

# BookletChart™



## Approaches to Niagara River and Welland Canal

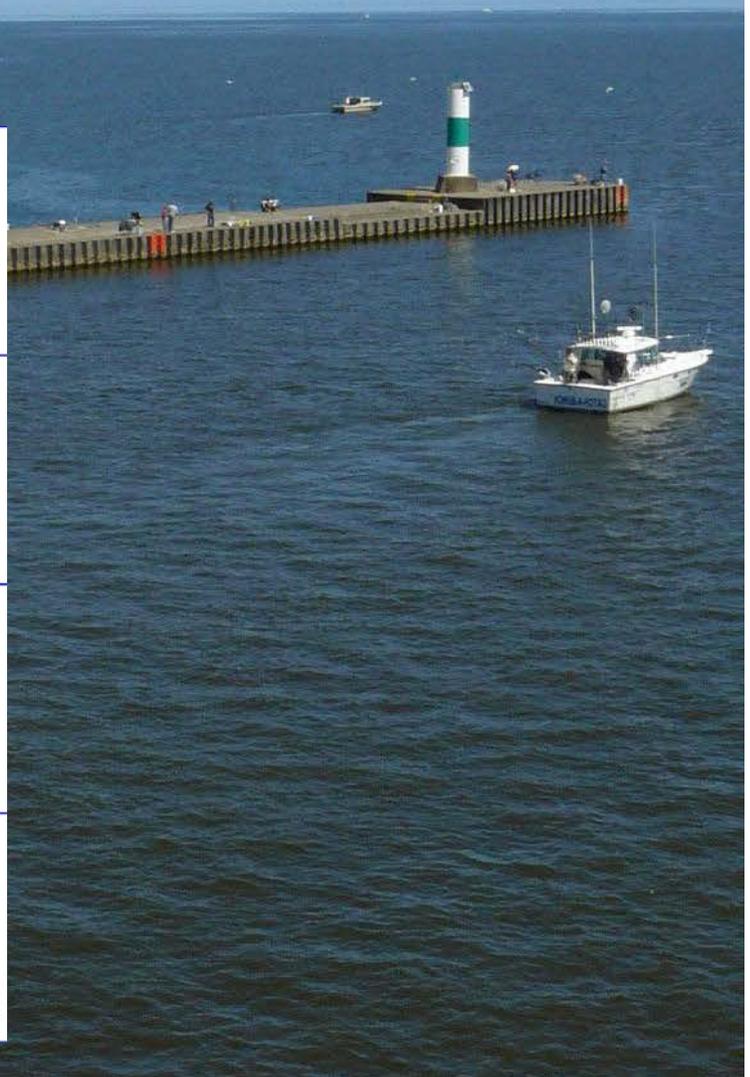
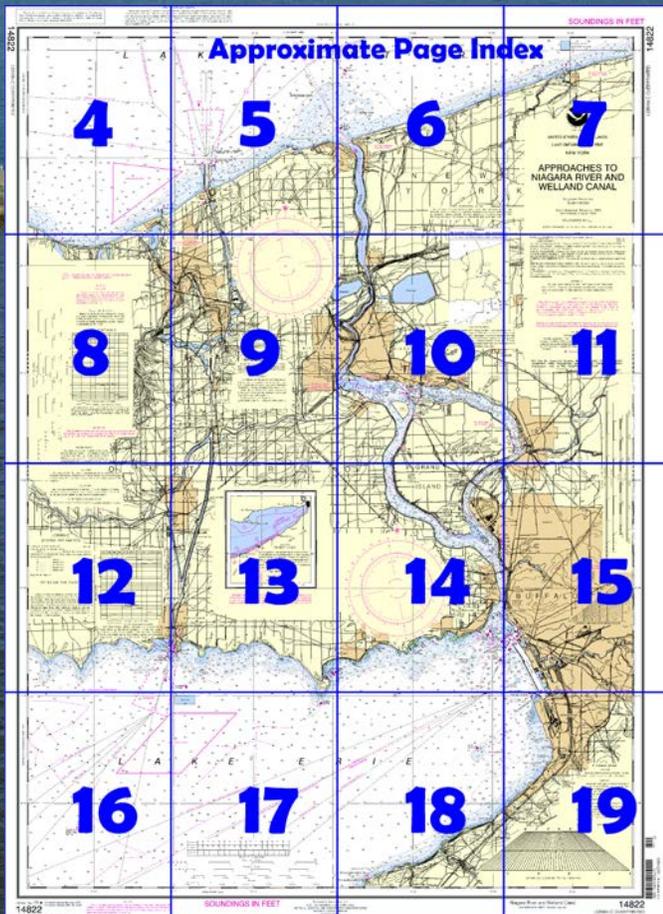
NOAA Chart 14822

*A reduced-scale NOAA nautical chart for small boaters*

*When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the  
National Oceanic and Atmospheric Administration  
National Ocean Service  
Office of Coast Survey  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
888-990-NOAA**

**What are Nautical Charts?**

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

**What is a BookletChart™ ?**

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

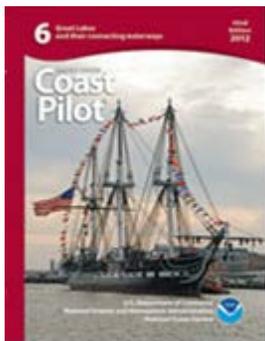
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

**Notice to Mariners Correction Status**

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14822>



**(Selected Excerpts from Coast Pilot)**

At its E end, Lake Erie becomes comparatively narrow and has its outlet in the Niagara River. From the head of the river, it is about 20 miles to the falls and rapids of **American Falls** and **Horseshoe Falls**. About 5 miles below the head, the river is divided into two channels by **Strawberry Island** and **Grand Island**. **Tonawanda Channel** and **Niagara River Channel**, the U.S. channels, lead to the E of these islands, and **Chippawa Channel**,

the Canadian channel, leads to the W of these islands. At the lower end of Grand Island, the channels rejoin and lead for about 3.5 miles to the falls.

The **International boundary** between the United States and Canada follows a general middle of the river course in the upper Niagara River from the head of the river downstream to the head of Grand Island where the river forks around the island. The boundary then follows Chippawa Channel and is generally less than 1,000 feet off the W shore of Grand Island until Chippawa Channel and Niagara River Channel join at the NW end of Grand Island. The boundary again follows a general middle of the river course around the S side of **Goat Island** and over Niagara Falls.

**Channels.**—Black Rock Canal is the recommended route from Lake Erie to facilities in the Niagara River below **Squaw Island**. The channel formerly dredged in the open river W of Bird Island and Squaw Island has shoaled to depths of 10 feet or less. The bottom in this reach is generally rocky, and the currents are strong and variable. Great care should be exercised in navigating this section of the river.

**Black Rock Canal** provides a safe passage for vessels around the rapids and shoals in the head of the Niagara River.

From Black Rock Lock at the lower end of Squaw Island, the dredged channel extends to a point about 0.7 mile below Pirates Island, off the SE side of Grand Island, thence through the deep water of Tonawanda Channel. W of Tonawanda Island, the dredged channel continues to a turning basin on the N side of **Tonawanda Island** at North Tonawanda.

**Black Rock Lock** connects the canal with the river near the foot of Squaw Island. The lock has a usable length of 625 feet with a clear width of 68 feet and a depth of 21 feet over the sills. The lock has an average lift of 5.2 feet.

**Caution.**—The canal generally has a slight current downstream. During rapidly rising or high water in Lake Erie, there is a strong crosscurrent at the S end of Bird Island Pier.

**Wilson Harbor** is in the mouth of **East Branch Twelvemile Creek**, about 12 miles east of the mouth of the Niagara River. The widened mouth of the creek forms **Tuscarora Bay**, which is about 2 feet deep in its natural depth and provides good anchorage for shallow-draft vessels.

**Niagara River Below Niagara Falls.**—The Niagara River flows from the northeast end of Lake Erie and enters Lake Ontario about 36 miles from its west end. The Lake Ontario entrance to the river is between two land points occupied by **Fort Niagara, NY**, on the E, and **Fort Mississauga, ON**, on the west. The **International boundary** between the United States and Canada generally follows a middle of the river course through the lower Niagara River.

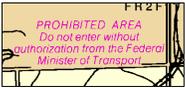
The Niagara River, with its great volume of water and a current of about 2.2 knots, deposits considerable sediment in Lake Ontario and forms extensive shoals for a radius of about 3 miles off the mouth of the river. A bank with least depths of 5 feet extends about 0.8 mile off the east side of the entrance and is marked on its northwest side by a lighted bell buoy. **Rumsey Shoal**, with depths of 17 feet, is an unmarked detached shoal about 1.5 miles north of Fort Niagara. **Niagara Bar** extends from shore about 2 miles west of the river mouth northeast to a point about 3 miles north of the river mouth. The north part of the shoal has depths of 12 and 13 feet, but depths of 8 feet are found to about 1.5 miles offshore northwest of the river mouth.

The entrance to the Niagara River is marked by lighted buoys, a **149°30'** lighted range, and lights at Fort Niagara and Fort Mississauga. **Fort Niagara Light** (43°15.7'N., 79°03.8'W.), 80 feet above the water, is shown from a tower with a white and green diamond-shaped daymark on the east side of the river at the mouth.

**U.S. Coast Guard Rescue Coordination Center  
24 hour Regional Contact for Emergencies**

RCC Cleveland                      Commander  
9th CG District                      (216) 902-6117  
Cleveland, OH

# Table of Selected Chart Notes



**Pump-out facilities**

**CAUTION**  
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

**RADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

**NOAA WEATHER RADIO BROADCASTS**  
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Buffalo, NY      KEB-98      162.55 MHz

**RACING BUOYS**  
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

**POLLUTION REPORTS**  
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

Polyconic Projection  
Scale 1:80,000  
North American Datum of 1983  
(World Geodetic System 1984)  
SOUNDINGS IN FEET

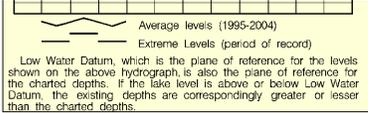
**NOTE C  
CAUTION**  
Cables for an Ice Boom are permanently attached to anchors on the lake bottom. They are submerged and not buried. Floating steel pontoons are attached to these cables between December 15 and April 1.

**CAUTION**  
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.  
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
Station positions are shown thus:  
○ (Accurate location)      ◐ (Approximate location)

**FISH NETTING AREAS**  
Various types of nets are employed in Lake Erie of which gill nets, impounding nets and trap nets may create a hazard to mariners. These are marked by buoys or stakes. This diagram shows the areas most intensively fished and the principal type of nets employed. However, fishing gear may be encountered at any location.

- ① Principal Gill Netting Areas.
- ② Impounding Net Areas.
- ③ Trap Net Areas.

**NOTE Z  
NO-DISCHARGE ZONE, 40 CFR 140**  
Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).



Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

**WARNING**  
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

**CAUTION**  
Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exist in the area of this chart. Such structures are not charted unless known to be permanent.

**CAUTION**  
Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

**CAUTION  
POTABLE WATER INTAKE**  
Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

**SOURCE DIAGRAM**  
Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

**HORIZONTAL DATUM**  
The horizontal reference datum of this chart is North American Datum, 1983 (NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

**10** Vessel Traffic Services calling-in point with numbers arrow indicates direction of vessel movement.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association

For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

**AUTHORITIES.** Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

**SAILING DIRECTIONS.** Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

**BRIDGE AND OVERHEAD CABLE CLEARANCES.** When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

**AIDS TO NAVIGATION.** Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys, and Fog Signals for information not included in the U.S. Coast Guard Light List.

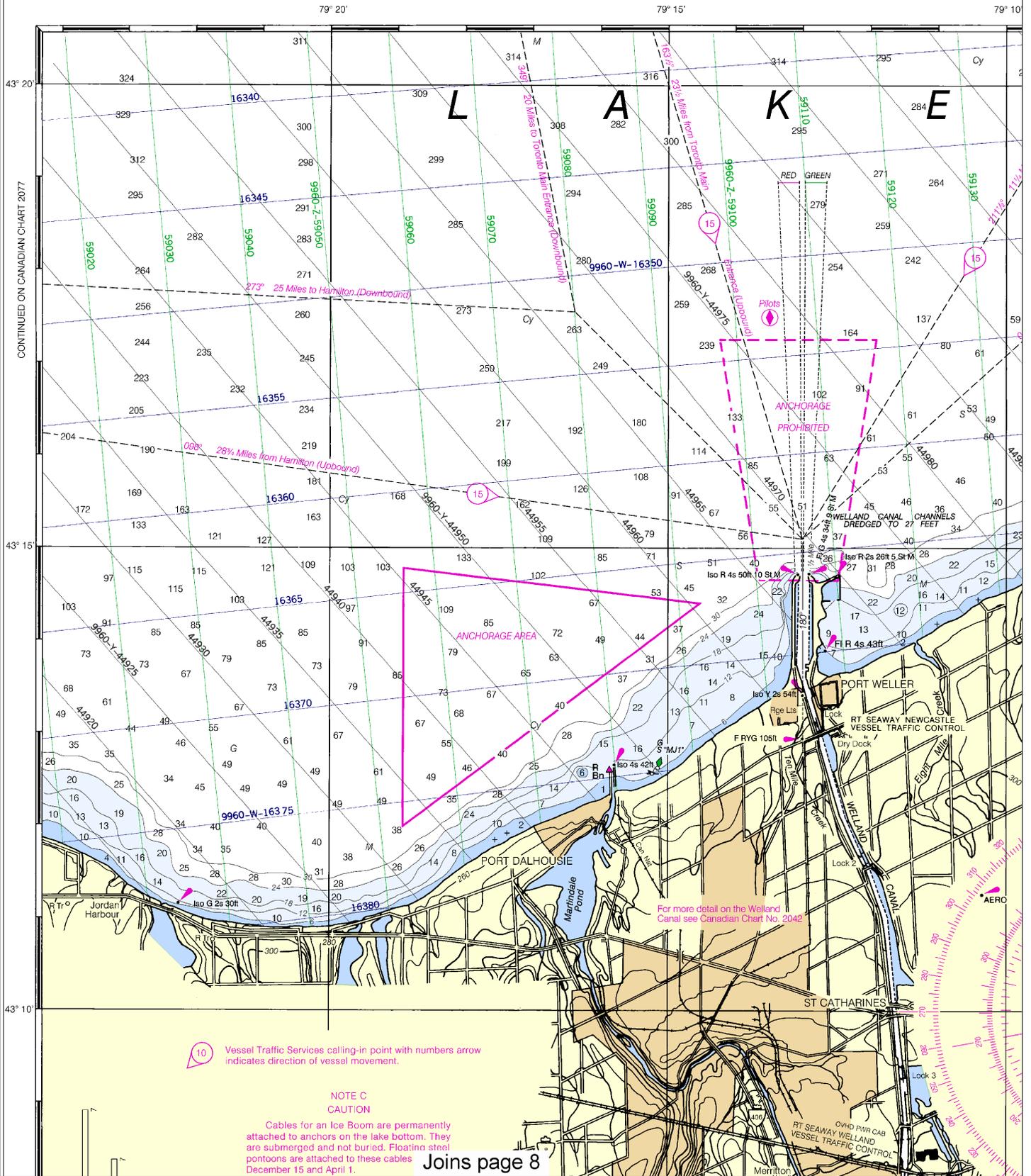
**PLANE OF REFERENCE OF THIS CHART (Low Water Datum)**  
LAKE ERIE ..... 569.2 ft.  
LAKE ONTARIO ..... 243.3 ft.  
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

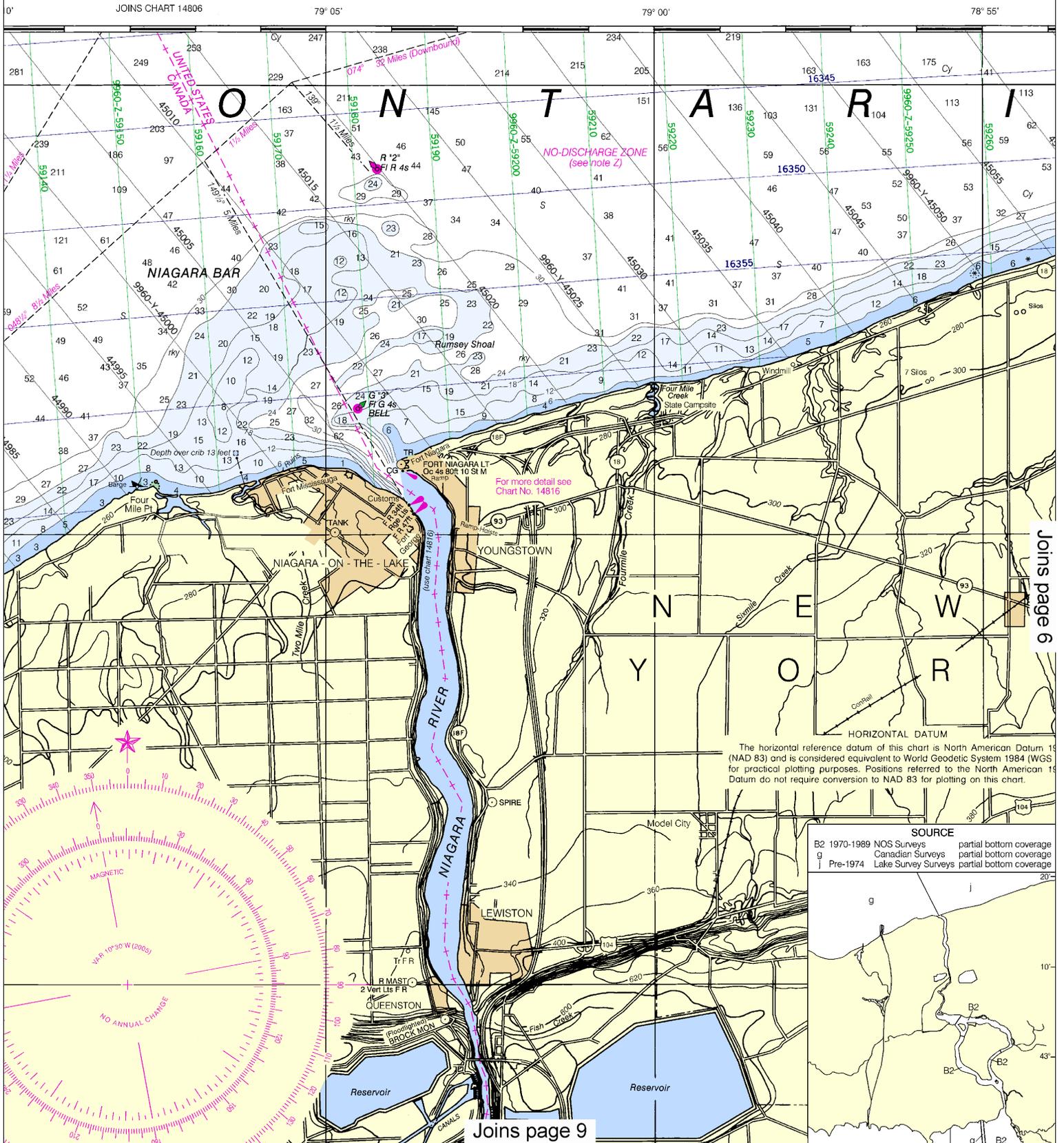
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

14822

LORAN-C OVERPRINTED



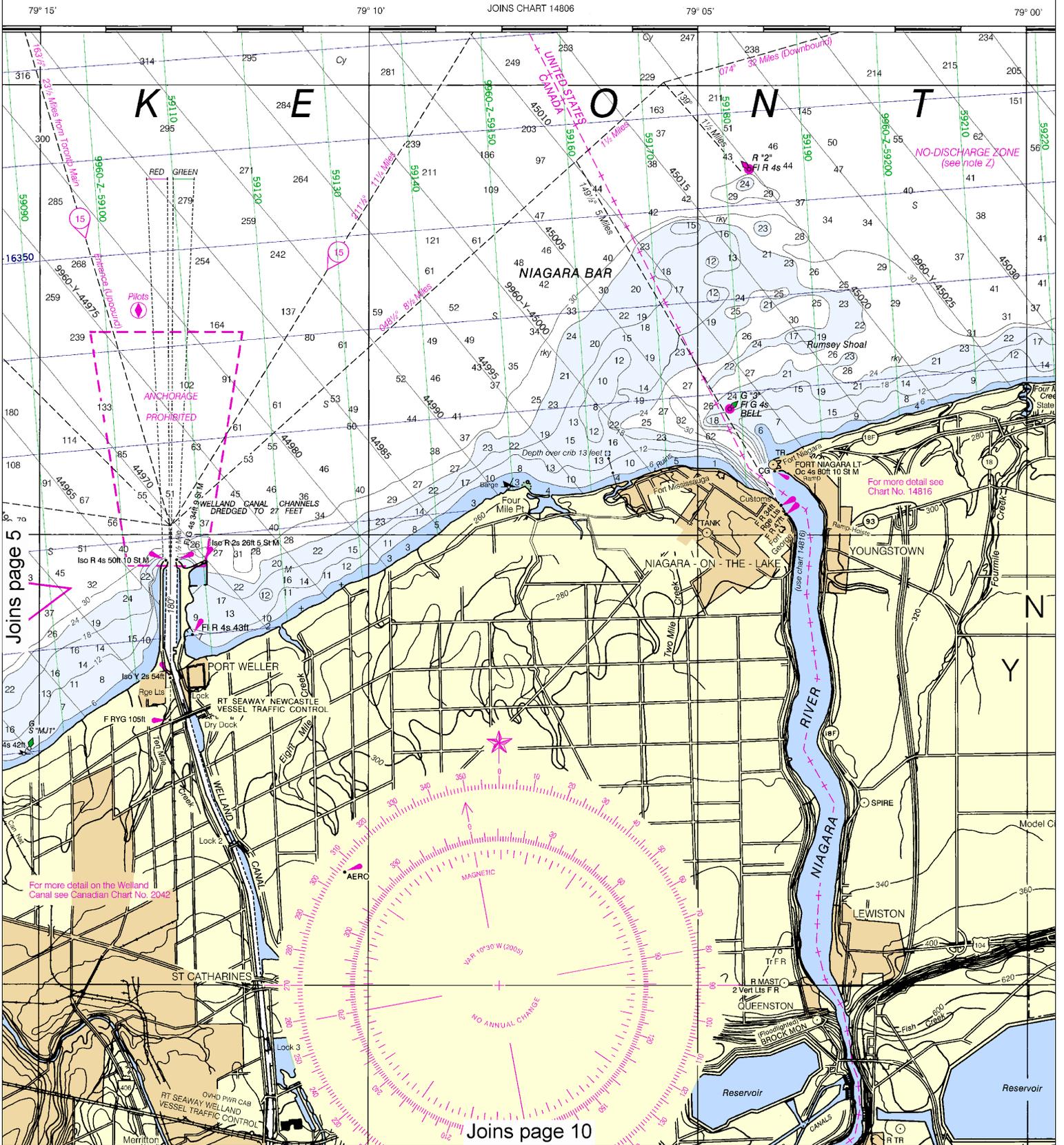


This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:106667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

INT-ON-DEMAND CHARTS

offer this chart updated weekly by NOAA for Notices to Mariners intended when ordered using Print-on-Demand technology. New charts are released as traditional NOAA charts. Ask your chart agent for more information. Contact NOAA at 1-800-584-4683, <http://www.NauticalCharts.gov>, or [OceanGrafix.com](http://OceanGrafix.com), or

Formerly LS 31, 1st Ed., 1880 KAPP 1135



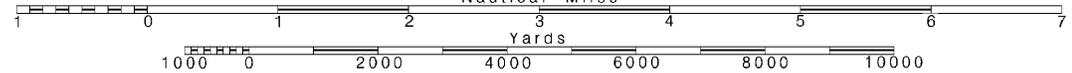
Joins page 5

Joins page 10

Printed at reduced scale.

SCALE 1:80,000 Nautical Miles

See Note on page 5.

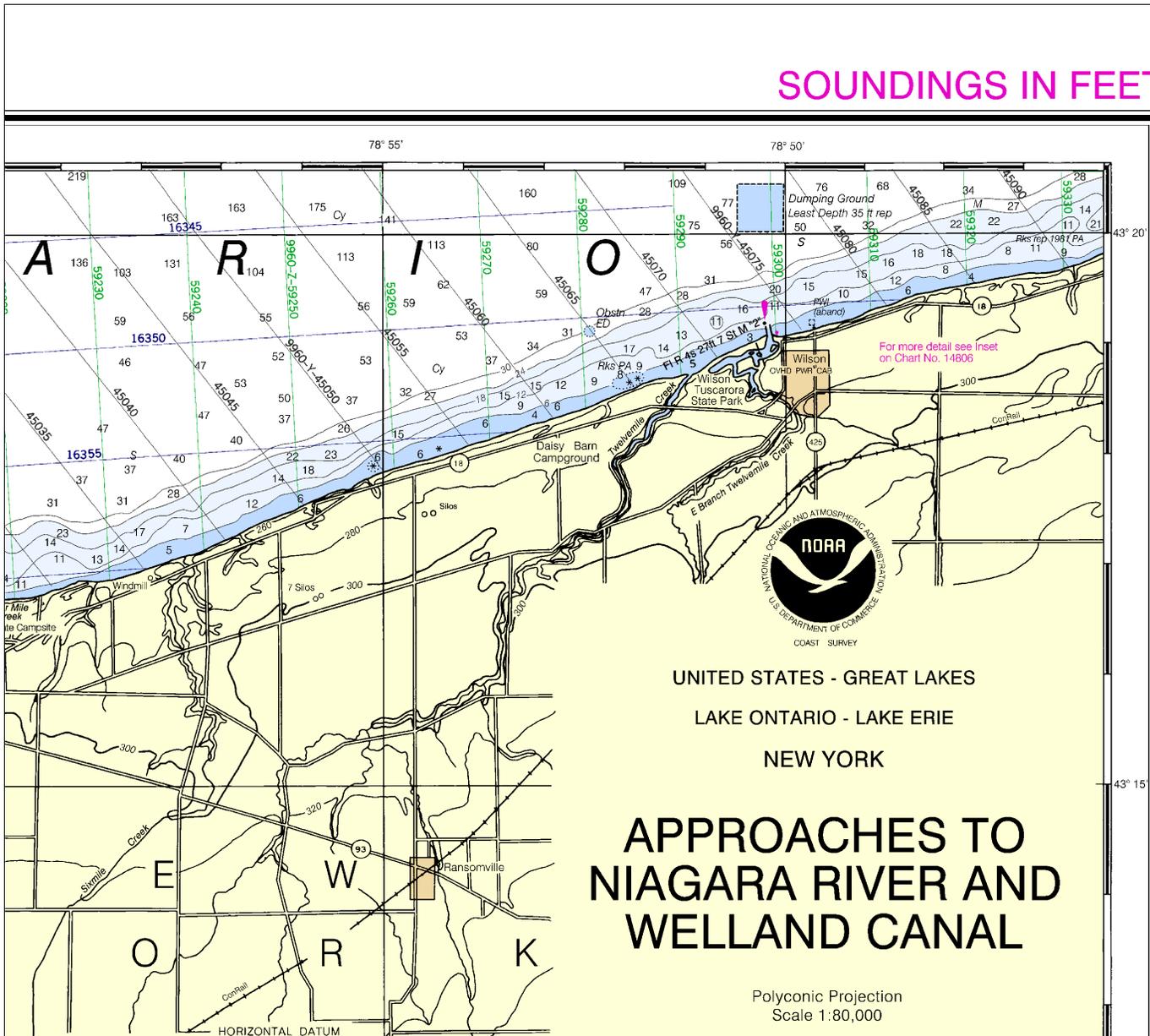


Note: Chart grid lines are aligned with true north.

# SOUNDINGS IN FEET

14822

LORAN-C OVERPRINTED



UNITED STATES - GREAT LAKES  
LAKE ONTARIO - LAKE ERIE  
NEW YORK

## APPROACHES TO NIAGARA RIVER AND WELLAND CANAL

Polyconic Projection  
Scale 1:80,000

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

### NOTES

- PLANE OF REFERENCE OF THIS CHART (Low Water Datum)
- LAKE ERIE ..... 569.2 ft.
  - LAKE ONTARIO ..... 243.3 ft.
- Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).
- SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.
- AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys, and Fog Signals for information not included in the U.S. Coast Guard Light List.
- SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.
- BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.
- AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

### COPYRIGHT

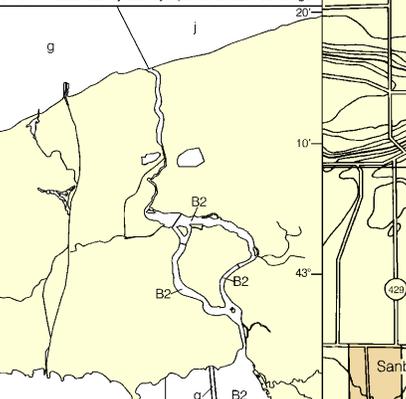
No copyright is claimed by the United States Government under Title 17 U.S.C. However, other nations may claim intellectual property rights on the compilation of data depicting the foreign waters shown on this chart.

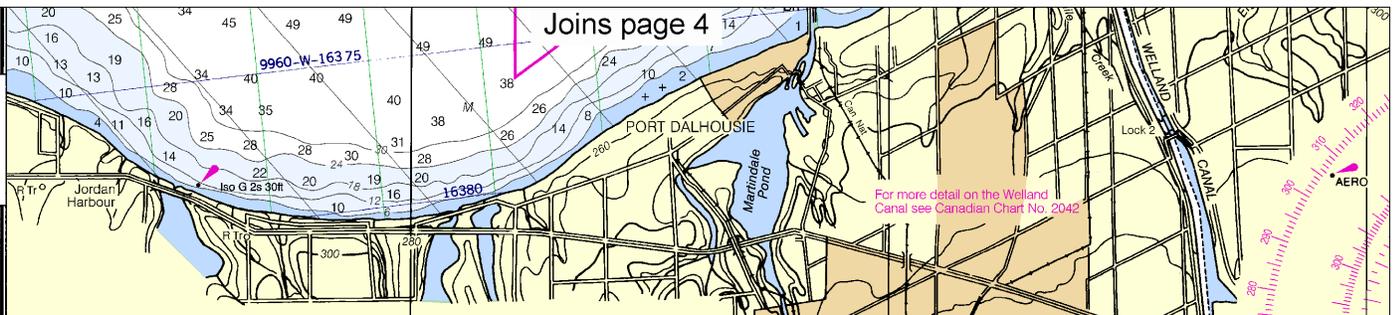
### NOTE A

Joins page 11 is are published in Chapter 2, U.S. Coast Pilot 6. Additions to this chart are published in the Notice to Mariners.

HORIZONTAL DATUM  
The horizontal reference datum of this chart is North American Datum 1983 (NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

SOURCE	
B2	1970-1989 NOS Surveys partial bottom coverage
g	Canadian Surveys partial bottom coverage
j	Pre-1974 Lake Survey Surveys partial bottom coverage





For more detail on the Welland Canal see Canadian Chart No. 2042

10 Vessel Traffic Services calling-in point with numbers arrow indicates direction of vessel movement.

NOTE C CAUTION

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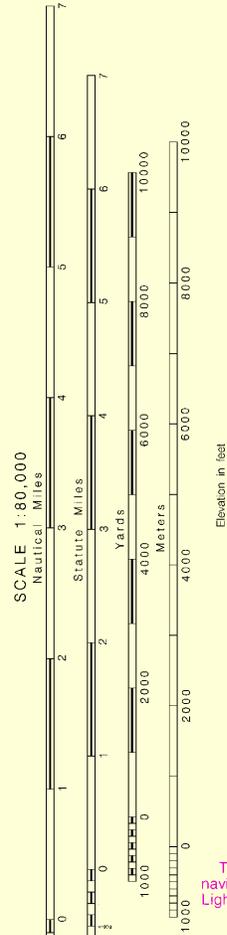
POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

LAKE ONTARIO

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
+5												
+4												
+3												
+2												
+1												
0												
-1												

Average levels (1995-2004) Extreme Levels (period of record) Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths.



WARNING The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

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SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

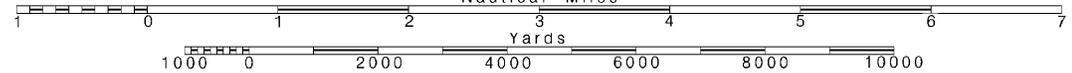


Note: Chart grid lines are aligned with true north.

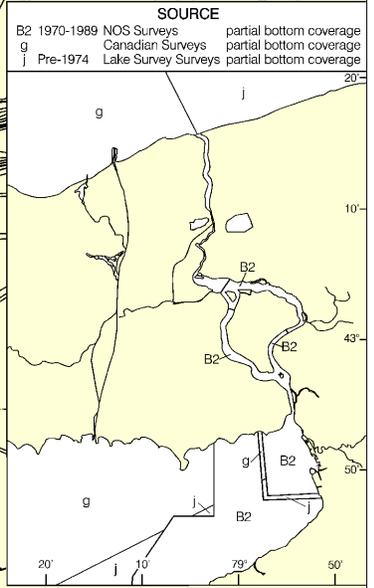
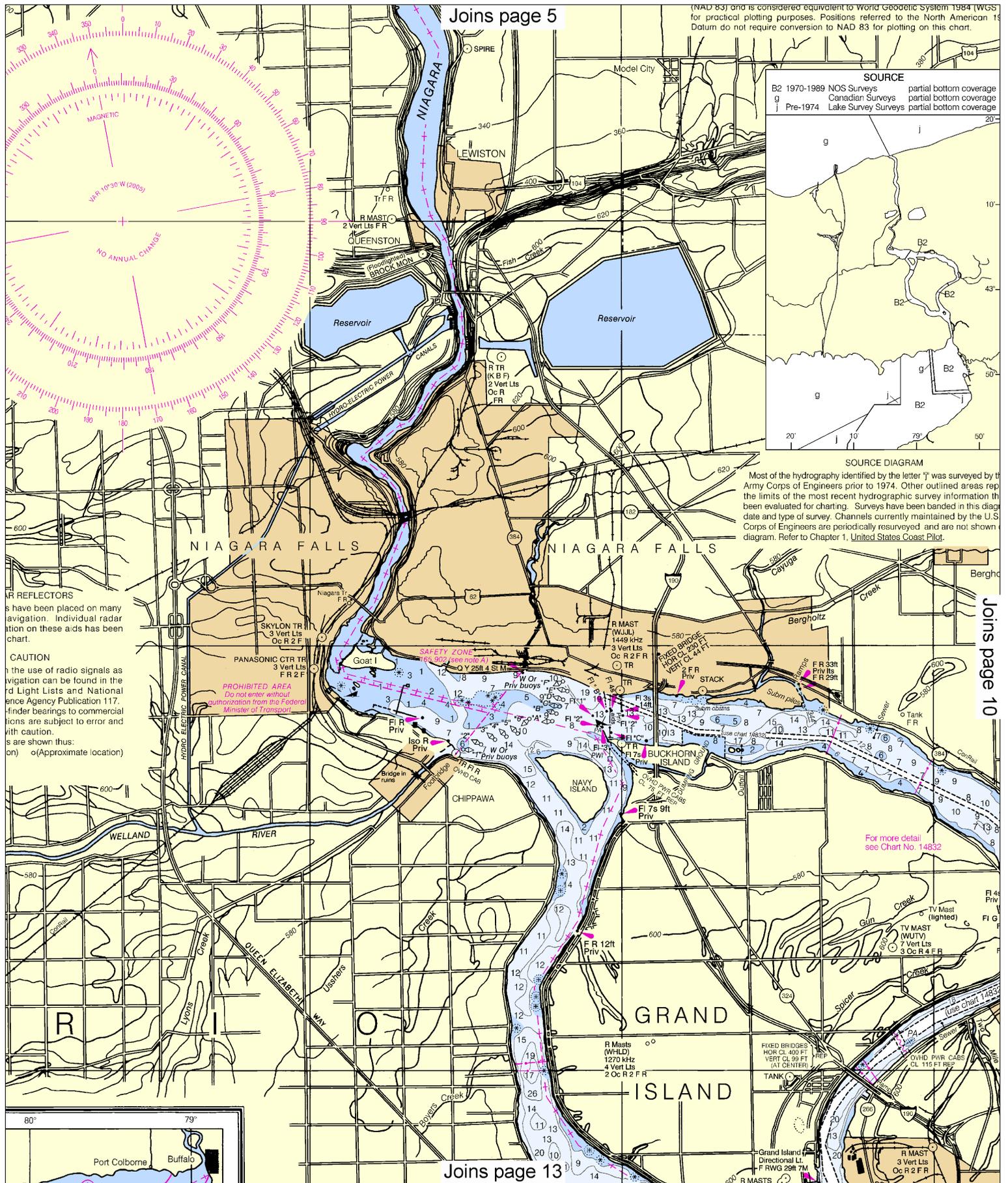
Printed at reduced scale.

SCALE 1:80,000 Nautical Miles

See Note on page 5.



(NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 1984) for practical plotting purposes. Positions referred to the North American 1983 Datum do not require conversion to NAD 83 for plotting on this chart.



**SOURCE DIAGRAM**  
Most of the hydrography identified by the letter "j" was surveyed by the Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown in this diagram. Refer to Chapter 1, United States Coast Pilot.

**REFLECTORS**  
Radar reflectors have been placed on many aids to navigation. Individual radar return information on these aids has been charted.

**CAUTION**  
The use of radio signals as aids to navigation can be found in the Radio Light Lists and National Oceanic and Atmospheric Administration Publication 117. Bearings to commercial radio aids are subject to error and should be used with caution.

Approximate location



(NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

# Joins page 7 (World Geodetic System 1984)

## SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

### NOTES

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### NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, N.Y. Refer to charted regulation section numbers.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association

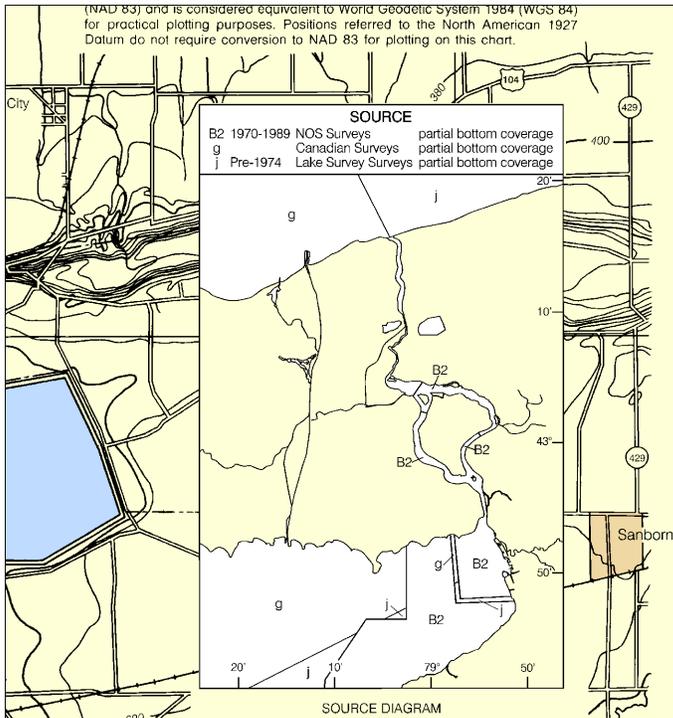
### CAUTION

#### POTABLE WATER INTAKE

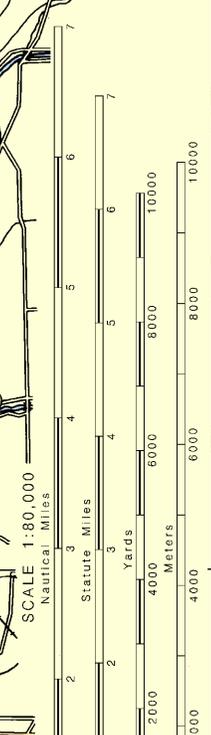
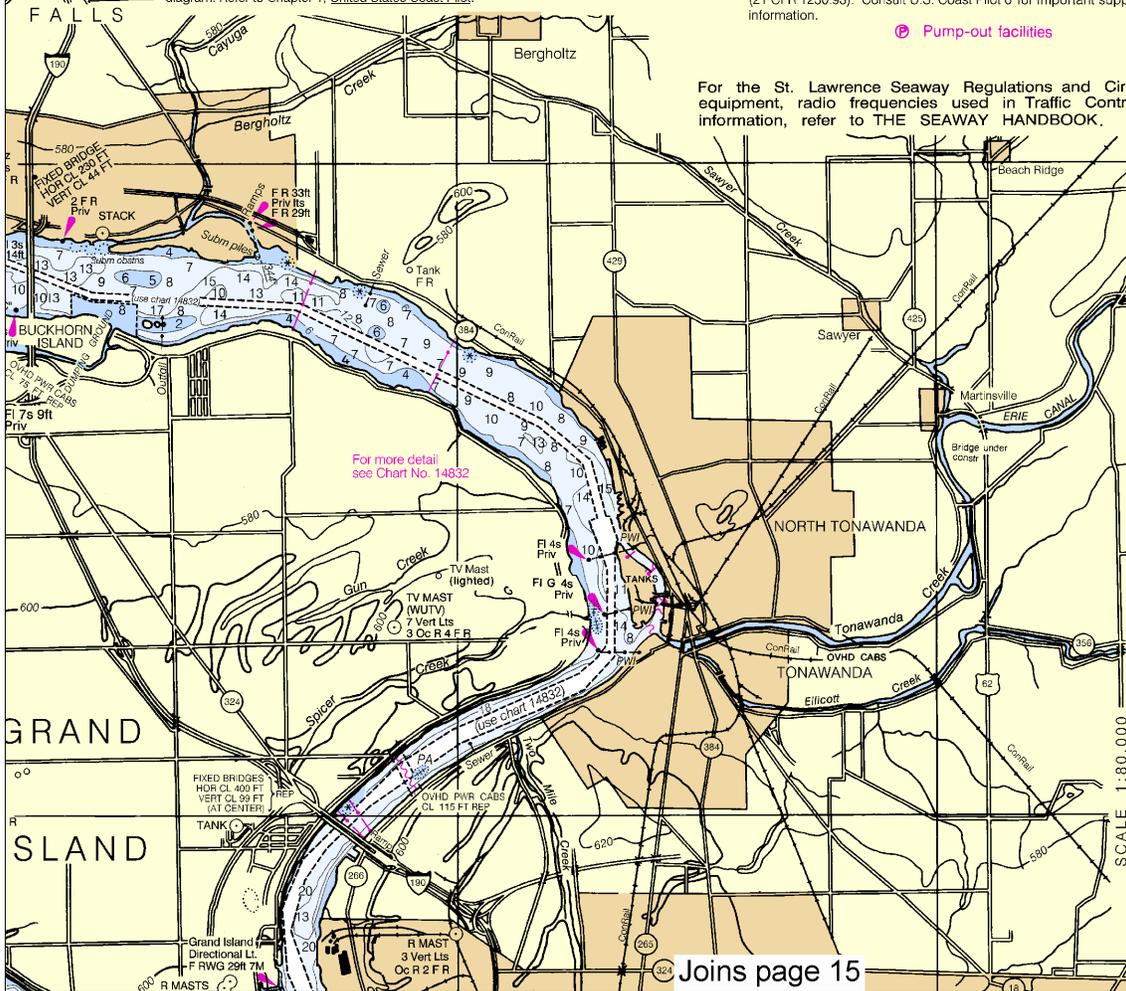
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**CAUTION**

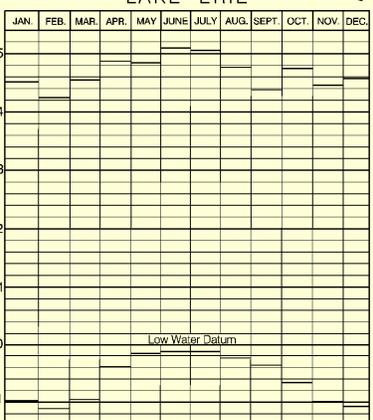
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**SUPPLEMENTAL INFORMATION**

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**NOTE Z  
NO-DISCHARGE ZONE, 40 CFR 140**

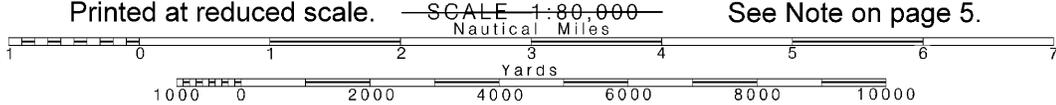
Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: [http://www.epa.gov/owow/oceans/regulatory/vessel\\_sewage/](http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/).



Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

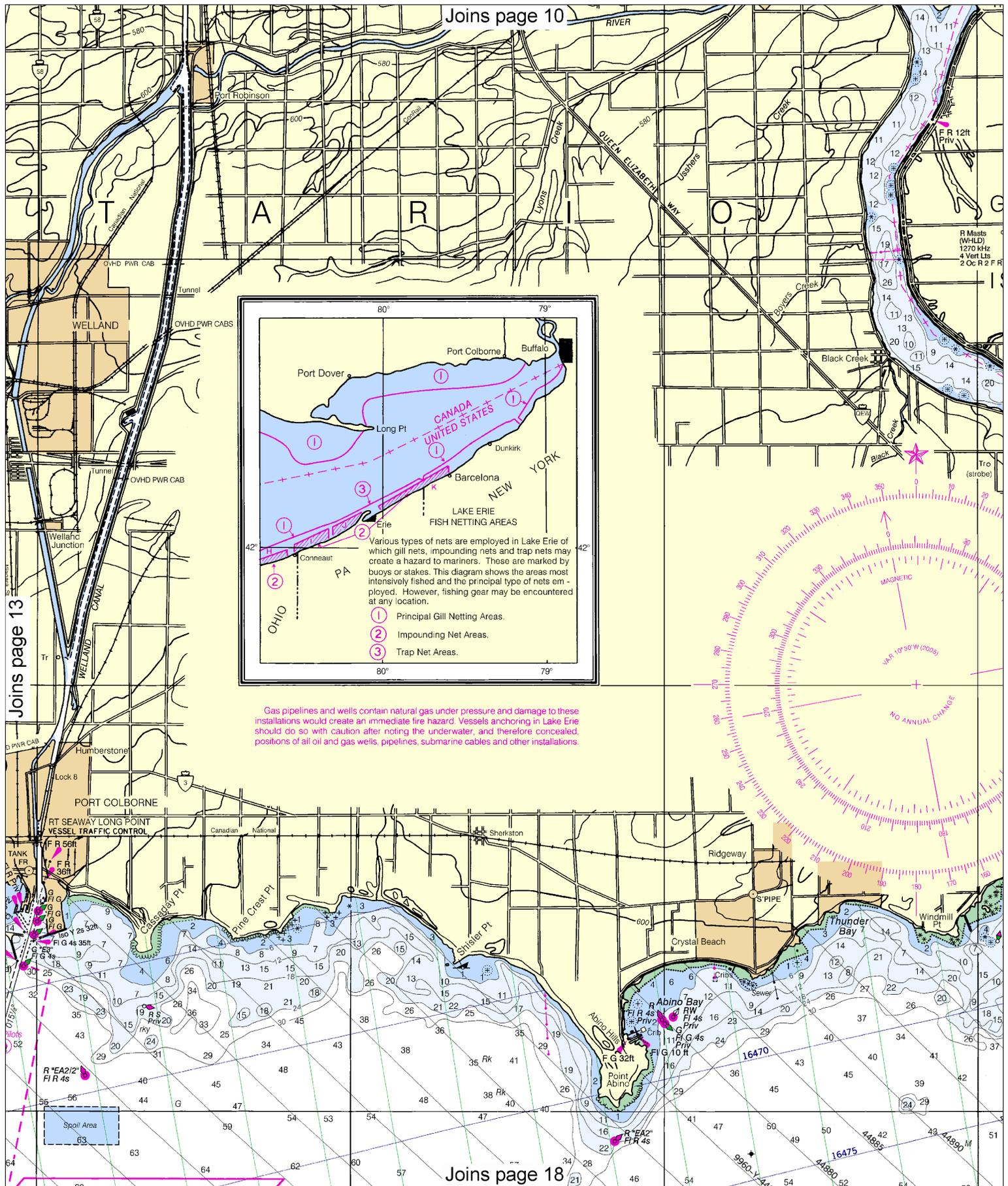
For more detail on the Welland Canal see Canadian Chart No. 2042

Note: Chart grid lines are aligned with true north.



See Note on page 5.





Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

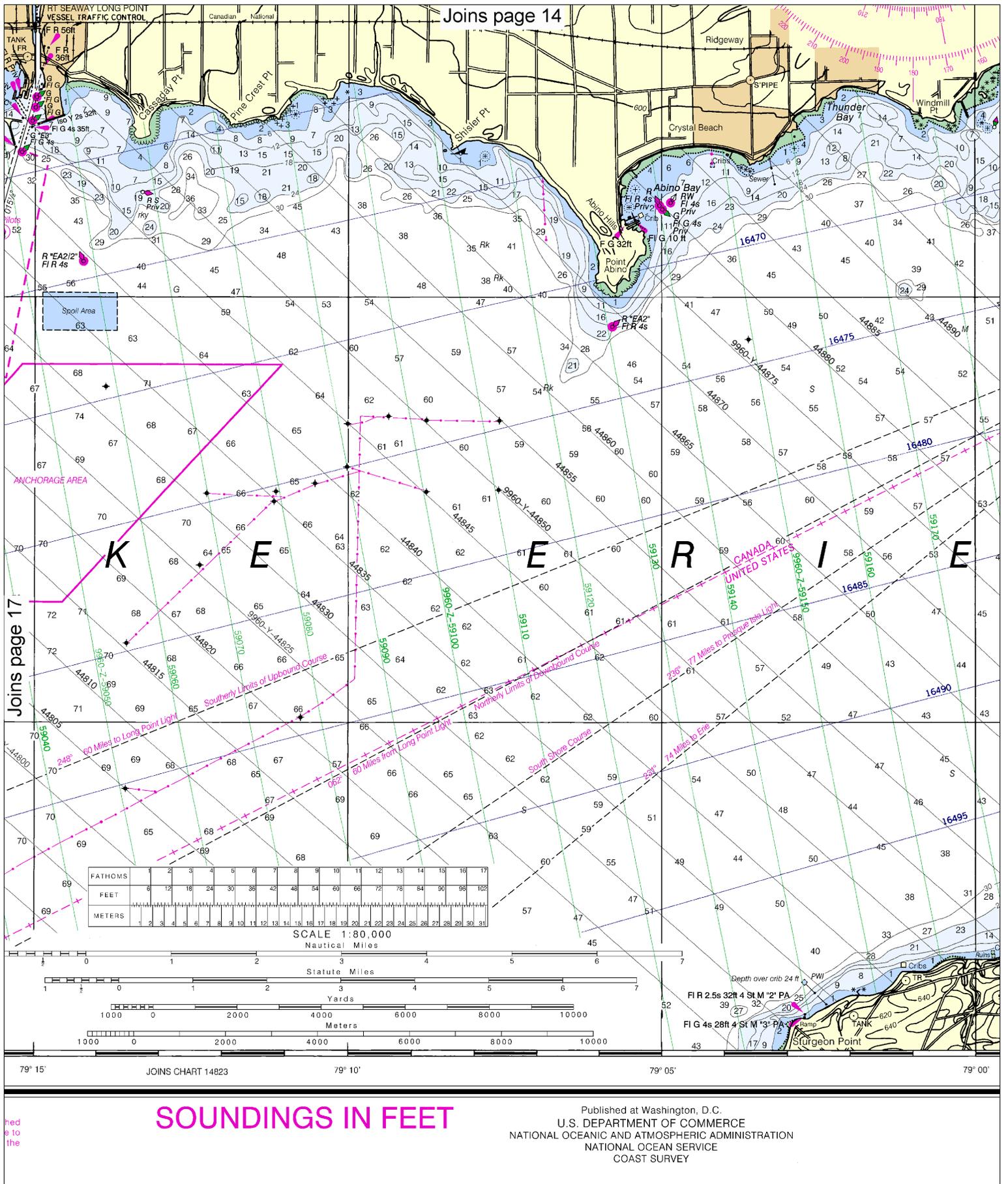
SCALE 1:80,000  
Nautical Miles

See Note on page 5.









# SOUNDINGS IN FEET

Published at Washington, D.C.  
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 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 NATIONAL OCEAN SERVICE  
 COAST SURVEY

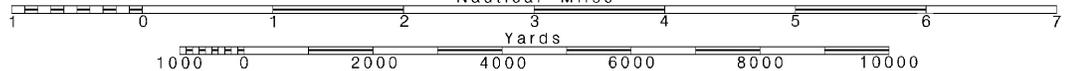
# 18

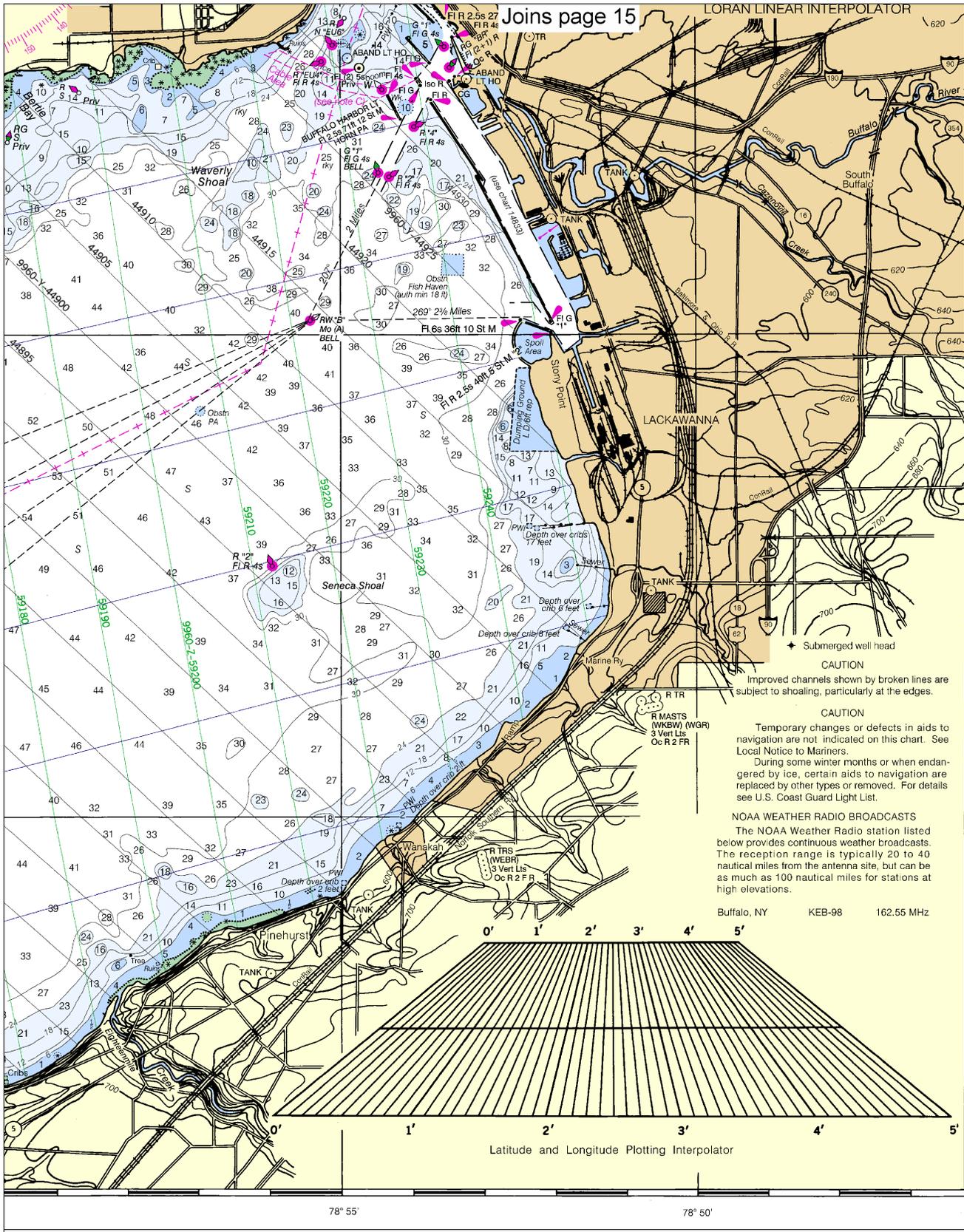
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:80,000  
 Nautical Miles

See Note on page 5.





Submerged well head

CAUTION  
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS  
The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Buffalo, NY    KEB-98    162.55 MHz

ED. NO. 32

NSN 7642014010573  
NGA REFERENCE NO. 14XC014822

Niagara River and Welland Canal  
SOUNDINGS IN FEET - SCALE 1:80,000

14822  
LORAN-C OVERPRINTED



EMERGENCY INFORMATION

## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – **Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.**

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Quick References

- Nautical chart related products and information — <http://www.nauticalcharts.noaa.gov>
- Online chart viewer — <http://www.nauticalcharts.noaa.gov/mcd/NOAChartViewer.html>
- Report a chart discrepancy — <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>
- Chart and chart related inquiries and comments — <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs>
- Chart updates (LNM and NM corrections) — [http://www.nauticalcharts.noaa.gov/mcd/updates/LNM\\_NM.html](http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html)
- Coast Pilot online — <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>
- Tides and Currents — <http://tidesandcurrents.noaa.gov>
- Marine Forecasts — <http://www.nws.noaa.gov/om/marine/home.htm>
- National Data Buoy Center — <http://www.ndbc.noaa.gov/>
- NowCoast web portal for coastal conditions — <http://www.nowcoast.noaa.gov/>
- National Weather Service — <http://www.weather.gov/>
- National Hurricane Center — <http://www.nhc.noaa.gov/>
- Pacific Tsunami Warning Center — <http://ptwc.weather.gov/>
- Contact Us — <http://www.nauticalcharts.noaa.gov/staff/contact.htm>



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

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