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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<th>Approximate Page Index</th>
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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=14902

(Selected Excerpts from Coast Pilot)

Old Mackinac Point (45°47.3’N., 84°43.8’W.), the northeastern most point of the lower peninsula of the State of Michigan, is on the S side of the narrowest part of the Straits of Mackinac at the entrance to Lake Michigan. Harbor Springs, Mich. on the N shore of Little Traverse Bay, is a fine small-craft harbor of refuge affording security in any weather. On the N shore of the harbor, docks extend to 10 to 12 feet of water, with 16 feet at the end of the city dock. Petoskey, Mich., is on the S side near the head of Little Traverse Bay. A small-craft harbor at Petoskey is protected on the W by a breakwater extending N from shore and marked on the outer end by a light. The breakwater should not be passed close aboard due to large riprap stones along the sides, and end.

Beaver Island, the principal island in the group W of Grays Reef Passage, is 13 miles long N and S with a maximum width of 6.5 miles. The wooded island is bluff on the W side and lower on the E side. Shoals extend about 0.5 to 1 mile offshore around the island, except in Sandy Bay, about mid-length of the E side, where deep water is within 0.2 mile of shore.

Good Harbor Bay, between Carp River Point and Pyramid Point 7.7 miles WSW, has deep water close to shore and affords protection in all but N to NE winds. However, in the NE part of the bay, an extensive rocky ledge with depths of 2 to 18 feet is 1 to 3 miles offshore.

Frankfort Harbor, 4.3 miles S of Point Betsie, is in Betsie Lake, connected to Lake Michigan by an entrance channel. The shore S of the entrance channel is bluff, reaching over 300 feet above the lake. The city of Frankfort, Mich., is on the N side of Betsie Lake.

Sturgeon Bay Ship Canal provides a navigable connection between Lake Michigan and the S end of Green Bay. A canal has been cut from Lake Michigan across a narrow strip of land to the head of Sturgeon Bay, and thence a dredged channel leads through Sturgeon Bay to Green Bay. The Lake Michigan entrance to the canal is about 126 miles N of Milwaukee Harbor, across the lake W of Frankfort, Mich.

Baileys Harbor, about 14 miles N of Whitefish Point, is a small bay protected on the E by a point that extends E, then S, from shore. Shoals that extend 1 mile S from the point are marked on the SW side by a buoy. A shoal with a least depth of 1 foot extends from shore on the W side of the harbor entrance. Baileys Harbor Directional Light (45°04.2’N., 87°07.2’W.), at the NW corner of the harbor, shows a higher intensity beam on 340° which marks the best water into the harbor. Vessels approaching Baileys Harbor should keep 1.5 miles offshore until the white sector is visible. A lighted bell buoy 3 miles SSE of the light, in the white sector, marks the harbor entrance.

Green Bay has a maximum width of 23 miles. The bay is separated from Lake Michigan by two mainland peninsulas; Garden Peninsula, the N one, is 20 miles long, and Door Peninsula, the S one, is 70 miles long. The entrance to Green Bay between the peninsulas is about 28 miles wide, but is so congested with islands and shoals that the passages between them have acquired the reputation of being dangerous. The main entrances are through Porte des Morts Passage, Rock Island Passage, St. Martin Island Passage, and Poverty Island Passage.

Detroit Harbor is a large, but shallow indentation in the S shore of Washington Island. The mouth of the harbor is protected by the N end of Detroit Island. A semicircular bight in the N end of Detroit Island forms a well protected area in the S part of the harbor. N of Detroit Island, the harbor has general depths of 7 to 10 feet and a rocky spot, covered 3 feet, near the center. Shallow-draft vessels with local knowledge may enter the harbor across the rocky bank which connects the NE side of Detroit Island to Washington Island. The main entrance to the harbor is W of Detroit Island. Washington Island Coast Guard Station, seasonally operated, is on the SW side of Detroit Harbor at the S end of Washington Island.

Caution.—Currents with velocities up to 2 mph are of frequent occurrence around North and South Fox Islands. Mariners should exercise caution while navigating in the area.
NOAA's navigation managers serve as ambassadors to the maritime community. They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers.

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry. To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

### Lateral System As Seen Entering From Seaward

On navigable waters except Western Rivers

**PORT SIDE**

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<th>ODD NUMBERED AIDS</th>
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<th>FLASHING</th>
<th>OCCULTING</th>
<th>QUICK FLASHING</th>
<th>ISO</th>
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<tr>
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<td>LIGHTED BUOY</td>
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**PREFERRED CHANNEL**

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

**STARBOARD SIDE**

<table>
<thead>
<tr>
<th>EVEN NUMBERED AIDS</th>
<th>RED LIGHT ONLY</th>
<th>FLAShING (2)</th>
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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.
Note: Chart grid lines are aligned with true north.
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.

NOTE A

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

SOURCE

Pre-1974
Lake Survey Surveys
partial bottom coverage
1970-1983
NOE Survey
partial bottom coverage

SOURCE DIAGRAM

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

CAUTION

POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or brackish water within such areas adjacent to domestic water intakes as are designated by the Commission of Food and Drugs (51 CFR 1200.90). Consult U.S. Coast Pilot 6 for important supplemental information.

For more details see Coast and Harbor Charts.

Note: Chart grid lines are aligned with true north.
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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
- 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 (LNMs 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