoe Gully Inner Leading Lights.** The alignment (144°) of the following lights leads through the second reach.

Front light (white rectangle, red stripe, on framework tower, 4 m in height) (46°26'5N, 64°06'6W).

Rear light (similar construction and tower) (186 m from front light).

4 Thence the track leads through the recommended channel in the white sector (164°–166°) of Egmont Bay Wharf Direction Light (framework tower, 4 m in height

(46°26'4N, 64°06'8W), situated 1½ cables W of the front light of Canoe Gully Inner Leading Lights.

5 Egmont Bay pier, 116 m in length, with a cannery on it, is situated on the E side of the river, just below the bridge. This pier, together with another L-shaped wharf form a boat basin with depths of 0.3 to 1.2 m (1 to 4 ft).

14.327

1 **Enmore and Percival Rivers.** The common mouth of Enmore River and Percival River (46°34'N, 64°06'W) lies at the head of Egmont Bay. The rivers flow between low marshy banks, with depths of 0.9 to 2.1 m (3 to 7 ft) in the buoyed or staked channels, and are tidal for a distance of about 5 miles upstream.

2 From a position close to DJ Light-buoy (safe water) moored about 2 miles NNW of Rocky Point (46°31'N, 64°07'W) the rivers are approached through Egmont Bay. DJ12 Light-Buoy (starboard hand) lies off the mouth of Enmore River, 2½ miles NNE of Rocky Point.

Very narrow and intricate channels, marked by buoys or stakes, lead through partly drying banks of sand or clay, with oyster beds, which extend 1½ miles from the shore.

3 There is a public wharf, (46°33'0N, 64°05'2W) with a depth of 0.6 m alongside, in Enmore River.

14.328

1 **Brae River and Wolfe Inlet.** The entrances of Brae River (46°37'N, 64°12'W) and Wolfe Inlet, 3½ miles W, on the N shore of Egmont Bay, are obstructed by drying sand-bars. Brae Harbour, at the mouth of Brae River, is protected by Brae Island, a narrow ridge of sand.

14.329

1 **West Point.** A L-shaped breakwater (46°37'N, 64°22'W), 5 cables E of West Point (14.306), and a pier E of it form a boat harbour with a depth of 1.2 m (4 ft).

West Point Leading Lights. The alignment (007°) of the following lights leads to the buoyed channel and the harbour entrance:

Front light (white rectangle, red stripe, on framework tower, 5 m in height) (46°37'1N, 64°22'3W) on the head of the E breakwater.

Rear light (similar construction and tower, 9 m in height) (269 m from front light).

2 There is good anchorage, in N and E winds, under West Point, in depths of 7 m, sand.

Buctouche Harbour

Chart 4765, Canadian Charts 4905, 4909 plan of Buctouche Harbour (see 1.32)

General information

14.330

1 **Position.** 46°28'N, 64°39'W, 12 miles S of Richibucto Cape.

Function. Timber products are shipped from the small port of Buctouche within Buctouche Harbour. Buctouche River flows into the W side of the harbour, with the town of Buctouche at its entrance on the N shore.

2 **Approach and entry.** Buctouche Harbour is approached across Buctouche Outer Bar (46°26'N, 64°34'W), and through Buctouche Road, about 1 mile SE of Buctouche Bar Light (46°28'N, 64°37'W) (14.312). The harbour is entered through a narrow and shallow buoyed channel.

Local knowledge is essential.

Limiting conditions

14.331

1 **Controlling depths.** The channel to Buctouche is constantly silting. The port authorities should be contacted for the latest information.

The entrance is obstructed by a sand-bar, with depths of less than 3.7 m (12 ft) over it, which extends E from Crossman Point Wharf at Saint-Thomas-de-Kent, (14.339) about 1¼ miles SW of Buctouche Bar Light to the outer end of Buctouche Bar.

- 2 **Vertical clearance.** A road bridge with a vertical clearance of 2.3 m (8 ft) crosses the river mouth at Buctouche. The river is navigable as far as the railway bridge, about 5 cables above the road bridge.

Deepest and longest berth. Public wharf at Buctouche (14.337).

Ice forms in early December, and breaks up in late April.

Arrival information

14.332

- 1 **Notice of ETA.** When a pilot is required, ETA at the pilot boarding position should be reported to Pilots Buctouche at least 12 hours in advance, and confirmed or corrected 4 hours prior to arrival, using UTC.

- 2 **Outer anchorage.** There is anchorage in Buctouche Road in depths of about 7.3 m (24 ft), with Buctouche Bar Light bearing 327°, distant 9 cables.

The roadstead derives some shelter from Buctouche Outer Bar; it is, however, a very exposed anchorage.

Depths of up to 7 m (23 ft) are found farther S, abreast Cormierville, (46°25'N, 64°37'W) (14.347), and W of Buctouche Outer Bar.

- 3 **Pilotage** is available but is not compulsory; the pilot boarding position is 46°31'5N, 64°32'0W, as indicated on the charts (BA Chart 4765 and Canadian Chart 4905). It is not advisable to enter Buctouche Harbour without a pilot.

Harbour

14.333

- 1 Buctouche Harbour is enclosed to the NE by Buctouche Bar (Dune de Buctouche), a partially grassed, narrow isthmus of sand and clay. This isthmus is subject to continual change due to the action of the wind and the sea.

Much of the harbour is filled with flats of mud and eelgrass which nearly dry at low water.

Directions for entering harbour

14.334

- 1 **Caution.** The leading lights, buoys and stakes may be moved to suit the best channel.

From the vicinity of the pilot boarding position 46°31'5N, 64°32'0W the track leads SSW for about 5 miles to a position about 2 miles ESE of Buctouche Bar Light, on the S end of the isthmus; the entrance channel, its inner part marked by buoys, leads WNW, passing, (with positions given from Buctouche Bar Light (46°28'N, 64°37'W)):

- 2 Over Buctouche Outer Bar, (2 miles ESE) in depths of about 5.2 m (17 ft), thence:
Close S of North Banks, (7 cables WSW) the N part of the sand-bar at the entrance, thence:
Close SW of Mussel Bank, (1 mile WSW) a detached shoal, lying just within the bar.

- 3 **Indian Point (Pointe à Jérôme) Leading Lights:**

Front light (white tower, 6 m in height) (46°29'2N, 64°40'8W), on the NW shore of the harbour.

Rear light (white rectangle, red stripe on red framework tower, 14 m in height, with enclosed top) (382 m from front light).

- 4 From a position close SW of Mussel Bank, the alignment (317¾°) of these lights leads through the second reach of the entrance channel, passing, (with positions given from the front light (46°29'2N, 64°40'8W)):

Close SW of Oyster Shoal (1.2 miles SE).

- 5 The channel turns to the W at a point about 8 cables from the front leading light, and leads through shoals in the entrance to Buctouche River to the berths of Buctouche. This channel is marked by stakes.

14.335

- 1 **Useful marks:**

Saint-Thomas-de-Kent Light (square framework tower, 3 m in height (46°26'9N, 64°38'2W) on public wharf at Crossman Point.

Dixon Point Light (white square tower, 8 m in height) (46°27'4N, 64°39'0W) 9 cables SE of Dixon Point.

Anchorage berth

14.336

- 1 Anchorage is available NW of Mussel Bank, in depths of 5 to 6 m (16 to 19 ft), mud. A vessel may lie here safely, but local knowledge is required.

Alongside berths

14.337

- 1 The public wharf at Buctouche, (46°28'3N, 64°43'1W) close below the road bridge, has a length of 67 m and a draught alongside of 6.7 m. The wharf has a deck elevation of 1.2 m. There are other smaller berths at Crossman Point and Irving Oil (3 cables below the public wharf).

A wharf, in disrepair, 232 m long, is situated immediately below the public wharf.

Port services

14.338

- 1 **Facilities.** Hospital at Sainte-Anne-de-Kent, about 9 km from Buctouche; boat ramp.

Supplies: diesel oil in limited quantities at Buctouche; fresh water piped to the wharf; small amounts of provisions.

Small craft

14.339

- 1 The public wharf at Saint-Thomas-de-Kent (46°26'9N, 64°38'2W) is 108 m long and has depths alongside of 0.9 m on the outer face and 0.3 m on the inner face.

Small craft that can pass under the railway bridge 5 cables above Buctouche can navigate Buctouche River for about 6 miles farther upstream.

Small craft harbours on south-west side of Northumberland Strait

Cap Pelé

14.340

- 1 **General information.** A breakwater from which a light is exhibited, (14.312) extends 175 m from the shore at Cap Pelé (46°14'N, 64°16'W). The small village of Bas-Cap-Pelé is situated near the cape, and the main village of Cap-Pelé, is located 1½ miles SW.

- 2 **Useful mark:**

Bas-Cap-Pelé Wharf Light (framework tower, 5 m in height) (46°14'2N, 64°15'7W).

Boat basin. The L-end at the breakwater head, with a finger wharf close S, forms a sheltered boat basin, with depths of about 1.4 m (4½ ft). A boat slip is situated at the inner end of the breakwater.

L'Aboiteau**14.341**

- 1 **General information.** At L'Aboiteau (Harshmans Brook) (46°14'N, 64°18'W), 1½ miles W of Cap Pelé, two training walls protect the entrance to a channel, 11 m wide and 1.5 m (5 ft) deep in 1990, leading into a small boat harbour. The depth in the boat harbour is 1.2 m (4 ft). The E and W breakwaters are 85 and 42 m long, respectively. The S end of the E breakwater joins a protection wall which follows the shore to the E.

- 2 **Useful mark:**

Cape Bald Lighthouse (46°13'9N, 64°17'9W) (14.312).

Berth. A public pier, 68 m long, with a depth of 1.2 m alongside, projects from the shore E of the harbour entrance.

Kouchibouguet River**14.342**

- 1 **General information.** Kouchibouguet River (Kouchibouguac on Canadian Chart 4905) (46°13'N, 64°22'W) flows into a sandy bay about 4½ miles W of Cap Pelé. The river can only be entered by small craft at HW.

Berths. A pier, (46°12'9N, 64°21'9W), 76 m long, with a depth of 1.5 m alongside, is situated on the E side of the river, beside the bridge about 5 cables upstream.

Robichaud**14.343**

- 1 **General information.** At the village of Robichaud (46°13'N, 64°23'W), situated between the mouths of Kouchibouguet River on the E side, and Bouchagan River (Aboujagane) on the W side, a L-shaped public pier projects about 1 cable from the shore.

- 2 A light (framework tower, 5 m in height) (46°13'5N, 64°23'0W) is exhibited from the outer end of the public wharf.

Berth. The pierhead is 105 m long, with a depth of 1.3 m alongside its inner face.

Cape Bimet**14.344**

- 1 **General information.** At Cape Bimet (46°14'N, 64°28'W) a L-shaped pier projects about 1 cable N from the coast.

Berth. There are depths of 1.2 m alongside the pierhead. The pier is said to be in disrepair.

Cap de Caissie**14.345**

- 1 **General information.** A boat harbour (46°19'N, 64°31'W) is situated about 4 cables S of Cap de Caissie Light (14.312).

The harbour is formed by two breakwaters each about 1 cable in length, with an opening 15 m wide. The depth over the greater part of the basin is 1.2 m (4 ft). The elevation of the breakwater is 1.5 m (5 ft). Depths alongside the inside faces of the N and S wharves are 0.3 to 1.5 m. A light (framework tower, 5 m in height) (46°18'8N, 64°30'6W) is exhibited from the head of the N breakwater.

- 2 **Facilities.** A 9-tonne derrick stands on the N breakwater; a boat slip, 6.7 m wide, is located near the N breakwater.

Canadian Chart 4909 plan of Cocagne and Shediac (see 1.32)

Cocagne Harbour**14.346**

- 1 **General information.** Cocagne Harbour (46°21'N, 64°35'W) is very shallow and suitable only for small craft.

The harbour, about 5 miles long N & S, is sheltered by Cocagne Island (18 m high; wooded) and a number of sand-bars. The N end of Cocagne Island is joined to the mainland by ridges of sand, which partly dry.

- 2 The entrance channel, between Renouard Point (Pointe aux Renards), reddish sandstone cliffs, 15 m (50 ft) high, 3½ miles NNW of Cap de Caissie Light (14.312) and Paquet Point, the SE extremity of Cocagne Island, about 8 cables NW, is obstructed by a bar of sand, gravel and sandstone. The depth in the fairway of the channel over the bar is 2.4 m (8 ft), but the channel is narrow.

- 3 **Local knowledge** and good weather are essential for safe entry.

- 4 **Directions.** The entrance channel and the channel across Cocagne Harbour are marked by buoys in places. From the vicinity of XT2 Light-buoy (starboard hand), moored close to the alignment of the leading lights and about 1½ miles NE of the S end of Cocagne Island, the alignment (219½°) of the following leading lights on the S side of the mouth of Cocagne River leads through the entrance to the mouth of the river:

Front light (white rectangle, red stripe, on tower, 8 m in height) (46°20'N, 64°37'W), E of the bridge.

Rear light (similar construction on framework tower, 13 m in height) (245 m from front light).

Cap-de-Cocagne. A L-shaped pier with a face 117 m long is situated at the village of Cap-de-Cocagne (46°21'N, 64°35'W). A small basin on the S side of the pier has depths of 0.6 to 1.6 m (2 to 5 ft). A light is exhibited from the outer end of the wharf.

- 5 **Cocagne River** at the head of the harbour is navigable by small craft for several miles. A public jetty, with depths of 2 to 4 m alongside, extends from the N shore, close E of the bridge (vertical clearance 2.0 m (7 ft)) across the mouth of the river. Cocagne Yacht Club is located on the N shore, about 3 cables above the bridge.

About 7 cables below the bridge, a L-shaped breakwater protects a marina extending 145 m from the shore; the head is 192 m long.

- 6 **Côte d'Or.** At the village of Côte d'Or (46°21'N, 64°37'W), 5 cables N of Cocagne River, there is a public pier, with an outer face 12 m long and a depth of 1.2 m alongside.

Canadian Chart 4909 plan of Buctouche Harbour (see 1.32)

Cormierville**14.347**

- 1 **General information.** At the village of Cormierville (46°25'N, 64°37'W), on the mainland 1 mile NW of Cocagne Island, there is a causeway about 150 m long, from which a T-shaped pier extends a further 53 m.

Directions. From a position about 1 mile ENE of the harbour, a channel with a depth of 0.6 m (2 ft), marked by stakes, leads to the pier.

- 2 A light (framework tower, 5 m in height) is exhibited from the head of the wharf.

Berth. The berth, (46°24'5N, 64°36'9W) 72 m long, with depths of 0.9 to 1.4 m alongside, is on the outer face of the pier. A small finger pier lies close inside the outer face.

- 3 A small boat slip is located on the S side of the pier; a derrick stands on the pier.

Chart 4765, Canadian Chart 4905 (see 1.32)

Saint-Edouard-de-Kent**14.348**

- 1 At the village of Saint-Edouard-de-Kent (46°33'N, 64°42'W) a L-shaped breakwater encloses a boat basin,

with a depth of 1.2 m (4 ft). A light (framework tower, 4 m in height) is exhibited from the head of the breakwater.

Chockpish River

14.349

- 1 **General information.** Chockpish River (46°35'N, 64°43'W) affords shelter for small craft in its shallow entrance.

Entrance. A narrow winding channel, depth 1.1 m (4 ft) leading into the river as far as a road bridge is protected by breakwaters on both sides. A light (framework tower, 4 m in height) is exhibited from the N breakwater.

- 2 **Directions.** From a position E of the entrance, the alignment (271°) of the following leading lights leads towards the entrance:

Front light (square framework tower, 4 m in height) (46°34'8N, 64°43'4W) on the S shore.

Rear light (similar construction, 7 m in height) (110 m from front light).

- 3 **Berth.** A small wharf, 30 m long, with a depth of 0.9 m alongside, lies along the S bank below the bridge.

RICHIBUCTO CAPE TO POINTE ESCUMINAC

General information

Chart 4765, Canadian Chart 4906 (see 1.32)

Route

14.350

- 1 From a position in mid-channel E of Richibucto Cape (46°40'N, 64°43'W) and about 5½ miles NW of West Point (46°37'N, 64°23'W), the route leads N for about 25 miles to a position about 5 miles NE of Pointe Escuminac (47°04'N, 64°48'W).

On this coast there are several ponds and shallow inlets, where small craft can find shelter, but the shallow channels into them shift in heavy weather, and they are sometimes completely blocked. Richibucto Harbour is also described.

Topography

14.351

- 1 The coast is low, with sand-bars and beaches enclosing extensive shallow lagoons.

The shore between the mouth of Richibucto River (46°43'N, 64°48'W) and Pointe de Pruche (Pointe Sapin), 16 miles N, is pierced by several shallow passages in the sand ridges, leading into lagoons, navigable by small craft at high water.

The coast between Pointe de Pruche and Pointe Escuminac is low.

Depths

14.352

- 1 Between Richibucto Cape and Pointe de Pruche, 18½ miles N, the water is shallow and foul for a considerable distance offshore.

Kouchibouguac Bay, between the mouth of Richibucto River (46°43'N, 64°48'W) and Pointe de Pruche, 16 miles N, is shallow and foul for a considerable distance offshore.

- 2 Between Pointe de Pruche and Point Escuminac, 6 miles N, shallow water with depths of less than 9 m (30 ft) extend about 2½ to 3 miles offshore in places.

The coastal bank, with depths of less than 9.1 m (30 ft) over it, extends about 2¾ miles off the bay, in places. Foul ground, with depths of 5.5 m (18 ft) near its outer edge, extends more than 2 miles NE from Little Gully (46°51'N, 64°55'W).

Swell

14.353

- 1 NE gales send a heavy swell into Kouchibouguac Bay.

Principal marks

14.354

- 1 **Landmark:**

Pointe Escuminac Lighthouse (white 6-sided tower, red upper portion, 22 m in height) (47°04'N, 64°48'W); the lighthouse is conspicuous against the dark, wooded background of the point.

- 2 **Major lights:**

Richibucto Head Light (46°40'N, 64°43'W) (14.310).
Pointe Escuminac Light — as above.

Lower Escuminac Middle Breakwater Head Light (square framework tower, 7 m in height) (47°05'N, 64°53'W).

Other navigational aid

14.355

- 1 ODAS Buoy 44150 (46°51'0N, 64°38'8'W).

Directions

(continued from 14.312)

14.356

- 1 From a position in mid-channel E of Richibucto Cape (46°40'N, 64°43'W) and about 5½ miles NW of West Point Light (46°37'N, 64°23'W) the track leads N, passing, (positions given from Pointe Escuminac (47°04'N, 64°48'W)):

Clear of West Reef (about 26 miles SSE), (14.311), thence:

E of Sapin Ledge (5¼ miles SSE), marked by X25 Light-buoy (port hand), moored about 5 cables E, thence:

E of Escuminac Reef, (extending about 1½ miles E).

- 2 Thence the track leads to the pilot position 47°07'5N, 64°47'0W about 3 miles N of Pointe Escuminac. Pointe Escuminac is a low, wooded, sandstone cliff.

- 3 **Useful mark:**

Howard Cove Light (white tower, 6 m in height) (46°44'N, 64°23'W).

(Directions continue for waters NW of Prince Edward Island at 15.15 and for waters W of Prince Edward Island at 15.16)

Richibucto Harbour

Canadian Chart 4909 plan of Richibucto Harbour (see 1.32)

General information

14.357

- 1 **Position and function.** Richibucto Harbour (46°41'N, 64°51'W) has wharfage serving the lumber and pulpwood industries. The town of Richibucto is situated on the W side of the river, 3½ miles from the entrance.

Approach and entry. The harbour is approached through a narrow channel over a sand-bar, and entered through Richibucto Gully (46°43'N, 64°48'W).

Port Authority. Port Authority of Richibucto, PO Box 1270, Department of Transport, Charlottetown, Prince Edward Island, C1A 7MD, Canada.

Limiting conditions

14.358

- 1 **Controlling depth.** The entrance channel has depths of about 2.7 m (9 ft), but is liable to shift with the action of gales and ice.

Vertical clearance. A road bridge with a vertical clearance of 5.5 m spans the river from Jardineville on the

SW shore to Pratts Point on the NW shore. A road bridge with a vertical clearance of 2.4 m (8 ft) spans the river at Rexton, 1¼ miles above Richibucto town.

- 2 **Deepest and longest berth.** Public wharf (14.362).

Ice forms about 1st December and clears about mid-April.

Arrival information

14.359

- 1 **Outer anchorage.** Anchorage may be obtained off the bar, in depths of from 11 to 17 m (36 to 55 ft), sand, with good holding ground.

Pilotage is compulsory; the pilot boards about 1 mile outside the entrance.

Local knowledge is essential.

Harbour

14.360

- 1 **General layout.** Richibucto Harbour lies at the mouth of Richibucto River and is contained within two sandspits, North Richibucto Beach and South Richibucto Beach. Each beach is several miles in length, with sand-dunes 9 m (30 ft) high.

- 2 The harbour is a wide expanse of nearly drying mud and weeds, through which the river discharges to the sea. On the N side a shallow bay leads to lagoons lying within North Richibucto Beach; on the S side of the bay, Indian Island lies at the entrance to the shallow waters of Baie du Village.

- 3 On the NW side of Richibucto Harbour a narrow channel, marked by buoys and stakes, leads through Northwest Branch to Aldouane Lake and Aldouane River; the village of Little Aldouane (Petite-Aldouane) (46°43'N, 64°54'W) is situated on the S side of Aldouane Lake. (14.364).

Above Richibucto, the river is navigable for a considerable distance by vessels that can cross the bar.

- 4 **Oyster farms** are located in Aldouane Lake and in Baie du Village; mariners are advised to proceed with care in the vicinity of the farms.

Tidal streams. The rate of the tidal streams in Richibucto River is between 1½ to 2 kn.

Directions for entering harbour

14.361

- 1 **Caution.** The charted channel is marked by buoys (lateral) and may be moved to meet the changing conditions in Richibucto Channel.

- 2 From the vicinity of Q Light-buoy (safe water) (46°43'5N, 64°44'5W) moored about 2 miles ENE of the SE extremity of North Richibucto Dune, the entrance channel is approached from NE, passing between Q3 and Q4 Light-buoys (lateral), moored about 2 miles E of the river entrance.

- 3 The track then leads W for about 1¼ miles, passing: S of Q10 Light-buoy (starboard hand), thence: N of the W part of South Richibucto Beach, and: S of drying patches and rocks, awash, on Richibucto Bar, extending E from the SE extremity of North Richibucto Beach.

- 4 **North Richibucto Beach Inner Leading Lights** are situated on the SW extremity of the beach. The alignment (045½°), astern, of the following lights leads for about 1 mile through the buoyed channel in the NE part of Richibucto Harbour.

Front light (white rectangle with red stripe on framework tower, 7 m in height) (46°43'N, 64°48'W).

Rear light (similar construction and tower, 10 m in height) (239 m from front light).

- 5 **South Richibucto Beach Inner Leading Lights** are situated near the W end of the beach.

The alignment (065¾°), astern, of the following lights leads for about 7 cables through the buoyed channel in the SW part of Richibucto Harbour:

Front light (white trapezium, red stripe on framework tower, 5 m in height) (46°42'5N, 64°48'0W).

Rear light (similar construction, inverted and tower, 10 m in height) (296 m from front light).

- 6 **Richibucto Town Leading Lights** are situated on the W shore of the river. The alignment (227½°) of the following lights leads through the buoyed channel to Richibucto:

Front light (white rectangle, red stripe, on framework tower, 13 m in height) (46°40'8N, 64°51'8W).

Rear light (similar construction and tower, 19 m in height) (285 m from front light).

Berths

14.362

- 1 A public wharf (46°40'8N, 64°51'6W) 229 m in length, with a depth of 4.3 m to 6.3 m alongside in 1992, lies along the W side of the channel abreast the town.

Inside this wharf there is a boat basin with a depth of 0.7 to 2.1 m.

A fishermen's jetty known as Forbes Wharf extends E from the shore, close S of the public wharf; length of outer face 38 m; depth alongside N face 1.4 m; depth alongside S face 1.5 m; depth alongside outer face 3.8 m.

Port services

14.363

- 1 **Facilities.** 5 tonne derrick and boat slip on Forbes Wharf.

Supplies: limited provisions; fuel oil by road tanker at the wharves; freshwater is piped to Forbes wharf.

Communications: Moncton Airport, 80 km.

Rescue. A vessel is available for search and rescue during the fishing season.

Small craft

14.364

- 1 **Petite-Aldouane.** A public pier, with a L-end 87 m long, extends from the shore on the W side of Pointe de L'Église (Pointe Lec) (46°43'N, 64°52'W). The pier and a breakwater shelter a boat basin.

A marina operates within the basin. The entrance to the basin has a limiting depth of 1.2 m. There are several small finger jetties.

Small craft

Richibucto Cape

14.365

- 1 **Description.** At Richibucto Cape (46°40'N, 64°43'W) about 2 cables N of Richibucto Cape (Richibucto Head) Light (14.310) a boat basin is enclosed within breakwaters. A stone groyne extends 60 m from the NE corner of the breakwater.

Local knowledge is required.

- 2 **Harbour.** The harbour is divided into inner and outer parts by a pier extending about 60 m from the shore. Depths in the harbour are 1.3 to 1.8 m (4 to 6 ft).

Directions. The harbour is entered from SE, passing close inside the head of the outer breakwater from which a light (round mast, 3 m in height) is exhibited.

The entrance, 23 m wide, with a depth of 1.5 m (5 ft) is at the SE corner of the enclosing breakwaters.

- 3 **Caution.** Silting occurs in the harbour and its approaches.

Canadian Chart 4906 (see 1.32)

Kouchibouguacis River

14.366

- 1 **Description.** Kouchibouguacis River (46°47'N, 64°54'W) flows into Baie de Saint-Louis (Kouchibouguacis Lagoon).

The main entrance to Baie de Saint-Louis is Goulet de Terre-Noire (Blacklands Gully), 1¼ miles ESE of the river mouth, but the shallow buoyed channel is usable only by small craft. The depths over the bar and into the lagoon and river are variable, with less than 0.9 m (3 ft) in places.

Local knowledge is required.

- 2 **Directions.** From the vicinity of XX Light-buoy (safe water), moored about 1½ miles ESE of the entrance, a buoyed channel leads to the entrance.

At Cap-de-Saint-Louis, about 1½ miles up the Kouchibouguacis River, there is a small basin used by fishing and pleasure craft.

Kouchibouguac River

14.367

- 1 **Description.** Kouchibouguac River (46°50'N, 64°56'W) flows through an extensive, nearly drying lagoon, and enters the sea through sand-bars at Little Gully.

The sand-bar at the entrance usually has a depth of about 0.5 m (2 ft) over it, but it is liable to shift in E gales.

Local knowledge is essential, as the channel is narrow and intricate, with at least one submarine cable laid across it. No cables are shown on the chart.

- 2 **Directions.** Kouchibouguac (Little Gully) Direction Light (orange square on framework tower, 3 m in height) (46°50'.7N, 64°54'.9W) is situated on the N side of Little Gully.

The white sector (309°–311°) of the light leads in the channel, which is marked by buoys.

- 3 **Berths.** Public wharves are located in Kouchibouguac River as follows:

North side of river mouth: length of berth 24 m; depth alongside 1.2 m (reported).

South side of river, close below a road bridge: length of berth 78 m.

Portage River

14.368

- 1 Portage River (Rivière au Portage) flows into the sea about 5 miles SW of Pointe de Pruche (46°58'N, 64°49'W).

A channel, with a depth of 0.4 m (1½ ft), leads between training walls into a lagoon, where there is secure shelter for small craft.

Pointe-Sapin

14.369

- 1 **Description.** Pointe-Sapin village (46°58'N, 64°50'W) has a harbour for fishing boats. A church in the village is prominent.

Local knowledge is required.

Depths. The entrance channel and the basin have been dredged to a depth of 1.5 m (5 ft), but silting is continuous. In 1992 depths were significantly less than the dredged depth, averaging about 0.8 to 1.0 m for the majority of the basin.

- 2 **Harbour.** The basin, between two breakwaters, has an entrance 21 m wide; a detached breakwater, 168 m long, lies about 76 m S of the E breakwater.

Pointe-Sapin Leading Lights. The basin is entered on the alignment (003½°) of the following lights:

Front light (white rectangle, red stripe, on framework tower, 4 m in height) (46°57'.8N, 64°49'.8W) near the inner end of the E breakwater.

Rear light (white tower, red stripe, 5 m in height) (70 m from front light) on the shore.

- 3 **Useful marks:**

Pointe-Sapin Light (framework tower, 6 m in height) (46°57'.7N, 64°49'.8W) on the head of the E breakwater.

Outer breakwater light (framework tower, 7 m in height) (46°57'.6N, 64°49'.8W) on the SW end of the detached breakwater.

Berth. Marginal wharf with a length of 217 m is situated on the N side of the basin.

- 4 **Port facilities:** fish collection centre; boat slips; 9-tonne derrick adjacent to it.

RICHIBUCTO CAPE TO NORTH CAPE REEF

General information

Chart 4765, Canadian Chart 4906 (see 1.32)

Route

14.370

- 1 From a position in mid-channel E of Richibucto Cape (46°40'N, 64°43'W) and 5½ miles NW of West Point (46°37'N, 64°23'W), the route leads NNE for about 38 miles to a position N of North Cape Reef (47°07'N, 63°58'W).

Topography

14.371

- 1 The coast between Cape Wolfe (46°43'N, 64°24'W) and North Cape Reef, 30 miles NE consists of red clay and sandstone cliffs, with stretches of sandy beaches.

Depths

14.372

- 1 The coastal bank with depths of less than 11 m (36 ft), extends more than 2 miles offshore in places, and it is advisable to remain to seaward of the 18 m (60 ft) depth contour.

Principal marks

14.373

- 1 **Landmark:**

North Cape (North Point) Lighthouse (47°04'N, 64°00'W) (13.96).

Major lights:

Richibucto Head Light (46°40'.2N, 64°42'.7W) (14.310).

North Cape (North Point) Light — as above.

Directions

(continued from 14.312)

14.374

- 1 From a position in mid-channel E of Richibucto Cape (46°40'N, 64°43'W) and about 5½ miles NW of West Point (46°37'N, 64°23'W), the track leads NE, passing, (with positions from West Point):

Clear of West Reef (extending to 7 miles NW), (14.311), thence:

NW of Miminegash Reef, (17½ miles NNE) a ledge of rocks that nearly dries lying parallel to the coast, about 1 mile SW of Cape Gage (46°54'N, 64°14'W), thence:

- 2 N of North Cape Reef (35 miles NE) extending about 4½ miles NNE from North Cape, marked by DS Light-buoy (N cardinal) moored 1½ miles N of the cape, keeping clear of off-lying coastal reefs (13.98).

Shoal ground farther NE is described in Chapter 13.
(*Directions continue for Chaleur Bay and Cap Gaspé at 15.3 and for Miramichi Bay and thence the S side of Prince Edward Island and Northumberland Strait at 15.4*)

Small craft

Howard Cove

14.375

- 1 Howard Cove (Howards Cove on Canadian Chart 4906) (46°45'N, 64°23'W) near Seal Point, is a small boat harbour, enclosed by two breakwaters, with reported depths (1992) of 0.6 to 1.2 m alongside the wharves inside the harbour and 1.2 m (4 ft) inside the entrance.

- 2 Seal Point Light (red diamond and white rectangle, on red framework tower, 6 m in height) (46°44'.4N, 64°22'.8W) is exhibited from the head of the longer breakwater. Another light is exhibited from close to Seal Point.

DN2 Light-buoy (starboard hand) is moored in position 46°44'.5N, 64°23'.5W.

Miminegash Pond

14.376

- 1 **Description.** Miminegash Pond (46°53'N, 64°14'W) has two breakwaters protecting the channel into a boat basin, which has a least depth of 1.3 m (4 ft). Depths within the basin are from 1.2 to 2.2 m (4 to 7 ft).

Local knowledge is required, as charted depths over the bar cannot be relied on.

- 2 **Miminegash Leading Lights:**

Front light (white rectangle, red stripe, on framework tower, 3 m in height) (46°52'.8N, 64°14'.1W).

Rear light (similar construction and tower, 13 m in height) (494 m from front light).

- 3 The alignment (173°) of these lights leads through the approach channel, passing, (positions given from the front leading light):

Clear of DP2 Light-buoy (starboard hand) (1¼ miles N) moored in the approach channel, thence:

E of Miminegash Reef (4 cables NW), thence:

To the harbour entrance.

- 4 **Anchorage berths.** There is good anchorage for small craft, with offshore winds, in depths of 5.5 m (18 ft), about 5 cables N of the N breakwater. Small craft may find anchorage inside the basin.

Berths. There are several small jetties in the basin.

Skidders Pond

14.377

- 1 Skidders Pond (46°58'N, 64°08'W) lies about 6.5 miles NE of Miminegash Pond. At Skidders Pond, two piers protect the entrance to a boat basin. A curving breakwater 195 m long extends from the coast NE of the piers.

Least depth in the entrance to the basin was reported to be 0.8 m (3ft). In the basin depths are from 0.3 m to 2.5 m (1 to 8 ft).

A light (mast, 3 m in height) is exhibited from the outer end of the N breakwater.

- 2 **Useful mark:**

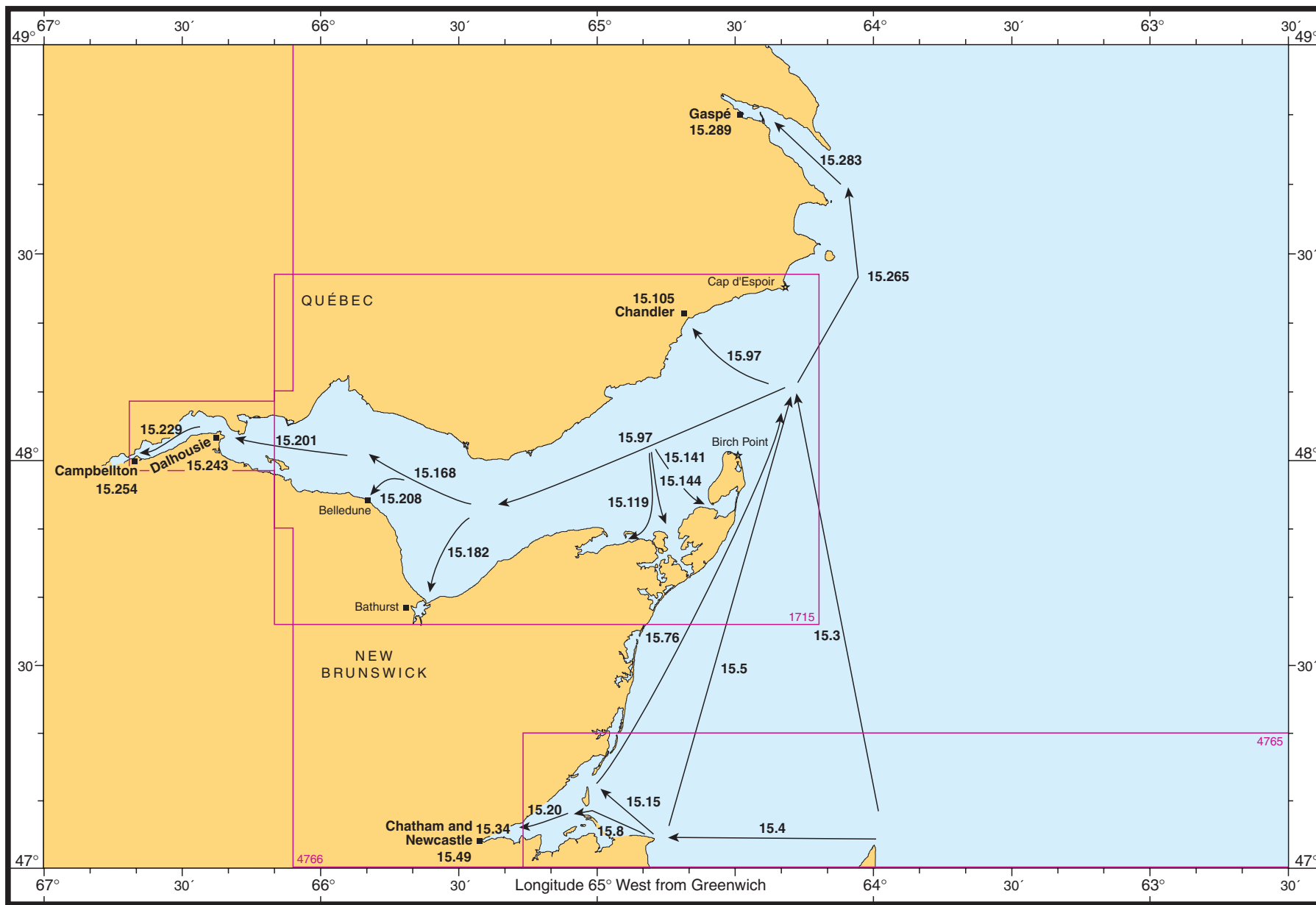
Skidders Pond Light (framework tower, 5 m in height) (46°58'N, 64°08'W) is exhibited from the N end of the S pier.

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October 2003

CHAPTER 15

GULF OF ST LAWRENCE — WEST SHORE —
POINTE ESCUMINAC TO CAP GASPÉ

GENERAL INFORMATION

Chart 4766

Scope of the chapter**15.1**

- 1 This chapter covers the coastal waters of New Brunswick and Québec Provinces, from Pointe Escuminac (47°04'N, 64°48'W) to Cap Gaspé (48°45'N, 64°10'W), including Miramichi Bay, Baie des Chaleurs (Chaleur Bay) and Baie de Gaspé (Gaspé Bay). It also describes the offshore routes.

- 2 It is arranged as follows:
Offshore routes (15.2).
Miramichi Bay, Miramichi Inner Bay, and Miramichi River (15.6).
Miramichi Bay to Birch Point (15.76).
Baie des Chaleurs and approaches (15.92).
Birch Point to Cap Gaspé (15.263).

OFFSHORE ROUTES

GENERAL INFORMATION

Chart 4766

Area covered**15.2**

- 1 This section covers the offshore routes from North Cape Reef (47°07'N, 63°58'W) to Birch Point (48°01'N, 64°30'W) and from North Cape Reef to Pointe Escuminac.

It is arranged as follows:

- North Cape Reef to Birch Point (15.3).
North Cape Reef to Pointe Escuminac (15.4).
Pointe Escuminac to Birch Point (15.5).

**NORTH CAPE REEF
TO POINTE ESCUMINAC**

Chart 4766, Canadian Chart 4906 (see 1.32)

Passage directions

(continued from 13.98 and 14.374)

15.4

- 1 For a mariner wishing to enter Miramichi Bay, from a position N of North Cape Reef (47°07'N, 63°58'W) the track leads W for about 33 miles to the pilot position (47°07'·5N, 64°47'·0W) about 3 miles N of Pointe Escuminac.

(Directions continue for an offshore route off Miramichi Bay at 15.15 and for entering Miramichi Bay towards Portage Island at 15.16)

NORTH CAPE REEF TO BIRCH POINT

Chart 4766

Passage directions

(continued from 13.98 and 14.374)

15.3

- 1 From a position N of North Cape Reef (47°07'N, 63°58'W) the offshore passage leads N for about 65 miles to a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W).

(Directions continue for Baie des Chaleurs at 15.103 and for Cap D'Espoir and Gaspé at 15.269)

POINTE ESCUMINAC TO BIRCH POINT

Chart 4766, Canadian Charts 4906, 4486 (see 1.32)

Passage directions

(continued from 15.4)

15.5

- 1 From the pilot position 47°07'·5N, 64°47'·0W about 3 miles N of Pointe Escuminac the offshore passage leads NNE, in deep water, for about 72 miles to a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W).

(Directions continue for Baie des Chaleurs at 15.103 and for Cap D'Espoir and Gaspé at 15.269)

MIRAMICHI BAY, MIRAMICHI INNER BAY AND MIRAMICHI RIVER

GENERAL INFORMATION

Chart 4766

Area covered**15.6**

- 1 This section describes the routes through Miramichi Bay (47°11'N, 64°55'W), Miramichi Inner Bay and Miramichi River, (47°05'N, 65°21'W). Miramichi River flows into the head of Miramichi Inner Bay. The ports of Chatham and Newcastle are situated on the banks of the river, and are also described.

- 2 It is arranged as follows:
Miramichi Bay (15.8).
Miramichi Inner Bay (15.20).
Miramichi River (15.34).
Chatham and Newcastle (15.49).

Tides and tidal streams**15.7**

- 1 Because of the shallow nature of the bay, estuary and river, local weather conditions may cause the actual water

levels to differ from predicted levels by more than 1 m at times.

The tidal streams set at a rate of 1 to 1½ kn in the outer bay, but this increases in the narrows between the islands to 2 to 3½ kn or more. Both the rate and direction are greatly affected by wind.

MIRAMICHI BAY

General information

Chart 4766, Canadian Charts 4906, 4911 (see 1.32)

Routes

15.8

- 1 From positions off Miramichi Bay (47°11'N, 64°55'W) the routes are described approaching Miramichi Bay, crossing the bar and the buoyed channels within the bay. Miramichi Bay is entered between Pointe Escuminac (47°04'N, 64°48'W) and Portage Gully (47°12'N, 65°02'W) 11½ miles NW.

Channels lead over the bars and between the islands on the W side of the bay, into Miramichi Inner Bay to a position off the S end of Portage Island (47°10'N, 65°03'W).

Topography

15.9

- 1 The islands at the head of the bay are low, sandy and partly wooded. The land in the vicinity of Blacklands (Upper) Point at the N end of Neguac Bay is swampy, low and peaty.

Controlling draught

15.10

- 1 Limiting draught in the main channel over the bars is reported (2003) as 6.0 m at HW.

Pilotage

15.11

- 1 Pilotage is compulsory within a line drawn from Pointe Morin (47°13'N, 65°06'W) to the N end of Portage Island, 3 miles SE, thence in a direction 114° to position 47°07'5N, 64°47'0W, thence in a direction 191° to Pointe Escuminac.

During the period from 16th April to 10th December, masters of vessels bound for ports within the compulsory pilotage area must report their ETA at the pilot boarding position 47°07'5N, 64°47'0W at least 12 hours in advance.

- 2 The ETA must be confirmed or corrected 4 hours prior to arrival. The time used should be GMT. The pilot boat, grey, length 13 m which is equipped with VHF radio, is stationed at Escuminac Harbour, 4 miles W of Pointe Escuminac. From 11th December to 15th April, a helicopter is available at Escuminac for pilot boarding.

- 3 Masters of vessels bound for Miramichi must report their ETA to Atlantic Pilot Authority at least 96 and 24 hours prior to the vessel's ETA at the pilot boarding position, with confirmation or correction 12 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (5)* for details. The ports operate in summer time only as ice breaking cover has been suspended.

Natural conditions

15.12

- 1 **Tidal streams.** The in-going tidal stream sets strongly NW through Ship Channel, SE of Portage Island (47°10'N, 65°03'W); the out-going tidal stream sets SE through Ship

Channel, but it is not very strong. There is scarcely any out-going tidal stream E of Miramichi Bar.

- 2 **Breakers.** During strong E gales there are dangerous breaking seas over the shoals extending NE from Fox Island (47°07'N, 65°01'W) and N from Huckleberry Island, close SE of Fox Island. These conditions occur particularly during the out-going tidal stream but are infrequent in summer.

Principal marks

15.13

- 1 **Major lights:**

Pointe Escuminac Light (47°04'N, 64°48'W) (14.354).
Lower Escuminac Middle Breakwater Light (47°05'N, 64°53'W) (14.354).

Other navigational aid

15.14

- 1 **Racon:**

Portage Island Channel rear leading light (47°08'N, 65°03'W). See *Admiralty List of Radio Signals Volume 2* for details.

Directions for offshore route

(continued from 15.4 and 14.356)

Passage directions

15.15

- 1 From the pilot position about 3 miles N of Pointe Escuminac (47°04'N, 64°48'W) the track leads WNW for about 11½ miles to the vicinity of Portage Gully MH Light-buoy, (safe water) (47°10'8N, 64°59'5W).

(Directions continue for coastal route towards Baie des Chaleurs at 15.81)

Directions for approaches

(continued from 14.356 and 15.4)

Pointe Escuminac to Portage Island

15.16

- 1 **Caution.** The channel is marked by light-buoys (lateral), leading lights and beacons, which may be moved or altered to suit changing conditions in the channels.

- 2 **Fox Island South Leading Lights.** From the pilot position 47°07'5N, 64°47'0W, about 3 miles N of Pointe Escuminac, the alignment (248½°) of the following lights leads WSW through the approach channel, over Miramichi Bay Outer Bar to the end of the leading line, passing NNW of shoal ground with depths of less than 5.5 m (18 ft), extending up to 8 miles E of the front light and 1½ miles N from the coast W of Pointe Escuminac:

Front light (red rectangle, black stripe on framework tower, 7 m in height) (47°05'2N, 64°58'7W) near the S end of Fox Island.

Rear light (similar construction and tower, 13 m in height) (215 m from front light).

Preston Beach (Escuminac) Leading Beacons:

Front beacon (47°04'7N, 64°54'7W).

Rear beacon (7½ cables from front beacon).

- 3 From a position at the end of the Fox Island South Leading Lights leading line, the track leads NW on the alignment (128½°), astern, of the above beacons through the first reach of the buoyed channel, for about 1½ miles, passing, (positions given from the front beacon (47°04'7N, 64°54'7W)):

Close NE of The Lump, a shoal, (2.8 miles NW), taking care to clear a 2.2 m (7 ft) shoal just clear of the NE side of the channel, thence:

Close SW of the SW edge of Miramichi Bar, (3.3 miles NW).

Preston Beach West Leading Lights. From a position at the end of Preston Beach (Escuminac) leading beacons leading line, the track leads NNW for about 1¼ miles, on the alignment (153¾°), astern, of the following leading lights:

- 4 Front light (red trapezium, white stripe on framework tower, 9 m in height) (47°04'·0N, 64°56'·5W).
Rear light (similar construction and tower, 12 m in height) (11 cables from front light).

Portage Island Leading Lights. From a position at the end of Preston Beach West leading lights leading line, the track leads NW through the buoyed channel for about 1¼ miles, to a position 47°08'·7N, 65°00'·7W on the alignment (312°) of the following leading lights:

- 5 Front light (red square, black stripe, on framework tower, 12 m in height) (47°09'·5N, 65°02'·0W).
Rear light, (similar construction on framework tower, 20 m in height) (459 m from front light).

(Directions continue for Miramichi Inner Bay at 15.24)

Portage Island Channel

General information

15.17

- 1 **Route.** Portage Island Channel (47°09'N, 64°59'W) is a buoyed channel leading WSW over Miramichi Bar, on the alignment of the leading lights, which lead into the N section of Ship Channel.

Depths. Portage Island Channel has a least charted depth of 2·8m (9 ft) (1993) (Canadian Chart 4911).

- 2 **Racon:**

Portage Island Channel rear leading light (47°08'N, 65°03'W). See *Admiralty List of Radio Signals Volume 2* for details.

Directions

15.18

- 1 **Portage Island Channel Leading Lights.** From a position 47°11'N, 64°53'W approximately 7 miles ENE of the front light, the track leads WSW on the alignment (242½°) of the following lights:

Front light (white rectangle, red stripe on framework tower, 9 m in height) (47°07'·8N, 65°02'·3W).

Rear light (similar construction and tower, 17 m in height) (373 m from front light).

Small craft

Escuminac

15.19

- 1 **General information.** A boat harbour at Escuminac (47°05'N, 64°53'W) contains a pilot station and fish plant. It has two basins, entered separately from sea. The widths of the entrances are 39 m (outer basin) and 29 m (inner basin); depths 0·9 to 1·5 m (3 to 5 ft) and 1·5 m (5 ft) or less, respectively.

Escuminac village lies 1 mile W, with a church (square tower), which is prominent from NE.

- 2 **Directions.** The outer basin is entered from W between the heads of the N and middle breakwaters. The inner basin is entered from W between the head of the inner breakwater and the S side of the middle breakwater.

Facilities: derrick; slipway.

MIRAMICHI INNER BAY

General information

Chart 4766, Canadian Charts 4911, 4912 (see 1.32)

Route

15.20

- 1 From a position 47°08'·7N, 65°00'·7W off the SE end of Portage Island (47°10'N, 65°03'W) the route leads generally between W and SW for about 15 miles, in a buoyed channel towards the entrance to Miramichi River (47°05'N, 65°21'W). The river flows into the SW side of the bay.

The bay is protected to the E, by a chain of islands and shoals, the chart being the best guide.

Depths

15.21

- 1 Limiting draught in the main channel over the bars is reported as 6·0 m at HW (2003) (15.10).

Dredging operations along the Miramichi River were discontinued in 1994. Depths shallower than the limiting channel depths charted may exist.

Traffic regulations

15.22

- 1 **Speed limit.** There is a maximum speed limit of 7 kn in the channels above Oak Point (47°07'N, 65°16'W).

Tidal streams

15.23

- 1 The in-going tidal stream sets in a SW direction through the channel S of Portage Island, then distributes itself, generally, over Miramichi Inner Bay, the greatest rate being in the channel across Horse Shoe Bar, and between Horse Shoe Shoal and Portage Island.

The out-going tidal stream sets in the direction of the channel over Horse Shoe Bar, directly seaward, its rate gradually diminishing as the outer part of the bay is reached. It is joined by a stream that sets down the W coast of Portage Island, which deflects it slightly S.

- 2 The rate of the out-going tidal stream in the narrows of Sheldrake Channel (47°05'N, 65°21'W) is sometimes as much as 3 kn, and perhaps stronger during the spring thaw.

Directions

(continued from 15.16)

Portage Island to Miramichi River

15.24

- 1 **Caution.** The leading lights and buoys may be moved to mark the best channel.

From position 47°08'·7N, 65°00'·7W at the end of the Portage Island Leading Lights leading line, the track leads W for about 1½ miles, passing clear of Spit Shoal (47°08'N, 65°02'W).

The track then leads SW, on the alignment of Horse Shoe Bar Leading Lights.

- 2 **Horse Shoe Bar Leading Lights.** From a position about 8 cables SW of the front leading light, the alignment (044½°), astern, of the following lights leads over Horse Shoe Bar, in the buoyed channel for about 1½ miles to the end of the leading line, thence the track leads WSW for about 8¼ cables onto the alignment of Grand Dune leading lights.

Front light (red square, white stripe on framework tower, 6 m in height) (47°09'·2N, 65°02'·4W).

Rear light (similar construction and tower, 14 m in height) (722 m from front light).

The rear leading light is exhibited from the same structure as the Portage Island Front Leading Light.

15.25

1 **Grand Dune and Grand Dune Flats Leading Lights.**

From a position at the beginning of Grand Dune Leading Lights leading line, the alignment (282°) ahead and (102°) astern of the following lights leads through the buoyed channel, and across Grand Dune Flats, for about 4½ miles to the end of the leading line, close ESE of Grand Dune Island, low; marshy; difficult to distinguish:

Front light (red square, black stripe) (47°06'·8N, 65°02'·6W).

Rear light (similar construction on framework tower, 30 m in height) (1·9 miles from front light).

Front light (red rectangle, black stripe on framework tower, 14 m in height) (47°08'·4N, 63°13'·6W) on the W shore, close W of Grand Dune Island.

2 **Rear light** (similar construction and tower, 21 m in height) (1211 m from front light).

Oak Channel Entrance, which is buoyed, leads SW for about 1¾ miles to the alignment of Moody Point Leading Lights, passing clear of Robichaud Spit, close N of the end of the channel.

3 **Moody Point Leading Lights.** The alignment (257½°) of the following lights leads through the channel to a position 4 cables S of Oak Point (47°07'N, 65°16'W) (dark sandstone cliffs) on the alignment of Napan Bay Leading Lights:

Front light (red square, black stripe on framework tower, 8 m in height) (47°06'·0N, 65°19'·5W).

Rear light (similar construction and tower, 13 m in height) (1 mile from front light).

Caution. Speed above Oak Point is restricted (15.22).

4 **Napan Bay Leading Lights.** The alignment (223°) of the following lights leads through the channel for about 1 mile to a position 1 mile NNW of Cheval Point (47°05'N, 65°16'W) on the alignment of the Oak Point Leading Lights:

Front light (red square, white stripe on framework tower, 6 m in height) (47°04'·3N, 65°19'·2W).

Rear light (similar construction and tower, 6 m in height) (1200 m from front light).

5 **Oak Point Leading Lights.** The alignment (024°) astern, of the following lights leads through the channel for about 7½ cables, before turning SW, keeping in the deep water for a similar distance into East Point Reach. The track turns W into Sheldrake Channel at the end of East Point Reach:

Front light (red trapezium, black stripe on framework tower, 5 m in height) (47°06'·8N, 65°16'·5W).

Rear light (similar construction and tower, 7 m in height) (1324 m from front light).

6 **Grant Beach Leading Lights:**

Front light (red square, black stripe on framework tower, 12 m in height) (47°05'·0N, 65°22'·5W).

Rear light (similar construction and tower, 23 m in height) (876 m from front light).

The alignment (278°) of the above lights leads through Sheldrake Channel for 2 miles, passing, (positions given from front light (47°05'·0N, 65°22'·5W)):

7 S of Sheldrake Island (2 miles E), thence:

N of East Point (1½ miles E), thence:

S of Moody Point (1 mile ENE), on which there is a church, thence:

S of Bartibog Island (5·5 cables ENE); 9 m high; steep banks or clay cliffs; at the end of the Grant Beach Leading Lights leading line.

For tidal streams in Sheldrake Channel see 15.23.

(Directions continue for Miramichi River at 15.42)

Anchorage

West of Portage Island

15.26

1 **Description.** Anchorage may be obtained, in summer, for vessels waiting to proceed inward, or outward between the W coast of Portage Island (47°10'N, 65°03'W) and Horse Shoe Shoal in depths of 7 to 9 m (23 to 30 ft). The anchor position and relevant local tidal streams are indicated on Canadian Chart 4911.2 **Tidal streams.** At the anchorage, the in-going tidal stream, setting NW, begins about 30 minutes after the time of LW, and continues about 5½ hours. The out-going tidal stream, setting SE, begins nearly 30 minutes after the time of HW and continues about 7 hours. Slack water lasts for about 30 minutes.3 **Directions.** From a position about 3 cables S of Portage Island, a narrow gully leads NNW towards the anchorage position, passing:

WSW of drying flats of sand extending from W coast of Portage Island to a distance of more than 1 cable in places, and:

ENE of the E extremity of Horse Shoe Shoal, where depths of less than 5 m (16 ft) lie only 2 cables from the S part of the island.

4 **Anchorage.** The recommended anchorage position is 6 cables SSW of Gammon Point (47°10'·7N, 65°03'·3W).

Bay du Vin

General information

15.27

1 **Description.** Bay du Vin is entered between the W end of Bay du Vin Island (47°05'N, 65°07'W) and Pointe aux Carr, a low cliff of sandstone with high trees on it, about ¾ miles W.

Bay du Vin Harbour (15.28) lies at the NE side of the bay.

Anchorage. Good anchorage may be obtained in Bay du Vin for small vessels in depths of 5·6 m (18 ft), mud, about 7 cables W of Bay du Vin Island.

Bay du Vin Harbour

15.28

1 **Description.** Bay du Vin Harbour (47°05'N, 65°06'W) lies on the S side of Bay du Vin Island, which is, for the most part, thickly wooded. At the E end of Bay du Vin Island a buoyed channel leads into the W approach to French River (47°05'N, 65°01'W).2 **Depths.** There are depths of 4·5 m (15 ft) in the approaches to the harbour, SW of Bay du Vin Island, and depths of 2·4 to 3·4 m (8 to 11 ft) in the area between Egg Island, low and swampy, 1 mile ENE of Bay du Vin Island and the mainland W of French River Point (47°05'N, 65°01'W).3 **Tidal streams** with a rate, at times, in excess of 4½ kn, set through the harbour. Local tidal streams in the harbour entrance are marked on Canadian Chart 4911.4 **Directions.** From a position in Bay du Vin, the approach to Bay du Vin Harbour leads NE and by night in the white sector (042°–044°) of Bay du Vin Island Direction Light (red and white rectangle on framework tower, 7 m in height) (47°05'·4N, 65°06'·1W), passing, (positions given from the direction light):

About 2 cables SE of MP3 Buoy (port hand) (1 mile SW), marking the edge of the drying sandbanks extending about 2 cables from the SW coast of the island, thence:

- 5 Between the S extremity of the island (7 cables SW) and Gardiner Spit (drying sand), extending 5½ cables N from Point Gardiner (8 cables S).

From a position about 3 cables SW of the Direction Light, the channel, marked by buoys, leads E then NE, passing N and clear of Gardiner Spit.

Berth. A ruined pier extends about 1¼ cables from the E side of Bay du Vin, 1¼ miles SSW of the W point of Bay du Vin Island.

- 6 **Anchorage** may be obtained in the narrow roads, S of Bay du Vin Island in depths of 5 to 11 m (16 to 36 ft).

Small craft

15.29

- 1 **Bay du Vin River.** On the SE side of Bay du Vin, a buoyed channel, with depths of 1.2 to 1.8 m (4 ft to 6 ft) leads into Bay du Vin River. The village of Bay du Vin (47°02'N, 65°08'W) is situated on the E shore and a public jetty, with a depth alongside of 0.9 m, is situated on the W shore.

- 2 **Black River.** On the SW side of Bay du Vin, a narrow and intricate channel marked by stakes with depths of about 1.8 m (6 ft), leads upriver to the ruins of a bridge. The centre support is submerged and the two outer supports cover and uncover with the tide.

Small craft

Baie Sainte-Anne

15.30

- 1 **Description.** Baie Sainte-Anne (47°04'N, 64°59'W) can be entered from NW through the shallow water channel between Fox Island (47°07'N, 65°01'W) and French River Point (47°05'N, 65°01'W). It is usually entered from the S side of Miramichi Bay, through Huckleberry Gully, between Huckleberry Island and Preston Beach, 2½ cables E.

Huckleberry Gully is used mainly by fishing craft operating from the jetty at the village of Baie Sainte-Anne.

- 2 Narrow and intricate channels, marked by buoys and stakes, lead to the mouth of Eel River (47°02'N, 65°01'W), at the head of the bay.

Another channel, marked by buoys and stakes, leads along the W side of Baie Sainte-Anne to a jetty at the mouth of French River (47°05'N, 65°01'W) at the village of Hardwicke.

Local knowledge is required.

Directions. Caution. The buoys throughout the bay may be moved to mark the best channel.

- 3 From a position about 2 miles NE of Fox Island front leading light (47°05'2N, 64°58'7W), the track leads SW, through a buoyed channel with a least depth of 0.3 m (1 ft) towards and through the entrance channel into Baie Sainte-Anne.

Useful mark:

Church (twin spires) (47°02'9N, 64°57'8W) at Baie Sainte-Anne.

- 4 **Berths:**

Jetty at Baie Sainte-Anne, 72 m in length, has a depth of 1.2 m at its head.

Jetty at the mouth of Eel River, with a depth of 1.5 m alongside.

Jetty at Hardwicke with a depth of 0.9 m alongside.

Napan Bay

15.31

- 1 Napan Bay (47°04'N, 65°18'W) on the SW side of Inner Miramichi Bay is shallow. Napan River, which flows into

the head of the bay, is navigable by small craft for several miles above its mouth.

Burnt Church

15.32

- 1 **Description.** There is a public pier at Burnt Church village (47°11'N, 65°08'W), which is used by small vessels plying between Miramichi River and Neguac.

From a position about 1¼ miles SSE of the pier, a buoyed channel leads to the berth. A light is exhibited from the head of the pier.

The berth has a usable outer section about 103 m long and a L-end 62 m long. Depth alongside is reported to be 2.1 m at the pierhead.

- 2 **Facilities:** derrick on pierhead; slipway on SW side of pier.

Neguac Bay

15.33

- 1 **Description.** Neguac Bay (47°16'N, 65°01'W) is entered from seaward through the narrow buoyed channel in Portage Gully, N of Portage Island. Neguac Bay may also be entered from the NE part of Miramichi Inner Bay.

Jetties exist at Neguac and Lower Neguac within Neguac Bay.

Local knowledge is required.

Oyster farms are established in Neguac Bay, and the ruins of two structures used for the retention of ice are situated 1.2 and 1.6 miles SE of the jetty at Lower Neguac.

- 2 **Directions.** Caution. Navigation aids may be moved as necessary to mark the best channel.

From the vicinity of MH Light-buoy (safe water) (47°10'8N, 64°59'5W) the track leads NW in Portage Gully buoyed channel to the vicinity of MJ Light-buoy, (preferred channel to starboard) where the channel divides with one branch leading N towards Lower Neguac and the other branch leading W into Miramichi Inner Bay.

- 3 **Lower Neguac Wharf Leading Lights.** From the vicinity of MH31 Light-buoy (port hand) moored about 4 cables ENE of E end of Hay Island (46°14'N, 65°05'W), the track leads N towards the berth on the alignment (001¾°) of the following leading lights which are situated on the pierhead:

Front light (white rectangle, red stripe on framework tower, 5 m in height) (47°15'4N, 65°03'2W).

Rear light (white tower, red stripe, 9 m in height) (515 m from front light).

- 4 **Useful marks:**

Church spire (aluminium-coloured) at Neguac (47°14'7N, 65°04'8W).

Church (spire) at Burnt Church Point (47°12'5N, 65°07'0W).

Radio tower (red lights) (elevation 212 m (696 ft) on Chart 4766) (47°16'N, 65°06'W).

Neguac Pier Light (red triangle in red and white rectangle, on framework tower, 4 m in height) (47°14'4N, 65°04'5W).

- 5 **Neguac Jetty.** There is a public jetty at Neguac (47°14'N, 65°04'W); a light is exhibited from the head of the pier. The pier is 235 m long, with several spurs and a L-end 160 m long.

Lower Neguac Jetty. The jetty has a face 61 m long. The ruins of a former wharf extend S from the inner end; there are depths of 1.4 m in the approaches.

Facilities: a 450 kg derrick; slipway.

MIRAMICHI RIVER

General information

Chart 4766, Canadian Chart 4912 (see 1.32)

Route

15.34

- 1 Miramichi River (47°05'N, 65°21'W) flows into the head of Miramichi Inner Bay between East Point (47°05'N, 65°20'W) and Moody Point 8 cables NNW.

From a position in Sheldrake Channel N of East Point, and on the alignment (278°) of Grant Beach Leading Lights (15.25), the route through Miramichi River leads generally W and SW and then S in the channel, marked by buoys (lateral), before leading SW, dividing into two branches and approaching the two railway bridges (46°58'N, 65°36'W).

Controlling draught

15.35

- 1 The maximum permitted draught is reported as 6.0 m at HW (2003). See 15.10.

Pilotage

15.36

- 1 Pilotage is compulsory. See 15.11 for details.

Local knowledge

15.37

- 1 Local knowledge is required.

Traffic regulations

15.38

- 1 **Speed limit.** See 15.22.

Restriction. Vessels of 160 grt and over may only pass through the opening of Morrissey Bridge when proceeding against the tidal stream.

Submarine cables

15.39

- 1 A submarine cable is laid between Chatham (47°02'N, 65°28'W) on the S shore, and close to the mouth of McEwen Brook (47°01'9N, 65°29'1W) on the N shore.

Another submarine cable is laid between Chatham Head on the S shore and Newcastle (47°00'N, 65°33'W) on the N shore.

Vertical clearances

15.40

- 1 **Bridges:**

A highway bridge, (47°06'N, 65°21'W) with a vertical clearance of 6.4 m, spans Bartibog River 5 cables above the river mouth.

- 2 Centennial Bridge (47°02'N, 65°29'W) with a vertical clearance of 35 m (115 ft) under the high level navigation span, spans the river from Chatham on the S side to Ferry Road on the N side. The width between the supporting piers is 152 m (499 ft).

- 3 Morrissey Swing Bridge (47°00'N, 65°34'W) spans the river from Chatham Head to Newcastle. The bridge has a vertical clearance of 2.4 m (8 ft) when closed, and 30 m (98 ft) when open, allowing a channel width of 24.4 m (80 ft). See 15.38.

- 4 No 3 Bridge (46°59'N, 65°33'W) with a reported vertical clearance of 6.1 m (20 ft) spans the river at Strawberry Point (46°59'N, 65°34'W), 0.4 miles S of Morrissey Bridge. This bridge together with Morrissey Bridge restrict navigation to small craft on Miramichi River, upriver of Newcastle.

- 5 Railway bridges span Northwest Miramichi River and Southwest Miramichi River about 2 miles SW of Strawberry Point. Both bridges have a vertical clearance of 6 m (20 ft).

15.41

- 1 **Overhead cables:**

An overhead power cable, with a vertical clearance of 41 m (135 ft) spans the river at Middle Island (47°03'N, 65°27'W). A vessel passing underneath this cable must maintain a minimum clearance of 3.6 m (12 ft).

Overhead cables span the river close S of Morrissey Bridge, with a vertical clearance of 30 m (98 ft). Vessels must maintain a safety clearance of at least 3.6 m (12 ft) when passing under these cables.

Directions

(continued from 15.25)

Sheldrake Channel to Millbank

15.42

- 1 **Caution.** The dredged channels are subject to change due to silting, and there may be less water than is shown on the chart.

Lower Newcastle Leading Lights. From position 47°05'0N, 65°21'8W in Sheldrake Channel at the end of Grant Beach Leading Lights leading line, the track leads WSW on the alignment (256½°) of the following lights, through the buoyed channel for 1.1 miles, passing N of Saint Andrews Bank (47°05'N, 65°22'W):

- 2 Front light (red square, black stripe on triangular framework tower, 5 m in height) (47°04'5N, 65°24'6W).

Rear light (similar construction and tower, 5 m in height) (467 m from front light).

The track then leads WSW on the alignment of the Saint Andrews Bank Leading Lights.

- 3 **Saint Andrews Bank Leading Lights.** From position 47°04'7N, 65°23'5W at the end of the Lower Newcastle Leading Lights, the track leads SW on the alignment (248°) of the following lights, through the buoyed channel for about 5½ cables, passing NW of Leggett Shoal (47°04'N, 65°24'W).

Front light (red square, black stripe on triangular framework tower, 4 m in height) (47°04'2N, 65°25'1W).

Rear light (similar construction and tower, 5 m in height) (294 m from front light).

- 4 The track then leads SW on the alignment of Leggett Shoal Leading Lights.

- 5 **Leggett Shoal Leading Lights.** From position 47°04'5N, 65°24'2W at the end of Saint Andrews Bank Leading Lights leading line, the track leads SW on the alignment (043½°), astern, of Leggett Shoal Leading Lights, through the buoyed channel for about 7½ cables.

Front light (red square, black stripe on framework tower, 5 m in height) (47°04'7N, 65°23'9W).

Rear light (similar construction and tower, 4 m in height) (309 m from front light).

The track then leads WSW on the alignment of Millbank Leading Lights.

- 6 **Millbank Leading Lights.** From position 47°03'9N, 65°25'1W at the end of Leggett Shoal Leading Lights leading line, the track leads WSW on the alignment (252½°) of Millbank Leading Lights, through the buoyed channel for 1.6 miles to a position 2½ cables NNW of the N point of Middle Island (15.41).

Front light (red square, black stripe on framework tower, 5 m in height) (47°03'4N, 65°27'6W).

Rear light (similar construction and tower, 11 m in height) (306 m from front light).

Millbank to Newcastle

15.43

- 1 From a position 2½ cables NNW of the N point of Middle Island (47°03'N, 65°27'W), the buoyed channel leads SW for 5 cables, then SSW, crossing obliquely towards the SE bank to a position 9 cables SSW of Middle Island, thence the channel follows the SE bank abreast the wharves at Chatham (47°02'N, 65°28'W).

- 2 From the above position, the buoyed channel continues to follow the S side of the river, for a distance of about 3 miles, passing:

Under the navigation span of the Centennial Bridge (15.40) at Chatham. The supporting piers of the bridge are marked by lights. A submarine cable lies close SW (15.39), thence:

S of Wright Bank, which lies in mid-river WSW of the bridge.

- 3 **French Fort Cove Leading Lights.** The track continues to lead W in the channel on the alignment (278½°) of the following leading lights to a position abreast French Fort Cove (47°01'N, 65°33'W).

Front light (red square, black stripe, on framework tower, 4 m in height) (47°01'0N, 65°32'8W).

Rear light (similar construction and tower, 6 m in height) (49 m from front light).

- 4 From a position abreast French Fort Cove, the buoyed channel follows the NW bank, curving to S, to a position abreast the wharves at Newcastle (47°00'N, 65°33'W).

Useful mark:

Power station chimney (55 m in height; red lights) (47°02'5N, 65°27'8W). The power station is no longer in use.

Miramichi River above Newcastle

General information

15.44

- 1 **Route.** From a position abreast the wharves at Newcastle, the river leads S under Morrissey Bridge and No 3 Bridge before branching into two.

Depths. In 1979, the least depth in the channel from Newcastle to Nelson-Miramichi (46°58'4N, 65°33'5W) was reported to be 4.6 m. The port authorities should be contacted for the latest information.

Vertical clearances. See No 3 Bridge and two railway bridges (15.40).

Directions

15.45

- 1 From a position abreast the wharves at Newcastle, the river leads S, passing through the swing span of Morrissey Bridge. See 15.38 for regulations and 15.40 for clearances, before branching into Northwest Miramichi River and Southwest Miramichi River, with Beaubears Island (46°58'N, 65°34'W) lying in the middle ground. Except for small craft, navigation is restricted by No 3 Bridge and Northwest Bridge and Southwest Bridge (15.40), which span both arms of Miramichi River.

- 2 From SE of Strawberry Point, a buoyed channel leads S for about 8 cables along the waterfront of Nelson-Miramichi, passing 1 cable E of Beaubears Point (46°58'N, 65°34'W), the NE extremity of Beaubears Island (wooded, steep clay banks, 6 m in height) towards a wharf

on the E side of the river at Nelson-Miramichi and thence to the railway bridge 2 miles above Strawberry Point.

From SE of Strawberry Point a buoyed channel leads NW of Beaubears Island towards Northwest Bridge.

Nelson-Miramichi

15.46

- 1 A wharf at Nelson-Miramichi (46°58'4N, 65°33'5W) has a length of 215 m and a charted alongside depth of 5.8 m (1993). The channel to the wharf has a least depth of 4.6 m (15 ft). Access to this wharf is impeded by No 3 Bridge. A submerged outfall pipeline extends into the channel from the N end of the wharf.

Anchorage and harbours

15.47

- 1 Anchorage grounds are scarce throughout most reaches of the river, as the channels are too narrow. In case of emergency, anchorage may be found midway between East Point (47°05'N, 65°20'W) and the E end of Bartibog Island, 9 cables NE.

There is sufficient width in the channel off Chatham for vessels to anchor.

Bartibog River

15.48

- 1 Bartibog River is entered through a narrow channel on the N shore between Moody Point and Bartibog Island. A bridge (15.40) spans the river.

CHATHAM AND NEWCASTLE

General information

Canadian Chart 4912 (see 1.32)

Position

15.49

- 1 Chatham (47°02'N, 65°28'W) is situated on the S shore of Miramichi River, about 6 miles above East Point (47°05'N, 65°20'W). Newcastle (47°00'N, 65°33'W) is situated on the N shore of Miramichi River about 4 miles upstream from Chatham.

Function

15.50

- 1 The ports of Chatham and Newcastle have facilities for the handling of oil, cement, woodproducts and general cargo.
- 2 The two towns of Chatham and Newcastle have now been amalgamated (1995) and are also known as the City of Miramichi. Chatham is also known as Miramichi East and Newcastle is also known as Miramichi West.

Approach and entry

15.51

- 1 Both ports are approached through buoyed and dredged channels in Miramichi Bay, Miramichi Inner Bay and Miramichi River.

Traffic

15.52

- 1 In 1990, Chatham was used by 8 ships, and 49 989 tonnes of cargo were handled. Newcastle was used by 28 vessels and 238 393 tonnes of cargo were handled.

Port Authority

15.53

- 1 Transport Canada, Canadian Coast Guard, Harbours and Ports, PO Box 1013, Dartmouth, B2Y 4K2.

Limiting conditions**Depths****15.54**

- 1 Controlling depth in the channel is said to be 6.0 m at LW. See 15.10.

As dredging of the river ceased in 1994, it is anticipated that further silting will occur, causing disruption to services.

Channel width**15.55**

- 1 It was reported (1993) that the maximum span opening at Morrissey Bridge is 30 m, and that there are overhead cables at the bridge (15.41).

Deepest and longest berth**15.56**

- 1 Public wharf at Newcastle (15.73).

Tidal levels**15.57**

- 1 Mean spring range about 1.75 m. Mean neap range about 1.21 m. See *Admiralty Tide Tables Volume 2*.

Density of water**15.58**

- 1 The density of water is brackish.

Ice**15.59**

- 1 The average dates for the harbour icing over are 8th December to 10th April. The ports operate in the summer season only. Daylight navigation only is permitted. Ice breaking cover has been suspended.

Tidal streams**15.60**

- 1 At Chatham, the average rate of the in-going tidal stream is 1 kn, and the out-going is 2 kn. At times the rate may be greater.

Arrival information**Notice of ETA required****15.61**

- 1 ETA at Miramichi Bay is to be reported as at 15.11.

Outer anchorage**15.62**

- 1 See 15.26 for details.

Submarine cables**15.63**

- 1 See 15.39 for details.

Pilotage**15.64**

- 1 Pilotage is compulsory. See 15.11 for details.

Tugs**15.65**

- 1 Tugs are available from Chatham.

Traffic regulations**15.66**

- 1 See 15.38 for details.

Customs and Excise**15.67**

- 1 Newcastle is a port of entry for Canada.

Harbour**General layout****15.68**

- 1 The wharves at Chatham lie mainly on the S bank. The wharves at Newcastle lie mainly on the N bank.

Principal marks**15.69**

- 1 **Landmarks:**

Towers (red lights) (47°03'N, 65°27'W) supporting overhead cables (15.41).

Cathedral (red lights) (47°01'5N, 65°28'0W) at Chatham.

Directions**15.70**

- 1 The ports are entered directly from the river.

Alongside berths**General information****15.71**

- 1 Alongside depths are reported depths. The port authorities should be contacted for the latest information.

Chatham**15.72**

- 1 The public wharf (47°02'2N, 65°28'0W) at Chatham has a length of 170 m and an alongside depth of 7.0 m. Other berths exist at Gordon Point (47°04'7N, 65°23'6W) and Lyons Cove Public Pier (47°03'7N, 65°26'7W), which has a length of 105 m and a alongside depth of 5.8 m. In 1999, this wharf was reported to be in a state of disrepair.

The CNR public wharf (47°01'8N, 65°28'4W) has a length of 136 m and an alongside depth of 5.7 m. A cement wharf (47°01'2N, 65°29'2W) has a length of 67 m and an alongside depth of 5.7 m.

Newcastle**15.73**

- 1 Northwood Mill Wharf (47°01'0N, 65°30'2W) has a length of 104 m and depths alongside that vary from 5.5 to 7.3 m. The public wharf (47°00'0N, 65°33'8W) has a length of 310 m and depths alongside that vary from 7.6 m at S end to 8.0 m. A depth of 4.0 m exists close off the N end. A T-shaped floating wharf is situated on W bank, close S of Morrissey Bridge.

Port services**15.74**

- 1 **Repairs:** minor repairs only.
Other facilities: hospitals at Chatham and Newcastle; garbage disposal facilities; derat and derat exemption certificates; slipways at Chatham Public Wharf and close S of Morrissey Bridge at Newcastle.

Supplies: fuel oil by road tanker; freshwater at public piers; fresh provisions.

Communications: Chatham Airport 5 kms.

Small craft**15.75**

Loggieville. St Andrews Point Pier (47°04'4N, 65°23'1W) has a length of 78 m at the pierhead, and a depth of 0.6 to 0.9 m alongside.

Marina. A marina operates from the ruins of an old wharf at Douglastown (47°01'4N, 65°30'3W). There are thirty berths and a reported depth of 2 m (7 ft) in the harbour.

MIRAMICHI BAY TO BIRCH POINT

General information

Charts 1715, 4766, Canadian Charts 4906, 4911, 4486 (see 1.32)

Route**15.76**

- 1 From a position in the vicinity of MH Light-buoy (safe water) (47°10'·8N, 64°59'·5W) the coastal route leads NNE in shallower water than the offshore route for about 73 miles to a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W).

Topography**15.77**

- 1 The coast between Pointe Escuminac (47°04'N, 64°48'W) and Birch Point, the NE point of Miscou Island, (47°58'N, 64°31'W) 58 miles N, 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 small craft, but there are no harbours for larger ships.

Depths**15.78**

- 1 Shoal ground extends a considerable distance from the coast in places, but there are no detached dangers. Rocky patches with depths of less than 5·5 m (18 ft) over them extend over 1 mile off some parts of the E coast of Île Lamèque (Shippegan Island) (47°48'N, 64°33'W); breakers occur within 1½ miles from this coast in bad weather.

Wilson Bank, sand, extends about 2½ miles off the E coast of Miscou Island; it is advisable to give this bank a wide berth.

Principal marks**15.79**

- 1 **Major lights:**
Pointe Escuminac Light (47°04'N, 64°48'W) (14.354).
Miscou Island Light (Birch Point) (white tower, 25 m in height) (48°01'N, 64°30'W).

Other navigational aid**15.80**

- 1 **Racon:**
Miscou Island Light (48°01'N, 64°30'W). See *Admiralty List of Radio Signals Volume 2* for details.

Directions

(continued from 15.15)

15.81

- 1 From a position in the vicinity of MH Light-buoy (safe water) (47°10'·8N, 64°59'·5W) the coastal route leads NNE to a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W), passing Tabusintac Bay (47°20'N, 64°57'W), Baie de Tracadie (47°31'N, 64°52'W) and several harbours for small craft.

Useful mark:

South Tracadie Light (mast, 3 m in height) (47°29'N, 64°52'W).

(Directions continue for Chaleur Bay at 15.103)

Anchorage**Anchorage off Birch Point****15.82**

- 1 Good anchorage is available in offshore winds off Miscou Island Light (48°01'N, 64°30'W) (15.79) in depths of from 6 to 11 m (20 to 36 ft), sand.

Tabusintac Bay**15.83**

- 1 **Position and function.** Tabusintac Bay (47°20'N, 64°57'W) is a shallow bay enclosed by sand-dunes and beaches. Oyster beds exist in the vicinity of 47°20'N, 64°56'W and mariners are advised to proceed with care.

Approach and entry. Tabusintac Bay is entered either through Tabusintac Gully (47°17'N, 64°58'W) or through Old Tabusintac Gully, 3 miles NNE. The shape and positions of the sand-bars off the bay are subject to continual change.

- 2 **Local knowledge.** Owing to changing conditions, the lights and buoys may be moved to mark the best channel. Mariners should not attempt to enter without local knowledge.

Depths. Tabusintac Gully and Old Tabusintac Gully have a least depth of 0·9 to 2·1 m (3 to 7 ft), but are liable to be blocked by sand. Depths in the staked channel leading to Tabusintac River increase to as much as 5·5 to 9·1 m.

- 3 **Tidal streams** are felt for a distance of 10 miles above the mouth of Tabusintac River. Tabusintac River, with the village of Tabusintac at its mouth, flows into the W side of Tabusintac Bay. The river mouth can be seen over the sand dunes and beaches.

15.84

- 1 **Directions.** From the vicinity of TA2 Light-buoy (starboard hand) (47°17'N, 64°55'W) a buoyed channel leads through Tabusintac Gully and a staked channel leads across Tabusintac Bay to Tabusintac River, which flows through undulating country with occasional steep banks of sandstone up to 30 m (100 ft) in height. The channel is narrow, intricate and suitable for small craft only.

Useful mark:

McEacherns Point Wharf Light (framework tower, 5 m in height) (47°21'N, 64°58'W).

- 2 **Berths.** At Tabusintac village, two miles above the river mouth, a wharf, 27 m (89 ft) long, has depths of 1·5 to 4·6 m alongside.

Small craft. At McEacherns Point, on the N side of Tabusintac River, near its mouth, two piers enclose a basin for small craft, with an entrance 18 m wide. The N pier has an outer end 55 m (180 ft) in length and the S pier is 94 m (310 ft) in length.

- 3 At Bayshore, a L-shaped pier extends from the coast about 2½ miles NNE of McEacherns Point.

Sheila Marina exists at Old Bridge Pier on Big Tracadie River. A light is exhibited from the pier.

Small craft

Canadian Chart 4906 (see 1.32)

Baie de Tracadie**15.85**

- 1 **Description.** Baie de Tracadie (47°31'N, 64°52'W) extends for a distance of about 8 miles along the coast, behind long sandy beaches. It is shallow and nearly dries in parts. Channels used by local fishing boats lead from the entrance gullies to the village of Val Comeau (47°28'N,

64°53'W) at the mouth of South Tracadie River, and the town of Tracadie at the mouth of North Tracadie River, 3 miles NNW. A church (twin spires) stands in Tracadie, with water towers close N and S of it.

- 2 **Local knowledge** is essential, as the sand-bars and channels shift with every storm.

Directions. South Entrance. South Tracadie Light (mast, 3 m in height) (47°29'N, 64°52'W) marks the approach to the S entrance and Val Comeau.

The N entrance, known as Tracadie Gully, is marked by TE2 Light-buoy (starboard hand), moored close inshore, about 2.7 miles NNE of South Tracadie Light and a channel leads to the town of Tracadie. Val Comeau Jetty and the wharf close W are approached through a buoyed channel.

- 3 **Useful marks:**

Val Comeau Wharf Light (framework tower, 5 m in height) (47°28'N, 64°53'W).

North Tracadie Pier Light (framework tower, 5 m in height) (47°32'N, 64°55'W).

- 4 **Berths** for small craft exist as follows:

Val Comeau Main Jetty: T-shaped, with an outer face 89 m long; depth alongside 1.2 m. A light is exhibited from the head of the jetty.

Wharf close W of the main jetty; 56 m long; a slipway is fitted at the E end.

North Tracadie Wharf has an outer end 55 m long; depth alongside 1.5 m. A light is exhibited from the wharf.

Canadian Chart 4486 (see 1.32)

Baie de Pokemouche

15.86

- 1 **Description.** Baie de Pokemouche (47°40'N, 64°47'W) is entered through Pokemouche Gully, a narrow channel between sand-bars, about 3 miles NNE of Green Point (47°37'N, 64°49'W). Pokemouche River flows into the head of the bay, where a road bridge and railway bridge span the river mouth at the village of Inkerman.

Local knowledge is essential.

Directions. From a position close SW of TH2 Light-buoy (starboard hand) moored about 8 cables SE of the harbour entrance, the track leads NW over a dangerous shifting bar, that usually has a depth of 0.3 m (1 ft) over it, and into the buoyed channel that leads through the entrance.

- 2 Depths farther inside the entrance increase to 0.9 m to 1.2 m (3 to 4 ft). The channel to Inkerman is marked by buoys and stakes.

Useful marks:

Church (twin spires) (47°40'N, 64°49'W) at Inkerman.

Pokemouche Gully Wharf Light (mast, 4 m in height) (47°40'2N, 64°48'7W) on the pier at Inkerman.

- 3 **Berth.** Public pier at Inkerman, on E side of river mouth, close downstream of the road bridge; pierhead is 17 m in length with depths of 0.9 m to 1.5 m reported alongside. A slipway is situated between the bridge and the pier.

Petit-Pokemouche Gully

15.87

- 1 **Description.** Petit-Pokemouche Gully (47°41'N, 64°44'W) is a small channel through the beaches.

Berth. The pier is 30 m (100 ft) long, with a depth of 1.5 m alongside the pierhead.

Canadian Charts 4913, 4920 plan of Shippegan Harbour (see 1.32)

Shippegan Gully

15.88

- 1 **Description.** Shippegan Gully (47°43'N, 64°40'W) is the S entrance to Shippegan Harbour (15.157), which is usually entered from N from Chaleur Bay. The entrance is protected by breakwaters on both sides. A sand-bar, which partly dries and shifts in heavy gales, obstructs the entrance, but there is a dredged channel for small craft in which depths are reported to be about 1.7 m (5 ft). A depth of 1.3 m was reported (2003) in the channel.

Caution. Owing to changing conditions, the buoys may be moved to mark the best channel.

Local knowledge is essential.

- 2 **Vertical clearance.** The channel into Shippegan Harbour passes under a lift bridge (15.158).

Tidal streams are described at 15.96.

Directions. Shippegan Gully is approached from SE, passing (positions given from Big Shippegan Light (47°43'3N, 64°39'6W)):

- 3 Close to TJ2 Light-buoy (starboard hand) (2¼ miles S) marking the outer end of the buoyed channel, thence:

NE of the head of the W breakwater (3½ cables SW), from which a light is exhibited (framework tower, 3m in height), thence:

Through the buoyed channel, which leads N, then NW, for about 2¼ miles, through drying sandbanks and under the lift bridge (2 miles NW) (15.158) to Shippegan Harbour.

- 4 **Useful marks:**

Shippegan Gully Inner Breakwater Light (framework tower, 3 m in height) (47°43'4N, 64°40'1W).

Big Shippegan Light (8-sided tower, 3 m in height) (47°43'3N, 64°39'6W).

Berth. A wharf, with a slipway, is situated inside the W breakwater. The approach channel has a charted depth of 0.3 m (1 ft).

Canadian Chart 4913 (see 1.32)

Sainte-Marie-sur-Mer

15.89

- 1 **Description.** Sainte-Marie-sur-Mer (47°47'N, 64°34'W) is a village on the E coast of Île Lamèque, with a basin for small craft, enclosed by a L-shaped breakwater on its N and E sides, and a pier on its S side.

- 2 **Directions.** From a position ESE of the entrance, the recommended approach to Sainte-Marie-sur-Mer is with Sainte-Marie-sur-Mer Breakwater Light bearing 291½°, passing clear of the breakwater head from which the light is exhibited, and between the breakwater and pier on the S side, into the harbour.

The entrance is 17 m (56 ft) wide.

- 3 **Useful marks:**

Sainte-Marie-sur-Mer Breakwater Light (framework tower, 4 m in height) (47°46'8N, 64°33'8W).

Sainte-Marie-sur-Mer Light (framework tower, 8 m in height) (47°46'9N, 64°34'1W).

Basin for small craft is about 145 m long and 90 m wide, with reported depths (1992) of 0.6 to 1.5 m. There is a slipway for boats in the inner end of the S pier.

Fox Dens Gully

15.90

- 1 **Description.** Fox Dens Gully (47°53'N, 64°30'W) separates the beach at the NE extremity of Île Lamèque from Fox Dens Beach, farther N, and is a shallow entrance used by local fishermen into Miscou Harbour.

A buoyed channel leads through the gully to a pier about 4 cables S.

Caution. The channel and harbour are subject to rapid changes due to silting.

Local knowledge is required.

- 2 **Directions.** From a position 4 cables E of Fox Dens Gully Light, (framework tower, 3 m in height) (47°53'N, 64°30'W) in the vicinity of TK2 Light-buoy (starboard hand) (47°53'·2N, 64°29'·5W), the buoyed channel leading to the pier is navigable by small boats only and has a limiting depth of 0·2 m (1 ft). The channel leads SW, then S towards the public pier in the SE corner of Miscou Harbour.

- 3 **Berths.** The public pier (47°52'·7N, 64°30'·5W) is situated at Pigeon Hill. The pier is 138 m long and has an outer end 38 m wide, with a depth of 1·2 m alongside. A light (square framework tower, 3 m in height) is exhibited

from the pier.

A wharf and another small jetty are situated nearby. A slipway for boats is situated between the wharf and the public pier.

Miscou Gully

15.91

- 1 **Description.** Miscou Gully (47°55'N, 64°30'W) separates the N end of Fox Dens Beach from Miscou Island. A channel leads from the entrance into Miscou Harbour.

Local knowledge is required.

Directions. The entrance is approached from ENE, passing over the sand-bar, on which there are breakers during E winds. The entrance is very shallow and has been reported as being unnavigable.

BAIE DES CHALEURS AND APPROACHES

GENERAL INFORMATION

Charts 4766, 1715, Canadian Chart 4486 (see 1.32)

Area covered

15.92

- 1 This section describes the approaches to and routes through Baie des Chaleurs. The larger ports of Belledune and Dalhousie are also described, together with many smaller ports and harbours. Baie des Chaleurs is the largest bay in the Gulf of St Lawrence and is entered between Northwest Miscou Point (48°02'N, 64°32'W) and Pointe au Cap d'Espoir, 25 miles NNE.

It is arranged as follows:

Baie des Chaleurs — east part and approaches (15.97).

Baie de Shippegan (15.144).

Baie des Chaleurs — middle part (15.168).

Baie des Chaleurs — inner part (15.201).

Rivière Restigouche (15.229).

Topography

15.93

- 1 The S shore is generally low, but there are cliffs of red sandstone, 30 m high between L'Anse-Bleu (47°50'N, 65°05'W) and Bathurst (47°37'N, 65°40'W).

The N shore is moderately high, with a range of hills, their summits exceeding 520 m (1706 ft) in height, lying parallel to the coast a few miles inland. The predominant features of both shores are the red cliffs of sandstone and shale, with intervening sandy beaches.

Depths

15.94

- 1 Baie des Chaleurs is free of detached shoals, except near the coast, and is deep, gradually shoaling towards its head.

Marine farms

15.95

- 1 Aquaculture zones have been established throughout Baie des Chaleurs. The zones are usually marked with yellow cautionary buoys, which may or may not be lit. The buoys are fitted with radar reflectors and the zones are marked on a seasonal basis.

Fish traps, extending up to 5 cables offshore, may be found between Grindstone Point (47°45'N, 65°22'W) and Bathurst Harbour, 12 miles SW.

Mariners are advised to exercise caution when navigating in the area.

Natural conditions

15.96

- 1 **Tidal streams.** Tidal streams are regular within the bay, but the rate seldom amounts to 1 kn. Off the mouth of the bay, the streams are erratic, both in rate and direction, especially over Miscou Bank.

Local weather. The bay is named and noted for its milder climate in comparison with the weather in the adjacent parts of the gulf. Fogs, which are frequent outside the bay, seldom penetrate far towards its head, though rain and mist often accompany E gales.

BAIE DES CHALEURS — EAST PART AND APPROACHES

General information

Charts 4766, 1715, Canadian Chart 4486 (see 1.32)

Description

15.97

- 1 The approach to and E part of the Baie des Chaleurs comprise the waters W of a line joining Northwest Miscou Point (48°02'N, 64°32'W) and Cap d'Espoir (48°25'N, 64°19'W) 25 miles NNE, and E of a line joining Pointe de Maisonette (47°50'N, 65°00'W) and Pointe Huntingdon 14 miles NNW.

Route

15.98

- 1 From a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W), the route leads WSW in deep water into the E part of Baie des Chaleurs.

Topography

15.99

- 1 **South side.** Northwest Miscou Point (48°02'N, 64°32'W) is distinguished by a grassy sand hill. The N end of Miscou Island has steep sandy beaches. Between Northwest Miscou Point and Pointe de Maisonette, the shore is low, with shallow inlets giving access to several harbours.
- 2 **North side.** Cap d'Espoir (48°25'N, 64°19'W) consists of red sandstone cliffs, about 15 m high, with the land behind rising to high ridges inland. Pointe au Maquereau (48°12'N, 64°46'W) is bold, dark and wooded, with craggy rocks rising steeply to a height of about 60 m. Only small

harbours exist between Pointe au Maquereau and Pointe Huntingdon.

The highest land near the N shoreline is Colline Daniel, a hill, 122 m in height, situated about 1½ miles SW of Pointe du Sud-Ouest (48°09'N, 64°57'W) (Pointe de l'Ouest on Canadian Chart 4486).

Rescue

15.100

- 1 A Canadian Coast Guard lifeboat is stationed at Shippegan (47°45'N, 64°42'W). See 1.105 and *Admiralty List of Radio Signals Volume 1* (2) for further information on rescue.

Principal marks

15.101

- 1 **Landmarks:**

Cap d'Espoir Lighthouse (white 8-sided tower, 40 m in height) (48°25'N, 64°19'W).

Chimney at Chandler (69 m in height) (48°21'N, 64°41'W).

Church at Newport (48°16'N, 64°45'W).

Miscou Island Lighthouse (48°01'N, 64°30'W) (15.79).

Cross, illuminated at night, at Grande-Rivière (48°24'4N, 64°30'0W). (Canadian Chart 4486).

Church, 4 cables S of the cross mentioned above.

- 2 **Major lights:**

Cap d'Espoir Light — as above.

Miscou Island Light (48°01'N, 64°30'W) (15.79).

Chandler East Light (white framework tower, red bands, 9 m in height) (48°21'N, 64°40'W).

Port Daniel West Light (white 8-sided tower, 10 m in height) (48°09'N, 64°57'W) on Pointe du Sud-Ouest.

Maisonette Light (square framework tower, 13 m in height) (47°50'N, 65°00'W).

Other navigational aid

15.102

- 1 **Racon:**

Shippegan, North Channel EE Light-buoy (47°53'2N, 64°45'8W). See *Admiralty List of Radio Signals Volume 2* for details.

Directions

(continued from 15.3, 15.5 and 15.81)

15.103

- 1 From a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W), the track leads WSW in mid-channel between Northwest Miscou Point (48°02'N, 64°32'W) and Cap d'Espoir 25 miles NNE into Baie des Chaleurs, passing, (positions given from Cap d'Espoir):

SSE of Haut-fond Leander and shoals (1.2 miles SE), thence:

- 2 NNW of shoal water, with depths of less than 9.1 m (30 ft) (22 miles SSW), extending 3 miles N from Northwest Miscou Point, thence:

To a position, in deep water, between Pointe de Maisonette (47°50'N, 65°00'W) and Pointe Huntingdon 14 miles NNW.

Clearing marks. The whole of Rocher Percé (Percé Rock) (48°31'N, 64°12'W) bearing less than 021°, open E of Cap Blanc (White Head) 1½ miles SSW, passes ESE of Haut-fond Leander (48°24'N, 64°18'W).

3

Useful marks:

Black Point Light (red and white rectangle on framework tower, 18 m in height) (47°53'N, 64°37'W).

Île Dupuis Light (48°20'N, 64°40'W) (15.110).

Newport Point Light (framework tower, 9 m in height) (48°17'N, 64°43'W), on an islet off the point.

Pointe au Maquereau Light (white framework tower, red bands, 15 m in height) (48°12'N, 64°46'W).

(Directions continue for Baie des

Chaleurs middle part at 15.172)

(Directions for Chandler are given at 15.110, for Newport-Point at 15.116 and for Baie de Shippegan at 15.147)

Small craft channel

Charts 1715, 4766, Canadian Chart 4486 (see 1.32)

Off Cap d'Espoir

15.104

- 1 **Description.** A channel, suitable for small craft only, leads between Cap d'Espoir (48°25'N, 64°19'W) and Haut-fond Leander 1.2 miles SE.

Directions. Leading marks. The alignment (033°) of the following marks leads through the channel:

Cap Blanc (48°30'N, 64°13'W).

The centre of Rocher Percé (48°31'N, 64°12'W) 1½ miles NNE.

Chandler

Canadian Chart 4921 plan of Chandler and Chandler Wharf (see 1.32)

General information

15.105

- 1 **Position.** Chandler (48°21'N, 64°40'W) lies 15 miles WSW of Cap d'Espoir.

Function. Chandler is a small port serving local needs. The main industry is wood-pulp and newsprint.

Traffic. In 1991, the port was used by 3 vessels, totalling 25 074 grt.

Port Authority. Transport Canada, Canadian Coastguard, Harbours and Ports, 104 Dalhousie Street, Québec.

Limiting conditions

15.106

- 1 **Controlling depth.** Minimum depth in the channel is 8.5 m.

Deepest and longest berth. Public jetty (15.111).

Density of water is 1.025 g/cm³.

Ice. The port operates throughout the year, sometimes with the assistance of icebreakers.

Arrival information

15.107

- 1 **Notice of ETA required.** Masters of vessels requiring a pilot should send their ETA to Atlantic Pilot Authority in Halifax at least 12 hours before the ETA at the pilot boarding position. The ETA should be confirmed or corrected 4 hours prior to arrival. GMT should be used.

Submarine pipelines. There are a number of uncharted outfall pipelines in the harbour, extending up to 1 cable from the W shore. The outfall situated in L'Anse-à-L'Îlot is covered with rocks. The outer end has a depth of 2.3 m (8 ft) over it. A light (mast, 5m in height) (48°20'6N, 64°40'2W) is exhibited from L'Anse-à-L'Îlot.

- 2 **Pilotage** is available but not compulsory. The pilot boards in position 48°19'N, 64°38'W. See *Admiralty List of Radio Signals, Volume 6 (5)*.

Tugs. No tugs are available.

Local knowledge is required.

Harbour

15.108

- 1 **General layout.** A curved stone breakwater extends about 458 m from the shore in position 48°20'·8N, 64°39'·4W. A public jetty, 150 m long, extends SW from the end of the breakwater.

Île Dupuis, a small island, lies about 5 cables W of the outer end of the public jetty.

Principal mark

15.109

- 1 **Major light:**
Chandler East Light (48°21'N, 64°40'W) (15.101).

Directions for entering harbour

15.110

- 1 From a position about 2 miles SE of the head of the breakwater, the track leads NW towards the harbour.

Chandler Leading Lights:

Front light (orange trapezium, black stripe on square framework tower, 8 m in height) (48°20'·8N, 64°40'·4W), on the shore at the head of the cove.

Rear light (similar construction, inverted, on tower, 12 m in height) (198 m from front light).

- 2 The alignment (321°) of these lights leads towards Chandler, passing, (positions given from front light):

NE of shoal ground (6 cables SE) extending about 2 cables SE from Île Dupuis (48°20'N, 64°40'W).

A stranded wreck lies on the S edge of the shoal ground, and:

SW of the outer end of the public jetty (7 cables ESE) (15.111).

- 3 **Useful marks:**

Île Dupuis Light (white framework tower, red bands, 9 m in height) (48°20'N, 64°40'W).

Chimney (48°20'·8N, 64°40'·8W) at the paper plant.

Church spire (48°20'·9N, 64°41'·3W) in Chandler.

Basins and berths

15.111

- 1 **Anchorage berth.** Good anchorage is available in the roads off Chandler.

Alongside berths. The alongside berth for shipping, which is 150 m long with a least depth of 8·6 m alongside, is on the NW side of the public jetty. There are no berths on the SE side. The approaches have been dredged to a depth of 9·8 m (1991), within a radius of 190 m from the SW end of the jetty. See 15.106.

Chandler East Light (15.101) is exhibited from the outer end of the jetty.

Port services

15.112

- 1 **Repairs:** machine shop for minor repairs.
Other facilities: hospital; slipway at the marina (15.113).

Supplies: fresh water available at the wharf; diesel oil; fuel oil by rail wagon; fuel at the marina; provisions in small quantities.

Communications: sea services to Montréal, Québec and ports on the Gaspé coast; local airport.

Small craft

15.113

- 1 A previously disused jetty, about 5 cables W of the breakwater, contains a marina, with floating pontoon berths. The basin is protected by a breakwater and wharf bordered with rocks from which a light (private) is exhibited. A private daybeacon (starboard hand) has been constructed in approximate position 48°20'·7N, 64°40'·2W.

Newport-Point

Canadian Chart 4921 plan of Newport-Point and Newport-Point Wharf (see 1.32)

General information

15.114

- 1 **Position.** Newport-Point lies in 48°17'N, 64°43'W.
Function. Newport-Point is a village with a harbour for fishing vessels, protected by two breakwaters.

Approach and entry. The harbour is approached through a buoyed channel, with a least depth of 4·1 m (13 ft) (1998) on the alignment of the leading lights.

Limiting conditions

15.115

- 1 **Controlling depth.** Controlling depth is 4·1 m (13 ft) in the harbour entrance.

Deepest and longest berth. W breakwater inner side. (15.117).

Directions

15.116

- 1 **Newport-Point Leading Lights:**

Front light (white rectangle, black stripe on square framework tower, 6 m in height) (48°17'·1N, 64°43'·3W), on the head of the W breakwater.

Rear light (similar construction and tower, 15 m in height) (235 m from front light).

The alignment (342°) of these lights, which are shown from 15th April to 10th December only, leads to the harbour entrance, passing, (positions given from front light):

- 2 Close to Newport Light-buoy (safe water) (5 cables SSE), thence:

ENE of a 0·9 m (3 ft) rocky patch, (2 cables S) marked by AN1 Light-buoy (port hand), moored close SSE, thence:

Between AN3 Light-buoy (port hand) (1·2 cables S) and AN4 Light-buoy (starboard hand), marking rocks with depths of 3 m and 3·4 m, respectively, over them, thence:

- 3 WSW of the stone mound, (½ cable SE) 5 m in height, forming the S entrance point to the harbour.

Basins and berths

15.117

- 1 **Alongside berths.** Berths at Newport-Point are located near the fish plant at the inner end of the W breakwater, and on Fisherman's Jetty. The W breakwater, inner side, has a length of 149 m and a depth of 4·5 m alongside. The length of other wharves in the harbour vary from 64 to 30 m, with depths alongside of from 4·8 to 2·2 m.

Port services

15.118

- 1 **Other facilities:** slipway.

Caraquet Harbour

Chart 1715, Canadian Charts 4913, 4920 plans of Caraquet, Middle Caraquet and Bas-Caraquet (see 1.32)

General information

15.119

- 1 **Position.** Caraquet lies in 47°48'N, 64°56'W.
Function. A considerable fishing industry is supported by Caraquet (population 4315 in 1981) and Bas-Caraquet (Lower Caraquet) (population 1859 in 1981). The main imports and exports are pulpwood and frozen fish.
Approach and entry. The harbour is approached through Baie des Chaleurs. The main entrance is from NE through Caraquet Channel; a channel for small craft enters the harbour W of Caraquet Island.
- 2 **Port Authority.** La Comité du Port de Caraquet Inc., PO Box 3156, Caraquet EOB 1KO.

Limiting conditions

15.120

- 1 **Controlling depth.** In Caraquet Channel, the least depth is 5.3 m (17 ft) up to the jetties at Stoke Point; depths of 4.5 m (14 ft) exist in the channel farther W.
Deepest and longest berth. Jetty across the outer end of Young Wharf (15.127).
Ice begins to form across the approaches usually during the latter half of December, and clears during the first week in April.
- 2 **Density of water** is 1.025g/cm³.

Arrival information

15.121

- 1 **Notice of ETA required.** ETA should be sent 12 hours and 4 hours in advance to Atlantic Pilot Authority. See *Admiralty List of Radio Signals Volume 6 (5)*.
Outer anchorage. Same as for Baie de Shippegan (15.151).
Pilotage is available but not compulsory. pilot boarding position is the same as for Shippegan (15.145). For further details see *Admiralty List of Radio Signals, Volume 6 (5)*.
- 2 **Local knowledge** is required.
Regulations. Caraquet is a port of entry for Canada.

Harbour

15.122

- 1 **General layout.** Caraquet Harbour extends from abreast the village of Bas-Caraquet (47°48'N, 64°50'W) to the town of Caraquet, 5 miles W. The harbour is well sheltered and protected to the N by Caraquet Island, low; wooded and its surrounding shoals, and by the drying sandbanks extending SE from Pointe de Maisonette (47°50'N, 65°00'W). The main berthing area is at Caraquet.
W of Caraquet, the harbour leads into the wide and shallow waters of Baie de Caraquet, into which flow Rivière Caraquet and Rivière du Nord.
- 2 **Marine farms.** Many oyster farms are situated S of Caraquet Island and in Baie de Caraquet. Mariners are advised to proceed with care in these areas.

Directions for entering harbour

(continued from 15.147)

15.123

- 1 **Caraquet Channel.** Caution. Owing to continual silting, the leading lights and buoys may be moved to mark the best channel. There may be less water than is shown on the chart.
From the vicinity of the pilot boarding position, the first leg of the track leads SSE on the alignment of Pointe Petite-Lamèque Leading Lights, as given in the directions at (15.147), to a position close ENE of EM2 Light-buoy (starboard hand) (47°52'N, 64°45'W). Thence the track leads SW on the alignment of Caraquet Leading Lights.
- 2 **Caraquet Leading Lights:**
Front light (white square tower, red stripe, 8 m in height) (47°48'5N, 64°50'5W).
Rear light (similar construction and tower, 13 m in height) (6 cables from front light).
The front light is intensified on the leading line; the rear light is visible on the leading line only.
From the position close ENE of EM2 Light-buoy (starboard hand) the alignment (226¾°) of the above lights leads through Caraquet Channel, narrow and winding, marked by buoys, between the edges of Caraquet Shoal and Pokesudie Shoal, which are steep-to, passing, (positions given from front light):
- 3 SE of the NE end of Caraquet Shoal (4.8 miles NE), thence:
NW of the SW part of Pokesudie Shoal, thence:
SE of the SE edge of Caraquet Shoal (2.1 miles NE).
The deepest water does not always follow the leading line, as can best be seen from the chart.
- 4 **Middle Caraquet Leading Lights:**
Front light (red rectangle, white stripe on framework tower, 5 m in height) (47°48'2N, 64°53'2W).
Rear light (similar construction and tower, 14 m in height) (355 m from front light).
The alignment (244°) of these lights leads through the buoyed channel for 2¾ miles, passing, (positions given from front light):
- 5 Close to Lower Caraquet Wharf (1.3 miles ENE) from which a light (framework tower, 3 m in height) (47°48'7N, 64°51'4W) is exhibited, thence:
To a position 5 cables NE of the front light.

15.124

- 1 **Stoke Point Leading Lights.** From a position 5 cables NE of Middle Caraquet Front Leading Light (15.123) the alignment (093¾°), astern, of the following lights leads through the buoyed channel for about 7 cables, passing close N of the shoal ground off the S shore, marked by EM23 Light-buoy (port hand).
Front light (red rectangle, white stripe on framework tower, 3 m in height) (47°48'4N, 64°51'6W).
Rear Light (similar construction and tower, 8 m in height) (124 m from front light).
- 2 **Pointe à Brideau Leading Lights.** From a position close N of the shoal ground off the S shore, marked by EM23 Light-buoy (port hand), the alignment (248°) of the following lights leads through the buoyed channel to the berths at Caraquet:
Front light (black rectangle, white stripe on framework tower, 4 m in height) (47°47'8N, 64°56'2W).
Rear light (similar construction and tower, 13 m in height) (375 m from front light).

- 3 **Baie de Caraquet entrance.** From a position about 4 cables NE of Pointe à Brideau Front Leading Light, the buoyed channel leads W for 1¼ miles to the outer part of the Baie de Caraquet, passing S of the drying sandbanks that extend about 2¾ miles SE from Pointe de Maisonette.

Channel west of Caraquet Island

15.125

- 1 **Directions.** From the vicinity of 47°53'N, 64°56'W, a shallow buoyed channel leads SSE towards Caraquet Harbour, passing, (positions given from Caraquet Island Light (47°49'4N, 64°54'3W)):
- About 2 miles WSW of Fishermans Ledge (rock and stones) (¾ miles NNE), thence:
 - 2 Close to EN Light-buoy (safe water) (1½ miles NNW), thence:
 - ENE of Maisonette Ledge (rock) (1½ miles NW), thence:
 - 2 cables WSW of the SW extremity (2 cables S) of Caraquet Island, from which a spit of drying sand extends 6 cables SSE.

Fisherman Channel

15.126

- 1 **General information.** Fisherman Channel leads between Fisherman Ledge, 2½ miles N of Caraquet Island and Scollop Patch, (not marked on Canadian Chart 4913) about 1¼ miles SE of the ledge. This channel connects the outer end of Caraquet Channel with the channel W of Caraquet Island. The channel has charted depths of from 7.6 to 12.5 m (25 to 45 ft), but it is only suitable for small craft.
- Directions.** The alignment (259°) of Cap Pelé (47°50'N, 65°09'W) and the cliffs at the W entrance point of Grande-Anse, about 1½ miles W, leads through Fisherman Channel.

Useful marks:

- 2 Pointe de Pokesudie Light (47°49'N, 64°45'W) (15.150).
Church spire (47°48'N, 64°50'W) at Bas-Caraquet.
Caraquet Island Light (white square on red square framework tower, white bands, 20 m in height) (47°49'N, 64°54'W) on the W end of the island.
Middle Caraquet West Breakwater Light (square tower, 3 m in height) (47°48'N, 64°52'W).
- 3 Water tower (66 m (218 ft) in height; red lights) (47°47'N, 64°54'W).
Young Wharf (SE corner) Light, (square framework tower, 7 m in height) (47°47'8N, 64°55'5W).
Young Wharf (NW corner) Light (square framework mast, 5 m in height) (47°47'9N, 64°55'8W).

Basins and berths

15.127

- 1 **Anchorage berths.** Safe anchorage is available in the following places within Caraquet Roads:
- SE of Caraquet Island, in depths of not less than 6 m (20 ft).
 - S of Caraquet Island, in depths of 2 to 5 m (6 to 17 ft), E of the drying sandspit which extends 6 cables SSE from the SW point of the island.
- Alongside berths.** The following lists give the deepest and longest berth within each port complex:
- 2 **Bas Caraquet:**
- Stoke Point Public Jetty; length 35 m at the pierhead; depths 3.3 to 6.1 m (1998).

Public Jetty (1 cable SW of Stoke Point Jetty); length 46 m at pierhead; depth 3.9 m at outer face to 3.5 m at inner face.

3 **Caraquet:**

Young Wharf; length 270 m on E side, 151 m on W side; depths 1.9 to 5.7 m.
East Wharf; length 172 m; depth 3.0 m.
West Wharf; length 93 m; depth 5.0 m (reported).
West Wall between Young Wharf and West Wharf; length 134 m.
Jetty across outer end of Young Wharf; length 351 m, depth 3.9 to 6.0 m reported on outer side.

Port services

15.128

- 1 **Repairs:** minor repairs to fishing vessels, patent slip.
Other facilities: hospital, slipways at Stoke Point, Middle Caraquet and Caraquet.
Supplies: fuel by pipeline on Young Wharf; fresh water; provisions; waste oil disposal in small quantities.
Communications: airport Chatham 125 km; Moncton 280 km.

Small craft

15.129

- 1 **Middle Caraquet.** A marina is situated in the basin at Middle Caraquet (47°48'N, 64°52'W). The depth in the entrance is 2.2 m (7 ft) but there are shallower depths inside the basin of 0.9 m (3 ft). The marina comprises a L-shaped public wharf, with a breakwater extending from its outer end, and a breakwater to the E which together form the basin.
- Pointe de Maisonette.** Pointe de Maisonette public pier (47°50'N, 65°00'W) has a length of 21 m at the pierhead with a depth of 1.2 m alongside.

Anchorage and harbours on north shore

Canadian Chart 4921 plan of Quai Rivière-Grande (see 1.32)

Pointe Verte

15.130

- 1 **General information.** At Pointe Verte (48°23'N, 64°29'W) about 5 cables ESE of the river entrance, there is a small basin for fishing vessels, enclosed within breakwaters, having an entrance 58 m (190 ft) wide. There is a L-shaped wharf, 294 m (965 ft) long and 75 m (246 ft) wide. In 1998, charted depths alongside varied from 3 m to 3.6 m. Two floating docks and a slipway are located in the N part of the basin.
- Caution.** Due to silting, the depths in the fishing harbour cannot be relied on, and there may be considerably less water than shown on Canadian chart 4921.
- 2 A pipeline extending 120 m from the shore, terminating in an obstruction, lies close SE of the S breakwater. For details of Grande-Rivière, close W, see 15.132.

Canadian Chart 4921 plan of Sainte-Thérèse-de-Gaspé (see 1.32)

Petite-Rivière-Est

15.131

- 1 **General information.** At Petite-Rivière-Est (Little River), also known as Sainte-Thérèse-de-Gaspé (48°25'N, 64°24'W), a boat basin is formed by a breakwater and a L-shaped breakwater-wharf N of it. The entrance is 30 m wide and the depths alongside (1998) are 2.0 to 3.0 m. A floating wharf is situated at the mouth of the river.
- 2 **Directions.** The alignment (294½°) of Petite-Rivière-Est Leading Lights, leads towards the head of the breakwater:

Front light (orange diamond, black stripe on square framework tower, 6 m in height) (48°25'N, 64°24'W).

Rear light (similar construction and tower, 9 m in height) (136 m from front light).

Other facilities: slipway.

Small craft harbours on north coast between Cap d'Espoir and Pointe Huntingdon

Chart 1715, Canadian Chart 4921 plans of Grande Rivière and Grande Rivière Wharf (see 1.32)

Grande-Rivière 15.132

- 1 **Description.** Grande-Rivière (Grand River) (48°24'N, 64°30'W) is a fishing port, situated within the river mouth. The village lies 7 miles W of Cap d'Espoir. The entrance is protected by a training wall on its S side. The channel from the entrance to the wharves has a depth of about 1.6 m (6 ft), but is subject to silting.

Marine farm facilities marked by yellow cautionary buoys lie SE of Grande-Rivière.

- 2 **Directions.** Caution. Due to silting, the depths in the fishing harbour cannot be relied on, and there may be considerably less water than shown on the large scale Canadian chart 4921.

Grande-Rivière Leading Lights:

Front light (orange trapezium, black stripe on square framework tower with red bands; tower 9 m in height (48°23'8N, 64°30'2W).

Rear light (white square framework tower with red bands; tower 4 m in height) (59 m from front light).

The above lights are exhibited from 15th April to 10th December.

- 3 The alignment (319°) of the above lights leads over the bar and into the river entrance, passing, (positions given from the front light):

Either side of GRANDE-RIVIÈRE Light-buoy (safe water), moored on the leads (7 cables SE), thence: SW of shoal ground (6 cables SE) extending S from Pointe Verte, thence:

Close SW of the outer end of the S breakwater (4½ cables SE) at Pointe Verte, thence:

Close NE of the training wall (1¼ cables SE) at the river mouth.

For details of Pointe Verte harbour, close E, see 15.130.

An obstruction (position doubtful) has been reported to exist about ½ mile SSW of the front leading light.

Chart 1715, Canadian Chart 4486 (see 1.32)

Pointe du Grand Pabos 15.133

- 1 **General information.** Pointe du Grand Pabos (48°18'N, 64°42'W) is a headland, close W of which, and 3 miles SSW of Chandler (15.105), lies a small cove, which provides good shelter for small craft.

Newport 15.134

- 1 **General information.** Newport (48°15'N, 64°45'W) at the mouth of a small river, is a harbour for small craft, protected by a breakwater to the E.

The village of Newport stretches along the coast in the vicinity.

Newport Leading Lights:

Front light (orange rectangle, black stripe on square framework tower, 8 m in height) (48°15'3N, 64°45'2W).

- 2 Rear light (similar construction and tower, 12 m in height) (116 m from front light).

The alignment (288½°) of the above lights leads to the harbour, passing, (positions given from the front light):

About 3 cables NE of Îles Mahy (two islets 4.6 m (15 ft) in height) lying close to the coast, 1 mile S of the church at Newport. A rocky shoal lies about 443 feet (135 m) S of the entrance.

- 3 **Wharves**, in a state of disrepair, are situated on both sides of the river entrance. The channel between them is 36 ft (11 m) wide. On the W bank, a fish plant stands adjacent to a wharf 90 ft (27.4 m) long and 3 ft (0.9 m) in height. The harbour has depths of 0.8 to 1.8 m (2.6 to 5.9 feet). Depths may be less due to silting. The NE part of the harbour, just downstream of the highway bridge has been filled with rocks. Berthing is prohibited on the E side of the river.

Ruisseau Chapados 15.135

- 1 **General information.** Ruisseau Chapados (48°11'N, 64°52'W) is a small stream which enters L'Anse aux Gascons close NE of Pointe Reddish (red limestone). Pointe Reddish sometimes appears as an island. The mouth of the stream forms a fishing harbour, with an entrance about 15 m (50 ft) wide, protected from the W by a wharf, and from the E by one breakwater.

- 2 **Directions. L'Anse aux Gascons Leading Lights.** The alignment (319½°) of the following lights leads to the entrance, passing close SW of a rubble breakwater that extends about 130 m S from the E entrance point of the harbour:

Front light (orange trapezium, black stripe, on square framework tower, 8 m in height) (48°11'5N, 64°51'8W).

Rear light (similar construction, inverted, and tower, 11 m in height) (70 m from front light).

- 3 **Berths.** A wharf 433 ft (132 m) long forms the E side of the harbour; another wharf 151 ft (46 m) long is situated on the W side of the harbour and has a spur wharf extending 115 ft (35 m) from its end. In 2000, there was a least depth of 10 ft (3.1 m) in the approach and in the basin S of the spur wharf, and 6 ft (1.8 m) in the basin N of the spur wharf.

- 4 A light (framework tower, 6 m in height) (48°11'4N, 64°51'7W) is exhibited from the head of the wharf.

Gascons-Ouest 15.136

- 1 **General information.** Gascons-Ouest (48°11'N, 64°54'W) is situated 1 mile W of Pointe Reddish (15.135). The river mouth, protected by a breakwater, forms a small fishing harbour with an entrance passage 13 m (43 ft) wide. The wharf, 149 m (489 ft) long, had, in 1993, depths of 1.6 to 2.0 m (5 ft to 7 ft) alongside.

Canadian Chart 4921 plans of Baie de Port-Daniel and Port Daniel East Wharf (see 1.32)

Baie de Port-Daniel 15.137

- 1 **Description.** Baie de Port-Daniel (48°10'N, 64°58'W) is a small bay entered between La Vieille on the NE side and Pointe du Sud-Ouest, (craggy point of grey limestone), 1½ miles SSW.

- 2 Rivière Port-Daniel, a small stream, flows into the NW side of the bay through a broad mud flat and drying bar. Cap de l'Enfer is a high headland of white limestone, 5 cables W of La Vieille. Shoal ground with depths of less than 5.5 m (18 ft) extends about 5 cables offshore from Cap de l'Enfer, S around the head of the bay.

The village of Port-Daniel-Est is situated on the E side of the river mouth.

- 3 **Vertical clearance.** A railway bridge (vertical clearance 7.6 m) spans the river mouth with a road bridge (vertical clearance 2.3 m) close NW. Power cables (vertical clearance 8.3 m) span the river close S of the road bridge.

- 4 **A marine farm** is established in the bay; vessels should anchor well clear.

Major light:

Port Daniel West Light on Pointe du Sud-Ouest (15.101).

- 5 **Directions.** From a position midway between La Vieille and Pointe du Sud-Ouest, a buoyed channel leads NW to the village of Port-Daniel-Est.

Useful mark:

Port Daniel Wharf Light (48°10'9N, 64°57'7W) (Private).

- 6 **Anchorage berth.** Baie de Port-Daniel provides good shelter in all winds except those between S and E, which send in a heavy swell. The best anchorage is in depths of 10 m (33 ft), mud, between Cap de l'Enfer and Pointe du Sud-Ouest; the anchorage position is indicated on the chart. The holding ground is not good outside the line joining La Vieille and Pointe du Sud-Ouest.

Alongside berths. On the E side of the mouth of Rivière Port-Daniel, there is a L-shaped breakwater, with a berthing length of 62 m (204 ft) and a depth of 1.3 m (1997) on the inside. The dredged portion of the basin, 1.3 m in 1997 extends 50 m off the face of the berth. The limiting depth inside the dredged area may be less because of continuous silting. A wharf, 73 m (240 ft) long, with a reported depth of 0.9 m alongside lies close W. There is a slipway at this wharf.

- 7 Between the two bridges, there is a wharf on each side of the river. The E wharf is 68 m (223 ft) long; the W wharf is 30 m (98 m) long and in disrepair; both dry at their inner ends.

Canadian Chart 4486 (see 1.32)

Pointe aux Loups Marins

15.138

- 1 **General information.** Pointe aux Loups Marins (48°06'N, 65°02'W) has a breakwater wharf 72 m (236 ft) long, situated 6 cables NE of the point. A launching ramp located SW of the wharf is protected from the SW by a breakwater 16 m (53 ft) long.

Shigawake

15.139

- 1 **General information.** Shigawake (48°06'N, 65°04'W) is a village near Pointe Smith.

Alongside berth. A jetty 82 m (269 ft) long is fringed with rocks; it has a spur (in disrepair) extending 15 m from its W end. The S face of the spur was reported (1993) to have a depth of 1.2 m alongside.

Saint-Godefroi

15.140

- 1 **Description.** Saint-Godefroi (48°04'N, 65°07'W), population 488 in 2000, is a small village on the SW side of Pointe Trachy, 2 miles SW of Pointe Smith.

Depths. In 2002 there were charted depths of 1.2 m (4 ft) in the entrance channel.

- 2 **Directions.** Caution. Continuous silting takes place over the rocky bottom and depths may be less than indicated. The channel is marked by AG1 Light-buoy (port hand) and AG2 Light-buoy (starboard hand), which also marks the seaward end of the wharf.

- 3 **Useful mark:**

A light (framework tower, 6 m in height) (48°04'N, 65°07'W) is exhibited from the head of the wharf.

Berth. A breakwater wharf about 1.2 cables long is located SW of Pointe Trachy. A rock breakwater is situated close W of the outer end of the breakwater wharf. The outer part of the berth had a charted depth of 1.2 m (4 ft) in 2002.

- 4 **Facility:** launching ramp and floating wharves are situated in the N part of the basin.

**Small craft harbours on the south coast
between Northwest Miscou Point
and Pointe de Maisonette**

Chart 1715, Canadian Chart 4913 (see 1.32)

Miscou Harbour

15.141

- 1 **Position and function.** Miscou Harbour (47°53'N, 64°34'W) is suitable for use by small craft only. The village of Miscou Harbour is situated close E of a spit of land extending SE towards Harper Point, the S point of Miscou Island. The village of Little Shippegan is situated on the opposite shore.

Approach and entry. The main approach is from W from Baie des Chaleurs.

The harbour may also be entered from Gulf of St Lawrence through Miscou Gully (47°55'N, 64°30'W) (15.91).

- 2 **Depths.** There is a least charted depth of 6.7 m (22 ft) in the channel between Miscou Flat (47°56'N, 64°38'W) and Shippegan Flat (2 miles SW); the channel is marked by buoys and light-buoys.

The edges of the banks on both sides of the channel become steep-to as it narrows to a width of about 2 cables abreast Black Point Light (47°53'N, 64°37'W) (15.103).

- 3 **Local knowledge** is required.

Submarine cables are laid across the harbour entrance between Miscou Harbour and Little Shippegan as indicated on Canadian Chart 4913.

- 4 **Harbour.** Within the entrance the harbour is mainly shallow, with a bottom of soft mud. Depths of from 2.2 to 4.2 m (7 to 14 ft) extend about 2 miles SE from the entrance, and a narrow channel, with depths of more than 3.7 m (12 ft) leads NE to sandbanks which extend W from Miscou Gully.

Caution. A cable ferry operates between Miscou Harbour and Little Shippegan. Privately maintained signal lights are shown from each ferry terminal as follows:

Red light: the cable is up and mariners are cautioned not to cross the ferry route.

Green light: the cable is submerged and traffic may pass.

- 5 **Directions for entering harbour.** Caution. Due to changing conditions the leading lights and buoys may be moved to mark the best channel.

Miscou Harbour Leading Lights:

Front light (white rectangle, red stripe on framework tower, 7 m in height) (47°52'9N, 64°35'0W).

Rear light (similar construction and tower, 13 m in height) (463 m from front light).

- 6 From a position about 5 miles NW of Black Point Light, the track leads SW through Miscou Channel to the harbour entrance, on the alignment (120°) of the above lights passing, (positions given from front light):

Close to EA Light-buoy (safe water) (5¼ miles NW), marking the outer end of the channel.

From a position about 1 mile ENE of Black Point Light (15.103), the buoyed channel leads E, passing close S of the edge of the sandspit on the N side of the harbour entrance.

- 7 **Useful marks:**

Miscou Wharf Head Light (square framework tower, 3 m in height) (47°53'·7N, 64°34'·6W).

Harper Point Light (square framework tower, 3 m in height) (47°53'·6N, 64°34'·7W).

Shippegan Island (Île Lamèque) Ferry Wharf Light (square framework tower, 5 m in height) (47°53'·0N, 64°34'·5W).

Shippegan Island (Île Lamèque) Ferry Wharf Light West (square framework tower, 3 m in height) (47°53'·0N, 64°34'·5W).

- 8 **Alongside berths.** The following berths are located near the harbour entrance:

Miscou Harbour: public pier extends 275 m SE from the shore close E of the sandspit; length of pier at pierhead 12 m; depth alongside 1·2 m. A ferry ramp is located on E side of the pier.

Little Shippegan: public pier extends from S shore; depth at pierhead 0·6 m.

- 9 **Other facilities.** A slipway and boat service area are located near the public pier in Miscou Harbour.

Petite-Rivière-de-l'Île

15.142

- 1 **General information.** The small village of Petite-Rivière-de-l'Île (Island River) (47°52'N, 64°39'W) lies in a small drying bay, 1¼ miles SW of Black Point Light (47°53'N, 64°37'W).

Local knowledge is required.

Directions. Petite-Rivière-de-l'Île is approached from NW, over the inner side of Shippegan Flat (sandstone, thinly covered with sand), and through a narrow channel across drying sandbanks, which extend up to 5 cables from the shore in this vicinity.

- 2 **Useful mark:**

Petite-Rivière-de-l'Île wharf light, NE corner, (square framework tower, 3 m in height) (47°52'·4N, 64°39'·2W).

Berth. A public pier, with an outer face 87 m long, extends NW from the S entrance point of the bay. The berth at the outer end is 12 m long, with a reported depth of 1·8 m alongside.

Other names

15.143

- 1 Pointe Smith (48°05'N, 65°04'W).
Rivière Nouvelle (48°04'N, 65°08'W).

BAIE DE SHIPPEGAN

General information

Chart 1715, Canadian Chart 4913 (see 1.32)

Description and route

15.144

- 1 Baie de Shippegan (47°48'N, 64°43'W), which is approached from the N through Shippegan Channel, leads

into several smaller bays and inlets. Shippegan Harbour lies at the S end of the bay. Shippegan Channel is deep, but the buoyed channel is narrow between steep-to shoals, and there are several turns. The channel is marked by leading lights.

Pilotage

15.145

Pilotage is compulsory. The pilot for Baie de Shippegan and for Caraquet Harbour (15.121) boards in position 47°54'·4N, 64°48'·5W as indicated on the chart. For further details see *Admiralty List of Radio Signals, Volume 6 (5)*.

Local knowledge

15.146

Local knowledge is recommended.

Directions

15.147

- 1 **Caution.** Owing to changing conditions, the leading lights and buoys may be moved to mark the best channel. There may be less water than is shown on the chart.

Approach. From the vicinity of the pilot boarding position, the track leads SSE through Shippegan Channel, marked by buoys.

- 2 **Pointe de Petite-Lamèque Leading Lights:**

Front light (white rectangle, red stripe on red framework tower, 8 m in height) (47°48'·9N, 64°42'·3W).

Rear light (similar construction and tower, 16 m in height) (281 m from front light).

The alignment (151¼°) of these lights leads into Shippegan Channel, passing, (positions given from front light):

- 3 Close to Shippegan North Channel EE Light-buoy (safe water) (5 miles NNW) (15.102), thence:
Close ENE of EM2 Light-buoy (starboard hand) (3·7 miles NW).

(Directions continue for Caraquet Channel at 15.123)

Thence the track continues SSE, passing:

- 4 Close ENE of the N point of Pokesudie Shoal, sand (3 miles NNW), thence:
WSW of shoal ground, marked by EG5 Light-buoy (port hand) extending about 1¾ miles W from the W coast of Île Lamèque in the vicinity of the conspicuous tower (15.150) (2 miles NNE), thence:
Close E of the E edge of Pokesudie Shoal, marked by EG8 Light-buoy (starboard hand).

15.148

- 1 **Pointe à Marcelle Leading Lights.** From close E of the E edge of Pokesudie Shoal, the alignment (194¼°) of the following leading lights leads SSW for a distance of 9 cables, through the first reach of Shippegan Channel:

Front light (white rectangle, red stripe, on red framework tower, 6 m in height) (47°47'·2N, 64°45'·0W) on SE point of Pokesudie Island.

Rear light (similar construction and tower, 17 m in height) (339 m from front light).

15.149

- 1 **Pointe à Peinture Leading Lights.** From a position 47°49'·8N, 64°44'·0W at the end of the Pointe à Marcelle Leading Lights leading line, the alignment (158¾°) of the following leading lights leads SSE for about 1¼ miles to the N end of Baie de Shippegan:

Front light (white rectangle, red stripe on framework tower, 6 m in height) (47°45'·8N, 64°41'·6W).

Rear light (similar construction and tower, 18 m in height) (458 m from front light).

2 **Pointe à Bernache Leading Lights.** From a position about 7 cables WSW of Pointe de Petite-Lamèque Front Leading Light (15.147), the alignment (179½°) of Pointe à Bernache Leading Lights, leads S through the central part of Baie de Shippegan:

- 3 Front light (black rectangle, red stripe, on framework tower, 7 m in height) (47°45'·5N, 64°43'·3W).
Rear light (similar construction and tower, 16 m in height) (170 m from front light).

15.150

1 Useful marks:

- Tower (94 m (310 ft) in height; red lights) (47°51'N, 64°41'W), near the W coast of Île Lamèque.
Pointe de Pokesudie Light (square framework tower, 10 m in height) (47°49'·2N, 64°45'·3W) on the N side of Pokesudie Island.

(Directions continue for Shippegan Harbour at 15.161)

Anchorage

15.151

- 1 Good anchorage is obtained near the outer end of Shippegan Channel (47°53'N, 64°46'W).

Baie de Lamèque

Chart 1715, Canadian Charts 4913, 4920 plan of Lamèque (see 1.32)

General information

15.152

- 1 **Position.** Baie de Lamèque (47°47'N, 64°40'W) lies on the E side of Baie de Shippegan.

Function. Baie de Lamèque is an excellent harbour used by fishing vessels.

Approach and entry. Baie de Lamèque is approached through a buoyed and dredged channel, across a bar of sand and mud with a charted depth of 4·9 m (1992) between Pointe Alexandre (47°47'N, 64°42'W), and Pointe Brûlé, 2 miles SW, and is entered S of Pointe Alexandre.

Limiting conditions

15.153

- 1 **Controlling depth.** In 1998, there was a charted depth of 5·5 m in the final approach to Lamèque village.

Deepest and longest berth. South Basin SW side (15.155).

Directions for entering harbour

15.154

- 1 **Baie de Lamèque South Leading Lights.** The alignment (074°) of the following lights leads through the first reach of the buoyed channel:

Front light (white square, red stripe, on red framework tower, 5 m in height) (47°46'·8N, 64°39'·2W).

Rear light (similar construction and tower, 10 m in height) (917 m from front light).

- 2 **Lamèque Leading Lights.** From a position 47°46'·5N, 64°40'·8W at the end of the Baie de Lamèque South Leading Lights leading line, the alignment (041¾°) of the following lights, leads NW through the buoyed channel to the entrance to the boat harbour:

Front light (white rectangle, red stripe on framework tower, 8 m in height) (47°47'·4N, 64°39'·5W) at the head of the outer breakwater.

Rear light (similar construction and tower, 11 m in height) (119 m from front light).

3 Useful mark:

Lamèque Wharf Light (red framework tower, 5 m in height) (47°47'·4N, 64°39'·6W) on the W side of the entrance.

Basins and berths

15.155

- 1 Berths are situated inside the two basins. The deepest and longest berth is on SW side of South Basin, 100 m in length and with a depth of 5·5 m alongside. There were general depths of 5·5 m throughout South Basin in 1998.

Port services

15.156

- 1 **Other facilities:** slipway close E of the inner end of the E breakwater.

Shippegan Harbour

Chart 1715, Canadian Charts 4913, 4920 plan of Shippegan Harbour (see 1.32)

General information

15.157

- 1 **Position.** Shippegan Harbour lies in 47°45'N, 64°42'W.
Function. Fishery and peat industries are located within the town of Shippegan.

Approach and entry. Shippegan Harbour can be approached and entered from the Gulf of St Lawrence through Shippegan Gully (15.88) or from Baie des Chaleurs through Baie de Shippegan.

- 2 **Port Authority:** Department of Fisheries and Oceans, PO Box 717, Tracadie, NB EOC 2BO.

Limiting conditions

15.158

- 1 **Controlling depth.** The least charted depth in the approach from Baie des Chaleurs is 4 m. This depth permits vessels of 3·6 m draught to enter the harbour.

Vertical clearance. A causeway (47°45'N, 64°42'W) with a lift bridge near its SW end, spans the harbour from Île Lamèque on the N side to the mainland on the S side at a position close S of the wharves at Shippegan. Vertical clearance is 13 m when the bridge is raised and 2·7 m when lowered.

- 2 **Deepest and longest berth.** New North Wharf (15.163).
Density of water is 1·025 g/cm³.

Maximum permitted draught is reported to be 6·1 m with assistance from maximum spring tides.

Ice. The harbour is frozen over from about the middle of December to the middle of April.

Arrival information

15.159

- 1 **Notice of ETA required.** See 15.121. See *Admiralty List of Radio Signals Volume 6* (5).

Outer anchorage. See 15.151.

Submarine cables. Abandoned submarine cables are laid close S of the causeway (15.158).

- 2 **Pilotage** is compulsory. The pilot boards in 47°54'·4N, 64°48'·5W as indicated on the chart. ETAs should be sent to Atlantic Pilot Authority 12 hours and 4 hours in advance. See entry under Caraquet in *Admiralty List of Radio Signals Volume 6* (5).

Harbour

15.160

- 1 **General layout.** The basins and wharves are located at the town of Shippegan on the W shore. Buoyed channels lead from Baie de Shippegan and from Shippegan Gully (15.88).

- 2 **Tidal streams.** The tidal stream sets S through Baie de Shippegan and Shippegan Gully from about 3 hours before to 3 hours after the time of LW in Shippegan Harbour. The stream sets in the opposite direction from about 3 hours before to 3 hours after the time of HW. The S-going stream is somewhat stronger than the N-going stream, and its rate increases more rapidly at the beginning and decreases more rapidly at the end than the N-going stream.

- 3 The greatest rate is about 5 kn, in both directions, in Shippegan Gully. The duration of slack water is about 10 minutes, but the rate remains less than 1 kn for about 45 minutes.

Directions for entering harbour

(continued from 15.150)

15.161

- 1 **Shippegan Harbour West Entrance Leading Lights.** From a position about 1½ miles N of Pointe à Bernache (47°45'N, 64°43'W), the alignment (154½°) of the following lights leads SSE to Shippegan Harbour:

Front light (white rectangle, red stripe on framework tower, 9 m in height) (47°44'·8N, 64°42'·1W).

Rear light (similar construction and tower, 16 m in height) (453 m from front light).

- 2 **Shippegan Gully** can only be used by small craft to enter Shippegan Harbour. The port authorities should be contacted for the latest information. See 15.88 for information and directions.

15.162

Useful marks:

- 1 Water tower (29 m (96 ft) in height) (47°44'·5N, 64°42'·7W).
Church spire (47°44'·8N, 64°42'·7W) in Shippegan.
Shippegan Wharf Light (square framework tower, 3 m in height) (47°44'·9N, 64°42'·1W) on the outer end of the N jetty.
Savoy Landing Light (square framework tower, 5 m in height) (47°44'·9N, 64°41'·5W) on the head of the Savoy Landing jetty.

Basins and berths

15.163

- 1 **Shippegan.** Three L-shaped jetties extending from the shore, form two basins. The entrance to the N basin is about 52 m (170 ft) wide and to the S basin is about 45 m (148 ft) wide. Alongside berths are situated on the inner and outer faces of the jetties, except for the NW face of the N jetty, which is protected by stones. The L-shaped end of New North Wharf is 70 m in length, with an alongside depth of 6·8 m. Depths alongside other berths vary from 6·0 to 2·7 m.

Port services

15.164

- 1 **Repairs:** minor repairs only.
Other facilities: hospital at Caraquet (30 kms); launching ramp at Savoy Landing (15.166) close NW of the NE end of the causeway.
Supplies: fuel oils; freshwater; provisions.
Communications: Chatham Airport 125 km.
Rescue: A lifeboat, operational during the ice-free navigation season, operates from the port. See 1.105.
2 **Small craft.** A marina is situated in a basin NW of New North Wharf. There are 100 berths. The entrance channel is reported to be dredged to 2·1 m.

Small craft

Baie de Petite-Lamèque

15.165

- 1 **Description.** Baie de Petite-Lamèque (47°48'N, 64°42'W) is a shallow bay lying on NE side of Baie de Shippegan.

Directions. From the main channel, the bay is entered from SW, passing SE of drying flats extending from N shore. The bay is encumbered with many marine farms.

Anchorage is obtained off the mouth of the bay as indicated on Canadian Chart 4913.

Pier. A ruined pier extends from the N shore, about 7 cables inside the entrance.

Canadian Chart 4920 plan of Shippegan (see 1.32)

Savoy Landing

15.166

- 1 Savoy Landing (47°45'N, 64°41'W) is a berth 150 m (492 ft) in length with a depth of 1·4 m at its outer end, extending from the shore close NW of the NE end of the causeway. A light (15.162) is exhibited from the head of the jetty. There is a slipway at the head of the wharf.

Canadian Chart 4913 (see 1.32)

Saint-Simon Inlet

15.167

- 1 **Description.** Saint-Simon Inlet (47°46'N, 64°46'W) is entered between Pointe à Marcelle (47°47'N, 64°45'W) and Pointe Brûlé (1 mile S), and leads SW for about 2½ miles, where it divides into Baie Saint-Simon Nord and Baie Saint-Simon Sud.

The village of Saint-Simon, with a church, lies at the head of Saint-Simon Nord.

- 2 **Directions.** From a position in mid-channel N of the sandspit surrounding Pointe Brûlé, a channel leads, generally SW for about 3½ miles to the jetty at Saint-Simon. The inlet is encumbered with many marine farms.

Anchorage can be obtained in the outer part of Saint-Simon Inlet, in depths of from 6 to 9 m (20 to 30 ft), but space is restricted.

Berth. The public jetty at Saint-Simon (47°44'·5N, 64°49'·5W) has a depth of 1·2 m alongside its head.

BAIE DES CHALEURS — MIDDLE PART

General information

Chart 1715, Canadian Chart 4486 (see 1.32)

Description

15.168

- 1 The middle part of Baie des Chaleurs comprises the waters W of a line joining Pointe de Maisonette (47°50'N, 65°00'W) and Pointe Huntingdon, 15 miles NNW, and E of a line joining Belledune Point (47°54'N, 65°50'W) and Les Caps Noirs, 13 miles N.

The Port of Bathurst (47°37'N, 65°40'W) and small port of Pointe Rochette (47°47'N, 65°42'W) on the S coast are described, and the small port of Paspébiac (48°01'N, 65°15'W) on the N coast is also described.

Nepisiguit Bay is a large indent on the S shore.

Route

15.169

- 1 From a position in deep water between Pointe de Maisonette (47°50'N, 65°00'W) and Pointe Huntingdon 15 miles NNW, the route leads generally WNW to a position in mid channel between Belledune Point (47°54'N, 65°50'W) and Les Caps Noirs.

Topography**15.170**

- 1 **South side.** The S shore between a position 3 miles W of Pointe de Maisonette and Bathurst Harbour, about 26 miles WSW, is lined with sandstone cliffs, 30 to 60 m high. NW of Bathurst Harbour, the low terrain is typical of the S shore of Baie des Chaleurs.

North side. The N shore is of moderate height, with higher hills farther inland.

Principal marks**15.171**

- 1 **Landmarks:**

Grande-Anse Church Spire (green) (47°49'N, 65°10'W).

Two radio towers 125 m (411 ft) in height (48°01'N, 65°15'W).

Spire at Pointe de New Carlisle 59 m (192 ft) (48°00'N, 65°20'W).

Cross (illuminated at night) at Beresford (47°42'N, 65°42'W) (15.199).

Caplan Church Spire 67 m (221 ft) in height (48°06'N, 65°41'W).

Cross (illuminated at night) at Pointe Rochette (15.173).

Chimney of a smelting plant (elevation 63 m (205 ft); red lights) (47°54'N, 65°50'W). The chimney was reported (1997) to be visible for more than 20 miles.

Major lights:

Maisonette Light (47°50'N, 65°00'W) (15.101).

Paspébiac Light (two orange rectangles, one on E side, one on S side, on square framework tower, 12 m in height) (48°01'N, 65°15'W).

- 2 Salmon Beach Light (red and white rectangle on square framework tower, 13 m in height) (47°40'N, 65°33'W).

Belledune Breakwater Light (orange square in white rectangle on red framework tower, 8 m in height) (47°54'8N, 65°50'3W).

Directions

(continued from 15.103)

Pointe de Maisonette to Belledune Point**15.172**

- 1 **Caution.** Due to shoal ground close to the coast, it is advisable for the mariner navigating close inshore NNW of Youghall Point (47°39'N, 65°37'W) to keep outside the 18.3 m (60 ft) depth contour.

- 2 From a position, in deep water, in mid-channel between Pointe de Maisonette (47°50'N, 65°00'W) and Pointe Huntingdon, the track leads WSW initially, then turns WNW when abreast of the port of Bathurst, passing, (positions given from Paspébiac Light (48°01'N, 65°15'W)): SSE of the sandspit extending SSW from Pointe de Paspébiac, thence:

SSE of Pointe Bonaventure (8 miles W) (red, low sandstone cliff).

The track then leads WNW, passing:

- 3 NNE of Belledune Point (24½ miles WSW) (low and sandy), thence:

To a position in mid-channel between Belledune Point and Les Caps Noirs (23 miles WNW) a bold and rocky headland, rising to 122 m in height.

- 4 **Useful marks:**

Grande-Anse Church Spire, (green) (elevation 60 m (198 ft)) (47°49'N, 65°11'W).

Radio tower (elevation 107 m (350 ft); red lights) (48°01'N, 65°19'W).

Stonehaven Light (square framework tower, 9 m in height) (47°45'N, 65°22'W).

Belledune Point Light (white structure) (47°54'N, 65°50'W).

(Directions continue for Baie des Chaleurs — inner part at 15.205)

Minor harbour

Canadian Chart 4920 plan of Petit-Rocher Wharf (see 1.32)

Pointe Rochette**15.173**

- 1 **General information.** Pointe Rochette lies in 47°47'N, 65°42'W, where there is a L-shaped breakwater 183 m long, with a 70 m head. Petit-Rocher village is situated close within Pointe Rochette.

- 2 **Directions.** From a position in mid channel, the track approaching Pointe Rochette leads SSW, passing SE of a rock that lies about 1½ cables NE of the breakwater head, marked by ES2 Light-buoy (starboard hand).

Petit-Rocher light (square framework tower, 7 m in height) (47°46'9N, 65°42'5W) is exhibited from the head of the breakwater.

Useful mark:

The illuminated cross of the church at Petit-Rocher (15.171).

- 3 **Berth.** A berth inside the breakwater has a depth of 1.8 to 3.4 m alongside. A slipway is situated near the inner end of the breakwater.

Paspébiac

Chart 1715, Canadian Charts 4486, 4921 plan of Approaches to Paspébiac, and Paspébiac Wharf (see 1.32)

General information**15.174**

- 1 **Position and function.** Paspébiac harbour is situated about 6 cables NNW of Pointe de Paspébiac (48°01'N, 65°15'W). This point is the S extremity of a beach of sand and shingle, triangular in shape, enclosing a shallow, partially dry lagoon. An outlet from the lagoon, near its NE end, allows small craft to enter or depart at high water.

- 2 Baie de Paspébiac, dark red cliffs along the N shore, extends ¾ miles WSW from Pointe de Paspébiac to Pointe de New Carlisle, sandy and wooded.

The village of Paspébiac is situated N of the lagoon, and other villages extend along the N shore of Baie de Paspébiac.

The port is used for the handling of oil products, pulpwood, salt and the fishing industry.

Marine farms. Aquaculture sites are situated about 1.2 miles SW of the harbour in Baie de Paspébiac; no cautionary buoys mark the area.

Limiting conditions**15.175**

- 1 **Controlling depth.** Depths in the basin are from 2.7 to 6.0 m (9 to 20 ft), except at the N end, which is shallower. The port authorities should be contacted for the latest information.

Density of water is 1.025 c/gm³.

Ice. The harbour is open all year; occasionally ice breaker assistance is required.

Arrival information

15.176

- 1 **Outer anchorage** is available in Baie de Paspébiac, in depths of 11 m (36 ft), clay, about 1 mile W of Pointe de Paspébiac, as indicated on the Canadian charts.

Shelter is good, except in onshore winds. SW winds send in a considerable swell, but the holding ground is good.

- 2 **Submarine pipelines.** Two submarine water intake pipelines are situated close E of the public wharf.

Pilotage and tugs. Pilotage is available but not compulsory. Tugs are available but not necessary.

- 3 **Local knowledge** is required.

Customs and Excise. Paspébiac is a port of entry for Canada. Customs Office is located at Gaspé.

Harbour

15.177

- 1 **General layout.** Paspébiac jetty, 5 cables NW of Pointe de Paspébiac, encloses the SE and S sides of a small basin, and a rockfill breakwater forms the W side. In 1998, the outer 59 m of the wharf was in ruins; mooring was prohibited and mariners warned not to approach within 5 m. A fish plant is located near the inner end of the public pier.

- 2 **Landmark:**

Two radio towers (48°01'N, 65°15'W) (15.171).

Directions for entering harbour

15.178

- 1 From a position about 1½ miles SW of Pointe de Paspébiac, the track into Baie de Paspébiac leads N, passing W of a sandspit with depths of less than 5.5 m (18 ft) over it, extending about 7 cables SSW from Pointe de Paspébiac; the sandspit is marked on its SW side by AP2 Light-buoy (starboard hand), taking care to keep clear of the marine farms (15.174) close SW.

Paspébiac harbour is entered between the head of the W breakwater and the head of the jetty, about 100 m NE.

15.179

- 1 **Useful marks:**

Paspébiac Breakwater Light (square framework tower, 7 m in height) (48°01'N, 65°15'6W) at the head of the breakwater.

Paspébiac West Wharf Light (square black mast, 8 m in height) (48°01'N, 65°15'5W) on the outer end of the jetty.

Berths

15.180

- 1 **Alongside berths:**

Inner side of Public Jetty (also known as Commercial Wharf); (48°01'N, 65°15'3W) length 300 m; depths alongside 2.7 m to 5.5 m.

Wharf (48°01'2N, 65°15'3W) on NE side of basin; length 200 m; depths alongside 3.0 to 6.0 m; used by the fishing industry.

Port services

15.181

- 1 **Repairs:** minor repairs only.

Other facilities: slipway.

Supplies: fuel oils in limited quantities; fresh water; provisions.

Communications: by sea with Québec and ports on the Gaspé coast; nearest airport Gaspé 150 km.

Bathurst Harbour

Chart 1715, Canadian Charts 4486, 4920 plan of Bathurst Harbour (see 1.32)

General information

15.182

- 1 **Position.** 47°37'N, 65°40'W.

Function. The harbour contains berths for ocean-going vessels serving the industries of the area. The chief imports are industrial chemicals; the chief exports are timber products, iron ore and metal concentrates. The population of Greater Bathurst was 23 935 in 2001. Bathurst Harbour has been reported as not being used for commercial shipping for some considerable time due to silting in the channels.

The city of Bathurst occupies the promontory between the entrances to the Nepisiguit and Middle Rivers.

Approach and entry. Bathurst Harbour is approached from Nepisiguit Bay through a dredged channel.

Traffic. In 2001, the port was used by one ship with a total of 31 574 dwt. No ships were recorded as entering Bathurst in 2002.

- 2 **Port Authority.** Transport Canada, Canadian Coastguard, Harbours and Ports, PO Box 1013, Dartmouth NS B2Y 4K2.

Limiting conditions

15.183

- 1 **Controlling depth.** The channel over the bar, thence through the harbour to the berths, is reported to be dredged annually to a depth of 5.2 m (17 ft), but owing to silting there may be less water. In 1993, depths of 3.7 m at LW were reported in the entrance channel with an additional 1.2 m at HW Neaps and 2.1 m at HW Springs. There is a least charted depth of 3.5 m in the approaches.

- 2 **Vertical clearance.** A road bridge with a vertical clearance of 1.2 m spans the river from Bathurst to East Bathurst, upstream of the wharves.

Deepest and longest berth is Consolidated Bathurst Wharf (15.187).

- 3 **Tidal levels.** Mean spring range about 1.4 m; Mean neap range about 0.9 m. See information in *Admiralty Tide Tables Volume 2*.

Maximum size of vessel handled had a draught of 5 m.

Ice. The navigation season is from about mid-April to early December.

Arrival information

15.184

- 1 **Notice of ETA required.** The master of a vessel requiring a pilot should report ETA at the pilot boarding position (see below) to Atlantic Pilot Authority at least 12 hours in advance, and confirm or correct it 4 hours prior to arrival. UTC should be used. See *Admiralty List of Radio Signals Volume 6 (5)*. It has been reported that a pilot has not been used for more than ten years (2001).

- 2 **Outer anchorage.** The recommended anchorage position is 5 miles NNE of the harbour entrance; this position is indicated on the charts.

Pilotage is compulsory. The pilot boards in position 47°43'8N, 65°33'8W. See *Admiralty List of Radio Signals Volume 6 (5)*.

- 3 **Local knowledge** is essential, as the leading lights and buoys may be moved to meet changing conditions and channels. It was reported (1997) that the navigational aids for the approach and entrance to the harbour are to be downgraded to an unlit system. By 1999 most of the changes had been implemented.

Customs and Excise. Bathurst is a port of entry for Canada and covers Belledune and Campbellton.

Harbour

15.185

- 1 **General layout.** An extensive basin lies within the harbour entrance, but much of it dries at LW, except for the channels of Nepisiguit, Middle and Tetagouche Rivers, which unite below Bathurst. None of these rivers are navigable for any distance.

Alongside berths lie on both sides of the Nepisiguit River at Bathurst, and a bridge (15.183) spans the river abreast the city.

- 2 The dredged channel continues to the wharves at Bathurst, terminating just below the bridge.

Tidal streams set at a rate of 2 kn in the main channel and at a rate of about 1½ kn over the bar. The streams set fairly in and out over the bar.

Major light:

Salmon Beach Light (47°40'N, 65°33'W) (15.171).

Directions for entering harbour

15.186

- 1 From the vicinity of the pilot boarding position 47°43'8N, 65°33'8W the approach channel to the channel over the bar has been dredged over a width of 61 m. Inside the entrance, the width of the channel reduces to 42 m between mudbanks on both sides. The channels are marked by buoys (lateral).

- 2 **Carron Point Leading Lights.** The alignment (208½°) of the following leading lights, which are visible on the leading line only, leads to the harbour entrance, from where local knowledge is essential for passage through the buoyed channel:

Front light (white rectangle, red stripe on framework tower, 7 m in height) (47°39'1N, 65°37'4W).

Rear light (similar construction and tower, 16 m in height) (528 m from front light).

- 3 **Useful marks:**

White wooden light structure, no longer in use, situated on Belloni Point (47°40'N, 64°34'W).

Two radio towers (red lights) (47°37'N, 65°37'W).

Alongside berths

15.187

- 1 Consolidated Bathurst Wharf, situated on the W bank has a length of 152 m and a least depth alongside of 3.8 m; the public wharf on the E bank has a length of 123 m and an alongside depth of 3.2 m. Berths at other wharves have depths alongside of between 1.2 and 3.4 m. At West Bathurst (47°37'6N, 65°39'6W) there is a small wharf. In 2002 the public wharf was reported as being up for sale.

Port services

15.188

- 1 **Repairs:** minor repairs only.
Other facilities: hospital at Bathurst.
Supplies: diesel oil available by road tanker; provisions; fresh water at Consolidated Bathurst Wharf.
Communications: airport 8 km.

Small craft

15.189

- 1 A marina, with full services, operates from Youghall Point (47°39'N, 65°37'W). It is reported that privately maintained leading lights are exhibited from white daymarks with orange stripes in the approach to the marina basin. The previously dredged approach channel has a

depth (1992) of 0.8 m (3 ft). A slipway is located in the NE corner of the basin.

Small craft harbours on north shore, west of Paspébiac

Chart 1715, Canadian Chart 4486 (see 1.32)

15.190

- 1 **Caution.** The piers and breakwaters along this stretch of coast are subject to silting and to damage by ice, and it advisable to approach them with caution.

The condition of the piers and the depths in the vicinity may vary from season to season; many of the small piers are in ruins.

Pointe Bonaventure

15.191

- 1 A small pier close E of Pointe Bonaventure (48°00'N, 65°27'W) has a depth of 1.2 m at its outer end.

Other small piers are situated between Pointe Bonaventure and the mouth of Rivière Bonaventure, 2 miles NNW.

Canadian Chart 4921 plan of Havre de Beaubassin (see 1.32)

Havre de Beaubassin

15.192

- 1 **Description.** Havre de Beaubassin, (48°02'N, 65°29'W) is a boat harbour in the mouth of Rivière Bonaventure. The harbour is subject to rapid silting, especially at the entrance, abreast Pointe de Beaubassin.

Bonaventure village, lies on the N side of the river mouth.

Depths. The approach channel, along the leading line, and the approach to the berth was dredged to a depth of 1.8 m (1997). However, depths are subject to rapid change.

- 2 **Directions.** From a position about 3 miles SW of Pointe Bonaventure, the track leads N towards the entrance channel.

Bonaventure Leading Lights. The alignment (010°) of the following lights leads into the approach channel:

Front light (orange trapezium, black stripe on square framework tower, 16 m in height) (48°02'N, 65°29'W).

Rear light (similar construction, inverted, and tower, 16 m in height) (142 m from front light).

- 3 The lights are visible on the leading line only and are shown from 15th April to 10th December.

Useful mark:

A church (tall spire; 39 m (127 ft) in height) is situated in the village.

- 4 **Anchorage.** There is good anchorage in E winds SSW of the entrance, in the position indicated on the charts.

Alongside berths. There are pontoon berths, arranged in a F-shape, and a wooden wharf about 144 m long.

Small craft. A marina operates from the basin, formed by the F-shaped pontoon berths, which is equipped with normal facilities and a slipway.

Chart 1715, Canadian Chart 4486 (see 1.32)

Ruisseau-Leblanc

15.193

- 1 **General information.** At Ruisseau-Leblanc (48°05'N, 65°37'W), there is a fishing harbour, which is protected by a breakwater on the E side and a breakwater-wharf on the W side. The harbour is entered from SE; the entrance is 50 m wide. Pontoons and a launching ramp are situated in the NW part of the harbour. Depths alongside the pontoons and wharf varied from 0.5 to 1.3 m in 1991.

- 2 The breakwater is in ruins (2002) and access to it is prohibited.

Attention is drawn to a wreck, used for diving purposes, with a depth of 12 m (38 ft) over it, marked by a buoy (private), 5 cables WSW of the wharf.

- 3 **Local knowledge.** Owing to silting in the harbour entrance, local knowledge should be used to establish the latest depths available. Mariners are advised to proceed carefully in the approach to the harbour.

Rivière Caplan

15.194

- 1 **General information.** At the mouth of Rivière Caplan (48°07'N, 65°44'W), two training walls extend from the shore. The E wall is 156 m long; the W wall is 233 m long. Both walls have an elevation of 1.5 m. There is a reported depth of 1.2 m (4 ft) between the training walls.

Small craft harbours on the south shore between Pointe de Maissonette and Belledune Point

Chart 1715, Canadian Chart 4486 (see 1.32)

L'Anse-Bleu

15.195

- 1 **General information.** At L'Anse-Bleu (47°50'N, 65°05'W), a breakwater, 217 m (712 ft) long, extends from the coast.

Directions. From a position in deep water about 3 miles N of L'Anse-Bleu breakwater, L'Anse-Bleu is approached from NNE.

- 2 **Useful marks:**

L'Anse-Bleu wharf light (square framework tower, 5 m in height) (47°49'9N, 65°04'9W) is exhibited from the head of the wharf.

L'Anse-Bleu breakwater light (framework tower, 4 m in height) (47°49'9N, 65°04'9W) is exhibited from the new breakwater close W of the wharf.

Berth. The berth on the end of the breakwater has a reported depth of 0.6 to 1.2 m at its outer end. A slipway is situated on the W side of the breakwater, near its outer end.

Grande-Anse

15.196

- 1 **General information.** At Grande-Anse (47°49'N, 65°11'W), a fishing village, a curving breakwater and a pier form a small boat harbour with a reported depth of 1.2 m (3.9 ft).

Directions. The breakwater is approached on the alignment (205°) of the following leading lights:

Front light (white rectangle, red stripe on framework tower, 7 m in height) (47°49'1N, 65°10'6W).

Rear light (similar construction and tower, 7 m in height) (122 m from front light).

- 2 The lights are visible on the leading line only.

Useful marks:

Grande-Anse Church Spire (15.172).

Three oil tanks situated close SW of the church.

Pokeshaw

15.197

- 1 A small bay at Pokeshaw (47°47'N, 65°15'W) affords shelter for small craft. Pokeshaw River flows into the head of the bay.

Stonehaven

15.198

- 1 **General information.** At Stonehaven (47°45'N, 65°22'W) on the W side of Grindstone Point, a small harbour is formed by a L-shaped breakwater, 234 m (768 ft) in length, and a pier SW of it.

Directions. The harbour is entered between the head of the breakwater and the outer end of the pier.

Stonehaven Light (15.172) is exhibited from a hill overlooking the wharf. Another light (square framework tower, 4 m in height) is exhibited from the breakwater.

- 2 **Berth.** The public pier is 70 m long, with a reported depth of 3 m at its head. There is a slipway adjacent to the inner end of the breakwater.

Beresford

15.199

- 1 **General information.** Beresford (47°42'N, 65°42'W) is situated near the N end of a lagoon, 3 miles long, behind a sand beach. Rivers flow into each end of the lagoon.

Directions. The shallow entrance to the lagoon lies 3 miles NW of the entrance to Bathurst Harbour.

Useful mark:

Illuminated cross (elevation 44 m (146 ft)) on the church at Beresford.

Pointe Verte

15.200

- 1 **General information.** At Pointe Verte (Green Point) (47°52'N, 65°46'W), two breakwaters enclose a boat harbour.

Directions. The entrance between the breakwater heads is 23 m wide. Pointe Verte Light (framework tower, 4 m in height) is exhibited from the outer end of the N breakwater.

Pointe Verte wharf light (square framework tower, 7 m in height) (47°51'7N, 65°45'7W) is exhibited from the NW corner of the inner wharf.

Basin. The depth inside the basin is 0.6 to 1.2 m.

BAIE DES CHALEURS — INNER PART

General information

Chart 1715, Canadian Charts 4486, 4426 (see 1.32)

Description

15.201

- 1 The inner part of Baie des Chaleurs, lies W of a line joining Belledune Point (47°54'N, 65°50'W) and Les Caps Noirs, 13 miles N.

Route

15.202

- 1 From a position in mid-channel between Belledune Point (47°54'N, 65°50'W) and Les Caps Noirs, the route leads W for 17½ miles to the head of the bay.

Topography

15.203

- 1 The S shore of Baie des Chaleurs continues generally low to the head of the bay. Heron Island (48°00'N, 66°09'W) is wooded and moderately high, and is divided into two parts by a narrow neck of land. The NE coast of the island consists of red sandstone cliffs about 12 m (39 ft) high. The shoal ground bordering the S shore increases in width W of Belledune Point and surrounds Heron Island.

- 2 The N shore, with high terrain inland is largely occupied by Baie de Cascapédia, W of Les Caps Noirs, and Baie de Tracadigache, W of Pointe Tracadigache (48°05'N, 66°08'W), a sandy point.

Principal marks**15.204****1 Major lights:**

Belledune Breakwater Light (orange square in white rectangle, on red framework tower, 8 m in height) (47°54'·8N, 65°50'·3W).

Carleton Light on Pointe Tracadigache (red and white tower, 9 m in height) (48°05'·2N, 66°07'·5W).

Dalhousie (Douglas Island) Light (red and white rectangle, green square in centre, on square framework tower, 19 m in height) (48°04'·3N, 66°21'·9W).

Directions

(continued from 15.172)

15.205

1 Caution. It is advisable for the mariner navigating near the S shore to keep outside the 18·3 m (60 ft) depth contour W of Belledune Point.

2 From a position in mid-channel between Belledune Point and Les Caps Noirs, the track leads W, passing (positions given from Pointe Tracadigache (48°05'·2N, 66°07'·5W)):

N of shoal ground (4 miles S) with depths of less than 11 m (36 ft) extending almost 1½ miles from the NE coast of Heron Island, and:

S of the sandspit (5 cables S), thence:

Close to the pilot boarding position (15.234), 2 miles ESE of Pointe Miguasha (48°04'N, 66°18'W).

Useful marks:

Heron Island Light (red and white rectangle on square framework tower, 13 m in height) (47°59'·8N, 66°08'·3W). A white abandoned lighthouse stands nearby.

3 Shrine (illuminated at night; elevation 569 m (1868 ft)) and radio mast close W (elevation 612 m (2008 ft)); red lights (48°08'N, 66°07'W).

Chimney (48°03'N, 66°22'W).

(Directions continue at 15.236)

Small craft channel**Heron Channel****15.206**

1 Description. Heron Channel (47°58'N, 66°09'W) lying between Heron Island (15.203) and the mainland, has depths of 4·3 m (14 ft). The channel is intricate and dangerous, and is only usable by small craft of suitable draught. Heron Rock lies in the middle of the E entrance.

Local knowledge is required.

2 Directions. For the mariner approaching Heron Channel from E, the deepest water will be found by passing S of Heron Rock, lying in the middle of the SE entrance.

Useful mark:

New Mills West Light (square framework tower, 5 m in height) (47°58'·5N, 66°11'·4W).

3 Anchorage. Good anchorage may be obtained in a depth of 5·5 m (18 ft), mud, sand and clay covered in kelp and sea grass, about 1 mile NE of New Mills West Lighthouse. Winds from NW raise a short sea.

The anchor berth is indicated on the charts.

New Mills. There is a public pier, with a depth of 0·9 m alongside its head, at New Mills on the S side of the channel, about 3 miles SE of the W end of Heron Island, where Benjamin River enters the sea.

4 West Point Island. There is a public pier, with a depth of 1·5 m alongside its head, at West Point Island, about 2¼ miles SSE of the W end of Heron Island. A light

(15.206) is exhibited from the pierhead. A causeway connects West Point Island to the mainland.

Anchorage**West of Heron Island****15.207**

1 Good anchorage may be obtained in depths of about 8 m, mud, 3 miles W of the W end of Heron Island, and about 1½ miles N of the mouth of Charlo River (48°00'N, 66°17'W).

The anchor berth is indicated on the charts.

Belledune

Chart 1715, Canadian Chart 4920 plan of Belledune Wharf (see 1.32)

General information**15.208**

1 Position. Belledune lies in 47°55'N, 65°51'W about 1 mile W of Belledune Point.

Function. The port mainly handles bulk cargo for Belledune Fertilizers Ltd and coal for a smelting plant at Belledune.

Imports are lead sulphate and concentrates; petroleum products; coal; perlite.

Exports are diammonium phosphate; fertilisers; fish; lead ingots; timber; peat moss and sulphuric acid.

The population of Belledune was 2060 in 1998.

2 Traffic. In 1998, the port was used by 110 ships and a total of 2 200 000 tonnes of cargo were handled.

Port Authority. Port of Belledune, 112 Shannon Drive, Belledune NB, E8G 2W2.

Limiting conditions**15.209**

1 Deepest and longest berth. The deepest berth is Terminal 2. The longest berth is M.D.Young Terminal (15.213).

Tidal levels. Mean spring range about 2·5 m; mean neap range about 1·3 m. See information in *Admiralty List of Tide Tables Volume 2*.

2 Density of water is between 1·018 g/cm³ and 1·025 g/cm³.

Ice. The port is open to shipping throughout the year and is free of ice most winters. However, the prevailing E winds bring pack ice into the bay, which can start rafting, making the approaches difficult at times.

3 Maximum size of vessel handled. Ships with a draught of 12·6 m will berth at high water only. Ships with a length of 135 m (443 ft) may be turned around inside the breakwater in good weather conditions.

Arrival information**15.210**

1 Notice of ETA required. Masters of vessels bound for Belledune must report their ETA to Atlantic Pilot Authority at least 24 hours prior to the vessel's ETA at the pilot boarding position, with confirmation or correction 12 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (5)* for details.

Outer anchorage. Good anchorage may be obtained in fair weather in a depth of 18 m, about 1 mile N of the breakwater.

2 Pilotage and tugs. Pilotage is compulsory. The pilot boards either 1½ miles (depth 27 m) or 3 miles (depth 33 m) NE of the breakwater. Both these positions can be

used as temporary anchorages if the vessel has to wait for a berth. Two tugs are available.

Customs and Excise. Belledune is a port of entry, served from Bathurst Customs office.

Harbour

15.211

- 1 **General layout.** The harbour is enclosed to the N and W by a mole, but is open to the E. Terminals 1 and 2 are situated on the inside of the mole, at the inner end of the outer mole. M.D. Young Terminal is situated on the S side of the harbour.

The fertiliser plant is situated near the SW side of the harbour, with three circular tanks nearby. The lead smelter plant is situated 5 cables S of Belledune Point.

Directions for entering harbour

15.212

- 1 From a position about 2 miles NE of Belledune Point, the track leads SW and is entered between Belledune Point and the outer end of the mole, 4 cables NW. A light (15.172) is exhibited near Belledune Point.

Useful marks:

Chimney of a smelting plant (15.171) situated 5 cables SSW of Belledune Point.

Church (spire; elevation 46 m (150 ft)) 8 cables SW of Belledune Point.

Berths

15.213

- 1 **Anchorage berth.** Small vessels can anchor S of the breakwater, in depths of 6 to 10 m, but swinging room is limited.

Alongside berths. There are three main berths at Belledune. Terminal 1 (47°54'·7N, 65°50'·9W) has a length of 155 m and a depth of 10·4 m alongside. Terminal 2 (47°54'·7N, 65°50'·5W) was built solely to deliver coal to the power station. It has a length of 307 m and a depth of between 13·4 and 14·4 m. Terminal 3, also known as M.D. Young Terminal (47°54'·6N, 65°50'·5W), is for mixed cargoes and has a length of 455 m and a depth alongside of 10·1 to 11·5 m.

Port services

15.214

- 1 **Repairs:** minor repairs.
Other facilities: hospital at Bathurst; diver.
Supplies: provisions; bunkers (available by road truck); fresh water (available by road truck).
Communications. Bathurst airport 35 kms; Charlo airport 40 kms.

Jacquet River

Chart 1715

General information

15.215

- 1 **Position.** Jacquet River enters the S side of Baie des Chaleurs in position 47°55'N, 66°02'W. The river mouth is



Port of Belledune (15.213)

(Original dated prior 2002)

(Photograph – Belledune Port Authority)

spanned by a railway bridge. The village of Jacquet River had a population of 1923 (2001).

Depths. Shoal ground with depths of less than 5.5 m (18 ft) extends up to 1 mile from the coast in this vicinity.

Directions

15.216

- 1 The channel into Jacquet River is buoyed and is entered about 4 cables N of the entrance. It was reported (1996) that some of the buoys are to be discontinued.

Useful mark:

Two red and white vertically striped silos are situated close to the shore E of the river mouth.

Anchorage berth

15.217

- 1 There is anchorage in depths of 9 m (29 ft), mud, 2½ miles NW of the entrance to Jacquet River, as indicated on the chart. Although open to E winds, the holding ground is good and the anchorage is considered safe in summer.

Baie de Cascapédia

General information

15.218

- 1 Baie de Cascapédia (48°09'N, 65°56'W) entered between Les Caps Noirs (Black Cape) and Pointe Tracadigache, 13 miles W, is shallow, with drying mudbanks and sandbanks filling its head and bordering its NE shore. Villages extend all along the NW shore of the bay.

Les Caps de Maria on the W side of the bay, 3½ miles NE of Pointe Tracadigache, form a steep bank 44 m high.

Local knowledge is required.

Aquaculture. Numerous marine farms have been established in the bay.

Directions

15.219

From a position about 4 miles W of Les Caps Noirs, the anchorage is approached on the line of bearing 033° of New Richmond Church (elevation 37 m (123 ft)) situated on the coast, 3½ miles NW of Les Caps Noirs.

Anchorage

15.220

- 1 Anchorage may be obtained SW of New Richmond, 3½ miles NW of Les Caps Noirs, where there is a pulp mill and a ruined pier.

Caution. Depths in this area are reported to be less than charted, and it is advisable to approach the anchorage with care.

Canadian Chart 4921 plan of Black Cape (see 1.32)

Black Cape

15.221

- 1 **General information.** At Black Cape (Howatson Point), 1.3 miles NW of Les Caps Noirs, a jetty extends 305 m from the coast. The jetty is reported to be a good radar target, but is difficult to identify visually.

Directions. It is advisable to approach and leave along the N-S line of the jetty; the prevailing winds and tidal streams set across its axis, but there is reported to be no difficulty in berthing in fair weather, using an anchor as necessary.

- 2 **Anchorage** may be obtained off the jetty, clear of a submarine pipeline that extends about 5 cables SW from the shore at a point ¼ cable W of the jetty. The outer end of the pipeline is marked by a privately maintained buoy.

- 3 **Alongside berths.** The new wharf butts onto the W side of the L-shaped old wharf. The outer 120 m of the wharf is capable of berthing vessels on the W and E sides. On the W side, depths of 3.2 m exist, 120 m from the wharf head increasing to 7.8 m at the head. Depths on the E side may be less and 4.1 m has been reported. A marina is situated on the E side of the wharf, on the N side of a spur wharf, projecting E from the main wharf. The marina is equipped with a slipway.

- 4 A light (private) is exhibited from a square framework tower at the head of the main wharf. A similar light is exhibited from the E end of the spur wharf.

Caution. The outer part of the E spur of the old wharf has been demolished and constitutes a danger to navigation.

Rivière Cascapédia

15.222

- 1 **General information.** Rivière Cascapédia (48°11'N, 65°55'W), which flows into the head of Baie de Cascapédia through drying mud and sandbanks, can only be entered by small craft.

The entrance channel is marked by privately maintained buoys.

Baie Tracadigache

Chart 1715 plan of Restigouche River

General information

15.223

- 1 **Route.** Baie Tracadigache (48°05'N, 66°12'W) is entered between Pointe Tracadigache and Pointe Miguasha, 7 miles WSW.

Depths. Baie Tracadigache is bordered with shoals.

Storage area. An extensive drying basin at the mouth of Rivière Nouvelle, on the W side of the bay, is used for storing pulpwood.

- 2 **Marine farms.** Mariners are warned that numerous marine farms have been established in the bay. The zones are usually marked with yellow cautionary buoys, which may or may not be lit. The buoys are fitted with radar reflectors and the zones are marked on a seasonal basis. An aquaculture zone with central point located in position 48°04'2N, 66°13'0W has been permanently established. The zone is marked from June 1st to November 1st by four yellow cautionary light-buoys fitted with radar reflectors.

- 3 **Major light:**

Pointe Tracadigache Light (48°05'N, 66°08'W) (15.204).

Directions

15.224

- 1 From a position 2 miles S of Pointe Tracadigache, Baie Tracadigache is entered passing SW of the sandspit extending 5 cables S from Pointe Tracadigache.

It is advisable to keep in depths of greater than 13 m (42 ft) until Pointe Tracadigache bears more than 068°.

- 2 **Useful marks:**

Carleton Church (elevation 60 m (198 ft)), situated 1.2 miles NE of Pointe Tracadigache.

Carleton Wharf Light (white framework tower, red bands, 9 m in height) (48°06'N, 66°08'W) 9 cables NE of Pointe Tracadigache.

Anchorage

15.225

- 1 There is good anchorage, in depths of 9 to 12 m (30 to 40 ft), mud, 1 mile W of Pointe Tracadigache.

There is anchorage farther inshore, in depths of about 11 m (36 ft), 8 cables NW of the point. The anchor position is marked on the chart.

Canadian Chart 4921 plan of Carleton (see 1.32)

Carleton

15.226

- 1 **Description.** At the village of Carleton (48°06'N, 66°08'W) on the E side of Baie Tracadigache, a jetty and breakwater SE of it, form a small basin. A spur wharf runs SE from about the centre of the jetty. Pulpwood, lumber and limestone are exported and salt is imported. The port is open all year, with only the occasional need for an icebreaker.

Port Authority. Transport Canada, 10, de la Boulangerie, PO Box 22, Carleton, Québec.

- 2 **Alongside berths.** Carleton wharf is 246 m in length with berths on both sides. On the NW side there is a berth 130 m long with a maintained depth (1997) of 7.2 m. On the SE side, there is one berth with a length of 70 m and a depth of 6.0 m. The outer face of the wharf is 22 m long with a depth of 7 m alongside. A light (15.224) is exhibited from the head of the wharf. Mariners are warned that silting is rapid. The spur wharf is used by the Department of Fisheries and Oceans. A slipway is available.

- 3 **Repairs:** minor repairs.

Other facilities: local hospital.

Supplies: freshwater; diesel oil; provisions.

Communications: local airport.

Small craft

15.227

- 1 **Marina.** Within the basin there are a number of interconnecting jetties for use by small craft. The marina is situated in the NE part of the basin.

Other names

15.228

- 1 Douglas Point (47°59'N, 66°07'W).
Eel Bay (48°02'N, 66°21'W).
Little Belledune Point (47°55'N, 65°54'W).
Pointe Duthie (48°10'N, 65°54'W).

RIVIÈRE RESTIGOUCHE

General information

Chart 1715 plan of Restigouche River, Canadian Chart 4426 plan of Dalhousie Harbour (see 1.32)

Description

15.229

- 1 The estuary of Rivière Restigouche, is entered between Pointe Miguasha (48°04'N, 66°18'W) and Inch Arran Point about 2 miles W. The industrial port of Dalhousie is situated close within the entrance, on the SW side.

Route

15.230

From the vicinity of the pilot boarding position 48°03'.2N, 66°15'.0W the narrowing inlet leads W for a about 15 miles to the port of Campbellton.

Topography

15.231

- 1 **North side.** The mountains rise to an elevation of 305 to 530 m (1000 ft to 1740 ft) at a distance of 2 to 3 miles from the shore. Mont Escuminac rises to an elevation of

527 m (1729 ft) about 4 miles N of Pointe à la Garde (48°04'N, 66°32'W).

South side. The wooden hills and ridges are much lower, although of considerable elevation, the highest being Sugarloaf Mountain about 1½ miles SW of Campbellton.

Depths

15.232

- 1 In 2002, there was a least charted depth in the entrance channel of 30 ft (9.1 m) but this may be reduced by silting.

There are depths of not less than 7 m (23 ft) in the channel as far as Pointe à la Garde, about 9 miles from the entrance, but the channel becomes shallower above this point.

There are charted depths of less than 3.7 m (12 ft) in the channel above Pointe au Chêne (48°02'N, 66°37'W); these depths may be reduced by silting.

- 2 The estuary is subject to continual silting and the channel between Pointe au Chêne (48°02'N, 66°37'W) where there is a sand-bar, and Campbellton is no longer maintained by dredging. There may be less water than is shown on the chart.

The depths in the channel at HW are not affected by seasonal variations in the river level.

Hazards

15.233

- 1 **Lumber rafts.** The channel buoys are liable to be displaced by lumber rafts under tow.

Marine farms exist in this area. In particular, the attention of mariners is drawn to a marine farm which has been established close N of the pilot boarding position.

Ferry. A passenger and vehicle ferry service is reported to exist between Dalhousie and Miguasha-Ouest, 2 miles NNE. The ferry track is indicated on the chart.

Pilotage

15.234

- 1 Pilotage is compulsory. The pilot boards in position 48°03'.2N, 66°15'.0W. Pilots should be ordered through Atlantic Pilot Authority. For further details see *Admiralty List of Radio Signals Volume 6 (5)*.

Natural conditions

15.235

- 1 **Tidal streams.** The maximum rate of the tidal stream in the entrance to the estuary sets at about 2 kn.

Ice in the estuary above Dalhousie limits navigation to the period May to December inclusive, but for conditions within Dalhousie Harbour see 15.244.

Directions

Pilot to Dalhousie Harbour

(continued from 15.205)

15.236

- 1 **Inch Arran (Bon Ami) Point Leading Lights:**

Front light (white square tower, red stripe, 11 m in height) (48°03'.7N, 66°21'.1W).

Rear light (white rectangle, red stripe, on square framework tower, 10 m in height) (365 m from front light).

- 2 From a position close to the pilot boarding position 2 miles ESE of Pointe Miguasha (48°04'N, 66°18'W), the alignment (286½°) of these lights leads into the entrance to the estuary, passing, (positions given from the front light):

About 2 cables SSW of Banc Miguasha (1½ miles ESE). Banc Miguasha; sand and stones, extends about 1 mile WSW from Pointe Miguasha and is

marked at its SW end by EV2 Light-buoy (starboard hand); the buoy is liable to drag out of position and should not be relied on.

- 3 From this position, the track leads NW for about 1½ miles, to a position about 7 cables E of Dalhousie Island Light (15.204) on the alignment (268°) of the Dalhousie East leading lights, (15.248) passing 6 cables NE of Bonamy Rocks (4 cables SE). Bonamy Rocks are steep, high and broken.

(Directions continue for entering Dalhousie Harbour at 15.248 and for the passage to Campbellton at 15.237)

Dalhousie Harbour to Campbellton

(continued from 15.236)

15.237

- 1 **Pointe à Campbell to Pointe à Fleurant.** From a position about 7 cables E of Dalhousie Island Light (15.204), the buoyed channel leads NW, passing, (positions given from Pointe à Campbell (48°05'N, 66°20'W)):

NE of Middle Ground (1 mile W) (15.249), thence:
About 5 cables S of Pointe à Fleurant (2¾ miles NW).

- 2 **Useful marks:**

Dalhousie Wharf Light (48°04'·3N, 66°21'·7W) (15.250).

Miguasha-Ouest Wharf Light (red framework tower, white bands, 8 m in height) (48°06'N, 66°21'W).

15.238

- 1 **Pointe à Fleurant to Pointe au Chêne.** From a position about 5 cables S of Pointe à Fleurant, the buoyed channel leads WSW and steadily narrows, passing (positions given from Pointe d'Escuminac (48°07'N, 66°28'W)):

SSW of Barre Fullerton (1¾ miles SE) a narrow drying spit extending about 1 mile SSW from the coast, thence:

Between the shoal filling Baie d'Escuminac, extending 4 miles SW, and shoal ground extending up to 1 mile from the S shore, thence:

- 2 Between drying ground in L'Anse Busteed (5½ miles SW) and the shoal ground, drying in parts, extending about 1¼ miles from the S shore, thence:

Close to the N shore between Point à la Batterie (6 miles SW) and Pointe au Chêne (7¼ miles SW).

- 3 **Useful marks:**

Radio tower (elevation 240 m (787 ft); red lights) (48°03'N, 66°26'W).

Radio towers (48°01'N, 66°35'W).

Sugarloaf Mountain (47°59'N, 66°41'W).

15.239

- 1 **Pointe au Chêne Leading Lights:**

Front light (orange rectangle, black stripe, on white framework tower, red bands, 6 m in height) (48°02'·4N, 66°36'·6W).

Rear light (orange square, black stripe on tower of similar construction, 23 m in height) (672 m from front light).

The lights are visible on the leading line only.

- 2 The alignment (045½°), astern, of the above lights leads through the buoyed channel for about 1¼ miles, passing (distances given from front light):

Between the E part of shoal ground extending 1¼ miles SW that fills Baie au Chêne, and:

Shoal ground (1¼ miles SW), drying in parts; extending 1½ miles from the S shore.

15.240

- 1 **Campbellton Leading Lights.** The alignment (241°) of the following lights leads across the bay and between the shoals towards the railway jetty at Campbellton.

Front light (white rectangle, red stripe on square framework tower, 6 m in height) (48°00'·7N, 66°40'·1W).

Rear light (square framework tower, red stripe, 15 m in height) (373 m from front light).

- 2 **Useful marks:**

Richardsville church (spire) (48°00'N, 66°37'W).

White statue (48°00'·3N, 66°39'·7W) on top of a hospital at Campbellton.

Campbellton Wharf Light (framework tower, 5 m in height) (48°01'N, 66°40'W) at the E end of the jetty.

(Directions continue for entering Campbellton at 15.258)

Minor harbours

Miguasha-Ouest

15.241

- 1 **General information.** A public jetty with a ferry berth is situated at the village of Miguasha-Ouest (48°06'N, 66°21'W).

Berths. The jetty has a berthing length of 46 m, with depths of 0·9 to 4 m alongside. A spur, 31 m long, with depths of 0·9 to 1·2 m alongside, projects from the E side of the main jetty, providing berths for small craft.

The ferry berth (least depth 2·4 m) is sheltered by a rubble breakwater. A light (red framework tower, white bands, 8 m in height) (48°06'N, 66°21'W) is exhibited from the end of the breakwater.

Facilities: slipway and crane.

Pointe à Fleurant

15.242

- 1 A public jetty is situated at Pointe à Fleurant (48°06'N, 66°24'W). Length of berth 34 m; depth alongside 2·1 m.

Dalhousie Harbour

General information

15.243

- 1 **Position.** Dalhousie Harbour (48°04'N, 66°22'W), lies on the N coast of New Brunswick, close within the estuary of Rivière Restigouche.

Function. Dalhousie Harbour serves the local industries, the chief exports being lumber, wood pulp, newsprint and ore concentrates. Industrial chemicals, oil and coal are imported.

Traffic. In 2001, the port was used by 100 ships with a total dwt of 1 931 731.

Port Authority. Transport Canada, Harbours and Ports, PO Box 1270, Charlottetown, Prince Edward Island, CIA 7M8.

Limiting conditions

15.244

- 1 **Controlling depth.** See 15.232.

Deepest and longest berth. The deepest berth is West Wharf. The longest berth is East Wharf. See 15.251 for details.

Tidal levels. Mean spring range about 2·8 m; mean neap range about 2·1 m. For further details see *Admiralty Tide Tables Volume 2*.

Density of water is 1·008 gms/cm³.

Maximum size of vessel handled. Length 229 m, beam 30 m, draught 10·4 m (at West Wharf). Vessels approaching

these dimensions must berth at HW, port side to. Maximum draught entering harbour and berthing starboard side to is 8.5 m, because of a restricted turning basin.

- 2 There are tidal restrictions if a vessel exceeds 8.5 m draught on arrival. To berth starboard side to at any berth a vessel should arrive 3 hours before HW.

Ice. Outside the navigation season (15.235), icebreakers operate from Dalhousie and usually keep the harbour open.

Arrival information

15.245

- 1 **Notice of ETA required.** ETA at the pilot boarding position should be reported to Atlantic Pilot Authority 12 hours in advance and confirmed or corrected 4 hours in advance, using GMT.

Outer anchorage. The most convenient anchorage for both Dalhousie and Campbellton is off Pointe à Fleurant (48°06'N, 66°24'W) in depths of 11 to 13 m as indicated on the charts.

Pilots and tugs. See 15.234 for further details. Tugs are not used for berthing.

Customs and Excise. Dalhousie is a port of entry for Canada.

Harbour

15.246

- 1 **General layout.** The principal berths are located as follows:

On the S side of a promontory, originally known as Dalhousie Island (48°04'3N, 66°21'8W) which adjoins an extensive area of reclaimed land NE of the town of Dalhousie. This berth is known as East Wharf.

On the public jetty on the NW side of the reclaimed area. This berth is known as West Wharf.

Between these two locations, there is an extensive log pound, a disused pier and a ferry terminal.

Principal marks

15.247

- 1 **Major lights:**
Carleton Light on Pointe Tracadigache (48°05'N, 66°08'W) (15.204).
Dalhousie (Douglas) Island Light (48°04'N, 66°22'W) (15.204).

Directions for entering harbour

(continued from 15.236)

15.248

- 1 **Dalhousie Harbour East Leading Lights.** From a position about 7 cables E of Dalhousie Island light (15.204) on the alignment (268°) of the following lights the track leads to the East Wharf, passing N of shoal ground, marked by spar buoys (port hand) in East Bay, NW of Inch Arran Point.

Front light (white trapezium, red stripe on framework tower, 13 m in height). (48°04'3N, 66°22'0W).

Rear light (inverted trapezium, red stripe on similar tower, 16 m in height) (57 m from front light).

15.249

- 1 **West Wharf (International Paper Company Wharf) Leading Lights.** From a position about 7 cables E of Dalhousie Island light (15.204) the track leads NW onto the alignment (264½°) of the following lights which lead into the buoyed entrance channel leading to West Wharf, passing S of Middle Ground, sand and stones, lying from 1 to 7 cables N of Dalhousie Island; the S edge of Middle Ground is marked by light-buoys.

Front light (white rectangle, red stripe, on framework tower, 6 m in height) (48°04'3N, 66°22'2W).

Rear light (similar construction and tower, 8 m in height) (614 m from front light).

15.250

Useful marks:

Two chimneys (red lights) (48°03'N, 66°22'W).

Dalhousie Wharf Light (red and white rectangle on square framework tower, 7 m in height) (48°04'N, 66°22'W).

Alongside berths

15.251

- 1 Berths are arranged in Dalhousie as follows:
East Wharf on S side of Dalhousie Island; maximum length including the use of dolphins 340 m; maximum alongside length 192 m; depth 9.1 m.
West Wharf at W end of Dalhousie Harbour; maximum length including the use of dolphins 335 m; maximum alongside length 183 m; depth 10.3 m.
Ferry Terminal in inlet SW of Dalhousie Island.
- 2 The wharf on the E side of reclaimed land between Dalhousie Island and the public pier, on the site of the New Brunswick International Paper Company, is in disuse.

Port services

15.252

- 1 **Repairs:** minor repairs only.
Other facilities: hospital at Campbellton; slipway at the Ro-Ro berth.
Supplies: fuel oils supplied by prior arrangement, fresh water is piped to the berths; provisions and stores.
Communications: Restigouche airport 13 kms.

Small craft

15.253

- 1 **Approach to harbour.** Small craft sometimes pass N and W of Middle Ground, approaching Dalhousie Harbour on the alignment (167°) of a chimney (46°04'2N, 66°22'2W) and a church spire, 4 cables SSE.
Local knowledge is required.
Inspection of Canadian chart 4426 would suggest that the chimney, mentioned above, does not exist.
Marina is situated SSW of the West Wharf.

Campbellton

General information

15.254

- 1 **Position.** Campbellton (48°00'N, 66°40'W), lies at the head of Restigouche River estuary.
Function. Campbellton exports lumber.
Port Authority: Canadian Department of Transport.

Limiting conditions

15.255

- 1 **Controlling depth.** See 15.232.
Vertical clearance. A road bridge with a vertical clearance of 44 m spans the river from Campbellton to the N shore. Only small craft of limited draught can navigate upstream of the bridge, where there are booming grounds and sawmills.
Deepest and longest berth. The railway wharf and jetty (15.259).
- 2 **Tidal levels.** Mean spring range about 1.9 m; mean neap range about 1.3 m. Levels at Campbellton are increased by 0.3 m during spring freshets, and fall gradually throughout the summer.

- 3 **Ice.** The navigation season is from May to December inclusive.

Arrival information

15.256

- 1 **Notice of ETA required.** As Dalhousie (15.245).
Outer anchorage. As Dalhousie (15.245).
Pilots and tugs. Pilotage is compulsory. Small tugs are reported to be available.
Customs and Excise. Campbellton is a port of entry for Canada, served from Bathurst.

Harbour

15.257

- 1 The main berthing jetty lies along the S bank of Rivière Restigouche.

Directions for entering harbour

(continued from 15.240)

15.258

- 1 The harbour is entered directly from the river.

Berths

15.259

- 1 The railway wharf lies along the river bank at the N point of Campbellton, and extends E from the point as a jetty. The total length of the wharf and jetty is 442 m, with a small angle at its mid-point.

BIRCH POINT TO CAP GASPÉ

GENERAL INFORMATION

Chart 4766, Canadian Chart 4485 (see 1.32)

Area covered

15.263

- 1 This section describes the coastal passage from a position NNE of Birch Point (48°01'N, 64°30'W), to a position SE of Cap Gaspé, 48 miles NNE. Also described is Baie de Gaspé, an inlet leading NW for about 17 miles, entered between Pointe Saint-Pierre (48°37'N, 64°10'W) and Cap Gaspé 7½ miles N.
 It is arranged as follows:
 Birch Point to Cap Gaspé (15.265).
 Baie de Gaspé (15.283).

Traffic separation scheme

15.264

- 1 The inbound lane of the traffic separation scheme between Cabot Strait and St Lawrence River lies 33 miles NE of Cap Gaspé. Further information and directions for this route are given in Chapter 2.

BIRCH POINT TO CAP GASPÉ

General information

Chart 4766, Canadian Chart 4485 (see 1.32)

Route

15.265

- 1 From a position NNE of Birch Point (48°01'N, 64°30'W), the coastal route leads NNE and then N, passing outside Île Bonaventure (48°30'N, 64°10'W), and E of Île Plate (48°38'N, 64°09'W), to a position SE of Cap Gaspé (48°45'N, 64°10'W).

There is a depth of 3 m situated 3 m off the face of the jetty, at a distance of 23 m from the E end; there are greater depths along most of the berth.

Port services

15.260

- 1 **Repairs:** minor repairs to hull and engines.
Other facilities: two hospitals at Campbellton.
Supplies: fuel oils and freshwater are piped to the wharf; provisions in limited quantities.
Communications: a ferry service is believed to operate between Campbellton and Cross Point on the opposite shore; local airport.

Small craft

Pointe Miguasha

15.261

- 1 A public jetty is situated at the S entrance point of a shallow cove about 5 cables NW of Pointe Miguasha (48°04'N, 66°18'W). The jetty dries out at LW.

Other names

15.262

- 1 Pointe La Nim (Lanim Point) (48°04'N, 66°28'W).
 Pointe à la Croix (48°01'N, 66°41'W).

Topography

15.266

- 1 In the vicinity of Cap d'Espoir the land rises to high ridges behind red sandstone cliffs, about 15 m high. These cliffs continue around the NW side of L'Anse à Beaufils, N of Cap d'Espoir.
 Île Bonaventure, 137 m (450 ft) in elevation, has steep red sandstone cliffs, 76 m high in places. Numerous sea birds nest on the cliffs, and the island is a government bird sanctuary.
 Pointe Saint-Pierre is low with Île Plate, a low sandstone island, lying 4 cables NE.

Marine farm

15.267

- 1 A fish haven is established about 1 mile NNE of Cap d'Espoir and extends 2.6 miles NNE. The haven lies approximately parallel to the coast and about 8 cables offshore. Another fish haven is established about 1 mile E of L'Anse à Beaufils (48°28'N, 64°18'W). Many other fish havens, too numerous to mention, exist in the area.

Principal marks

15.268

- 1 **Landmark:**
 Monument (48°31'N, 64°14'W) with three radio towers (red lights) close NNW on Mont Sainte-Anne (Percé Mountain).
Major light:
 Cap d'Espoir light (48°25'N, 64°19'W) (15.101).

Directions

(continued from 15.3 and 15.5)

15.269

- 1 From a position about 20 miles NNE of Birch Point (48°01'N, 64°30'W), the coastal route leads NNE then N,

passing (positions given from Cap d'Espoir (48°25'N, 64°19'W)):

- ESE of Île Bonaventure (8 miles NE), thence:
- E of Île Plate, (14 miles NNE), and:
- W of Banc des Américains (19 miles NE), thence:
- To a position SE of Cap Gaspé.

2 **Useful marks:**

- Percé Breakwater Light (black square mast, 6 m in height) (48°31'N, 64°13'W).
- Île Plate Light (two red and white rectangles on square framework tower, 12 m in height) (48°38'N, 64°09'W).

(Directions continue for Baie de Gaspé at 15.287 and for coastal passage N of Cap Gaspé at 7.13)

Baie de Percé

General information

15.270

- 1 Baie de Percé (Percé Bay) (48°31'N, 64°12'W) is entered between Cap Blanc (White Head) (48°30'N, 64°13'W) and Rocher Percé (Percé Rock), 1½ miles NNE, which is notable for the large hole through its precipitous cliff.

At the village of Percé, near the N end of the bay, a breakwater extends SE from the shore.

The bay is backed by the remarkable heights of Mont Sainte-Anne (15.268).

Directions

15.271

- 1 **Approach from south.** Percé is approached from S, passing, (positions given from Cap d'Espoir (48°25'N, 64°19'W)):

Between Cap Blanc (6¼ miles NNE) and shoal ground (7 miles NE) extending about 2 cables from the W side of Île Bonaventure, thence:

E of Récif Percé (Percé Reef) (7¼ miles NNE), extending about 4 cables offshore, 1 mile NNE of Cap Blanc. The reef is marked on its E side by AA1 Light-buoy (port hand).

15.272

- 1 **Approach from north-east.** Percé is approached from NE, passing, (positions given from Cap d'Espoir (48°25'N, 64°19'W)):

Between the SE extremity of Rocher Percé (7¾ miles NNE) and Île Bonaventure (7 miles NE), thence:

N of Récif Percé (7¼ miles NNE).

15.273

- 1 **Useful mark:**

Percé Breakwater Light (black square mast, 6 m in height) (48°31'N, 64°13'W) (15.269) on the breakwater head.

Anchorage

15.274

- 1 There is anchorage in 27 m (15 fm) between Île Bonaventure and Cap Blanc, but, in bad weather, the swell makes it insecure.

Berth

15.275

- 1 The breakwater is 172 m long and 6.1 m wide, with depths of 4.9 to 5.8 m alongside. The outer 46 m of the breakwater is faced with boulders.

Port services

15.276

- 1 **Supplies:** fuel oil.

Small craft

15.277

- 1 Small craft of suitable draught can anchor on either side of Récif Percé when the wind is offshore, but the anchorage is dangerous and is not recommended.

La Malbaie

General information

15.278

- 1 **Description.** La Malbaie (Mal Bay) (48°35'N, 64°14'W) is entered between Rocher Percé (48°31'N, 64°12'W) and Pointe Saint-Pierre, 6 miles N. At the head of the bay a shallow lagoon lies behind a wide beach of gravel and sand.

The S shore of the bay rises in a perpendicular cliff, over 198 m high. The N shore is composed of low sandstone cliffs and occasional beaches.

- 2 **Marine farm** facilities, marked by yellow cautionary buoys, lie in La Malbaie.

Useful mark:

White church in Mal-Bay (48°37'N, 64°12'W).

Small craft

15.279

- 1 **Barachois** (Barachois de Mal Bay), the principal settlement in La Malbaie, is situated on the N side of Tickle Inlet (48°37'N, 64°17'W) about 4 miles W of Pointe Saint-Pierre. The principal industries are lumber and fishing.

Tickle Inlet is spanned by a railway bridge with a vertical clearance of 7.6 m under which boats can pass into the lagoon at HW.

- 2 The public jetty is situated at the S entrance point of Tickle Inlet: length of jetty 241 m; depth alongside 2.7 m at the outer end. There is a landing pier in the lagoon with a depth of about 0.9 m along part of its face of 232 m.

Canadian Chart 4921 plan of Mal-Bay (see 1.32)

15.280

- 1 **Mal-Bay** settlement (48°37'N, 64°12'W) is situated on the N side of the bay, about 1¼ miles W of Pointe Saint-Pierre.

Anchorage off Mal-Bay is not recommended, because of frequent SE gales, preceded by fogs, and usually accompanied by a considerable sea.

The public jetty extends W from a steep rocky point at the village: length of jetty 90 m; depth alongside outer end of N side 5.8 m, shallowing to 1.9 m at its root; deck elevation 1.2 m.

- 2 A slipway is situated close N of the inner end of the jetty.

Mal-Bay Light (grey square mast) is exhibited from the end of the wharf.

Small craft

Canadian Chart 4921 plan of L'Anse à Beaufils (see 1.32)

L'Anse à Beaufils

15.281

- 1 **Description.** L'Anse à Beaufils (48°28'N, 64°18'W), situated at the head of a wide bay of that name, has a boat basin formed by a pier and a breakwater S of it.

Marine farm. See 15.267.

Local knowledge is required.

Directions. On nearing the harbour, the basin is entered between the head of the breakwater and the outer end of the pier about 30 m WNW. AF-3 Light-buoy (port hand) lies close off the E end breakwater.

- 2 **Basin and berths.** The entrance channel and outer 145 m of the public wharf have been dredged to 2.5 m (2002), elsewhere the basin has depths of 0.3 to 2.2 m. Ruins lie close off and parallel to the S shore of the basin. The area between the inner 82 m of the public wharf and the floating pier opposite has been dredged to 1.5 m (2002). A slipway is situated close to the inner end of the wharf.

Chart 4766, Canadian Chart 4485 (see 1.32)

Île Bonaventure

15.282

- 1 **Description.** Île Bonaventure lies about 1.8 miles E of Cap Blanc and is separated from the mainland by a clear navigable channel having depths of 18.3 to 36.6 m, but heavy swells frequently roll through the passage and around the island.

Tidal streams between Île Bonaventure and the mainland are generally regular, the in-going stream setting SW at a rate of about 1 kn, and the out-going stream setting NE at the same rate.

- 2 **Berth.** A public jetty is situated on the W side of the island, 1½ miles E of Cap Blanc: length of jetty 43 m, depth alongside outer end 1.8 m; deck elevation 1.5 m.

BAIE DE GASPÉ

General information

Chart 4766, Canadian Chart 4485 (see 1.32)

Description

15.283

- 1 Baie de Gaspé (Gaspé Bay) (48°45'N, 64°15'W), entered between Pointe Saint-Pierre (48°37'N, 64°10'W) and Cap Gaspé 7½ miles N is about 17 miles long, and 4 miles wide at its outer part. It contains an excellent anchorage and has a good harbour at its head. West of Gaspé Harbour, the bay divides and leads into Northwest and Southwest Arms.

Route

15.284

- 1 From a position SE of Cap Gaspé (45°45'N, 64°10'W), the route into Baie de Gaspé leads NW for about 14 miles towards the roadstead off Douglstown (48°46'N, 64°23'W) and the approach to Havre de Gaspé (Gaspé Harbour).

Topography

15.285

- 1 The SW shore of the bay from Pointe Saint-Pierre to Douglstown, 12 miles NW, presents a series of precipitous headlands, with cliffs rising to a height of 46 m in places. The NE shore between Cap Gaspé and Petit Gaspé (Little Gaspé), 5 miles NW is thickly populated.

Depths

15.286

- 1 **Caution.** Shoals extend up to 4 cables offshore in places and caution is necessary as soundings give little warning of approach.

Directions

(continued from 15.269)

15.287

- 1 From a position SE of Cap Gaspé (45°45'N, 64°10'W), the bay is entered by passing between an unnamed rocky shoal with a depth of 13.1 m (43 ft) over it, lying 1 mile SE of Cap Gaspé and a bank with a least depth of 23.8 m (13 fm) over it, situated 5 miles SE of the cape. Tide-rips occur over these features at times.

- 2 **Presqu'île de Penouille (Penouille Peninsula) Leading Lights.** From a position in mid-channel in Baie de Gaspé, the alignment (307½°) of the following lights leads to a position about 5 miles from the front leading light.

Front light (orange trapezium, black stripe on square framework tower, 5 m in height) (48°51'1N, 64°25'5W).

Rear light (similar construction, inverted, and tower, 15 m in height) (230 m from front light).

15.288

- 1 **Useful marks:**

Church at Petit-Gaspé, (Little Gaspé) 5 miles NW of Cap Gaspé.

Gros Cap aux Os (Cap Brûlé) Light (framework tower, 15 m in height) (48°49'5N, 64°19'0W).

(Directions continue for Havre de Gaspé at 15.296)

Havre de Gaspé

Chart 4766, Canadian Chart 4416 (see 1.32)

General information

15.289

- 1 **Position.** 48°50'N, 64°27'W, at the head of Baie de Gaspé.

Function. Havre de Gaspé provides sheltered anchorage, alongside berths and a marina for pleasure craft.

Approach and entry. The harbour is approached through the narrowing head of Baie de Gaspé, and entered through a channel 2½ cables N of Sandybeach Point (48°50'N, 64°25'W).

- 2 **Port Authority.** Transport Canada, PO Box 6179, Gaspé.

Traffic. In 2001, the port was used by 38 ships of 1 058 848 dwt.

Limiting conditions

15.290

- 1 **Controlling depth.** The depth on the bar is 8.2 m. In the inner harbour, depths range from 9.1 to 20 m.

Vertical clearance. A road bridge, with a vertical clearance of 6.1 m crosses the narrows at the entrance to Bassin du Sud-Ouest.

Signal lights are exhibited from the bridge.

Deepest and longest berth. Public jetty (Transport Canada) at Sandy-Beach (15.299).

Tidal levels. Mean spring range about 1.1 m; mean neap range about 0.5 m. See information in *Admiralty Tide Tables, Volume 2*.

Maximum size of vessel handled. 198 m in length.

Ice. The harbour usually freezes over from about 15th December until April. Icebreakers are available.

Arrival information

15.291

- 1 **Outer anchorage.** See 15.305 for details of anchorage off Douglstown.

Submarine pipelines. Care should be taken not to anchor near the submarine pipeline, which is laid across Bassin du Sud-Ouest about 9 cables W of the bridge.

An outfall pipeline is laid NE for $\frac{3}{4}$ cable from a position close W of the public wharf (Transport Canada) (15.299).

- 2 **Submarine cables.** Two abandoned submarine cables are laid across the narrows, close to the bridge.

Pilotage is not compulsory, but can be arranged, and is recommended.

Tugs are not necessary, and are not available except in an emergency.

- 3 **Marine farms.** There are numerous marine farms in the vicinity of the bay, particularly in Bassin du Nord-Ouest. For additional information, consult the current Canadian notices to mariners.

Customs and Excise. Gaspé is a port of entry for Canada.

Harbour

15.292

General layout. Havre de Gaspé is about $4\frac{1}{2}$ miles long, with a general width of 1 mile, and depths of 7 to 20 m (23 ft to 11 fm) with a mud bottom.

- 1 The harbour is enclosed on the E side by Barre de Sandy Beach (Sandybeach Bar), a low, narrow tongue of sand with Batture de Sandy Beach (Sandybeach Spit) at its N end; a breakwater is built along Batture de Sandy Beach in a NNW direction. Owing to silting, Batture de Sandy Beach may extend beyond the area indicated on the charts. Gaspé is a city with a population of 17 000 in 1986.

15.293

- 1 **Bassin du Sud-Ouest** (South West Arm), entered between Pointe Jacques-Cartier ($48^{\circ}50'N$, $64^{\circ}28'W$) and Pointe de Lourdes (Lourdes Point), 8 cables SE, passes through narrows 5 cables SSW of Pointe Jacques-Cartier; there are depths of more than 9 m (30 ft) for a distance of 5 cables above the narrows.

Rivière Yorke, which flows into the head of Bassin Du Sud-Ouest, is navigable by boats for a distance of about 3 miles.

15.294

- 1 **Bassin du Nord-Ouest** (North West Arm) has depth of more than 11 m (36 ft) for a distance of $1\frac{1}{2}$ miles above Pointe Jacques-Cartier, but depths increase to drying flats 5 cables farther NW.

Rivière Dartmouth flows into the head of Bassin du Nord-Ouest, and is navigable by boats for a distance of about 2 miles.

Other navigational aid

15.295

Racon:

Pointe Penouille rear leading light ($48^{\circ}51'2N$, $64^{\circ}25'7W$). See *Admiralty List of Radio Signals Volume 2* for details.

Directions for entering harbour

(continued from 15.288)

15.296

- 1 From a position about 5 miles from the front leading light, the alignment ($307\frac{1}{2}^{\circ}$) of Presqu'île de Penouille Leading Lights (15.287) leads NW towards and through the entrance channel, which is about 3 cables in width, with a least depth of 20 m (11 fm) in the fairway, marked by buoys (lateral) at the harbour entrance, passing (positions given from the front light):

SW of Rocher Seal (Seal Rock) ($5\frac{1}{4}$ miles ESE), thence:

SW of Gros Cap aux Os (Cap Brûlé) (21 m high) ($4\frac{1}{2}$ miles SE), from which a light (15.288) is exhibited, thence:

Clear of a wreck, with a depth of 19.8 m (65 ft) over it, lying on the leading line, 2 miles from the front light. The track leads around the N end of Batture de Sandy Beach, thence:

- 2 Between shoal ground surrounding Batture de Sandy Beach, extending SSE (7 cables SE), and shoal ground extending E from Presqu'île de Penouille.

From a position about 7 cables SE of the front leading light, the channel leads W, then SW into Havre de Gaspé, passing SE of Presqu'île de Penouille.

Clearing bearing. The line of bearing 308° of the cliffs at Petit Cap aux Os ($48^{\circ}50'N$, $64^{\circ}21'W$), open S of Gros Cap aux Os (Cap Brûlé) ($1\frac{1}{4}$ miles SE), passes close SW of Rocher Seal.

- 3 **Useful marks:**

Church ($48^{\circ}50'2N$, $64^{\circ}20'4W$) near the edge of the cliff at Petit Cap aux Os.

Hospital (red brick) surmounted by a cross (red lights) ($48^{\circ}49'5N$, $64^{\circ}28'5W$).

Silver Cupola ($48^{\circ}50'0N$, $64^{\circ}29'1W$) in Gaspé.

Cross (red lights) ($48^{\circ}50'2N$, $64^{\circ}29'7W$) surmounting a sanatorium; a chimney stands close NNE.

Directions for entering Bassin du Sud-Ouest

15.297

- 1 From about 4 cables E of Pointe Jacques-Cartier, the channel into Bassin du Sud-Ouest leads SW, passing, (positions given from the point):

NW of Banc de Lourdes (Lourdes Spit) ($\frac{1}{2}$ mile SW) extending $3\frac{1}{2}$ cables NW from Pointe de Lourdes, thence:

SE of Batture Paddy (Paddy Shoal) ($3\frac{1}{2}$ cables SW) extending $2\frac{1}{2}$ cables from the shore.

- 2 **Useful mark:**

Lights (red and white square framework towers, 5 m in height) ($48^{\circ}49'7N$, $64^{\circ}28'5W$) at the heads of the entrance breakwaters at the marina.

Anchor berths

15.298

- 1 The main harbour and Bassin du Nord-Ouest provide well sheltered anchorage in 7 to 20 m (23 ft to 11 fm), mud.

Bassin du Sud-Ouest provides well sheltered anchorage in 11 to 17 m (36 to 56 ft) (2001), mud.

Canadian Chart 4416 plan of Public Wharf (see 1.32)

Alongside berths

15.299

- 1 **Sandy-Beach (Transport Canada) Wharf.** A public jetty 759 ft (231 m) long and 110 ft (34 m) wide, has a depth alongside (2001) of over 12 m for a length of 140 m on the outer N face and 42 m on the outer S face. Depths of over 5.5 m alongside (2001) exist for a length of 50 m on the inner N face and 162 m on the inner S face.

The jetty lies in $48^{\circ}49'6N$, $64^{\circ}26'4W$.

A jetty in ruins is situated S of the public jetty.

Several oil tanks lie in the vicinity of the wharf.

15.300

- 1 **Bassin du Sud-Ouest.** On the NW shore about 1 cable above the bridge (15.290) there is a wharf which was reported (2001) to be in ruins. There are several other wharves and jetties along the waterfronts at Gaspé, mostly in ruins.

Port services**15.301**

- 1 **Repairs:** minor repairs.

Other facilities: hospital; facilities for the collection of oily waste and garbage; slipway 2 cables S of public jetty.

Supplies: fuel oil by pipeline on public jetty or road tanker; fresh water; provisions.

Communications: regular sea communication with Baie des Chaleurs and St Lawrence River ports; airport 10 km.

Canadian Chart 4416 plan of Marina de Gaspé (see 1.32)

Small craft**15.302**

- 1 A marina is situated close E of the bridge spanning the entrance to Bassin du Sud-Ouest. The usual services and facilities are available. The marina is fitted with a slipway.

Anchorage and harbours**Pointe Saint-Pierre****15.303**

- 1 There is a small cove with a jetty on the N side of Pointe Saint-Pierre (48°37'N, 64°10'W).

To enter the cove, it is necessary to pass N and W of a rock with a least depth of 1.5 m (5 ft) over it, lying close NE of the jetty.

Alongside the jetty, on the E side of the cove, there is a berth 30 m long, with a depth of 2.4 m alongside.

Off Grande-Grève**15.304**

- 1 Anchorage can be obtained with good holding ground abreast Grande-Grève (48°48'N, 64°14'W) but depths of less than 31 m (17 fm) can be found within 3 cables of the shore.

Off Douglastown**15.305**

- 1 Anchorage may be obtained in the extensive roadstead off Douglastown (48°46'N, 64°23'W), in depths of 11 to 18 m (36 to 60 ft) or as desired. The bottom is sand and clay, with excellent holding ground. Recommended anchorage position is indicated on Canadian Chart 4485.

SE winds send in a heavy swell, but the shelter is good in other winds.

Small craft**L'Anse aux Sauvages****15.306**

- 1 There is a small wharf at L'Anse aux Sauvages (48°46'N, 64°12'W), 1.8 miles NW of Cap Gaspé. The

wharf is 20 m (66 ft) long. The wharf is in ruins and access is prohibited.

L'Anse à Brillant**15.307**

- 1 **General information.** L'Anse à Brillant (48°43'N, 64°17'W), lies about 7½ miles NW of Pointe Saint-Pierre. There is a small fishing harbour formed by two wooden wharves, with a total length of 270 m (890 ft). The entrance is 12 m (39 ft) wide between two rock breakwaters extending in a NE direction, with a least depth of 1.3 m (4 ft). Depths in the first 80 m (262 ft) of the harbour are from 1.0 to 2.2 m (3 to 7 ft). The harbour is equipped with a slipway.

Leading lights. The alignment (205°) of the following leading lights leads into the harbour:

- 2 Front light (orange trapezium, black stripe on square framework tower, 5 m in height) (48°43'N, 64°17'W).
Rear light (similar construction, inverted, on tower, 8 m in height) (31 m from front light).

Grande-Grève**15.308**

- 1 **Description.** At Grande-Grève (48°48'N, 64°14'W), 3½ miles NW of Cap Gaspé, there is a dip in the ridge running from the mainland onto Presqu'île de Forillon, the peninsular terminating in Cap Gaspé. A small craft harbour at Grande-Grève is protected by breakwaters. A light (grey mast, 6 m in height) (48°48'N, 64°14'W) is exhibited.

Local knowledge is essential as shoals may exist in the harbour.

Basin. The depth in the boat harbour is reported to be 1.8 m (6 ft).

Douglastown**15.309**

- 1 **Description.** Douglastown (48°46'N, 64°23'W) stands on rising ground on the S side of the wide area of sand and mudbanks inside the mouth of Rivière Saint-Jean (Saint John River).

A channel for small craft leads under the railway bridge between two sandspits at the river mouth, and there are depths of about 3 m (10 ft) for a short distance within.

Local knowledge is essential.

Berth. There is a public pier at Douglastown.

APPENDIX I

CANADIAN CHARTS AND NAUTICAL PUBLICATIONS REGULATIONS 1995

REGULATIONS REQUIRING THE PRESENCE ON BOARD SHIPS OF APPROPRIATE CHARTS, TIDE TABLES AND OTHER NAUTICAL DOCUMENTS OR PUBLICATIONS AND RESPECTING THEIR MAINTENANCE AND USE

Short Title

1. These Regulations may be cited as the Charts and Nautical Publications Regulations, 1995.

Interpretation

2. In these Regulations,
 - “chart” means a nautical chart;
 - “nautical mile” means the international nautical mile;
 - “reference catalogue”, in respect of an area to be navigated by a ship, means,
 - (a) for waters under Canadian jurisdiction, the *Catalogue of Nautical Charts and Related Publications*, published by the Canadian Hydrographic Service, and
 - (b) for waters outside Canadian jurisdiction, the *Catalogue of Admiralty Charts and Other Hydrographic Publications*, published by the Government of the United Kingdom, or the *Catalog of Charts and Publications*, published by the Government of the United States of America; (*catalogue de référence*)
 - “tons” means gross tons; (*tonneaux*)
 - “waters under Canadian jurisdiction” means:
 - (a) Canadian waters,
 - (b) the exclusive economic zone of Canada.

Application

3. These Regulations apply to Canadian ships in all waters and to all ships in waters under Canadian jurisdiction.

Carriage of Charts, Documents and Publications

4. (1) Subject to subsection (2), the master and owner of every ship shall have on board, in respect of each area in which the ship is to be navigated, the most recent editions of the charts, documents and publications that are required to be used under sections 5 and 6.
- (2) The master and owner of a ship of less than 100 tons are not required to have on board the charts, documents and publications referred to in subsection (1) if the person in charge of navigation has sufficient knowledge of the following information, such that safe and efficient navigation in the area where the ship is to be navigated is not compromised:
 - (a) the location and character of charted
 - (i) shipping routes,
 - (ii) lights, buoys and marks, and,
 - (iii) navigational hazards; and,
 - (b) the prevailing navigational conditions, taking into account such factors as tides, currents, ice and weather patterns.

Use of Charts

5. (1) Subject to subsection (2), the person in charge of the navigation of a ship shall use the most recent edition of a chart that:
 - (a) is published by the government of a country;
 - (b) applies to the immediate area in which the ship is being navigated;
 - (c) is, for that area,
 - (i) the largest scale chart according to the reference catalogue, or,
 - (ii) of a scale that is at least 75 per cent of the scale of the chart referred to in subparagraph (i) and is as complete, accurate, intelligible and up-to-date as that chart.
- (2) The person in charge of the navigation of a ship may use the most recent edition of a chart that is the second-largest scale chart for an area according to the reference catalogue where,
 - (a) the scale of the chart is at least 1:400,000 (2.16 nautical miles to the centimetre); and,
 - (b) the ship is,
 - (i) more than 5 nautical miles from any charted feature or charted depth of water that represents a potential hazard to the ship, or
 - (ii) within an area for which the largest scale chart, according to the reference catalogue, is primarily,
 - (a) a chart intended for the use of pleasure craft, or,
 - (b) a chart of an anchorage, a river or a harbour that the ship will not transit or enter.

Use of Documents and Publications

6. (1) Subject to subsection (3), the person in charge of the navigation of a ship in waters under Canadian jurisdiction shall use, in respect of each area to be navigated by the ship, the most recent edition of,
 - (a) the reference catalogue;
 - (b) the annual edition of the *Notices to Mariners*, published by the Department of Fisheries and Oceans;
 - (c) the following publications, namely,
 - (i) sailing directions, published by the Canadian Hydrographic Service,
 - (ii) tide and current tables, published by the Canadian Hydrographic Service,
 - (iii) lists of lights, buoys and fog signals, published by the Department of Fisheries and Oceans, and
 - (iv) where the ship is required to be fitted with radio equipment pursuant to any Act of Parliament or of a foreign jurisdiction, the *Radio Aids to Marine Navigation*, published by the Department of Fisheries and Oceans, and

- (d) the documents and publications listed in the schedule.
- (2) Subject to subsection (3), the person in charge of the navigation of a Canadian ship in waters outside Canadian jurisdiction shall use, in respect of each area to be navigated by the ship, the most recent edition of,
 - (a) the reference catalogue;
 - (b) the annual edition of the *Notices to Mariners*, published by the Department of Fisheries and Oceans;
 - (c) the following publications referred to in the reference catalogue, namely,
 - (i) sailing directions,
 - (ii) tide and current tables,
 - (iii) lists of lights, and
 - (iv) where the ship is required to be fitted with radio equipment pursuant to an Act of Parliament, the list of radio aids to navigation; and,
 - (d) the documents and publications listed in the schedule.
- (3) The documents and publications referred to in paragraphs (1)(c) and (d) and (2)(c) and (d) may be replaced by similar documents and publications issued by the government of another country, if the information contained in them that is necessary for the safe navigation of a ship in the area in which the ship is to be navigated is as complete, accurate, intelligible and up-to-date as the information contained in the documents and publications referred to in those provisions.

Maintenance of Charts, Documents and Publications

- 7. The master of a ship shall ensure that the charts, documents and publications required by these Regulations are, before being used for navigation, correct and up-to-date, based on information that is

contained in the *Notices to Mariners*, *Notices to Shipping* or radio navigational warnings.

Exclusions

SCHEDULE

(Section 6)

DOCUMENTS AND PUBLICATIONS

- 1. Regulations 1, 7 and 8 of Chapter II, and Resolutions 1, 3 and 6, of the *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978*, published by the International Maritime Organization and reprinted as the *Code of Nautical Procedures and Practices, 1985*, by the Department of Transport.
- 2. *Ice Navigation in Canadian Waters*, published by the Department of Transport, where the ship is making a voyage during which ice may be encountered.
- 3. *Table of Life-Saving Signals*, published by the International Maritime Organization and reprinted by the Department of Transport, where the ship is making a foreign voyage, a home-trade voyage, Class I, II or III, or an inland voyage, Class I.
- 4. *The Merchant Ship Search and Rescue Manual (MERSAR)*, published by the International Maritime Organization, where the ship is making a foreign voyage or a home-trade voyage, Class I or II.
- 5. Where the ship is required to be fitted with radio equipment and is making a foreign voyage or a home-trade voyage, Class I or II, the following publications, published by the International Maritime Organization and reprinted by the Department of Transport:
 - (a) the *International Code of Signals*; and
 - (b) the *Standard Marine Navigational Vocabulary*.

APPENDIX II

CANADA SHIPPING ACT — EXTRACTS FROM COLLISION REGULATIONS

Collision Regulations. — The *International Regulations for Preventing Collisions at Sea 1972* are modified, in waters under Canadian Jurisdiction, by the *Canadian Regulations for the Prevention of Collisions*, cited as the *Collision Regulations*.

The *Canadian modifications* to the *International Regulations for Preventing Collisions at Sea 1972*, with the exception of those affecting only the Great Lakes Basin are as follows.

REGULATIONS FOR THE
PREVENTION OF COLLISIONS*Short Title*

1. These Regulations may be cited as the *Collision Regulations*.

Interpretation

2. (1) In these regulations,
 - “Act” means the *Canada Shipping Act*;
 - “air cushion vessel” means a machine designed to derive support in the atmosphere primarily from reactions against the earth’s surface of air expelled from the machine;
 - “Annex” means an Annex to Schedule 1;
 - “approved signal” means a distress signal recognised internationally by organisations concerned with radiocommunications and maritime safety;
 - “barge” means a non self-propelled barge, scow, dredge, pile-driver, hopper, pontoon or houseboat;
 - “Canadian ODAS” means an ODAS which is owned by
 - (a) a person who is a Canadian citizen or a permanent resident of Canada, or
 - (b) the Government of Canada, the government of a province, a corporation resident in Canada or a Canadian university
 - “Canadian vessel” includes
 - (a) any vessels that is licensed or registered in Canada, and
 - (b) any vessel that is Canadian owned and not licensed, registered or otherwise legally documented by another state;
 - “Canadian waters” means the territorial sea of Canada and all internal waters of Canada;
 - “composite unit” means a pushing vessel and an associated pushing vessel that are rigidly connected and that are designed as a dedicated and integrated tug and barge combination;
 - “direction of traffic flow” means the direction for traffic in a route that is indicated by arrows on a reference chart;
 - “exploration or exploitation vessel” means a vessel engaged in the exploration or exploitation of the non-living natural resources of the sea-bed;
 - “fishing zones” means the fishing zones described in section 16 of the *Oceans Act* and prescribed in regulations made under paragraph 25(b) of that Act;

“give-way vessel” means that a vessel is required by these Regulations to keep out of the way of another vessel;

“high speed craft” means a craft described in Regulations 1.2 and 3.1 of Chapter X of the safety convention.

“inconspicuous, partly submerged vessel or object” means a raft or any other floating vessel or object that is low in the water and is generally difficult to see;

“inshore traffic zone” means a routing measure that is a designated area between the landward boundary of a traffic separation scheme and the adjacent coast that is intended for local traffic;

“mile” means the international nautical mile of 1852 metres;

“Notice to Mariners” means a weekly and annual publication by the Department of Fisheries and Oceans to provide marine information;

“Notice to Shipping” means an urgent release by the Department of Fisheries and Oceans to provide marine information;

“ODAS” means an ocean data acquisition system that consists of any object on or in the water that is designed to collect, store or transmit samples or data relating to the marine environment or the atmosphere or to the uses thereof;

“Organisation” means the International Maritime Organisation;

“proof of compliance” means a document or a label that states that a light, shape, sound-signalling appliance or radar reflector meets the standards referred to in Section 4 and that is issued by

- (a) a government that is a party to the Convention on the International Regulations for Preventing Collisions at Sea 1972,
- (b) a society or association for the classification and registry of ships recognized by a government referred to in paragraph (a)
- (c) an independent testing establishment recognized by the Chairman or by a government referred to in paragraph (a);

“raft” includes a boom;

“route” means an area within which there are at any point, one or two directions of traffic flow and that is delineated on two sides by separation lines, separation zones, natural obstacles or dashed tinted lines except that the continuity of such lines or zones may be interrupted where the route merges with, diverges from or crosses another route;

“routing system” means any system of one or more routes or routing measures which systems may include traffic separation schemes, two-way routes, recommended tracks, areas to be avoided, inshore traffic zones, roundabouts, precautionary areas and deep water routes;

“Rule” means a provision in Schedule 1 under a heading that consists of the word “Rule” followed by a number;

“seaplane” includes any aircraft designed to manoeuvre on the water;

“separation zone or line” means a zone or line separating routes in which ships are proceeding in opposite or nearly opposite directions, or separating a route from the adjacent inshore traffic zone;

“traffic lane” means a route within which there is one direction of traffic flow;

“traffic separation scheme” means a routing measure that provides for the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes;

“trawling” means fishing by dragging through the water a dredge net or other fishing apparatus.

- (2) In these Regulations, every reference to a vessel includes a reference to an air cushion vessel when it is over or on the water and a seaplane when it is on the water.

Application

3. (1) Subject to subsection (4), these Regulations apply to every
- (a) Canadian vessel or Canadian ODAS located within any waters;
 - (b) vessel or ODAS, other than a Canadian vessel or Canadian ODAS located within
 - (i) Canadian waters, or
 - (ii) waters in the exclusive economic zone of Canada; and
 - (c) exploration or exploitation vessel that is engaged in exploration or exploitation activities pursuant to a licence issued by the Government of Canada.
- (3) Where there is any inconsistency between a provision of the Rules and a provision of the Rules that falls under the heading “Canadian Modifications”, the latter provision prevails to the extent of the inconsistency.
- (4) Where the laws of a state other than Canada are applicable to a Canadian vessel or Canadian ODAS within the territorial sea, inland waters or fishing zones of that state, and those laws are inconsistent with these Regulations, the laws of that state prevail to the extent of the inconsistency in respect of the Canadian vessel or Canadian ODAS.
- (5) Where special rules are made with respect to additional station or signal lights, shapes or whistle signals for ships of war and vessels proceeding under convoy, or with respect to additional station or signal lights, shapes or whistle signals for fishing vessels engaged in fishing as a fleet, the special rules shall operate so as to take precedence over any other portion of the Rules with respect to which there is an inconsistency and these additional station or signal lights, shapes or whistle signals shall, so far as possible, be such that they cannot be mistaken for any light, shape or signal authorized elsewhere under these Rules.
- (6) Where there is any inconsistency between a provision of Rule 1 and a provision of this section, the provision of this section prevails to the extent of the inconsistency.

Standards

4. Each light, shape, sound–signalling appliance and radar reflector required by these Regulations to be carried or exhibited on a vessel shall meet as a minimum of standards set out in
- (a) Annexes I and III to Schedule I; and
 - (b) Transport Canada *Standards for Navigation Lights, Shapes, Sound Signals Appliances and Radar Reflectors*, 1983, TP 1861, as amended from time to time.

Proof of Compliance

5. (1) A proof of compliance for each light, shape, sound–signalling appliance and radar reflector on board a vessel shall
- (a) where the proof of compliance is in the form of a document, be carried on the vessel; and
 - (b) where the proof of compliance is in the form of a label, be securely affixed to the light, shape, sound–signalling appliance or radar reflector.
- (2) A proof of compliance is issued in a language other than English or French shall be accompanied by an English or French translation.

Inspection Certificates

6. A steamship inspector may withhold the issuance of an inspection certificate or a Safety Convention certificate where
- (a) the equipment referred to in Section 5 does not meet the requirements of these Regulations or has no proof of compliance; or
 - (b) in the opinion of the steamship inspector, a proof of compliance has been improperly issued or contains incorrect information.

PART A — GENERAL

Rule 1

Application — Canadian Modification

- (f) Where it is necessary to make any determination referred to in paragraph (e) in respect of a Canadian vessel the determination shall be made by the Chairman.
- (g) Each determination referred to in paragraph (e) shall be evaluated to ensure that there will be no reduction in safety taking into account such factors as the following,
 - (i) in the case of lights,
 - (a) any impairment of the visibility or distinctive character of the lights,
 - (b) glare or back–scatter in the navigation or working areas,
 - (c) vulnerability of the lights to damage, or
 - (d) difficult or dangerous access to the lights for maintenance purposes, and
 - (ii) in the case of sound–signalling appliances,
 - (a) any impairment of audibility or other characteristics of the sound–signalling appliances,
 - (b) excessive sound pressure levels at listening posts or in navigation or working areas,
 - (c) vulnerability of the sound–signalling appliances to damage, or

- (d) difficult or dangerous access to the sound-signalling appliances for maintenance purposes.

PART B — STEERING AND SAILING RULES

SECTION I — CONDUCT OF VESSELS IN ANY CONDITION OF VISIBILITY

Rule 6

Safe Speed — Canadian Modifications

- (c) In the Canadian waters of a roadstead, harbour, river, lake or inland waterway, every vessel passing another vessel or work that includes a dredge, tow, grounded vessel or wreck shall proceed with caution at a speed that will not adversely affect the vessel or work being passed, and shall comply with any relevant instruction or direction contained in any Notice to Mariners or Notice to Shipping.
- (d) For the purpose of paragraph (c), where it cannot be determined with certainty that a passing vessel will not adversely affect another vessel or work described in that paragraph, the passing vessel shall proceed with caution at the minimum speed at which she can be kept on her course.
- (e) In the Canadian waters of a roadstead, harbour, river, lake or inland waterway, every vessel shall navigate with caution and shall comply with any necessary instruction or direction contained in any Notice to Mariners or Notice to Shipping where abnormal water levels, ice conditions or a casualty to a vessel or aid to navigation may,
- make navigation difficult or hazardous,
 - cause damage to property, or
 - block the navigational channel.

Rule 9

Narrow Channels — Canadian Modifications

- (j) In the Canadian waters of a narrow channel or fairway a barge or an inconspicuous, partly submerged vessel or object shall not be navigated, moored or anchored so as to impede the safe passage of any other vessel or object using those waters.
- (k) Notwithstanding paragraph (a) and Rule 14(a), in the Canadian waters of a narrow channel or fairway where there is a current or tidal stream and two power-driven vessels are meeting each other from opposite directions so as to involve risk of collision,
- the vessel proceeding with the current or tidal stream shall be the stand-on vessel and shall propose the place of passage and shall indicate the side on which she intends to pass by sounding the appropriate signal prescribed in Rule 34(a) or (g).
 - the vessel proceeding against the current or tidal stream shall keep out of the way of the vessel proceeding with the current or tidal stream and shall hold as necessary to permit safe passing,
 - the vessel proceeding against the current or tidal stream shall promptly reply to the signal referred to in subparagraph (i) with the same signal, if she

is in agreement, and with the sound signal prescribed in Rule 34(d), if she is in doubt.

Rule 10

Traffic Separation Schemes — Canadian Modifications

- (m) Traffic separation schemes adopted by the Organization shall be described in Notices to Mariners or Notices to Shipping.
- (m.1) Subject to paragraphs (o) and (p), paragraphs (a) to (l) apply to any routing system described in Notices to Mariners or Notices to Shipping.
- (n) Every power-driven vessel of more than 20 metres in length shall use the route within a traffic separation scheme or a routing system by which it can safely proceed to its destination.
- (o) Paragraphs (b), (c) and (h) do not apply to a vessel engaged in fishing with nets, lines, trawls, trolling lines or other fishing apparatus in or near a routing system located in Canadian waters or fishing zones.
- (p) Paragraphs (b), (c), (e) and (h) do not apply to a vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline, dredging, surveying, underwater operations or launching or recovering aircraft in or near a routing system located in Canadian waters or fishing zones, where that vessel,
- does not prevent other vessels that use the route from navigating safely,
 - identifies herself to approaching vessels and informs them of the location and nature of the operation and of her intentions, and
 - informs the Department of Fisheries and Oceans, as soon as possible before the commencement of the operation of,
- the nature, location and duration of the operation, and
 - any cautionary advice necessary concerning the operation.
- (q) A vessel making a transatlantic voyage shall, as far as practicable, avoid crossing the Grand Banks of Newfoundland north of latitude 43° north.

SECTION II — CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER

Rule 15

Crossing Situation — Canadian Modification

- (b) Notwithstanding paragraph (a), in Canadian waters, a vessel crossing a river shall keep out of the way of a power-driven vessel ascending or descending the river, except on the St Lawrence River north-east of Île Rouge.

PART C — LIGHTS AND SHAPES

Rule 21

Definitions — Canadian Modification

- (g) "Special flashing light" means a yellow light flashing at regular intervals at a frequency of 50 to 70 flashes per minute, placed as far forward and as nearly as

practicable on the fore and aft centreline of a vessel and showing an unbroken light over an arc of the horizon of not less than 180 degrees nor more than 225 degrees and so fixed as to show the light from right ahead to abeam and not more than 22.5 degrees abaft the beam on either side of the vessel.

- (h) "Blue flashing light" means a blue all-round light flashing at regular intervals at a frequency of 50 to 70 flashes per minute.

Rule 22

Visibility of Lights — Canadian Modification

- (e) In vessels being pushed ahead, irrespective of length:
— a special flashing light, 2 miles.
(f) In any government or police vessel:
— a blue flashing light, 2 miles.

Rule 23

Power-driven Vessels Underway — Canadian Modifications

- (d) Rule 23(c)(ii) does not apply to a Canadian power-driven vessel in any waters or to a non-Canadian power-driven vessel in the Canadian waters of a roadstead, harbour, river, lake or inland waterway.

Rule 24

Towing and Pushing — Canadian Modifications

- (j) Notwithstanding paragraphs (e) and (h), within Canadian waters or fishing zones, where it is impracticable for a barge being towed to comply with paragraph (e) the barge shall exhibit the lights prescribed in paragraphs (k) to (m).
(k) Subject to paragraphs (l) to (n), every barge shall carry one all-round white light at each end of the barge.
(l) Where two or more barges are grouped together, the group may be lighted as a single barge.
(m) Subject to paragraph (n), where two or more barges are grouped together, the total length of the group exceeds 100 metres and the group is lighted as a single barge, the group shall carry an all-round white light located as closely as possible at the middle point of the group, in addition to the lights prescribed in paragraph (k).
(n) A barge being pushed ahead shall carry, instead of the all-round white lights prescribed in paragraphs (k) and (m), white lights that show an unbroken light over an arc of the horizon of 225 degrees and are fixed so as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the barge.

Rule 25

Sailing Vessels Underway and Vessels Under Oars — Canadian Modification

- (f) Notwithstanding paragraph (e), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a vessel of less than 12 metres in length

proceeding under sail when also being propelled by machinery is not required to exhibit a conical shape, apex downwards, but may do so.

Rule 26

Fishing Vessels — Canadian Modification

- (f) Notwithstanding paragraph (d), a vessel engaged in fishing in Canadian waters and fishing zones in close proximity to another vessel or vessels engaged in fishing,
(i) may, if it is less than 20 metres in length or fishing with purse seine gear, and
(ii) shall, if it is 20 metres or more in length and fishing other than with purse seine gear, exhibit and sound the appropriate signals prescribed in Annex II.

Rule 28

Vessels Constrained by their Draught — Canadian Modification

- (b) Notwithstanding paragraph (a), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, no vessel shall exhibit three all-round red lights in a vertical line or a cylinder.

Rule 30

Anchored Vessels and Vessels Aground — Canadian Modifications

- (g) In the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a barge or an inconspicuous, partly submerged vessel or object may, when at anchor, exhibit the appropriate all-round white lights prescribed by paragraphs 24 (g) and (k) to (m) instead of the lights prescribed by paragraphs (a) to (c) of this Rule.
(h) Notwithstanding this Rule, in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a barge or an inconspicuous, partly submerged vessel or object when at anchor, is not required to exhibit any light while located within a recognised mooring, storage or booming area that is not an area in or near a narrow channel or fairway or where other vessels normally navigate.

PART D — SOUND AND LIGHT SIGNALS

Rule 33

Equipment for Sound Signals — Canadian Modification

- (c) Notwithstanding paragraph (b), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a vessel that is,
(i) less than 12 metres in length,
(ii) built or converted for the purpose of pushing or pulling any floating object, and
(iii) not solely employed in yarding or warping operations shall carry the sound signal appliances prescribed in paragraph (a) for a vessel of 12 metres or more in length.

Rule 34*Manoeuvring and Warning Signals —
Canadian Modifications*

- (k) In the Canadian waters of a roadstead, harbour, river, lake or inland waterway a power-driven vessel that is leaving a dock or berth shall give a signal of one prolonged blast unless:
 - (i) the vessel is a ferry making a scheduled departure from a dock or berth from which more than six daily scheduled departures are made,
 - (ii) the visibility is not less than 3 miles, and
 - (iii) the master of the ferry has used all available means appropriate to the prevailing circumstances and conditions to determine if the signal is needed for a safe departure and has determined that it is not.
- (l) Notwithstanding this Rule and Rule 9, in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a vessel may use a bridge-to-bridge radiotelephone instead of the prescribed whistle signals to reach agreement in a meeting, crossing or overtaking situation. If agreement is not reached, then whistle signals shall be exchanged in a timely manner and shall prevail.

Rule 35*Sound Signals in Restricted Visibility —
Canadian Modification*

- (k) Notwithstanding paragraph (i), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a vessel that is,
 - (i) less than 12 metres in length,
 - (ii) built or converted for the purpose of pushing or pulling any floating object, and
 - (iii) not located within a recognized mooring, storage or booming area shall sound the signals prescribed for a vessel of 12 metres or more in length.

PART E — EXEMPTIONS*Exemptions — Canadian Modifications*

- (i) For the purpose of paragraphs (d), (e), (f) and (g), the nine years referred to therein shall be considered to commence on July 15, 1977.
- (j) Notwithstanding paragraph (j), the nine years referred to in paragraphs (d), (e), (f) and (g) shall be considered to commence on March 1, 1983 for vessels exclusively engaged in inland voyages.
- (k) in the case of a vessel not required to be inspected under the *Canada Shipping Act*, the lights are exempted from compliance with these Regulations if they were,
 - (i) before July 15, 1981, where the vessel is 20 metres or more in length, or
 - (ii) before June 1, 1984, where the vessel is less than 20 metres in length, constructed and installed in accordance with the *Collision Regulations*, as those Regulations read on July 31, 1974, or the *Small Vessels Regulations*, as those Regulations read on May 31, 1984.

**PART F — ADDITIONAL
CANADIAN PROVISIONS****Rule 39***Special Signals for Dangerous Goods*

- In the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a vessel that is taking in, discharging or carrying dangerous goods shall,
- (a) when not underway, exhibit where it can best be seen, an all-round red light or the International Code flag "B"; and
 - (b) when underway, exhibit where it can best be seen, the International Code flag "B" but not an all-round red light.

Rule 40*Radar Reflectors*

- (a) Subject to paragraph (b), a vessel that is less than 20 metres in length or is constructed primarily of non-metallic materials shall be equipped with a passive radar reflector.
- (b) Paragraph (a) does not apply where,
 - (i) a vessel operates in limited traffic conditions, daylight, and favourable environmental conditions and where compliance is not essential for the safety of the vessel, or
 - (ii) the small size of the vessel or its operation away from radar navigation make compliance impracticable.
- (c) The radar reflector prescribed in paragraph (a) shall,
 - (i) be capable of performance through 360 degrees of azimuth and responsive to a radar frequency of 9.3 GHz (corresponding wave length 3.2 centimetres),
 - (ii) have an equivalent echoing area of 10 square metres measured perpendicularly to the main radar lobes,
 - (iii) be mounted or suspended higher than the superstructures and, if practicable, at a height of not less than four metres above the water,
 - (iv) be positioned and painted so as not to be visually prominent,
 - (v) be capable of maintaining its performance under the conditions of sea states, vibration, humidity and change of temperature likely to be experienced in the marine environment, and
 - (vi) be clearly marked so as to indicate any preferred orientation of mounting.
- (d) the azimuthal polar diagram of the radar reflector prescribed in paragraph (a) shall have a response not less than minus 6 dB with reference to the maxima of the main radar lobes.
 - (i) over a total angle of 240 degrees, and
 - (ii) within any arc of more than 10 degrees.

Rule 41*Transponders*

- (a) No vessel shall be fitted with a transponder that can transmit radar responder signals or radar beacon signals in the 3 or 10 centimetres marine radar bands unless the use of the transponder is authorised in writing by the Chairman.

- (b) The Chairman may authorize the use of a transponder referred to in paragraph (a) if he is satisfied that the transponder will be used in a manner that will not interfere with or degrade the use of radar in navigation.
- (c) An authorization referred to in paragraph (a) may contain such conditions as the Chairman considers necessary to ensure that the transponder will be used as described in paragraph (b).
- (d) No person shall operate a transponder on a vessel except in accordance with the conditions, if any, contained in the authorization prescribed in paragraph (a).

Rule 42

Additional Requirements for Exploration or Exploitation Vessels

- (a) An exploration or exploitation vessel shall display an identification panel bearing the name, identification letters or numerals of the vessel so that at least one panel is visible in any direction.
- (b) The name, identification letters or numerals prescribed in paragraph (a) shall be,
 - (i) black
 - (ii) not less than 1 metre in height,
 - (iii) displayed on a yellow background, and
 - (iv) easily visible in daylight and at night by the use of illumination or retro-reflecting material.
- (c) Subject to paragraph (h), an exploration or exploitation vessel, when stationary and engaged in drilling or production operations shall, in lieu of the lights or shapes required by these Rules, exhibit where it can best be seen from any direction a white light or a series of white lights located at an equal height above the water and operating in unison, which light or lights shall,
 - (i) flash the morse letter "U" at intervals of not more than 15 seconds,
 - (ii) be installed at a height above the water of not less than 6 metres and not more than 30 metres so that at least one light shall remain visible to within 15 metres of the vessel,
 - (iii) be visible all round the horizon at a nominal range of 15 miles,
 - (iv) be powered by a reliable power source,
 - (v) be equipped with an auxiliary power source, and
 - (vi) be exhibited from 15 minutes before sunset until sunrise and at all times when the visibility in any direction is 2 miles or less.
- (d) The horizontal and vertical extremities of an exploration or exploitation vessel that is stationary and engaged in drilling or production operations shall be adequately marked in compliance with the requirements set out in Transport Canada *Standards Obstruction Markings* (2nd ed.), 1987, TP 382, as amended from time to time.
- (e) An exploration or exploitation vessel, when stationary and engaged in drilling or production operations shall be equipped with a sound-signalling appliance that,
 - (i) is powered by a reliable power source,
 - (ii) is provided with an auxiliary power source,
 - (iii) when operating, emits a rhythmic blast corresponding to the Morse letter "U" every 30 seconds,
 - (iv) has its maximum intensity at a frequency between 100 and 1000 Hertz,
 - (v) has a usual range of at least 2 miles,
 - (vi) is installed at a height above the water of not less than 6 metres and not more than 30 metres, and
 - (vii) is so placed that the sound emitted is audible, when there is no wind, throughout the required range in all directions in a horizontal plane from the vessel.
- (f) An exploration or exploitation vessel, when stationary and engaged in drilling or production operations, shall, whenever the visibility in any direction is 2 miles or less, operate the sound-signalling appliance described in paragraph (e), in lieu of the sound signal prescribed in Rule 35.
- (g) Every exploration or exploitation vessel shall comply with the relevant technical requirements contained in the *Recommendations for the marking of offshore structures*, November 1984, published by the International Association of Lighthouse Authorities (IALA), as amended from time to time, and the nominal range of lights shall be computed in accordance with Appendix II of *Recommendation for the Notation of Luminous Intensity and Range of Lights*, 1967, published by the International Association of Lighthouse Authorities (IALA), as amended from time to time.

Rule 43

Safety Zones Around Exploration or Exploitation Vessels

- (a) For the purpose of this Rule, with respect to an exploration or exploitation vessel that is in position for the purpose of exploring or exploiting the non-living natural resources of the sea bed, a safety zone is the area that extends from the outer extremities of the exploration or exploitation vessel to the greater of,
 - (i) 500 metres in all directions, and
 - (ii) 50 metres beyond the boundaries of the anchor pattern of the vessel.
- (b) The Chairman may establish a safety zone greater or smaller than the safety zone referred to in paragraph (a), where such a zone is reasonably related to the nature and function of the exploration or exploitation vessel.
- (c) No vessel shall navigate within a safety zone.
- (d) Paragraph (c) does not apply to a vessel that,
 - (i) is in distress,
 - (ii) is attempting to save life or provide assistance to a vessel in distress,
 - (iii) is operated by or on behalf of the state having jurisdiction over the exploration or exploitation operations, or,
 - (iv) has received permission from the person in charge of the exploration or exploitation vessel to enter the safety zone around that vessel.
- (e) All vessels shall comply with any relevant instruction or direction with respect to a safety zone contained in a Notice to Mariners or a Notice to Shipping.

Rule 44

Ocean Data Acquisition Systems (ODAS)

- (a) Every Canadian ODAS shall clearly display its identification number on an exterior surface where it

- can be clearly seen, and if practicable, shall display the name and address of the owner of the ODAS.
- (b) Subject to paragraph (f), every ODAS shall be constructed or fitted with a passive radar reflector that has a radar response at least equivalent to a radar reflector required by Rule 40.
 - (c) Every ODAS that is designed to operate while floating with part of its structure extending above the water shall
 - (i) be coloured yellow,
 - (ii) have a shape that cannot be confused with the shape of a navigational mark, and
 - (iii) where technically practicable,
 - (a) have a top-mark consisting of a yellow “X” shape,
 - (b) exhibit a yellow light visible at a minimum range of 5 miles that gives a group of 5 flashes every 20 seconds, and
 - (c) be equipped with an appliance that emits a sound signal at intervals of not more than 2 minutes, which sound signal cannot be confused with any other signal prescribed by these Rules or with the sound signal of any aid to navigation in the vicinity of the ODAS.
 - (d) Subject to paragraph (f), every ODAS designed to operate under water, other than an ODAS referred to in paragraph (e), shall,
 - (i) be escorted by a surface vessel that gives warning of the presence of the ODAS in accordance with Rule 27, or,
 - (ii) have tethered to it a surface float that is marked, provides the radar response, is lighted and sounds the signals specified in paragraphs (a) to (c).
 - (e) Every ODAS designed to operate when resting on the bottom of the sea, lake or river with part of its structure extending above the water shall be marked, exhibit lights and shapes, and sound signals in the same manner as an exploration or exploitation vessel.
 - (f) Paragraphs (b) and (d) do not apply to an ODAS where,
 - (i) the Chairman has determined that the ODAS does not constitute a potential danger to navigation by reason of,
 - (a) its size, material, construction, area or method of operation,
 - (b) the nature and condition of the waters in the area of operation of the ODAS, and
 - (c) the use that is or might reasonably be expected to be made of those waters, and
 - (ii) the Chairman has given the owner of the ODAS notice in writing of that determination.

Rule 45

Blue Flashing Light

- (a) For the purposes of this Rule, “government ship” means a ship or vessel that is owned by and in the service of Her Majesty in right of Canada or of a province and any ship that is owned or operated by a federal, provincial, harbour, river, county or municipal police force (*navire d’État*).
- (b) Any government ship may exhibit as an identification signal a blue flashing light where it,
 - (i) is providing assistance in any waters to any vessel or other craft, aircraft or person that is threatened

- by grave and imminent danger and requires immediate assistance, or,
- (ii) is engaged in law enforcement duties in Canadian waters.
- (c) Any vessel operated by the Canadian Coast Guard Auxiliary may exhibit a blue flashing light as an identification signal when the vessel participates, at the request of the Canadian Coast Guard, in search and rescue operations.
- (d) A vessel referred to in paragraph (b) or (c) that exhibits a blue flashing light as an identification signal is not relieved from the obligation to comply with the Steering and Sailing Rules set out in part B of this schedule.

Rule 46

Alternate Systems of Navigation Lights

- (a) For the purposes of this Rule, “alternate system of navigation lights” means a system that includes masthead lights, sidelights, a sternlight and anchor lights (*système de feux de navigation de relais*).
- (b) Subject to paragraph (d), every ship built on or after January 1, 1991 that is required to be inspected under the Act shall be fitted with an alternate system of navigation lights.
- (c) Subject to paragraph (d), every ship built before January 1, 1991 that is required to be inspected under the Act shall, before January 1, 1996,
 - (i) if it is of 500 grt or more, be fitted with an alternate system of navigation lights, or
 - (ii) if it is of less than 500 grt, be fitted with or carry on board an alternate system of navigation lights.
- (d) Paragraph (b) and subparagraph (c)(ii) do not apply to a vessel of less than 15 metres in length.
 - (i) For a ship referred to in paragraph (b) or subparagraph (c)(i), the alternate system of navigation lights shall be supplied by the main source of electric power of the ship and one other source of electric power with which the ship is required to be supplied by section 15 of Annex 1.
- (e) For a ship referred to in subparagraph (c)(ii), the alternate system of navigation lights shall,
 - (i) be supplied by a source of electrical power with which the ship is required to be supplied by Section 15 of Annex I, other than the main source of power of the ship, or
 - (ii) subject to paragraph (f), consist of non-electric lights.
- (f) Non-electric lights shall not be used as alternate lights on,
 - (i) a ship or barge whose cargo has volatile or explosive properties that could endanger the ship or barge and its crew, or,
 - (ii) a ship engaged in towing or pushing a ship or barge whose cargo has volatile or explosive properties that could endanger the ships or barge and their respective crews.
- (g) For vessels referred to in subparagraph (c) (ii) the alternate system of navigation lights shall be supplied by
 - (i) an emergency source of electrical power independent of the main power supply, or
 - (ii) non-electrical lights.

ANNEX I

POSITIONING AND TECHNICAL
DETAILS OF LIGHTS AND SHAPES*Definition — Canadian Modification*

- (b) The term “practical cut-off” means the point on an arc around a source of light at which the intensity of the light is reduced as follows:
- (i) for vessels of less than 20 metres in length, where the intensity is reduced to 67 per cent of the minimum required intensity within three or five degrees as appropriate, outside the horizontal sectors referred to in section 9 of this Annex and described in Rule 21, practical cut-off occurs at the point at which the intensity is reduced to 10 per cent of the minimum required intensity within 20 degrees outside the horizontal sectors referred to in section 9 of this Annex and described in Rule 21.
 - (ii) for vessels of 20 metres or more in length, practical cut-off occurs at the point at which the intensity is reduced to 12.5 per cent of the minimum required intensity within three or five degrees, as appropriate, outside the horizontal sectors referred to in section 9 of this Annex and described in Rule 21.

*Vertical Positioning and Spacing of Lights —
Canadian Modifications*

- (m) Notwithstanding paragraph (d), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, the masthead light or the all-round white light referred to in Rule 23(c), for a power-driven vessel of less than 12 metres in length shall be carried at least one metre higher than the sidelights.
- (q) The all-round white lights prescribed for an inconspicuous, partly submerged vessel or object or a barge in Rules 24(g) and (k), respectively, shall be carried at the same height and shall be placed at a height of not less than 2 metres above the water.

*Screens for Lights Other than Sidelights —
Canadian Modification*

- On power-driven vessels of less than 12 metres in length, constructed after July 31, 1983, the masthead light or the all-round light referred to in Rule 23(c), shall be screened to prevent direct illumination of the vessel forward of the operator’s position.

*Colour Specification of Lights —
Canadian Modification*

- (v) *Restricted Blue*
x 0.136 0.218 0.185 0.102
y 0.040 0.142 0.175 0.105

Vertical Sectors — Canadian Modification

- (d) Notwithstanding paragraph (a), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, electric lights on unmanned barges need not comply with the vertical sector requirements but

shall maintain the required minimum intensity on the horizontal.

Approval — Canadian Modifications

- (b) For the purpose of paragraph (a), the appropriate Canadian authority is the Chairman.

ANNEX II

ADDITIONAL SIGNALS FOR
FISHING VESSELS FISHING IN
CLOSE PROXIMITY*Canadian Modifications*4. **Special visual signals**

In Canadian waters and fishing zones, a vessel engaged in pair-trawling shall exhibit at the foremast the International Code flag “T” during the daylight hours.

5. **Special sound signals**

- (a) In Canadian waters and fishing zones, a vessel engaged in fishing as described in Rule 26(f) shall, in any condition of visibility, sound the following signals on her whistle,
 - (i) four blasts in succession, namely, two prolonged blasts followed by two short blasts when shooting a net or gear,
 - (ii) three blasts in succession, namely, two prolonged blasts followed by one short blast when hauling a net or gear, and
 - (iii) four blasts in succession, namely, one short blast followed by two prolonged blasts, followed by one short blast when a net or gear is fast to an obstruction.
- (b) When in or near an area of restricted visibility, the signals described in paragraph (a) shall be sounded four to six seconds after the sound signal prescribed in Rule 35(c).

ANNEX III

TECHNICAL DETAILS OF SOUND
SIGNAL APPLIANCES*Whistles — Canadian Modifications*

- (h) Notwithstanding paragraph (a), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, the upper limit of the frequency range referred to in that paragraph may be expanded to be within the range of 180–2/100 Hz (± 1 per cent).
- (i) Notwithstanding paragraph (c), in the Canadian waters of a roadstead, harbour, river, lake or inland waterway, the whistle on a vessel of 12 metres or more in length but less than 20 metres in length may provide, in the direction of the forward axis of the whistle and at a distance of 1 metre from it, a sound pressure level in at least one 1/3rd-octave band of not less than the appropriate figure shown below within the frequency range of 250–2/100 Hz (± 1 per cent):
 - (i) 250–450 Hz—120 dB
 - (ii) 450–800 Hz—115 dB
 - (iii) 800–2100 Hz—111 dB

- (j) In the Canadian waters of a roadstead, harbour, river, lake or inland waterway, a power-driven vessel that is normally engaged in pushing ahead or towing alongside may, at any time, use a whistle whose characteristic falls within the limits prescribed in paragraph (b) for longest normal length of the vessel and its tow.

Approval — Canadian Modification

- (b) For the purpose of paragraph (a), the appropriate Canadian authority is the Chairman.

ANNEX IV

DISTRESS SIGNALS

Canadian Modifications

4. In Canadian waters or fishing zones, in addition to the signals described in section I, the following signals may be used or exhibited either together or separately to indicate distress and need of assistance:
 - (a) a square shape or anything resembling a square shape; and
 - (b) a high intensity white light flashing at regular intervals of 50 to 70 times per minute.
5. Notwithstanding section 2 and paragraph 4(b), a North Cardinal Buoy may use a quick flashing white light flashing at regular intervals of 60 times per minute.



APPENDIX III

CANADIAN QUARANTINE REPORTING REQUIREMENT

The following are extracts from the Canadian Quarantine Regulations:

The *Quarantine Act and Regulations* require that, with the exemption in normal circumstances of vessels engaged in coastwise traffic with the United States, the Master of every vessel shall complete and furnish promptly at the first port of arrival in Canada, a Declaration of Health in the prescribed form.

Advance radio notification to a quarantine station applies only if a condition of health irregularity occurs onboard. The Master of a vessel will be guided by instructions received by radio, from the quarantine officer, in reply to a notification of irregularity onboard. Section 12 of the Quarantine Regulations prescribes the conditions for requirements of advance notification by radio, the essential information to be supplied in such circumstances and the appropriate quarantine station for the area; it is quoted as follows:

- 12.(1) Where, in the course of a voyage of a vessel to one of the ports referred to in subsection (3),
- (a) a member of the crew or a passenger on board the vessel has
 - (i) died,
 - (ii) had a temperature of 38° C (100° F) or greater that persisted for two days or more or was accompanied or followed by a rash, jaundice or glandular swelling, or
 - (iii) suffered from diarrhoea severe enough to interfere with that person's work or normal activity.
 - (b) the person in charge of the vessel is, during the period
 - (i) of four weeks preceding the estimated time of arrival of the vessel, or
 - (ii) since he last submitted a declaration of health as required by section 16
- whichever is the lesser, aware of any instance of illness among the crew or passengers that he suspects is of an infectious nature and may lead to the spread of the disease,
- (c) the vessel has,

- (ii) within sixty days of its estimated time of arrival in Canada been in a country that, in the opinion of a quarantine officer, is infected or suspected of being infected with the plague, or

- (d) a certificate establishing that the vessel has been deratted or exempt from deratting procedures has expired or is about to expire,

the person in charge of the vessel shall, by radio at least 24 hours prior to the vessel's estimated time of arrival at its port of destination and between the hours of 9:00 o'clock in the forenoon and 5:00 o'clock in the afternoon, notify the quarantine officer at the quarantine station designated in subsection (3) for that port of the occurrence and provide him with the information described in subsection (2).

- (2) The information to be provided to the quarantine officer pursuant to subsection (1) is
 - (a) the name and nationality of the vessel;
 - (b) the ports called at during the voyage of the vessel;
 - (c) the nature of the cargo on board the vessel;
 - (d) the number of persons comprising the crew of the vessel;
 - (e) the number of passengers on board the vessel;
 - (f) the port of destination of the vessel and the name of the vessel's owner or, if the owner is not in Canada, the name of the vessel's agent in Canada;
 - (g) the condition of all persons on board the vessel and details of any death or illness occurring during the voyage;
 - (h) whether the body of any person is being carried on the vessel;
 - (i) the estimated time of arrival of the vessel at the port of destination;
 - (k) the date and place of issuance of any de-ratting certificate or de-ratting exemption certificate applicable to the vessel.
- (3) For the purposes of subsection (1), the quarantine station for vessels bound for
 - (e) a port in the Province of British Columbia, is Quarantine Station, Vancouver, British Columbia.

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Software to install Adobe Acrobat Reader.

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Photographs in PDF, if they are available for the area covered by this volume.

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