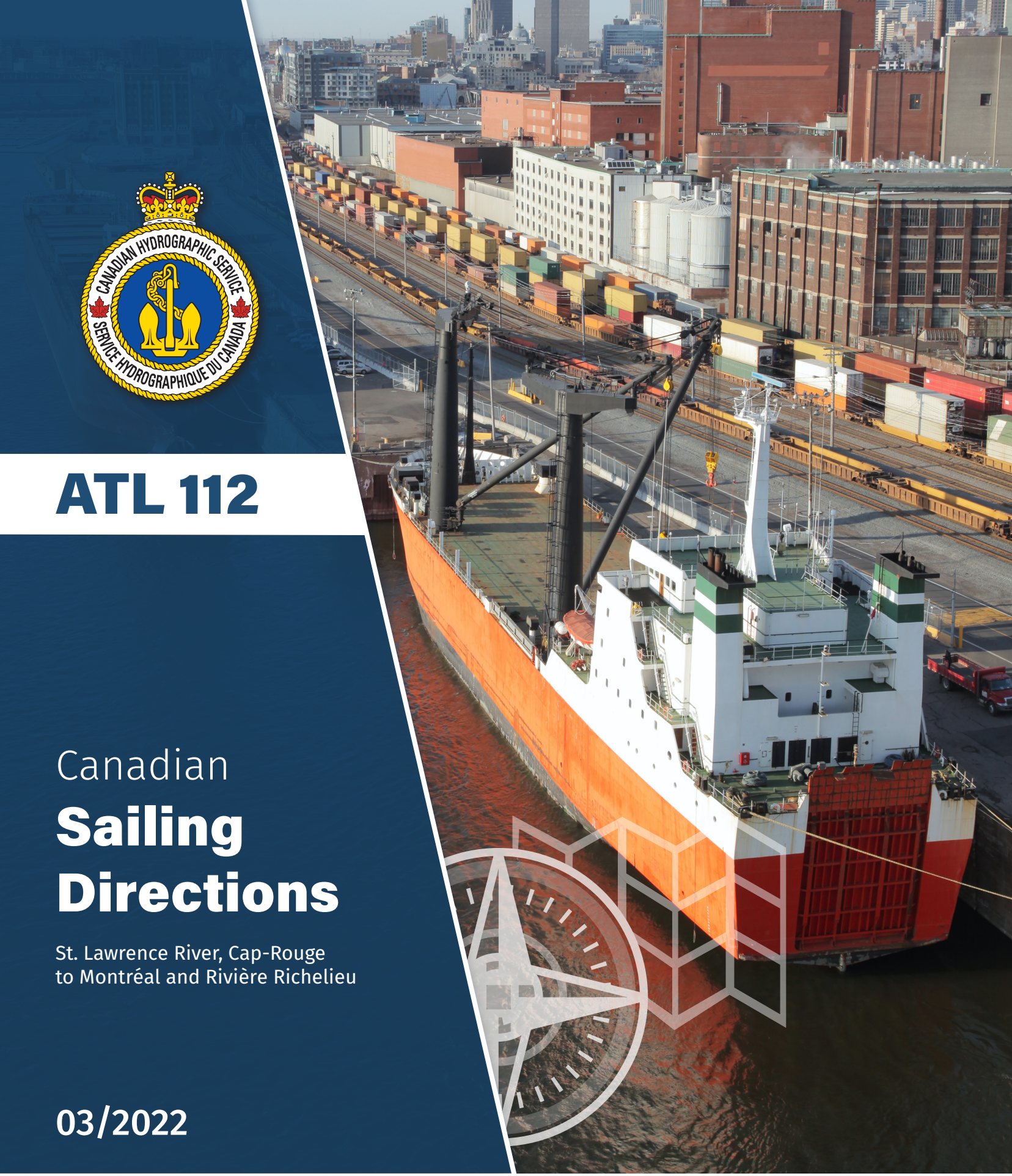

ATL 112

Canadian
Sailing Directions

St. Lawrence River, Cap-Rouge
to Montréal and Rivière Richelieu

03/2022

Fisheries and Oceans Canada
Pêches et Océans Canada

Canada

Pictograph legend

 **Anchorage**

 **Current**

 **Radio calling-in point**

 **Wharf**

 **Caution**

 **Lifesaving station**

 **Marina**

 **Light**

 **Pilotage**

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

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

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Record of Changes

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

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

Date	Chapter / Paragraph	Description of Change
03/2022	Chapter 2 After par. 230.1	Paragraphe 231 was inserted: 231 **Caution**. — In the dredged area, maintained to a depth of 11.3 m, there is a shoal with a depth of 11.2 m located to the south of the Louis-Hippolyte-La Fontaine tunnel-bridge, mid-way between berths 73 and 74.

TABLE OF CONTENTS

PREFACE

This Third Edition of *Sailing Directions, ATL 112 — St. Lawrence River, Cap-Rouge to Montréal and Rivière Richelieu*, 2009, has been compiled from Canadian Government and other information sources. All hydrographic terms used in this booklet are in accordance with the meanings given in the *Hydrographic Dictionary* (Special Publication No. 32), published by the International Hydrographic Bureau.

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

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

Tide, water level and current information has been revised by the Tides, Currents and Water Levels Division of the Canadian Hydrographic Service.

The photographs are by the Canadian Hydrographic Service, Fisheries and Oceans Canada.

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

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

Remarks

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

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

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

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

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

Units and terminology used in this booklet

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

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

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

Distances, unless otherwise stated, are expressed in nautical miles. For practical purposes, a nautical mile is considered to be the length of one minute of arc, measured along the meridian, in the latitude of the position. The international nautical mile, which has now been adopted by most maritime nations, is equal to 1,852 m (6,076 ft).

Speeds are expressed in knots; a knot is 1 nautical mile per hour.

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

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

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

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

Time, unless otherwise stated, is expressed in local standard or daylight time. Details of local time kept will be found in Chapter 2 of booklet *ATL 100 — General Information*.

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

Public wharf, owned by a government authority, is a public port facility governed by various acts and regulations. Local authorities may charge harbour, berthing and wharfage fees for use of the facility. Contact must be made with the wharfinger before using the facility.

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

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

Diagrams are large scale cartographic representations of anchorages, wharves or marinas. The horizontal chart datum used is the North American Datum 1983 (NAD 83). **Depths** are in **metres** and are reduced to the chart datum to which the diagram refers. **Elevations** are in **metres** above Higher High Water, Large Tides and in non-tidal waters, upstream of Pont Laviolette at Trois-Rivières *(46°18'N, 72°34'W)*, above chart datum.

Pictographs are the symbols placed at the beginning of certain paragraphs. Their main purpose is to allow quick reference to information or to emphasize details. Consult the Pictograph Legend shown on the back covers of this booklet.

References to other publications:

Canadian Coast Guard

- *List of Lights, Buoys and Fog Signals — Atlantic Coast*
- *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg and Eastern Arctic)*
- *Ice Navigation in Canadian Waters*
- *Annual Edition of Notices to Mariners*

Environment Canada

- *Ice Atlas, Eastern Canadian Seaboard*
- *The Secrets of the St. Lawrence — Marine Weather Guide*

Canadian Hydrographic Service (www.charts.gc.ca)

- *Catalogue of Canadian Nautical Charts and Related Publications (Atlantic Coast)*
- *Canadian Tidal Manual*
- *Atlas of Tidal Currents — St. Lawrence Estuary, from Cap de Bon-Désir to Trois-Rivières*
- *Tides in Canadian Waters*
- *Canadian Tide and Current Tables, Volume 3*

Units

°C	degree Celsius
cm	centimetre
fm	fathom
ft	foot
h	hour
ha	hectare
HP	horsepower
kHz	kilohertz
km	kilometre
kn	knot
kPa	kilopascal
m	metre
mb	millibar
min	minute
MHz	megahertz
mm	millimetre
t	metric tonne
°	degree (plane angle)
'	minute (plane angle)

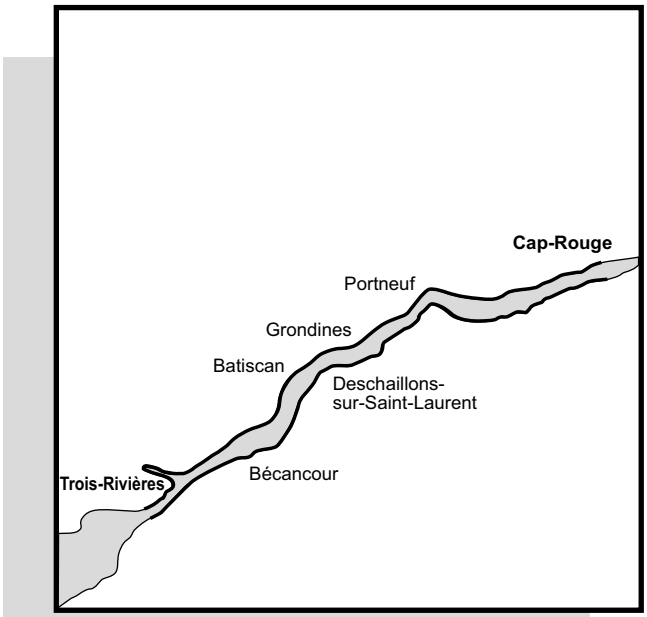
Directions

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

Various

A.P.A.	Atlantic Pilotage Authority
CCG	Canadian Coast Guard
CHS	Canadian Hydrographic Service
ETA	estimated time of arrival
ETD	estimated time of departure
HF	high frequency
HW	high water
LPA	Laurentian Pilotage Authority
LW	low water
M	million
MCTS	Marine Communications and Traffic Services
NAD	North American Datum
No.	number
SAR	Search and Rescue
TDW	Total deadweight
USA	United States of America
VHF	very high frequency
VTS	Vessel Traffic Services

Cap-Rouge to Trois-Rivières



General

Charts 1315, 1314, 1313

1 **Limits**. — This chapter covers the St. Lawrence River, from the upstream limit of the Port of Québec to the upstream limit of the Port of Trois-Rivières.

2 **Coast**. — From Cap-Rouge to Trois-Rivières, the shoreline is comparatively low and lightly wooded. The south shore remains steep-sloped from Saint-Nicolas to Rivière aux Orignaux, 4 miles south of Saint-Pierre-les-Becquets and progressively decreases in elevation as you move upriver and becoming low. The north shore remains steep-sloped from Cap-Rouge to Donnacona.

3 **Main Shipping Channel**. — ● Least depth: 10.7 m. ● Least width: 244 m. ● Marked with buoys and leading lights.

3.1 For information on the condition of the main shipping channel, mariners should regularly consult the website www.marinfo.gc.ca or contact a *MCTS* Centre through VHF.

4 **Maintained Depths**. — The main shipping channel is dredged regularly and maintained to a depth of 10.7 m downstream from **buoy** *D46 (46°33'N, 72°10'W)*, upstream of Deschaillons-sur-Saint-Laurent. Between **buoy** *D46* and **buoy** *D77 (46°29'N, 72°14'W)*, upstream of Batiscan, the channel is dredged to a depth of 11 m. Then, between **buoy** *D77* and **buoy** *M177*, in the Port of Montréal, the channel is dredged to a depth of 11.3 m. However, a 7.5 m wide section, with a depth of 10.7 m, runs along the inside limits of each side of the channel between **buoys** *D42* and *PAT (45°39'N, 73°29'W)*. For further information regarding the channel limits, see the chart.

4.1 Mariners must comply with the under-keel clearance rules established by the St. Lawrence Seaway MCTS Centres. For further details, see *Under-keel Clearance* in the Appendix at the end of the booklet.

5 **Caution**. — During the winter, the **light buoys** are lifted and some of these are replaced with **unlighted spar buoys**. Refer to the radio broadcasts and/or written *Notices to Shipping* for the list of replaced buoys and their replacement dates.

6 **Speed Restrictions**. — Mariners must exercise extreme caution with regard to speed when

Table 1.1 Calling-in-Points

C.-I.-P. No.	Name	Distance (nautical miles)		
		Between	Upstream	Downstream
		C.-I.-P.		
12	Québec	—	0	70
13 *	Sillery	*3*	N/A	67
14	Saint-Nicolas	*9.5*	12.5	57.5
15	Sainte-Croix	*11.3*	23.8	46.2
16	Grondines	*16.6*	40.4	29.6
17	Batiscan	*9.9*	50.3	19.7
18 * *	Cap-de-la-Madeleine	*14.4*	64.7	N/A
19	Pointe aux Ormes	*5.3*	70	0

* For downbound vessels only.
* * For upbound vessels only.

passing Cap-Santé and between Sainte-Anne-de-la-Pérade and Trois-Rivières, particularly in Champlain and Bécancour.

7 **Risk of Collision**. — Manœuvrability of large commercial vessels is restricted. Additionally, the visibility from the wheelhouse of a large vessel is often limited. All small craft must keep out of the way of these vessels which have priority.

8 **Calling-In-Points**. — For upbound and downbound vessels, Table 1.1 lists the calling-in-points to communicate with the *Marine Communications and Traffic Services (MCTS)* in this stretch of the St. Lawrence River. For more details mariners should consult the *Radio Aids to Maritime Navigation* publication. It should be noted that the local routine expression "Stay to the north", used in the St. Lawrence River communications, means to hug the "north shore" or the starboard limit for vessels navigating upbound. By agreement, an upbound vessel on the St. Lawrence River considers the "north shore" to be on its starboard side while the "south shore" is considered to be on its port side.

9 **Currents and Tidal Streams**. — The tidal influence is felt up to Trois-Rivières, then diminishes to nearly zero on Lac Saint-Pierre. The current in the channel varies depending on the tide and the water level: it alternates between a current that is favourable to navigation and one that opposes it. Upstream of Rapides Richelieu, 36 miles from Cap-Rouge, the flood stream becomes weak (0.5 knot), travels upriver to Batiscan where it is noticeable only at spring tides. From Batiscan the flow with an ebb tide gradually increases in strength to Rapides Richelieu, except in the vicinity of Grondines Anchorage area. For more details mariners should consult the *Atlas of Tidal Currents — St. Lawrence Estuary, from Cap de Bon-Désir to Trois-Rivières* and refer to the Appendix for the Table of Maximum Currents. To arrive safely in port slow small craft must take into account the opposing currents.

9.1 The hourly surface currents forecasts for the Estuary and the St. Lawrence River (downstream of Trois-Rivières, QC) are available on the *St. Lawrence Global Observatory* Web site at www.ogsl.ca (click on the *Ocean Forecasts* tab). You can obtain hourly details of the direction and speed of surface currents forecasted for the next 48 hours.

10 The water level in the St. Lawrence River between Cap-Rouge and Trois-Rivières is highly variable depending on the weather conditions (freshet or dry period). For more information on water levels, mariners should refer to the Tables and the hydrograph shown on certain charts, giving the tidal range and the monthly mean water level. In addition, a network of digital water level gauges is installed along the St. Lawrence River. This system, called *SINECO (Coastal and Ocean Water Level Information System)*, allows mariners to obtain instantaneous water levels at different sites as well as the prediction for the next few days. The most recent information on water levels can be obtained by contacting *MCTS centres* on VHF, by calling the automated information service 1-877-775-0790 or by visiting our website www.charts.gc.ca.

11 **Anchorages**. — Anchorage areas are located at the following locations:

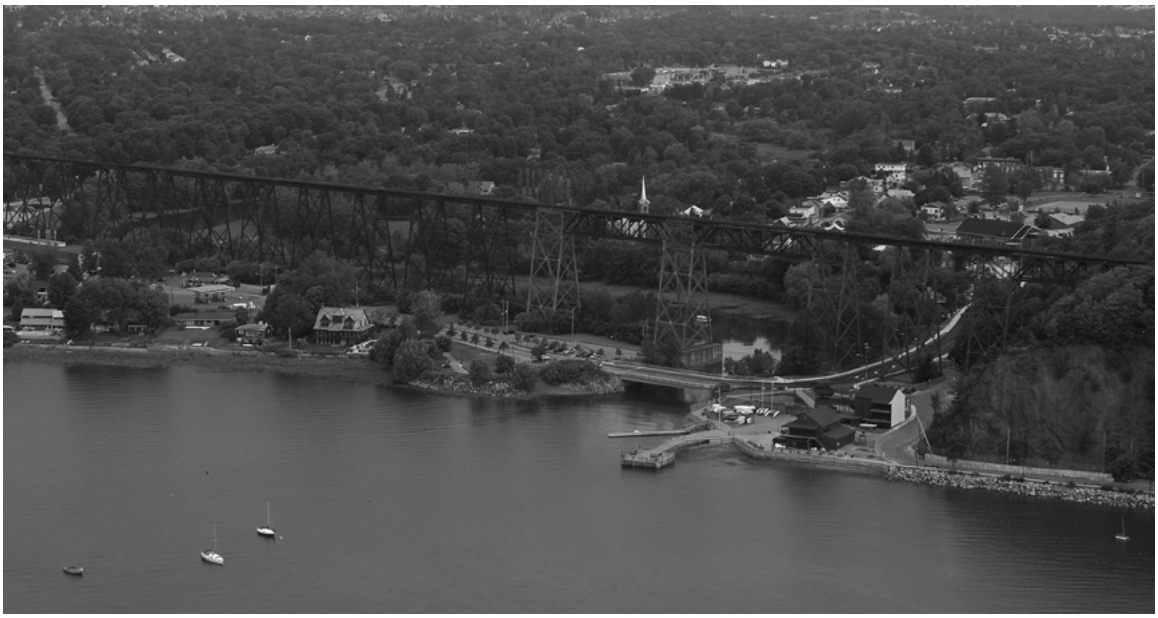
- **To the south of the main shipping channel** *(46°43'N, 71°23'W, Chart 1315)***, NE of Saint-Nicolas;**
- **To the north of the channel, opposite Pointe Aubin** *(46°42'N, 71°31'W, Chart 1315)***;**
- **SW of Portneuf wharf** *(46°41'N, 71°53'W, Chart 1314)***;**
- **On the NW side of the channel** *(46°37'N, 71°57'W, Chart 1314)***, WNW of Lotbinière;**
- **Grondines Anchorage area located on each side of the channel, off Pointe Langlois** *(46°35'N, 72°01'W, Chart 1314)***;**
- **Batiscan Anchorage area located on the west side of the channel, abeam of Batiscan** *(46°30'N, 72°15'W, Chart 1314)***;**
- **Emergency anchorage area, opposite the Port of Bécancour** *(46°24'N, 72°23'W, Chart 1313)***.**

12 Vessels may also **anchor** along the north shore, from south of Rivière Sainte-Anne to Batture Perron and SE of Battures de Gentilly *(Charts 1313 and 1314)*.

13 **Note**. — For details on spoil grounds and depths, see charts of the area.

14 A *Canadian Coast Guard* seasonal **Search and Rescue station**, based in the Port of Québec, provides services in the area. Requests for assistance can be addressed, at any time, to the *Marine Rescue Sub-Centre (MRSC Québec)* in Québec City via a *Coast Guard Radio Station* through VHF Channel 16 (156.8 MHz), Digital Selective Calling (DSC), or by telephone 1-800-463-4393. Owners of certain cellular telephone models may also dial *16 which will put them in direct contact with a *MCTS Centre*. **It should be noted that it is not possible for the *Canadian Coast Guard* to trace**

CAP-ROUGE (2007)



the origin of calls for those using their cellular telephone and that certain areas do not have cellular coverage.

Cap-Rouge to Donnacona

Chart 1315

15 For details regarding the Port of Québec, refer to the booklet *ATL 111, Île Verte to Québec and Fjord du Saguenay*.

16 A line drawn from the mouth of **Rivière du Cap Rouge**, in a 165° direction, forms the west boundary of the Port of Québec. Rivière du Cap Rouge empties into the St. Lawrence River on the north side. The river mouth dries at low water. The land close to the shore has elevations up to 61 m.

17 **Cap-Rouge** is a residential district situated on the north shore; a **marina** *(Parc nautique de Cap Rouge)* for small craft (centreboarders) is situated at the mouth of the river, in an area that dries at low water; a **ramp** is located nearby. For further information on facilities see the Appendix.

18 **Conspicuous objects**. — ● Stilted trestle railway bridge crossing Rivière du Cap Rouge. ● The white buildings of the seminary located west of **Pointe Deschambault**. ● The chimney standing 0.7 mile NNE of Saint-Augustin-de-Desmaures church.

19 There is an **anchorage area** to the south of the main shipping channel, NE of Saint-Nicolas.

20 **Pointe à Basile leading lights**, in line bearing 077½°, mark **Route de Saint-Augustin** (Course Saint-Augustin) and lead to a dredged and maintained channel through Haut-Fond Saint-Augustin. The leading lights are visible in line of range. The lights are shown from fluorescent-orange daymarks with black stripes. The front light *(1964)* is located on the point *(46°44'N, 71°20'W)*. A second **light**, visible downstream of Pont de Québec, is shown from the same tower. The rear light *(1965)* is located on the hillside.

21 **Caution**. — Two **outfall pipes** located 1.2 and 3.1 miles respectively SW of Pointe à Basile extend from the shore; there are other **outfall pipes** located 1 mile NW of Pointe à Basile. There is also fishing gear situated at about 1.2 miles SW of Pointe à Basile.

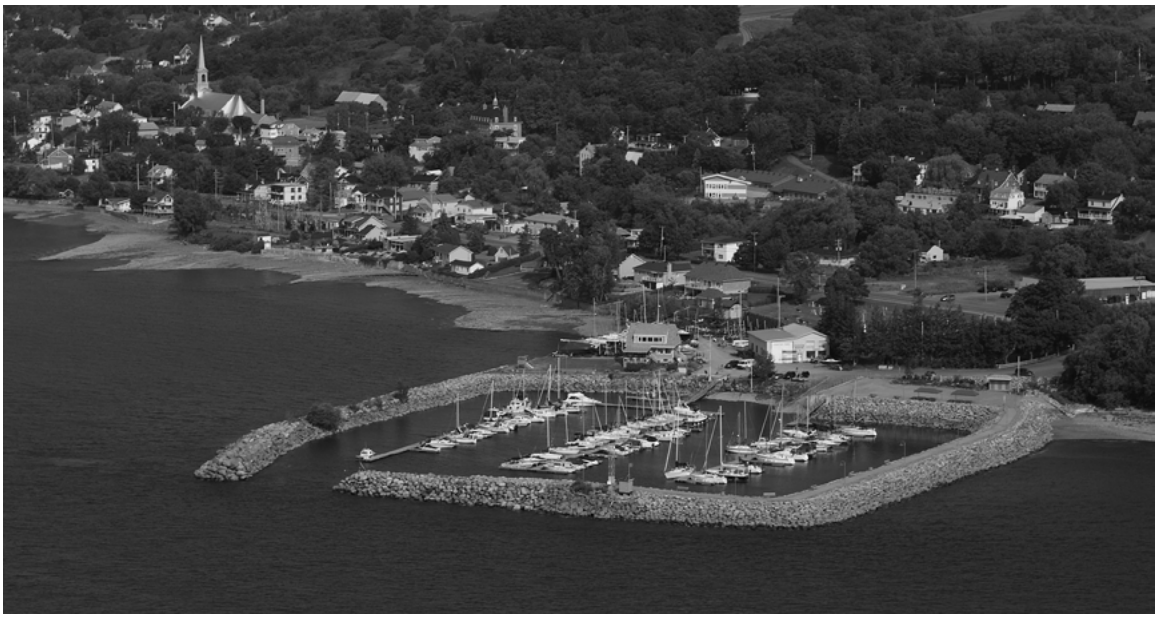
22 **Haut-Fond Saint-Augustin** is a shoal that extends across the St. Lawrence River from Pointe Saint-Nicolas to the north shore. The **current** in the dredged channel portion of this shoal may reach a rate of 3 knots at ebb tide and of 2.7 knots at flood tide.

23 **Saint-Nicolas** is a residential district located on the south shore.

24 **Conspicuous objects**. — ● Saint-Nicolas church spire 89 m in elevation. ● Water tower, 107 m in elevation, is SSE of the church.

25 A **light** *(1966)*, with a fluorescent-orange daymark, is on **Pointe Saint-Nicolas** *(46°42'N, 71°27'W)* on the south shore, 2 miles west of the residential district of Saint-Nicolas. The shore in this area consists of high cliffs.

NEUVILLE (2007)



26 There is a *MCTS* **calling-in-point** located abeam of Pointe Saint-Nicolas.

27 **Pointe Aubin** (**Pointe aux Pins**) is located on the south shore, 2.5 miles upstream of Pointe Saint-Nicolas. The shoreline in this section of the river consists of slate cliffs nearly 30 m high. There is an **anchorage area** located north of this point. A wreck is located 0.4 miles WSW from the anchorage area.

28 Traverse de Saint-Antoine **leading lights** *(1976.1, 1977)*, in line bearing 227½°, are located on **Pointe du Chalet des Phares** (Pointe de Saint-Antoine); these lights mark **Traverse de Saint-Antoine** and lead from the **anchorage** area into the main shipping channel west of **Banc de Saint-Antoine**. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

29 For more details regarding the **currents** in the area, refer to the Table of Maximum Currents in the Appendix.

30 The town of **Neuville**, population 3,261, is located on the north shore, opposite Pointe du Chalet des Phares; there is a church spire 55 m in elevation.

31 A **marina** *(Club nautique Vauquelin)* is located at Neuville on **Pointe aux Trembles**. It is protected by a breakwater on the west side and a pier on the east side; there is a **ramp**. For further information on facilities see the Appendix.

32 To safely reach the marina from the main shipping channel, it is preferable to pass between **light buoys** *Q32* and *Q34 (1973, 1974.5)*, then proceed close to the **light buoy** *VAUQU (1973.5)*, and finally proceed to the entrance of the basin. The buoy *(1973.5)*, moored about 0.7 mile SE of the pier, marks a passage between two areas of **shallow waters**.

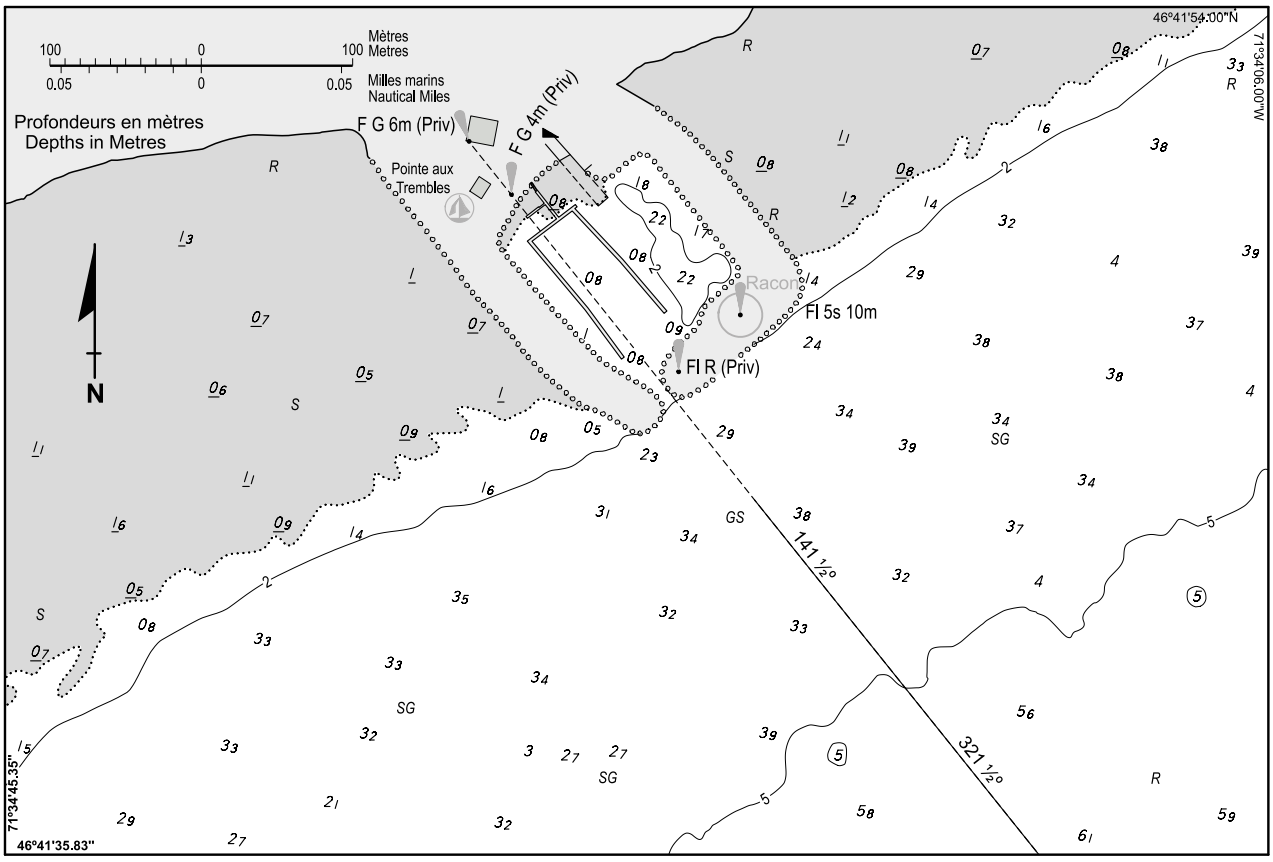
33 *Club nautique Vauquelin* private **leading lights** — seasonal — in line bearing 321½°, lead to the entrance of the marina. The front light *(1973.6)* is shown from a black mast and the rear light *(1973.7)* is shown from the side of a shed.

34 Pointe aux Trembles (Neuville) **light** *(1974)* is shown on the end of the pier located on the east side of the marina *(46°42'N, 71°34'W)*. A **racon**, identification (— — •), operates from the light. Another private **light** *(1973.8)* — seasonal — is shown on the outer end of the same pier.

35 The municipality of **Saint-Antoine-de-Tilly**, population 1,381, is located on the south shore, downstream of Pointe du Chalet des Phares. There is a conspicuous church spire 81 m in elevation. The shore between Pointe Aubin and Pointe du Chalet des Phares is composed of cliffs.

36 Course de Saint-Antoine **leading lights**, in line bearing 072°, mark **Route de Saint-Antoine** (Course Saint-Antoine). The front light *(1975)* is located on Pointe du Chalet des Phares *(46°40'N, 71°35'W)*. The rear light *(1976)* is shown from the same tower used for the front light of Traverse de Saint-Antoine. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with stripes.

NEUVILLE Échelle 1:5000 Scale



SOURCES: Levé par le SHC en 1988-91, 2006 et par TPSGC en 1996-98. SOURCES: Surveyed by the CHS in 1988-91, 2006 and by PWGSC in 1996-98.

37 The hamlet of **Les Fonds** is located on the south shore, 1 mile upstream of Pointe du Chalet des Phares and is annexed to the municipality of Saint-Antoine-de-Tilly; there is a public **wharf**, 124 m long, which dries at low tide; a **ramp** is on the wharf.

38 The hamlet of **Sainte-Croix-Est** is located on the south shore, 1.8 miles upstream of Les Fonds and is annexed to the municipality of Sainte-Croix. In this area the shore consists of cliffs.

39 Sainte-Croix-Est **light** *(1981)* is located near the hamlet of Sainte-Croix-Est *(46°38'N, 71°38'W)*. The structure has fluorescent-orange daymarks on the north, east and west faces.

40 The village of **Les Écureuils** is located on the north shore, 5 miles upstream of Neuville and is annexed to the town of Donnacona; a church spire stands in the village. The old wharf is encased with stone on all its faces and now forms a pier.

41 There is a *MCTS* **calling-in-point** located abeam of Sainte-Croix front leading light.

42 The municipality of **Sainte-Croix**, population 1,618, is located on the south shore. Extensive drying shale **flats** strewn with pebbles and rocks lie off the south and north shores of this section of the river.

43 In the river off Sainte-Croix, the duration of the ebb **stream** is 8 hours and the flood **stream** 4½ hours. The approximate rate of the ebb flow is 3 knots and the flood flow is 2 knots.

44 **Conspicuous objects**. — ● Twin spires of Sainte-Croix church. ● An illuminated cross located about 0.9 mile WNW of the church. ● A telecommunication tower located 0.5 mile east of the church.

45 Sainte-Croix **leading lights** *(1985, 1986)* are located on the south shore between Sainte-Croix and Sainte-Croix-Est; these lights, in line bearing 117°, mark **Traverse de Cap-Santé** and lead through a 244 m wide dredged channel that passes through **Brisants Sainte-Croix**. They are in alignment with the extension of Traverse de Cap-Santé leading lights. The leading lights are visible in line of range. A second **light** *(1986.1)* is also shown from the rear light *(1986)* structure; this light is visible to the east of a line

bearing 137°. The lights are shown from fluorescent-orange daymarks with black stripes.

46 Sainte-Croix **light** *(1988)*, with a red and white daymark, is located on the shore near the municipality of Sainte-Croix *(46°38'N, 71°44'W)*. This light is visible from 172° through south to 255°.

Donnacona to Batiscan

Carte 1314

47 The town of **Donnacona**, population 5,739, is located east of the mouth of **Rivière Jacques-Cartier**, 1.5 miles west of Les Écureuils.

48 **Conspicuous objects**. — ● Donnacona church spire. ● A microwave **tower**, marked with red lights, located about 0.9 mile NW of the church.

49 An **outfall pipe** extends 0.7 mile in a SSW direction from a point on the north shore 0.3 mile ESE of the mouth of Rivière Jacques-Cartier.

50 Traverse de Cap-Santé **leading lights** *(1995, 1996)* are located in the town of Portneuf, 7 miles upstream from Sainte-Croix; these lights, in line bearing 297°, mark **Traverse de Cap-Santé** and are in alignment with the extension of Sainte-Croix leading lights. The lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

51 The municipality of **Cap-Santé**, population 2,615, is located 1.8 miles west of Donnacona; there is a church with two spires. The old wharf is encased with stone and now forms a pier. There is a **ramp** located on the east side. A radar reflector is shown from the pier.

52 **Caution**. — Fishing gear extends from 46°40.8'N, 71°48.6'W to 46°40.5'N, 71°48.9'W. Mariners are requested to proceed with caution when navigating in this area.

53 **Pointe Platon** is a flat narrow peninsula extending from the south shore, 2.4 miles west of Cap-Santé. There are ruins of a drying wharf at the end of the point.

54 Pointe-Platon **light** *(1993.7)* is located on the point *(46°40'N, 71°51'W)*. The structure is fitted with a radar reflector and has fluorescent-orange daymarks on the north and west faces.

55 The town of **Portneuf**, population 1470, is located at the mouth of Rivière Portneuf. In the town there is a church with a spire. The pier that gives access to the wharf extends 0.5 mile from the shore close SW of the mouth of Rivière Portneuf. The T-shaped Public **wharf** is in ruins and **berthing is prohibited**. Vessels must keep a distance of 20 m off the wharf.

56 A **marina** *(Parc récréonautique de Portneuf)* is located north of the public wharf. It is protected on the west side by the pier giving access to the public wharf, on the SE side by a breakwater, and on the NE side by a pier that is curved to protect it from the river access. A private **light** *(1998.51)* —

PORTNEUF (2007)

RAPIDES RICHELIEU (2007)

seasonal — is shown from the outer end of the pier. A section of this pier, which extends 50 m from the shore in a SE direction, is uncovered. At high tide, this section may be covered by water and may represent a danger to navigation. There are depths of 1.1 m in the entrance. Depths in the basin are more than 2 m and there is a **ramp**. A drying area lies along the west side of the entrance channel. For further information on facilities see the Appendix.

57 **Tidal streams**. — It is reported that abeam of Portneuf wharf, the ebb stream sets diagonally in the channel towards the north shore and that abeam of Pointe Platon it deflects SE, across the channel. Refer to the Appendix for the Table of Maximum Currents and Table 1.2.

58 Portneuf wharf **light** *(1999)* is located on the NE outer end of the public wharf *(46°41'N, 71°53'W)*.

59 Portneuf **leading lights** *(1997, 1998)* are in line with Portneuf wharf light. These lights, in line bearing 028½°, mark **Route de Portneuf** (Course Portneuf). The lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

60 There is **anchorage**, sandy bottom, on the NW side of the channel, about 0.4 mile SW of Portneuf wharf. Refer to the chart for depths.

61 The residential district of **Deschambault** is located on cliffs 21 m in elevation, 3.3 miles from Portneuf on the NW shore; there is a church with two spires. The old wharf is encased with stone on all its faces and now forms a pier; a **ramp** is located nearby.

62 **Île Richelieu** is a low-lying V-shaped islet located 2.8 miles upstream of Portneuf public wharf. The SE shore of the river between Pointe Platon and a point abeam of Île Richelieu is composed of slate cliffs 24 to 55 m in elevation. In this section of the river the shipping channel passes through an extensive drying shale **bank** — extending from both shores — covered with mud and strewn with pebbles and rocks.

63 **Rapides Richelieu** is the name given to a narrow section of the channel in the river NW of Île Richelieu; the distance between the drying **flats** on each side of the river is only 0.25 mile (463 m), whereas the width of the main shipping channel in this section is 305 m.

64 **Barre à Boulard** was previously a **shoal** connecting the drying **flats** on each side of the river. There is now a dredged 244 m wide channel with a depth of 10.7 m through Barre à Boulard.

65 Between close downstream of Rapides Richelieu and just upstream of Barre à Boulard, the tidal stream may be strong and can generate eddies and tide rips. See Table 1.2.

Table 1.2 Tidal Streams

Location	Ebb Stream		Flood Stream	
	Duration	Rate	Duration	Rate
Rapides Richelieu	10 h	* 8 kn	2 h	* * 1.5 kn
Barre à Boulard	—	5.5 kn	—	2 kn

* Under certain conditions.
* * At neap tides, the flood stream is not noticeable.

66 Île Richelieu **light** *(2001.8)* is shown from a fluorescent-orange concrete pillar, located north of Île Richelieu *(46°39'N, 71°55'W)*. The light is visible on a bearing of 054°, however, it should not be used as a directional light. It is fitted with a **racon** (— —). A second **light** is shown from the same structure. The light is visible from 250° through south to 160°. It shows an increased intensity on a bearing of 211°, however, it should not be used as a directional light.

67 Lotbinière **leading lights** *(2006, 2007)* are located near the hamlet of La Vieille-Église *(46°37'N, 71°57'W)*, 2.5 miles upstream of Île Richelieu; these lights, in line bearing 222°, mark **Route de Lotbinière** (Course de Lotbinière) and lead through Rapides Richelieu. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

68 Barre à Boulard **leading lights** *(2002, 2003)* are located on the south shore, south of the town of Portneuf. These lights, in line with Île Richelieu light, in line bearing 054°, mark **Route de Pointe-Platon** (Course de Pointe-Platon) and lead through Barre à Boulard dredged and maintained channel. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

69 The municipality of **Lotbinière**, population 1,008, is located on the SE shore, 2 miles south of the residential district of Deschambault. There is a church with two spires.

70 **Conspicuous object**. — ● The twin spires of Lotbinière church.

71 An **anchorage area** is located on the NW side of the channel, WNW of Lotbinière; refer to the chart for depths.

72 The hamlet of **La Vieille-Église**, annexed to the municipality of Lotbinière, is located on the south shore; there is a **ramp** protected by two piers encased with stone.

73 The **alignment** of **Cap Lauzon** *(46°39'N, 71°56'W)* and the SE side of Mont Triquet *(46°57'N, 71°32'W)* — conspicuous mountain NW of the regional municipality of Québec — bearing 042°, leads through that portion of the shipping channel abeam of the rear light of the Lotbinière leading lights to Pointe Langlois light. This landmark is visible in clear weather only.

74 The hamlet of **Grondines-Est** is located on the NW shore, about 4 miles upstream of the residential district of Deschambault. An unlighted cross is located close SW of the hamlet.

75 **Pointe Langlois** is located on the SE shore, 2.5 miles upstream of La Vieille-Église. The shore between these two points has an elevation greater than 24 m.

76 Pointe Langlois **light** *(2013)* is located about 0.4 mile downstream of the point *(46°35'N, 71°59'W)*; this light is fitted with a radar reflector and has green daymarks on the east, north and west faces.

77 **Calvaire leading lights** *(2019, 2020)*, in line bearing 238½°, mark **Route du Cap-Charles** (Course Cap Charles) and lead through the channel, which has a least width of 244 m. The front light *(46°33'N, 72°05'W)* is located on the south shore, 4 miles upstream of Pointe Langlois. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

78 The **Grondines Anchorage** area is located on each side of the main shipping channel off Pointe Langlois; refer to the chart for depths.

79 The municipality of **Leclercville**, population 295, is located on the south shore just upstream from the mouth of **Rivière du Chêne** which empties into the St. Lawrence River close upstream of Pointe Langlois. There is a church spire; a public **wharf**, 191 m long, which dries, and a **ramp** are located near the church.

80 The residential district of **Grondines** is located on the north shore, opposite Leclercville; a church spire stands nearby. There is a **ramp** protected by a breakwater on the east side and on the west by a 160 m long pier encased with stone on all its faces.

81 For more details regarding **currents** in this sector, refer to the Appendix for the Table of Maximum Currents.

82 There is a *MCTS* **calling-in-point** abeam of Grondines wharf.

83 **Pointe des Grondines** is an irregular low projection on the north shore, about 1.5 miles WSW of the above-mentioned wharf. **Cap Charles**, 31 m in elevation, is located on the south shore, about 1 mile south of Pointe des Grondines.

84 Leclercville (St. Emmélie) **leading lights** *(2015, 2016)* mark **Route de Sainte-Emmélie** (Course Sainte-Emmélie); these lights, in line bearing 092½°, are visible in line of range and a second **light** on the rear light structure is visible from all points of marine approach. The lights are shown from fluorescent-orange daymarks with black stripes. The front light *(2015)* is located 0.8 mile SW of Leclercville church *(46°34'N, 72°01'W)*. These leading lights are in alignment with the extension of La Pérade leading lights.

85 La Pérade **leading lights** *(2027, 2028)*, in line bearing 272½°, also mark **Route de Sainte-Emmélie** (Course Sainte-Emmélie). They are in alignment with the extension of Leclercville (St. Emmélie) leading lights. The lights are shown from fluorescent-orange daymarks with black stripes.

86 **Pillar**. — A concrete **pillar**, 6 m in elevation and fitted with a radar reflector, is located about 0.1 mile east of **Île de la Batture** and is in line with La Pérade leading lights.

87 The municipality of **Deschaillons-sur-Saint-Laurent**, population 1,060, is located on the south shore 1.5 miles west of Cap Charles. This section of the shore

GRONDINES (2007)

consists of cliffs; the land close inland rises to an elevation of 30 to 38 m. There is a public **wharf** in ruins and a **ramp**. At certain stages of the tide, considerable eddies are encountered off the wharf.

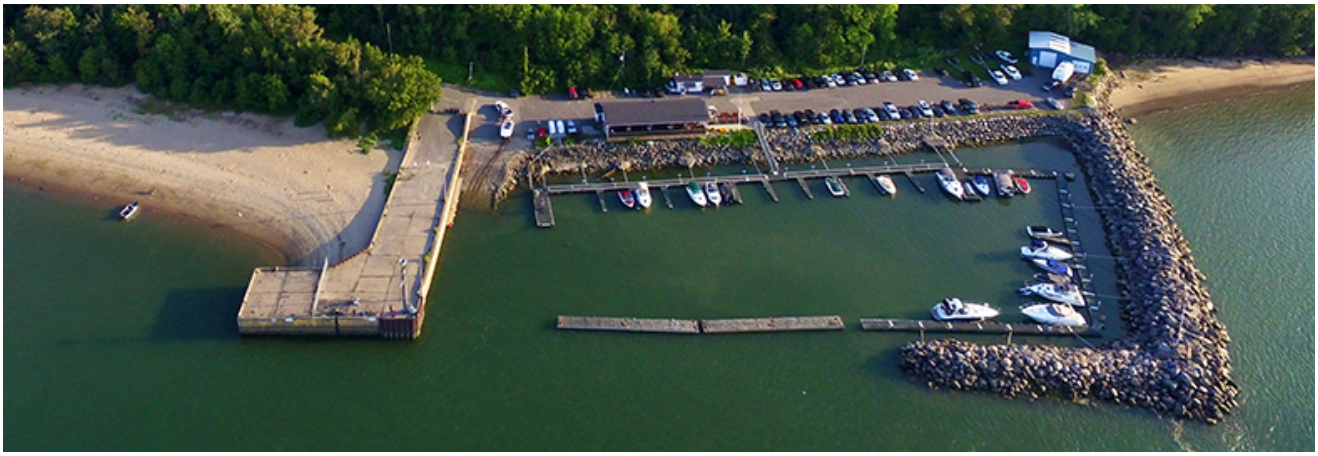
88 A **marina** *(Club nautique d'Eschaillons)* is located west of the wharf. It is protected by an L-shaped breakwater on the west side, by a wharf in ruins on the east side and by a floating breakwater on the river side. Mariners should carefully note the offshore tidal **stream** rate when entering the marina. For further information on facilities, see the Appendix.

89 **Speed Restrictions**. — During the boating season, all vessels must reduce their speed off the marina in order to prevent damage to the facilities and to small craft tied up at the marina; see the *Annual Edition of Notices to Mariners*, page A12-1.

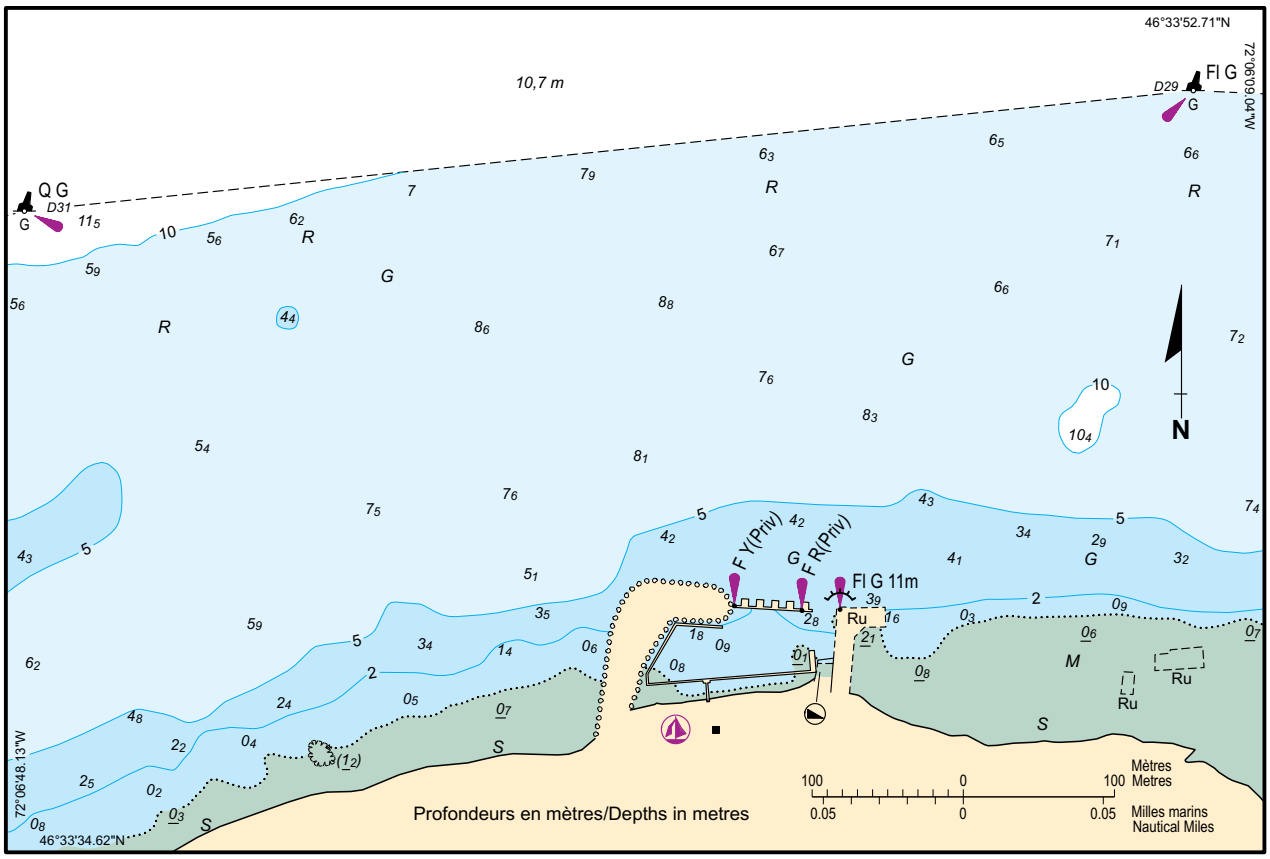
90 **Tidal streams**. — During spring tides, the flow with an ebb tide is reported to attain a rate of 5 knots in the channel off Deschaillons-sur-Saint-Laurent. Refer to the Appendix for the Table of Maximum Currents.

91 Deschaillons-sur-Saint-Laurent **light** *(2028.5)*, fitted with a radar reflector, is located on a wharf in ruins *(46°34'N, 72°06'W)*. There are two private

DESCHAILLONS-SUR-SAINT-LAURENT (2020)



DESCHAILLONS-SUR-SAINT-LAURENT Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1988-2018 SOURCES: Surveyed by CHS in 1988-2018

lights on the floating breakwater, one on the east end and one on the west end.

92 Pointe des Grondines **leading lights** *(2023, 2024)*, in line bearing 066½°, mark **Route de la Pointe-des-Grondines** (Course de la Pointe des Grondines). The front light is located directly on Pointe des Grondines *(46°35'N, 72°04'W)*. The rear light is located close to the inner end of Grondines wharf. The leading lights are visible only when in alignment. The lights are shown from fluorescent-red daymarks with black stripes.

93 Pointe des Grondines Upper **leading lights** *(2025, 2026)*, in line bearing 047°, mark **Route de l'Anse-des-Grondines** (Course Anse des Grondines). The front light *(46°35'N, 72°06'W)* is located 1.2 miles WNW of Pointe des Grondines. The leading lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

94 **Cap Lévrard**, 29 m in elevation, is located on the SE shore 3 miles upstream of Deschaillons-sur-Saint-Laurent. The shore along this section of the river consists of cliffs.

95 The municipality of **Sainte-Anne-de-la-Pérade**, population 2,181, is located 1.3 miles upstream from the mouth of **Rivière Sainte-Anne**, opposite Cap Lévrard. There is a **ramp** on the east side of the river, a short distance from the first **bridge** which is a fixed highway bridge with a vertical clearance of 3.3 m. Further upstream, there is a second **bridge** which is a fixed railway bridge with a vertical clearance of 4.9 m.

96 **Conspicuous object**. — ● The two square towers of Sainte-Anne-de-la-Pérade church.

97 Batiscan **leading lights** *(2042, 2043)*, in line bearing 240°, mark **Traverse de Batiscan**. The front light *(46°31'N, 72°14'W)* is located about 0.7 mile downstream from the municipality of Batiscan. The lights are shown from fluorescent-orange daymarks with black stripes. The leading lights are visible in line of range. A second **light** fitted on each structure is visible from all points of marine approach.

98 **Rivière Batiscan** empties into the St. Lawrence River, about 0.7 mile north of Batiscan front leading light. A narrow channel passes between grassy foreshores bordering the entrance of the river. Private

RIVIÈRE BATISCAN (2020)

buoys and **leading lights** — in line bearing 274° — mark the channel that leads to the **marina** *(Marina de la Batiscan)*. The marina is located on the north shore, 0.4 mile from the mouth of Rivière Batiscan, downstream from the fixed highway **bridge** which has a vertical clearance of 5.5 m. For further information on facilities see the Appendix.

99 **Caution**. — Numerous **cribs** clutter the river, one of which is located south of the marina floating docks. Most of the cribs are submerged and are located upstream of the highway bridge.

100 The municipality of **Saint-Pierre-les-Becquets**, population 1,336, is located 2.4 miles upstream of Cap Lévrard. The old wharf is encased with stone on all its faces and now forms a pier. There is a **ramp** NE of the pier. Saint-Pierre-les-Becquets **light** *(2041)* is located near the inner end of the pier *(46°30'N, 72°12'W)*.

101 **Conspicuous objects**. — ● The Saint-Pierre-les-Becquets church spire. ● An illuminated cross standing close NW of the church.

102 The municipality of **Batiscan**, population 891, is located on the west shore of the St. Lawrence River, 1.5 miles upstream from the mouth of Rivière Batiscan. The municipality is marked by a church spire and there is a **ramp** that is protected by a breakwater. The wharf is incased with stone on all its faces and now forms a pier. A **light** *(2047.2)*, fitted with a radar reflector, is located on the pier *(46°30'N, 72°15'W)*.

103 A *MCTS* **calling-in-point** is abeam of the Batiscan pier.

104 **Batiscan Anchorage area** is located on the west side of the shipping channel abeam of Batiscan pier; refer to the chart for the limits and depths of the area.

105 Off Batiscan at spring tides, the duration of the flood **tidal stream** is about 1½ hours; at neaps the flow is always downstream. Refer to the Appendix for Table of Maximum Currents.

Batiscan to Bécancour

Chart 1313

106 Gentilly **leading lights** *(2050, 2051)*, in line bearing 197½°, mark **Route de Gentilly** (Course Gentilly). The front light *(46°26'N, 72°16'W)*, with a fluorescent-orange daymark with a black stripe, is located on the drying **flat** that extends from the SE shore about 4 miles upstream of Batiscan; it is fitted with a **racon** (— • —). The rear light has a fluorescent-orange daymark with a black stripe. These lights are visible only when in alignment.

107 **Pillar**. — A concrete **pillar**, 6 m in elevation, lies about 0.5 mile east of the front light structure of Gentilly leading lights.

108 A **submarine** power **cable** is laid from the SE shore of the river to the front light of Gentilly leading lights; the position of the cable is shown on the chart. Mariners should not anchor in the vicinity of the cable.

109 **Pointe à la Citrouille**, 3 to 4.6 m in elevation, is located on the NW shore, 3 miles upstream of Batiscan pier. **Poulier Grandmont**, located SW of Pointe à la Citrouille, is a gravel spit through which the shipping channel has been dredged.

110 Pointe à la Citrouille **light** *(2053)*, fitted with a fluorescent-orange daymark, is shown from a concrete pillar located near the point *(46°27'N, 72°16'W)*.

111 The residential district of **Gentilly** is located on the SE shore of the river, about 3 miles south of Pointe à la Citrouille and is annexed to the town of Bécancour.

112 **Conspicuous object**. — ● The Gentilly church spire is nearly in line of the Gentilly leading lights.

113 Small craft may **anchor** SE of **Battures de Gentilly**, however, caution is required as depths in some areas vary rapidly from 0.8 to 11.5 m. Refer to the chart for depths.

114 Champlain **leading lights** *(2063, 2064)*, in line bearing 264°, mark **Route de Champlain**. The lights are situated on the north shore of the river, about 0.8 mile upstream of Champlain. The leading lights are visible in line of range. A second **light** *(2063.1, 2064.1)* on each of the structures is visible from all points of marine approach. The leading lights are shown from fluorescent-orange daymarks with black stripes.

115 The municipality of **Champlain**, population 1,608, is located on the north shore of the river 3 miles upstream of Pointe à la Citrouille. There is a public **wharf**, 49 m long, with a depth of 1.1 m alongside the outer end. A **shoal**, with a depth of 1.1 m, lies 8 m off the wharf. A **ramp** is located near the wharf. A radar reflector is fitted on the wharf.

116 **Conspicuous object**. — ● The two spires of Champlain church.

117 Champlain **light** *(2062)*, with a fluorescent-orange daymark, is located 0.1 mile SW of Champlain church *(46°26'N, 72°21'W)*. The **light** is visible on a bearing of 038°. A second light *(2062.1)*, visible from all points of marine approach, is located on the same light structure.

118 **Pointe à Bigot** *(46°25'N, 72°23'W)* is located on the north shore of the river, 2 miles upstream of Champlain. There is a **light** *(2066.3)* on the point with fluorescent-orange daymarks on the south and east faces. The light is equipped with a radar reflector.

119 Bécancour **leading lights** *(2073, 2074)*, in line bearing 230°, mark **Route de Bécancour** (Course Bécancour). The front light is located on the west bank of the mouth of **Rivière Bécancour** *(46°22'N, 72°27'W)*. These lights are visible in line of range. The lights are shown from fluorescent-orange daymarks with black stripes. A second **light**, visible from all points of marine approach, is shown from the front light *(2073)* structure.

120 The town of **Bécancour**, population 11,489, is situated on the shores of Rivière Bécancour, 1.5 miles from its mouth. **Pointe de Bécancour** makes up the east extremity of the mouth of Rivière Bécancour.

Port of Bécancour

Chart 1313

121 **General Information**. — Port of Bécancour *(46°24'N, 72°23'W)* is located on the south shore of the St. Lawrence River, 3 miles downstream of the mouth of Rivière Bécancour; it is owned by the Government of Québec and managed by the *Société du parc industriel et portuaire de Bécancour* (Bécancour Waterfront Industrial Park), telephone: 819-294-6656; it is accessible year-round. The port can accommodate vessels up to 232 m in length or a maximum deadweight tonnage of 50,000 tonnes. Port facilities on adjoining property include a 61 hectares cargo handling and storage area, of which 14 are paved. Approximately 1.9 million tonnes of cargo are handled annually. The main materials imported are alumina, bauxite, coal, coke, magnesite and salt. Aluminum, lumber and caustic soda are the main exports.

122 **Pilotage** is compulsory. The river pilots will dock and undock vessels upon arrival and departure. For departure, a first notice shall be given 12 hours before the estimated time of departure (ETD) and a final notice confirming or correcting the ETD at least 4 hours before the ETD. Communications should be made to the Pilot Dispatch Centre either by telephone at 1-800-361-0747 or to a *MCTS Centre*. For further information on pilotage, mariners should consult the *Annual Edition of Notices to Mariners*.

123 An emergency **anchorage area** is adjacent to the Port of Bécancour; the limits are shown on the chart.

124 An optical guidance system acts as **leading lights** *(2068.3)* for the final approach into the Port of Bécancour basin. This system, in line bearing 167½°, is located near the shore, SE of Berth No. 5. It consists of a guidance panel showing illuminated directional arrows which become vertical black lines when the ship is on the indicated course.

125 The optical guidance system is operational only for vessels allowed to use the Port of Bécancour facilities. Vessels must notify the *Société du parc industriel et portuaire de Bécancour* 24 hours before arrival at the following numbers: telephone 819-294-6656 or FAX 819-294-9020. There is a **range line** on the east side of the port; it marks the east limit of the periodically dredged area in the Port of Bécancour.

126 **Tidal and Current Information**. — The tidal influence in Bécancour is very small; the maximum rise and fall of the tide is about 0.8 m. However, during the year, the monthly mean water level varies between 0.4 and 2.6 m above chart datum. The current rate increases from 2 knots to 3.5 knots when navigating from the main shipping channel to the wharf approaches.

127 **Conspicuous objects**. — ● Storage silos of the *ABI* aluminum plant situated south of the wharves.

PORT OF BÉCANCOUR (2007)

128 **Transportation**. — Bécancour offers railway and highway connections with Montréal and Québec City as well as with various other important industrial centres in Canada.

Port of Trois-Rivières

Chart 1313

129 **General Information**. — Port of Trois-Rivières *(46°20'N, 72°32'W)* is situated on the north shore of the St. Lawrence River, in the vicinity of the mouth of Rivière Saint-Maurice. The downstream harbour limit is a line drawn between Pointe Lottinville, on the north shore, and the vicinity of Pointe de Bécancour, on the south shore. The upstream harbour limit is drawn from a position on the north shore, 0.7 mile SW of Pointe aux Ormes Pilot Station in a 154° direction to the south shore. The harbour limits are shown on the chart in pecked lines.

130 The port is managed by the *Trois-Rivières Port Authority*. The office is located at: 1545 rue du Fleuve, Trois-Rivières, QC; G9A 5K2; telephone: 819-378-2887. The port is open year-round, however, from January to March inclusive, vessels navigating to Trois-Rivières need to be reinforced for ice. In winter, vessels should not attempt to navigate at night without having detailed information on ice conditions. The port handles approximately 2.5 million tonnes of cargo annually. The main imports are: grain, sodium sulphate (salt cake), clay, aluminum, coke, alumina, bauxite, salt and petroleum products. The main exports are pulp and paper, grain, steel, asbestos and ore.

Table 1.3 Port of Bécancour Wharves

Berth	Length	Depth *	Remarks
	metres	metres	
1	244	10.7	
2	150	10.7	
3	219	10.7	Open storage area for bulk cargo
4	225	10.7	Open storage area for bulk cargo
5	292	10.7	Gantry crane, owned by Aluminerie de Bécancour; Ship-unloading capacity: 700 t/h
Ro-Ro	38	10.7	Ro-Ro ramp

* Depths are referred to chart datum.

131 The city of **Trois-Rivières**, population 130,000, is located on the shores of the mouth of Rivière Saint-Maurice. The residential district of **Cap-de-la-Madeleine** is located on the east side of Rivière Saint-Maurice. There is a number of manufacturing plants located in the metropolitan city, including several pulp and paper mills.

132 **Pilotage** is compulsory. Vessels inbound from east of Les Escoumins are boarded by pilots from Les Escoumins pilot station *(48°19'N, 69°25'W)* and exchange pilots in Québec City. The river pilots will dock and undock vessels upon arrival and departure. For departure, a first notice shall be given 12 hours before the estimated time of departure (ETD) and a final notice confirming or correcting the ETD at least 4 hours before the ETD. Communications should be made to the Pilot Dispatch Centre either by telephone at

1-877-337-0430 or 1-800-361-0747 or to a *MCTS Centre*. For further information on pilotage, mariners should consult the *Annual Edition of Notices to Mariners*.

133 Vessels bound for destinations farther west exchange pilots in Trois-Rivières. The pilot station is located at **Pointe aux Ormes** *(46°18'N, 72°35'W)* on the north shore of the river, about 0.6 mile upstream of Pont Laviolette. Masters of vessels must communicate their request for the exchange of pilots at a *MCTS Centre* 4 hours before arrival.

134 Two *MCTS* **calling-in-points** are located within the harbour limits; refer to Table 1.1 at the beginning of the chapter and the chart for their position.

135 **Customs, Quarantine and De-ratting**. — Trois-Rivières is a port of entry for customs but is not a quarantine station; for details on quarantine refer to the *ATL 100 — General information* booklet. De-ratting exemption certificates may be issued in Trois-Rivières.

136 **Regulations**. — Vessels manœuvring or otherwise underway in the Port of Trois-Rivières and also while at a berth or at anchor are subject to the *Port Authorities Operations Regulations*. A copy of these regulations may be obtained from the port authority. Regulations require that no vessel shall move in the port at a speed that may endanger life or property.

138 The *Trois-Rivières Port Authority* has authority over vessels in the port 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 vessels to inform the port authorities in advance of their intention to berth in the port.

139 Vessels are regulated with respect to cargo-handling operations including the usage of equipment and lighting in these operations. Also included are instructions for reporting in the event of accidents, cargo or gear lost overboard and safety requirements.

140 Specific vessel regulations govern the carriage and handling of explosives and dangerous goods, as well as fire prevention.

141 **Caution**. — No vessel carrying explosives shall tie-up or anchor within the limits of the Port of Trois-Rivières.

142 **Main Shipping Channel in the Port of Trois-Rivières**. — The main shipping channel through the port has a least width of 244 m and a least depth of 11.3 m and is well marked by buoys. Under **Pont** Laviolette, the channel width is reduced to 225 m due to the protective fill surrounding the bridge piers. The various channel courses are shown on the chart.

143 From **Pointe Lottinville** to Cap-de-la-Madeleine, the NW shore of the river is steep, 9.1 m in elevation. A **flat** extends nearly 0.5 mile from the south shore close to Pointe de Bécancour narrowing gradually to the wharf at Sainte-Angèle-de-Laval. This flat dries at low water levels and is composed of mud, sand and clay, strewn with boulders and rocks. Dumping grounds have been established close upstream and downstream of the wharf. The limits are shown on the charts.

144 Between Cap-de-la-Madeleine and Trois-Rivières, the mouth of **Rivière Saint-Maurice** is 1.2 miles wide and contains a group of islands, the two nearest to the St. Lawrence River being **Île La Poterie** and **Île Saint-Quentin**. Two miles upstream between Sainte-Angèle-de-Laval and **Rivière Godefroy** an extensive **flat** stretches off the shore for about 0.5 mile. This flat, of which a section in proximity of the wharf was formerly used as a dumping ground, dries from 1.2 to 0.3 m in places. The NW shore of the St. Lawrence River is low-lying from Rivière Saint-Maurice to Pointe aux Ormes, 3.2 miles upstream.

145 Traverse de Bécancour Upstream **leading lights** *(2075, 2076)*, in line bearing 076°, mark **Traverse de Bécancour** and lead to the limits of Port of Trois-Rivières. The front light is located on the south shore about 1.8 miles ENE of Pointe de Bécancour. The lights are shown from fluorescent-orange daymarks with black stripes.

146 Cap-de-la-Madeleine wharf **leading lights** *(2080, 2081)*, located south of the Notre-Dame-du-Cap Sanctuary, are in line bearing 242½° and lead into the main shipping channel for a short distance only. The lights are shown from fluorescent-orange daymarks with black stripes.

147 Cap-de-la-Madeleine Lower **leading lights** *(2067, 2068)* are located on the north shore of the river, about 2.5 miles NE of Cap-de-la-Madeleine wharf. These lights, in line bearing 037½°, mark the **Route de Lottinville** (Course Lottinville) and lead into a dredged and maintained area which widens when approaching the wharves of the port. The lights are shown from fluorescent-orange daymarks with black stripes. The lights are visible in line of range.

148 Sainte-Angèle-de-Laval **leading lights** *(2092, 2093)* are located on the NW shore close downstream of Pont Laviolette *(46°19'N, 72°34'W)*. These lights, in line bearing 229°, mark **Route de la Pointe-aux-Ormes** (Course Pointe des Ormes) and lead, for a distance of 1.5 miles, along the SE limit of the dredged area facing the wharves. The lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

149 **Conspicuous objects**. — • A telecommunication **tower** located close west of Pointe Lottinville. • The imposing sanctuary of Notre-Dame-du-Cap located close north of Cap-de-la-Madeleine wharf, which is in ruins. • The chimneys of *Cascades Lupel* plant, about 0.2 mile NE of the sanctuary. • The chimneys of the plant located on Île La Poterie. • A water tower located on the south shore east

PONT LAVIOLETTE (2007)

of Sainte-Angèle-de-Laval church. ● The church spire of Sainte-Angèle-de-Laval church located on the south shore. ● The grain elevators located at berths 16 and 17.

150 **Caution**. — An **outfall pipe**, located a short distance west of Pointe Lottinville, extends from the shore.

151 **Tidal and Current Information**. — The tidal influence at Trois-Rivières is very small, the maximum range is about 0.3 m. However, during the year, the monthly mean water level varies between 0.7 and 3 m above chart datum.

152 **Caution**. — The **current** speed in the main shipping channel under **Pont** Laviolette increases due to the narrowing caused by the protective fill surrounding the bridge piers. The current can reach up to 3.5 knots which occurs at low tide. It is reported that eddies form on the downstream side near the piers. The current also increases between the other bridge piers with speeds varying between 2 and 3.5 knots.

153 In the sector of the St. Lawrence River between the wharf in ruins at Cap-de-la-Madeleine and Île La Poterie, the average rate of the **current** is 3 knots. Near the upstream port limit the average rate is 1.5 knots.

154 **Anchorages**. — No vessel shall, except in an emergency, anchor within the port limits without prior permission from the harbour master. The authorized port anchorage area is located between the Pointe aux Ormes Pilot Station and the upstream limit of the port. Anchorage berths 1 to 6 are allocated to vessels upon request; the anchorage berths are shown on the chart. It is prohibited for vessels to anchor at these berths during the winter season.

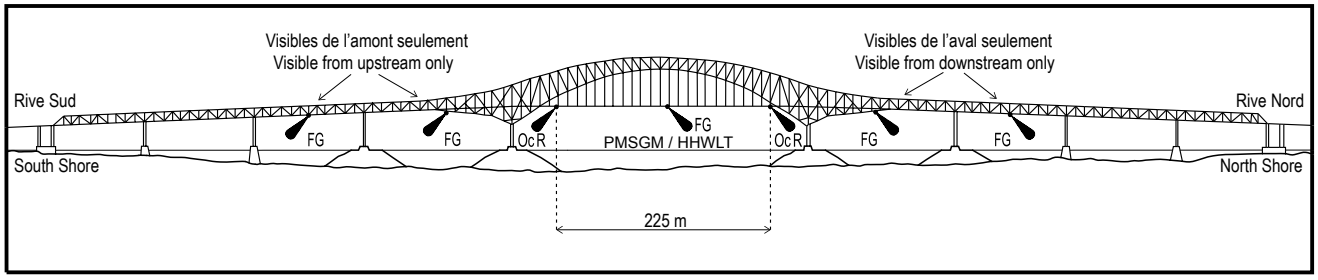
155 There is a **prohibited anchorage area** from a position 1.1 miles downstream of **Pont** Laviolette to a position 0.2 mile upstream of the same bridge; the prohibited anchorage area is shown on the chart. Several **submarine cables** and **submarine pipelines** cross the river in the vicinity. The *Canadian Coast Guard* Hovercraft Base is situated on the north shore, downstream of Pont Laviolette.

156 **Overhead Cables**. — A power transmission line, with a vertical clearance of 50 m or *37 m under severe icing conditions, spans the St. Lawrence River about 0.7 mile downstream of **Pont** Laviolette. The **towers**, 124 m high, are marked by red lights.

156.1 A direction **light** *(2113.1)*, in line bearing 220°, is fitted on the Port-Saint-François rear leading light. The light indicates the limits for safe passage under the overhead cables. (See the Air Obstructions Table in the Appendix.)

157 **Bridges**. — **Pont Laviolette**, a fixed highway bridge, crosses the St. Lawrence River about 0.6 mile downstream of Pointe aux Ormes. **Red lights** mark the limits of the main shipping channel which has a width of 225 m under the bridge and a vertical clearance of 48 m. A **green light** marks the centre of the main shipping channel where the vertical clearance is 49 m. The bridge is well marked with several other lights. Two **racons** are located on Pont Laviolette: the north racon (—) and the south racon (• • • •).

PONT LAVIOLETTE



158 **Pont Duplessis**, a fixed highway bridge, crosses Rivière Saint-Maurice from Trois-Rivières to **Île Saint-Christophe** and to Cap-de-la-Madeleine. A railway swing bridge links Île La Poterie to Cap-de-la-Madeleine.

159 Several cribs, pipelines and **overhead cables** crossing the river are found in Rivière Saint-Maurice; a **ramp** is located nearby the river. Refer to the chart for more details. A division of *Canada's Naval Reserve* is located in the area.

160 **Caution**. — Considerable silting occurs in Trois-Rivières. Therefore, there may be less water than shown on the chart.

161 **Berthing**. — Table 1.4 provides detailed information on the berths and adjacent sheds managed by the *Trois-Rivières Port Authority*, as well as details for one private berth. Their locations are shown on the chart.

161.1 Berthing is prohibited at the Cap-de-la-Madeleine wharf, which is in ruins. Vessels must stay off the wharf at a minimum distance of 30 m.

162 A large **crib**, owned by *Cascades Lupel*, is located 0.1 mile downstream from the wharf in ruins at Cap-de-la-Madeleine. Another smaller **crib** lies about 0.1 mile farther to the NE.

163 At the east end of Île La Poterie, on **Pointe des Chenaux** *(46°21'N, 72°30'W)*, the *AbitibiBowater* company owns an L-shaped **wharf** 105 m long with depths of 8 m along the outer face (facing the river). This wharf extends close to the main shipping channel. Île La Poterie **light** *(2083.8)* is on the NE end of this wharf. A **crib** lies about 0.3 mile NE of the wharf. An **outfall pipe** is situated just upstream of the wharf

Table 1.4 Port of Trois-Rivières Wharves

Berth	Length	Depth †	Elevation † †	Remarks
	metres	metres	metres	
Trois-Rivières Port Authority				
1	152	* See chart	1.2	Shed area: 6,540 m^2; loading and storage of paper
2	122	* See chart	1.2	
3	165	* See chart	1.2	Harbourfront Park; tour boat
4	117	* See chart	0.6	Harbourfront Park; tour boat
6	91	* See chart	0.6	
7	91	* See chart	1.9	
9	99	* See chart	1.9	Shed area: 4,706 m^2
10	251	10.7	1.9	Shed area: 4,675 m^2
11	229	10.7	1.9	Shed area: 8,449 m^2
13	184	11.0	1.9	Shed area: 14,194 m^2; ro-ro ramp (loading capacity: 350 t)
14	152	10.7	1.9	Shed area: see berth 13
15	122	10.7	1.9	
16	175	10.7	1.9	Ship-loading grain capacity: 2,150 t/h
17	221	10.7	1.9	Ship-unloading grain capacity: 1,960 t/h; unloading alumina Additional fender installed by the Port Authority if required.
19	221	10.7	1.9	Storage area: 86,036 m^2; liquid and dry bulk cargo; oil pipeline
20	221	10.7	1.9	Bulk cargo
Vicinity of Sainte-Angèle-de-Laval				
—	75	* 3	1.6	

† Depths are referred to chart datum.
† † Elevation above Higher High Water, Large Tide.
* Depth not maintained by regular dredging.

ÎLE SAINT-QUENTIN (2007)

extending from the shore of the island; the **crib**, situated at the extremity of the outfall pipe, has 7.5 m of water over it.

164 A breakwater 271 m long extends from the east end of Île Saint-Quentin. A **marina** *(Marina de Trois-Rivières)* is located WNW of the breakwater. Mariners are cautioned that there is a 3 knot **current** when approaching the marina from the main shipping channel. A private buoyed channel leads to the marina basin. **Leading lights** (private), in line bearing 253½°, lead through this channel to the marina basin equipped with floating docks. For further information on facilities see the Appendix.

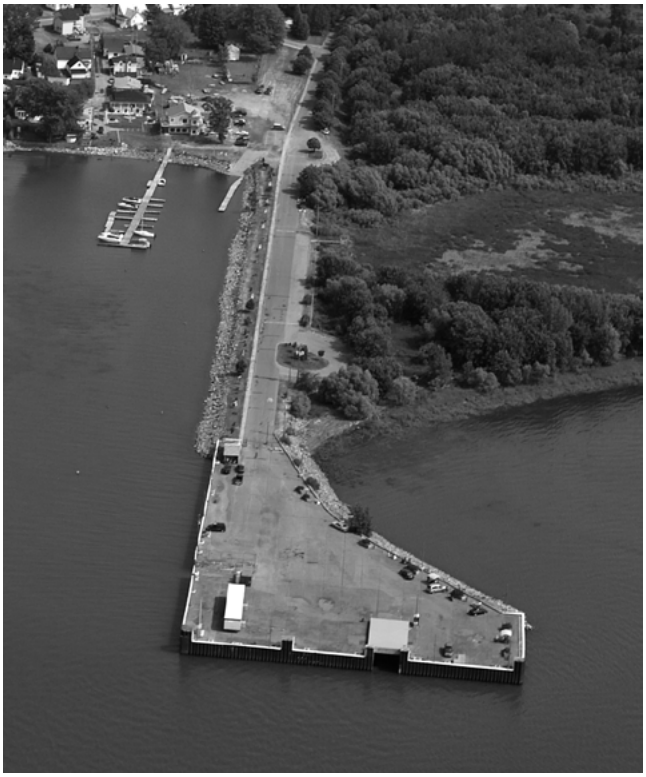
164.1 There is a **restricted area** to navigation south of Île Saint-Quentin due to a swimming area in the vicinity. The area is marked by private **buoys**, some of which are lighted.

165 A dolphin lies about 60 m upstream of berth No. 20; it is linked to the wharf by a catwalk.

166 The residential district of **Sainte-Angèle-de-Laval** is located on the south shore and is annexed to the town of Bécancour. There is a **wharf** 404 m long with an outer end of 75 m at which there is a depth of 3 m. A **marina** *(Marina Sainte-Angèle)* is located at the inner end on the downstream side of the wharf; a **ramp** is adjacent to the marina. A dredged channel, marked by private **buoys**, leads to the marina. For further information on facilities see the Appendix.

167 A private **wharf** owned by *Group Ocean* is located at Pointe aux Ormes. It is also the location of the pilot station.

SAINTE-ANGÈLE-DE-LAVAL (2007)



PORT OF TROIS-RIVIÈRES — BERTHS 1 TO 17 (2007)

168 **Leading lights** (private), in line bearing 308½°, lead to the wharf at the Pointe aux Ormes Pilot Station. Each of the two structures consists of a diamond-shaped daymark with a fixed red light in the centre.

169 A *Canadian Coast Guard* seasonal **Search and Rescue station**, based in the Port of Trois-Rivières, provides services in the area. Requests for assistance can be addressed, at any time, to the *Marine Rescue Sub-Centre (MRSC Québec)* via a *Coast Guard Radio Station* through VHF Channel 16 (156.8 MHz), Digital Selective Calling (DSC), or by telephone 1-800-463-4393. Owners of certain cellular telephone models may also dial *16 which will put them in direct contact with a *MCTS Centre*. **It should be noted that it is not possible for the** *Canadian Coast Guard* **to trace the origin of calls for those using their cellular telephone and that certain areas do not have cellular coverage.**

170 **Cargo handling arrangements**. — The sheds are managed by the *Trois-Rivières Port Authority* which leases them to various companies.

171 The grain elevators, with a total capacity of 110,000 tonnes, are located at berths 16 and 17 and are operated by *Les Élévateurs des Trois-Rivières, Division USL* company. The *Lauralco* company also uses berth 17 for the transhipment of alumina.

171.1 The Port Authority installs an additional fender when the distance between the vessel's hull and the submarine **obstruction**, located along the wharf of the upstream section of berth 17, is less than 0.3 m.

172 The *Somovrac* company operates berths 19 and 20 for handling bulk cargo. The unloading is carried out at a rate of approximately 600 tonnes per hour, while the loading is carried out at a rate of about 1,500 tonnes per hour. There is an

PORT OF TROIS-RIVIÈRES — BERTHS 13 TO 20 (2007)

open storage area (300,000 tonnes capacity) and a warehouse storage area (45,000 tonnes capacity) adjacent to the wharves.

173 These berths are also fitted with pipelines for the transfer of chemical or other products. The product handling is carried out by the *Somavrac* company. The *Irving* company also owns oil pipelines for receiving their petroleum products.

174 **Supplies of fuel, water and provisions**. — Available supplies include: certain types of fuel oil, diesel fuel, lubricating oil, provisions, deck and engine supplies. Fresh water is available at all berths. With sufficient advance notice most vessel requirements for stores can be met.

175 **Harbour services**. — Mobile cranes of various types and lifting capacity are available.

176 Tugs are not usually considered necessary for berthing at Trois-Rivières, however, they are available if advance notice is given. Service boats and barges are also available for various services and can, if required, be used to supply fuel and fresh water.

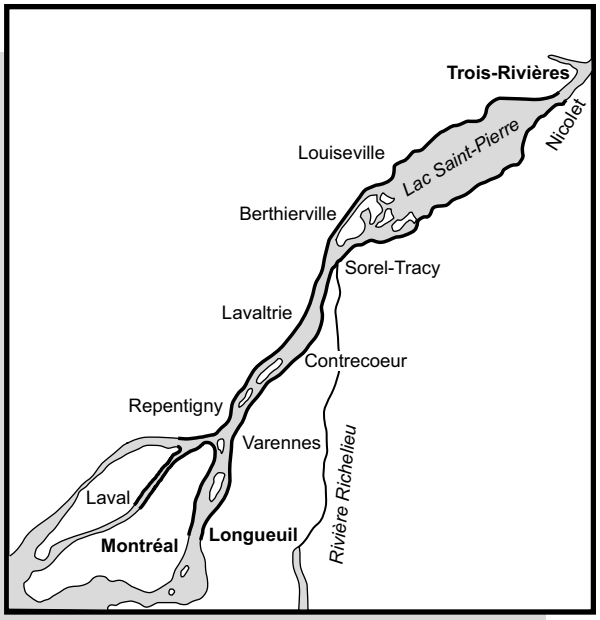
177 Vessels use their own gangway or accommodation ladder.

178 The service of linesmen to tend mooring lines for docking and departing vessels is performed by the *Amarrage Trois-Rivières* company at the established prevailing rates for these services. Sometimes, due to the position of the ship or the berth, it is necessary to use the services of boatmen to run the mooring lines.

179 There are no slips or dry docks in Trois-Rivières, however, certain companies will carry out general hull and engine repairs.

180 **Transportation**. — Trois-Rivières offers railway and highway links with Québec and Montréal, as well as various other important industrial centres in Canada. The nearby airport of Trois-Rivières links the town with major airports.

Trois-Rivières to Montréal, including the downstream section of Rivières des Prairies



General

Charts 1313, 1312, 1311, 1310, 1509

1 **Limits**. — This chapter covers the St. Lawrence River from the upstream limit of Port of Trois-Rivières to the upstream limit of Port of Montreal.

2 **Coast**. — The shores of the river are relatively low. Lac Saint-Pierre, natural and **shallow**, is approximately 16 miles long and 6 miles wide; some tributaries empty into the lake. More than one hundred low and marshy islands are located upstream of the lake, forming Archipel de Lac Saint-Pierre. From these islands, off Sorel-Tracy, to Montréal, the river becomes narrower and various groups of islands divide the river width.

3 **Main Shipping Channel**. — ● Least depth: 11.3 m. ● Least width: 229 m. ● Marked with buoys and leading lights.

3.1 For information on the condition of the main shipping channel, mariners should regularly consult the website www.marinfo.gc.ca or contact a *MCTS* Centre through VHF.

4 **Maintained Depths**. — The main shipping channel is dredged regularly and maintained to a depth of 11.3 m from **buoy** *D77 (46°29'N, 72°14'W)*, upstream of Batiscan, to **buoy** *M177* in the Port of Montreal. However, a 7.5 m wide section, with a depth of 10.7 m, runs along the inside limits of each side of the channel between **buoys** *D42* and *PAT (45°39'N, 73°29'W)*. For further information regarding the channel limits, see the chart.

4.1 Mariners must comply with the under-keel clearance rules established by the St. Lawrence Seaway MCTS Centres. For further details, see *Under-keel Clearance* in the Appendix at the end of the booklet.

4.2 Guidelines for the Transit of Wide Beam Vessels and Long Vessels are described in Notice C27A of the *Annual Edition of Notices to Mariners*.

5 **Secondary Channel for Small Craft**. — It is recommended that small craft use the secondary channel which starts off Lanoraie and ends in Longueuil. This winding secondary channel runs along the north shore in the downstream section, crosses the main shipping channel in Varennes and then runs upstream along the east shore. All details on this secondary channel are given later in this chapter. ● Depths vary: refer to the chart. ● The channel is marked with buoys.

Table 2.1 Calling-in-Points

C.-I.-P. No	Name	Distance (nautical miles)		
		Between	Usptream	Downstream
		C.-I.-P.		
19	Pointe aux Ormes	—	0	66.4
20 *	Port-Saint-François	*2.5*	N/A	63.9
21	Yamachiche	*9.2*	11.7	54.7
22	Île des Barques	*11.5*	23.2	43.2
23	Tracy	*8.9*	32.1	34.3
24	Contrecoeur	*12.2*	44.3	22.1
25	Cap Saint-Michel	*8.7*	53.0	13.4
26	Berth No. 110	*6.6*	59.6	6.8
27	Seaway C.-I.-P. No. 2	*6.8*	66.4	0

* For downbound vessels only.

6 **Caution**. — During the winter, the **light buoys** are lifted and some of these are replaced with **unlighted spar buoys**. Refer to the radio broadcasts and/or written *Notices to Shipping* for the list of replaced buoys and their replacement dates.

7 **Speed Restrictions**. — Mariners must exercise special caution with regard to speed when passing the following places: Saint-Joseph-de-Sorel, Lanoraie and Verchères.

8 **Risk of Collision**. — Manœuvrability of large commercial vessels is restricted. Additionally, the visibility from the wheelhouse of a large vessel is often limited. All small craft must keep out of the way of these vessels which have priority.

9 **Speed Restrictions during the Winter**. — During the winter, a speed limit is imposed upon vessels navigating between Trois-Rivières and Montréal. This restriction was established to avoid ice jams caused by large sheets of ice breaking from the banks thereby blocking the channel to navigation. In addition, the ice jams can cause disastrous flooding. Winter speed restrictions are promulgated in *Notices to Shipping*. In addition, vessels should not attempt to navigate at night without having detailed information concerning the ice conditions of the area.

10 **Calling-In-Points**. — For upbound and downbound vessels, Table 2.1 lists the calling-in-points to communicate with the *Marine Communications and Traffic Service (MCTS)* in this stretch of the St. Lawrence River. For full details, see the *Radio Aids to Maritime Navigation* publication. It should be noted that the local routine expression "Stay to the north", used in the St. Lawrence River communications, means to hug the "north shore" or the starboard limit for vessels navigating upbound. By agreement, an upbound vessel on the St. Lawrence River considers the "north shore" to be on its starboard side while the "south shore" is considered to be on its port side.

11 For more information concerning water levels, mariners should refer to the hydrograph shown on certain charts, giving the monthly mean water level. In addition, a network of digital water level gauges is installed along the St. Lawrence River. This system, called *SINECO (Coastal and Ocean Water Level Information System)*, allows the mariner to obtain instantaneous water levels at different sites as well as the prediction for the next few days. The most recent information on water levels can be obtained by contacting *MCTS centres* on VHF, by calling the automated information service 1-877-775-0790 or by visiting our website www.charts.gc.ca.

12 **Ice**. — Ice usually begins to develop around the first half of the month of December. The normal flow of the ice in the St. Lawrence River follows the downstream current and icebreakers ensure ice flow. In certain places, upstream of Sorel-Tracy, ice-booms are deployed; see the monthly edition of *Notices to Mariners* and broadcasted and/or written *Notices to Shipping* for their position and the date of their deployment. The river is normally free of ice by the beginning of April.

13 **Cribs** and artificial islands have been constructed on Lac Saint-Pierre to contain the ice. Additionally, an ice boom about 1.3 miles long is deployed annually from November to April, off Pointe Yamachiche; during the summer the **buoys** remain in position. The average thickness of fast ice in Lac Saint-Pierre is 74 cm with a record maximum thickness of 104 cm measured in 1978. Ice begins to develop on the lake, on the average, around the middle of December and clears during the second week of April.

14 **Anchorages**. — Anchorage areas are located at the following locations:

- **At the mid-section of Lac Saint-Pierre** *(46°13'N, 72°49'W, Chart 1312)***;**
- **At Sorel-Tracy** *(46°03'N, 73°06'W, Charts 1312 and 1311)***;**
- **At Lanoraie (Lanoraie Anchorage)** *(45°59'N, 73°12'W, Chart 1311)***;**
- **Emergency anchorage opposite Contrecœur Terminal** *(45°50'N, 73°17'W, Chart 1311)***;**
- **In Port of Montreal** *(Chart 1310)***: further details are given later in this chapter.**

Trois-Rivières to Sorel-Tracy

Chart 1313

15 **Trois-Rivières to Lac Saint-Pierre**. — From the upstream limit of Port of Trois-Rivières to Lac Saint-Pierre the main shipping channel in the river has a minimum width of 305 m.

RIVIÈRE NICOLET ENTRANCE (2007)

16 The hamlet of **Port-Saint-François** is located 2 miles downstream of Lac Saint-Pierre and is annexed to the municipality of Nicolet. The public **wharf**, 188 m in length, is incased with stone on its NE and SW faces and its outer end is partially in ruins.

17 Port-Saint-François wharf **light** *(2111)* is on the outer end of the wharf *(46°16'N, 72°37'W)* and is fitted with a radar reflector.

18 Île aux Sternes, situated NNW of Port-Saint-François, is an ecological reserve and access is regulated to this protected area.

19 Port-Saint-François **leading lights**, in line bearing 068°, mark **Route de Port-Saint-François** (Course Port Saint-François). The front light *(2112)*, fitted with a radar reflector, is shown from a pillar situated close west of the wharf. The rear light *(2113)* is situated close from the south shore and is visible only when in alignment. The lights are shown from fluorescent-red daymarks with black stripes. A direction **light** *(2113.1)*, in line bearing 220°, is also fitted on the rear light.

20 There is a *MCTS* **calling-in-point** for downbound vessels only, abeam of Port-Saint-François.

21 The **current** in the main shipping channel, south of **Pointe du Lac**, sets to the ENE across the direction of the channel at a rate of about 1 knot.

22 Nicolet Sector **light** *(2119.5)* is shown from a square pillar situated east of the entrance channel leading into Rivière Nicolet *(46°15'N, 72°39'W)*. The light structure is fitted with a **racon** (— — •) and a radar reflector. The white light is visible from 353° through north and east to 173°; the green light is visible from 173° through south and west to 353°.

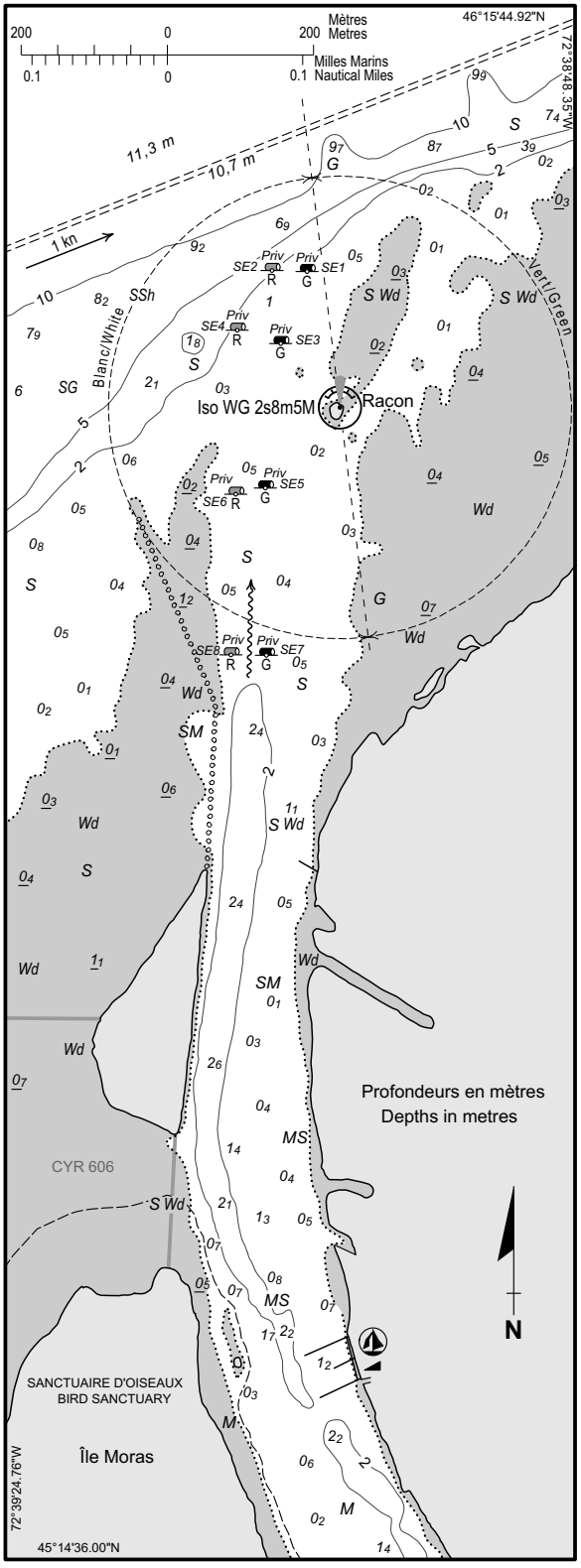
23 Traverse de Nicolet **leading lights** *(2117, 2118)*, in line bearing 096½°, mark **Traverse de Nicolet**; they are located between the mouth of Rivière Nicolet and Port-Saint-François. The front light is situated close to shore *(46°16'N, 72°38'W)*. The lights are visible only when in alignment. The lights are shown from fluorescent-orange daymarks with black stripes.

24 **Rivière Nicolet** empties at the downstream end of Lac Saint-Pierre. A **marina** *(Club nautique de la Batture)* is situated on the east bank of the river 0.8 mile upstream. For further information on facilities see the Appendix. From the mouth of Rivière Nicolet to the marina the channel is **shallow** but marked with private **buoys**. (See ***Rivière Nicolet*** diagram.)

Chart 1312

25 It is prohibited to land on **Île Lozeau** and **Île Moras**, situated on the west side of the mouth of Rivière Nicolet, as they are occupied by *Jean Nicolet Military Detachment*. The shoreline of the lake between Île Moras and Longue Pointe, inclusively, is the property of the *Department of National Defence*. The wharf located on the west side of **Île du Domaine** is owned by the same Department and is strictly reserved for military use and firing exercises. There is also Nicolet Migratory Bird Sanctuary *(Environment Canada)* in this area and access is regulated.

RIVIÈRE NICOLET Échelle 1:10 000 Scale



SOURCES: Levé par le SHC en 1989-2017
SOURCES: Surveyed by the CHS in 1989-2017

26 The town of **Nicolet**, with a population of 7,795, is situated about 2 miles from the mouth of Rivière Nicolet.

Lac Saint-Pierre

27 The main shipping channel through Lac Saint-Pierre to the Port of Sorel downstream limit has a minimum width of 229 m and is dredged and maintained to a depth of 11.3 m. The shipping channel, from the mouth of Rivière Nicolet to the limit of the Port of Sorel (distance of 16.5 miles), is well marked with buoys. Near the middle of the lake there is an **anchorage area**, the position of which is shown on the chart.

28 There are several **submarine cables** in Lac Saint-Pierre; see chart. Mariners should not anchor in the vicinity of these cables.

29 A *MCTS* **calling-in-point** is located abeam of the anchorage area in Lac Saint-Pierre.

30 **Military firing practice area**. — There is a *Department of National Defence* firing practice area established on the SE side of the main shipping channel in Lac Saint-Pierre; it is marked with several buoys. Consult the chart for the limits of the area. For additional information mariners should consult the *Annual Edition of Notices to Mariners* or contact the firing range controller at the *Nicolet Military Base*, telephone: 819-293-2004.

31 The **current** varies from 1 to 2 knots; it flows in a downstream direction and sets in the general direction of the main shipping channel, except in the NE and SW parts of the lake where it sets slightly outside the channel.

32 **Ice**. — Refer to paragraphs 12 and 13.

33 **Artificial islands and cribs**. — Four artificial islands have been constructed north of the shipping channel, between **light buoys** *S44* and *S58 (2132* and *2135)*, and five other similar structures have been established south of the channel, between **light buoys** *S67* and *S81 (2138* and *2142)*; they assist in ice control during the winter season. There are also three cribs north of the shipping channel, between the **light buoys** *S80* and *S86 (2141* and *2147)*, used for controlling ice in the lake. The westernmost crib dries.

34 From November to April, there is an ice boom anchored SE off Pointe de Yamachiche. **Buoys**, which remain in place throughout the year, are moored to indicate the anchorage points. A **prohibited berthing area** surrounds these facilities; its limits are charted.

35 Pointe-du-Lac **leading lights** *(2125, 2126)*, in line bearing 056°, mark **Route de Pointe-du-Lac** (Course de la Pointe du Lac). The front light is shown from a square skeleton tower on a fluorescent-red base located in the lake about 1.3 miles WSW of Pointe du Lac *(46°16'N, 72°42'W)*. The rear light is about 0.3 mile WNW of Pointe du Lac. These lights are visible in line of range. The lights

are shown from fluorescent-red daymarks with black stripes. A second **light** on the front light structure, fitted with a radar reflector, is visible from all points of marine approach.

36 Courbe de Yamachiche West **leading lights** *(2137.2, 2137.3)*, in line bearing 236°, is the reciprocal of the Pointe-du-Lac leading lights and are located in the middle of the lake *(46°12'N, 72°50'W)*. The front light is shown from a tower on a pillar and it is fitted with a **racon** (— —); a second **light**, which has a fluorescent-orange daymark with a black stripe, is visible from all points of marine approach. The rear light is shown from a tower and has a fluorescent-orange daymark. The lights are visible in line of range.

37 **Courbe de Yamachiche light** *(2134.8)*, shown from a white tower with red horizontal bands and fitted with a radar reflector, is located on one of the above-mentioned artificial islands *(46°13'N, 72°49'W)*.

38 Route Louiseville Downstream **leading lights** *(2143, 2143.5)*, in line bearing 250°, mark **Route Louiseville Aval**. The front light is shown from a tower on a pillar located in the lake *(46°11'N, 72°55'W)*. The rear light is shown from a tower on another pillar also located in the lake. The leading lights are visible in line of range and are shown from fluorescent-orange daymarks with black stripes. A second **light** *(2143.1, 2143.51)* on each of the pillars, fitted with radar reflector, is visible from all points of marine approach. A **racon** (— •) is fitted on the rear tower.

39 Route Louiseville Upstream **leading lights** *(2144, 2145)*, in line bearing 044°, mark **Route Louiseville Amont**. The front light, fitted with a radar reflector, is shown from a tower on a pillar located close NW of **light buoy** *S80 (2141; 46°12'N, 72°54'W)*. The rear light is shown from a tower on a pillar located in the lake. These lights are visible in line of range and are shown from fluorescent-orange daymarks with black stripes. A second **light** *(2144.1, 2145.1)* on each of the pillars is visible from all points of marine approach.

40 **Courbe de Maskinongé light** *(2153.3)*, shown from a tower with red and white horizontal bands, is 1.7 miles SSW from the rear light of Upstream Lac Saint-Pierre leading lights. The structure is fitted with a radar reflector.

41 Île aux Raisins **leading lights**, in line bearing 193°, mark **Route de l'Île-aux-Raisins** (Course Île-aux-Raisins). The front light *(2166)* is located on **Île aux Raisins** *(46°06'N, 72°58'W)*. The rear light *(2167)* is shown from a tower and is fitted with a **racon** (— • —). These lights are visible in line of range and are shown from fluorescent-orange daymarks with black stripes. A second **light** is shown from the rear light tower and is visible from all points of marine approach.

Lac Saint-Pierre — North Shore

42 **Pointe-du-Lac** is a residential district located on the NE shore of the lake. A **marina** *(Centre nautique de Francheville)* for small craft (centre boarders) is located west of the residential district. For further information on facilities see the Appendix.

43 The municipality of **Yamachiche**, with a population of 2,776, is located 1.6 miles from the mouth of **Petite Rivière Yamachiche**.

44 The town of **Louiseville**, with a population of 7,911, is located about 2.7 miles upstream from the mouth of **Rivière du Loup**. A buoyed channel leads from the main shipping channel into Rivière du Loup. There are several **ramps** nearby.

45 **Conspicuous objects**. — ● Pointe-du-Lac church spire. ● Yamachiche church spire. ● The two spires of the Louiseville church.

46 Louiseville direction **light** *(2148)* is shown from a mast located on the west bank near the mouth of Rivière du Loup *(46°13'N, 72°55'W)*. The private light is in a line bearing 334½°.

47 A **marina** *(Camping et Marina de Louiseville)* is located on the east bank of Rivière du Loup about 0.5 mile from the entrance. For further information on facilities see the Appendix.

Lac Saint-Pierre — South Shore

48 **La Longue Pointe**, located about 6 miles SW of Nicolet, extends from the south shore of the lake.

49 There is commercial fishing on Lac Saint-Pierre, Rivière Saint-François and Rivière Yamaska.

50 **Rivière Saint-François** empties into the upstream limit of Lac Saint-Pierre about 8 miles WSW of La Longue Pointe. The buoyed channel (private) of the river has a least depth of 0.6 m at its mouth. The river provides excellent shelter for small craft.

51 A **marina** *(Marina Mr. B)* is located on Île Saint-Jean, an island 1.2 miles from the mouth of Rivière Saint-François. For further information on facilities see the Appendix.

52 The village of **Notre-Dame-de-Pierreville** is 3 miles upstream of the mouth of Rivière Saint-François; a landing pier is located nearby. *Ocean Group* owns a small shipyard where repairs and barge construction are carried out.

53 The municipality of **Saint-François-du-Lac**, with a population of 2,001, is located on the south side of Rivière Saint-François 6 miles from its mouth; there is a public **wharf** with a depth of 0.7 m and a **ramp**.

54 **Chenal Tardif**, an arm of Rivière Saint-François, empties into Lac Saint Pierre, 2 miles east of the river mouth.

55 An **overhead cable** with a vertical clearance of 11 m crosses Chenal Tardif 1.1 miles from its mouth.

Port of Sorel

Chart 1312

56 **General information**. — Port of Sorel comprises a section of the St. Lawrence River near the mouth of Rivière Richelieu and includes a 5.2 mile upstream portion of Rivière Richelieu. The port is bound on the east by a line drawn from Îlets Percés *(46°07'N, 72°57'W)* in a 318° direction. The western port limit is also the limit of the Port of Montreal. These limits are shown on the chart.

57 Port of Sorel is a public port, administered by the *Department of Transport*. Mariners may contact the Harbour Master at 450-746-4316 or 450-742-9919. The port is open year-round, however, due to the likely ice conditions during the months of December through March, it is recommended that vessels navigating upbound to Sorel-Tracy be strengthened for ice. The port handles about 3.6 million tonnes of cargo annually. The principal imports are grain, steel, ilmenite and anthracite. The main exports are grain, titanium oxide and scrap metal.

58 The town of **Sorel-Tracy**, with a population of 36,021, is located on both shores of the mouth of Rivière Richelieu. The town of **Saint-Joseph-de-Sorel**, with a population of 1,875, is located on the western shore. There are several industries, including grain elevators, smelting and chemical plants. The majority of these industries have access to the harbour.

59 From Sorel-Tracy the distance to the downstream entrance of the *St. Lawrence Seaway* in Montréal via the main shipping channel is 37 miles, and the distance to Trois-Rivières is 31 miles.

60 A *Canadian Coast Guard* seasonal **Search and Rescue station** operating from Sorel-Tracy provides services in the area. Requests for assistance can be addressed, at any time, to the *Marine Rescue Sub-Centre (MRSC Québec)* via a *Coast Guard Radio Station* through VHF Channel 16 (156.8 MHz), Digital Selective Calling (DSC), or by telephone 1-800-463-4393. Owners of certain cellular telephone models may also dial *16 which will put them in direct contact with a *MCTS Centre*. **It should be noted that it is not possible for the *Canadian Coast Guard* to trace the origin of calls for those using their cellular telephone and that certain areas do not have cellular coverage.**

61 **Pilotage** is compulsory. Upbound vessels are boarded by pilots at Les Escoumins Pilot Station *(48°19'N, 69°25'W)* for the passage up to Sorel-Tracy. Pilots are exchanged in Québec City and Trois-Rivières. The river pilots will dock and undock vessels upon arrival and departure.

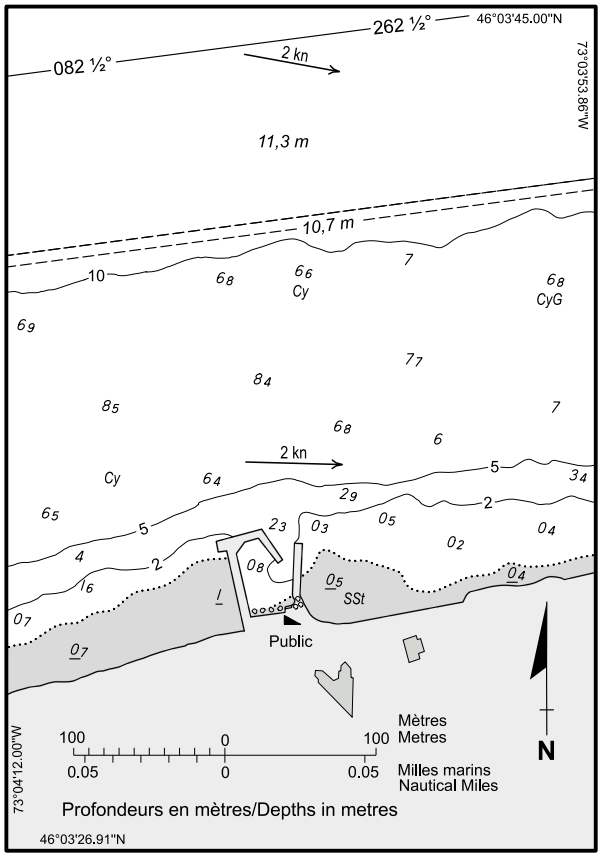
62 For departure from the Port of Sorel, the ship's master shall give a first notice 12 hours before the estimated time of departure (ETD) and a final notice confirming or correcting the ETD at least 4 hours before the ETD. This information must be communicated to the Pilot Dispatch Centre either by telephone at 1-800-361-0747 or to a *MCTS Centre*. For further information on pilotage, mariners should consult the *Annual Edition of Notices to Mariners*.

63 Within the limits of the Port of Sorel there is a *MCTS* **calling-in-point** abeam of Île des Barques.

64 **Arrival information**. — Sorel is a port of entry for **customs** but is not a quarantine station; for details on *Quarantine Regulations* refer to the *ATL 100 — General Information* booklet. De-ratting exemption certificates may also be issued.

PORT OF SOREL AND RIVIÈRE RICHELIEU ENTRANCE (2007)

SAINTE-ANNE-DE-SOREL
Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1989-1999
SOURCES: Surveyed by CHS in 1989-1999

65 **Regulations**. — The Port of Sorel is subject to the *Public Ports and Public Port Facilities Regulations*. In addition, a maximum speed limit of 10 knots upbound and 14 knots downbound is imposed on all vessels in the Port of Sorel, making a wake effect of an average speed over the ground of 12 knots.

66 Notwithstanding the provisions of the *Collision Regulations*, every power-driven vessel entering or leaving Rivière Richelieu at Sorel-Tracy shall keep to the east side of Rivière Richelieu. The mouth of Rivière Richelieu and the approaches to Bassin Lanctôt are very busy during the summer; mariners should use caution when sailing in these areas.

67 Small craft proceeding upstream from Sorel-Tracy are required to hug the north and west shores of the river so as not to interfere with deep-draught vessels in the main shipping channel.

68 **Main Shipping Channel in the Port of Sorel**. — In the main shipping channel through the Port of Sorel, well marked with buoys and leading lights, there is a least depth of 11.3 m and a least width of 244 m. The recommended channel courses to follow are shown on the chart.

69 **Speed Reduction**. — Except during the winter navigational season, during which speed limits are advertised by the *CCG*, a voluntary measure of speed reduction applies to the marine industry and its commercial vessels in certain areas sensitive to wave action from passing vessels. Therefore, upbound vessels must reduce their speed to a maximum of 10 knots over the ground in an area 5.4 miles in length, starting from abeam of Îlets Percés *(46°07'N, 72°57'W)* and as far as Sainte-Anne-de-Sorel wharf *(46°04'N, 73°04'W)*; the downbound vessels must reduce their speed to a maximum of 14 knots over the ground. This measure is designed to specifically minimize the wave action from passing vessels and to protect the river banks; consult the *Annual Edition of Notices of Mariners*, page A12-1.

69.1 Mariners shall proceed with **caution** and at a safe speed before and in front of the private dock at Tracy as to minimize the interaction with the ship docked. See the document *Practices and Procedures – July 2017* available on the Montréal Port Authority website.

70 **Île à la Pierre** *(46°05'N, 73°01'W)* is a low and narrow island, 2.5 miles long, lying on the NW side of the main shipping channel. Four disused light **structures** are located on the SE shore of the island. **Île de Grâce**, an island 5 m in elevation, is located close west of Île à la Pierre. **Île des Barques**, about 1.5 miles in length, is a low-lying island situated SE of the shipping channel, across Île à la Pierre. **Île du Moine**, which is connected to Île des Barques by a stone weir, lies between Île des Barques and the mainland to the south.

71 The municipality of **Sainte-Anne-de-Sorel**, with a population of 2,796, is located on the south shore of the St. Lawrence River about 1.5 miles WSW of Île du Moine; there is a conspicuous church spire in the municipality. There is a public **wharf** with a depth of 2.1 m. There is also a small craft basin protected by two piers; a **ramp** is located within the basin.

72 The south shore of **Île Saint-Ignace** is approximately 8 m in elevation. The municipality of **Saint-Ignace-de-Loyola**, with a population of 1,883, is located on the south shore of the island, across from Saint-Joseph-de-Sorel. There is a public **wharf** 55 m long with a depth of 4.3 m alongside its outer end; the wharf is fitted with a radar reflector. The downstream side of this wharf is used exclusively by the **ferry** that offers frequent service between Saint-Ignace-de-Loyola and Sorel-Tracy; its track is shown on the chart. On the opposite shore of the St. Lawrence River the ferry docks in the east corner of Bassin Lanctôt; there is a radar reflector at the entrance of Bassin Lanctôt. There is a marine terminal on either side of the St. Lawrence River.

73 **Île aux Foins**, a low island 1 mile in length, is situated on the west side of the main shipping channel 2 miles west of the mouth of Rivière Richelieu.

74 Île des Barques **leading lights** *(2168, 2169)*, in line bearing 218½°, mark **Route de l'Île-des-Barques** (Course Île-des-Barques). The front light is situated on the NE side of Île des Barques *(46°05'N, 73°00'W)* and has a fluorescent-orange daymark with a black stripe. The rear light, with a fluorescent-orange daymark with a black stripe, is shown from a white tower on Île des Barques. The leading lights are visible only when in alignment.

75 Sainte-Anne-de-Sorel **leading lights** *(2177, 2178)*, in line bearing 232°, mark **Route de Sainte-Anne-de-Sorel** (Course Sainte-Anne-de-Sorel). The front light is located about 0.5 mile east of the public wharf *(46°04'N, 73°03'W)*. The rear light is located south of the church. The lights are visible in line of range. A second **light**, fitted on the front light structure, is visible from all points of marine approach. The lights have fluorescent-orange daymarks with black stripes.

76 Île du Moine **leading lights** *(2180, 2181)*, in line bearing 082½°, mark **Route de l'Île-du-Moine** (Course Île-du-Moine). The front light is located on the west end of the island *(46°04'N, 73°01'W)*. The lights are visible only when in alignment. They have fluorescent-red daymarks with black stripes.

77 Île de Grâce **leading lights** *(2175, 2176)*, in line bearing 073½°, mark **Route de l'Île-de-Grâce** (Course Île-de-Grâce) and are located on the south side of the island. The lights are visible in line of range and have fluorescent-orange daymarks with black stripes. Both the front and rear light structures have a second **light** visible, respectively, from 311° to 346° and from 275° to 018°.

78 Course de l'Île Dupas **leading lights**, in line bearing 015°, mark **Route de l'Île-Dupas** (Course Île-Dupas). The front light *(2274)* is situated on the east shore of Île aux Cochons *(46°03'N, 73°09'W)*. The rear light *(2275)* is near the south end of Île Dupas. The lights are visible only when in alignment. They have fluorescent-orange daymarks with black stripes.

79 **Conspicuous objects**. — ● The two spires of Sorel church, 52 m in elevation. ● The silos and grain elevators at wharf No. 1. ● The plant of *QIT-Fer et Titane* at Saint-Joseph-de-Sorel. ● The two water towers located in Tracy.

80 **Tidal and current information**. — The tidal influence in Sorel-Tracy is not noticeable. The river current in the main shipping channel between Île des Barques and Île à la Pierre can reach 2.8 knots. Elsewhere in the Port of Sorel, the average rate of the current is between 1.1 and 1.6 knots.

81 Numerous **anchorages** are found along the St. Lawrence main channel, near the mouth of Rivière Richelieu. These anchorages are charted.

82 There is a **prohibited anchorage area** adjacent to the wharves at Sorel-Tracy and directly at the mouth of Rivière Richelieu; the limits are shown on the chart.

83 A **submarine cable** crosses the St. Lawrence River between Île Saint-Ignace and Île de Grâce.

Rivière Richelieu

Chart 1312

84 Four **submarine cables** and two pipelines cross **Rivière Richelieu** from its mouth to close upstream of Highway 30 fixed **bridge**. Two pipelines extend into the river on the east shore of Rivière Richelieu about 0.3 mile upstream of the sectioned railway bridge. Vessels are cautioned not to anchor in the vicinity of these obstructions; consult the chart for their position.

85 An **overhead** power **cable**, with a vertical clearance of 40 m, spans Rivière Richelieu close north of the sectioned railway bridge.

86 A water intake pipe and an outfall pipe extend into the St. Lawrence River on the south shore, close upstream of the *QIT-Fer et Titane* company wharf.

87 **Bridges**. — **Pont** Turcotte, a highway bascule **bridge** with a vertical clearance of 16 m in a closed position, spans Rivière Richelieu about 0.4 mile from its mouth. The bridge can be opened under exceptional circumstances at the user's expense. The bridge operator can be contacted during regular office hours at 450 780-3866.

88 A disused, sectioned railway **bridge** is located 0.2 mile upstream of Pont Turcotte. The ruins of a **crib** that uncovers lie near the middle of Rivière Richelieu close downstream of the railway bridge; the porthand **light buoy** *CNR PRIV (2190)* marks the channel to use, which is the one situated west and the one that clears this danger. Two other submerged **cribs** are situated downstream of the bridge near the west bank. A large raised **abutment** remains in the middle of the removed section of the bridge, permitting a passage width of 31 m on either side.

89 The Highway 30 fixed **bridge**, with a vertical clearance of 22 m, spans Rivière Richelieu about 0.8 mile upstream of the sectioned railway bridge. Vessels proceeding upstream are to use the NWchannel between the abutments, while vessels proceeding downstream are to use the SE channel. *The section of Rivière Richelieu farther upstream is described in chapter 3.*

PORT OF SOREL — BERTHS 5 TO 14 (2007)

90 **Berthage**. — Table 2.2 gives the details concerning berths; the chart shows their position.

91 **Obstructions**. — ● An outfall pipe, extending from the shore, is located about 50 m east of Wharf No. 2. ● A mooring arrangement is about 100 m east of the inner end of Wharf No. 2. The anchor is attached to a mooring line that runs parallel to the shore extending to the west. The other end of the mooring line is attached to the wharf.

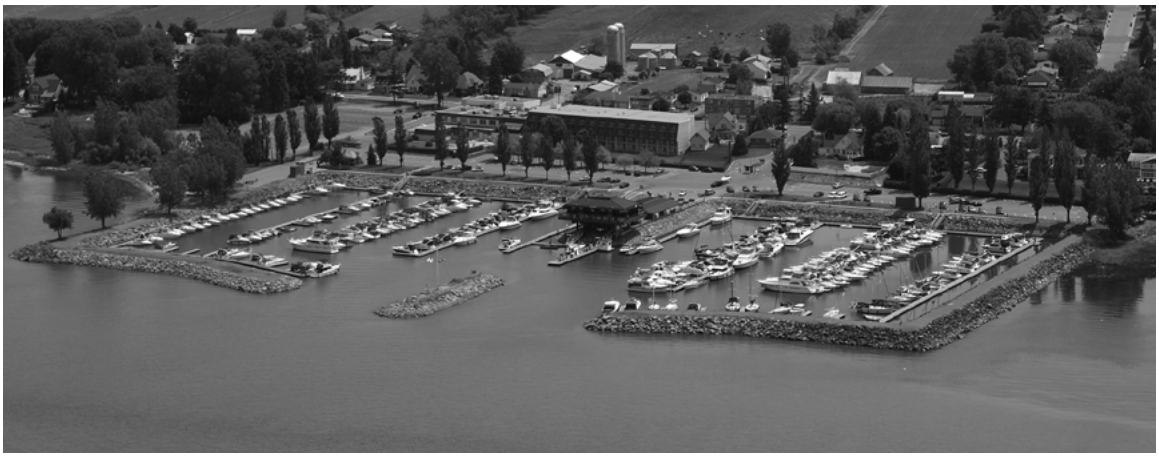
92 Two **marinas** are situated on the south shore of the St. Lawrence River: *Parc nautique fédéral*, situated 0.5 mile east of the mouth of Rivière Richelieu and *Parc nautique de Sorel*, situated 0.5 mile farther to the east. Both marinas are managed by *Marina de Saurel Inc*. A channel marked with **leading lights** and **buoys** lead to the two marinas, thus avoiding the hazardous **shoal** areas close off and across from the two marinas; mariners are to closely consult the chart for further details.

Table 2.2 Port of Sorel Wharves

Berth	Length	Depth *	Remarks
	metres	metres	
Wharf No. 1			
11, 12, 13	352	3.1 to 7.2	Private (Richardson International); grain elevator storage capacity: 146,000 t
14	191	8.3	Unloading grain: 2,000 t/h
15	236	11.0	Loading grain: 3,920 t/h
Wharf No. 2			
5	183	7.9	Storage area: 69,675 m^2
6	107	4.9	General cargo
7	168	5.8	Société des traversiers du Québec – south side
Bassin Lanctôt			
8, 9, 10	389	3.1 to 6.8	Canadian Coast Guard
Rivière Richelieu			
16, 17	320	4.3 to 6	Private (Gestion Marc-André Lafrance)
18	163	3.9	Private (Goltec Industriel Marine)
19 N	158	11.5	Private (Services de quai Fagen)
19 S	158	5.0 to 11.5	Private (Services de quai Fagen)
Saint-Joseph-de-Sorel			
20 E	244(1)	10.7	(1) Length of dredged area. Rio Tinto Fer et Titane.
20 W, 21	335	9.1	QIT-Fer et Titane

* Depths are referred to chart datum.

PARC NAUTIQUE DE SOREL (2007)



93 An **outfall pipe** extends from the shore, east of *Parc nautique de Sorel*.

94 Upstream *Marina de Sorel* private **leading lights** *(2183.3, 2183.4)*, in line bearing 229°, mark the downstream entrance of the channel that leads to the two marinas. The front light is situated on the islet at the entrance of the marina basin. The rear light is on the west breakwater of the basin.

95 Downstream *Marina de Sorel* private **leading lights** *(2182.2, 2182.3)*, in line bearing 095°, mark the upstream entrance of the channel that leads to the two marinas. The front light is situated on the islet at the entrance of the marina basin. The rear light is on the east breakwater of the basin.

96 *Parc Nautique de Sorel* is a small craft basin protected by two breakwaters encased with stone. The depths in the basin range between 1.4 and 2.2 m. The entrance is divided by an artificial islet where a flagstaff and two private front lights are shown. For further information on facilities see the Appendix.

97 *Parc Nautique Fédéral*: two breakwaters form a basin that protects small craft. The depths in the basin range between 1.1 and 1.9 m. There is a mast stepper for sailboats. For further information on facilities see the Appendix.

98 **Cargo handling arrangements**. — There are grain elevators with a total capacity of 160,000 tonnes located on Wharf No. 1. It is operated by *Richardson International*.

99 Wharf No. 2 has storage area of 69,675 m^2.

PARC NAUTIQUE FÉDÉRAL (2007)

PORT OF SOREL — BERTHS 20 AND 21 (2007)

100 *QIT-Fer et Titane*, a company which operates a smelting plant, uses Berths 20 and 21. Ore, scoria, coal and cast iron are mainly handled. Loading of scoria is carried out at a rate of 1,200 t/h and cast iron at a rate of 325 t/h. The unloading of ore and coal is carried out at a rate of 1,500 t/h and 700 t/h, respectively.

101 **Supplies**. — Fuel oil and diesel fuel are available by tanker or tank truck. Water is available at most berths by private tank truck or directly from intake pipes. The Harbour Master can provide any additional information. Supplies and groceries may be obtained from all berths.

102 **Port services**. — Tugs are available in the port.

103 The stevedores are in charge of tending the mooring lines for docking and slipping vessels. Linesmen are available to run the mooring lines.

104 Compass adjustment can be performed.

105 Rivière Richelieu, between the sectioned railway bridge and the river mouth, provides good wintering berths for vessels in lay-up.

106 *Goltec Insudtriel Marine* carries out general hull and engine repairs.

107 The slipway owned by *Alstom* is restricted to the company's practices; the company no longer deals with other marine related activities.

108 **Transportation**. — Sorel-Tracy is connected to Montréal and other significant industrial centres through rail and highway systems.

Small Craft Channels — Between Lac Saint-Pierre and Sorel-Tracy

Charts 1312, 1311

109 **Obstructions**. — ● Small craft operators are cautioned that five of the channels leading between the islands downstream of Tracy (**Archipel du Lac Saint-Pierre**) are obstructed by stone weirs. The stone weirs were constructed to control the flow of water into Lac Saint-Pierre as well as the upstream water level. Cautionary **buoys** are moored in the vicinity of the stone weirs that are generally submerged and not visible from the water surface. ● Additionally, a few **wrecks** are found in the area of **Le Grand Chenal**.

110 Three channels, free of stone weirs, provide passage from the main shipping channel. These channels are: Chenal du Nord, Chenal aux Corbeaux and Chenal du Moine. The **current** in these channels is not as strong as the main shipping channel. These channels, in Archipel du Lac Saint-Pierre, give access to many exceptional bays and sites well suited for pleasure craft activities. Moreover, the whole of Archipel du Lac Saint-Pierre is, since November 2000, designated a *World Biosphere Reserve* under the stewardship of UNESCO.

111 **Chenal du Nord** runs in front of Berthierville and joins Chenal aux Castors NE of Île aux Vaches, before reaching Lac Saint-Pierre 6 miles further downstream. The channel is not buoyed except at its upper entrance near Île aux Foins.

ARCHIPEL DU LAC SAINT-PIERRE (2007)

112 The town of **Berthierville**, with a population of 3952, is situated on the west shore of Chenal du Nord. A public **wharf** with a **ramp**, adjacent to a municipal park, is situated 0.6 mile upstream of the fixed **bridge**, which has a vertical clearance of 5.6 m. The low section of the wharf's outer end may be submerged during runoff periods. This fixed bridge is supported by several closely spaced bridge piers.

113 There are five **marinas** on the west bank along Chenal du Nord. Two marinas are located downstream of the Berthierville fixed **bridge**: *Marina de l'Auberge-le-Nid-d'Aigle*, about 0.9 mile upstream of **Rivière Maskinongé** *(46°10'N, 73°01'W)*; and *Marina Chenal du Nord*, 2 miles upstream of Rivière Maskinongé. Three marinas are located upstream of the Berthierville fixed **bridge**: *Port de Plaisance de Berthierville*, 0.2 mile upstream of the bridge;

CHANNELS OBSTRUCTED BY STONE WEIRS (2007)

Club nautique de Berthier opposite the south point of **Île du Mitan**; and *Marina Émerillon*, opposite Île aux Foins. For further information on facilities see the Appendix.

114 A **cable ferry** runs between Île Madame and the middle section of Île Ducharme. Another **cable ferry** runs between Île Madame and the SW part of Île aux Ours. A **marina** *(Pourvoirie du Lac Saint-Pierre)* is located on the west bank of **Chenal aux Ours**. For further information on facilities see the Appendix.

114.1 Mariners proceeding into Chenal aux Ours must exercise caution when approaching the **obstruction** situated in mid-channel, 0.6 mile from the upstream entrance.

115 **Chenal aux Corbeaux** passes north of Île à la Pierre. Battures de Île à la Pierre extend for a distance of nearly 0.5 mile to the NE.

116 **Chenal du Moine** passes south of Île du Moine. It is reached by navigating through **Chenal des Raisins**. There are **buoys** marking the upstream entrance of Chenal du Moine and the downstream entrance of Chenal des Raisins. A **cable ferry** crossing Chenal du Moine is situated 0.6 mile from its upstream entrance. A **submarine cable** crosses Chenal du Moine 0.1 mile from **Île aux Fantômes**; another **submarine cable** crosses Chenal des Raisins opposite Île aux Raisins rear leading light. Mariners should not anchor in the vicinity of these cables. Several private floating docks extend along Chenal du Moine; fuel and provisions are available in some locations.

117 Two **marinas** are situated close to the upstream entrance of the channel: *Croisière des Îles de Sorel* and *La Halte des 103 îles*. For further information on facilities see the Appendix.

Sorel-Tracy to Montréal

Chart 1311

Main Shipping Channel

118 The downstream limit of the Port of Montreal is also the upstream limit of the Port of Sorel. This limit, shown as a pecked line on the chart, crosses the St. Lawrence River south of Île aux Foins. From this limit to a position abeam of the residential district of Pointe-aux-Trembles *(45°38'N, 73°29'W)*, which is part of Ville de Montréal, the main shipping channel has a least depth of 11.3 m and a least width of 244 m for a distance of about 27 miles.

119 **Caution**. — No vessel carrying crude oil, gasoline, or other flammable cargo in bulk, with a flash point below 23°C, is allowed to anchor anywhere upstream of Lanoraie or proceed upstream of Lanoraie Anchorage without permission of the Harbour Master of the Port of Montreal or his representative.

120 **Lanoraie Anchorage**, between the upper limit of Port of Sorel and Lanoraie, provides good anchorage.

121 The average rate of the river **current** between Lanoraie and the upper limit of Port of Sorel is 1.5 knots.

122 An **Oil Terminal**, formed with three dolphins connected by catwalks, is located on the east shore of the river, 1.1 miles south of the harbour limit. The berth alongside the facility is 100 m long with depths of 10.7 m.

123 **Caution**. — Maximum vessel size for berthing alongside the facility is 260 m long and 85,000 TDW. Vessels with more than 38,000 TDW must be assisted by tugs when berthing alongside the facility.

124 **Overhead** power **cables**, with a vertical clearance of 52 m or *44 m under severe ice conditions, span the St. Lawrence River near the thermal generating station.

125 **Conspicuous objects**. — ● The generating station's **towers** supporting the **overhead** power **cables** are marked by red lights and white strobe lights.

126 A *MCTS* **calling-in-point** is situated 1.1 miles downstream of the *Hydro-Québec* thermal generating station.

127 Lavaltrie **leading lights** *(2292, 2293)*, in line bearing 208½°, mark **Route de Lavaltrie** (Course Lavaltrie). The front light is shown from a pillar located on the east shore of Île Hervieux *(45°53'N, 73°16'W)*. The rear light is shown from a tower based on a pillar; it is fitted with a **racon** (— •). The lights have fluorescent-orange daymarks with black stripes.

128 Course de l'Île Saint-Ours lower **leading lights** *(2278.5, 2278.6)*, in line bearing 002½°, mark **Route de l'Île-Saint-Ours** (Course Île-Saint-Ours). The front light is located close NE of Lanoraie *(45°58'N, 73°13'W)*. The rear light is shown from a tower. The lights are visible only when in alignment and have fluorescent-orange daymarks with black stripes.

129 Route de l'Île Saint-Ours **leading lights** *(2282, 2283)*, in line bearing 182½°, is the reciprocal course of the previous leading lights. The front light is located near the east shore of the river, opposite Île de Saint-Chef. The lights are visible only when in alignment. The rear light has a second **light** *(2283.1)* which is visible from 066½° through east to 112½°. The lights have fluorescent-orange daymarks with black stripes.

130 **Courbe Bellmouth light** *(2286)* indicates a sharp bend in the channel. The light is located close south of Course de Contrecœur front leading light *(45°55'N, 73°13'W)*. The light is visible on a line bearing 025° with Course de Contrecœur rear leading light *(2291)*.

131 Petite Traverse **leading lights** *(2288, 2289)*, in line bearing 045½°, mark **Petite Traverse de Contrecœur**. The front light is situated on the east shore of the river, opposite the central part of Île Saint-Ours *(45°55'N, 73°13'W)*. The rear light is shown from a tower. The lights are visible in line of range. The lights have fluorescent-orange daymarks with black stripes. A second **light** is also shown from the front light structure, visible from 045½° through east to 164½°. A second **light**, visible from all points of marine approach, is shown from the rear light structure.

132 Île Saint-Ours south **light** *(2286.7)* is situated at the south end of the island and is fitted with a **racon** (— —).

133 Course de Contrecœur **leading lights** *(2290, 2291)*, in line bearing 033°, mark **Route de Contrecœur** (Course Contrecœur) and are situated on the east shore of the river, opposite the north end of Île Saint-Ours. The lights are visible only when in alignment and have fluorescent-orange daymarks with black stripes.

134 Traverse de Contrecœur **leading lights** *(2312, 2313)*, in line bearing 200°, mark **Traverse de Contrecœur**. The front light is situated on Contrecœur Terminal, which is upstream of the municipality of Contrecœur *(45°50'N, 73°17'W)*. The rear light is shown from the upstream side of the wharf. The lights have fluorescent-orange daymarks with black stripes.

135 **Île Saint-Ours**, extending 5.5 miles SSW to **Île au Dragon**, is situated 2 miles south of Lanoraie. Île Saint-Ours is the most northern island of a group of low islands known as **Îles de Contrecœur**. This group of islands is a *National Wildlife Area (Environment Canada)* and access Regulations apply. In May, Îles de Contrecœur are partly covered due to spring freshet and present a different appearance to that of the later summer months.

136 Further upstream, **Îles de Verchères** divide the St. Lawrence River into two channels: the secondary small craft channel to the west and the main shipping channel to the east. These islands are relatively low. **Île Bouchard**, the largest of these islands, is separated from **Île Marie** by a buoyed channel, **Chenal Saint-Pierre**.

137 **Speed Reduction**. — Except during the winter navigational season, during which speed limits are advertised by the *CCG*, a voluntary measure of speed reduction applies to the marine industry and its commercial vessels in certain areas sensitive to wave action from passing vessels. Therefore, upbound vessels must reduce their speed to a maximum of 10 knots over the ground in an area 8.3 miles in length starting from abeam the downstream part of Île Saint-Ours *(45°56'N, 73°13'W)* to abeam the downstream part of Île aux Boeufs *(45°49'N, 73°19'W)*; downbound vessels must reduce their speed to a maximum of 14 knots over the ground. This measure is designed to specifically minimize the wave action from passing vessels and to protect the banks; consult the *Annual Edition of Notices to Mariners*, page A12-1.

138 The municipality of **Contrecœur**, with a population of 5,331, is situated on the east shore of the river, about 2 miles SE of Lavaltrie. There is a public **wharf** encased with stone, with a landing pier and **ramps**. The lower section of the NW extremity may be submerged during runoff periods.

139 There are two **marinas** situated close downstream of the public wharf: *Parc nautique de Contrecœur* and *Port de plaisance de Contrecœur*. It is possible to access these marinas by approaching from the main shipping channel; from the downstream side of the marinas at **light buoy** *M19 (2284)*, follow buoyed **Chenal Sud**, passing between Îles de Contrecœur and the east shore of the St. Lawrence River. Access is also possible from the upstream side of the marinas at **light buoy** *M51 (2313.1)*; follow the narrow buoyed **Chenal Terrebonne**, passing north of Île aux Rats and south of Île Viau to reach Chenal Sud. For further information on facilities see the Appendix.

140 **Caution**. — Due to changing conditions, the **buoys** may be moved to mark the best small craft channel.

141 **Conspicuous objects**. — ● Countrecœur church spire. ● The cranes and dome-shaped silos are located at the Contrecœur Terminal.

Contrecœur Terminal (Port of Montreal)

142 Two wharves, located 2.5 miles upstream of Contrecœur, are accessible year-round and used mainly for the handling of dry bulk cargo. Approximately 2 million tonnes of general cargo is handled annually. Direct transfer of bulk cargo can be made from vessel to vessel, vessel to rail cars, vessel to trucks and vessel to dock storage area. The opposite operations can also be carried out. There are vast fields for open storage area.

143 Four dolphins, connected by catwalks, extend the downstream end of Wharf No. 1. The wharf is capable of handling vessels up to 244 m in length and 32 m in width. Cranes from Wharf No. 1 can be adapted to handle containerized and general cargo.

144 *Chemport* operates vessel and rail unloading facilities for receiving, storage and transfer of dry bulk cargo at the wharf. Several silos, dome-shaped and arranged in circles, are located near Traverse de Contrecœur rear leading light.

Table 2.3 Contrecoeur Terminal Wharves

Berth	Length	Depth *	Remarks
	metres	metres	
1	229	10.8	Two rail mounted cranes of 30 t
2	148	5.7	

* Depths are referred to chart datum.

PORT OF MONTREAL — CONTRECŒUR TERMINAL (2007)

145 **Supplies**. — Groceries may be delivered and water is available.

146 A *MCTS* **calling-in-point** is located abeam of the Contrecœur Terminal.

147 Two emergency **anchorage areas** are adjacent to and a short distance upstream of the Contrecoeur Terminal. See the chart for the limits and available depths.

148 **Speed Reduction**. — Except during the winter navigational season, during which speed limits are advertised by the *CCG*, a voluntary measure of speed reduction applies to the marine industry and its commercial vessels in certain areas sensitive to wave action from passing vessels. Therefore, upbound vessels must reduce their speed to a maximum of 10 knots over the ground in an area 3.3 miles in length starting from abeam the upstream part of Île aux Prunes *(45°47'N, 73°21'W)* to abeam Île Beauregard *(45°45'N, 73°24'W)*; downbound vessels must reduce their speed to a maximum of 14 knots over the ground. This measure is designed to specifically minimize the wave action from passing vessels and to protect the banks; consult the *Annual Edition of Notices to Mariners*, page A12-1.

149 The municipality of **Verchères**, with a population of 4,854, is situated on the SE shore of the river 4.5 miles upstream of the Contrecœur Terminal. There is a public **wharf** with an outer end of 28 m in length and 3.1 m high. A basin is formed by two piers 3.2 m high and there is a **ramp** and floating docks for small craft.

150 A seasonal **ferry** plies between Verchères and Île Bouchard; its track is shown on the chart.

151 **Caution**. — When vessels are passing in the main shipping channel, there is a strong surge in the Verchères basin entrance, alongside the public wharf outer end and the pier that extends from it. It would be hazardous to attempt any approach or to be docked at the outer end in those conditions. Within the basin, the water level may vary up to 1 m due to the surge.

152 **Conspicuous objects**. — ● Verchères church spire. ● The statue of Madeleine de Verchères located near Verchères wharf.

153 **Obstructions**. — ● An outfall pipe, situated 0.1 mile NE of Verchères wharf, has a crib and an unlighted private cautionary buoy at its extremity. ● A water intake pipe, situated about 0.2 mile SW of Verchères wharf, extends NW from the south shore for 115 m. Mariners should not anchor in the vicinity.

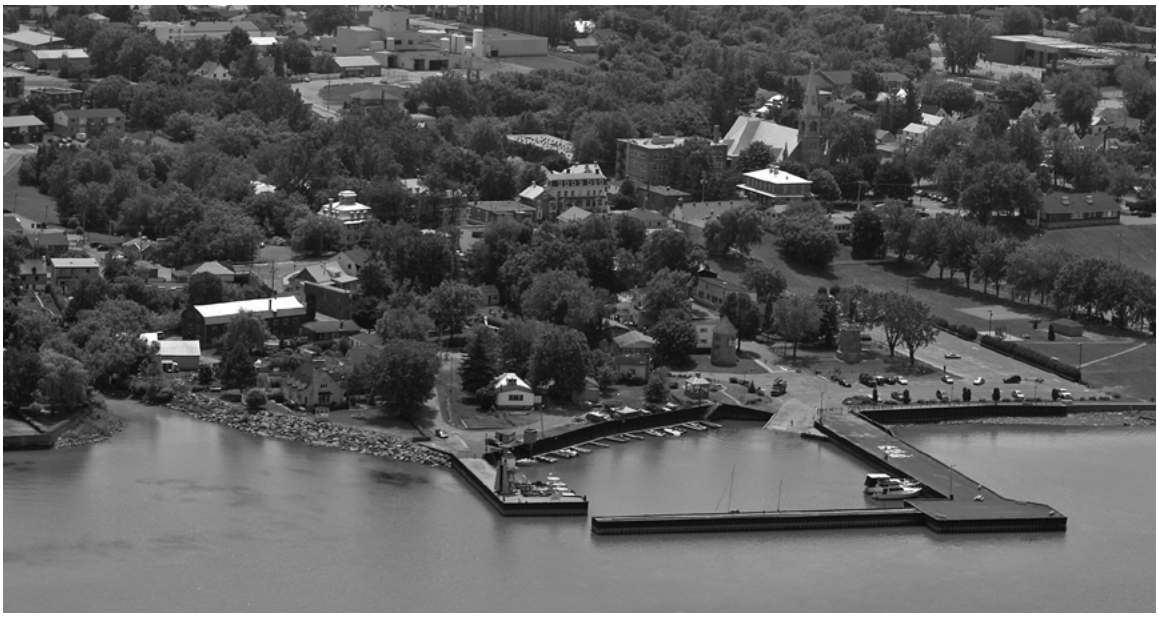
154 Between Verchères and Cap Saint-Michel the river **current** varies between 2 and 2.5 knots.

155 Contrecœur — Verchères **leading lights** *(2315, 2316)*, in line bearing 040½°, mark **Chenal de Verchères — Contrecœur**. The lights are shown from pillars situated on the drying **flats** in the river off Îles de Contrecœur *(45°52'N, 73°15'W)*. The lights are visible in line of range. They have fluorescent-orange daymarks with black stripes. The rear light structure is also fitted with a second **light** visible from all points of marine approach.

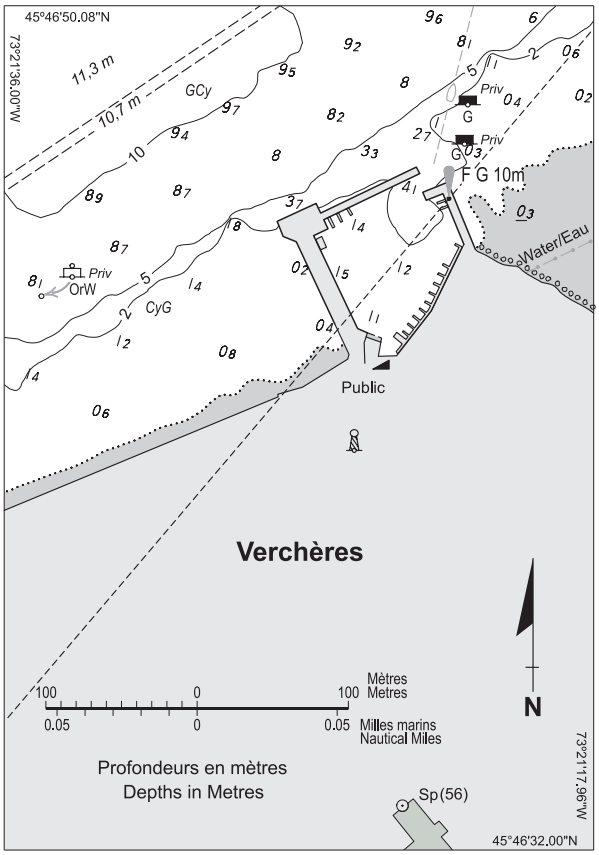
156 Verchères Village **leading lights** *(2319, 2320)*, in line bearing 220½°, are the reciprocal of Contrecœur — Verchères leading lights. The front light is on the NE end of the downstream pier of Verchères *(45°47'N, 73°21'W)*. The lights are visible only when in alignment. They have fluorescent-orange daymarks with black stripes.

157 Traverse de Verchères **leading lights** *(2317, 2318)*, in line bearing 056°, mark **Traverse de Verchères**. The front light is situated on the SE shore of the

VERCHÈRES (2007)



VERCHÈRES Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1990-99
SOURCES: Surveyed by CHS in 1990-99

river, 1.5 miles NE of Verchères *(45°48'N, 73°20'W)*. The lights are shown from masts with fluorescent-orange daymarks and black stripes; the lights are visible only when in alignment.

158 Île Bouchard **leading lights**, in line bearing 037½°, mark **Chenal du Cap-Saint-Michel — Verchères** and are situated on the SE side of Île Bouchard. The front light *(2326)* has a fluorescent-red daymark with a black stripe *(45°48'N, 73°21'W)*. The rear light *(2327)* is shown from a square skeleton tower having a fluorescent-red daymark with a black stripe. The lights are visible only when in alignment.

159 Île Deslauriers **leading lights** *(2330, 2331)*, in line bearing 217½°, are the reciprocal of Île Bouchard leading lights. The front light is on the east side of Île Deslauriers *(45°43'N, 73°26'W)*. The rear light is near the north end of Île Sainte-Thérèse. The lights are visible in line of range and they have fluorescent-orange daymarks with black stripes. A second **light** is shown on the rear light structure and is visible from all points of marine approach.

160 **Cap Saint-Michel** is situated on the SE shore of the river 5 miles SW of Verchères. **Île Deslauriers** lies about 0.2 mile west of Cap Saint-Michel; the main shipping channel, in line bearing 201½°, runs between the two features. Several industrial plants are located in the vicinity of the cape.

161 **Speed Reduction**. — Except during the winter navigational season, during which speed limits are advertised by the *CCG*, a voluntary measure of speed reduction applies to the marine industry and its commercial vessels in certain areas sensitive to wave action from passing vessels. Therefore, upbound vessels must reduce their speed to a

maximum of 10 knots over the ground in an area 5.5 miles in length starting 0.4 mile downstream of Cap Saint-Michel *(45°43'N, 73°26'W)* to abeam the downstream part of Île Dufault *(45°38'N, 73°29'W)*; downbound vessels must reduce their speed to a maximum of 14 knots over the ground. This measure is designed to specifically minimize the wave action from passing vessels and to protect the banks; consult the *Annual Edition of Notices to Mariners*, page A12-1.

162 **Conspicuous objects**. — ● Chimney and water tower situated near Cap Saint-Michel. ● Flame towers, chimneys and the water tower situated about 1.2 miles SSE of Cap Saint-Michel. ● The two spires of Varennes church.

163 Several **water intake pipes** extend into the river off Cap Saint-Michel. The extremities of these pipes lie close east of the main shipping channel. Mariners should not anchor in the vicinity of these pipelines.


165 A *MCTS* **calling-in-point** is situated close NE of Cap Saint-Michel.

Chart 1310


166 The town of **Varennes**, with a population of 18,842, is situated on the east shore of the river 2 miles south of Cap Saint-Michel. There is a public **wharf** with an outer end 25 m in length with a depth of 1.8 m alongside; there is a **ramp**. The lower section of the wharf may be submerged during runoff periods.


167 **Overhead** power **cables**, with a vertical clearance of 50 m or *31 m under severe icing conditions (see the *Vertical clearances* diagram in the Appendices) over the main shipping channel, span the St. Lawrence River between Île de Montréal and the east shore. The cables are supported by **towers** located on **Île au Veau** and Îles de Varennes.

168 The main shipping channel passes between Varennes and **Île Sainte-Thérèse**, the largest of the group extending to the west of the main channel. **La Grande Île**, which forms part of the group of islands **Îles de Varennes**, borders the main shipping channel to the east and lies SE of Île Sainte-Thérèse. **Île aux Vaches**, 0.7 mile long, lies west of the channel opposite La Grande Île.


169 In the main shipping channel, between Île Sainte-Thérèse and Varennes, the river **current** runs in line with the channel at a rate of 2.5 knots.


170 Île Sainte-Thérèse Lower **leading lights** *(2335, 2336)*, in line bearing 213°, mark **Chenal de Varennes** and are situated on the east side of Île Sainte-Thérèse. The lights are shown from skeleton towers; the front light is visible from all points of marine approach. The lights have fluorescent-orange daymarks with black stripes.


171 Îles de Varennes **leading lights** *(2340, 2341)*, in line bearing 186°, mark **Traverse de Varennes** and are situated on the north part of La Grande Île *(45°40'N, 73°27'W)*. The lights are shown from masts and are visible only when in alignment. They have fluorescent-orange daymarks with black stripes.


172 Varennes (Traverse de l'Île aux Vaches) **leading lights** *(2344, 2345)*, in line bearing 032½°, mark **Traverse de l'Île-aux-Vaches**. The front light is shown from a mast *(45°41'N, 73°27'W)*. The lights have fluorescent-orange daymarks with black stripes. A second **light** is also shown from the rear light structure and is visible from all points of marine approach.


173 Île Sainte-Thérèse Upper **leading lights** *(2346, 2347)*, in line bearing 025°, mark **Chenal de Pointe-aux-Trembles**. The front light, shown from a white circular tower with a fluorescent-orange daymark, is situated on the NE side of Île aux Vaches *(45°40'N, 73°28'W)*. The rear light shown from a tower on a concrete base is situated on the SE side of Île Sainte-Thérèse; it has a fluorescent-orange daymark with a black stripe. The lights are visible when in alignment. A second **light** is also shown from each tower *(2346.1 and 2347.1)* and is visible from all points of marine approach.

Secondary Small Craft Channel Lanoraie to Montréal

Chart 1311

174 **Lanoraie to Repentigny**. — A secondary small craft channel commences at the **light buoy** *ISO (2280)*, 0.8 mile south of Lanoraie wharf, and joins the main shipping channel abeam of the lower end of Île Sainte-Thérèse through **Chenal des Plaisanciers**. This winding channel is 18.5 miles long and is marked with buoys.


175 The river **current** varies from 1 to 1.5 knots and runs in line with the channel except in the vicinity of Saint-Sulpice and Île Saint-Laurent *(45°43'N, 73°27'W)*.



176 There are two **prohibited anchorage areas** along the secondary small craft channel: one is situated 1 mile upstream of **buoy** *ISO (2280)* and the other near the NE end of Île Bouchard; see the chart. There are yellow **buoys** moored in these areas which marked the position of ice booms during the winter. In early spring an opening in the ice booms, marked by red and green **lights**, allows passage through the channel. Later in the season, the ice booms and lights are removed and only the yellow buoys remain. Notification of their deployment date in the fall and their removal in the spring is made through *Notices to Shipping* and *Notices to Mariners*.

177 There are several **submarine cables** crossing the small craft channels at various locations in the St. Lawrence River; the positions of these cables are shown on the chart. Mariners are cautioned not to anchor in the vicinity of the cables.

178 The municipality of **Lanoraie** is situated on the NW shore of the river 3.7 miles upstream of the Port of Sorel limit. A church spire is in the municipality. There is a public **wharf**; the upstream side and the outer end of the wharf are encased with stone; on the downstream side, the lower section of the wharf may be submerged during runoff periods. A **ramp** is located on the downstream side.

179 The municipality of **Lavaltrie**, with a population of 5,821, is situated on the NW shore of the river 5 miles upstream of Lanoraie. There is a church with two spires. There is a public **wharf**; its usable outer end is 15 m long and the upstream side is encased with stone; there are two **ramps**. **Île Hervieux** is a narrow island that lies off the municipality.

180 A **marina** *(Marina Brousseau)* is located on the NW shore 1.4 miles upstream of Saint-Sulpice church. For further information on facilities see the Appendix.

181 The municipality of **Saint-Sulpice**, with a population of 3,307, is situated on the NW shore of the river 5 miles upstream of Lavaltrie; there is a church spire.

182 A public **wharf**, 29 m long, is situated near the Saint-Sulpice church; there are **ramps** nearby. A seasonal river shuttle service plies between the wharf and Île Ronde.

183 A **marina** *(Marina de la Rive-Nord)* is situated on the NW shore, NW of **Île Beauregard**; a buoyed (privately maintained) channel leads into the marina. For further information on facilities see the Appendix.

Chart 1310

184 **Repentigny to Varennes**. — From the town of Repentigny, the secondary small craft channel heads obliquely across the river to join the main shipping channel abeam of the north end of Île Sainte-Thérèse.

185 **Note**. — Vessels using the secondary small craft channel must cross the main shipping channel at **light buoy** *M129 (2337)*. These waterways allow navigation through Archipel d'Hochelaga, a group of 320 islands, islets and reefs.

186 A buoyed channel, SE of Île Lebel, follows the west bank of the river; the channel leads to either the mouth of Rivière des Prairies or to a second channel which runs in a north/south direction. This channel rejoins the main shipping channel south of Île au Veau. Another buoyed channel, running in a east/west direction, passes north of **Île à l'Aigle** *(45°42'N, 73°28'W)*.

187 **Caution**. — Owing to changing conditions the **buoys** may be moved to mark the best small craft channel.

Rivière des Prairies

Chart 1509

188 Rivière des Prairies can be navigated for a distance of 10.3 miles up to Pie-IX bridge, situated close downstream of Rivière-des-Prairies hydro-power dam. The channel is buoyed with unlighted buoys.

189 **Caution**. — The **rapids** area of Rivière des Prairies is shallow and may be dangerous. The route

ISLANDS AT THE MOUTH OF RIVIÈRE DES PRAIRIES (2007)

that leads between drying flats and **rocks awash** is narrow and windy; it is marked with unlighted **buoys** which may be moved with the strength of the current.

189.1 **Speed limit**. — In Rivière des Prairies, the maximum speed for small craft operators, at any time, is 5.4 knots (10 km/h) within 30 metres of the shore of the Island of Montréal. Outside the area referred above, the maximum speed between 9:00 pm and 7:00 am, in any body of water around the Island of Montréal, is 13.5 knots (25 km/h).

190 *For a description of the portion of Rivière des Prairies west of Rivière-des-Prairies dam, see the Sailing Directions booklet CEN 308 — Rideau Canal and Ottawa River*.

Carte 1310

191 There are two **marinas** in this area of the St. Lawrence River: *Marina de Repentigny* situated SW of Île Lebel and Marina *P.A.T.* situated at Montréal (Pointe-aux-Trembles), 0.7 mile SW of the overhead cables that span the river. For further information on facilities see the Appendix.

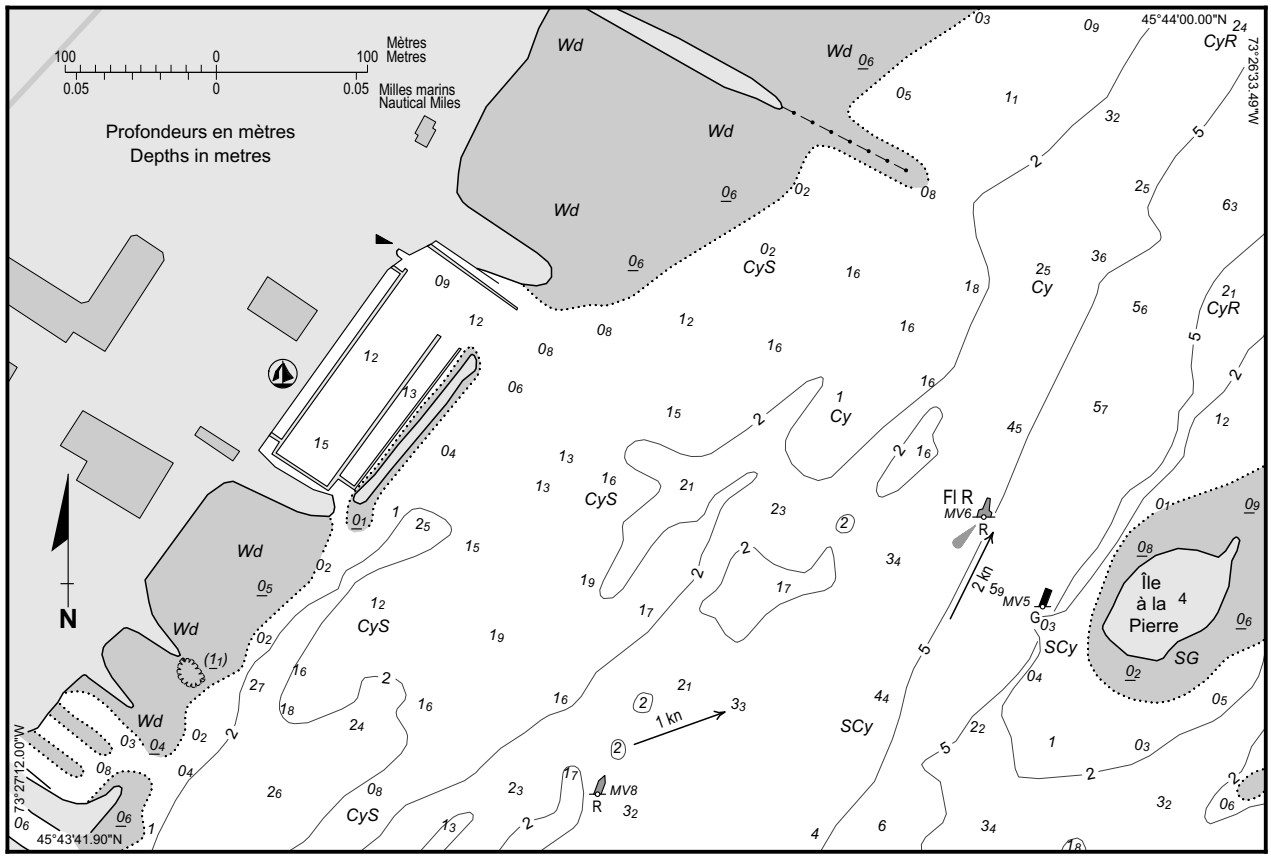
192 The **unlighted buoy** *VEAU*, situated under the overhead cables abeam of Île au Veau, marks the entrance to the channel that leads to *Marina P.A.T.* A **shallow** area covered with grass extends nearly 0.4 mile north of the island facing the marina. The passage south of the island is obstructed with **boulders**.

193 **Conspicuous object**. — ● Pointe-aux-Trembles church spire *(45°40'N, 73°29'W)*.

194 **Varennes to Montréal**. — From a position NE of the **light buoy** *M133 (2338)*, Chenal des Plaisanciers runs south and joins **Chenal du Sud**. Chenal du Sud, well marked with buoys, follows the east bank of the river passing east of Îles de Varennes and Îles de Boucherville, all of which are flat and barren; it joins the main shipping channel south of Île Charron.

194.1 **Speed limit**. — In Chenal du Sud, between the end of Île Grosbois and Canal Molson *(45°35'N, 73°28'W)*, power-driven vessels and vessels driven by electrical propulsion are subject to respect the speed limit of 5.4 knots (10 km/h) over the ground, between the privately maintained control **buoys** and the shore, as well as in La Passe, the channel known as Bras Nord — between Île Saint-Jean

REPENTIGNY Échelle 1:5 000 Scale



SOURCES: Levé par le SHC en 1989-91 SOURCES: Surveyed by CHS in 1989-91

and Île à Pinard — and La Grande Rivière, all of which in the vicinity of Îles de Boucherville.

195 The town of **Boucherville**, with a population of 34,989, is situated on the east shore of the river 4 miles south of Varennes. There are several private floating docks that extend from the shore along Chenal du Sud.

196 There are two **marinas** situated on the east shore: *Club Nautique de Mézy* and *Club nautique de Boucherville*, 1.3 miles upstream. For further information on facilities see the Appendix.

197 A landing pier is located on the SE end of **Île Grosbois** and is used by the river shuttle service that runs from the Boucherville wharf. This landing pier is part of *Parc de récréation des Îles-de-Boucherville* facilities and is run by the *Government of Quebec*.

198 Several private **ferries** run between the various islands of **Îles de Boucherville**.

198.1 La Grande Rivière and Bras Nord, both channels passing through Îles de Boucherville, are marked with private **buoys** during the navigation season.

198.2 A **footbridge** with a vertical clearance of 5.9 m crosses the eastern part of the channel La Grande Rivière, near its entrance, between **Île à Pinard** and **Île Sainte-Marguerite**. A shuttle service that plies between the two islands is close SW of the footbridge. A **submerged pipeline** crosses the channel about 100 m SW of the shuttle service.

199 There are no safe tie-up mechanisms for small craft to dock at the public **wharf** in Boucherville. Small craft can be launched on the upstream side of the wharf.

200 **Obstructions**. — ● **Submarine pipelines** cross the small craft channel between Boucherville and Île Grosbois and also abeam of Île Sainte-Marguerite; there are signs on the shore indicating their presence. ● There are submerged **outfall pipes** extending from the east shore, close to the north end of Îles de Varennes and also downstream and upstream of *Club nautique de Boucherville*. The positions of these obstructions are shown on the chart. ● An **overhead cable** with a vertical clearance of 27 m spans the small craft channel 1.7 miles upstream of the Boucherville public wharf. The **towers** supporting this overhead cable are marked with red lights. Mariners should not anchor in the vicinity of these submarine obstructions.

201 Close upstream from the above-mentioned cable, a fixed highway **bridge** with a vertical clearance of 10 m crosses the small craft channel between **Île Charron** and the east shore. Fixed red and green lights are shown from the bridge to indicate the channel limits.

202 A **ramp** is located on the SW end of Île Charron. A seasonal river shuttle service for pedestrians and cyclists plies between the landing piers and downtown Montréal. Landing piers are located at the following locations: south end of Île Charron; in Longueuil, on the east shore of the river and upstream of the above-mentioned bridge; and in Parc de la Promenade Bellerive, a municipal and regional park situated 0.6 mile downstream of Louis-Hippolyte-La Fontaine bridge tunnel.

Port of Montreal

Chart 1310

203 The **Port of Montreal** north limit coincides with the upstream limit of the Port of Sorel. The south limit of the port is marked by Pont Victoria, where it crosses the *St. Lawrence Seaway*, and on the St. Lawrence River by a line extending from a position close upstream of Pont Victoria as shown on *Chart 1429*.

204 The Port of Montreal is managed by the *Montreal Port Authority* which is located at *Port of Montreal Building*, 2100 Pierre-Dupuy Avenue, Wing 1, Montréal, Quebec, H3C 3R5, telephone: 514-283-7011.

205 The ice starts to form around mid-December and disappears around the end of March. The port remains open year-round but it is recommended that vessels navigating to Montréal be ice reinforced during this period.

206 The Port of Montreal handles about 25 million tonnes of cargo annually, comprised mainly of general cargo in containers, as well as grain, petroleum products, pulp and paper products, dry and liquid bulk cargo. The Port provides two petroleum product refineries. In addition, many cruise ships make Montréal their port of call.

207 **Montréal** is the most populated urban centre and the main economic area in the province of Quebec. The Quebec metropolis of Montréal is the city of one hundred church steeples and has a population of nearly 3.5 million. This cosmopolitan city is located on the SE side of Île de Montréal which makes up the west shore of the St. Lawrence River. The city hosts many Consulate Generals, trade delegations and international organizations. Founded in 1642, it is built on a series of natural terraces at the foot of and on the SE slopes of Mont Royal which is located 1.7 miles from the St. Lawrence River, rising to an elevation of 232 m. The city of **Longueuil**, with a population of 227,408, is the most populated city on the east shore of the St. Lawrence River.

208 The Port of Montreal is also the junction of the St. Lawrence main shipping channel and the *St. Lawrence Seaway*. On average, for 9 months of each year, vessels may proceed from Montréal to Duluth on the western extremity of Lake Superior; this is a distance of 1,167 miles through rivers, the Great Lakes, their locks and their connecting navigational channels. Small craft may proceed upbound as Canal de Lachine has re-opened. Therefore, the dangerous passage of *Rapides de Lachine* can be avoided. The area of the

St. Lawrence River called **Rapides de Lachine** — a stretch of about 1.6 miles in length — is shallow, dangerous, strewn with reefs and rocky ledges, and a strong current exists. For the description of *Canal de Lachine* and details of navigation on the canal, see the *Sailing Directions* booklet *CEN 301 — Montréal to Kingston*.

209 **Pilotage** is compulsory. Upbound vessels are boarded by pilots at Les Escoumins Pilot Station *(48°19'N, 69°25'W)* for the passage up to Montréal. Pilots are exchanged in Québec City and Trois-Rivières. The river pilots dock and undock vessels upon arrival and departure to/from downstream. However, any subsequent move within the Port of Montreal limits, that is between Île Sainte-Thérèse and Écluse Saint-Lambert (Saint-Lambert Lock) inclusively, will be performed by harbour pilots. They will also perform docking of vessels coming from the Saint-Lambert Lock.

210 For departure from the Port of Montreal, the ship's master shall give a first notice 12 hours before the estimated time of departure (ETD) and a final notice confirming or correcting the ETD at least 4 hours before the ETD. The master of a ship that is to make a move within the Port of Montreal shall give notice of such move 3 hours before the move. This information must be communicated to the Pilot Dispatch Centre either by telephone at 1-800-361-0747, by email at: pilote.mtl@apl.gc.ca, or to a *MCTS Centre*. For further information on pilotage, mariners should consult the *Annual Edition of Notices to Mariners*.

211 The pilot dispatch office is located at 555 Boul. René-Lévesque Ouest, Room 1501, Montréal, QC, H2Z 1B1; telephone: 514-496-2155 or 2156 or 2157.

212 Two *MCTS* **calling-in-points** are located within the port limits upstream of Pointe-aux-Trembles; refer to Table 2.1 at the beginning of this chapter and the chart for their position. Mariners should take note that position No. 27 is also a *St. Lawrence Seaway* traffic control calling-in-point for upbound vessels.

213 **Arrival Information**. — Montréal is a **customs** port of entry and a **quarantine station**. For details on *Quarantine Regulations* consult the *ATL 100 — General information* booklet. In accordance with the *International Health Regulations*, Deratting Certificates and Deratting Exemption Certificates can be issued in Montréal. The fumigation of vessels is within the jurisdiction of the *Department of Agriculture and Agri-Food*.

214 The *Canadian Food Inspection Agency* will inspect a vessel if the transported agricultural product requires an inspection. The inspection shall take place before loading and if an anti-parasite treatment is necessary, it will be done under the supervision of the Agency.

215 Government controls require the inspection of foreign vessels entering Canadian ports in order to verify if they comply with the provisions contained in the main international maritime conventions. This task is performed by *Transport Canada*. Canada ratified the *Paris memorandum of understanding* signed by 18 countries. Under this protocol, at least 25% of foreign vessels entering Canadian ports must be inspected. Judicious targeting has made it possible to inspect only those vessels most likely not to conform to the standards.

216 Information concerning the marine traffic may be obtained by telephone; 1-900-565-0282 to reach the automated answering service, 1-900-565-9972 to reach an employee or 1-900-565-7123 to receive information by FAX. Some costs apply.

217 **Information about the *St. Lawrence Seaway***. — In the event of an incident occurring in the St. Lawrence Seaway (for example damage to a lock, shortage of pilots, etc.), the *MCTS Centre* prepares and maintains an order of transit roster for vessels proceeding into the *St. Lawrence Seaway*. Vessels shall establish their turn by calling *"Québec Traffic"* on VHF Channel 10 (156.5 MHz), and/or by phone at 418-648-7375. In this case, and in order to comply with the order of transit roster, the *MCTS Centre* will notify the pilotage office of pilot requirement. In order not to miss their turn, vessels, whether berthed or anchored, are required to maintain radio watch on the sector frequency they are in.

218 Vessels transiting the S*eaway* for the first time during the season shall be inspected by Canadian and American *St. Lawrence Seaway* agents, either during their stay at anchor off Pointe-aux-Trembles or at a berth designated by the Harbour Master. Their winches, fenders, mooring facilities and other equipment required by the regulations will be inspected. Foreign vessels transiting for the first time during the season shall also be inspected by the *Canadian Coast Guard* to verify the radio certificate necessary for the Great Lakes region.

219 Vessels intending to transit the *St. Lawrence Seaway* must be in possession of the *Seaway Handbook* which provides the necessary information such as the Seaway traffic control system. Pleasure craft using the *Seaway* shall obtain the publication *Pleasure Craft Guide*. These publications are available on the following website www.grandslacs-voiemaritime.com or on request from: The *St. Lawrence Seaway Management Corporation*, 202 Pitt, Cornwall, Ontario, K6J 3P7; telephone: 613-932-5170.

220 **Regulations**. — Vessels at berth or at anchor, manoeuvring or otherwise underway in the Port of Montreal, are subject to the *Port Authorities Operations Regulations* under the *Canada Marine Act*. A copy of these regulations may be obtained from the *Montreal Port Authority*.

221 No commercial vessel bound for the Port of Montreal, including Contrecœur and Tracy wharves, or anchoring within the Port of Montreal

limits, can proceed upstream of Lanoraie anchorage area without the permission of the Harbour Master's Office or one of its authorized representative. The master of a vessel or its agent is required to inform the Harbour Master's Office of his or her intentions 24 hours prior to entry into the Port of Montreal. The Harbour Master's Office can be reached any time at 514-283-7022. The Harbour Master has wide powers over vessels in the port and may order vessels to move, to use tugs, to berth or anchor in locations which he/she designates. Certain restrictions on berthage and anchorage are set forth.

222 Vessels are regulated with respect to cargo-handling operations including the equipment and lighting employed in these operations. These regulations also include instructions for signaling, action to be taken in the event of accidents, cargo or gear lost overboard and safety requirements.


223 The *Port Authorities Operations Regulations* require that no vessel shall move in a port at a speed that may endanger life or property.

224 Every vessel proceeding downstream in the St. Lawrence River main shipping channel shall have the right of way over any vessel entering or leaving the S*eaway*.

225 Two vessels cannot meet in Courant Sainte-Marie; the upbound vessel must stop and allow the downbound vessel to pass.

226 Every vessel about to leave its 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 successive blasts on its whistle or siren.


227 Mariners shall proceed with **caution** and at a safe speed before and in front of the berth 46 SE, berths 73 to 80, 94 to 110 and berth 115 (seasonal) as to minimize the interaction with the ship docked. See the document *Practices and Procedures – July 2017* available on the Montréal Port Authority website.

227.1 The speed limit over the bottom is 4 knots for any vessel or small craft navigating in Vickers' basin. The basin has a SW orientation from a line drawn between the north ends of Berths 57 N and 56 N.


228 The speed limit over the bottom for any vessel or small craft navigating upstream of a line drawn between the northern extremity of Berth 19 and Pointe du Havre *(45°30'N, 73°33'W)* is 8 knots.

228.1 **Speed limit**. — In the Port of Montreal, the maximum speed for small craft operators, at any time, is 5.4 knots (10 km/h) within 50 metres of the shore of the Island of Montréal. Outside the area referred above, the maximum speed between 9:00 pm and 7:00 am, in any water body around the Island of Montréal, is 13.5 knots (25 km/h).

229 **Main shipping channel in the Port of Montreal, south of Pointe-aux-Trembles**. — The main shipping channel in the Port of Montreal has a depth of 11.3 m over a width of 245 m up to the **light buoy** *M177*. Upstream of this buoy to the **light buoy** *ISH* the channel is dredged to a depth of 11 m. Upstream of this buoy to the Grand quai du Port de Montreal, the channel is dredged to a depth of 10.8 m, with a least width of 168 m under Pont Jacques-Cartier (bridge). The channel is well marked with buoys and leading lights.


230 Between **buoys** *M163* and *M173* there are restrictions in place for large commercial vessels. The meeting or passing of two **deep draught vessels**, requiring a depth of 10.7 m or more, is forbidden at any time in this stretch of the river. If such a meeting is about to take place, the downbound vessel will have priority.

230.1 There are many other **restrictions** that apply to the movement of vessels within the harbour. See the document *Practices and Procedures – July 2017* available on the Montréal Port Authority website.

231 **Caution**. — In the dredged area, maintained to a depth of 11.3 m, there is a shoal with a depth of 11.2 m located to the south of the Louis-Hippolyte-La Fontaine tunnel-bridge, mid-way between berths 73 and 74.

232 **Canal de la Rive Sud**, the downstream entrance of the *St. Lawrence Seaway*, has a least depth of 9 m and a maximum usable width of 61 m under Pont Jacques-Cartier. This channel branches off from the main shipping channel close NE of **Île Sainte-Hélène** *(45°32'N, 73°32'W)*.


233 **Caution**. — SE of a line joining port hand **light buoy** *M187 (2376)* and **light buoy** *ISH (2380)*, the maintained depth is only 9 m.

234 Tétreaultville **leading lights** *(2359, 2360)*, in line bearing 205°, are the reciprocal of Île Sainte-Thérèse Upper leading lights. The front light is shown from a white tower *(45°36'N, 73°31'W)* located on Île de Montréal downstream of Louis-Hippolyte-La Fontaine tunnel-bridge. The front and rear lights are visible only when in alignment and both have fluorescent-orange daymarks with black stripes.


235 Traverse de Longue-Pointe **leading lights** *(2361, 2362)*, in line bearing 170°, mark **Traverse de Longue-Pointe** and are located on the SE side of the river *(45°34'N, 73°30'W)* upstream of the Louis-Hippolyte-La Fontaine tunnel-bridge. The range lights are shown from white circular towers with fluorescent-orange daymarks with black stripes.


236 Course de Longue-Pointe **leading lights** *(2363, 2364)*, in line bearing 022½°, mark **Route de Maisonneuve — Longue-Pointe** (Course Maisonneuve Longue-Pointe). The lights are located on the drying **flats** SW of Îles de Boucherville *(45°36'N, 73°30'W)* close downstream of the Louis-Hippolyte-La Fontaine tunnel-bridge; they are shown from towers with fluorescent-orange daymarks with a black stripe.


237 The green **lights** *(2379.4* and *2379.3)* shown under Pont Jacques-Cartier fixed **bridge** indicate the centre line of the main shipping channel in an upstream and

DOWNSTREAM ENTRANCE OF THE ST. LAWRENCE SEAWAY (2007)

downstream direction *(45°31'N, 73°33'W)*. Fixed white lights, visible upstream and downstream, shown from the under side of the main span of the bridge define the limits of the channel under the bridge.

238 **Conspicuous objects**. — ● The **towers** marked by red lights supporting the **overhead** power **cables** crossing the main shipping channel between Longue-Pointe and Île Charron. ● The slanted mast of the Montréal Olympic Stadium *(45°33'N, 73°33'W)*. ● The church spire of Longueuil. ● A **tower** 87 m in elevation and marked by red lights, located on the north part of Île Sainte-Hélène.

239 At the downstream extremity of **Courbe de Longue-Pointe** the **current** sets to the north at approximately 2 knots.

240 **Courant Sainte-Marie** is the named passage between Île Sainte-Hélène and Île de Montréal, through which the maximum flow of the St. Lawrence River passes. The current in this section of the port is 4 to 6 knots.

241 **Anchorages**. — No vessel shall anchor within the Port of Montreal limits without first obtaining the permission of the Harbour Master. Anchorage berths will be allocated by the Harbour Master or his or her duly authorized representative through the *MCTS Centre*. No vessel, while under way, shall drag its anchor except in case of an emergency.

242 There are several other **anchorage areas** in addition to the previously mentioned at Lanoraie: ● At Pointe-aux-Trembles — 4 anchorage berths. ● At Montréal-Est — located opposite to Berths 94 to 98. ● **Longueuil Anchorage** — opposite to the grain elevator No. 4. These anchorage areas are shown on the chart.

243 There is a **prohibited anchorage area** due to submarine pipelines located upstream of Pointe-aux-Trembles. The position of this area is shown on the chart.

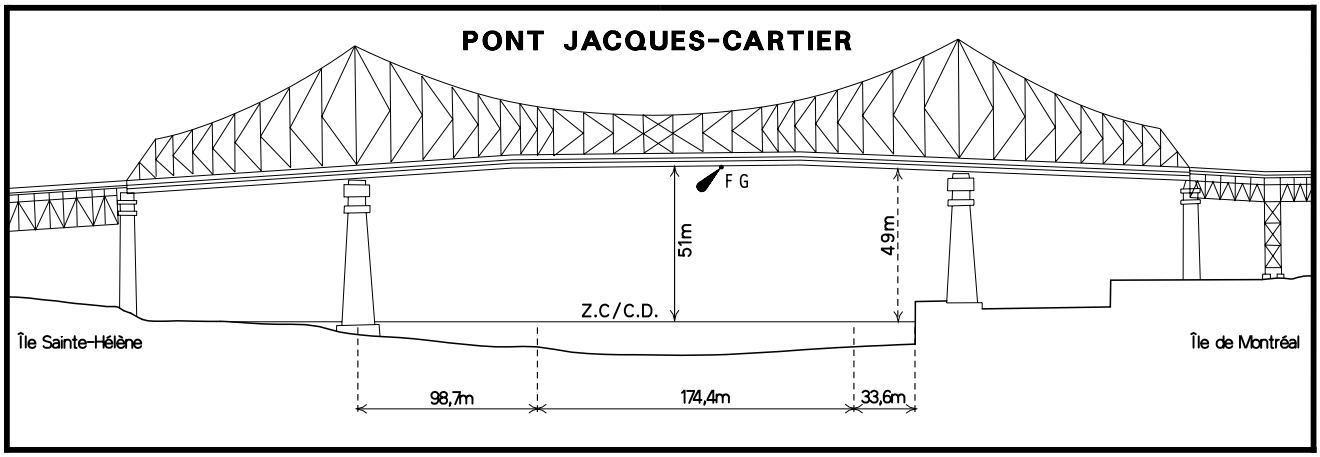
244 No vessel shall anchor in an area extending 61 m on each side of the centre line of the Louis-Hippolyte-La Fontaine tunnel-bridge due to the possibility of causing damage.

245 Many **submarine cables** extend across the St. Lawrence River and the various channels. Mariners should not anchor in the vicinity of these cables. In addition, several **outfall and intake pipes** extend from both shores. Refer to the chart for their position.

246 A **seaplane landing area** is located SSW of **Haut-fond Longueuil,** outside of the main shipping channel.

247 An **overhead** power **cable** with a vertical clearance of 52 m (see the *Vertical clearances* diagram in the Appendices) spans the main shipping channel between Longue-Pointe and Île Charron. Other **overhead** power **cables**, with vertical clearances of 64 m over Canal de la Rive Sud, span close downstream of Pont Victoria.

248 **Bridges and tunnel**. — **Louis-Hippolyte-La Fontaine tunnel-bridge** allows the Trans-Canada Highway to cross the river by means of a tunnel which passes under the main shipping channel. A system of piers protects the east end of this tunnel which is on Île Charron.



249 **Pont Jacques-Cartier**, a fixed highway bridge, crosses the river abeam of Île Sainte-Hélène. It has a vertical clearance of 49 m over the 9.1 m dredged section alongside the wharves and 51 m over the main shipping channel. This same bridge has a vertical clearance of 43 m over Canal de la Rive Sud.

250 **Pont de la Concorde**, a fixed highway bridge, joins the downstream end of the residential sector of Cité-du-Havre to Île Sainte-Hélène and extends to Île Notre-Dame by means of **Pont des îles** fixed highway bridge. The Cité-du-Havre (formerly Mackay Pier), built to protect the harbour piers and wharves upstream of Montréal, extends 1.2 miles north of the SW end of Pont Victoria. Several fixed bridges cross Chenal Le Moyne, east of Île Sainte-Hélène. The bridges in this shallow channel have a vertical clearance of 8.3 m.

251 **Pont Victoria**, a combined highway and railway bridge, spans the St. Lawrence River from Montréal to the city of Saint-Lambert. The main span crosses at the downstream end of Saint-Lambert Lock, and a diversionary road and rail bridge span the upstream end of the lock. Both bridges have vertical lift sections with a vertical clearance of 37 m.

252 **Berthage and handling of merchandise**. — The details of the main berths and port facilities in the Port of Montreal upstream of Pointe-aux-Trembles are given in Table 2.4. The positions of the berths are shown on the charts. Any entry or handling of explosives in the Port of Montreal must be authorized by the Harbour Master or the authorized

PONT JACQUES-CARTIER (2007)

Table 2.4 Port of Montreal — Wharves

Berth	Length	Depth †	Height † †	Remarks
	metres	metres	metres	
Cité-du-Havre				*Not used for cargo handling*
M-1	91	7.0	3	Open area: 3,982 m^2; ro-ro ramp
M-2	157	7.0	3	
M-3	157	7.0	3	
M-4	157	7.0	3	
M-5	157	7.0	3	
M-6	218	4.6	3	Port of Montreal fleet; floating crane VMS Hercule (250 t)
Bickerdike Pier				
B-1	183	7.0 – 8.8	7.7	Shed area: 5,828 m^2
B-2	187	8.8	7.7	Shed area: 5,828 m^2
B-3	198	8.8	7.7	Total open area for B3, 12N, B4 and B5: 44,683 m^2
12 N	152	8.8	7.5	There is a depth of 10.7 m if fenders of 4.6 m are used which are available upon request from port authorities.
B-4	200	8.8	7.3	
B-5	187	8.8	7.3	
B-6	199	8.8	7.4	Shed area: 7,050 m^2; open area: 9,363 m^2
Bickerdike Terminal (Empire Stevedoring)				*Container Terminal: 9.6 ha*
B-7	174	8.8	7.4	30-tonne gantry crane
B-8	183	8.8	7.4	35-tonne gantry crane; ro-ro ramp
Pointe-du-Moulin-à-Vent Basin				
5 W	142	8.2	7.7	Berthage prohibited
6 W	152	8.2	7.7	Berthage prohibited
7 W	164	8.2	7.7	Berthage prohibited
9 W	183	8.2	7.7	Berthage prohibited
10 W	190	8.2	7.7	Berthage prohibited
Le Vieux-Port of Montréal (Canal de Lachine)				
11 NE	91	3.5	—	Berthage prohibited
11 NW	41	3.5	—	Berthage prohibited
12	285	8.8	8.6	Berthage authorization required
Le Vieux-Port de Montréal (Grand quai du Port de Montréal)				*Iberville Passenger Terminal*
3 and 5 (south side)	360	10.2	8.7	Shed area: 7,316 m^2
4 and 6 (north side)	372	9.7	8.7	Shed area: 7,342 m^2
14 E (outer end)	107	8.2	8.7	
Le Vieux-Port of Montréal (Jetty No. 1)				
15 S	203	9.7	8.7	Berthage authorization required
15 N	203	9.7	8.7	Berthage authorization required
Le Vieux-Port of Montréal (King-Edward Wharf)				
7 and 9	387	9.7	8.6	Berthage authorization required
8 and 10	389	9.7	8.6	Berthage authorization required
16 E (outer end)	107	8.2	8.6	Berthage authorization required
Le Vieux-Port of Montréal				
16 W	178	8.8	8.4	Port d'Escale du Vieux-Port de Montréal (marina)
Le Vieux-Port of Montréal (Jacques-Cartier Wharf)				
16	345	9.7	8.7	Port d'Escale du Vieux-Port de Montréal (marina)
17	190	8.2	8.7	Berthage authorization required
18 and 19	421	8.2	8.7	Berthage authorization required
Le Vieux-Port of Montréal (Bassin de l'Horloge)				
20	100	* 6.7	—	
21	165	* 6.7	—	Port of Montreal Tour Boats
22	136	* 7.5	3.9	
23	209	* 7.5	3.8	

† Depths are referred to chart datum. * Depth not maintained by regular dredging.
† † Height above chart datum

Table 2.4 Port of Montreal — Wharves (cont'd)

Berth	Length	Depth †	Height † †	Remarks
	metres	metres	metres	
Sections 25 to 37				
25	296	9.1	8.7	Open area: 6,750 m^2
27	252	9.1	8.6	
28	245	9.1	8.4	Open area: 7,053 m^2
29	252	9.1	8.2	Open area: 13,732 m^2
30	172	9.1	—	Docking prohibited
31	154	6.0	7.4	Docking prohibited
32	153	9.1	7.6	Pipeline for molasses
33	152	9.1	7.9	
34	143	9.1	8.2	Total open area for 34 and 35: 18,769 m^2
35	169	9.1	8.2	
36	161	9.1	8.2	Open area: 8,012 m^2
37	164	9.1	7.9	Open area: 7,544 m^2
Laurier Terminal				
39	183	9.4	7.7	Shed area: 5,263 m^2; open area: 8,785 m^2
40	186	9.4 – 10.8	7.7	Shed area: 5,246 m^2; open area: 9,135 m^2; pipeline for molasses
41	200	10.8	7.9	Shed area: 5,490 m^2;open area: 7,030 m^2
42	187	10.8	7.9	Open area: 25,651 m^2; conveyor
Laurier Wharf				
43	266	10.2	7.8	Shed area: 7,049 m^2; open area: 25,929 m^2
Tarte Wharf				
44 S	—	—	—	Berthage prohibited
44 E	95	6.1	8.2	
44 N	263	9.4	8.2	
45	162	6.1	8.1	
Pie-IX Terminal (Sutherland Wharf)				
46	144	10.8	8	
46 SE	162	10.8	8	Open area: 6,166 m^2; underground conveyor
46 E	69	6.1	7.8	
47	* * 101	9.9	7.7	Shed area: 996 m^2; ** the maximum berthage length is 101 m
48	158	10.8	7.7	Open area: 44,263 m^2; ro-ro ramp
49 (portion of)	92	10.8	7.7	Open area: 10,221 m^2
Hochelaga Terminal				
49 (portion of)	91	10.8	7.7	
50	190	10.8	7.7	Gantry crane; open area: 14,164 m^2
51	240	10.8	7.6	Gantry crane; open area: 13,914 m^2
52	338	10.8	7.6	Open area: 24,384 m^2; ro-ro ramp
Grain Elevator No. 4				*Handling of grain products*
54 and 55	395	10.8	7.7	Ship-loading capacity: 5,500 t/h
56	245	8.4	7.6	Ship-unloading capacity: 3,000 t/h
Sections 56 E to 56 S				
56 N	200	7.6	8.2	Laid-up vessels
56 E	155	8.4	8.2	Laid-up vessels
56 S	262	5.5	8.2	Laid-up vessels
Racine Terminal				*Container terminal: 32.4 ha*
57 S	265	8.2	8.4	
57 N	200	9.8	7.7	Pipeline for molasses and vegetable oil
58	163	10.8	7.7	Pipeline for molasses and vegetable oil; 40-tonne gantry crane
59	152	10.8	7.7	40-tonne gantry crane
60	152	10.8	7.7	40-tonne gantry crane
61	182	10.8	7.7	40-tonne gantry crane; oil pipeline
62	245	10.8	7.7	40-tonne gantry crane
64	283	9.1	5	Open area

† Depths are referred to chart datum.
†† Height above chart datum

Table 2.4 Port of Montreal — Wharves (cont'd and end)

Berth	Length	Depth †	Height † †	Remarks
	metres	metres	metres	
Maisonneuve Terminal (Termont)				*Container terminal: 18.2 ha*
66	199	10.8	5.3	
67	223	10.8	5.3	3 30- to 65-tonne gantry cranes
68	195	10.8	5.5	
70	200	10.8	5.5	Open area
71	198	10.8	5.5	Open area
72	172	10.8	5.5	Open area
Cast Terminal				*Container terminal: 26.7 ha*
73	193	10.8	5.5	Ro-ro ramp
74 and 75	193	10.8	5.5	Open area: 49,723 m^2; oil pipeline
76	156	11.0	5.5	60-tonne gantry crane
77	249	11.0	5.5	60-tonne gantry crane
78	175	10.8	5.4	60-tonne gantry crane
79	245	10.8	5.4	Open area
80	69	10.8	5.4	60-tonne gantry crane
Olco				
94	238	10.7	6.1	Oil pipeline
Montréal-Est Terminal				
95	135	10.7	6.1	Oil pipeline
96	135	9.1	6.1	Oil pipeline
97	136	9.1	6.1	Open area for salt: 4,900 m^2
98	146	10.7	5.2	Total open area for berths 98, 99 and 100: 82,391 m^2
99	147	9.1 – 10.7	5.2	Open area
100	146	9.1	5.2	Open area
Imperial Oil				
101	192	10.7	4.2	
102 E	192	10.7	4.2	
102 W	98	4.6	4.2	
Shell Canada				
103 S	190	10.7	5.2	Oil pipeline
103 N	190	9.2	5.2	Oil pipeline
Sunoco				
104	** 33	5.0	5.1	** The maximum berthage length is 137 m
Valero				
105	116	10.7	5.2	Oil pipeline
106	116	10.7	5.2	Oil pipeline
Petro-Canada				
109	139	10.8	5.9	Oil pipeline
110 E	139	10.8	5.9	Oil pipeline
110 W	164	4.6	5.9	
Marien Wharf	32	—	3.8	

† Depths are referred to chart datum. * Depth not maintained by regular dredging.
† † Height above chart datum

representative. The master of a vessel or its agent must notify the Harbour Master's Office at least 24 hours prior to the handling. The Harbour Master's Office can be reached any time at 514-283-7022.

253 **Caution**. — Mariners are requested to proceed with caution when manoeuvring near wharves equipped with gantry cranes. In fact, any part of a vessel extending outward the wharf could hit the cranes whose bases are close to the dock wall. In addition, certain parts of the gantry crane overhang the dock wall, even in their raised position. Therefore, the available vertical clearance is restricted under these structures and mariners must be watchful of the equipment and structures overhanging their vessel, such as derrick cranes and antennae.

254 **Caution**. — Mariners must comply with a safety zone of 25 m in the vicinity of Berths 103S and 103N whether or not there is a vessel alongside the berths. No vessel or small craft can enter this

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zone without the permission of the Harbour Master's Office. Moreover, anchoring is forbidden in the basin situated between Berths 56S and 57S.

255 A **marina** *(Port de plaisance Réal-Bouvier)* is located on the south shore SE of Haut-Fond Longueuil. For safe access mariners should use the privately **buoyed** channel which leads to the entrance of the basin of the marina. A floating dock is located outside the basin and is used for the marine shuttle service. Another marina *(Club nautique de Longueuil)* is located a short distance SW of the above-mentioned marina. For further information on facilities see the Appendix.

256 A **marina** *(Marina de La Ronde)* is located at **Port Sainte-Hélène**, a basin on the NE side of Île Sainte-Hélène. **Light buoys** mark the entrance channel that leads to the basin; access is made possible through the upstream entrance. A shoal lies in the northern part of the basin. There is a **ramp** in the basin. For further information on facilities see the Appendix.

257 A **marina** *(Port d'Escale du Vieux-Port de Montréal)* is located within the Jacques-Cartier basin. Another **marina** *(Yacht-Club de Montréal)* is in Bassin de l'Horloge. Access is partially obstructed by a floating breakwater which protects the marina; private **lights** mark the extremities. For further information on facilities see the Appendix.

258 **Caution**. — **Shallow water** extends offshore and mariners are requested to proceed with caution when navigating in the approaches of Port Sainte-Hélène.

259 **Obstructions**. — ● Due to submerged obstructions berthing is prohibited at Berths Nos. 11NE and 11NW.

260 A *Canadian Coast Guard* seasonal **Search and Rescue station** operating from Longueuil provides services in the area. Requests for assistance can be addressed, at any time, to the *Marine Rescue Sub-Centre (MRSC Québec)* via a *Coast Guard Radio Station* through VHF Channel 16 (156.8 MHz), Digital Selective Calling (DSC),

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or by telephone 1-800-463-4393. Owners of certain cellular telephone models may also dial *16 which will put them in direct contact with a *MCTS Centre*. **It should be noted that it is not possible for the *Canadian Coast Guard* to trace the origin of calls for those using their cellular telephone and that certain areas do not have cellular coverage.**

261 **Supplies**. — Fuel oil and diesel fuel are available by barge, tanker truck, at the various oil company wharves or at wharves fitted with oil pipelines. Lubricating oils are also available from various oil companies. Water is available at most berths and delivery is available by barge. There is a wide range of provisions available as well as deck and engine stores.

262 **Port services**. — The *St. Lawrence Seaway Management Corporation* owns a self-propelled 250 t capacity floating crane, *VMS Hercule*, which is available for commercial lifts within the port. There are other cranes of various types and capacities available.

263 Except for passenger ships, vessels normally use their own gangways or accommodation ladders. Assistance with line handling is available for docking and departing. Linesmen are not normally required for running lines, however these services are available if required.

264 The Port of Montreal has at its disposal a barge especially equipped for fire fighting. The barge can be rigged with two pumps, an elevating platform, an aerial ladder and a mobile command post. The *Montréal Fire Department* is responsible for fire fighting operations.

265 There are no more large shipyards in Montréal but several companies can carry out hull, deck and engine repairs.

266 **Environmental emergencies**. — When a marine oil spill occurs, mariners will immediately inform the *Canadian Coast Guard* via the *MCTS Centre* through VHF Channel 10 or 16. Various companies in Montréal are equipped to carry out recovery operations for spilled oil.

267 The *Eastern Canada Response Corporation (ECRC)* is a private company, certified by the *Canadian Coast Guard*, which can provide marine oil spill response services. It has equipment at various strategic locations along

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PORT OF MONTREAL — BERTHS 102 TO 106 (2007)

the St. Lawrence River including the Port of Montreal. The company can be reached by telephone at 418-692-8989.

268 The company *Urgence Marine* provides the following services: oil clean up and recovery, pumping, boom installation, water supply, barges and garbage removal. In addition, the company provides linesmen services for docking vessels that are not governed by the longshoring collective agreement adopted by the Maritime Employers Association. The company can be reached by telephone at 514-640-3138.

269 **Tugs**. — The necessity for tug use in manoeuvring vessels in the port is dependent on the size of the vessel, the location of the berth, the strength of current expected in the vicinity of the berth and wind conditions. Except by the order of the Harbour Master or one of his or her representatives, the decision for using a tug or not is left to the master of the vessel, with advice from the pilot.

270 The company *Ocean Group* operates a fleet of tugs ranging up to 4,400 HP. This company also provides diving, pumping, barges, transportation, icebreaking, salvage and fire-fighting services. The company can be reached at 514-849-5511.

271 Within the Port of Montreal the following services are also provided: diving, barges, transportation and garbage removal.

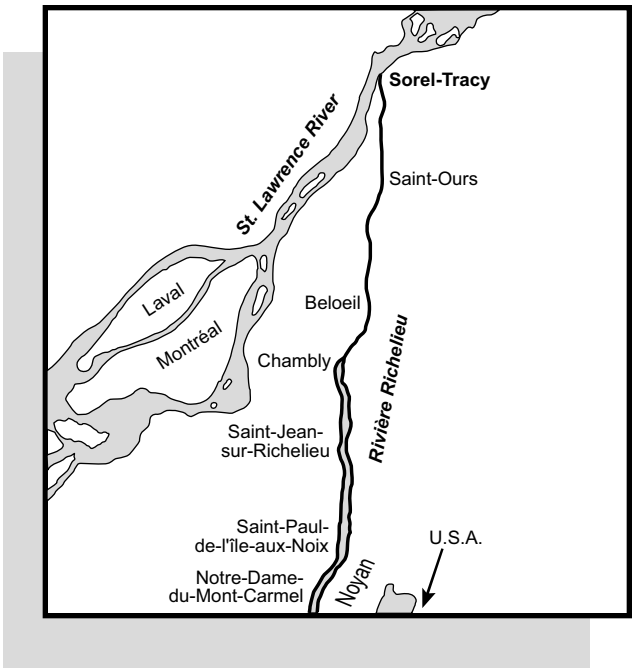
272 **Transportation**. — The *Montreal Port Authority* operates a network of railways serving the wharves, the grain elevator, the sheds and industries involved in merchandise handling. This network connects with other railways which in turn connect to all marine terminals in Canada and the United States. Road transportation also link Montréal with other regions of Canada and the United States.

273 The *St. Lawrence Seaway* links intermediate Canadian and United States ports between Montréal and the upper part of the Great Lakes. Coastal shipping services are maintained from Montréal to the Gulf of St. Lawrence and to the Atlantic Provinces. A seasonal **ferry** service plies between Montréal, Québec City, Matane and Cap-aux-Meules.

274 The region of Montréal is served by several regional airports and two international airports of which are Montréal—Pierre Elliott Trudeau International Airport, on the outskirts west of the city, and Montréal—Mirabel International Airport, about 50 km to the NW. There are also regular domestic flights with all parts of Quebec and Canada.

PORT OF MONTREAL — BERTHS 1 TO 22 (2007)

Rivière Richelieu
Sorel-Tracy to Lake Champlain



General

Charts 1350, 1351

1 **Limits**. — This chapter covers the section of **Rivière Richelieu** from Sorel-Tracy to Lake Champlain *(45°00'N, 73°21'W)* just south of the Canada-United States international boundary.

2 **Coast**. — The Richelieu Valley is flat open country with a considerable amount of cultivated land. From Lake Champlain to its mouth at Sorel-Tracy, Rivière Richelieu flows in a general northerly direction for approximately 70 miles. From Sorel-Tracy to Chambly the river banks are steep sloping in certain locations but of moderate elevation; however, they are generally low on the upstream section of the river from Saint-Jean-sur-Richelieu to Lake Champlain. Mont Saint-Hilaire is the most prominent natural feature of the entire valley and is visible for many miles from both the upstream and downstream directions of the river.

3 Rivière Richelieu was once a very important commercial shipping and trading waterway with the United States. Today mainly recreational boaters use it. The river connects with Lake Champlain, the State of New York barge canal system and the Hudson River which empties into the Atlantic Ocean and thus forms part of an international waterway between Canada and the United States.

4 Isolated from the St. Lawrence River and Rivière Richelieu waterways, **Lac Memphrémagog** is situated in the heart of the Estrie region. Long since navigated by small craft, the lake has a length of 24 miles and a width of 3 miles, with relatively deep water. High hills surround the lake and the shoreline is indented with many bays. There are about fifteen islands and **Île de la Province** marks the Canada-United-States international boundary. Four-fifths of Lac Memphrémagog is situated on Canadian territory.

5 **Note**. — For more details concerning mileage between structures and obstructions on Rivière Richelieu, refer to the Table shown in the Appendix at the end of the booklet.

6 **Main channel**. — The main channel, marked with buoys, is shown on small craft charts. The mouth of Rivière Richelieu is about 107 m wide whereas the river attains its maximum width of 2,195 m in Bassin de Chambly *(45°27'N, 73°17'W)*.

7 **Limiting dimensions**. — The size of vessels passing through the Richelieu canal system is limited by the dimensions of the Canal de Chambly Locks and by Pont Félix-Gabriel Marchand, just upstream of Saint-Jean-sur-Richelieu; these limits are: • Length: 33.5 m; • Width: 7.0 m; • Sill depth: 1.98 m; • Vertical clearance: 8.8 m. In periods of extreme low water levels, the allowable draught may be less.

8 At one point, the river becomes a series of rapids, with a difference of the water level of 22 m between Chambly and Saint-Jean-sur-Richelieu. This requires the use of nine locks along the stretch of Canal de Chambly. From the upstream end of this canal, at Saint-Jean-sur-Richelieu, the upper part of the river is navigable.

9 Saint-Ours Canal and Canal de Chambly are normally open to navigation from mid-May to mid-October. The effective opening and closing dates, as well as the hours of operation for the locks, are published in the *Notices to Shipping* and/or *Notices to Mariners* and/or on the Parks Canada Web site at *www.pc.gc.ca*.

10 **Regulations**. — The historic canals of Saint-Ours and Chambly are under the jurisdiction of Parks Canada; vessels navigating in these canals are therefore subject to the *Historic Canals Regulations*. Copies of the regulations are available from: Publishing and Depository Services, Ottawa, Ontario, Canada, K1A 0S5 (telephone: 1-800-635-7943). Most regulations are published on the Government of Canada Web Site: www.canada.gc.ca.

11 A **Vessel lockage permit** is required by all vessels wishing passage through Saint-Ours or Canal de Chambly locks. These permits are valid during normal lockage hours of operation. Advance purchase will reduce lockage time. The permit must be carried aboard the vessel.

12 Commercial vessels proceeding through Saint-Ours Canal may be accommodated outside regular hours if arrangements for such passage are requested at least 48 hours in advance with the Canal Superintendent.

13 Additional information may be obtained from Parks Canada, Historic Canals Management, 1899 De Périgny Boulevard, Chambly, Quebec, J3L 4C3; telephone: 450-658-6525 (1-888-773-8888) or visit the following website at: www.pc.gc.ca.

14 **Caution**. — The depths and vertical clearances mentioned in the description of Rivière Richelieu are referred to chart datum; for details about datums see the appropriate chart. For more information concerning the monthly mean water level, mariners may refer to the hydrographs shown on *Charts 1350 and 1351*.

15 **Obstructions**. — • Several **pipelines**, **submarine pipelines** and **cables** lie on the bottom of Rivière Richelieu. Mariners are advised to refer to the appropriate chart to locate their position and are cautioned not to anchor in the vicinity of these submarine obstructions. Some obstructions are indicated by signs located on the shore.

17 Requests for assistance from the *Canadian Coast Guard* can be addressed, at any time, to the *Marine Rescue Sub-Centre (MRSC Québec)* on VHF channel 16 (156.8 MHz) or by telephone 1-800-463-4393. Owners of cellular telephone may also request assistance by dialing *16. **It should be noted that it is not possible for the *Canadian Coast Guard* to trace the origin of calls for those using their cellular telephone and that certain areas do not have cellular coverage.**

18 **Bridge Operating Schedule**. — Small craft requesting the opening of a bridge should give 3 long blasts on their siren, whistle or horn. Some of the swing bridges will only open at specific hours for vessels; the hours of operation are promulgated through *Notices to Shipping* and/or *Notices to Mariners*. Mariners can contact the lockkeepers by radiotelephone on VHF Channel 68.

Sorel-Tracy to Beloeil

Chart 1350-1

19 **Sorel-Tracy to Saint-Ours Canal**. — *This section of Rivière Richelieu is described with the Port of Sorel in Chapter 2.* From this point to Île Deschaillons *(45°55'N, 73°09'W)*, the river has an average width of 183 m flowing between steep and wooded banks.

20 **Caution**. — Vessels proceeding upstream on Rivière Richelieu are to use the NW channel between the piers of the Highway 30 **bridge**, while vessels proceeding downstream are to use the SE channel.

21 An **overhead** power **cable** with a vertical clearance of 25 m spans the river about 2.9 miles upstream of itsjunction with the St. Lawrence River.

21.1 **Obstructions** — There is an uncovered tree stump in *45°58'51"N, 73°08'36"W*. A mudslide with trees, caused by a landslide on the east shore at *45°57'01"N, 73°08'48"W*, extends 60 m into Rivière Richelieu.

Chart 1350-2

22 A **marina** *(Camping et marina du Parc Bellerive)*, adjacent to a campground, is located close downstream of **Ruisseau Lahaise** *(45°56'N, 73°09'W)* on the east shore. For further information on facilities see the Appendix.

23 **Île Deschaillons** is a low-lying and grass-covered island. The main channel lies east of the island; the channel west of the island is almost dry during low water level periods.

24 An **outfall pipe** extends 50 m from the east shore at the southern end of Île Deschaillons. A prohi-

SAINT-OURS CANAL (2007)

bited anchorage sign is shown near the shore. A second **outfall pipe**, located 0.3 mile further upstream, crosses the river as well as the channel on the west side of Île Deschaillons.

25 The town of **Saint-Ours**, with a population of 1,619, is situated on a high bank on the east side of the river and about 1 mile south of Île Deschaillons. The municipality of **Saint-Roch-de-Richelieu**, with a population of 1,739, is situated on the opposite bank at a similar elevation. There is a church with a conspicuous spire in each of the two municipalities. The former Saint-Ours public wharf is completely encased with stone.

26 **Obstruction**. — ● A **cable ferry** that links Saint-Ours and Saint-Roch-de-Richelieu transports passengers and vehicles between the two river banks abeam of Saint-Ours church. There are lights on the cable ferry as well as on each river bank marking the end of the ferry cable; the lights are on 24 hours a day. The green light indicates there are no restrictions to navigation as the cable rests on the bottom of the river. The red light indicates the cable does not rest on the bottom, thus creating an obstruction to navigation. According to the *Ferry Cable Regulations*, when the red lights are shown on the ferry and the river banks it is forbidden for any vessel to cross, at any point, the length of the cable guiding the ferry.

27 A **submarine cable** crosses the river close downstream of the Saint-Ours church.

28 **Overhead cables** with a vertical clearance of 17 m span the river 0.5 mile upstream of the Saint-Ours church.

28.1 **Obstruction.** — A mudslide with trees, caused by a landslide on the west shore at *45°52'50"N, 73°09'16"W,* extends 40 m into Rivière Richelieu.

29 **Saint-Ours Canal**. — **Île Darvard**, a high, wooded and narrow island, 0.2 mile long, is situated 1.2 miles south of Saint-Ours. The channel west of the island, formerly a rapid, is closed by a dike with a length of 193 m, which is sometimes submerged. A fixed low elevation **bridge** spans the dike. The Saint-Ours Canal Lock allows vessels to transit a water level difference of 1.5 m; it has an available length of 99.1 m, a width of 12.0 m and a sill depth of 3.66 m. Floating docks are located along the downstream approach wall and inside the lock to facilitate tie up and stand-by while vessels are in transit in the lock. Mariners can contact the lockkeepers by radiotelephone on VHF Channel 68. There is a **ramp**. Several **cribs** border the upstream and downstream east shore of the canal.

30 **Saint-Ours Canal to Beloeil**. — Nearly 2 miles upstream of Saint-Ours Lock, **Ruisseau Laplante** empties into the east side of the Richelieu. The distance from Ruisseau Laplante to the public wharf at Saint-Denis-sur-Richelieu is 3 miles. About 0.7 mile downstream of the municipality of Saint-Denis-sur-Richelieu, the river widens for a distance of 2.3 miles upstream. **Shoal water flats** extend over this area from shore to shore but a narrow channel passes through them.

Chart 1350-3

31 The municipality of **Saint-Denis-sur-Richelieu**, with a population of 2,141, is situated on the east shore of the river 5 miles upstream of Saint-Ours Canal. There is a conspicuous church with two spires and a telecommunication **tower** with red lights located north of this church. There is a public **wharf** 39 m in length with a depth of 2 m alongside; there is a **ramp** adjacent to the wharf.

33 **Obstruction**. — ● A **cable ferry** transports passengers and vehicles between the two river banks abeam of Saint-Denis-sur-Richelieu. There are lights on the

cable ferry as well as on each river bank marking the end of the ferry cable; the lights are on 24 hours a day. The green light indicates there are no restrictions to navigation as the cable rests on the bottom of the river. The red light indicates the cable does not rest on the bottom, thus creating an obstruction to navigation. According to the *Ferry Cable Regulations*, when the red lights are shown on the ferry and the river banks it is forbidden for any vessel to cross, at any point, the length of the cable guiding the ferry. There is a **wreck** at the bottom of the river, on the west side, approximately 0.6 miles north of the Coderre Stream.

34 Three **submarine cables**, of which one is abandoned, cross the river upstream of the public wharf at Saint-Denis-sur-Richelieu. Several **submerged pipelines** upstream and downstream of the public wharf at Saint-Antoine-sur-Richelieu extend from the east shore, while some cross the river completely.

35 The municipality of **Saint-Antoine-sur-Richelieu**, with a population of 1,533, is situated on the west shore close upstream of Saint-Denis-sur-Richelieu. It has a church with two spires, which are conspicuous from both the upstream and downstream end of the river. There is a public **wharf** with a depth of 3.8 m.

36 South of Saint-Antoine-sur-Richelieu, the channel curves in a SW direction to clear a drying area which is covered with trees and appears as an island.

37 **Rivière Amyot**, on the east shore, flows into the Richelieu 1.2 miles downstream of Saint-Charles-sur-Richelieu.

38 The municipality of **Saint-Charles-sur-Richelieu**, with a population of 1,710, is situated 1.2 miles upstream of the mouth of Rivière Amyot. There is a public **wharf** 43 m long with a depth of 4.2 m alongside. Floating docks at the wharf provide a resting area for small craft.

39 **Obstruction**. — • A **cable ferry** transports passengers and vehicles between the two river banks close downstream of the public wharf. There are lights on the cable ferry as well as on each river bank marking the end of the ferry cable; the lights are on 24 hours a day. The green light indicates there are no restrictions to navigation as the cable rests on the bottom of the river. The red light indicates the cable does not rest on the bottom, thus creating an obstruction to navigation. According to the *Ferry Cable Regulations*, when the red lights are shown on the ferry and the river banks it is forbidden for any vessel to cross, at any point, the length of the cable guiding the ferry.

40 A **submarine** power **cable** crosses the river 0.1 mile downstream of the cable ferry crossing. More **submerged cables** cross the river 0.6 mile upstream of the wharf.

41 The municipality of **Saint-Marc-sur-Richelieu**, with a population of 1,999, is situated on the west bank 0.7 mile upstream of Saint-Charles-sur-Richelieu. There is a public **wharf** with a depth of 2.8 m alongside its 18 m long outer end. There is a conspicuous church spire.

42 A **marina** *(Auberge Handfield)* is situated on the west side of the river close upstream of the public wharf at Saint-Marc-sur-Richelieu. Another **marina** *(Marina Saint-Charles-sur-Richelieu)* is situated on the east side 1 mile upstream of the same wharf. For further information on facilities see the Appendix.

44 **Île de Jeannotte** and **Île aux Cerfs**, two islands lying in a widened section of the river, are situated about 2 miles upstream of Saint-Marc-sur-Richelieu. Île aux Cerfs is fairly high and wooded with some dwellings near its south end. Abeam of Île de Jeannotte on the west shore of the river there is a public **wharf** with a least depth of 3.1 m and a **ramp**. **Le Grand Ruisseau** flows into the Richelieu about 0.3 mile upstream of the public wharf.

45 **Obstruction**. — • An **overhead cable**, with a vertical clearance of 9.4 m, spans Le Grand Ruisseau about 110 m from its mouth.

46 The main channel, marked with buoys, runs along the west shore west of Île de Jeannotte and Île aux Cerfs. The passage east of the islands is **shallow** and obstructed by **boulders** and weeds.

47 **Obstruction**. — • An **overhead** power **cable**, with a vertical clearance of 11 m, spans the channel from the NE side of Île aux Cerfs to the east shore of the river.

Chart 1350-4

48 From the south tip of Île aux Cerfs to Beloeil, 4.7 miles upstream, the Richelieu maintains an almost constant width of 210 m. In this section of the river the channel is wide and extends close to each shore.

49 A **marina** *(Marina Bellevue)* is situated on the east side of the river, close downstream of **Petit ruisseau Leboeuf** and adjacent to a campground. For further information on facilities see the Appendix.

50 **Obstructions**. — • **Overhead** power **cables** with a vertical clearance of 19 m span the river 0.5 mile SE of Île aux Cerfs. • The Highway 20 fixed **bridge**, with a vertical clearance of 18 m, spans the river 3 miles upstream of Île aux Cerfs. **Lights** and daybeacons shown from the bridge mark the channel under the bridge. An **outfall pipe** extends from the east shore close upstream of the bridge. Two **submerged pipelines** cross the river 0.6 mile upstream of the Highway 20 bridge, and another **submerged pipeline** crosses the river 0.7 mile upstream of those two submerged pipelines.

50.1 There is a **prohibited anchorage area** extending on either side of the Highway 20 bridge due to a **submerged** oil **pipeline** crossing the river close downstream of the bridge.

HIGHWAY 116 FIXED BRIDGE — BETWEEN BELOEIL AND MONT-SAINT-HILAIRE (2007)

51 The town of **Beloeil**, with a population of 19,294, is situated along the west side of the river 1.5 miles upstream of the Highway 20 **bridge**. The town of **Mont-Saint-Hilaire**, with a population of 13,064, is situated on the opposite shore. Each town has a church, with a conspicuous spire, located near the shore; the spires are visible from several miles downstream.

52 The public **wharf** at Beloeil is situated close to the church; its outer end, 30 m long, has a least depth of 2 m. Floating wharves, marked with two **lights**, are located at the Beloeil public wharf. The Mont-Saint-Hilaire public **wharf**, 18 m long with a depth of 1.7 m, is situated east of the wharf at Beloeil. The channel is **buoyed** with a number of lateral and speed restriction **buoys** between the two public wharves. A **submerged cable** crosses the river at the entrance to the buoyed channel.

53 Upstream of the churches at Beloeil and Mont-Saint-Hilaire, a highway fixed **bridge** spans the river; it has a vertical clearance of 9.6 m.

54 **Obstruction**. — ● A **submarine pipeline** crosses the river a short distance upstream and downstream of the above-mentioned **bridge**.

55 A **marina** *(Marina du Phare de Beloeil)* is located on the west side of the river close upstream of the highway fixed **bridge** at Beloeil. For further information on facilities see the Appendix.

56 The municipality of **McMasterville**, with a population of 3,813, is situated on the west side of the Richelieu south of Beloeil. The McMasterville **wharf**, situated downstream of the Beloeil railway **bridge**, is in ruins.

57 **Pont Beloeil**, a railway fixed bridge *(45°33'N, 73°13'W)* with a vertical clearance of 10 m, crosses the river at McMasterville.

58 **Piers**. — The channel leads between the west shore and the first submerged pier of Beloeil railway bridge; it is marked by daybeacons. Pilings of the pier on the western shore are in disrepair and breaking apart causing a hazard to navigation. The old wharf, which is encased with

PONT BELOEIL — RAILWAY FIXED BRIDGE (2007)

stone, protects the western bank upstream of the railway bridge and docking is impossible. Three piers (two of which are in ruins with depths of 0.5 m and 1.9 m, respectively) and a guide wall are in alignment for a distance of about 160 m on the upstream side of the bridge pier. The bridge pier restricts the channel.

59 **Current and obstruction**. — Because of the strong channel current in the vicinity of the Beloeil railway bridge mariners should proceed with caution. They should avoid berthing alongside the guide wall, which is extended to the south by three piers, as manœuvring to leave the berth will be difficult due to the strong current. A **crib** lies between the guide wall and the railway bridge pier; this crib is under water when the water level is high. It is not possible for two small craft to meet under the Beloeil railway bridge; the upbound craft must stop and give way to the downbound craft affected by the current.

60 The Beloeil railway bridge **light** *(2245)*, located close upstream of the railway bridge, is shown on the south extremity of the guide wall. This light is visible from the upstream direction only.

61 **Landmark**. — ● **Mont Saint-Hilaire** *(45°33'N, 73°10'W)*, with several summits, rises abruptly from the surrounding plain about 1.5 miles SE of Beloeil. It is heavily wooded with outcroppings of rock showing at the summits, the highest of which is about 396 m.

Beloeil to Chambly

Charts 1350-4, 1351-1

62 At the Beloeil railway bridge the Richelieu bends sharply to the WSW for about 1 mile, then resumes its SSW general direction to Bassin de Chambly 4 miles away.

63 A **marina** *(Marina Saint-Mathias)* is situated on the east shore 1.6 miles upstream of the Beloeil railway bridge. For further information on facilities see the Appendix.

64 **Obstructions**. — ● Due to **submarine pipelines**, there is a prohibited anchorage area extending between the river banks 2 miles upstream of the Beloeil railway bridge. ● **Overhead** power **cables**, with a vertical clearance of 27 m, span the river, 2.4 miles upstream of the Beloeil railway bridge.

64.1 There is a **seaplane base** *(45°30'N, 73°15'W)*, with floating wharves and a **ramp**, 0.9 mile upstream of the overhead cables, on the east shore.

Chart 1351-1

65 **Île Goyer** is a wooded island that forms the northern limit of Bassin de Chambly. **Rivière L'Acadie** empties into the Richelieu north of the island.

66 The municipality of **Saint-Mathias-sur-Richelieu**, with a population of 4,014, is situated on the east shore of the river. There is a conspicuous church spire. There is also a 28 m long public **wharf** with a least depth of 2.1 m alongside; a **ramp** is adjacent to the wharf.

67 **Bassin de Chambly**, 1.5 miles long and 1.2 miles wide, is a lake-like expansion of the river

at the foot of **Rapides de Chambly**. It is for the most part **shallow** and a buoyed channel leads to the downstream entrance of Canal de Chambly. **Unlighted** control **buoys** (private), which indicate the restrictions on boat handling, are moored inside the basin. There is a wildlife sanctuary in an area SE of Bassin de Chambly and access regulations apply to this protected territory.

68 The town of **Chambly**, with a population of 19,716, is situated on the south shore of the basin. A conspicuous church spire is located near the shore in the west part of the town. **Fort Chambly**, an imposing structure with massive stone walls towering above the river, is situated at the foot of Rapides de Chambly a short distance east of the downstream entrance of Canal de Chambly. This monument is a national historical site.

69 A **marina** *(Marina de Chambly)* is situated close east of the approach wall at the entrance of the canal. For further information on facilities see the Appendix.

70 The town of **Richelieu**, with a population of 3,195, is situated on the east shore of the river abeam of Chambly and about 1 mile upstream from the basin; there is a church with a conspicuous spire. A dam spans the river 0.7 mile upstream of Bassin de Chambly at the head of Rapides de Chambly.

69.1 Another **marina** (Centre Nautique Poseidon) is situated just west of the approach wall at the entrance of the canal. For further information on facilities see the Appendix.

Canal de Chambly

Charts 1351-1, 1351-2

71 From Bassin de Chambly to the town of Saint-Jean-sur-Richelieu, 9.7 miles upstream, the river is not navigable due to a 24 m difference of the water level. A second dam is situated 3.5 miles upstream of the dam previously mentioned. **Rapides Fryers** are situated downstream of this second dam. **Rapides de Saint-Jean** and **Les Mille Roches** stretch for 3 miles downstream of Saint-Jean-sur-Richelieu.

72 Canal de Chambly, 10 miles in length, bypasses this section of the river. There are 11 fixed or opening **bridges** (still operating) along the canal with a vertical clearance of 8.8 m at **Pont Félix-Gabriel-Marchand** (Highway 35 fixed bridge), near Saint-Jean-sur-Richelieu; there are also 9 **locks** with a limiting length of 33.5 m, a limiting width of 7.0 m and a sill depth of 1.98 m. Refer to the chart and the Table in the Appendix. Eight of the nine locks are located within 1.5 miles of Bassin de Chambly, and the ninth is situated at Saint-Jean-sur-Richelieu. A concrete approach wall,160 m long and in ruins, extends from the shore at the downstream entrance of the canal. Small craft can berth at a floating wharf, 90 m long, on the west side of the approach wall with depths of 2.5 to 3.2 m alongside; the floating wharf serves as a temporary waiting area. A **ramp** is located on the east side of the lock entrance. Mariners may obtain information from the lockkeepers by contacting them on VHF Channel 68.

73 **Caution**. — Silting is reported in certain areas of the canal, particularly at the mouth of **Rivière des Iroquois** *(45°22'N, 73°16'W)*. Mariners are requested to proceed with caution when navigating in the area. **Buoys**, in addition to the charted ones, may be encountered in the canal.

74 **Speed restrictions**. — The authorized speed limit in Canal de Chambly is 5.5 knots. Restriction signs are positioned at certain locations along the canal and show a limit bar making it possible to assess the vessel's speed by the size of the wake created. The wash caused by wave action must never reach the limit bar. The wave limit height has priority over the authorized speed limit.

75 Canal de Chambly begins at the approach wall on the south shore of Bassin de Chambly and leads ESE for 1.2 miles through the town of Chambly to the disused railway swing **bridge**. A sheltered **berth** is located along a wharf, after the first three locks. The first seven locks are situated in this section of the canal; Lock No. 8 is about 140 m upstream of the disused bridge. From this bridge the canal closely follows the west bank of the river.

75.1 The downstream Chambly **light** *(2255)* is situated on the north extremity of the approach wall of the downstream entrance of Canal de Chambly *(45°27'N, 73°17'W)*.

76 Many **overhead cables**, some of which are power transmission lines with a vertical clearance of 9.2 m, cross the canal and the river; refer to the chart and the Table in the Appendix.

77 **Île Sainte-Thérèse**, an island about 2 miles in length, lies in the river 4 miles upstream of Chambly. The canal broadens abeam of this island; the deepest water in this section of the canal is found close to the east bank. This

Table 3.1 Limiting dimensions of Canal de Chambly

	Metres	Remarks
In the locks		
Length	33.5	Lock No. 2
Width	7.0	Lock No. 6
Minimum depth	1.98	Lock sill
In the navigable channel		
Minimum depth	1.98	
Width at the river bottom	11	
Width at water surface	18	
Vertical clearance	8.8	Pont Félix-Gabriel Marchand.

CANAL DE CHAMBLY — LOCKS Nos. 4 TO 7 (2007)

section of the canal is marked with **buoys**. The water along the west side of this section is very **shallow** with sunken logs and other submerged obstructions. In this area a tow path follows the east bank of the canal.

78 **Obstructions**. — ● About 0.5 mile downstream of Lock No. 9 the passage in the canal narrows due to obstructions located on each side of the canal.

Saint-Jean-sur-Richelieu to Lake Champlain

Chart 1351-2

79 The town of **Saint-Jean-sur-Richelieu**, with a population of 76,461, is situated on the west shore at the upstream end of Canal de Chambly; this is the **customs port of entry** for commercial vessels inbound from the United States. Directly opposite, on the east shore is the residential district of **Iberville**, with a population of 9,635.

80 Each city has a **church with a substantial spire**. These churches are visible from many miles upstream or downstream.

81 On the west side of the upstream entrance of the canal, at Saint-Jean-sur-Richelieu, there are several berths with depths ranging between 1.1 and 2 m alongside the approach wall.

82 **Caution**. — Silting is reported alongside this wall. Mariners are cautioned about **shoal water** lying adjacent to the recommended east track and close south of the upstream entrance to Canal de Chambly.

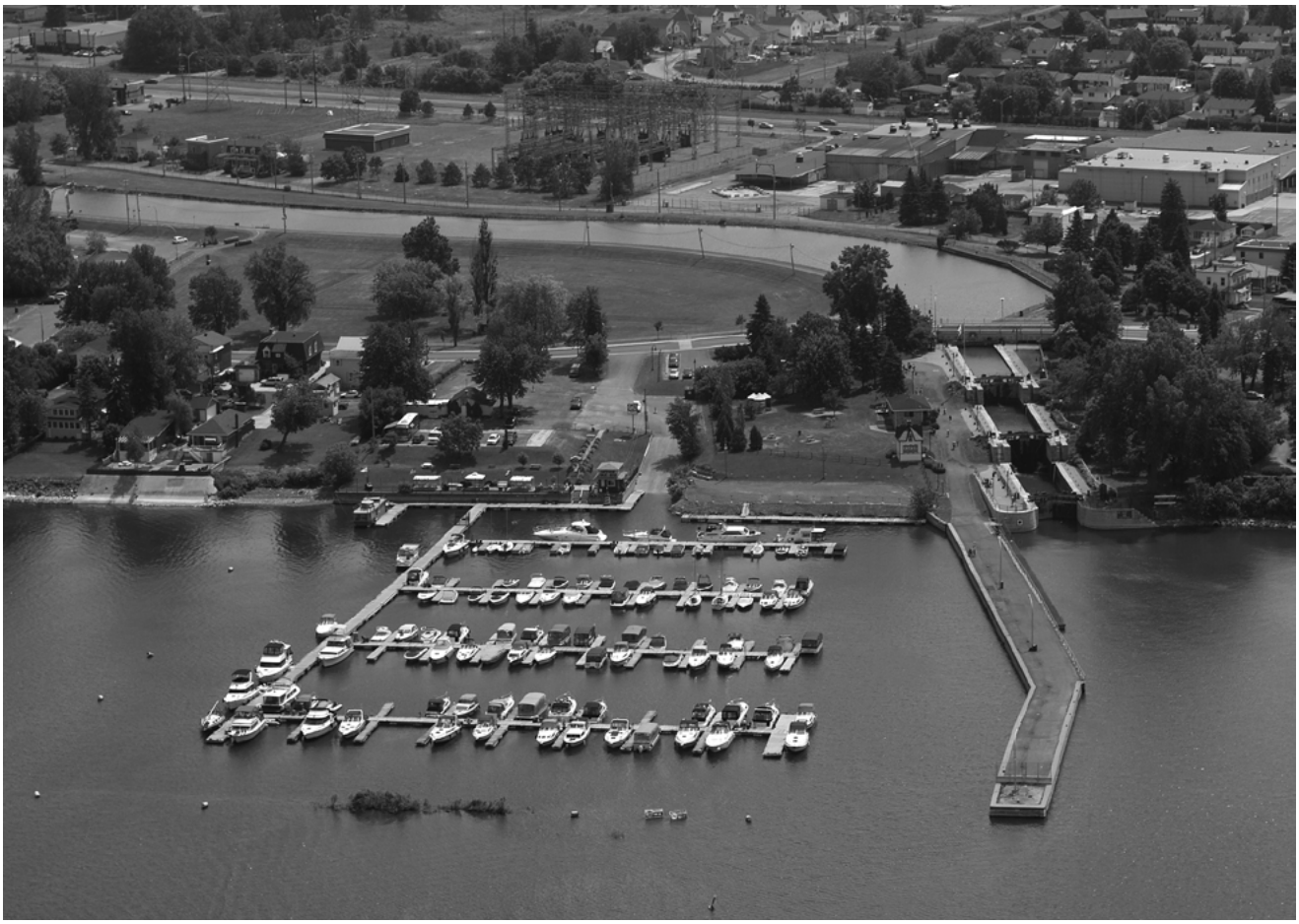
83 Iberville water front is **shallow** and the public **wharf** can accommodate only shallow draught small craft.

84 A **marina** *(Le Nautique Saint-Jean)* is situated on the west shore upstream and close to the entrance of the canal. The basin of the marina is formed by floating docks and a breakwater that extends over a distance of nearly 76 m into the river. For further information on facilities see the Appendix.

85 Saint-Jean-sur-Richelieu Upper **light** *(2255.8)* is situated on the west side of the entrance to Canal de Chambly *(45°18'N, 73°15'W)*.

86 **Landmarks**. — ● A red and white water tower, with an elevation of 50 m, is situated on the west shore of the river 3.5 miles south of the canal entrance at Saint-Jean-sur-Richelieu *(45°15'N, 73°15'W)*. The tower, marked with red lights, is visible for several miles upstream and downstream. ● **Mont Saint-Grégoire**, situated 6 miles NE of Saint-Jean-sur-Richelieu, is an isolated cone-shaped hill rising to about 213 m above the surrounding flat terrain. It is conspicuous for many miles from all directions.

CANAL DE CHAMBLY — DOWNSTREAM ENTRANCE (2007)



87 The distance from the upstream head of the canal at Saint-Jean-sur-Richelieu to the highway fixed **bridge**, 0.7 mile south of the Canada-United States international boundary (Lake Champlain) is 19.7 miles. From Saint-Jean-sur-Richelieu to Île aux Noix, 11 miles upstream, the general direction of the river is south. For half of this distance up to Pointe à la Meule the river maintains a general width of 274 m. It flows between low marshy banks partly wooded to the water's edge; there is relatively deep shoal free water.

88 A submarine pipeline extends from the west bank of the river close upstream of the upper entrance to Canal de Chambly at *Le Nautique Saint-Jean* marina. An **outfall pipe** extends from the east shore of the river close downstream of Pont Gouin.

Chart 1351-3

89 **Pointe à la Meule** *(45°14'N, 73°15'W)* is a rounded curve of the low west bank where the heavy woods terminate. From this point, the river widens to 0.6 mile over a distance of about 5 miles; this stretch of water is, for the most part, **very shallow**. The channel is buoyed.

90 The former wharf, now a pier encased with stone, is situated about 1.8 miles south of Pointe à la Meule; it extends from the east shore of the river. A **marina** *(Marina Sabrevois)* is situated close downstream of the pier. The marina's entrance is marked by private starboard and port hand **daybeacons**. The marina is equipped with a **launching ramp**. Another **marina** *(Marina Saint-Tropez)* is situated on the west shore 0.2 mile upstream; there is a **ramp** nearby. A third **marina** *(Le Refuge)* is situated on the west shore 2.7 miles above the pier. For further information on facilities see the Appendix.

91 Two **submarine** power **cables** cross the river 1.2 miles downstream of Île aux Noix. Mariners should not anchor in the vicinity of this cable.

92 The **light buoy** NOIX *(2258.72)* is moored about 1.2 miles north of **Île aux Noix**. This buoy marks the split of the river into two channels; the secondary channel lies east of the island. An ecological reserve is situated in the area east

CANAL DE CHAMBLY — UPSTREAM ENTRANCE (2007)

of Île aux Noix and access regulations apply to this protected area. Past Île aux Noix the river takes a SW direction to Île de l'Hôpital, 3.5 miles upstream, where it resumes its general SSW direction to Lake Champlain.

93 The main channel which is quite busy during the summer months leads to the west of Île aux Noix. It becomes narrow and winding abeam of **Anse à l'Esturgeon** which is **shallow** and weedy. At its south end, between Île Ronde and **Pointe à l'Esturgeon**, the channel becomes very narrow, leading across a weedy **bank** to the junction of the secondary channel. At this point the navigable channel widens upstream and has deeper water.

94 **Caution**. — Due to silting in the main channel mariners should proceed with caution, as depths may be less than charted.

95 The village of **Île-aux-Noix**, annexed to the municipality of **Saint-Paul-de-l'Île-aux-Noix**, is situated on the west side of the river near the north tip of Île aux Noix. The former wharf is encased with stone on all faces and forms a pier. The church spire is visible from Pointe à la Meule.

96 A **marina** *(Marina Gosselin)* is situated adjacent to the above-mentioned pier. Another **marina** *(Marina Gagnon)* is situated 0.4 mile SW of the pier. Two other **marinas** *(Marina de Saint-Paul-de-l'Île-aux-Noix* and *Marina Fortin)* are situated a little farther south. Access to the marinas is made possible via the numerous canals which break up the shoreline. For further information on facilities see the Appendix.

97 Near the south end of Île aux Noix stands the national historical site of **Fort Lennox**. The inner buildings of the compound are hidden by surrounding earthworks. There is a public **wharf** located on the SE side of the island a short distance from the fort; the wharf and the buoyed entrance channel are managed by Parks Canada. A seasonal passenger **ferry** service runs between the landing pier situated on the west side of the island and one located NE of **Pointe Moquin**. Berthage at these landing piers is restricted to the ferry and tour boats.

98 A **submarine cable** is laid from a position south of Pointe Moquin to the west shore of Île aux Noix. Mariners should not anchor in the vicinity of this cable.

SAINT-PAUL-DE-L'ÎLE-AUX-NOIX AND ITS NUMEROUS CANALS (2007)

99 **Île Ronde** is a marshy islet located 0.1 mile SW of Île aux Noix. The **light buoy** *FORT (2261.6)* is moored about 0.1 mile south of Île Ronde; this buoy marks the upstream entrance of the main channel.

100 A **marina** *(Marina Lennox)* is situated on the west shore within a basin north of **Ruisseau Gamache** *(45°06'N, 73°18'W)*. Another **marina** *(Ben Marina)* is situated 0.9 mile upstream, opposite **Pointe Naylor**. For further information on facilities see the Appendix.

Chart 1351-4

101 **Île de l'Hôpital**, a partly wooded island, lies in the middle of the river 3.3 miles upstream of Île aux Noix; it is located on a weedy **shoal bank**. The main channel lies west of the island. The channel in this section of the river is marked with **buoys**.

102 **Île Ash** is situated 0.8 mile upstream of Île de l'Hôpital. The main channel runs between the island and the west shore.

103 Two **bridges**, 0.1 mile apart, span the river from the island to the west shore. To the north is a highway fixed bridge with a vertical clearance of 18 m. The second is a railway bridge with a swing span in the middle; it has a closed vertical clearance of 3.7 m. Two additional fixed **bridges**, with a vertical clearance of 3.7 m, span the portion of the river east of Île Ash.

104 Several private **lights** mark the **bridges** that span the main channel. The lights *(2268)* situated on the railway swing bridge show the position of the swing span in the middle: red when the small craft passage is obstructed and green when the passage is open. Other lights situated on the bridge piers mark the channel. There are also lights marking the ends of the central pivot pier of the bridge.

105 **Obstructions**. — ● There is a **wreck** lying on the bottom of the river on the east side of the channel, downstream from the Île Ash highway fixed bridge. ● A **water intake pipe** and an **outfall pipe** extend from the west shore: one is upstream and the other is downstream of the highway **bridge**. ● **Cribs**, which cover when the water level is high, are located close upstream and downstream of the railway swing bridge. ● Other **wrecks** are situated near the railway swing bridge on the east side of the channel. Mariners should not anchor in the vicinity of these obstructions. There are floating docks for recreational diving activities in the vicinity.

106 Two **marinas** are situated upstream of Île Ash: *Marina Les Alizés* is situated on the west shore of the river, close upstream of the railway swing **bridge**; *Quai Chamaillard* marina is located on the east shore about 0.5 mile further upstream. For further information on facilities see the Appendix.

107 Upstream of Île Ash the river gradually widens to 0.8 mile and maintains this width up to Lake Champlain; however, the route remains constricted up to the south portion of Haut-fond du Sang. A **shoal** and weedy **bank** extends from the SSW side of Île Ash and stretches to 1 mile upstream.

108 **Haut-fond du Sang** is situated 0.8 mile south of the railway swing **bridge**. It

ÎLE ASH BRIDGES (2007)

is a rocky area which lies 0.2 mile from the west shore and is submerged when the water level is high.

CANADIAN CUSTOMS WHARF (2007)

109 **Customs**. — The **Canadian Customs wharf** is situated on the west shore of the river 1.5 miles upstream of Haut-fond du Sang. There is a Canadian Customs office and a *Telephone Reporting Site — Marine*. The wharf extends about 183 m from shore and has a depth of 2.4 m alongside its 18 m long outer end.

110 **CANPASS**. — All pleasure craft entering Canada from the United States must obtain permission to do so by notifying the *Canada Border Services Agency* from a *Telephone Reporting Site – Marine*. The telephone service is toll free (1-888-226-7277) and is operated 24 hours a day. *Canada Border Services Agency* will issue instructions following a telephone interview; on-site inspections may be carried out to ensure compliance with the law. For more information contact the *Canada Border Services Agency* at 1-800-959-2036 or visit the following website at: www.cbsa-asfc.gc.ca.

111 **Note**. — Commercial vessels must obtain clearance through the Customs office at Saint-Jean-sur-Richelieu.

112 **Shoals**. — A rocky **shoal**, with a depth of 1.4 m, lies 136 m in a SSE direction from the east end of the Customs wharf. Another **shoal**, with a depth of 1.6 m, lies 107 m in a NE direction from the same end of the wharf. 870 m to the south, there is an area of submerged rocks.

113 A **marina** *(Marina Le Sieur de Champlain)* is situated within the basins on the west shore about 0.2 mile upstream of the Customs wharf. A privately **buoyed** channel leads to the basins. For further information on facilities see the Appendix.

114 Cantic seasonal **light** *(2272.31)* is shown from the top of the Customs office building, located on the east end of the above-mentioned wharf *(45°01'N, 73°21'W)*.

115 A *DOUAN* **light buoy** *(2272.6)* is moored at the Canada-United States international boundary.

116 **Fort Montgomery** *(45°00'N, 73°21'W)* is situated in the United States about 0.3 mile south of the international boundary. It is a high stonework structure, in ruins, located on an islet close off the west shore of the river. A causeway built over marshy **flats** links the fort to the main shore.

117 A low marshy point, situated on the west shore 0.4 mile upstream of Fort Montgomery, marks the head of Rivière Richelieu at its junction with Lake Champlain. A highway fixed **bridge** crosses the river at this location.

118 **Lake Champlain** connects with the Champlain branch of the New York State barge canal system. For details on Lake Champlain, the New York canals and the Hudson River, see the *United States Coast Pilot 6 (Great Lakes)* and the appropriate charts, published by the *National Ocean Service, United States Department of Commerce*.

Sail Plan

Adapted from Transport Canada Publication TP 511E.

Fill out a sail plan for every boating trip you take and file it with a responsible person. Upon arrival at your destination, be sure to close (or deactivate) the sail plan. Forgetting to do so can result in an unwarranted search for you.

Sail Plan

Owner Information

Name: _____

Address: _____

Telephone Number:_____ Emergency Contact Number: _____

Boat Information

Boat Name:_____ Licence or
Registration Number:_____

Sail:_____ Power:_____ Length:_____ Type: _____

Colour Hull:_____ Deck: _____ Cabin: _____

Engine Type: _____ Distinguishing Features: _____

Communications

Radio Channels Monitored: HF: ☐ VHF: ☐ MF: ☐

MMSI (Maritime Mobile Service Identity) Number: _____

Satellite or Cellular Telephone Number: _____

Safety Equipment on Board

Lifejackets and PFD's *(include number)*: _____

Liferafts (include type and colour): _____ Dinghy or Small Boat
(include colour): _____

Flares (include number and type): _____

Other Safety Equipment:_____

Trip Details — Update These Details Every Trip

Date of Departure: _____ Time of Departure:_____

Leaving From:_____ Heading To: _____

Proposed Route:_____ Estimated Date and

Stopover Points (include date and time):___ Time of Arrival:_____

_____ Number of People on Board: _____

Search and Rescue Telephone Number: _____

The responsible person should contact the nearest Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC) if the vessel becomes overdue.

Act smart and call early in case of emergency. The sooner you call, the sooner help will arrive.

JRCC Victoria (British Columbia and Yukon) 1-800-567-5111
+1-250-413-8933 (Satellite, Local or out of area)
727 (Cellular)
+1-250-413-8932 (fax)
jrccvictoria@sarnet.dnd.ca (Email)

JRCC Trenton (Great Lakes and Arctic) 1-800-267-7270
+1-613-965-3870 (Satellite, Local or Out of Area)
+1-613-965-7279 (fax)
jrcctrenton@sarnet.dnd.ca (Email)

MRSC Québec (Quebec Region) 1-800-463-4393
+1-418-648-3599 (Satellite, Local or out of area)
+1-418-648-3614 (fax)
mrscqbc@dfo-mpo.gc.ca (Email)

JRCC Halifax (Maritimes Region) 1-800-565-1582
+1-902-427-8200 (Satellite, Local or out of area)
+1-902-427-2114 (fax)
jrcchalifax@sarnet.dnd.ca (Email)

MRSC St. John's (Newfoundland and Labrador Region) 1-800-563-2444
+1-709-772-5151 (Satellite, Local or out of area)
+1-709-772-2224 (fax)
mrscsj@sarnet.dnd.ca (Email)

MCTS Sail Plan Service

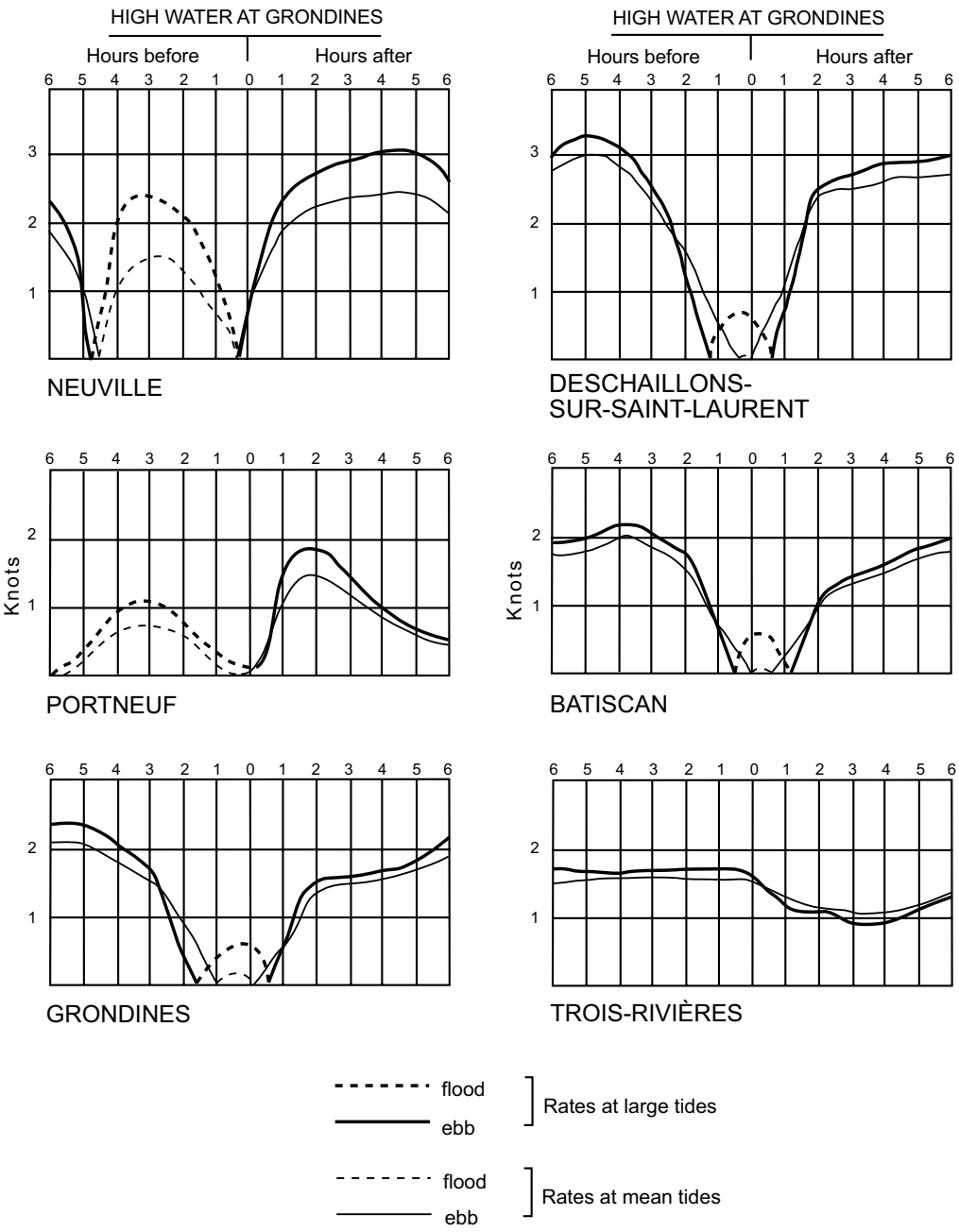
Marine Communications and Traffic Services Centres provide a sail plan processing and alerting service. Mariners are encouraged to file Sail Plans with a responsible person. In circumstances where this is not possible, Sail Plans may be filed with any MCTS Centre by telephone or marine radio only. Should a vessel on a Sail Plan fail to arrive at its destination as expected, procedures will be initiated which may escalate to a full search and rescue effort. Participation in this program is voluntary. *See Canadian Radio Aids to Marine Navigation.*

Maximum Currents

Location	Ebb (downstream)						Flood (upstream)					
	Mean Tide			Large Tide			Mean Tide			Large tide		
	Start	Maximum		Start	Maximum		Start	Maximum		Start	Maximum	
	h min *	h min *	Rate**	h min *	h min *	Rate**	h min *	h min *	Rate**	h min *	h min *	Rate**
Neuville	- 0 25	+ 4 35	2.5	- 0 15	+ 4 30	3.1	- 4 30	- 2 45	1.5	- 4 45	- 3 15	2.4
Portneuf	- 0 20	+ 1 55	1.5	+ 0 00	+ 1 45	1.9	- 5 30	- 3 15	0.7	- 6 00	- 3 15	1.0
Grondines	+ 0 05	- 5 35	2.1	+ 0 30	- 5 20	2.4	- 1 30	- 0 25	0.2	- 1 40	- 0 15	0.6
Deschaillons-sur-St-Laurent	+ 0 00	- 4 40	3.0	+ 0 40	- 4 45	3.3	- 0 25	- 0 10	0.1	- 1 15	- 0 15	0.7
Batiscan	+ 0 35	- 3 45	2.0	+ 1 10	- 3 45	2.2	+ 0 00	+ 0 15	0.1	- 0 30	+ 0 10	0.6
Trois-Rivières	—	- 3 15	1.6	—	- 6 00	1.7	—	—	—	—	—	—

* Time is in reference to High Water in Grondines.
** The rate is given in knots.

Current speeds relative to tide



Summary of air obstructions for this booklet

Location	Type	Position (centroid)	Overhead clearance		Datum	Datum Relative to C.D.
			Bridge / Bare cable	Cable with ice		
Main Shipping Channel						
Trois-Rivières-Ouest	Cable	46°19.0'N; 72°33.1'W	50 m	33 m	H.H.W.L.T.	3.1 m (1)
Pont Laviolette	Bridge	46°18.5'N; 72°33.7'W	48 m (2)	—	H.H.W.L.T.	3.1 m (1)
Sorel-Tracy — Lanoraie	Cable	45°59.8'N; 73°10.9'W	52 m	44 m	C.D.	-
Pointe-aux-Trembles (north)	Cable	45°39.4'N; 73°28.3'W	55 m	31 m	C.D.	-
Pointe-aux-Trembles (south)	Cable	45°39.4'N; 73°28.3'W	50 m	42 m	C.D.	-
Longue-Pointe — Île Charron	Cable	45°34.9'N; 73°30.1'W	52 m	See Diagram in Appendix	C.D.	-
Pont Jacques-Cartier						
If alongside wharf	Bridge	45°31.3'N; 73°32.7'W	49 m	—	C.D.	-
Main shipping channel	Bridge	45°31.3'N; 73°32.6'W	51 m (3)	—	C.D.	-
St. Lawrence Seaway	Bridge	45°31.3'N; 73°31.6'W	43 m	—	C.D.	-

(1) Notes In the area including Pont Laviolette and downstream in Port de Trois-Rivières, which is considered as a zone under tidal influence, the seasonal fluctuations in the river flow may cause a larger tidal range in the river level than that caused by the daily tide. These seasonal fluctuations may reach 3.1 m even though the maximum tidal range for large tides is 0.3 m.

(2) Pont Laviolette:
There is a **minimal vertical clearance** of 48 m under the bridge within the 225 m width of the main shipping channel.
There is a vertical clearance of 49 m in the centre of the main shipping channel.

(3) Pont Jacques-Cartier:
There is a vertical clearance of 51 m in the centre of the 122 m wide main shipping channel.

UNDER-KEEL CLEARANCE

CONTAINER SHIPS

ST. LAWRENCE RIVER, QUÉBEC TO MONTRÉAL

The actual amendment establishes new parameters for vessels width between 40.0 m. and 44.0 m.

To promote safety and efficiency of navigation and environmental protection, the Marine Communications and Traffic Services Officer (MCTSO) has the power to issue, in some cases, directions to a vessel under section 126 of the 2001 Canada Shipping Act. In exercising its powers, the MCTSO will consider the under-keel clearance for vessels transiting the area above Québec. The Marine Communications and Traffic Services will determine the required under-keel clearance of the ship according to the parameters given in the table below :

Vessel Beam not exceeding	Vessel's speed over water not exceeding (knots)								
	7	8	9	10	11	12	13	14	15
	Required under-keel clearance (metres ; which included estimated squat and the manoeuvrability's safety margin)								
24 m	0.79	0.88	0.96	1.04	1.22	1.41	1.63	1.88	2.17
26	0.83	0.90	0.98	1.07	1.25	1.45	1.68	1.93	2.23
28	0.84	0.91	1.00	1.09	1.28	1.48	1.72	1.98	2.29
30	0.86	0.93	1.01	1.11	1.31	1.52	1.76	2.03	2.34
32	0.87	0.94	1.03	1.14	1.34	1.55	1.80	2.08	2.40
34	0.88	0.96	1.05	1.16	1.36	1.58	1.84	2.12	2.45
36	0.89	0.97	1.07	1.18	1.39	1.62	1.88	2.16	2.50
38	0.90	0.98	1.08	1.20	1.42	1.65	1.92	2.20	2.55
40	0.91	1.00	1.10	1.22	1.44	1.68	1.96	2.24	2.60
42	0.92	1.01	1.12	1.24	1.47	1.71	1.99	2.29	2.65
44	0.93	1.02	1.13	1.26	1.49	1.74	2.03	2.33	2.70
	Estimated squat (metres)								
24 m	0.21	0.27	0.35	0.43	0.53	0.65	0.79	0.97	1.18
26	0.22	0.29	0.37	0.46	0.56	0.69	0.84	1.02	1.24
28	0.23	0.30	0.39	0.48	0.59	0.72	0.88	1.07	1.30
30	0.25	0.32	0.40	0.50	0.62	0.76	0.92	1.12	1.35
32	0.26	0.33	0.42	0.53	0.65	0.79	0.96	1.17	1.41
34	0.27	0.35	0.44	0.55	0.67	0.82	1.00	1.21	1.46
36	0.28	0.36	0.46	0.57	0.70	0.86	1.04	1.25	1.51
38	0.29	0.37	0.47	0.59	0.73	0.89	1.08	1.29	1.56
40	0.30	0.39	0.49	0.61	0.75	0.92	1.12	1.33	1.61
42	0.31	0.40	0.51	0.63	0.78	0.95	1.15	1.38	1.66
44	0.32	0.41	0.52	0.65	0.80	0.98	1.19	1.42	1.71
	Manoeuvrability/safety margin (metres)								
*	0.61	0.61	0.61	0.61	0.69	0.76	0.84	0.91	0.99

* An exception to the margin of safety / manoeuvrability is allowed for a ship with a width not exceeding 24 m at a speed of 6 to 7 knots. Only in this case, a margin of 0.58m is accepted instead of 0.61 m.

The above parameters are presented on the basis that the vessel's Master or Officer-in-charge has given consideration to other specific elements which may have an impact on under-keel clearance, some of which are: the accurate determination of water level (including tides) during vessel's transit; the vessel's speed; the wind and waves effects and the vessel's response to it; the estimation of the vessel's draught (changes in ballast); any additional squat effects due to passing within close proximity to the bank of the channel or when meeting / overtaking another vessel. The vessel's Master or Officer-in-charge has the ultimate responsibility for the vessel's safety at all times.

Source : Canadian Coast Guard (TC-L95-133; AMA8035-10-1); Notice to Mariners No. 462 of Edition No. 17 of 1995. Modification: 2013/03/21.

UNDER-KEEL CLEARANCE

OTHER SHIPS (Other than container ships)

ST. LAWRENCE RIVER, QUÉBEC TO MONTRÉAL

The actual amendment establishes new parameters for vessels width between 40.0 m. and 44.0 m.

To promote safety and efficiency of navigation and environmental protection, the Marine Communications and Traffic Services Officer (MCTSO) has the power to issue, in some cases, directions to a vessel under section 126 of the 2001 Canada Shipping Act. In exercising its powers, the MCTSO will consider the under-keel clearance for vessels transiting the area above Québec. The Marine Communications and Traffic Services will determine the required under-keel clearance of the ship according to the parameters given in the table below :

Vessel Beam not exceeding	Vessel's speed over water not exceeding (knots)								
	7	8	9	10	11	12	13	14	15
	Required under-keel clearance (metres ; which included estimated squat and the manoeuvrability's safety margin)								
24 m	0.80	0.90	0.97	1.06	1.24	1.44	1.66	1.92	2.21
26	0.85	0.92	1.00	1.09	1.29	1.49	1.73	1.99	2.29
28	0.86	0.94	1.03	1.13	1.33	1.54	1.79	2.06	2.37
30	0.88	0.96	1.05	1.16	1.37	1.59	1.85	2.13	2.46
32	0.89	0.98	1.08	1.19	1.41	1.64	1.91	2.19	2.53
34	0.91	1.00	1.10	1.23	1.45	1.69	1.97	2.26	2.61
36	0.93	1.02	1.13	1.26	1.49	1.74	2.02	2.32	2.69
38	0.94	1.04	1.16	1.29	1.53	1.78	2.08	2.39	2.77
40	0.96	1.06	1.18	1.32	1.57	1.83	2.13	2.44	2.84
42	0.97	1.08	1.21	1.36	1.61	1.88	2.18	2.51	2.91
44	0.99	1.10	1.23	1.39	1.65	1.93	2.24	2.57	2.98
	Estimated squat (metres)								
24 m	0.22	0.29	0.36	0.45	0.55	0.68	0.82	1.01	1.22
26	0.24	0.31	0.39	0.48	0.60	0.73	0.89	1.08	1.30
28	0.25	0.33	0.42	0.52	0.64	0.78	0.95	1.15	1.38
30	0.27	0.35	0.44	0.55	0.68	0.83	1.01	1.22	1.47
32	0.28	0.37	0.47	0.58	0.72	0.88	1.07	1.28	1.54
34	0.30	0.39	0.49	0.62	0.76	0.93	1.13	1.35	1.62
36	0.32	0.41	0.52	0.65	0.80	0.98	1.18	1.41	1.70
38	0.33	0.43	0.55	0.68	0.84	1.02	1.24	1.48	1.78
40	0.35	0.45	0.57	0.71	0.88	1.07	1.29	1.53	1.85
42	0.36	0.47	0.60	0.75	0.92	1.12	1.34	1.60	1.92
44	0.38	0.49	0.62	0.78	0.96	1.17	1.40	1.66	1.99
	Manoeuvrability/safety margin (metres)								
*	0.61	0.61	0.61	0.61	0.69	0.76	0.84	0.91	0.99

* An exception to the margin of safety / manoeuvrability is allowed for a ship with a width not exceeding 24 m at a speed of 6 to 7 knots. Only in this case, a margin of 0.58m is accepted instead of 0.61 m.

The above parameters are presented on the basis that the vessel's Master or Officer-in-charge has given consideration to other specific elements which may have an impact on under-keel clearance, some of which are: the accurate determination of water level (including tides) during vessel's transit; the vessel's speed; the wind and waves effects and the vessel's response to it; the estimation of the vessel's draught (changes in ballast); any additional squat effects due to passing within close proximity to the bank of the channel or when meeting / overtaking another vessel. The vessel's Master or Officer-in-charge has the ultimate responsibility for the vessel's safety at all times.

Source : Canadian Coast Guard (TC-L95-133; AMA8035-10-1); Notice to Mariners No. 462 of Edition No. 17 of 1995. Modification: 2013/03/21.

Table of marina facilities

Name and location	Telephone	Number of berth: Total	Number of berth: Visitors	Mooring buoys	Hoisting capacity	Mast stepper	Fuels	Launching ramp	Repairs	Food supply	Restaurant	Drinking water	Electricity	Toilet/Shower	Laundry	Sewage pump out	VHF Channels	Coast Guard Auxiliary
CHAPTER 1: Cap-Rouge to Trois-Rivières																		
Marina de la Batiscan Batiscan	418-362-2722	100	10					G/D	●			●	●	●	T/S	●	●	71	●
Parc nautique de Cap-Rouge Cap-Rouge	418-641-6148	-	-	●	●				●		●	●	●		T/S			71	
Club nautique d'Eschaillons Deschaillons-sur-Saint-Laurent	819-292-3368	36	6					G	●	M		●	●	●	T/S	●	●	68	
Club nautique Vauquelin Neuville	418-876-2185	106	15		●			G/D P	●	M	●	●	●	●	T/S	●	●	68	●
Parc récréonautique de Portneuf Portneuf	418-286-2263	65	10					G/D	●			●	●	●	T/S	●	●	68	
Marina Sainte-Angèle Sainte-Angèle-de-Laval	819-222-5151	53	15						●	M/H	●	●	●	●	T			71	●
Marina de Trois-Rivières Trois-Rivières	819-374-5862	280	20		●	●		G/D	●	M/H	●	●	●	●	T/S	●	●	68	●

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Table of marina facilities

Name and location	Telephone	Number of berth: Total	Number of berth: Visitors	Mooring buoys	Hoisting capacity	Mast stepper	Fuels	Launching ramp	Repairs	Food supply	Restaurant	Drinking water	Electricity	Toilet/Shower	Laundry	Sewage pump out	VHF Channels	Coast Guard Auxiliary
CHAPTER 2: Trois-Rivières to Montréal																		
Club nautique de Berthier Berthierville		48	3					●				●	●	T/S				
Marina Émerillon Berthierville	**450-756-0037**	50	6									●	●	T/S				●
Port de plaisance de Berthierville Berthierville	**450-836-7636**	80	10				G	●		●	●	●	●	T/S	●	●	71	
Club nautique de Boucherville Boucherville	**450-655-9247**	99	15				G	●	M	●	●	●	●	T/S		●	68	●
Club nautique de Mézy Boucherville	**450-449-6487**	45	3					●				●	●	T				
Parc nautique de Contrecoeur Contrecoeur	**450-587-5495**	60	5				G		M/H	●	●	●	●	T/S		●	68	●
Port de plaisance de Contrecoeur Contrecoeur	**450-587-2569**	80	5					●	M	●	●	●	●	T/S		●	68	
Club nautique de Longueuil Longueuil	**450-646-0197**	100	10	●		●		●				●	●	T/S	●		68	●
Port de plaisance Réal-Bouvier Longueuil	**450-442-9575**	415	25		●		G/D		M/H	●	●	●	●	T/S	●	●	68	●
Camping et Marina de Louiseville Louiseville	**819-228-3861**	20	4					●	M					T/S	●			
Marina de l'Auberge-le-Nid-d'Aigle Maskinongé	**819-227-1717**	100	40				G	●			●	●	●	T/S	●	●	71	●
Marina de La Ronde (Pierre Plouffe) Montréal (au port Sainte-Hélène)	**514-875-1234**	125	25	●	●		G/D P/N	●			●	●	●	T/S	●	●	68	
Marina P.A.T. Montréal	**514-645-7224**	99	10		●		G/D P	●	M/H	●	●	●	●	T/S		●		
Port d'escale du Vieux Port de Mtl Montréal (Bassin Jacques-Cartier)	**514-496-7824**	110	110							●	●	●	●	T/S	●	●	68	
Yacht-Club de Montréal Montréal (Bassin de l'Horloge)	**514-789-9264**	205	40							●	●	●	●	T/S	●	●		
Club nautique de la Batture Nicolet	**819-293-6912**	65	5		●		G	●	M/H	●		●	●	T/S	●	●	71	●
Centre nautique de Francheville Pointe-du-Lac	**819-377-5454**	-	-	●				●		●	●	●		T/S				
Marina de la Rive-Nord Repentigny	**450-585-1125**	84	10		●	●			M/H	●	●	●	●	T/S		●	68	●
Marina de Repentigny Repentigny	**450-581-7071**	110	15				G	●			●	●	●	T/S				
Marina du Chenal du Nord Saint-Barthélemy	**450-885-1212**	35	5				G	●				●	●					
Marina Mr. B Saint-François-du-Lac	**450-568-5112**	46	10				G	●			●	●	●	T/S		●	68	
Pourvoirie du Lac Saint-Pierre Saint-Ignace-de-Loyola	**450-836-7506**	50	0				G	●	M		●	●	●	T/S				
Marina Brousseau Saint-Sulpice	**514-238-3299**	99	10		●			●	M/H		●	●	●	T/S	●			
Croisière des Îles de Sorel Sainte-Anne-de-Sorel	**450-743-7227**	56	10				G/P	●		●	●	●	●	T			6	
La Halte des 103 îles Sainte-Anne-de-Sorel	**450-746-1244**	99	45				G	●	M/H	●	●	●	●	T/S	●	●	68	
Parc nautique fédéral (Marina de Saurel) Sorel-Tracy	**450-743-2454**	230	5			●	G/D	●		●	●			T/S			68	●
Parc nautique de Sorel (Marina de Saurel) Sorel-Tracy	**450-742-9056**	260	10				G/D	●	M	●	●	●	●	T/S	●	●	68	●

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Table of marina facilities

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CHAPTER 3: Rivière Richelieu — Sorel-Tracy to Lake Champlain																		
Marina du Phare de Beloeil																		
Beloeil	**450-464-5257**	120	15					G			●	●	●	●	T/S	●	●	68	●
Marina de Chambly																		
Chambly	**450-658-7308**	200	10					G	●		●	●	●	●	T/S	●	●	68	●
Centre nautique Poseidon																		
Chambly	**514-572-4726**	24	4					G			●	●	●	●	T				
Marina Le Sieur de Champlain																		
Lacolle	**450-246-3482**	50	5		●					M/H	●		●	●	T/S		●		
Marina Les Alizés																		
Lacolle	**450-246-4156**	95	10		●	●		G/D		M/H		●	●	●	T/S	●	●	68	
Quai Chamaillard																		
Noyan	**450-294-2985**	30	5						●	M			●		T				
Marina Saint-Tropez																		
Saint-Blaise-sur-Richelieu	**450-291-3300**	70	30					G	●		●	●	●	●	T/S		●	68	
Marina Bellevue																		
Saint-Charles-sur-Richelieu	**450-584-2611**	30	5						●				●	●	T/S	●			
Marina Saint-Charles-sur-Richelieu																		
Saint-Charles-sur-Richelieu	**450-584-3255**	50	10		●			G	●	M/H		●	●	●	T/S		●		
Restaurant du Quai																		
Saint-Charles-sur-Richelieu	**450-584-3270**	20	20								●	●							
Le Nautique Saint-Jean																		
Saint-Jean-sur-Richelieu	**450-347-2341**	200	25		●			G/D	●	M/H	●	●	●	●	T/S	●	●	68	
Auberge Handfield																		
Saint-Marc-sur-Richelieu	**450-584-2226**	35	35								●	●		●	T/S	●			
Hostellerie Les Trois Tilleuls																		
Saint-Marc-sur-Richelieu	**450-856-7787**	8	8						●			●	●	●					
Marina Saint-Mathias																		
Saint-Mathias-sur-Richelieu	**450-467-3868**	250	15		●	●		G	●	M/H			●	●	T/S		●	68	
Marina Camping Parc Bellerive																		
Saint-Ours	**450-785-5566**	100	15		●			G/D P	●	M/H	●	●	●	●	T/S	●	●	71	
Marina Lennox																		
Saint-Paul-de-l'Île-aux-Noix	**450-246-2402**	40	5		●	●				M/H			●	●	T/S		●	69	●
Marina Fortin																		
Saint-Paul-de-l'Île-aux-Noix	**450-291-3333**	255	20		●			G	●	M/H	●	●	●	●	T/S	●	●	72	●
Marina Gagnon																		
Saint-Paul-de-l'Île-aux-Noix	**450-291-3336**	300	25		●	●		G/D	●	M/H	●		●	●	T/S	●	●	68	●
Marina Gosselin																		
Saint-Paul-de-l'Île-aux-Noix	**450-291-3170**	100	10		●	●		G/D		M/H	●	●		●	T/S	●	●	68	
Marina de St-Paul-de-l'Île-aux-Noix																		
Saint-Paul-de-l'Île-aux-Noix	**450-291-3010**	50	5		●				●	M/H	●		●	●	T/S	●	●	71	●
Port de plaisance Le Refuge																		
Saint-Paul-de-l'Île-aux-Noix	**450-291-5000**	88	10		●				●	M			●	●	T/S	●			
Marina Sabrevois																		
Sainte-Anne-de-Sabrevois	**450-347-0525**	95	10		●			G	●	M/H		●	●	●	T/S		●	68	

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Distances from Montréal (Quebec, Canada) to:

		Via		
		Strait of Canso	Cabot Strait	Strait of Belle Isle
Argentia, N.L., Canada			943	
Baltimore, Maryland, USA		1,769	1,829	
Boston, Massachusetts, USA		1,248	1,308	
Charleston, South Carolina, USA		1,940	2,000	
Charlottetown, P.E.I., Canada	708			
Chatham, N.B., Canada	627			
Cherbourg, France			3,004	2,890
Churchill, Manitoba, Canada				2,444
Colon, Panama		3,126	3,186	
Dalhousie, N.B., Canada	611			
Digby, N.S., Canada		1,024	1,084	
Frederikshaab, Greenland, Denmark	1,901			
Gaspé, Que., Canada	510			
Havana, Cuba			2,553	
Halifax, N.S., Canada		895	955	
Hamilton, Bermuda			1,632	
Ivigtut, Greenland, Denmark				1,472
Jacksonville, Florida, USA		2,139	2,199	
Key West, Florida, USA		2,412	2,472	
Lewisporte, N.L., Canada				1,002
Lisbon, Portugal	2,943			
Liverpool, England			2,971	2,846
London, England			3,220	3,106
New York, New York, USA		1,460	1,520	
Norfolk, Virginia, USA		1,640	1,700	
Philadelphia, Pennsylvania, USA		1,611	1,671	
Ponta Delgada, Azores, Portugal	2,287			
Port Hawkesbury, N.S., Canada	717			
Pictou, N.S., Canada	710			
Portland, Maine, USA		1,206	1,266	
Reykjavik, Iceland				2,130
St. George's Harbour, N.L., Canada	707			
Saint John, N.B., Canada		1,149	1,209	
St. John's, N.L., Canada			1,043	
Saint-Pierre, Île de Saint-Pierre, France			837	
San Juan, Puerto Rico, USA			2,435	
Savannah, Georgia, USA			2,073	
Shelburne, N.S., Canada			1,050	
Southampton, England			3,039	2,925
Sydney, N.S., Canada			735	
Yarmouth, N.S., Canada		1,050	1,110	

All distances are in nautical miles and by the most direct route.

Distances between Québec and Montréal

	Québec															
Pointe Saint-Nicolas	13	Pointe Saint-Nicolas														
Cap-Santé	24	11	Cap-Santé													
Rapides Richelieu	34	21	10	Rapides Richelieu												
Grondines	41	28	17	7	Grondines											
Batiscan	51	38	27	17	10	Batiscan										
Champlain	58	45	34	24	17	7	Champlain									
Trois-Rivières	68	55	44	34	27	17	10	Trois-Rivières								
Port-Saint-François	73	60	49	39	32	22	15	5	Port-Saint-François							
Lac Saint-Pierre	83	80	59	49	42	32	25	15	10	Lac Saint-Pierre						
Île des Barques	94	81	70	60	53	43	36	26	21	11	Île des Barques					
Sorel-Tracy	99	86	75	65	58	48	41	31	26	16	5	Sorel-Tracy				
Lanoraie	106	93	82	72	65	55	48	38	33	13	13	7	Lanoraie			
Contrecoeur	114	101	90	80	73	63	56	46	41	31	28	15	8	Contrecoeur		
Cap Saint-Michel	123	110	99	89	82	72	65	55	50	40	29	24	17	9	Cap Saint-Michel	
Longue-Pointe	131	118	107	97	90	80	73	63	58	48	37	32	25	17	8	Longue-Pointe
Montréal	134	121	110	100	93	83	76	66	61	51	40	35	28	20	11	3	Montréal

Distances are expressed to the nearest nautical mile.

Distances between Sept-Îles and Montréal

	Montréal																
Sorel-Tracy	38	Sorel-Tracy															
Trois-Rivières	70	32	Trois-Rivières														
Québec	138	100	68	Québec													
La Malbaie	207	169	137	69	La Malbaie												
Rivière-du-Loup	232	194	162	94	41	Rivière-du-Loup											
Île Rouge	242	204	172	104	35	14	Île Rouge										
Tadoussac	244	206	174	106	38	17	3	Tadoussac									
La Baie	295	257	225	157	89	68	54	51	La Baie								
Chicoutimi	304	266	234	166	99	78	64	61	10	Chicoutimi							
Les Escoumins	258	220	188	120	51	30	16	17	68	77	Les Escoumins						
Rimouski	289	251	219	151	84	63	49	52	103	112	34	Rimouski					
Betsiamites	308	270	238	170	103	82	68	71	122	131	53	29	Betsiamites				
Baie-Comeau	335	297	265	197	130	109	95	98	149	158	80	49	34	Baie-Comeau			
Matane	342	304	272	204	134	113	99	102	153	162	84	45	44	32	Matane		
Godbout	350	312	280	212	143	122	108	111	162	171	93	62	47	22	28	Godbout	
Port-Cartier	408	370	338	270	201	180	166	169	220	229	151	118	104	79	75	58	Port-Cartier
Sept-Îles	426	388	356	288	216	195	181	184	235	244	166	134	121	97	92	75	18	Sept-Îles

Distances are expressed to the nearest nautical mile.

Distances between structures and obstructions on Rivière Richelieu

Structure Identification	Distance (nautical miles)		
	Between locations	Upstream	Downstream
Mouth of Rivière Richelieu at Sorel-Tracy	**—**	**0**	**69.3**
Pont Turcotte — Highway Bascule Bridge	*0.5*	0.5	68.8
Disused Railway Bridge — no middle span	*0.1*	0.6	68.7
Highway 30 Fixed Bridge	*1.0*	1.6	67.7
Cable ferry	*9.1*	10.7	58.6
Overhead cable *	*0.5*	11.2	58.1
Saint-Ours Canal Lock and dam with fishway	***1.0***	**12.2**	**57.1**
Cable ferry	*4.9*	17.1	52.2
Cable ferry	*6.1*	23.2	46.1
Highway 20 Fixed Bridge	*6.3*	29.5	39.8
Highway 116 Fixed Bridge	*2.0*	31.5	37.8
Pont Beloeil — Railway Fixed Bridge	***1.0***	**32.5**	**36.8**
Bassin de Chambly	*6.0*	38.5	30.8
Downstream entrance to Canal de Chambly	***0.9***	**39.4**	**29.9**
Lock No. 1	*0.1*	39.5	29.8
Lock No. 2	*0.0*	39.5	29.8
Lock No. 3	*0.0*	39.5	29.8
Highway Swing Bridge — No. 1	*0.0*	39.5	29.8
Lock No. 4	*0.5*	40.0	29.3
Lock No. 5	*0.1*	40.1	29.2
Lock No. 6	*0.1*	40.2	29.1
Overhead cable *	*0.1*	40.3	29.0
Lock No. 7	*0.2*	40.5	28.8
Highway 112 Fixed Bridge	*0.0*	40.5	28.8
Disused Railway Swing Bridge — No. 2	*0.2*	40.7	28.6
Lock No. 8	*0.1*	40.8	28.5
Highway Swing Bridge — No. 3	*0.0*	40.8	28.5
Highway Swing Bridge — No. 4	*0.4*	41.2	28.1
Disused Highway Swing Bridge — No. 5	*0.6*	41.8	27.5
Overhead cable *	*0.0*	41.8	27.5
Highway 10 Fixed Brige	*0.5*	42.3	27.0
Overhead cable *	*0.0*	42.3	27.0
Highway Swing Bridge — No. 7	*0.3*	42.6	26.7
Abandoned Bridge (former Highway Swing Bridge — No. 9)	*1.6*	44.2	25.1
Highway Bascule Bridge — No. 9	*0.1*	44.3	25.0
Overhead cable with least vertical clearance *	*0.8*	45.1	24.2
Highway Swing Bridge — No. 10 (new)	*1.4*	46.5	22.8
Disused Highway Swing Bridge (old No. 10)	*0.1*	46.6	22.7
Highway 35 Fixed Bridge	***1.3***	**47.9**	**21.4**
Lock No. 9	*1.1*	49.0	20.3
Railway Swing Bridge	*0.1*	49.1	20.2
Overhead cable *	*0.0*	49.1	20.2
Pont Gouin — Highway Bascule Bridge — No. 12	*0.3*	49.4	19.9
Upstream entrance to Canal de Chambly	***0.2***	**49.6**	**19.7**
Fort Lennox (île aux Noix)	***11.0***	**60.6**	**8.7**
Highway 202 Fixed Bridge	*4.7*	65.3	4.0
Railway Swing Bridge	*0.1*	65.4	3.9
Canadian Customs Wharf	***2.3***	**67.7**	**1.6**
Canada-United States Boundary (entrance to Lake Champlain)	***0.9***	**68.6**	**0.7**
Highway Fixed Bridge (Rouses Point, USA)	*0.7*	69.3	0

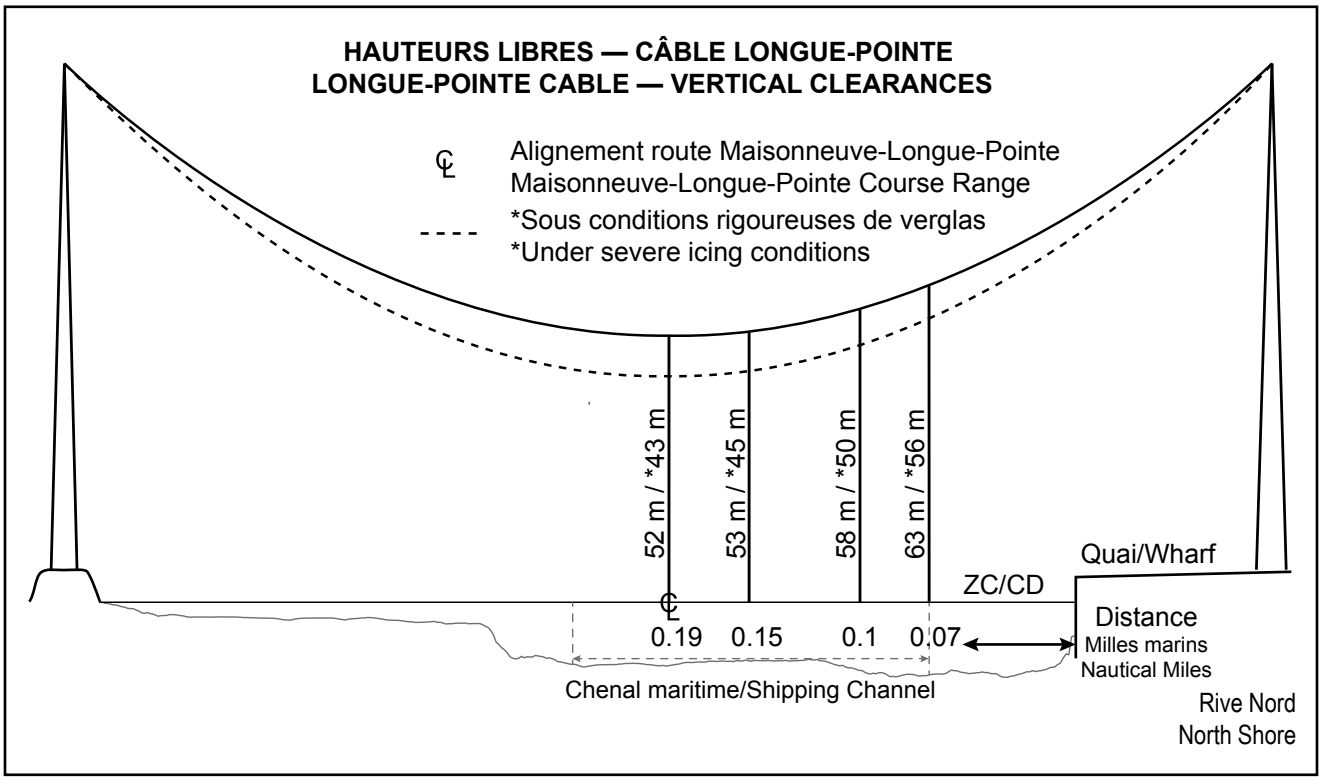
* Certain overhead cables have been omitted from this Table as they have a very high clearance.

Meteorological Data for

MONTRÉAL (QC, CANADA) — 45º 28'N, 73º 45'W

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Temperatures														
Daily Maximum Temperature	ºC	-5.7	-4.4	1.6	10.6	18.5	23.6	26.1	24.8	19.9	13.3	5.4	-3.0	10.9
Daily Minimum Temperature	ºC	-14.6	-13.5	-6.7	0.8	7.4	12.9	15.9	14.3	9.6	4.1	-1.5	10.8	1.5
Daily Mean Temperature	ºC	-10.2	-9.0	-2.5	5.7	13.0	18.3	20.9	19.6	14.8	8.7	2.0	-6.9	6.2
Extreme Maximum Temperature	ºC	13.9	12.2	25.6	28.4	33.9	35.0	35.6	37.8	32.8	28.3	21.7	16.7	37.8
Extreme Minimum Temperature	ºC	-37.8	-33.9	-29.4	-15.0	-4.4	1.1	7.0	3.3	-2.2	-7.2	-19.4	-32.4	-37.8
Precipitation														
Rainfall	mm	23.7	14.9	36.8	63.5	63.9	82.2	90.0	91.9	88.4	73.8	61.2	32.6	722.9
Snowfall	cm	52.7	53.6	35.7	9.7	1.7	0	0	0	0	1.7	21.2	58.8	235.1
Total Precipitation	mm	72.0	65.2	73.6	74.1	65.6	82.2	90.0	91.9	88.4	75.5	81.0	86.7	946.2
Greatest Rainfall in 24 hours	mm	31.0	31.5	32.0	34.5	37.6	54.1	55.4	68.8	81.9	54.9	55.1	42.9	81.9
Greatest Snowfall in 24 hours	cm	32.8	39.4	43.2	25.7	21.8	0	0	0	0	14.2	30.5	37.8	43.2
Greatest Precipitation in 24 hours	mm	32.1	39.4	37.6	34.5	37.6	54.1	55.4	68.8	81.9	54.9	55.1	50.8	81.9
Days with														
Rainfall		4	4	6	11	12	12	12	12	12	12	11	6	114
Snowfall		16	12	9	3	*	0	0	0	0	1	6	15	62
Precipitation		17	14	13	12	12	12	12	12	12	13	15	18	162
Fog		2	2	2	1	1	1	1	1	2	2	3	2	20
Thunder		0	0	*	1	2	5	7	6	3	1	*	*	25
Mean Sea Level Pressure	kPa	101.6	101.5	101.5	101.4	101.4	101.3	101.3	101.4	101.6	101.6	101.5	101.6	101.5
Relative Humidity	%	75	74	71	67	64	69	70	72	75	74	77	78	72
Cloud Amount	Tenths	6.7	6.4	6.1	6.3	6.4	6.1	5.7	5.4	5.6	5.9	7.3	7.0	6.2
Wind														
Percentage Frequency	N	5.1	5.5	5.3	5.6	4.9	4.7	4.2	4.5	5.3	4.5	5.1	5.9	5.0
	NNE	9.8	11.1	11.4	9.6	6.9	6.3	3.7	5.6	7.9	8.4	8.9	11.8	8.4
	NE	7.9	7.6	9.8	8.0	6.0	4.3	2.4	3.5	5.0	6.9	9.5	10.3	6.8
	ENE	2.2	2.4	3.1	3.7	2.9	1.8	1.1	1.7	2.1	2.5	3.1	2.9	2.5
	E	1.6	2.0	2.9	3.2	3.0	2.0	1.6	2.0	2.7	2.4	3.3	2.2	2.4
	ESE	1.7	1.7	2.1	3.0	3.2	2.3	1.9	2.4	2.8	2.9	2.5	1.5	2.3
	SE	2.6	2.7	3.2	4.2	5.3	4.4	3.5	4.1	4.6	5.0	4.7	2.6	3.9
	SSE	3.5	3.0	3.2	4.0	5.6	5.8	4.9	5.3	7.0	5.8	5.3	3.7	4.8
	S	2.7	2.2	2.5	3.5	5.0	5.4	6.3	4.9	4.7	5.0	2.9	2.5	4.0
	SSW	3.6	4.1	3.8	6.0	8.8	10.7	11.	8.0	6.3	4.7	3.0	2.5	6.0
	SW	10.8	10.7	9.6	10.4	14.1	16.9	17.9	14.6	12.2	10.7	9.1	8.6	12.1
	WSW	19.3	16.7	14.4	10.9	11.1	12.9	14.1	14.3	11.4	11.9	13.4	13.7	13.7
	W	16.1	16.5	14.3	11.9	9.1	9.0	10.3	11.6	10.9	12.3	13.8	15.6	12.6
	WNW	4.2	4.2	5.5	5.6	4.2	4.2	4.9	4.7	5.1	5.8	5.3	5.8	5.0
	NW	2.1	2.6	3.2	4.2	3.5	2.8	4.0	3.7	3.5	3.7	3.0	3.3	3.3
	NNW	2.1	2.3	2.3	3.5	2.9	2.6	2.6	3.0	2.6	2.5	2.4	2.4	2.6
	Calm	4.7	4.7	3.4	2.7	3.5	3.9	5.5	6.1	5.9	5.0	4.7	4.7	4.6
Mean Speed (knots)	N	6.2	7.1	6.4	6.8	6.8	6.1	5.1	5.2	5.1	6.2	6.3	6.3	6.2
	NNE	10.1	10.7	10.2	9.6	8.4	8.3	6.7	6.5	6.7	8.4	8.7	8.9	8.6
	NE	11.9	11.6	11.3	10.5	9.3	8.2	6.0	6.2	7.4	9.4	9.8	10.9	9.4
	ENE	9.6	9.9	9.8	9.8	7.4	7.5	5.4	5.6	6.4	7.6	7.7	9.5	8.0
	E	6.3	7.1	7.5	7.2	6.1	6.1	4.8	4.6	4.8	5.7	6.3	6.0	6.0
	ESE	7.0	7.1	7.5	8.3	7.0	6.3	5.5	5.2	5.6	6.6	6.6	6.0	6.5
	SE	9.6	8.7	8.6	9.2	8.0	7.0	5.9	5.9	6.8	7.3	8.3	7.6	7.7
	SSE	10.2	8.9	9.0	9.1	7.8	7.3	6.5	6.5	7.8	7.6	9.6	8.8	8.3
	S	7.0	5.8	6.4	6.1	5.6	6.0	5.9	5.3	6.1	5.5	6.7	6.9	6.1
	SSW	8.0	7.0	7.4	7.6	8.0	8.2	7.9	7.1	7.6	7.8	9.0	8.2	7.8
	SW	10.7	10.0	9.8	9.7	9.9	9.3	8.8	8.3	9.4	9.8	11.0	10.5	9.8
	WSW	12.6	12.4	12.2	11.4	10.4	9.6	8.7	8.0	9.1	10.3	11.9	11.6	10.7
	W	11.6	11.7	11.9	10.7	10.0	9.2	8.3	8.0	8.6	9.5	11.0	10.8	10.1
	WNW	9.6	9.8	10.2	10.3	9.1	8.6	7.8	7.4	7.4	8.6	9.9	9.8	9.0
	NW	6.9	7.1	7.7	8.2	7.9	6.7	6.4	6.1	5.9	7.2	7.1	7.1	7.0
	NNW	5.5	5.9	6.9	7.6	7.2	5.8	5.8	5.3	5.2	6.5	6.0	6.1	6.2
	All Directions	9.9	9.7	9.7	9.1	8.3	7.8	7.1	6.6	7.1	8.0	9.0	9.1	8.4
Maximum Hourly Speed		48.6 SW	43.2 NNE	40.0 NE	37.8 W	38.9 WSW	35.6 NE	31.3 WSW	38.3 SE	32.9 NE	38.9 SW	41.0 WSW	37.3 WSW	48.6 SW
Maximum Gust Speed		63.2	58.9	86.9	57.2	54.5	59.9	68.0	56.7	48.6	63.2	58.9	55.6	86.9
Direction of Maximum Gust		SW	WSW	S	WSW	WSW	SSW	WNW	S	SSW	SW	WSW	**	S

Notes: * Average of less than one but greater than zero.
** More than one occurrence of the same speed.
Number of days with under precipitation, indicates days with falls of 0.2 mm or more of rain, 0.2 cm or more of snow and 0.2 mm or more of water equivalent.


HAUTEURS LIBRES — CÂBLE LONGUE-POINTE
LONGUE-POINTE CABLE — VERTICAL CLEARANCES
℄
Alignement route Maisonneuve-Longue-Pointe
Maisonneuve-Longue-Pointe Course Range
*Sous conditions rigoureuses de verglas
*Under severe icing conditions
52 m / *43 m
53 m / *45 m
58 m / *50 m
63 m / *56 m
Quai/Wharf
ZC/CD
℄
Distance
Milles marins
Nautical Miles
0.19
0.15
0.1
0.07
Chenal maritime/Shipping Channel
Rive Nord
North Shore

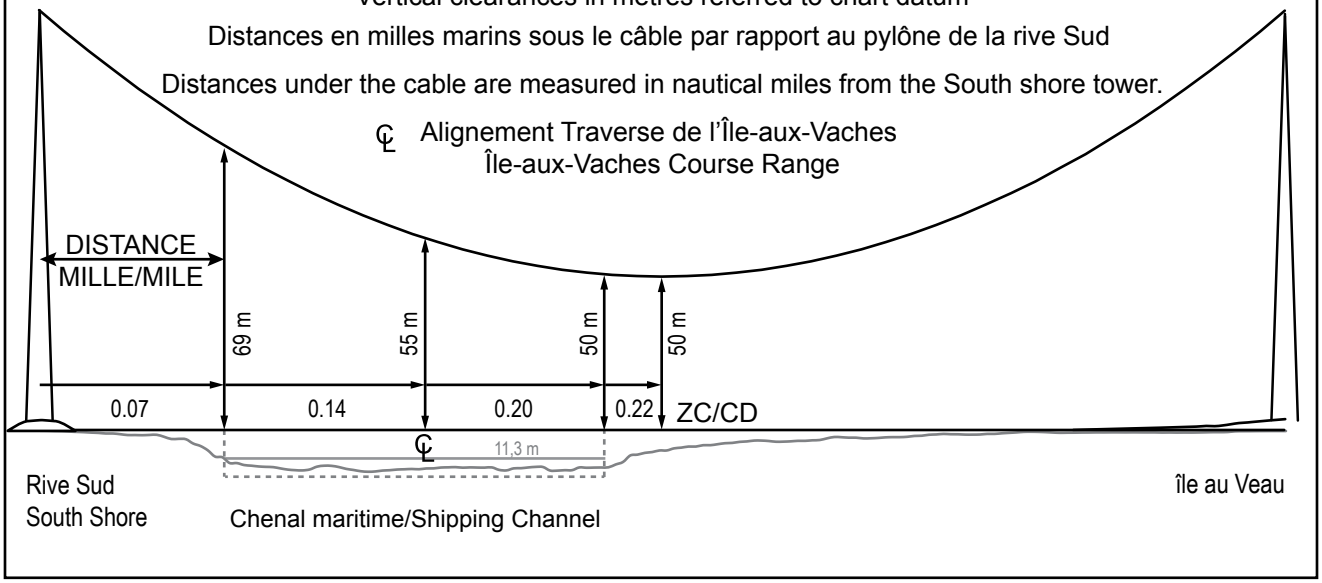
HAUTEURS LIBRES — CÂBLE POINTE-AUX-TREMBLES
POINTE-AUX-TREMBLES CABLE — VERTICAL CLEARANCES

Hauteurs libres en mètres par rapport au zéro des cartes
Vertical clearances in metres referred to chart datum

Distances en milles marins sous le câble par rapport au pylône de la rive Sud

Distances under the cable are measured in nautical miles from the South shore tower.

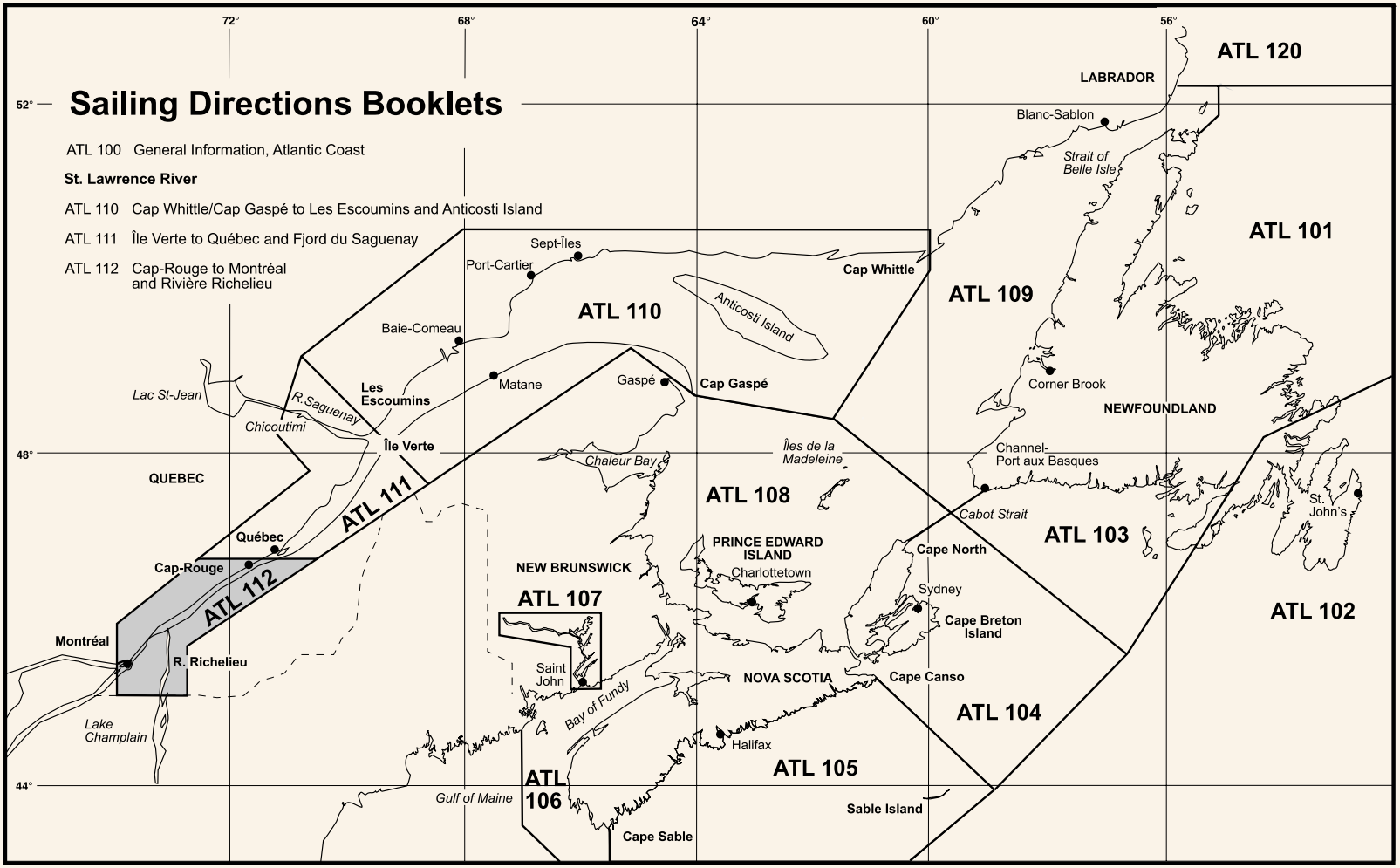
℄ Alignement Traverse de l'Île-aux-Vaches
Île-aux-Vaches Course Range



C = Chapter/P = Paragraph

C = Chapter/P = Paragraph

Sailing Directions Booklets



ATL 100 General Information, Atlantic Coast

St. Lawrence River

ATL 110 Cap Whittle/Cap Gaspé to Les Escoumins and Anticosti Island

ATL 111 Île Verte to Québec and Fjord du Saguenay

ATL 112 Cap-Rouge to Montréal and Rivière Richelieu

Newfoundland and Labrador

ATL 101 Northeast and East Coasts

ATL 102 East and South Coasts

ATL 103 Southwest Coast

ATL 120 Camp Islands to Hamilton Inlet (including Lake Melville)

Nova Scotia (Atlantic Coast) and Bay of Fundy

ATL 104 Cape North to Cape Canso (including Bras d'Or Lake)

ATL 105 Cape Canso to Cape Sable (including Sable Island)

ATL 106 Gulf of Maine and Bay of Fundy

ATL 107 Saint John River

Gulf of St. Lawrence

ATL 108 Gulf of St. Lawrence (Southwest Portion)

ATL 109 Gulf of St. Lawrence (Northeast Portion)

CANADIAN HYDROGRAPHIC SERVICE
SERVICE HYDROGRAPHIQUE DU CANADA