

CEN 304

Canadian Sailing Directions

Detroit River, Lake St. Clair, St. Clair River







Han



ATL 112 St. Lawrence River, Cap-Rouge to Montréal and Rivière Richelieu

CEN 301 St. Lawrence River, Montréal to Kingston

CEN 304 Detroit River, Lake St. Clair, St. Clair River CEN 308 Rideau Canal and Ottawa River CEN 305 Lake Huron, St. Marys River, Lake Superior CEN 309 Trent-Severn Waterway



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

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

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Preface

The Second Edition of *Sailing Directions, CEN 304 — Detroit River, Lake St. Clair,* St. Clair River 2020, 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 Organization*.

General information for the Great Lakes is grouped within one booklet, *Sailing Directions*, *CEN 300 — General Information, Great Lakes, 1996.* 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 booklets. Their limits are printed on the back cover of the booklets. The appropriate descriptive booklet(s) should be consulted in conjunction with the *CEN 300* — *General Information* booklet.

The photographs are by the Canadian Hydrographic Service, Department of Fisheries and Oceans, Burlington, Ontario.

References to Other Publications

Canadian Hydrographic Service

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

Canadian Coast Guard

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

Explanatory Notes

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*, 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 obtained from the Geonames database administered by *Natural Resources Canada (NRCan)*. Where an obsolete name still appears on the chart or is of local usage, it is given in brackets following the official name.

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

Units and terminology used in this booklet

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

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

Tidal streams and **currents** are described by the direction towards which they flow. The **ebb** stream is caused by a falling tide and the **flood** stream is caused by a rising tide. **Winds** are described by the direction from which they blow. **Distances**, unless otherwise stated, are expressed in nautical miles. For practical purposes, a nautical mile is considered to be the length of one minute of arc, measured along the meridian, in the latitude of the position. The international nautical mile, which has now been adopted by most maritime nations, is equal to 1852 m (6076 ft).

Speeds are expressed in knots, which means 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 Tide. In non-tidal waters they are referred to chart datum.

Heights of objects, distinct from elevations, refer to the heights of the structures above the ground.

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

Time, unless otherwise stated, is expressed in local standard or daylight time. For the waters described in this booklet, local time is Eastern Standard Time (EST).

Deadweight tonnage and **masses** are expressed in metric tonnes of 1000 kilograms (2204.6 pounds). The kilogram is used to describe relatively small masses.

Public wharf is a wharf that is available for public use, though certain fees may be charged by local authorities. It may be shown as "Government Wharf" or "Govt Whf" on older charts. **Conspicuous** objects, natural or artificial, are those which stand out clearly from the background and are easily identifiable from a few miles offshore in normal visibility.

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

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

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

Abbreviations

Units

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

Directions

Ν	north
NNE	north northeast
NE	northeast
ENE	east northeast
Е	east
ESE	east southeast
SE	southeast
SSE	south southeast

S	south
SSW	south southwest
SW	southwest
WSW	west southwest
W	west
WNW	west northwest
NW	northwest
NNW	north northwest

Various

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

Chapter 1

Detroit River



General

Charts 2123, 14848, 14853

1 **Detroit River** is 28 miles (51 km) long from *Detroit River* light at its mouth in Lake Erie to its head at Windmill Point, at the SW corner of Lake St. Clair. It is navigated by the largest vessels on the Great Lakes.

2 The southern part, or lower river, is broad and has many islands and shallow areas. The river banks are lower than in the upper river, and the bottom consists mainly of sediment and boulders. A 5.5-mile section (8.8-km) north of the south end of Bois Blanc Island is, however, mainly bedrock and boulders. Dredged channels allow the passage of large ships.

³ For the northern 12 miles (22.2 km), upstream of Fighting Island, the river is a single deep channel except at its head where it is divided by Peche Island and Belle Isle. The water is mainly deep, the bottom is of sediment, and the river banks are steep.

4 Depths and vertical clearances under cables and bridges on Detroit River refer to the sloping surface of the river corresponding to a Lake St. Clair elevation of 572.3 ft (174.4 m) above IGLD 1985 and a Lake Erie elevation of 569.2 ft (173.5 m) above IGLD 1985. More information on chart datums is given in Sailing Directions booklet *CEN 300* — *General Information, Great Lakes.*

5 Real-time water level information for Detroit River at Amherstburg is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 519-736-4357. (More information on water levels is given in Sailing Directions booklet *CEN 300* — General Information, Great Lakes.)

6 Charted depths in *St. Lawrence Seaway* channels are reported to be maintained by periodic dredging. Latest information on depths should be obtained from local authorities. Controlling depths in the channels are announced by United States Coast Guard *Local Notice to Mariners*.

7 **Caution**. — Seasonal fluctuations of water level give a normal range of about 2 ft (0.6 m) in monthly mean levels in the river. Strong east or west winds, however, can raise or lower water levels in the west end of Lake Erie and Detroit River by as much as 6 ft (1.8 m) in eight hours. Atmospheric pressure changes may also cause fluctuations of 1 foot (0.3 m) or more.

8 On the 5th and 20th days of each month during the navigation season, the U.S. Corps of Engineers, Detroit District, publishes a bulletin of the predicted range of water levels. When the water level in the west end of Lake Erie falls 1 inch (2.54 cm) or more below the predicted level, the United States Coast Guard, Sector Detroit, broadcasts low water warnings on Channel 12 (156.60 MHz) on the odd hour plus 55 minutes.

[from U.S. Coast Pilot 6, Chapter 7, partial]

9 The following currents are based on the averages of water flow through the entire cross section of the river, that is, from bank to bank and from the surface to the bottom during normal water flow conditions. Normal water flow conditions are encountered when there is no wind, Lake St Clair is at a stage of 573.9 feet [174.9 m], and the lower Detroit River [Lake Erie] stage is 571.0 feet [174.0 m] above mean water level at Rimouski, QC, on International Great Lakes Datum 1985 [IGLD 1985], that is 1.6 feet [0.5 meter] and 1.8 feet [0.5 m] above their respective Low Water Datums. The current encountered at midstream is usually about 1.5 times the average velocity. Greater velocities may be expected when the difference between the lake levels is greater, or when lake stages are higher:

—	High water flow (knots)	Medium water flow (knots)	Low water flow (knots)
Livingstone Channel Upper Entrance light	0.7	0.6	0.6
Fighting Island Channel North light	1.3	1.3	1.2
1.5 miles below Ambassador Bridge	1.4	1.3	1.2
Lower end of Belle Isle	1.2	1.1	1.0

Table 1.1: Current Rates on Detroit River

10 Detroit River is a designated **pilotage** area. There are pilot exchange points south of *Ambassador Bridge (42°19'N, 83°04'W)* and in Lake Huron off the head of St. Clair River. For more information on pilotage, consult *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes,* the *Annual Edition of Notices to Mariners* and *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).*

11 There are **speed limits** on Detroit River for all vessels with an overall length of 65.6 ft (20 m) or more.

The speed limits are listed in the *St. Clair and Detroit River Navigation Safety Regulations*, quoted in *Sailing Directions* booklet *CEN 300* — *General Information, Great Lakes*.

12 The speed limit for the harbour at Windsor is set by the *Windsor Port Authority* at 8 knots (15 km/h), except for the channel south of Peche Island. The speed limit in this channel, between buoys *DP2* and *DP5*, is 5 knots (9.4 km/h). The waters inside the limits of the formerly named *Peche Island Provincial Park* are subject to a speed limit of 3.2 knots (6 km/h).

13 There are Marine Communications and Traffic Services (MCTS) calling-in points in Detroit River and its approaches. For details consult the St. Clair and Detroit River Navigation Safety Regulations and the Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).

14 Canadian Government regulations are available at: <u>http://laws.justice.gc.ca/</u>.

15 Most of the marinas on the Canadian side of Detroit River are **Customs** telephone reporting site/marine for pleasure craft: <u>http://www.cbsa-asfc.gc.ca/do-rb/</u> <u>services/trsm-sdtm-eng.html</u>.

[from U.S. Coast Pilot 6, Chapter 7, partial]

16 ENCs US4MI11M, US5MI12M, US5MI30M, US5MI28M, US5MI29M, US5MI22M, Charts 14830, 14848, 14852, 14854.–Detroit River Light (42°00'03"N., 83°08'28"W.), 55 feet [17 m] above the water, is shown from a white conical tower with black top, on a hexagonal pier in the entrance to the Detroit River at the junction of East and West Outer Channels; a sound signal and racon are at the light.

17 **Channels.–East Outer Channel** and **West Outer Channel**, dredged and well marked, lead northward through the shallows at the upper end of Lake Erie to the mouth of the Detroit River. Immediately north of Detroit River Light, the channels merge to form lower Livingstone Channel. A Federal project provides for a depth of 28.5 feet [8.6 m] in East Outer Channel and 22 feet [6.7 m] in West Outer Channel. (See Notice to Mariners and latest edition of the above charts for controlling depths.)

18 East Outer Channel is a two-way passage. West Outer Channel may be used by downbound vessels whose drafts permit. (See **33 CFR 162.130, through 162.140**, chapter 2 [of U.S. Coast Pilot 6], for regulations.) East Outer Channel Light 1E is equipped with a racon and a seasonal sound signal.

19 ... A Federal project provides for a depth of 29.0 feet [8.8 m] in lower Livingstone Channel.

20 *An unmarked temporary* **dumping ground** *is in the approach to the Detroit River between East and West Outer Channels.*

21 The lower part of the Detroit River west of Livingstone Channel is open and generally shallow with several small islands. Natural channels with depths of about 13 feet [4 m] and less, marked by buoys, provide access for small craft.

22 West of the lower end of the revetments in Livingstone Channel, a small-craft channel marked by buoys leads from the open part of the lower Detroit River between **Sugar Island, MI** and **Meso Island, MI** along the Grosse Ile shore and thence west of **Stony Island, MI**. In the narrow part of this channel between Stony Island and Grosse Ile, a line of submerged bridge abutments cross the channel with a least depth of ½ foot [0.1 m]. Submerged cables follow the same line south and north of the abutments.

23 A natural channel marked by buoys leads from open water in the lower part of the Detroit River along the east side of **Celeron Island** and connects with Trenton Channel at Gibraltar. The least depth in this channel is about 7 feet [2.1 m].

24 **Sugar Island Cut**, about 400 feet [121.9 m] wide, is an opening between the east side of Sugar Island and a compensating revetment that extends west from the west revetted wall of Livingstone Channel.

Lower Livingstone Channel

Lower Livingstone Channel (42°01'N, 83°08'W) is for two-way traffic from *Detroit River* light for the 2.3 miles (4.2 km) to the southern junction of Amherstburg Channel and upper Livingstone Channel.

26 Detroit River Pier light D30 (640) is shown at an elevation of 33.4 ft (10.2 m) from a white cylindrical tower with a red band at the top and marked D30.

27 *Bar Point Pier* light D33 *(642)*, at the southern junction of Amherstburg Channel and Livingstone Channel, is shown at an elevation of 45.9 ft (14 m) from a white cylindrical tower marked *D33*.

Amherstburg Channel

Charts 14853, 14848

Bois Blanc Island $(42^{\circ}06'N, 83^{\circ}07'W)$, in Canadian waters 5.5 miles (10.2 km) north of *Detroit River* light, is known locally as **Bob-Lo Island**. At the south end of the island there is Bois Blanc Island Lighthouse and Blockhouse National Historic Site of Canada. Amherstburg is on the mainland east of Bois Blanc Island.



LIVINGSTONE CHANNEL AND AMHERSTBURG CHANNEL FROM SOUTH (2019)

29 Amherstburg Channel, for upbound traffic, passes east of Bois Blanc Island; it has three reaches. Hackett Reach extends 3.2 miles (5.9 km) NNE from the junction with Livingstone Channel to the south end of Bois Blanc Island; Amherstburg Reach extends 1 mile (1.8 km) to the north end of Bois Blanc Island; Limekiln Crossing Reach extends 1 mile (1.8 km) to the junction with Ballards Reef Channel.

30 Hackett Reach, Amherstburg Reach and Limekiln Crossing Reach are divided along their length into two halves; the shallow-draught channel is on the eastern side of these reaches and the deeper channel is on the west. The deep-draught channel and the shallow-draught channel are each 300 ft (91.4 m) wide. The channels are buoyed, and range lights indicate the centreline of the deep channel on each reach or course.

31 **Caution**. — Due to the **current**, extra care is necessary when turning from Hackett Reach into Amherstburg Reach.

32 Bar Point leading **lights**, in line bearing $013\frac{1}{2}^{\circ}$, are on the south part of the dyke extending south from Bois Blanc Island. The front light $D49 \ (648)$ is shown at an elevation of 31 ft (9.4 m) from a white cylindrical tower with a green upper part and a fluorescent-orange triangular daymark with a black vertical stripe and marked D49. The rear light (649) is shown at an elevation of 60 ft (18.3 m) from a white skeleton tower with a fluorescent-orange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

Light *D53 (653)*, 0.6 mile (1.1 km) NNE of the Bar Point rear range, is shown at an elevation of 31 ft (9.4 m) from a white cylindrical tower, with a green upper part and marked *D53*.

34 *Hackett Reach* leading **lights**, in line bearing 015°, are in the town of Amherstburg. The front light (656) is shown at an elevation of 45 ft (13.7 m) from a white cylindrical tower with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (657) is shown at an elevation of 81 ft (24.8 m) from a white skeleton tower with a fluorescent-orange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

Light *D61 (660)*, on the east side of Bois Blanc Island, is shown at an elevation of 33 ft (10.1 m) from a white cylindrical tower, 24 ft (7.3 m) high, with a green upper part and marked *D61*.

36 *Amherstburg* leading **lights** are in line bearing 356°. The front light *D65 (663)*, on the south end of the dyke 0.4 mile (0.7 km) north of Bois Blanc Island, is shown at an elevation of 30 ft (9.2 m) from a white cylindrical tower with a green upper part and a fluorescentorange triangular daymark with a black vertical stripe and marked D65. The rear light (664) is shown at an elevation of 45 ft (13.7 m) from a white skeleton tower with a fluorescent-orange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

Limekiln Crossing leading **lights**, in line bearing 003°, are 1.5 miles (2.8 km) north of the Hackett Reach range lights. The front light (672) is shown at an elevation of 25 ft (7.6 m) from a white skeleton tower with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (673) is shown at an elevation of 40 ft (12.2 m) from a white cylindrical tower with a fluorescent-orange triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

Light *D69 (669)*, 0.3 mile (0.6 km) north of the rear Amherstburg range light, is shown at an elevation of 27.5 ft (8.4 m) from a white cylindrical tower with a green upper part and marked *D69*. Light *D71 (670)*, 0.16 mile (0.3 km) farther north, is shown at an elevation of 33 ft (10.1 m) from a white cylindrical tower, 24 ft (7.3 m) high, with a green upper part and marked *D71*.

39 A self-propelled barge is reported to operate a **ferry** service to Bois Blanc Island from a **wharf** on the mainland near the Hackett Reach rear light. This ferry is reported to operate on demand.

40 Several **submerged cables** cross Amherstburg Channel.

Livingstone Channel

41 The northern part of **Livingstone Channel**, from *Bar Point Pier* light *D33* to Ballards Reef Channel $(42^{\circ}08'N, 83^{\circ}07'W)$ (*described below*), is for downbound traffic; it passes west of Bois Blanc Island. Much of the channel runs between rubble dykes. The sides of the channel are marked by lights and buoys.

42 **Hole-in-the-Wall**, a gap in the Livingstone Channel dykes NW of Bois Blanc Island, allows small craft to cross the main channel. A strong SW **current** flows through Hole-in-the-Wall.

43 Livingstone Channel Upper Entrance light (677), on a white square crib at the north end of the Livingstone Channel near the intersection of Ballards Reef Channel and Livingstone Channel, is shown at an elevation of 42.3 ft (12.9 m) from a white cylindrical tower 20 ft (6.1 m) high.

BOIS BLANC ISLAND AND AMHERSTBURG (2019)



Livingstone Channel lights. — On the west side of Livingstone Channel, Lights 25 (US 7240), 23 (US 7250), 21 (US 7260) and 19 (US 7275) are shown from black masts with a green square daymark. Lights DL17 (696), DL15 (694) and DL13 (692) are shown from white cylindrical towers with a green upper part and are visible from all points of approach on channel side . Lights 23 and 19 show a higher intensity up and down the channel.

45 Marking the east side of the channel, **Lights** 26 (US 7245) and 24 (US 7255) are shown from red masts with a red triangular daymark; **Light** 24 shows a higher intensity up and down channel. **Lights** DL22 (701), DL20 (699), DL18 (697), DL16 (695) and DL14 (693) are shown from a white cylindrical tower, 24 ft (7.3 m) high, with a red upper part.

46 The limits of **Amherstburg Harbour** are defined as all of the waters of the Detroit River and of Lake Erie on the Canadian side of the International Boundary south of the southerly limit of Windsor Harbour and west of the meridian of longitude $83^{\circ}05'00''W$. The southerly limit of Windsor Harbour is a straight line drawn from *Fighting Island North* light at the International Boundary $(42^{\circ}14'N, 83^{\circ}08'W)$ in a 046½° direction to the high water mark on the shore.

47 Amherstburg Harbour is a Public Harbour administered by *Town of Amherstburg*. For harbour regulations *see* Sailing Directions booklet *CEN 300* -*General Information, Great Lakes*.

Amherstburg

48 The town of **Amherstburg**, with a population of 21 936 (2016), is a tourist resort with much historic appeal, having been a major battleground in the War of 1812 and also the northern end of the Underground Railroad for escaping slaves. There are also chemical, distillation and manufacturing plants in the area.

49 A Canadian Coast Guard Base lies between the Hackett Reach leading lights. The south **wharf** has a buoy maintenance and storage building; the wharf is 250 ft (76.2 m) long and has a depth of 21 ft (6.4 m). A

AMHERSTBURG COAST GUARD BASE (2019)



protected basin formed by the northern part of the south wharf has a depth of 3 ft (0.9 m). The north wharf, 290 ft (88.4 m) long, has workshops and office buildings. In an emergency, temporary berthing at the *Canadian Coast Guard Base* may be requested through the *Canadian Coast Guard*. There is a launching **ramp** at the base.

50 Amherstburg is a **Customs** telephone reporting station/marine for pleasure craft.

51 The former *Allied Chemical* wharf, at the upper end of Amherstburg, is a series of dolphins connected by catwalks. The wharf is $300 \text{ ft} (91.4 \text{ m}) \log$ with a depth of 21 ft (6.4 m).

52 A Canadian Coast Guard Rescue Cutter is based at Amherstburg from the beginning of April to mid-December each year, though these dates are subject to change (see information on Search and Rescue in Sailing *Directions* booklet *CEN 300* — *General Information, Great Lakes*).

53 **Caution**. — Extra care is necessary when anchoring in Amherstburg Channel between its upper end and the south end of Bois Blanc Island; the **current** may cause an anchor to drag and overturn rocks which then become obstructions.

54 A **submerged** water intake north of the front structure of the Fort Malden range **lights** extends 300 ft (91.4 m) into the river.

55 **Caution**. — Small craft operators have reported striking two submerged obstructions between the west side of Bois Blanc Island and the Livingstone Channel dyke.

56 There are several small wharves and marinas in the area of Amherstburg Channel.

FIGHTING ISLAND FROM SOUTH (2019)



57 Amherstburg Yacht Club, 1 mile (1.8 km) farther north, has depths of 1 to 2 ft (0.3 to 0.6 m) and offers dockage, ramp, pump-out, drinking water, some groceries, restrooms, showers, Wi-Fi, ice and gasoline and diesel fuel.

[from U.S. Coast Pilot 6, Chapter 7, partial]

Grosse Ile, MI, about 8 statute miles [7 nm] 58 long and 1.5 statute miles [1.3 nm] wide, is the largest island in the Detroit River. It extends along the west side of the dredged river channels from about the midpoint of upper Livingstone Channel north to about the midpoint of Fighting Island Channel opposite the city of Wyandotte, MI. Trenton Channel separates the west side of the island from the mainland. The north end of the island, Point Hennepin, MI, is a waste disposal site; the rest of the island consists mostly of residential communities and private facilities.

59 Thorofare Canal, a large shallow drainage ditch about 3.5 [3] miles long, crosses the body of Grosse Ile in a northeast-southwest direction. Several highway bridges

and overhead cables cross this ditch. Passage should not be attempted without local knowledge.

60 A slow-no wake speed is enforced within 1,000 feet [305 m] of shore of Grosse Ile, except in Trenton Channel and in the channel between the northeast side of the island and Mamajuda Island Shoal. A slow-no wake speed is enforced in Thorofare Canal and in the canals between Grosse Ile and the small islands off its south end.

Ballards Reef Channel

62

Ballards Reef Channel (42°09'N, 83°07'W) is 61 2 miles (3.7 km) long from its southern end at the junction with Limekiln Crossing Reach of the Amherstburg Channel to its northern end at the junction with Fighting Island Channel. The channel is well marked by buoys; leading lights indicate the centre-line.



Caution. — Due to strong currents at the junction of Livingstone Channel and

Ballards Reef Channel, mariners are cautioned to favour the west side of the channel.

63 Three **submerged cables** cross the main shipping channels near the junction of Ballards Reef Channel and Livingstone Channel.

64 **Caution**. — The base of an old light structure lies 26 ft (7.9 m) north of *Livingstone Channel Upper Entrance* light. This obstruction is submerged by about 2 ft (0.6 m) and is marked by an uncharted red spar **buoy**.

65 An auxiliary **channel** passing east of Fighting Island joins Ballards Reef Channel and is marked by spar **buoys**. All vessels whose draughts permit should use this auxiliary channel in order to relieve congestion in the main shipping channel.

66 Fort Malden leading **lights**, in line bearing $162\frac{1}{2}^{\circ}$, are on the east shore opposite the *Amherstburg* leading lights. This range marks the centreline of Ballards Reef Channel. The front light (667) is shown from a white skeleton tower, 22 ft (6.7 m) high, with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (668) is shown from a white skeleton tower, 52.2 ft (15.9 m) high, with a fluorescentorange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

67 **Light** *D77 (678)*, on a pier on the west side of Ballards Reef Channel, is shown at an elevation of 37 ft (11.3 m) from a white square structure with a green vertical stripe on each corner and marked *D77*.

68 **Canard River** flows into Detroit River east of Ballards Reef Channel. The channel leading to the river entrance is marked by private **buoys**.

69 Anderdon Harbour Light Tavern, on the east shore 0.1 mile (0.2 km) north of *Limekiln Crossing* rear leading light, has depths of 1 to 5 ft (0.3 to 1.5 m) and offers dockage to their customers (overnight berthing by prior arrangement).

Fighting Island $(42^{\circ}13'N, 83^{\circ}07'W)$, in Canadian waters east of the main shipping channel, is a marsh or waste bed fill and gravel island 3 miles (5.6 km) long and 0.4 mile (0.7 km) wide with an elevation of 13 ft (4 m). Many swans and bald eagles are reported living in this area. Turkey Island, low and marshy with a few trees, and Grassy Island lie between Fighting Island and the Canadian mainland.

71 The community of La Salle $(42^{\circ}14'N, 83^{\circ}06'W)$, population 30 180 (2016), lies east of the north end of Fighting Island.

72 Several **submerged cables** cross the channel between La Salle and Fighting Island.

73 There are many marinas at La Salle and along the mainland side of the channel east of

Fighting Island. La Salle is a **Customs** telephone reporting site/marine for pleasure craft.

74 *Acali Place Marina*, 2 miles (3.7 km) south of La Salle, has depths of 2 ft (0.6 m) in the approaches and 3 ft (0.9 m) at the wharves and offers dockage with power and water, pump out, **ramp**, repairs, 20-tonne hoist, picnic and camping area, showers and ice. Under new ownership in 2018.

75 Boat Doctor's River Run Marina, 0.15 mile (0.27 km) north of Acali Place Marina, has depths of 2 ft (0.6 m) in the approaches and up to 4 ft (1.2 m) at the wharves and offers dockage with power and water, ramp, 32-tonne hoist, picnic area, camping, showers, ice and inside storage. The entrance channel to this marina is privately buoyed.

76 *Mueller's Marina*, next north, has depths of 3 ft (0.9 m) in the approaches and 5 ft (1.5 m) at the wharves and offers dockage with power and water, **ramp** and picnic area.

77 *Riverfront Harbour Marina*, a private facility just north of *Mueller's Marina*, has depths of 1 ft (0.3 m).

St. Clair Marine, 1.6 miles (3 km) south of La Salle, has depths of 1 ft (0.3 m) in the approaches and 1 to 2 ft (0.3 to 0.6 m) at the wharves and offers dockage with power and water, repairs, 30-tonne hoist, mast stepper, winter storage and boat hardware.

79 *La Salle Mariner's Yacht Club*, a private club 0.1 mile (0.2 km) north of *St. Clair Marine*, has depths of 5 to 13 ft (1.5 to 4 m).

80 Island View Marine Store & Marina, on the east shore opposite Grassy Island, has depths of 2 ft (0.6 m) and offers dockage with power and water, pump out, **ramp**, repairs and salvage, 15-tonne hoist, boat sales and service, boat hardware, picnic area, showers, ice, some groceries, bait, tackle and snack bar.

81 *Beattie's Sunset Marina* (formerly *Pilot House Marina*), next north, has depths of 2 to 3 ft (0.6 to 0.9 m) and offers dockage with power and water, **ramp**, repairs, 25-tonne hoist, picnic area, swimming pool, showers, laundromat, ice, and snack bar and restaurant with licensed dining room. It was for sale in 2017.

82 *Holiday Harbour Marina*, home of the *Sun Parlour Boat Club*, 0.1 mile (0.2 km) farther north, has depths of 4 to 5 ft (1.2 to 1.5 m) and offers dockage with power and water, **ramp**, engine repairs, 15-tonne hoist, fishing boat rentals, picnic area, showers, ice, boat hardware, a swimming pool and recreation hall, used boat sales, and a taxi shuttle to *Windsor Casino*. There is a privately maintained **light** on each side of the entrance. It was for sale in 2017.

83 *Mona's Place*, on the east shore 0.2 mile (0.4 km) north of Grassy Island, has depths of 3 to 5 ft (0.9 to 1.5 m) and offers water, pump out, **ramp**, snack bar, ice, gasoline and diesel fuel. *Mona's Place* is a **Customs** telephone reporting site/marine for pleasure craft.

84 *Westport Marina*, at La Salle, has depths of 5 to 6 ft (1.5 to 1.8 m) and offers dockage with power and water, pump out, **ramp**, repairs, 35-tonne hoist, boat hardware, marine electronics repair, showers and ice. It was for sale in 2018.

85 *Park Haven Marina*, 0.15 mile (0.27 km) farther north, has depths of 1 to 2 ft (0.3 to 0.6 m) and offers dockage with power and water, pump out, repairs, 5-tonne hoist, new and used boat parts, picnic area, showers and ice.

Fighting Island Channel

[from U.S. Coast Pilot 6, Chapter 7, partial]

86 **Fighting Island Channel** extends from the upper end of Ballards Reef Channel, about 2 [1.7] miles below the head of Grosse Ile, along the west side of Fighting Island to the natural deep water north of Fighting Island. A Federal project provides for a depth of 28.5 feet [8.7 m] in Fighting Island Channel. (See Notice to Mariners and latest edition of charts for controlling depths.)

87 **Anchorage.**—A deep-draft anchorage, marked on the west side by buoys, is on the west side of the south end of Fighting Island Channel. The anchorage is used when conditions are unfavorable for proceeding through the confined deep channels leading south into Lake Erie. Vessels using this anchorage should be careful to avoid Mamajuda Island Shoal, a long shoal extending from the north end of Grosse Isle (Point Hennepin) into the north side of the anchorage.

A buoyed natural channel leads north from the northwest part of the anchorage between the upper end of Grosse Ile and **Mamajuda Island Shoal** and joins with Trenton Channel at Wyandotte, MI. The controlling depth in the channel is about 21 feet [6.4 m].

89 *Fighting Island North* **light** (684.3), on a pier on the east side of the north entrance to Fighting Island Channel, is shown at an elevation of 34.8 ft (10.6 m) from a white cylindrical tower, with a red upper part.

90 A **submerged** water intake extending from the United States' shore passes under Trenton Channel, Grassy Island and Fighting Island Channel to an intake crib 200 ft (61 m) east of Fighting Island Channel. The intake crib is marked at each end by a privately maintained **light**. Several other **submerged pipelines** cross Fighting Island Channel and Trenton Channel.

[from U.S. Coast Pilot 6, Chapter 7, partial]

91 *ENCs US5MI21M, US5MI22M, US5MI30M, US5MI28M, US5MI29M, Charts 14848, 14854,*

14853.–Ecorse Channel is a buoyed, natural deep water channel that follows the curve of the Michigan shoreline from the junction of Fighting Island Channel and Trenton Channel southwest for about 1.2 [1] miles to its lower junction with Trenton Channel. Between the upper and lower junctions, Ecorse Channel is separated from Trenton Channel by Mud Island, MI and the shoals that extend northeast and southwest from it. Ecorse Channel has a controlling depth of about 10 feet [3 m] at its northeast end, with deeper water in the lower part. Ecorse, MI, is on the west side of the channel at the mouth of the Ecorse River.

92 *A slow-no wake speed* is enforced within 1,000 feet [305 m] of shore in the waters of the Detroit River adjacent to the city of Ecorse.

93 **Trenton Channel** extends from the north end of Fighting Island Channel southwest to the Michigan shore, thence south along the shore for about 6 [5.2] miles to a turning basin at the upper end of the city of Trenton, thence 3 [2.6] miles to another turning basin at the lower end of the city. The dredged channel, marked by buoys, is separated from the main part of the Detroit River by Grassy Island and Grosse Ile. (See Notice to Mariners and latest editions of charts for controlling depths.)

From the lower end of the Trenton Channel lower turning basin, a depth of about 6 feet [1.8 m] can be carried through the narrow, crooked natural channels between Grosse Ile and the mainland to the town of Gibraltar and the open river below Grosse Ile.

95 The Grosse Ile Toll highway bridge, a swing span with a clearance of 10 feet [3 m], crosses Trenton Channel 2.2 [1.9] miles below Point Hennepin. The Grosse Ile Parkway bridge, crossing Trenton Channel just above the lower turning basin, has a swing span with a clearance of 18 feet [5.5 m]. (See **33 CFR 117.1 through 117.59 and 117.631**, chapter 2 [of U.S. Coast Pilot 6], for drawbridge regulations.)

96 *Wyandotte, MI*, fronts Trenton Channel for about 3 [2.6] miles opposite Point Hennepin. The city is an important industrial center, and numerous stacks in the city are prominent from the river.

97 *A* slow-no wake speed is enforced within 1,000 feet [305 m] of shore in the waters of the Detroit River adjacent to the city of Wyandotte.

98 **Towage.**—Tugs for Wyandotte are available from Detroit. (See Towage under Detroit.)

99 Wharves.-City of Wyandotte, Power Plant Wharf: 0.5 [0.4] mile north of Point Hennepin; 630 feet [192 m] of berthing space; 18 to 23 feet [5.5 to 7 m] alongside; deck height, 8 feet [2.4 m]; open storage for 60,000 tons [54,431 tonnes] of coal; receipt of coal; owned and operated by City of Wyandotte.

100 **Small-craft facilities.**—Several marinas in the north part of the city provide transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, launching ramps,

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FIGHTING ISLAND ANCHORAGE AND ZUG ISLAND FROM NE (2018)



and marine supplies. Lifts to 45 tons [40.8 tonnes] are available for hull, engine, and radio equipment repairs.

101 **Trenton, MI**, just south of Wyandotte, fronts Trenton Channel opposite Grosse Ile for about 4 [3.5] miles. The stacks of the Detroit Edison Co., 0.5 [0.4] mile southwest of the Grosse Ile Parkway bridge, are prominent from the river, especially from the south.

102 *Towage.*—*Tugs for Trenton are available from Detroit. (See Towage under Detroit.)*

103 Quarantine, customs, immigration, and agricultural quarantine.–(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

104 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

105 *A* slow-no wake speed is enforced within 1,000 feet [305 m] of shore within the limits of Trenton.

106 *Wharves.*-*Trenton has three deep-draft facilities; the alongside depths are reported depths. For information on the latest depths, contact the operators.* 107 **Small-craft facilities.**—Two marinas at Trenton provide gasoline, diesel fuel, water, ice, electricity, marine supplies, a 10-ton [9.1-tonne] hoist, and launching ramps.

108 ENCs US5MI21M, US5MI30M, US5MI28M, US5MI29M, Charts 14848, 14853.–Gibraltar, MI is a town on the Michigan mainland opposite the south end of Grosse Ile, about 2 [1.7] miles below the Trenton Channel lower turning basin. Private lights and a private 239° lighted range mark the entrance channel to Gibraltar from the Detroit River. The range should be followed closely because of rocks along the south side of the channel. A slow-no wake speed is enforced within 500 feet [152.4 m] of shore within the limits of Gibraltar. Marinas inside the entrance channel provide gasoline, diesel fuel, water, ice, sewage pump out, and marine supplies. Hoist to 40 tons [36.3 tonnes] are available for hull and engine repairs.

109 **Lake Erie Metropark Marina**, developed by the Michigan State Waterways Commission, about 3 [2.6] miles south of Gibraltar, provides transient berths with electricity, water, and sewage pump-out for boats no greater than 30 feet [9.1 m]. The entrance is marked by private lighted and unlighted buoys and a **270°** lighted range.

Table 1.2: Major Port Facilities Windsor Harbour				
Name	Wharf Length ft (m)	Depth † ft (m)	Elevation †† ft (m)	Remarks
Sterling fuels	1,000 (305)	27 (8.2)	8 (2.4)	Complete vessel bunkering facility, operation all year, 24 hours a day.
Windsor Port Authority	—	—	—	Open storage area of 12 acres (5 ha) for stone, sand and bulk materials.
Windsor Port Authority — Confederation Dock	—	—	—	Canada Building Materials Company cement mixing plant occupies NW corner of wharf.
Windsor Port Authority — Canada Building Materials — Slip	760 (232)		_	Slip not used for docking vessels.
Windsor Port Authority — Canada Building Materials — River front	315 (96)	27 (8.2)	_	For self-unloading vessels.
Windsor Port Authority	—	_	_	Open storage area of 25 acres (10 ha) for stone, sand and bulk materials.
Windsor Port Authority — Lafarge Construction Materials	806 (246)	25 (7.6)	4 (1.2)	For self-unloading vessels. Operated by Lafarge Construction Materials.
Adams Cartage — Slip	850 (259)	16 (4.9)	—	Open storage for 90,720 tonnes, also covered storage. Not in use in 1995.
Adams Cartage — River front	150 (45.7)	25 (7.6)	4 (1.2)	—
Pyramid Aggregates	450 (137)	20 (6.1)	3 (0.9)	Open storage area of 150,000 sq ft (13,935 m²). Not in use in 1995.
Premier Concrete Dock Ltd.	1,000 (305)	21 (6.4)	3 (0.9)	Used by the owners for handling building aggregates and bulk cement into silos. Open storage area of 13.4 acres (5.4 ha).
Canadian Pacific Railway	150 (45.7)	25 (7.6)	4 (1.2)	Railroad ferry terminal. Ceased operations in May 1994.
Dieppe Park Dock	800 (244)	26 (7.9)	4 (1.2)	Owned by the City of Windsor. Used by visiting non-commercial ships. Administered by the Department of Parks and Recreation.
Canadian National Railways	—	36 (11)	4 (1.2)	Railroad ferry terminal. Ceased operations.
Canadian Salt Co. Ltd.	730 (223)	26 (7.9)	7 (2.1)	Open storage area of 300,000 sq ft (27,900 m²).
Canadian Salt Co. Ltd. — Ojibway Mine	_	_	_	Road and railway connections.

Table 1.2: Major Port Facilities Windsor Harbour

Name	Wharf Length ft (m)	Depth † ft (m)	Elevation †† ft (m)	Remarks
ADM Grainco — Windsor Grain Terminal	1,278 (389)	27 (8.2)	6 (1.8)	An elevator with a capacity of 105,000 tonnes of grain handles soya beans, corn, wheat, or oil seeds, as well as meal from the adjacent ADM-Agri Industries Ltd. plant. Modern conveyor equipment for loading and unloading. Access to major railways and highways.
Morterm Limited. — Slip	2,400 (732)	16 to 23 ft (4.9 to 7m)	_	Terminal area of 180 acres (73 ha). Direct railway and road connections. 157,000 sq ft (14,587 m ²) of covered storage. 15 fork-lift trucks, 2 mobile cranes.
Morterm Limited. — River front	750 (229)	27 (8.2)	—	Open storage area of 50 acres (20 ha).
Ontario Hydro — J. Clark Keith Generating Station	730 (223)	21 (6.4)	3 (0.9)	Not in use in 1995.
Southwestern Sales West Dock	1,400 (427)	21 (6.4)	2 (0.6)	Open storage area of 21 acres (8.5 ha). Road and railway connections.
Canadian Salt Co. Ltd.— Sandwich Dock	410 (125)	27 (8.2)	4 (1.2)	Operated by the Van de Hogen Group for handling inbound shipments of lumber.
Kennette Contracting Co. Ltd.	450 (137)	26 (7.9)	5 (1.5)	Open storage area of 21 acres (8.5 ha) for bulk materials. Road and railway connections. Privately owned. Not in use in 1995.
Van de Hogen Material Handling Inc.	410 (125)	26 (7.9)	4 (1.2)	Major storage and distribution centre with complete handling capabilities. 56 acres (22.6 ha) of open storage; 80,000 sq ft (7,433 m ²) of covered storage.
Coco Harbour Terminals	630 (192)	28 (8.5)	4 (1.2)	Available for receiving and storing aggregate.
Hiram Walker and Sons Ltd.	2,200 (671)	24 (7.3)	6 (1.8)	Private wharf receiving bulk grain from self-unloading vessel up to 750 feet (229 m) in length.
Ford Motor Company of Canada Ltd.	1,800 (549)	_	8 (2.4)	Open storage area 1,800 x 200 feet (549 x 61 m), bulk materials including sand from self-unloading vessels. Private dock.
Southwestern Sales East Dock	700 (213)	28 (8.5)	3 (0.9)	Bulk storage with a rubble wall. Stone and sand discharged by self-unloading vessels only.

Note: All information in this table was provided by local authorities. User should consult local authorities for latest conditions.

† Depth below chart datum.

†† Elevation above chart datum.

110 Above Fighting Island, for about 9 [7.8] miles to Belle Isle, the Detroit River narrows into a single channel from 0.35 to 0.5 [0.3 to 0.43] mile wide. In this stretch the river is generally clear, with depths of 29 to 43 feet [8.8 to 13.1 m] at midriver. Buoys mark the principal shoals that extend off the banks of the river.

111 *Wharves.*—There are several deep-draft facilities along the west side of the river between the north end of Fighting Island and the mouth of the River Rouge, 2 [1.7] miles upstream. (For a complete description of the facilities, refer to Port Series No. 45, published and sold by the U.S. Army Corps of Engineers. See Appendix A [of U.S. Coast Pilot 6] for address.) ...

112 **Repairs.**—Nicholson Terminal and Dock Co. operates a floating drydock at the inner end of their pier. The 2,500-ton [2,268-tonne] drydock is 170 feet [51.8 m] long with a width of 50 to 55 feet [15.2 to 16.8 m] and a depth of 13 feet [4 m] over the keel blocks. Portable equipment is available for making general repairs to vessels at berth anywhere in the harbor.

113 ENCs US5MI21M, US5MI22M, US5MI30M, US5MI28M, US5MI29M, US5MI22M, Charts 14848, 14853, 14854.–River Rouge discharges into the Detroit River at the south end of the city of Detroit, about 2 [1.7] miles above Fighting Island. A Federal project has improved River Rouge as far as a turning basin about 2.5 [2.2] miles above the entrance.

114 Short Cut Canal 21 is the section at the entrance to River Rouge from Detroit River to the junction with Old Channel. The canal avoids the large bend in the old river channel (Old Channel) at the lower part of River Rouge, and shortens the distance to facilities upstream by more than 1 [0.8] mile. The connection between Short Cut Canal 21 and Old Channel has created **Zug Island**, which is occupied by large industrial corporations.

The Federal Project provides for a depth of 21 feet 115 [6.4 m] in Short Cut Canal 21 and River Rouge to a turning basin at the head of the project, with 21 feet [6.4 m] in the basin. Old Channel has a project depth of 25 feet [7.6 m] from the entrance to just below the first bascule bridge, thence 18 feet [5.5 m] to about 0.5 [0.4] mile above the mouth, thence 17 feet [5.2 m] to the junction with Short Cut Canal 21. (For detailed channel information and minimum depths as reported by the U.S. Army Corps of Engineers (USACE), use NOAA Electronic Navigational Charts. Surveys and channel condition reports are available through the USACE hydrographic survey website listed in Appendix A. [of U.S. Coast Pilot 6]) The north side of the entrance to Short Cut Canal 21 is marked by a lighted buoy. Rapid shoaling occurs in the canal and river because of the soft bottom. A number of cables, water mains, and tunnels cross under the canal and river; masters should exercise caution when dropping anchors.

116 **Regulations.**–A speed limit of 4 mph [3.5 knots] is enforced in River Rouge and Short Cut Canal 21. (See 33 CFR 162.130 through 162.140, chapter 2 [of U.S. Coast Pilot 6], for navigation regulations.)

117 **Wharves.**—Both sides of River Rouge and Short Cut Canal 21 are lined by industrial corporations and their deep-draft facilities. The alongside depths given in the table are reported depths; for information on the latest depths contact the operator. Many of the facilities have railway, water, and electrical shore-power connections.

118 **Supplies.**—Bunker fuel is available at several facilities in the river, or by barge or truck. A supply company on the west side of Old Channel has supplies and provisions.

Fighting Island to Lake St. Clair

Charts 14853, 14848

119 The upper Detroit River extends 13 miles (24 km) from the north end of Fighting Island Channel to Lake St. Clair. Fleming Channel, at the head of the river, leads south of Belle Isle to Lake St. Clair.

120 Detroit River is a designated **pilotage area**. There are pilot exchange points south of *Ambassador Bridge (42°19'N, 83°04'W)* and in Lake Huron off the head of St. Clair River. For more information on pilotage, consult *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes, the Annual Edition of Notices to Mariners* and *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).*

121 An **anchorage** area north of Fighting Island is 4000 ft (1219 m) long and 800 ft (243.8 m) wide, with depths of 29 to 35 ft (8.8 to 10.7 m). The SE corner is marked by a light **buoy**.

122 An **obstruction** charted near the middle of the anchorage area is an unknown amount of anchor cable.

123 Fighting Island North Anchorage **light** (688), on the east shore at the north end of the anchorage area, is shown at an elevation of 31.8 ft (9.7 m) from a yellow cylindrical mast with a yellow square daymark with a black anchor symbol in the centre.

[from U.S. Coast Pilot 6, Chapter 7, partial]

124 The most prominent feature on the Detroit River is the Renaissance Center (42°19'44"N., 83°02'24"W.). The flashing light atop the building is reported to be visible for more than 20 [17.4] miles.

Port of Windsor

Port of Windsor ($42^{\circ}19$ 'N, $83^{\circ}04$ 'W) extends for 14 miles (25.9 km) along the Canadian shores of Detroit River and Lake St. Clair. The SW limit of the harbour is a straight line drawn from *Fighting Island North* light at the International Boundary in a 046¹/₂° direction to the shore. The NE limit of the port is the northerly extension of the east limit of the city of Windsor to the International Boundary.

126 The city of **Windsor**, with a population of 217 188 (2016) and a metropolitan area population of 329 144, has more than 500 industries and is a major Canadian automobile manufacturing centre. Windsor is the principal outlet for Ontario agricultural products; major canning companies operating in Windsor take advantage of the extended growing season and crop varieties. Windsor is also the home of Ontario's first major casino.

127 Windsor is a **Customs** land border reporting station for passengers, general public, and commercial

highway traffic; a vessel clearing station for commercial traffic; and a telephone reporting site/marine for pleasure craft.

128 Immigration and agricultural inspection facilities are also available at Windsor.

129 Port of Windsor is administered by the *Windsor Port Authority*. Regulations, information and rates may be obtained from the office of the Port Authority at 3190 Sandwich Street, Windsor, ON, N9C 1A6.

130 Port of Windsor was used by 2381 ships, ferries and barges in 2014, with a total of 5.4 million tonnes of cargo. Commodities handled include aggregates, salt, lumber, petroleum, general cargo, grain, other dry and liquid bulk.

131 The normal navigation season is from April 15 to December 15. Depending on weather conditions, navigation may begin as early as March 20 and end as late as January 31. Local use of the harbour continues all year.

PECHE ISLAND AND WINDSOR FROM N (2019)



1-15

132 Tugs are available locally or from Detroit. Major repairs can be carried out by *Romeo Machine Shop*. There is no dry dock. Marine radar and radio repairs can be carried out by *KELCOM*. Garbage service, heavy lift equipment and fork lift trucks are available. Information on services can be obtained from the Harbour Master.

 $\begin{array}{c} 133 \\ kable. \end{array}$ (Windsor Harbour wharves are listed in the

134 (Shipyards in the Great Lakes area are listed in Sailing Directions booklet CEN 300 — General Information, Great Lakes.)

135 All types of marine supplies, stores, fresh provisions and water are available in Windsor. Complete ship bunkering services are available at the *Sterling Fuels* wharf.

136 Windsor Port Authority monitors VHF Channel 14. Canadian and United States' railroads service the harbour. Transport truck lines operate between Windsor and all parts of Ontario as well as the States of Michigan, Ohio, Indiana and Illinois. Windsor International Airport offers connections with other airports in Canada and the United States, as well as charter flights to the Caribbean.

137 **Conspicuous** objects in Windsor are the chimney at *Hiram Walker and Sons*; the lighted *Home of Canadian Club* sign WSW of Belle Isle; and the church cupolas between the Ford plant and *Hiram Walker and Sons*.

138 *Ambassador Bridge*, connecting Windsor and Detroit, carries vehicular traffic. This **bridge** has a high-level suspension span with a vertical clearance of 156 ft (47.5 m) above chart datum for a width of 100 ft (30.5 m) at midchannel; the vertical clearance decreases to 133 ft (40.5 m) over the main shipping channel, on each side of the river.

Five **overhead** power **cables**, with a vertical clearance of 165 ft (50.3 m), cross the river 1.5 miles (2.8 km) SW of *Ambassador Bridge*. The cables are supported on each shore by a skeleton **tower**, 292 ft (89 m) high; both **towers** have air obstruction **lights**.

140 A **submerged cable** crosses the river near the overhead power **cables**; a **submerged pipeline** and a **submerged** power **cable** cross the river 0.2 mile (0.4 km) SW of the **overhead** power **cables**. Another **submerged pipeline** crosses north of the anchorage area.

141 *Canadian Maritime Transport* operates a truck ferry just downstream of the Morterm terminal. Cargoes handled include hazardous materials and oversize/ overweight tractor trailers.

142 **Caution**. — Two tunnels connect Windsor and Detroit. The *ConRail* tunnel lies 0.75 mile (1.4 km) ENE of *Ambassador Bridge*; the *Detroit-Windsor* tunnel, for general highway traffic, is 0.9 mile (1.7 km) farther east. Mariners are cautioned not to anchor near the tunnels.

[from U.S. Coast Pilot 6, Chapter 7, partial]

143 A shoal with a least depth of 14 feet [4.3 m] extends off the U.S. shoreline between the two tunnels. Buoys mark the upper and lower ends of the shoal.

144 *Anchorage.*–*A* designated deep-draft anchorage is in U.S. waters between the upper tunnel and Belle Isle. (See 33 CFR 110.1 and 110.206, chapter 2 [of U.S. Coast Pilot 6], for limits and regulations.)

145 **Small-craft facility.**—A public docking facility constructed by the city and the Michigan State Waterways Commission is on the north side of the river about 2.8 [2.4] miles above the Ambassador Bridge. Water, electricity, and sewage pump-out station are available.

146 The harbormaster assigns berths.

147 **Peche Island**, formerly a provincial park, is in the east part of Port of Windsor at the Detroit River entrance; in 2014 there were no facilities for boaters. A natural channel passing south of Peche Island is marked by **buoys**.

148 A submerged pipeline and a submerged power cable cross the channel south of Peche Island. Another submerged power cable leads in a NE and north direction to the *Peche Island* leading lights *(described in Chapter 2)*.

149 *HMCS Hunter Naval Reserve* has opened a facility at the former *Mill Cove Marina*, on the east shore 0.5 mile SW of *Ambassador Bridge*.

150 *Lakeview Park Marina*, a municipal marina on the mainland south of Peche Island, has depths of 4 to 8 ft (1.2 to 2.4 m) and offers dockage with power and water, pump out, **ramp**, picnic area, showers, laundromat, snack bar, restaurant with licensed dining room, ice, gasoline and diesel fuel, and monitored VHF Channel 68. Privately maintained **lights**, on posts 17 ft (5.2 m) high, are shown at the entrance to the marina. A disused lighthouse on the SW side of the marina makes a good landmark; it is white with a red top.

151 *Windsor Yacht Club*, a private club on the mainland SW of Peche Island, has depths of 3 to 5 ft (0.9 to 1.5 m) and monitored VHF Channel 68; there is a privately maintained **light** at the entrance.

152 *Riverside Marina*, between *Windsor Yacht Club* and *Lakeview Park Marina*, has depths of 2 to 5 ft (0.6 to 1.5 m) and offers dockage with power and water, pump out, **ramp**, picnic area, showers, ice and gasoline.

153 Anchor-In Marine Ltd., a repair facility at Riverside Marina, has depths of 5 ft (1.5 m) and offers

service slips, **ramp**, repairs and salvage, boat hardware, canvas repairs, 10-tonne hoist, ice and stove alcohol.

154 **Fleming Channel** $(42^{\circ}20'N, 82^{\circ}58'W)$, the main river channel, passes south of Belle Isle and north of Peche Island. The west part of the channel is through natural deep water; the channel is dredged from the middle part of Belle Isle east to Lake St. Clair and is marked by lighted **buoys**.

[from U.S. Coast Pilot 6, Chapter 7, partial]

155 **Belle Isle**, **MI**, about 3 statute miles [2.6 nm] long and 1 statute mile [0.9 nm] wide, is in midriver near the upper end of the Detroit River. ... **Belle Isle Light** (42°20'24"N., 82°57'35"W.), 30 feet [9.1 m] above the water, is shown from a pile on the southeast point of the island and marks the north side of Fleming Channel.

156 A Federal project provides for a depth of 28.5 feet [8.7 m] in the dredged sections of Fleming Channel from mid-length of Belle Isle to about 0.3 [0.26] mile northeast of Peche Island Range Front Light, thence 27.5 feet [8.4 m] to Peche Island Channel in Lake St. Clair. (See Notice to Mariners and latest edition of charts for controlling depths.)

157 $A 074^{\circ}-254^{\circ}$ measured mile is reported on the south side of Belle Isle.

158 William Livingstone Memorial Light

(42°20'49"N., 82°57'16"W.), 58 feet [17.7 m] above the water, shown from a white pyramidal monument on the east end of Belle Isle, is a 247° leading light marking the entrance to the Detroit River from Lake St. Clair.

Generally, only local and pleasure craft use the 159 channel on the north side of Belle Isle. The lower entrance is marked by a lighted buoy which marks a 6-foot [1.8-m] shoal that extends 0.5 [0.4] mile from the west end of Belle Isle. Scott Middle Ground, MI is an extensive shoal area, with depths to 1 foot [0.3 m], between Belle Isle and the U.S. shore. Natural channels marked by buoys lead north and south of the shoal. The north channel has a controlling depth of about 18 feet [5.5 m]. Above Scott Middle Ground, a 12-foot [3.7-m] spot is marked on its north side by a buoy in midchannel north of Belle Isle. The upper entrance to the channel north of Belle Isle is through a dredged channel. A fixed highway bridge (Douglas McArthur Bridge) with a clearance of 32 feet [9.8 m] crosses from Detroit to the lower end of Belle Isle.

160 **Erma Henderson Boat Marina**, developed by the Michigan State Waterways Commission, is on the mainland side of the channel north of Belle Isle. The marina provides transient berths, electricity, water, ice and sewage pumpout. The entrance is marked by private lights.

161 ... Peche Island Light (42°20'54"'N.,

82°56'33"W.), 44 feet [13.4 m] above the water, is shown from a cylindrical tower with a triangular red daymark on the northwest side of the shoal off the west end of the island. The light marks the southeast side of Fleming Channel, but should not be passed close aboard because of protective riprap. A lighted buoy at the west extremity of the shoal marks the north side of the entrance to a buoyed natural deepwater channel that leads from Fleming Channel around the south side of Peche Island into Lake St. Clair. The depths in Lake St. Clair at the outer end of the channel are about 8 feet [2.4 m].

162 *Windmill Point Light (42°21'27''N.,*

82°55'48"W.), 42 feet [12.8 m] above the water, is shown from a white conical tower on a concrete base on the north side of the entrance to the Detroit River.

163 **Detroit, MI**, fronts the northwest side of the Detroit River from the mouth of Old Channel of River Rouge northeast to the head of the river. It is a major industrial city and the center of the U.S. automobile industry. The chief waterborne commerce is in coal, petroleum products, limestone, steel, iron ore and pellets, and general and containerized cargo.

164 **Anchorage.**–Anchorage in the Detroit River is restricted by Federal regulations. (See **33 CFR 162.136**, chapter 2 [of U.S. Coast Pilot 6], for regulations.) If weather conditions preclude passage through the river, vessels generally hold up or anchor in Lake Erie if northbound or in Lake Huron if southbound. Vessels awaiting berths, weather, or other conditions occasionally anchor on the northwest side of the river below Belle Isle. (See **33 CFR 110.206**, chapter 2 [of U.S. Coast Pilot 6], for boundaries and regulations.)

165 **Towage.**—Tugs to 2,200 and 2,000 hp are available for Detroit from Gaelic Tugboat Co. or Great Lakes Towing Co., respectively. Tugs of the former company moor in the River Rouge; from the latter moor about 1.3 [1.1] miles south of the River Rouge, on the west bank of Detroit River.

166 Arrangements for the Great Lakes Towing Co. tugs are made through the dispatcher in Cleveland at 800-321-3663 or on VHF-FM via remote antenna. At least 3 hours advance notice is requested. The Gaelic Tugboat Co. dispatcher in Detroit is reached at 313-841-9440 or on VHF-FM channel 16.

167 Detroit is a customs port of entry.

168 **Quarantine, customs, immigration, and** agricultural quarantine.–(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

1-17

169 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

170 **Coast Guard.**—A Sector Office and a Coast Guard base are at Detroit. (See Appendix A [of U.S. Coast Pilot 6] for address.) Belle Isle Coast Guard Station is on the southeast side of Belle Isle.

171 *Wharves.*—Detroit has numerous deep-draft facilities along the Detroit River. (For a complete description of the port facilities, refer to Port Series No. 45, published and sold by the U.S. Army Corps of Engineers. See Appendix A [of U.S. Coast Pilot 6] for address.) ... Most of the facilities listed have rail and highway connections and some have water and electrical shorepower connections.

172 **Supplies.**—Marine supplies and provisions of all types are available at Detroit. Water is available at many of the wharves. Number 1, 2, and 6 fuel oils are available, mostly by barge, but by truck at some locations and by pipeline at the Shell Oil Co. and Texaco docks in River Rouge.

173 **Repairs.**—Detroit has no facilities for drydocking deep-draft vessels, but medium-draft vessels may drydock at the Nicholson Terminal and Dock Co. Pier, 1.4 [1.2] miles below the mouth of Short Cut Canal 21. Detroit Boat Basin, Inc., opposite the north side of Belle Isle, performs repairs to pleasure and occasionally small commercial craft. A 200-ton [181-tonne] marine railway with 7 feet [2.1 m] over the keel blocks, a 20-ton [18-tonne] marine elevator, and machine, carpenter, welding, and paint shops are available. The largest vessel handled by the marine railway is 135 feet [41.1 m].

174 **Small-craft facilities.**—Detroit has several small-craft facilities, most of which are opposite the head of Belle Isle. Transient berths, gasoline, diesel fuel, water, ice, electricity, sewage pump-out facilities, marine supplies, and a launching ramp are available. Hoists to 50 tons [45 tonnes] and marine railways to 200 tons [181 tonnes] are available for hull, engine, and electronic repairs.

175 The U.S. Postal Service operates a Marine Post Office at Detroit. A special mail boat delivers and receives mail from vessels passing through the river, usually meeting them at the Ambassador Bridge. Arrangements can be made with 1 hour advance notice by contacting agent "Westcott" on VHF-FM channels 10 or 16.

176 *Communications.*—Detroit has excellent rail and highway connections. The city has several airports.

Chapter 2

Lake St. Clair



General

ENCs US4MI31M, US5MI30M, US5MI28M, US5MI29M, Charts 14853, 14850

Lake St. Clair is a shallow basin with low marshy shores and a gently sloping bottom; the maximum natural depth is 21 ft (6.4 m). Lake St. Clair, with its ship channel improvements, is part of the connecting waterway link between Lake Erie and Lake Huron. Local knowledge is required to approach the shore outside the **buoyed channels**.

2 An Ocean Data Acquisition System (ODAS) meteorological light **buoy**, marked 45147, is moored in mid-lake 12 miles (22.2 km) NE of Peche Island.

3 **Caution**. — There are few radarconspicuous objects around the shores of Lake St. Clair. Due to the low-lying shoreline and normal variations in water levels, radar distances from the shoreline do not give accurate positions.

4 Depths for Lake St. Clair refer to an elevation of 572.3 ft (174.4 m) above IGLD 1985. More information on chart datums is given in *Sailing Directions* booklet *CEN 300* — *General Information, Great Lakes*.

5 Charted depths in *St. Lawrence Seaway* channels are reported to be maintained by periodic dredging. Latest information on depths should be obtained from local authorities. Controlling depths in the channels are announced by *United States Coast Guard Local Notice to Mariners*.

6 The elevation of the lake surface changes from year to year. The water level is also subject to a seasonal rise and fall, reaching its highest levels in the summer months and its lowest in the winter. The water level also fluctuates due to changes in atmospheric pressure and to wind action; winds are sometimes strong enough to drive more surface water forward than can be carried back by sub-surface currents, raising the water level on the lee shore and lowering it on the weather shore. This effect is greater in long narrow bays, especially if the converging shores of the bay have a gradually sloping inshore bottom, such as in Anchor Bay. These fluctuations may amount to 1 foot (0.3 m) or more and may have a period of several hours. More information is given in *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes.*

7 Real-time water level information for Lake St. Clair at Belle River is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 519-728-2882. (More information on water levels is given in Sailing Directions booklet *CEN 300* — General Information, Great Lakes.)

8 A slight **current** flows in a SW direction through Lake St. Clair. Between Askins Point (42°20'N, 82°54'W) and Peche Island, the rate is much greater because of the narrowing into Detroit River.

9 Lake St. Clair is a designated **pilotage** area. There are pilot exchange points in Detroit River south of *Ambassador Bridge (42°19'N, 83°04'W)* and in Lake Huron off the head of St. Clair River. For more information on pilotage, consult *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes, the Annual Edition of Notices to Mariners* and *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).*

10 There are **speed limits** on Lake St. Clair for all vessels with an overall length of 65.6 ft (20 m) or more. The speed limits are listed in the *St. Clair and Detroit River Navigation Safety Regulations*, quoted in *Sailing Directions* booklet *CEN 300* — *General Information, Great Lakes*. These and other Canadian Government regulations are available at: http://laws.justice.gc.ca/.

11 There are Marine Communications and Traffic Services (MCTS) calling-in points in Lake St. Clair. For details consult the St. Clair and Detroit River Navigation Safety Regulations and Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).

12 Most of the marinas on the Canadian side of Lake St. Clair are **Customs** telephone reporting site/marine for pleasure craft: <u>http://www.cbsa-asfc.gc.ca/do-rb/services/</u> <u>trsm-sdtm-eng.html</u>.

Main ship channel

[from U.S. Coast Pilot 6, Chapter 8, partial]

13 The main vessel route across Lake St. Clair is through the dredged channel that leads from the head of the Detroit River northeast for about 16 miles [13.9 nm] to St. Clair Cutoff Channel at the mouth of the St. Clair River. The channel is well marked throughout its length by lights and lighted and unlighted buoys, and at its lower end by a 227.7° lighted range northeast of Peche Island. A racon is at the front range light. The front range light is protected by riprap and should not be passed close aboard, even by vessels of shallow draft. **Lake St. Clair Light** (42°27'55"N., 82°45'15"W.), 52 feet [15.8 m] above the water, is shown from a white square tower on a cylindrical base on the northwest side of the channel at the slight turn near its midpoint. A radar beacon (Racon) is at the light.

14 The dredged channel through Lake St. Clair has a Federal Project depth of 27 ft [8.2 m].

15 *A dumping ground* is on the southeast side of the dredged channel near its lower end. Although new dumping above a depth of 8 ft [2.4 m] is prohibited, there are shoals considerably above that depth, and the dumping ground is considered unsafe for navigation.

South coast of Lake St. Clair

ENC US4MI31M, Chart 14850

16 The south coast of Lake St. Clair is mainly flat, sandy and wooded, with scattered boulders along the shore and many sheet pile seawalls and **breakwaters** for shoreline protection. The town of **Tecumseh**, with a population of 23 229 (2016), lies east of Windsor.

17 Beach Grove Golf and Country Club, a private facility at Askins Point, 1.2 miles (2.2 km) ESE of Peche Island, has depths of 2 to 3 ft (0.6 to 0.9 m); privately maintained leading lights and light buoys marked a channel to the club.

Pike Creek

18 **Pike Creek** $(42^{\circ}19'N, 82^{\circ}51'W)$ is a small stream entering Lake St. Clair 3.8 miles (7 km) ESE of Peche Island. The entrance to the creek, between training walls, is 40 ft (12.2 m) wide. A highway **bridge** crossing Pike Creek 0.4 mile (0.7 km) from the entrance has a vertical clearance of 7 ft (2.1 m).

19 A depth of 1 ft (0.3 m) can be carried as far upstream as the highway bridge, though the entrance is weedy. Privately maintained **buoys** mark the channel; these buoys are reported to be moved to indicate the best approach.

20 **Caution**. — Pike Creek has a sand and silt bottom and is subject to **silting**.

21 *Pike Creek Entrance* light (710.2), on the east side of the harbour entrance, is shown at an elevation of 21 ft (6.4 m) from a white mast with a port hand daybeacon.

22 *Pike Creek* **light** (710.1), on the outer end of the west training wall, is shown at an elevation of 20 ft (6.1 m) from a white mast. This light is privately maintained.

A spherical-shaped water **tower** 1 mile (1.8 km) SSE of *Pike Creek* light has an elevation of 142 ft (43.3 m) and is floodlit. A water **tower** 2 miles (3.7 km) ESE of Pike Creek is painted blue and yellow; this water tower is marked *Township of Maidstone* and has air obstruction **lights**. This second tower is prominent from offshore but is hidden from some directions when within 1 mile (1.8 km) of shore.

24 South Port Sailing Club, a private club and sailing school on the west side of Pike Creek, 0.1 mile (0.2 km) from the mouth, has depths of 2 ft (0.6 m).

25 Urban Surf Marina, on the east side of Pike Creek, 0.4 mile (0.7 km) from the mouth, has depths of 1 to 2 ft (0.3 to 0.6 m) and offers dockage with power and water, ramp, and a 10-tonne hoist.

Puce River

26 **Puce River** $(42^{\circ}18'N, 82^{\circ}47'W)$ is a small stream 3 miles (5.6 km) ESE of Pike Creek. The entrance is between two sheet steel piling walls 80 ft (24.4 m) apart.

Caution. — The entrance to Puce River is subject to **silting**. A depth of 2 ft (0.6 m) can be carried as far as *Puce River Harbour Marina*, where depths

shoal to 1 foot (0.3 m). Six privately maintained **buoys** are reported to mark the best channel. A reported depth of less than 1 foot (0.3 m) was found in this channel.

28 *Rivière aux Puces* light (710.3), on the north end of the wall on the west side of the river entrance, is shown at an elevation of 17.4 ft (5.3 m) from a white mast.

A *Canadian National Railways* **bridge** crossing Puce River 0.1 mile (0.2 km) from the lake has a vertical clearance of 9 ft (2.7 m); a highway **bridge** close upstream has a vertical clearance of 7 ft (2.1 m).

30 Puce River Harbour Marina, on the west shore of Puce River north of the bridges, has depths of 2 ft (0.6 m) and offers dockage with power and water, pump out, **ramp**, 20-tonne hoist, boat hardware, engine and hull repairs, salvage, personal watercraft rentals, picnic area, showers, restaurant and licensed dining room, bait, tackle, stove alcohol, ice and gasoline. Sandbar Waterfront Grill is located on the premises.

Belle River

31 **Belle River** (42°18′N, 82°43′W), lies 3 miles (5.6 km) east of Puce River. The town of **Belle River**,

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now part of the amalgamated town of **Lakeshore**, with a population of 36 611 (2016), is near the mouth of the river.

The entrance to Belle River is protected on its east side by a wall 0.3 mile (483 m) long. The outer part of this wall is a curving boulder breakwall protecting the entrance to a marina that lies on the east side of the wall. A sheet steel piling wall on the west side of the river mouth extends 225 ft (69 m) from shore. There is a starboard hand **daymark** on the outer end of the west wall.

33 **Caution**. — The entrance channel to Belle River is subject to **silting**; an area **awash** was found in the entrance channel.

34 Belle River Pier light (711), on the outer end of the boulder extension of the east entrance wall, is shown from a white cylindrical tower, 23.6 ft (7.2 m) high, with a red upper part.

The railway and highway **bridges** across Belle River have vertical clearances of 9 and 7 ft (2.7 and 2.1 m), respectively. A footbridge, close downstream of the railway bridge, has a vertical clearance of 9.5 ft (2.9 m).

A water **tower** at Belle River is 125 ft (38.1 m) high with an elevation of 131 ft (39.9 m); the tank is painted white, with the words *Belle River* in large black letters, and stands on four circular pillars. There is a group of four silos 1 mile (1.8 km) east of Belle River. A microwave **tower** 2.2 miles (4.1 km) SE of *Belle River Pier* light has an elevation of 256 ft (78 m); a microwave **tower** 1.2 miles (2.2 km) farther SE has an elevation of 296 ft (90.2 m); a microwave **tower** 1.5 miles (2.8 km) west of Belle River has an elevation of 210 ft (64 m). These towers have air obstruction **lights**.

A **submerged pipeline** 0.2 mile (370 m) east of the Belle River entrance extends 0.67 mile (1221 m) offshore; the crib at the outer end has a depth of 8 ft (2.4 m).

38 Belle River Marina, on the east side of the entrance to Belle River, has depths of 4 to 6 ft (1.2 to 1.8 m) and offers dockage with power and water, pump out, ramp, picnic area, showers, laundromat, snack bar, ice and gasoline.

Ruscom River

Ruscom River $(42^{\circ}18'N, 82^{\circ}37'W)$, which flows into Lake St. Clair 4 miles (7.4 km) east of Belle River, is subject to **silting**. The entrance channel has a depth of 1 foot (0.3 m) and is marked by eight **buoys**, four on each side; these buoys are reported to be moved to mark the best approach. A privately maintained **light** is shown at a height of 20 ft (6.1 m) from a flagpole at the west side of the entrance to Ruscom River.

40 The *Canadian National Railways* **bridge**, 0.1 mile (185 m) from the entrance, and the highway **bridge**,

0.3 mile (555 m) farther south, have vertical clearances of 10 ft (3 m), respectively.

41 The Vessel Operation Restriction Regulations provide a **speed limit** of 4.9 knots (9 km/h) on Ruscom River from its mouth to a second railway bridge, 2.2 km (1.2 miles) upstream.

42 *Quinlan's Family Marina*, on the east shore near the mouth of the river, has depths of 1 foot (0.3 m and offers dockage with power and water, pump out, **ramp**, ice and gasoline. *Quinlan's Family Marina* is a **Customs** telephone reporting site/marine.

43 Deerbrook Marina, on the west side of Ruscom River 0.2 mile (370 m) south of the lake, has depths of 2 to 3 ft (0.6 to 0.9 m) and offers dockage with power and water, pump out, **ramp**, 18-tonne hoist, boat hardware, repairs and salvage work, small boat rentals, picnic area, camping, snack bar, bait, tackle, propane, ice and gasoline. *Deerbrook Marina* is a **Customs** telephone reporting site/ marine.

44 Several **overhead** power **cables** span the boat canals branching south from the marina basin on Ruscom River.

Stoney Point

45 **Stoney Point** $(42^{\circ}19'N, 82^{\circ}33'W)$ is a low, wide point 7 miles (13 km) east of Belle River. It is wooded, with homes and open areas along the shore. The trees are 35 to 50 ft (10.7 to 15.2 m) in height, giving the land a higher appearance. The community of **Stoney Point/Pointe-aux-Roches**, now part of the amalgamated town of Lakeshore, lies 0.6 mile (1.1 km) SSE of the Stoney Point.

46 A church spire at Stoney Point/Pointe-aux-Roches is 131 ft (39.9 m) high and can be seen north and east of Stoney Point; the spire has a cross.

47 A **submerged** water intake at Stoney Point extends 0.7 mile (1.3 km) offshore; the crib at the outer end has a depth of 3 ft (0.9 m).

Thames River

48 **Thames River** $(42^{\circ}19'N, 82^{\circ}27'W)$ flows in a generally east to west direction into the SE end of Lake St. Clair; it is reached through a dredged channel 1.3 miles (2.4 km) long. The river is navigable by small craft as far as Louisville, which is 23 miles (42.6 km) upstream.

49 A **submerged** water intake 0.9 mile (1.7 km) north of the mouth of Thames River extends 0.4 mile (0.7 km) offshore; the crib at the outer end has a depth of 3 ft (0.9 m).

50 The entrance channel to Thames River is marked by spar **buoys**; these may be moved to mark the best

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channel. A least depth of 6 ft (1.8 m) was found in the **buoyed channel**. From the mouth of Thames River, upstream for the 4.5 miles (8.3 km) to St. Peter's Church ($42^{\circ}21'N$, $82^{\circ}20'W$), which is on the south bank, mid-channel depths are 6 to 15 ft (1.8 to 4.6 m); this part of the river is 400 ft (121.9 m) wide.

51 **Caution**. — The entrance channel is subject to **silting** and is reported to be maintained by dredging. 52 The area SW of the river entrance is a grid of canals separating strips of residential land. The south entrance point of the river is low and grass-covered with a few trees. Four more canals indent the south bank of the river within 0.2 mile (370 m) of the entrance. All the shoreline around the south entrance is protected by sheet steel piling walls.

53 *Thames River Entrance* light (712) is shown from a white cylindrical tower, with a starboard hand daymark, on the first point of land inside the south entrance of the river.

54 The first point, with the light, is low and mostly paved or gravel-covered; it has a Public **wharf** at the outer end and a launching **ramp** on the upriver side. The wharf is 185 ft (56.4 m) long, with depths of 8 to 13 ft (2.4 to 4 m). The ramp is shallow.

55 The second point of land is grass-covered with a few trees and residences. A **conspicuous** decommissioned lighthouse stands near the outer end of the second point.

56 *Thames River light buoy XT2 (711.4)* lies 1.9 miles (3.5 km) NW of *Thames River Entrance* light.

57 *Thames River Yacht Club*, a private club on the south side of Thames River, occupies the third canal from the lake. The club has depths of 3 ft (0.9 m).

58 *Cove Marina*, entered off the fourth canal, has depths of 13 ft (4 m) and offers dockage with power and water, pump out, **ramp**, engine and hull repairs, 30-tonne hoist, picnic area, swimming pool, showers, snack bar, restaurant with licensed dining room, some groceries and ice, and monitored VHF Channel 68.

59 A Canadian Coast Guard Inshore Rescue Boat is based at Thames River from the end of May to early September each year, though these dates are subject to change (see information on Search and rescue in Sailing Directions booklet CEN 300 — General Information, Great Lakes).

60 The Vessel Operation Restriction Regulations provide a **speed limit** of 4.3 knots (8 km/h) on Thames River from Lake St. Clair to a position close downstream of Chatham, which is 16.7 miles (30.9 km) upstream.

61 **Submerged cables**, water intakes and gas **pipelines** cross the river between its mouth and the city of Chatham. It was reported that an **overhead** power **cable** also crosses the river.

62 **Baptiste Creek** enters the south side of Thames River 0.8 mile (1.4 km) from its mouth. A cut on the south side 0.4 mile (0.7 km) farther up river is dredged through the flat low land to the Jeannettes Creek station of the *Canadian National Railways*. The mouth of **Jeannettes Creek** is 0.6 mile (1.1 km) beyond this cut. Between Baptiste Creek and Jeannettes Creek, the south shore of the river is low and marshy and the banks are lined with willows; there are many logs and deadheads. There are waterfront residential properties on the north shore past Baptiste Creek.

63 *Luken Marina*, on the south side of Thames River at the mouth of Baptiste Creek, has depths of 1 to 3 ft (0.3 to 0.9 m) and offers dockage with power and water, pump out, engine repairs, salvage work, 15-tonne hoist, camping, picnic area, showers, ice, gasoline and diesel fuel.

64 An abandoned wharf was reported on the river just west of the dredged cut leading to Jeannettes Creek Station. Also reported was a concrete launching **ramp** at the downstream end of the wharf.

65 (*There is no chart coverage of Thames River east of longitude* 82°22.4'*W*.)

66 **Prairie Siding**, a station on the *Canadian National Railways*, is on the south shore of the river 7 miles (13 km) from the lake, where the river makes a sharp horseshoe bend.

A swing **bridge** crosses Thames River 7.7 miles (14.3 km) from the mouth. Upbound traffic uses the SE channel; downbound vessels use the NW channel. The bridge opens on demand from 09:00 to 18:00, Sunday to Thursday, and 09:00 to 21:00, Friday, Saturday, statutory holidays and Sundays of statutory holidays. The bridge has a clearance of 20 ft (6.1 m) when closed.

Chatham

The city of **Chatham**, with a population of 43 550 (2016), is on Thames River 16.7 miles (30.9 km) from the entrance. Chatham is a thriving manufacturing city and the centre of a rich farming district.

69 The river is 200 ft (61 m) wide through Chatham. The river front is accessible by boat; depths along the Public **wharves** are 1 to 6 ft (0.3 to 1.8 m).

70 A municipal **marina** at Chatham offers overnight dockage.

NE coast of Lake St. Clair

Mitchell's Bay

The Canadian north and east shores of Lake St. Clair are flat and marshy. **Mitchell's Bay** $(42^{\circ}28'N, 82^{\circ}26'W)$ is in the NE corner of the lake between **Mitchell's Point** and St. Anne Island. The **buoys** in the approaches to Mitchell's Bay are reported to be moved to mark the best channel. The settlement of **Mitchell's Bay**, population 211 (2011), is on the east side of the bay.

72 *Mitchell Bay Direction* **light** (717) is shown at an elevation of 31.5 ft (9.6 m) from a white square skeleton tower, 22 ft (6.7 m) high, with a starboard hand daymark.

A water **tower** 0.3 mile (556 m) NE of *Mitchell Bay Direction* light is white in colour and marked *Mitchell's Bay*. It is visible from 10 miles (18 km) on all approaches. A radio **tower** 3.5 miles (6.3 km) SSE of Mitchell's Point is a red and white skeleton tower, 226 ft (68.9 m) high, with air obstruction **lights**.

74 The Public **wharf** at Mitchell's Bay has depths of less than 1 foot (0.3 m). Most of the wharf is intended as a lookout for pedestrian traffic; an iron railing prevents access to the water. The inner end of the SE side of the wharf allows boaters to embark and disembark. There is no dredged channel to the Public wharf. There are five flag poles on the wharf, and a small convenience store with a pay phone is nearby.

75 **Caution**. — There are 16 piles, with elevations of 11 ft (3.4 m), along the south side of the wharf, 1 ft (0.3 m) off the wharf face. There are also 2 piles with elevations of 1 ft (0.3 m), one at the SW corner and one along the west face of the wharf; these latter piles may be **submerged** at high water levels.

The municipal park, just north of the Public wharf, has three small launching **ramps** for rowboats or canoes.

77 Mitchell's Bay Marine Park Limited's marina, has depths of 2 to 3 ft (0.6 to 0.9 m) and offers dockage with power and water, pump out, ramp, some boat hardware, fishing boat rentals, camping, picnic area, showers, laundromat, snack bar, restaurant and licensed dining room, bait, tackle, ice and gasoline, and monitors VHF Channels 16 and 68. Several small spar buoys mark the channel to the marina.

78 There is a crib, **awash**, on the SE side of the channel to the marina. This crib is at the outer end of a water intake **pipeline**.

79 **Caution**. — The approaches to the following marinas often dry at chart datum.

80 Vincent's Guide Service, on Patricks Cove on the SE side of Mitchell's Bay, has depths of 2 ft (0.6 m) at the wharves (only in high water) and offers dockage with power and water, pump out, small boat rentals and fishing charters, water taxi service, picnic area, showers, bait, ice and winter ice fishing.

81 *Waterway Camp*, on the east shore in a canal off Patricks Cove, offers dockage with power and water,

ramp, small boat and motor rentals, camping, picnic area, showers, snack bar, some groceries, bait, ice and gasoline.

82 Second Channel (local name, unnamed on the chart), 50 ft (15.2 m) wide, has been dredged into Mitchell's Bay from the entrance to Chenail Ecarté (The Snye) at Martin Island ($42^{\circ}28'N$, $82^{\circ}27'W$). Second Channel is marked by **buoys** and has a depth of 1 ft (0.3 m).

83 Martin Island Direction light (719), on the east end of Martin Island, is shown at an elevation of 37 ft (11.4 m) from a white square skeleton tower, 30.5 ft (9.3 m) high, with a starboard hand **daymark**.

Another channel, 1 mile (1.8 km) east of Martin Island, leads from the cut outside Mitchell's Bay Public wharf to Chenail Ecarté. The channel has a depth of 3 ft (0.9 m) and is **buoyed** up to Chenail Ecarté, where a depth of 52 ft (15.8 m) was found. This channel can be weedy.

85 **Rankin Creek** (unnamed on the chart) enters the NE side of Mitchell's Bay.

86 Bass Haven Marina, on Rankin Creek, has depths of 1 ft (0.3 m) and offers dockage, ramp, fishing boat rentals, camping, showers, snack bar, bait, tackle, propane, drinking water, ice and gasoline, and monitors VHF Channels 16, 68 and 71.

87 **Caution**. — The dredged channels in Mitchell's Bay are subject to **silting**. Dredging is done by priority and may be infrequent.

There is a row of 21 piles with elevations of 8 to 10 ft (2.4 to 3 m) covering a distance of 3 miles (5.6 km) in a NW–SE direction off the mouth of Bassett Channel. These piles have signs warning of the fishing and hunting grounds of *Walpole Island First Nation*. There is a row of 5 similar piles in the NW part of Mitchell's Bay.

U.S. shores of Lake St. Clair

ENCs US4MI31M, US5MI30M, US5MI28M, US5MI29M, Charts 14853, 14850

[from U.S. Coast Pilot 6, Chapter 8, partial]

89 The west, or Michigan shore of Lake St. Clair, has been extensively developed with homes, yacht clubs, and marinas. The communities of **Grosse Pointe Park**, **Grosse Pointe**, **Grosse Pointe Farms**, **Grosse Pointe Shores**, and St. Clair Shores, suburban to Detroit, are on the west lakeshore extending from Windmill Point at the head of Detroit River north for about 10 [8.7] miles. Several piers, some marked by private lights, extend as much as 0.5 [0.4] mile into the lake with depths of 6 to 10 feet [1.8 to 3 m] alongside. 90 *Milk River* is a small river flowing into Lake St. Clair on the northwest side of *Gaukler Point*, 7.5 [6.5] miles N of Windmill Point. A fixed highway bridge with a clearance of 8 feet [2.4 m] crosses the river just above the mouth. About 0.2 [0.17] mile above the bridge, just below another bridge, is a series of taintor gates that control the water level upstream. The river below the gates has been developed for small-craft berthing.

91 *A* boulder ledge with depths of 2 feet [0.6 m] extends 1.5 [1.3] miles north-northeast from Gaukler Point. Seasonal lighted buoys mark the east side and north end of the ledge.

92 **St. Clair Shores, MI**, extends along the lakeshore from the Milk River north for 6.5 [5.6] miles. **Miller Memorial Light** (42°27.8'N., 82°52.8'W.), 270 feet [82.3 m] above the water, is a prominent private aid shown from atop a high-rise apartment building, 0.3 [0.26] mile north of the Milk River mouth.

93 **St. Clair Shores Coast Guard Station** is 0.7 [0.6] mile north of the light. A **slow-no wake speed** is enforced in the canals of St. Clair Shores and the adjacent waters of Lake St. Clair. The lakefront for about 1 [0.9] mile north of Milk River has numerous large facilities for smallcraft. All types of marine services and supplies, including lifts to 40 tons [36.3 tonnes], are available. The rest of the St. Clair Shores lakefront has private facilities with a few public parks and ramps.

94 **Cutoff Canal** empties into the lake 7.5 [6.5] miles north of Gaukler Point. The canal extends about 2 [1.7] miles northwest to a weir just below the junction with the Clinton River at Mount Clemens. During flood conditions, the canal diverts a major part of the flow of Clinton River. The canal has depths of 9 feet [2.7 m] just inside the mouth, thence 6 feet [1.8 m] to just below the weir, thence 2 feet [0.6 m] and 1 foot [0.3 m] below and above the weir, respectively.

Point Huron (42°33'51"N., 82°47'03"W.) is the southeast point of a projection of land that extends into Lake St. Clair northeast of Cutoff Canal. **Black Creek**, on the north side of Point Huron, leads to an extensive area of privately dredged small-craft channels. The entrance to the creek is marked by private buoys and a private **297.3**° lighted range. In 2002, the reported depth was 5 feet [1.5 m] through the entrance. A **slow-no wake speed** is enforced in the creek and connecting canals. The **Metro Beach Metropark**, a marina developed by the Michigan State Waterways Commission, has facilities along the west side of Black Creek at **Metropolitan Beach** that can provide transient berths, water, ice, electricity, launching ramps, and sewage pump-out. 96 **Anchor Bay**, fed by North Channel of the St. Clair River, is the shallow north arm of Lake St. Clair north of Point Huron. A depth of about 8 feet [2.4 m] can be carried across the bank that separates the south end of the bay from the main body of the lake. The best water across the bank is on a general north-south line just east of Point Huron Lighted Buoy 1PH (42°33'12"N., 82°44'51"W.). The central part of the bay has depths of about 10 feet [3 m] with gradual shoaling toward the shores.

97 *Clinton River* is a narrow crooked stream discharging into the west side of Anchor Bay about 2 [1.7] miles north of Point Huron. The city of **Mount** *Clemens, MI*, is about 7.3 [6.3] miles above the mouth.

98 **Channels.**—A Federal project provides for an 8-foot [2.4-m] dredged channel which leads from Anchor Bay between two breakwaters through the mouth of the river and upstream to Mount Clemens; a 5-foot [1.5-m] harbor basin is on the south side of the river mouth. (See Notice to Mariners and the latest edition of the chart for controlling depths.) The entrance is marked by lighted and unlighted buoys, lights on the outer end of the breakwaters, and a light on the north side of the river mouth.

99 The controlling depth in the river above Mount Clemens is 2 feet [0.6 m], and the river is navigable by small boats for a considerable distance above Mount Clemens.

100 **Fluctuations of water level.**—Winds cause day-today level changes of sometimes more than 1 foot [0.3 m]. Each year, spring freshets raise the water level at Mount Clemens from 6 to 9 feet [1.8 to 2.7 m] above normal.

101 **Caution.**—The entrance channel should not be approached from the south because of an obstruction, covered 4 feet [1.2 m], 0.4 [0.34] mile east-southeast of the south breakwater. Small craft are cautioned not to navigate between the dredged channel and the north breakwater, because of very shallow water.

102 *A slow-no wake speed* is enforced on the Clinton *River.*

103 **Small-craft facilities.**—Numerous marinas on the Clinton River provide gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, and launching ramps. Hoists to 100 tons [90.7 tonnes] are available for hull and engine repairs.

104 **Detroit Coast Guard Air Station** is at Selfridge Air National Guard Base on the west side of Anchor Bay north of the Clinton River. Two basins for crash rescue craft are 2.4 [2.1] and 3 [2.6] miles northwest of the Clinton River mouth. The southeast basin is protected by a detached breakwater marked by two lights on each end, and the northwest basin is marked by two lights.

105 The shore, north and northeast of Selfridge Air National Guard Base, is indented by several small creeks and privately dredged canals developed for housing and small-craft facilities. A **slow-no wake speed** is enforced on these waterways.

106 **Salt River** flows into the northwest side of Anchor Bay about 4 [3.5] miles north from the mouth of the Clinton River. The entrance to the river is marked by a private **018°** lighted range. Several submerged concrete remains of former light structures are in the entrance channel; caution is advised. A **slow-no wake speed** is enforced in the Salt River. Marinas in the lower part of the river provide gasoline, diesel fuel, water, ice, sewage pump-out, marine supplies, hull and engine repairs, marine railways to 45 feet [13.7 m] and hoists to 25 tons [22.7 tonnes].

107 New Baltimore, MI, is on the north side of Anchor Bay at the mouth of Frog Creek about 5.5 [4.8] miles north-northeast of the Clinton River. A slow-no wake speed is enforced in Frog Creek and in the small-craft channels at New Baltimore east of the creek. Marinas at New Baltimore provide gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, and a launching ramp. A 15-ton (13.6-tonne] lift is available for hull, engine, and electronic repairs.

Fair Haven, MI, is a village on the northeast shore of Anchor Bay at the mouth of **Swan Creek** about 4 [3.5] miles east of New Baltimore. Several privately dredged canals lead to marinas off both sides of the lower part of the creek. The approach to the creek is marked by buoys. In 2001, a reported depth of 4 feet [1.2 m] was available from the entrance to about 0.6 [0.5] mile above the mouth. A **slow-no wake speed** is enforced in the creek and canals. The marinas can provide transient berths, gasoline, diesel fuel, water, sewage pump-out, marine supplies, hull and engine repairs, marine railways to 50 feet [15.2 m] and hoists to 50 tons [45 tonnes].

109 The east side of Anchor Bay, from Fair Haven south, is a wide shallow area receiving the outflow from North Channel and Middle Channel of the St. Clair River.

Chapter 3

St. Clair River



General

ENCs US4MI31M, US5MI32M, US5MI33M, US5MI30M, US5MI28M, US5MI29M, Charts 14850, 14852, 14853

1 **St. Clair River** is 35 miles (64.8 km) long; it has a lower or delta part and a deep upper channel. Several branches of the river reach into Lake St. Clair through the delta section, which is known as **St. Clair Flats**. For through navigation, the most important branch is South Channel, which passes along the NW shore of Walpole Island and through St. Clair Cutoff channel to Lake St. Clair.

2 Depths and vertical clearances under cables and bridges on St. Clair River refer to the sloping surface of the river corresponding to a Lake Huron elevation of 577.5 ft (176.0 m) above IGLD 1985 and a Lake St. Clair elevation of 572.3 ft (174.4 m) above IGLD 1985. More information on chart datums is given in *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes.*

3 Charted depths in *St. Lawrence Seaway* channels are reported to be maintained by periodic dredging. Latest information on depths should be obtained from local authorities. Controlling depths in the channels are announced by *United States Coast Guard Local Notice to Mariners*.

4 St. Clair River rises and falls about 1 ft (0.3 m) each year, generally with the seasonal rise and fall of Lake Huron. Strong winds may cause rapid fluctuations of up to 2 ft (0.6 m) above or below normal.

5 Real-time water level information for St. Clair River at Port Lambton is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 519-677-4092. (More information on water levels is given in Sailing Directions booklet CEN 300 — General Information, Great Lakes.)

6 Information on **currents** is based on averages of water flow through the cross section of the river during normal water flow conditions. Normal water flow conditions exist when there is no wind and Lake Huron is at a stage of 578.9 ft (176.5 m) and Lake St. Clair is at a stage of 573.9 ft (174.9 m) above IGLD 1985, that is, when they are 1.4 and 1.6 ft (0.5 m) above their respective chart datums. The current in mid-stream is usually about 1.5 times the average rate. Stronger currents may be expected when the difference between the lake levels is greater, or the lake levels are higher.

Table 5.1. Ourfent Nates on St. Oldir Niver						
_	High water flow (knots)	Medium water flow (knots)	Low water flow (knots)			
Algonac	1.7	1.4	1.1			
Port Lambton	1.8	1.5	1.1			
Marine City	1.7	1.4	1.1			
St. Clair	1.9	1.5	1.2			
Marysville	1.7	1.4	1.1			
Point Edward	3.4	2.9	2.2			

Table 3.1: Current Rates on St. Clair River

7 **Current** rates in the accompanying table refer to high water flow, medium water flow, and low water flow, respectively.

8 A strong **current** in St. Clair River extends from 1000 ft (305 m) above to 200 or 300 ft (61 or 91.4 m) below *Blue Water Bridge* at Sarnia. During sustained strong north to NE winds on Lake Huron, the current in the upper St. Clair River is stronger.

9 St. Clair River is a designated **pilotage** area; there are pilot exchange points in Detroit River below *Ambassador Bridge* and in Lake Huron off the head of St. Clair River. For more information on pilotage, consult *Sailing Directions* booklet *CEN 300 — General Information, Great Lakes, the Annual Edition of Notices to Mariners* and *Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).*

10 There are **speed limits** on St. Clair River for all vessels with an overall length of 65.6 ft (20 m) or more. The speed limits are listed in the *St. Clair and Detroit River Navigation Safety Regulations*, quoted in *Sailing Directions* booklet *CEN 300* — *General Information, Great Lakes*.

¹¹ There are Marine Communications and Traffic Services calling-in points on St. Clair River. For details consult the St. Clair and Detroit River Navigation Safety Regulations and Radio Aids to Marine Navigation (Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg, Arctic and Pacific).

12 The harbour at Sarnia is a Public harbour administered by *Transport Canada*.

13 Canadian Government regulations are available at: <u>http://laws.justice.gc.ca/</u>.

14 Most of the marinas on the Canadian side of St. Clair River are **Customs** telephone reporting site/ marine for pleasure craft: <u>http://www.cbsa-asfc.gc.ca/do-rb/</u> <u>services/trsm-sdtm-eng.html</u>.

South Channel

[from U.S. Coast Pilot 6, Chapter 9, partial]

15 **St. Clair Flats Canal** extends from the north end of Lake St. Clair ship channel northeast for about 1.7 [1.5] miles along the southwest end of Seaway Island to the junction with South Channel. The canal is marked by lighted and unlighted buoys, a light, and a **041.1°** lighted range. **South Channel** extends from the north end of St. Clair Flats Canal along the northwest side of Seaway Island and bends east along the south shore of **Harsens Island, MI**, to the junction with St. Clair Cutoff Channel at **Southeast Bend**. This section of South Channel is well marked by lights.

16 St. Clair Flats Canal and South Channel below Southeast Bend have good available depths but have not been maintained for deep-draft navigation since completion of St. Clair Cutoff Channel. The U.S. side of South Channel has been extensively developed with summer cottages and small-craft landings.

17 **Caution.**—The earthen dike along the southeast edge of St. Clair Flats Canal south entrance is reported to be submerged during periodic high water conditions. It is reported that several small boats have struck the dike when it was submerged. A light, with a diamond-shaped white dayboard with orange border worded danger rocks, marks the approximate point where the jetty submerges.

18 **St. Clair Cutoff** channel leads between **Seaway Island** and **Bassett Island**. It was developed to by-pass the more difficult St. Clair Flats Canal and western part of South Channel.

19 The distance from the west end of St. Clair Cutoff channel and along South Channel to the head of Chenail Ecarté is 11.5 miles (21.3 km). The upper part of the river, from the head of Chenail Ecarté to Lake Huron, is 23.5 miles (43.5 km) long. The banks of the river are clay and sand and are mostly quite steep.

20 South Channel is marked by **lights**, leading **lights** and **buoys**.

21 An area enclosed by breakwaters on the NW side of St. Clair Cutoff channel is a containment facility. The entrance to this area is closed by a floating **boom**.

22 The chart shows two **wrecks** at Southeast Bend. Dredging surveys have revealed no above-grade depths at these locations.

23 *Pier X32/2* **light** (721), 190 ft (57.9 m) outside the channel limit at the SSW end of St. Clair Cutoff channel, is shown from a white cylindrical mast, 16 ft (4.9 m) high, with a red upper part and marked *X32/2*.
24 St. Clair Cutoff channel is marked by seven other **lights**; three on the south side and four on the north. The lights on the south side are shown from white square towers with red trim on the corners. The lights on the north side are shown from white cylindrical towers, each with a green upper portion. These light-towers are 190 ft (57.9 m) outside the limits of the dredged channel.

25 Squirrel Island leading lights, in line

bearing $064^{1/4}$ °, lead through St. Clair Cutoff channel. The front light (732) is shown from a white square skeleton tower with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (733) is shown from a white square skeleton tower, 79.7 ft (24.3 m) high, with a fluorescent-orange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range.

26 The shipping route rejoins South Channel at the NE end of St. Clair Cutoff channel.

Bassett Channel, leaving St. Clair River at the eastern end of Southeast Bend, flows southwards to Lake St. Clair between Bassett Island and **Squirrel Island**. The **channel** is not **buoyed**. The **channel** has depths of 10 to 35 ft (3 to 10.7 m).

There is a **wreck** close inshore on the east side of the entrance to Bassett Channel at $42^{\circ}33'02.6''N$, $82^{\circ}35'03.5''W$. Part of this wreck is dry 1 ft (0.3 m).

A **submerged cable** crosses South Channel 0.1 mile (0.2 km) SW of the junction with Bassett Channel, and crosses Bassett Channel 0.2 mile (0.4 km) south of the junction.

[from U.S. Coast Pilot 6, Chapter 9, partial]

30 From the junction with St. Clair Cutoff Channel, South Channel leads north-northeast for about 6.5 [5.6] miles to the junction with North Channel. The channel is well marked by lighted and unlighted buoys, lights, and lighted ranges, and is maintained at the Federal project depth of 27 feet [8.2 m].

31 **Russell Island, MI** is on the west side of South Channel just below the junction with North Channel. A shallow bank extends about 0.5 [0.4] mile north-northeast from the head of the island. A lighted buoy marks the northeast side of the shoal.

32 **Walpole Island** lies east of Squirrel Island. Walpole Island and other islands in the area are part of *Walpole Island First Nation*.

33 South Channel light A20 (737), on the west side of Squirrel Island, is shown from a white cylindrical tower, 21.3 ft (6.5 m) high, with a red upper part and marked A20.

34 *Walpole Island* **light** (741), on the east side of South Channel opposite the south end of Russell Island, is

shown from a white cylindrical tower, 28.9 ft (8.8 m) high, with a red upper part.

35 *Walpole Island Lower* light *A32 (742)*, on the NW corner of the wharf 0.5 mile (0.9 km) NE of *Walpole Island* light, is shown from a white tower with red trim and marked *A32*.

36 **Chematogan Channel** flows southward from St. Clair River between Squirrel Island and Walpole Island.

[from U.S. Coast Pilot 6, Chapter 9, partial]

37 North Channel, the northwesternmost part of the St. Clair River delta, branches west from the river just north of Russell Island, flows along the north side of Harsens Island and Dickinson Island, and empties into the east side of Anchor Bay. The outlet of the channel in the shallow water of Anchor Bay is well marked by buoys. Two irregularly shaped diked disposal areas front the channel on the north side of Dickinson Island.

38 **Chenal A Bout Rond** branches southwest from North Channel at the west end of Dickinson Island and flows into Anchor Bay.

39 *Middle Channel* leads southwest from North Channel between Harsens Island and Dickinson Island. The outlet in Lake St. Clair is marked by lighted and unlighted buoys. A 22-acre [9-ha] diked disposal area is on the west side of Harsens Island about 1.2 [1] miles below the junction with North Channel.

40 **Algonac, MI**, is a summer resort at the head of North Channel opposite Russell Island. Marinas at Algonac provide transient berths, gasoline, diesel fuel, water, ice, sewage pump-out, marine supplies, and a launching ramp. A 50-foot [15.2 -m] marine railway and hoists to 25 tons [22.7 tonnes] are available for hull and engine repairs. Ferries operate from Algonac to Harsens Island, Russell Island, and Walpole Island, ON.

41 *Quarantine, customs, immigration, and agricultural quarantine.*–(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

42 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

43 *A* slow-no wake speed is enforced on the channels and canals at Algonac.

Caution. — Mariners should favour the east side of South Channel north of Russell Island due to the strong **current** setting into North Channel.

45 There is a car **ferry** slip on the west side of Walpole Island, near its north end $(42^{\circ}37'N)$,

 $82^{\circ}31'W$). The wharf, 105 ft (32 m) long and 16 ft (4.9 m) wide, has an elevation of 7 ft (2.1 m); it has a ferry slip and **ramp** on its south side and is also used by pleasure craft. A detached **breakwater** NW of the wharf is 200 ft (61 m) long. A rubble **breakwater**, 324 ft (98.8 m) long, extends offshore south of the wharf. The ferry slip has depths of 4 to 7 ft (1.2 to 2.1 m).

46 Walpole Island Ferry breakwater light (743), on a rock pile off the west end of the detached breakwater at the ferry slip, is shown from a white block structure.

47 A ferry service crosses the St. Clair River to Algonac, MI, from the above described slip: the *City of Algonac* and the *Walpole Islander*. The first ferry leaves this wharf at 06:20; the last leaves at 21:45. The first ferry leaves Algonac at 06:50; the last leaves at 22:00.

48 Walpole Island is a land border **Customs** reporting station for passengers, general public, and commercial highway traffic, and is a telephone reporting site/marine for pleasure craft. 49 Walpole Island Upper light A34 (744), on the east side of the channel 0.5 mile (0.9 km) NNE of the Walpole Island ferry slip, is shown from a white square tower, 17.7 ft (5.4 m) high, with red trim and marked A34.

Chenail Ecarté and Sydenham River

ENCs USUS4MI31M, US5MI32M, US5MI33M, US5MI30M, US5MI28M, US5MI29M, Charts 14850, 14852

50 **Chenail Ecarté (Chenal Ecarté)**, also known as **The Snye**, branches eastwards from St. Clair River at **Babys (Baby) Point** (42°38'N, 82°30'W), 1.8 miles (3.3 km) NNE of Russell Island. The main route to Wallaceburg is via Chenail Ecarté and Sydenham River, which flows into Chenail Ecarté 6 miles (11.1 km) SE of Babys Point.

51 The Vessel Operation Restriction Regulations provide a **speed limit** of 4.3 knots (8 km/h) on Chenail Ecarté and Sydenham River as far as Dresden, which is



CHENAIL ECARTÉ (2019)

3-5

10 miles (18.5 km) east of Wallaceburg. This speed limit reduces wake damage to dykes and low farmland.

52 The **current** in Chenail Ecarté sets east and south from St. Clair River to Lake St. Clair. Rates of up to 1.2 knots (2.3 km/h) have been reported in Chenail Ecarté where it leaves St. Clair River.

53 *Chenal Ecarté* leading **lights**, in line bearing 138½°, are on the south shore of Chenail Ecarté near its junction with St. Clair River. The front **light** (746) is shown from a white cylindrical tower, 15.4 ft (4.7 m) high, with a fluorescent-orange triangular **daymark** with a black vertical stripe. The rear **light** (747) is shown from a white cylindrical tower, 23 ft (7 m) high, with a fluorescent-orange triangular **daymark** with a black vertical stripe. The lights are visible only on the range.

54 There are facilities for small craft on the north side of Chenail Ecarté, 0.4 mile (0.7 km) east of the junction with St. Clair River.

55 *St. Clair Boating and Marine* has depths of 6 ft (1.8 m) and offers dockage with power and water, pump out, **ramp**, boat hardware, repairs and salvage, 20-tonne hydraulic trailer, new and used boat and motor sales and service, water taxi service, picnic area and showers.

56 *Nautical Nest Marina*, next east at the mouth of Chenail Ecarté, has depths of 6 ft (1.8 m) and offers dockage with water and power.

57 *Ecarté Marine* has depths of 6 ft (1.8 m) and offers dockage with power and water, pump out, **ramp**, repairs and salvage, 20-tonne hoist, mast stepper, new and used boat and motor sales and service, water taxi service, picnic area, showers, laundromat, boat hardware, ice and gasoline, and monitored VHF Channel 68.

58 The swing **bridge** on Chenail Ecarté at **Walpole Island** village is operated by the *Walpole Island First Nation (Bkejwanong) Public Works.* The bridge opens on the hour from 07:00 to 23:00. The bridge has a vertical clearance in a closed position of 14 ft (4.3 m); the channel leads each side of the central pier.

59 Two **submerged cables** cross Chenail Ecarté 0.15 mile (0.3 km) NW of the swing bridge; there are other **submerged** power **cables** near the bridge.

A water **tower** 0.8 mile (1.5 km) WSW of the swing bridge is painted blue and has an elevation of 164 ft (50 m).

61 At a point 5 miles (9.3 km) from the St. Clair River end of Chenail Ecarté, **Johnston Channel** flows south, winding and narrow, for 11.5 miles (21.3 km) to the marshy flats of Lake St. Clair.

62 The Vessel Operation Restriction Regulations provide a **speed limit** of 4.3 knots (8 km/h) on Johnston Channel from $42^{\circ}34'N$ to its junction with Chenail Ecarté. 63 The marshy land lying east of Johnston Channel is **St. Anne Island**; this is part of *Walpole Island First Nation*.

64 The distance from St. Clair River to **Sydenham River** ($42^{\circ}34'N$, $82^{\circ}25'W$) by Chenail Ecarté is 8.5 miles (15.7 km). From this point, Chenail Ecarté winds southward for 8 miles (14.8 km) to its Lake St. Clair outlet at Martin Island in Mitchell's Bay.

65 **Caution**. — Two **cable ferries** on Chenail Ecarté carry farm produce and farm vehicles; one is 1.2 miles (2.2 km) NW of the Sydenham River junction, and the other is 1.7 miles (3.1 km) south of the junction. To avoid striking the **cables near the surface**, mariners are **cautioned** to keep well clear of the ferry when it is in transit.

66 Blue Water Shiloh Park, on Chenail Ecarté 1 mile (1.8 km) NW of the junction with Sydenham River, has depths of 2 to 7 ft (0.6 to 2.1 m) and offers dockage, **ramp**, canoe rentals, tent and trailer camping, picnic area, drinking water, showers, laundromat, ice and snack bar.

67 An **overhead** power **cable** with a clearance of 20 ft (6.1 m) is reported to cross Chenail Ecarté 1.5 miles (2.8 km) below the junction with Sydenham River.

There is a **conspicuous** microwave **tower** 0.8 mile (1.5 km) NNW of the Chenail Ecarté junction with Sydenham River; it is a red and white skeleton tower, 262 ft (79.9 m) high and elevation 308 ft (94 m), with air obstruction **lights**.

Sydenham River

69 A **submerged pipeline** crosses Sydenham River 0.7 mile (1.3 km) NE of the Chenail Ecarté junction.

70 A Public wharf on the NW shore of Sydenham River, 1.2 miles (2.2 km) NE of the Chenail Ecarté junction, is 134 ft (40.8 m) long with an elevation of 9 ft (2.6 m). The wharf has a least depth of 10 ft (3 m) and is in a state of disrepair, with a group of piles 3 ft dry (0.9 m dry) at the south outer corner and piles **awash** at the north outer corner. There are no facilities at the wharf, and the land adjacent to it is overgrown. There is a turning basin close upstream of the wharf.

The *Seys Grain Elevator* berth is on the SE shore, opposite the Public wharf. This berth is 450 ft (137.2 m) long and consists of 6 wooden dolphins with elevations of 13 ft (4 m); there were depths of 13 to 18 ft (4 to 5.5 m), and it was reported that no ships had used the berth in recent years.

Wallaceburg

The town of **Wallaceburg**, with a population of 10 098 (2016), is on Sydenham River 2.3 miles (4.2 km) NE of the Chenail Ecarté junction. The river at Wallaceburg is 200 ft (61 m) wide. An unused railway swing **bridge** crosses the river at Wallaceburg; there is a width of 50 ft (15.2 m) between the channel piers. This bridge remains open at all times. A pedestrian lift-**bridge** crosses the river 0.5 mile (0.9 km) north of the railway bridge. The *Lord Selkirk* highway swing **bridge** lies between the railway bridge and the pedestrian bridge. The *Lord Selkirk* bridge opens to river traffic on the half hour from 08:00 to 22:00, 7 days a week, but is closed from 12:00 to 13:00 and 15:00 to 16:00. There is a swing **bridge** for highway traffic at Libby Street and Baseline Road, 0.5 mile (0.9 km) downstream of the railway bridge; its opening schedule is planned to coincide with that of the *Lord Selkirk* bridge.

74 There is a berthing area and slip on the SE shore upstream of the Libby Street and Baseline Road swing bridge. It is reported to have depths of 3 to 4 ft (0.9 to 1.2 m).

75 Wallaceburg is a **Customs** telephone reporting site/ marine for pleasure craft.

Vallaceburg Municipal Docks offers dockage at eight locations in downtown Wallaceburg; most of these wharves are on the NW shore between the *Lord Selkirk* bridge and the pedestrian bridge, with depths, at the James Street wharf, of 4 to 14 ft (1.2 to 4.3 m). Power at the docks, showers, ice, and picnic areas with barbecues were also available. All the facilities of the town are within walking distance.

77 There is a launching **ramp** on the SE shore at the foot of Wallace Street and Huron Street.

Continuation of St. Clair River

ENCs US4MI31M, US5MI33M, Charts 14852, 14853

78 **Port Lambton**, is a village within the municipality of St. Clair Township. It has a population of approximately 1000, and is located on St. Clair River 1 mile (1.8 km) above Chenail Ecarté.

79 The northern part of the Public **wharf** at Port Lambton is part of the *Canadian Coast Guard* base. South from the Coast Guard base is a steel and concrete section of Public wharf, 80 ft (24.4 m) long with a deck elevation of 4 ft (1.2 m), and a wooden finger wharf 66 ft (20.1 m) long with depths of 4 to 10 ft (1.2 to 3 m). There is a row of piles, 10 ft (3 m) in elevation, along the wharf face.

80 A Canadian Coast Guard Inshore Rescue Boat is based at Port Lambton from the end of May to the beginning of September each year, though these dates are subject to change (see information on Search and Rescue in Sailing Directions booklet CEN 300 — General Information, Great Lakes).

81 Southwestern Sales Corporation occupies an area of the east shore 2 miles (3.7 km) north of Port Lambton. Self-unloading ships bring gravel which is then stored here for trans-shipment by truck.

82 **Fawn Island** $(42^{\circ}42'N, 82^{\circ}30'W)$ lies off the Canadian shore 2.4 miles (4.4 km) north of Port Lambton wharf. **Shoals** with depths of 1 ft (0.3 m) extend 0.4 mile (0.7 km) SSW and NNE from the island; a **buoy** marks the south end of this shoal area.

A **shoal** with a least depth of 5 ft (1.5 m) lies along the eastern edge of the dredged channel 0.3 to 1.3 miles (0.6 to 2.4 km) north of Fawn Island; a **shoal** 0.75 mile (1.4 km) SSW of Fawn Island has a depth of 15 ft (4.6 m) and is marked by *Fawn Island Lighted Buoy* 38 (U.S. 9780).

84 An unmarked channel with a least depth of 19 ft (5.8 m) passes east of Fawn Island. This channel is little used; the dredged channel west of Fawn Island is the preferred route.

A private passenger **ferry** serves Fawn Island and the Canadian mainland. It operates from Monday to Thursday from 0800 to 1700, from 0800 to 2000 on Friday, from 0800 to 1700 on Saturday and from 1000 to 2000 on Sunday.

A **submerged** power **cable** crosses the eastern channel north of the Fawn Island ferry slip.

87 **Sombra** $(42^{\circ}43'N, 82^{\circ}29'W)$, a village within the municipality of St. Clair Township with an approximate population of 250, is on the east shore 0.6 mile (1.1 km) NNE of Fawn Island.

88 Sombra is a **Customs** land border reporting station for passengers, general public, and commercial highway traffic, and is a telephone reporting site/marine for pleasure craft.

A ferry serves Sombra and Marine City, Michigan, year round, depending on ice conditions; it operates approximately every 18 minutes from 06:55 to 22:30. This is the *Blue Water Ferry*.

90 Sombra Public **wharf**, at the outer end of a **causeway** 230 ft (70.1 m) long and 20 ft (6.1 m) wide, is used by the *Blue Water Ferry*. The south face is 250 ft (76.2 m) long and is skirted by 23 pilings; berthing at this south wall is prohibited. The inner SE face, 82 ft (25 m) long, has 9 pilings with elevations of 12 ft (3.7 m) and depths of 4 ft (1.2 m). On the outer face, north of the ferry slip, there is a 50-ft (15.2-m) section of wharf with depths of 10 to 13 ft (3 to 4 m), and a depth of 3 ft (0.9 m) along the north face of the wharf. There is a *Canadian Coast*

Guard Environmental Response building with oil spill containment equipment on the south side of the wharf.

91 There are no facilities or shelter for small craft at Sombra Public wharf.

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92 A **current** of 1.8 knots (3.4 km/h) has been reported off the end of Sombra Public wharf.

⁹³ There is a launching **ramp** 1 mile (1.9 km) north of Sombra wharf, near the entrance to *Branton Cundick Park and Campground*.

[from U.S. Coast Pilot 6, Chapter 9, partial]

94 *Marine City, MI*, is on the west side of the river 7 [6.1] miles above Russell Island. *Belle River* flows south through the town and empties into the St. Clair River northwest of Fawn Island.

95 **Bridges.**—Bridge Street bridge, about 0.5 [0.4] mile above the mouth of Belle River, has a 28-foot [8.5-m] fixed west span with a clearance of 13 feet [4 m]. Broadway bridge, about 1.1 [1] miles above the river mouth, has a fixed span with a clearance of 7 feet [2.1 m]. Several overhead cables in the lower 2 [1.7] miles of the river have a least clearance of 37 feet [11.3 m].

96 **Quarantine, customs, immigration, and** agricultural quarantine.–(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

97 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

98 **Harbor regulations.**—A slow-no wake speed is enforced on the Belle River. The Marine City Chief of Police acts as harbormaster and enforces the regulations of St. Clair County and the State of Michigan. Copies of the regulations may be obtained from the chief of police.

99 Wharf.-McLouth Yards, Inc. receives crushed limestone and coal at a wharf on the west side of the St. Clair River just below the mouth of Belle River. There is 1,200 feet [366 m] of berthing space along the reinforced natural bank with a reported depth of 35 feet [10.7 m] alongside and a deck height of 5 to 8 feet [1.5 to 2.4 m]. The facility has 12 acres [4.9 ha] of open storage.

100 **Small-craft facilities.**—Marinas on the west side of the Belle River within 0.5 [0.4] mile of the mouth provide gasoline, diesel fuel, water, ice, electricity, sewage pumpout, marine supplies, and a launching ramp. A 20-ton [18-tonne] hoist can handle 42-foot [12.8-m] vessels for hull, engine, and electronic repairs.

101 At **Stokes Point** *(local name) (42°44'N, 82°29'W)*, 1.4 miles (2.6 km) north of Sombra, there is a ruined wharf. 102 *Kessel Point* light (750), at the mouth of Clay Creek ($42^{\circ}45'N$, $82^{\circ}28'W$), is shown from a white cylindrical mast, 34 ft (10.4 m) in elevation, with a fluorescent-orange triangular daymark.

103 Driftwood Motel and Restaurant, at the mouth of Clay Creek, has depths of 1 ft (0.3 m) and offers some dockage, camping, motel accommodation, snack bar, drinking water and ice. A conservation area to the south offers picnic areas and camping but had no facilities for boaters.

[from U.S. Coast Pilot 6, Chapter 9, partial]

104 Detroit Edison Co. has a powerplant with two wharves on the west side of the St. Clair River about 2 [1.7] miles above Stokes Point. Several stacks at the plant are prominent, and private lights mark the upper and lower ends of the wharf area.

105 Wharf 1: 500 feet [152.4 m] below Dock Upper Light; about 400 feet [121.9 m] of berthing space; 16 feet [4.9 m] reported alongside; deck height, about 8½ feet [2.6 m]; storage tanks for over 11 million gallons [41.6 million litres] of #2 and #6 fuel oil; receipt of fuel oil and bunkering vessels.

106 Wharf 2: adjacent north of Dock Lower Light; 1,069 feet [326 m] of berthing space; 29 feet [8.8 m] reported alongside; deck height, 8½ feet [2.6 m]; open storage for over 2½ million tons [2.3 million tonnes] of coal; two receiving hoppers, operating rates 2,400 and 10,000 tons [2,200 and 9,000 tonnes] per hour; receipt of coal and bunkering vessels.

107 An **overhead** power **cable** 1 mile (1.9 km) north of Clay Creek has a clearance of 154 ft (46.9 m); **overhead** power **cables** 1.5 miles (2.8 km) farther north have a clearance of 163 ft (49.7 m).

Bowens Creek light (752), on the east shore 1.1 miles (2 km) north of Clay Creek, is shown from a white cylindrical tower, 30 ft (9.2 m) in elevation, with a red upper portion.

109 The now decommissioned (2017) *Ontario Power Generation Lambton Generating Station* and wharf lie 2.7 miles (5 km) north of Clay Creek.

110 The chimneys at the former generating station, closed at the end of 2013, are floodlit. The highest chimney has an elevation of 560 ft (171 m).

111 The village of **Courtright** ($42^{\circ}49'N$, $82^{\circ}28'W$), a village within the municipality of St. Clair Township, is on the east shore 1.2 miles (2.2 km) north of the former *Lambton Generating Station*. The Public **wharf**, on steel piles, is 180 ft (54.9 m) long, 10 ft (3 m) wide and 6 ft (1.8 m) high, and has a depth of 9 ft (2.7 m); there are reported to be two dolphins off the face of the wharf.

112 Courtright is a **Customs** telephone reporting site/ marine for pleasure craft.

113 *Courtright* light (753), on a dolphin on the east shore south of Courtright, is shown from a white skeleton structure, 16.7 ft (5.1 m) high.

An industrial wharf on the east shore, 0.4 mile (0.7 km) north of Courtright, has a sheet piling face 250 ft (76.2 m) long. The wharf has depths of 10 to 20 ft (3 to 6.1 m) and is in disrepair.

115 The settlement of **Mooretown** $(42^{\circ}50'N, 82^{\circ}28'W)$, a village within the municipality of St. Clair Township, is on the east shore 1.5 miles (2.8 km) north of Courtright. The **wharf** at Mooretown has a depth of 4 ft (1.2 m) but had no facilities for boaters. A pile 52 ft (15.8 m) south of the SW corner of the wharf has an elevation of 3 ft (0.9 m).

Mooretown light (756), near the NW corner of the wharf, is shown from a white cylindrical tower, 26.9 ft (8.2 m) high, with a red upper part.

[from U.S. Coast Pilot 6, Chapter 9, partial]

117 **St. Clair, MI**, is on the west side of the river about 7.5 [6.5] miles above Marine City. **Pine River** is a stream 100 to 150 feet [30.5 to 45.7 m] wide, emptying into the St. Clair River near the south limits of the city. The St. Clair Inn and Country Club 0.5 [0.4] mile north of the mouth of Pine River is prominent.

118 **Bridges.**—Riverside Avenue (State Route 29) bascule bridge, just above the mouth of the Pine River has a clearance of 11 feet [3.4 m]. (See **33 CFR 117.1 through 117.59 and 117.643**, chapter 2 [of U.S. Coast Pilot 6], for drawbridge regulations.) The Port Huron and Detroit Railroad bridge about 2 [1.7] miles above the river mouth has a swing span with a clearance of 11 feet [3.4 m]. Several overhead cables cross the river.

119 *A slow-no wake speed* is enforced on the Pine River.

120 Wharf.-Cargill Salt Co. receives salt and coal at a wharf on the west side of the St. Clair River just below the mouth of the Pine River. The wharf has 1,085 feet [331 m] of berthing space with reported depths of 16 to 19 feet [4.9 to 5.8 m] alongside and a deck height of 7½ feet [2.3 m]. The wharf has 1.1 acres [0.4 ha] of open storage for 55,000 tons [49,909 tonnes] of coal and 7,500 tons [6,806 tonnes] of salt.

121 **Small-craft facilities.**—The city of St. Clair and the Michigan State Waterways Commission have jointly developed docking and launching facilities on the Pine River immediately upstream of the Riverside Avenue bridge. Transient berths, gasoline, diesel fuel, water, electricity, sewage pump-out facilities and harbormaster services are available. The harbormaster monitors VHF-FM channels 9 and 16. In 2001, depth of 5 feet [1.5 m] were reported available at the facility. Another facility on the west side of the river about 1.4 [1.2] miles above the mouth provides gasoline, diesel fuel, water, ice, electricity, marine supplies, sewage pump-out, and a launching ramp. A 30-ton [27.2-tonne] hoist is available for hull, engine, and electronic repairs.

122 **St. Clair Middle Ground**, a shoal with a least depth of 1 foot [0.3 m], is in midriver from just below the mouth of Pine River north for about 1.5 [1.3] miles to opposite Mooretown, ON. Lighted buoys mark the shoal at its upper and lower ends and on the west side.

123 Downbound vessels should exercise caution when negotiating the westerly turn at the upper end of St. Clair Middle Ground to avoid striking these shoals.

124 The channel east of St. Clair Middle Ground, formerly used by upbound traffic, is no longer maintained.

125 **Stag Island** $(42^{\circ}53'N, 82^{\circ}28'W)$ is in Canadian waters 2 miles (3.7 km) north of Mooretown. Shoals extend 0.8 mile (1.5 km) south and 0.6 mile (1.1 km) north from the island and are marked at the outer ends by light **buoys**.

The main shipping channel leads west of Stag Island; a second channel lies east of the island. The east channel has depths of 18 to 31 ft (5.5 to 9.4 m).

127 Stag Island Shoal **light** (759), at the south end of the shoal extending south from Stag Island, is shown from a white cylindrical tower.

Caution. — A **submerged** natural gas **pipeline** crosses the river just south of the *Stag Island Shoal* light.

129 The settlement of **Corunna**, a community within the municipality of St. Clair Township, is east of Stag Island.

130 Corunna is a **Customs** telephone reporting site/ marine for pleasure craft.

131 A passenger **ferry** serves Corunna and Stag Island. It operates on the hour and half-hour from 08:00 to 21:00 Monday to Thursday, and from 08:00 to 22:00 Friday to Sunday.

132 Two **submerged cables** cross from Corunna to Stag Island.

133**Talfourd (Talford) Creek** is on the east shore0.5 mile (0.9 km) NNE of Stag Island.

134 A **submerged** water intake extends from the Canadian shore at the *DuPont of Canada* and *Nova Chemicals* facilities at Corunna. The crib at the outer end of the pipeline has a depth of 17 ft (5.2 m); the outer end of a **submerged** outfall is marked by a **buoy**.

135 Shell Canada Ltd. operates a **wharf** on the east shore north of the mouth of Taulford (Talford) Creek. The wharf is 2064 ft (629 m) long and 9 ft (2.7 m) high, with a depth of 23 ft (7 m). Petroleum products are shipped and received, and bunkering is available. A tank farm here makes a good landmark.

ST. CLAIR RIVER, SARNIA AND STAG ISLAND FROM SOUTH (2019)

Several **submerged pipelines** cross the river 1.2 miles (2.2 km) north of Stag Island.

137 A **shoal** east of the channel 1.5 miles (2.8 km) north of Stag Island has a depth of 16 ft (4.9 m); it is marked by *St. Clair River light* **buoy** *A60* (765).

138 An **overhead** power **cable** 1.7 miles (3.1 km) north of Stag Island has a clearance of 177 ft (53.9 m). The **towers** supporting the cable on each shore have air obstruction **lights**.

[from U.S. Coast Pilot 6, Chapter 9, partial]

139 Detroit Edison Marysville Power Plant wharves are on the west side of the river about 2 miles [1.7] above Stag Island at [Marysville, MI].

140 *Wharf 1:* (42°55′22″N., 82°27′37″W.); 340 feet [103.6 m] of berthing space; 18 feet [5.5 m] alongside; deck height, 9 feet [2.7 m]; open storage for 167,000 tons [151,543 tonnes] of coal; receipt of coal.

141 *Wharf 2*: 500 feet [152.4 m] above Wharf 1; 400 feet [121.9 m] of berthing space; 22 feet [6.7 m] alongside; deck height, 9 feet [2.7 m]; open storage for 53,000 tons [48,094 tonnes] of coal; receipt of coal.

Sarnia

142 **Sarnia Harbour** $(42^{\circ}59'N, 82^{\circ}24'W)$ is on the east shore near the head of St. Clair River. Sarnia is a major importing and exporting centre; petroleum products, rubber, chemicals, beans, sand, tobacco, grain and fertilizer are exported, and grain, steel, lumber, coal, crude oil, crushed stone and cement are imported. All types of marine supplies and facilities are available, including bunker and diesel fuel. Major marine repairs can be carried out. The navigation season is from mid-March to the end of December.

143 The city of **Sarnia**, with a population of 71 594 (2016), is a petroleum refining and chemical producing area. Open farmland lies east and south of the city. *Sarnia Chris Hadfield Airport* offers scheduled passenger services. Sarnia is served by the *Canadian National Railway* and *CSX Transportation*. Good highways connect Sarnia with other major cities.

144 Sarnia is a **Customs** land border reporting station for passengers, general public, and commercial highway traffic, a vessel clearing station for commercial vessels, and a telephone reporting site/marine for pleasure craft.

145 Immigration and agricultural inspection facilities are also available at Sarnia.

Table 3.2: Major Port Facilities Sarnia Harbour										
Name	Wharf Length ft (m)	Depth † ft (m)	Elevation †† ft (m)	Remarks						
Shell Canada Ltd.	2,000 (610)	24 (7.3)	11.5 (3.5)	Bulk loading and discharging of petroleum products, and bunkering.						
Sun Oil Co Ltd.	1,000 (305)	22 (6.7)	8 (2.4)	Bulk loading of tankers.						
Dow Chemical Co.	600 (183)	25 (7.6)	18 (5.5)	Loading bulk liquid products.						
Polymer Corporation	600 (183)	24 (7.3)	10 (3)	General plant supplies and loading of bulk liquid products.						
Mueller Brass Works	218 (66)	18 (5.5)	—	Mooring posts.						
Imperial Oil Ltd.	—	_	_	All Imperial Oil wharves are fitted with manifolds for handling bulk products. The wharves have the usual facilities: lights, steam and fresh water.						
Imperial Oil Ltd. — Lower dock	720 (219)	22 (6.7)	8.5 (2.5)	This dock can accommodate a ship 600 feet (183 m) long.						
Imperial Oil Ltd. — Dock	283 (86)	25 (7.6)	8.5 (2.5)	—						
Imperial Oil Ltd. — No. 1 Crude	610 (186)	25 (7.6)	8.5 (2.5)	—						
Imperial Oil Ltd. — Cement dock	326 (99)	25 (7.6)	8.5 (2.5)	Lafarge Cement.						
Imperial Oil Ltd. — Upper dock	592(180)	22 (6.7)	8.5 (2.5)	A concrete wharf that joins Upper dock and No.1 Crude dock can accommodate a ship 1,000 feet (305 m) long.						
Belton Lumber Co.	1,000 (305)*	18 (5.5)	_	Mooring posts. *Berthing length.						
Reid Aggregates Ltd.	440 (134)	23 (7)	6 (1.8)	Bulk stone storage.						
Public Wharf	1,040 (317)	24 (7.3)	6 (1.8)	Electricity and fresh water available. Shed 300 x 40 feet (91 x 12 m). Shed 160 x 40 feet (49 x 12 m). Three sheds 140 x 40 feet (43 x 12 m).						
Sarnia Elevator	900 (274)	22 (6.7)	5 (1.5)	Railway lines to wharf. Electrical power and fresh water available. Shed 475 x 100 ft (145 x 30 m).						
Transport Canada North Slip — East Side	1,700 (518)	24 (7.3)	_	Mooring dolphins.						

Table 3.2: Major Port Facilities Sarnia Harbour

Name	Wharf Length ft (m)	Depth † ft (m)	Elevation †† ft (m)	Remarks
Holmes Foundry Co.	262 (80)	20 (6.1)	7 (2.1)	Grounded ship used as a wharf. Self-unloaders discharge sand.
Canadian National Railways	1,100 (335)	18 (5.5)	10 (3)	Formerly Canada Steamship Lines wharf. Railway lines on wharf. Fresh water and electrical power available. Shed 750 x 100 feet (229 x 30 m).

Note: All information in this table was provided by local authorities. User should consult local authorities for latest conditions.

† Depth below chart datum.

†† Elevation above chart datum.

146 Sarnia Harbour is a Public harbour administered by *City of Sarnia*. The harbour limits include the Canadian waters of St. Clair River from Point Edward to below Southeast Bend.

147 (Sarnia Harbour **wharves** are listed in the table.)

148 The village of **Point Edward** ($43^{\circ}00'N$, $82^{\circ}25'W$), with a population of 2037 (2016), lies north of Sarnia at the entrance to St. Clair River.

149 (The approaches to Sarnia from Lake Huron are described in Sailing Directions booklet CEN 305 — Lake Huron, St. Marys River, Lake Superior.)

150 Blue Water Bridge, a twin high-level highway bridge, connects Point Edward and Port Huron, Michigan. The bridge has a cantilever span across the river, with a vertical clearance of 155 ft (47.2 m) for a width of 871 ft (265 m) and a clearance of 152 ft (47 m) for a width of 922 ft (281 m). Four red lights mark the channel limits; the centre of the span has two green lights, suspended from the lower parts of the bridge, on the axis of the Fort Gratiot range lights (described in United States Coast Guard Light List, Volume VII, Great Lakes, 9990 and 10000).

151 **Caution**. — The **current** is reported to flow past Point Edward at over 4 knots (7.4 km/h), and can reach 4.5 knots (8.3 km/h) or more north of *Blue Water Bridge*, and 3.6 knots (6.7 km/h) or more for 1 mile (1.9 km) south of the bridge. Upbound vessels will experience a westerly set between *Blue Water Bridge* and *Lighted Buoy 1* (US 10035) and Lake Huron Cut light buoy 2 (770).

152 There are no buoyed or designated anchorage areas, but parts of the river may be used with the permission of the harbour-master. There is good holding ground of clay and gravel on the Canadian side south of the mouth of Black River $(42^{\circ}58'N, 82^{\circ}25'W)$ and abreast of Sarnia. Vessels should anchor as close to the shore as safety will permit, to leave the mid-channel area clear for passing vessels.

153 Three **submerged** water intakes on the east side of St. Clair River, 0.2 mile (370 m) north of *Blue Water Bridge*, extend 250 ft (76.2 m) offshore. The cribs at the outer ends of the pipelines have depths of 24 ft (7.3 m).

154 A railway **tunnel**, 0.8 mile (1.5 km) south of the entrance to Black River, connects Sarnia with Port Huron, MI. There is a second railway **tunnel** in the same area.

155 **Bay Point** $(42^{\circ}59'N, 82^{\circ}25'W)$, on the east shore 1 mile (1.9 km) north of the Black River entrance, is the west entrance point of a slip used for ships waiting for the grain terminal or for berthing during the winter months. **Sarnia Bay** lies 0.5 mile (0.9 km) SE of Bay Point.

156 The *Cargill Sarnia Elevator*, 0.3 mile (0.6 km) ESE of Bay Point, has a capacity of 76 000 tonnes; an elevator annex has a capacity of 75 000 tonnes. Many grains, seeds and legumes are handled.

Sarnia Bay Marina, located on the north shore of Sarnia Bay, has depths of 4 to 6 ft (1.2 to 1.8 m) and offers dockage with power and water, pump out, **ramp**, picnic area, showers, laundromat, snack bar, restaurant and licensed dining room, ice, gasoline and diesel fuel, and monitored VHF Channel 68.

158 Bridgeview Marine Services, entered east of Bay Point, has depths of 4 ft (1.2 m) and offers dockage with power and water, pump out, **ramp**, repairs and salvage, 25- and 75-tonne cranes, mast stepper, sales of new and used boats and motors, picnic area, pay phones, showers, laundromat, ice, gasoline and diesel fuel, and monitored VHF Channel 68; Bridgeview Marine Store, also here, sells marine supplies.

159 Sarnia breakwater light (765.5), on the outer end of the **breakwater** at the entrance point to the

3-12

PORT HURON, MICHIGAN, AND POINT EDWARD FROM EAST (2018)



Sarnia Bay Marina basin, is shown from a white cylindrical tower, 11 ft (3.4 m) high, with a green upper part.

160 Sarnia Yacht Club, a private club in a protected basin 0.25 mile (0.5 km) east of the head of St. Clair River, had depths of 5 ft (1.5 m) in the approaches and 3 to 8 ft (0.9 to 2.4 m) at the wharves. The entrance to the yacht basin is marked by privately maintained leading **lights**, **lights** and **daymarks**.

161 *Lake Huron Yachts Ltd.*, east of *Sarnia Yacht Club*, in the same yacht basin, has depths of 6 ft (1.8 m) and offers dockage with power and water (for sailboats only), pump out, 5-tonne hoist, mast stepper, picnic area and showers.

162 Bridgeview Marine Services, 1 Marina Road, Point Edward and Manley's Basics Ltd., 152 Kendall Street, Point Edward are authorized dealers for Canadian Hydrographic Service nautical charts and publications.

[from U.S. Coast Pilot 6, Chapter 9, partial]

163 ... Fort Gratiot Light (43°00'23"N., 82°25'21"W.), 82 feet [25 m] above the water, is shown from a white brick conical tower on the west side of the river head. 164 *A* **207.6**° lighted range on the west side of the river 0.5 [0.4] mile below the Blue Water Bridge marks the channel through the head of the river to just below the bridge.

165 *Caution.*—Traffic regulations are in effect at the head of the St. Clair River. (See 33 CFR 162.134 (c)(2), chapter 2 [of U.S. Coast Pilot 6], for regulations.)

166 **Port Huron, MI**, a city at the south end of Lake Huron, fronts the west side of the upper part of the St. Clair River. **Black River** flows southeast through the city and empties into the St. Clair River 2.4 [2.1] miles below its head.

167 **Channels.**—A Federal project provides for a 20-foot [6.1-m] dredged channel that leads from the mouth of Black River to about 0.4 [0.35] mile above the Canadian National Railroad bridge, thence an 8-foot [2.4-m] channel to the I-94 bridge, thence a 6-foot [1.8-m] channel for about 2.1 [1.8] miles upstream to the head of the project. (See Notice to Mariners and the latest edition of the chart for controlling depths.) A light marks the south side of the river mouth.

168 *Fluctuations of Water Level.*—Each year spring freshets cause the level of the Black River to rise and fall from 4 to 6 feet [1.2 to 1.8 m]. Day-to-day level changes due to wind can amount to several inches [20 cm].

169 *Port Huron is a customs port of entry.*

170 **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

171 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

172 **Coast Guard.**—Port Huron Coast Guard Station is on the west side of the head of the St. Clair River just south of Fort Gratiot Light. A regulated navigation area has been established off the Coast Guard Station. (See **33 CFR 165.1 through 165.13** and **165.920**, chapter 2, [of U.S. Coast Pilot 6] for limits and regulations.)

173 Harbor Regulations.—A slow-no wake speed is enforced on the following sections of Black River: from the mouth upstream to the Canadian National Railroad bridge, from 600 feet [182.9 m] below to 800 feet [243.8 m] above the I-94 bridge, and from 1,000 feet [305 m] below to 500 feet [152.4 m] above the intersection with the Black River Canal.

174 **Towage.**—There is a tug (2,200 hp) available at Port Huron and service can be arranged through Malcolm Marine (810-329-9013), 24 hours a day. The tug works on all lakes and is a very capable icebreaker. Rescue towing is also available for any size vessel on Lake Huron or St. Clair River. Work boats ranging from 300 to 2,200 hp are also available. Tugs for Port Huron are also available from Detroit. (See Towage under Detroit.)

175 *Wharves.*—Port Huron has one deep-draft facility. The alongside depths given are reported depths. **Port Huron Terminal Co. Wharf**: (42°57'32"N., 82°25'36"W.); 950-foot [290-m] face; 25 to 29 feet [7.6 to 8.8 m] alongside; deck height, 8 feet [2.4 m]; 50,000 square feet [4645 m²] covered storage; 100,000 square feet [9290 m²] open storage; two 18-ton [16.3-tonne] cranes; rail and water connections; receipt of general cargo, wood pulp, and beans; owned by city of Port Huron and operated by Port Huron Terminal Co.

177 **Small-craft facilities.**—The city of Port Huron and the Michigan State Waterways Commission have jointly developed small-craft facilities on the east side of the Black River just below the Military Street Bridge, on the east side of the river below 7th Street bridge, on the east side of the river between 7th and 10th Street bridges, and on the west side of the river below the I-94 bridge. Gasoline, diesel fuel, water, ice, electricity, sewage pump-out facilities, and harbormaster services are available. The harbormaster monitors VHF-FM channels 16 and 9. Other marinas in Black River additionally provide launching ramps and lifts to 60 tons [54 tonnes] for hull, engine, and electronic repairs.

178 **Supplies.**–Water and some marine supplies and provisions are available at Port Huron Terminal Co. Wharf. Bunker C and diesel fuel are available at oil company terminals at Sarnia.

179 **Communications.**—Port Huron has good highway and rail connections. St. Clair County International Airport is 5 [4.3] miles southwest of the city.

180 (The shores and facilities of Lake Huron are described in Sailing Directions booklet CEN 305 — Lake Huron, St. Marys River, Lake Superior.)

A-1

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.

Owner Information			
Name:			
Address:			
Гelephone Number:		_Emergency Contact Num	ber:
Boat Information			
Boat Name:		_Licence or Registration N	umber:
Sail:	Power:	Length:	Туре: _
Colour	Hull:	Deck:	Cabin:
Engine Type:		Distinguishing Features:	
Communications			
Radio Channels Monitored:	HF:	VHF:	MF:
/MSI (Maritime Mobile Servic	e Identity) Number:		
atellite or Cellular Telephone N	Jumber:		
afety Equipment on Boa	rd		
ifejackets (include number):			
iferafts:			lude colour):
lares (include number and type):		
Other Safety Equipment:			
Trip Details — Update Th	ese Details Ever	y Trip	
Date of Departure:		Time of Departure:	
eaving From:		Heading To:	
roposed Route:		Estimated Date and Time	of Arrival:
opover Point.		Number of People on Boa	rd:

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 (In Canada) 1-800-267-7270

+1-613-965-3870 (Satellite, Local or Out of Area) +1-613-965-7279 (fax) <u>jrcctrenton@sarnet.dnd.ca</u> (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 (Région de Terre-Neuve-et-Labrador) 1-800-563-2444

+1-709-772-5151 (Satellite, Local or out of area) +1-709-772-2224 (fax) <u>mrscsj@sarnet.dnd.ca</u> (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.



Other References

Information for the Protection of Right Whales: https://www.dfo-mpo.gc.ca/fisheries-peches/commercial-commerciale/atl-arc/narw-bnan/index-eng.html

Atlantic Pilotage Authority Regulations: https://www.atlanticpilotage.com/acts-regulations/

Meteorological data: https://www.canada.ca/en/services/environment/weather.html

Marine Forecasts and Warnings for Canada: <u>https://weather.gc.ca/marine/index_e.html</u>

Current Predictions (Data Viewer by DFO - MSDI Dynamic Current Layer): <u>https://gisp.dfo-mpo.gc.ca/apps/dataviewer/?locale=en</u>

Customs: https://www.cbsa-asfc.gc.ca/travel-voyage/pb-pp-eng.html

SAR: Search and rescue (ccg-gcc.gc.ca)

Justice Laws Website: <u>https://laws.justice.gc.ca/</u>

List of Services | Directory of CBSA Offices and Services | Canada Border Services Agency (cbsa-asfc.gc.ca): <u>https://www.cbsa-asfc.gc.ca/do-rb/services/</u>



Distances in nautical miles — Detroit River, Lake St. Clair, and St. Clair River

		1												
	Detroit	, River lig	ht]	241									
Amherstburg	6	Amherst	tburg											
Trenton,MI	9	11	Trenton	,MI										
Wyandotte, MI	13	7	4	Wyando	otte, MI			S.						
Detroit, MI	22	16	13	10	Detroit,	MI			_					
Thames River entrance	49	43	40	36	27	Thames	River er	ntrance						
Chatham	63	57	55	51	42	16	Chathar	n						
Mt. Clemens, MI	51	46	43	39	30	29	43	Mt. Cler	nens, MI					
St. Clair Flats, MI	42	36	34	30	20	16	30	13	St. Clair	Flats, N	11	7	52	
Port Lambton	55	48	46	43	33	28	45	22	13	Port Lar	nbton			
Marine City, MI	59	52	50	47	37	32	49	26	17	3.5	Marine	City, MI]
St. Clair, MI	65	58	56	53	43	48	55	32	23	10	6	St. Clair	, MI	
Sarnia / Port Huron, MI	76	69	67	63	54	51	65	43	34	20	17	10	Sarnia /	Port Huron, MI

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