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

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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

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 Tuscaraora 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

(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.
Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers

PORT SIDE
ODD NUMBERED AIDS
- GREEN LIGHT ONLY
- FLASHING (2)
- OCCULTING
- QUICK FLASHING
- ISO

PREFERRED CHANNEL
NO NUMBERS – MAY BE LETTERED
- PREFERRED CHANNEL TO STARBOARD
- TOPMOST BAND GREEN
- GREEN LIGHT ONLY
- COMPOSITE GROUP FLASHING (2+1)

PREFERRED CHANNEL
NO NUMBERS – MAY BE LETTERED
- PREFERRED CHANNEL TO PORT
- TOPMOST BAND RED
- RED LIGHT ONLY
- COMPOSITE GROUP FLASHING (2+1)

STARBOARD SIDE
EVEN NUMBERED AIDS
- RED LIGHT ONLY
- FLASHING (2)
- OCCULTING
- QUICK FLASHING
- ISO

For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at http://www.navcen.uscg.gov
This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:106666. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.
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.

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
- Interactive chart catalog — http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
- Chart and chart related inquiries and comments — http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
- Chart updates (LNM and NM corrections) — 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
- National Data Buoy Center — http://www.ndbc.noaa.gov/
- NowCoast web portal for coastal conditions — http://www.nowcoast.noaa.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

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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.

NOAA’s Office of Coast Survey The Nation’s Chartmaker