

BookletChart™

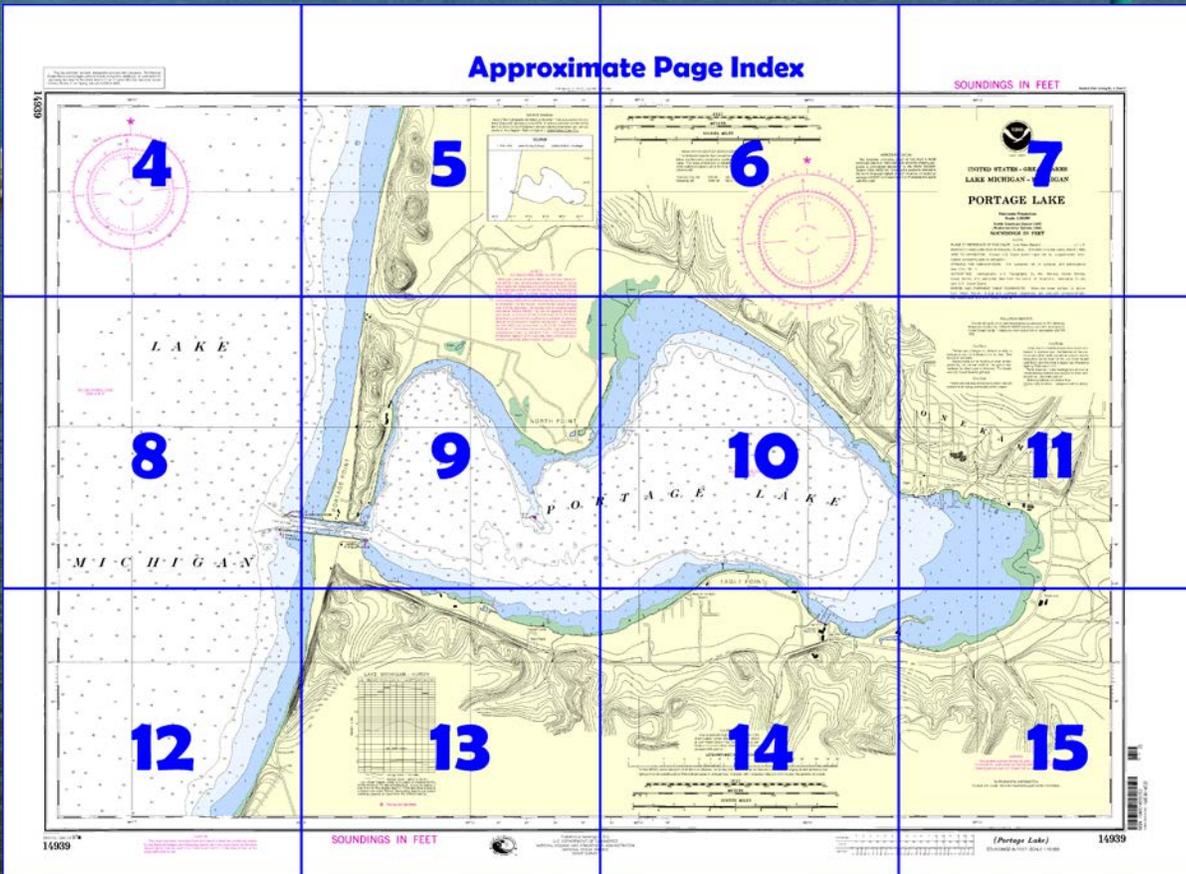


Portage Lake NOAA Chart 14939

*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
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.

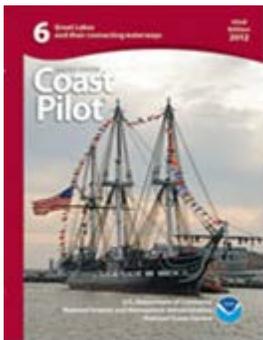
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=14939>.



(Selected Excerpts from Coast Pilot)
Portage Lake, 23 miles south of Point Betsie, is separated from Lake Michigan by a narrow strip of land. The lake, 3.3 miles long and 0.6 to 1.5 miles wide, has central depths of 14 to 60 feet with gradual shoaling toward shore. A shoal, marked by a lighted buoy, has depths of 7 to 12 feet near its outer end and extends 0.4 mile south from North Point, about 0.9 mile east of the entrance channel. **Onekama, MI**, is a village on the north side of the lake

at the east end.

Channels.—The dredged entrance channel leads from Lake Michigan between parallel piers and revetments to the deep water inside Portage

Lake. The outer ends of the piers and the Portage Lake end of the south pier are marked by lights. A sound signal, which operates by keying the microphone five times on VHF-FM channel 79, is at the north outer end light. In 2011, the controlling depth was 8 feet in the entrance channel. The channel is subject to shoaling from sand swept in by shore currents. The currents in the entrance channel attain velocities up to 3 mph in either direction.

Mooring to the piers and revetments is prohibited. Mariners are cautioned against navigating outside channel limits in the vicinity of structures protected by stone riprap.

Good anchorage is available in Portage Lake.

A **speed limit** of 8 mph (7 knots) is enforced in Portage Lake. (See **33 CFR 162.120**, chapter 2, for regulations.)

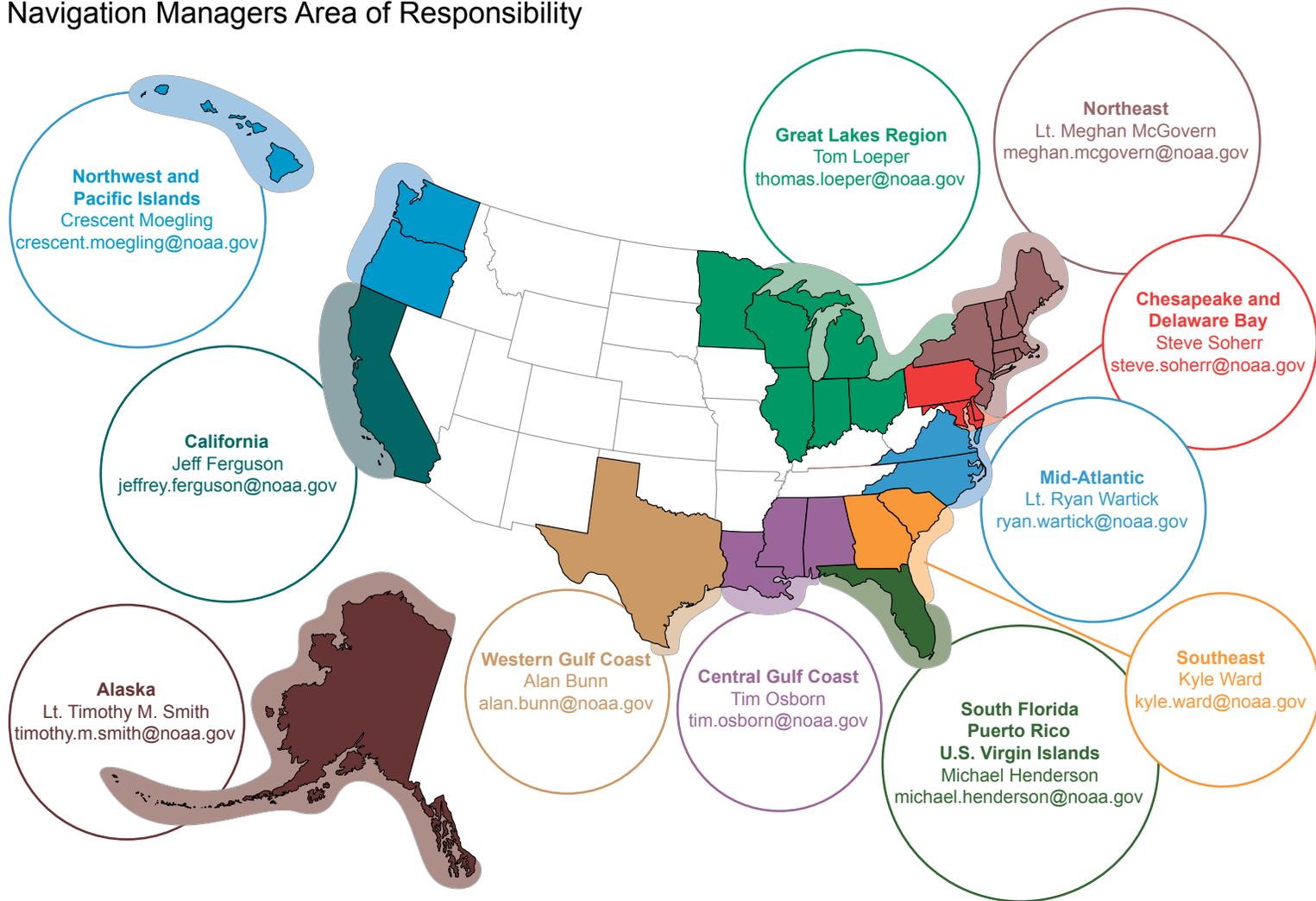
**U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies**

RCC Cleveland

Commander
9th CG District
Cleveland, OH

(216) 902-6117

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

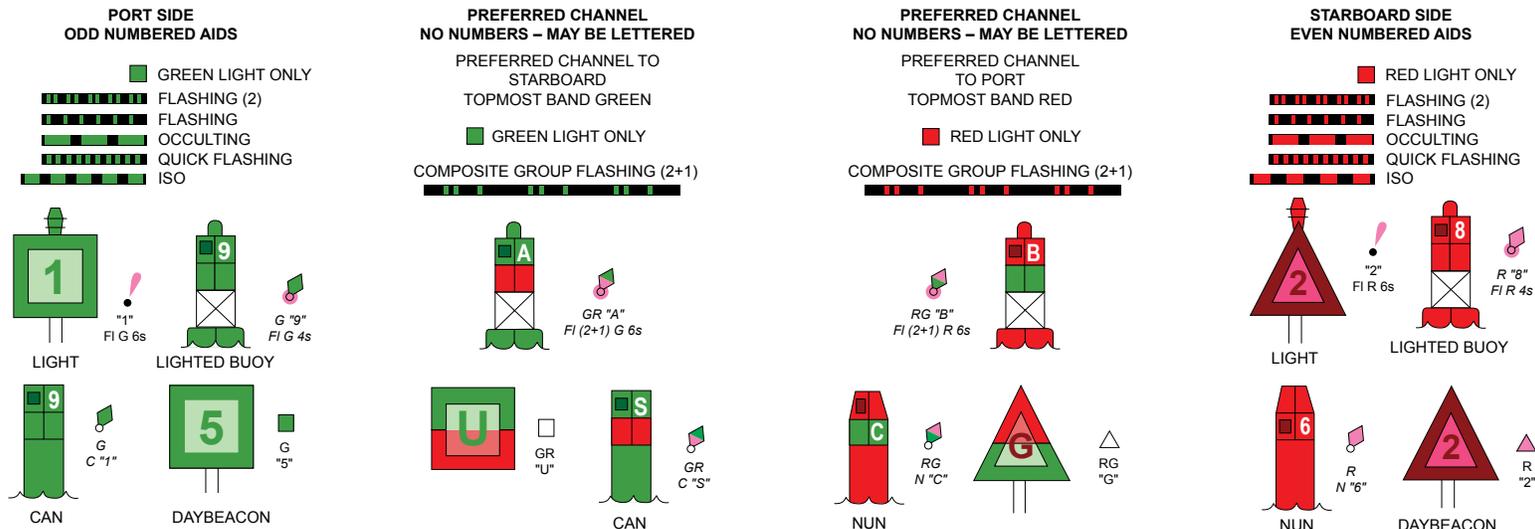
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

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



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>

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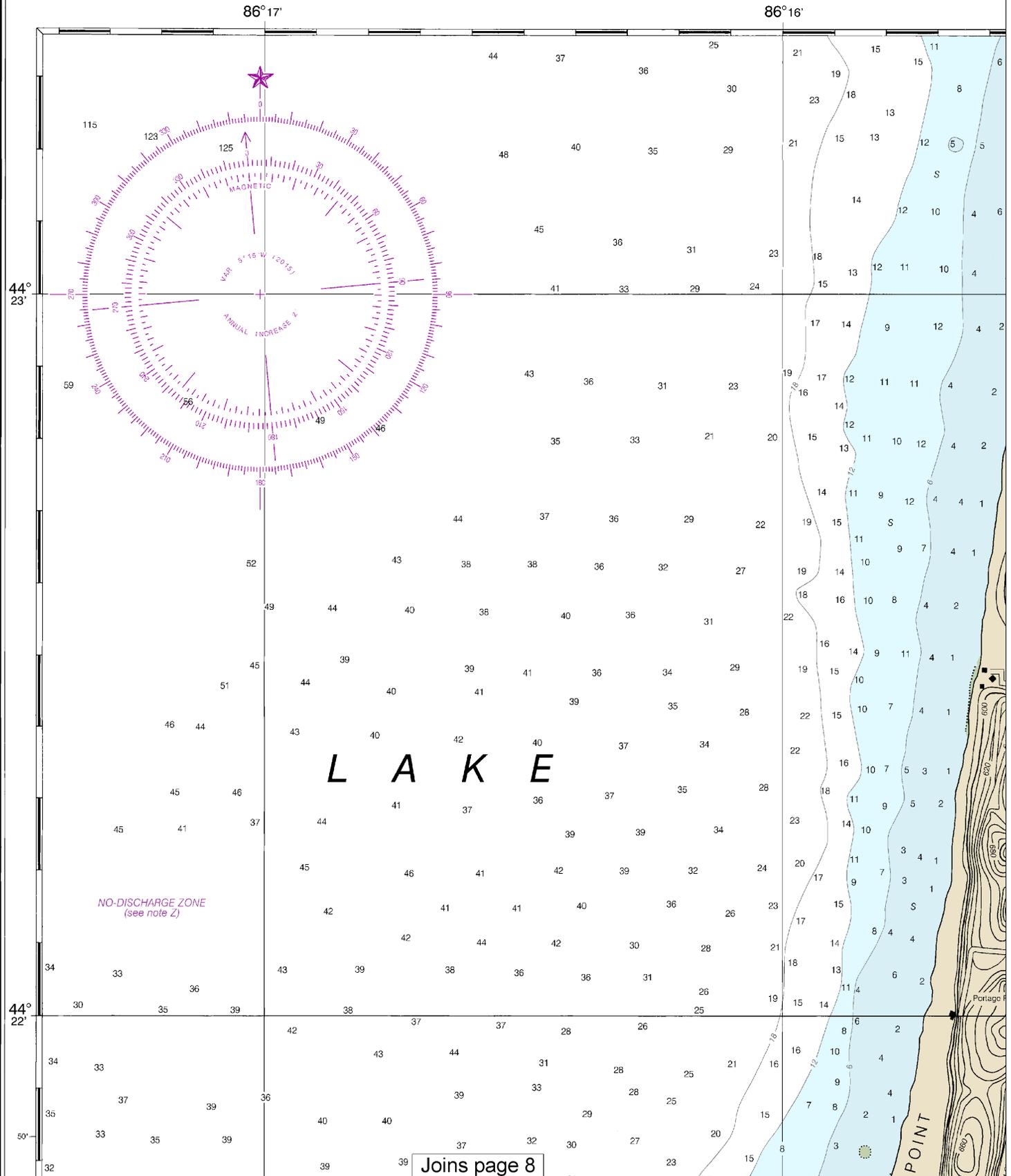
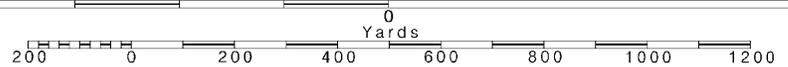
4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:10,000
Nautical Miles

See Note on page 5.



86° 15'

50'

40'

30'

20'

10'

86° 14'

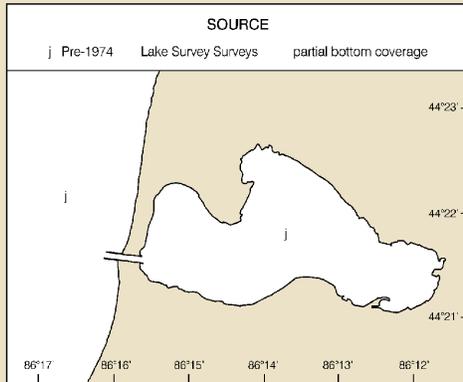
50'

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. 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.

SOURCE

j Pre-1974 Lake Survey Surveys partial bottom coverage



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 Commander, 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.

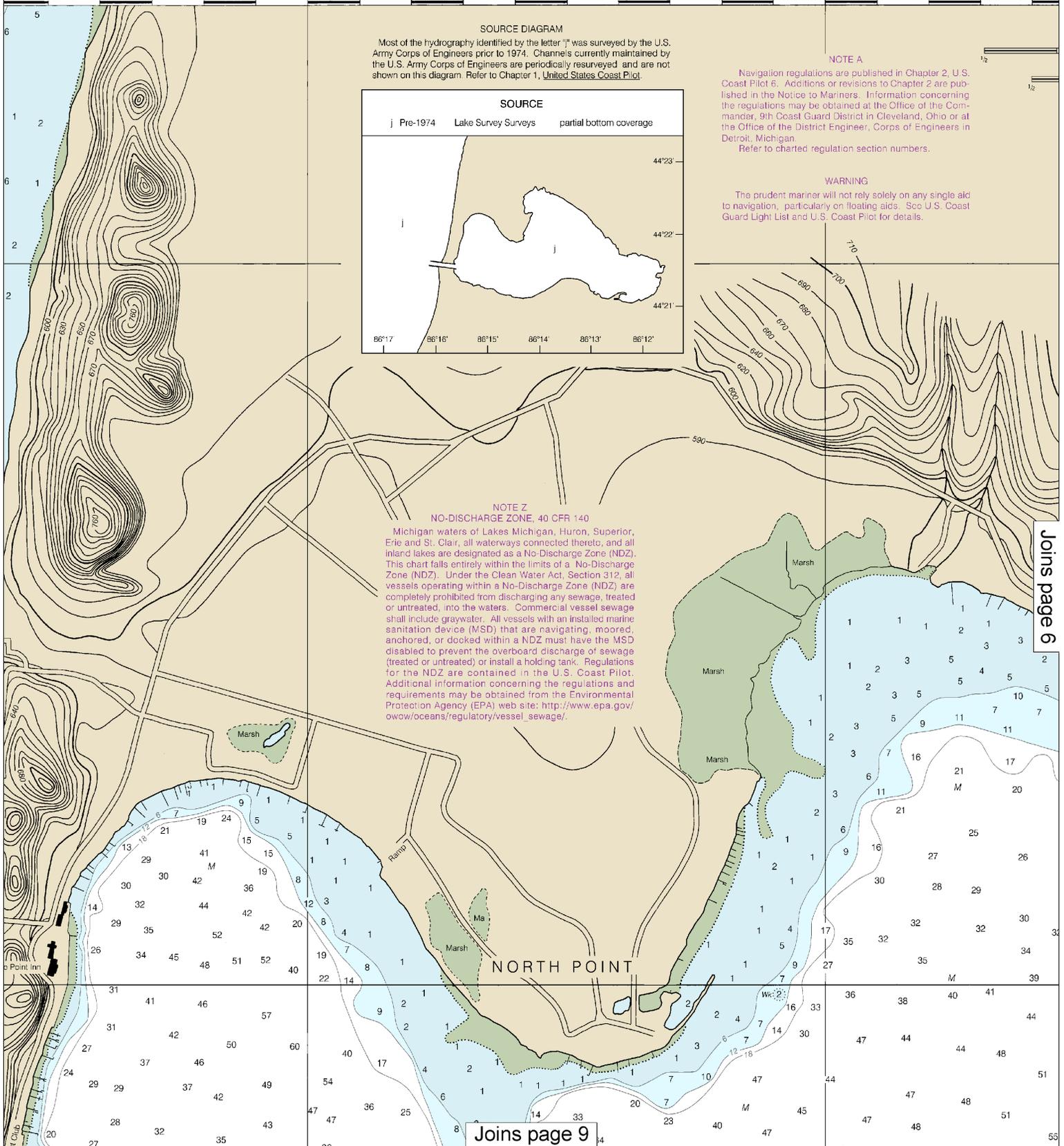
WARNING

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 for details.

NOTE Z NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). This chart falls entirely within the limits of a No-Discharge Zone (NDZ). 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/.

Joins page 6



Joins page 9

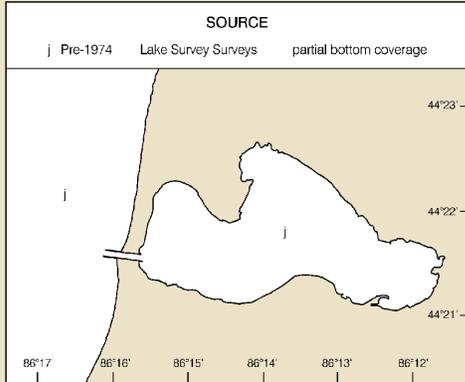
This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:13333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

86° 15'

50' 40' 30' 20' 10' 86° 14' 50'

SOURCE DIAGRAM

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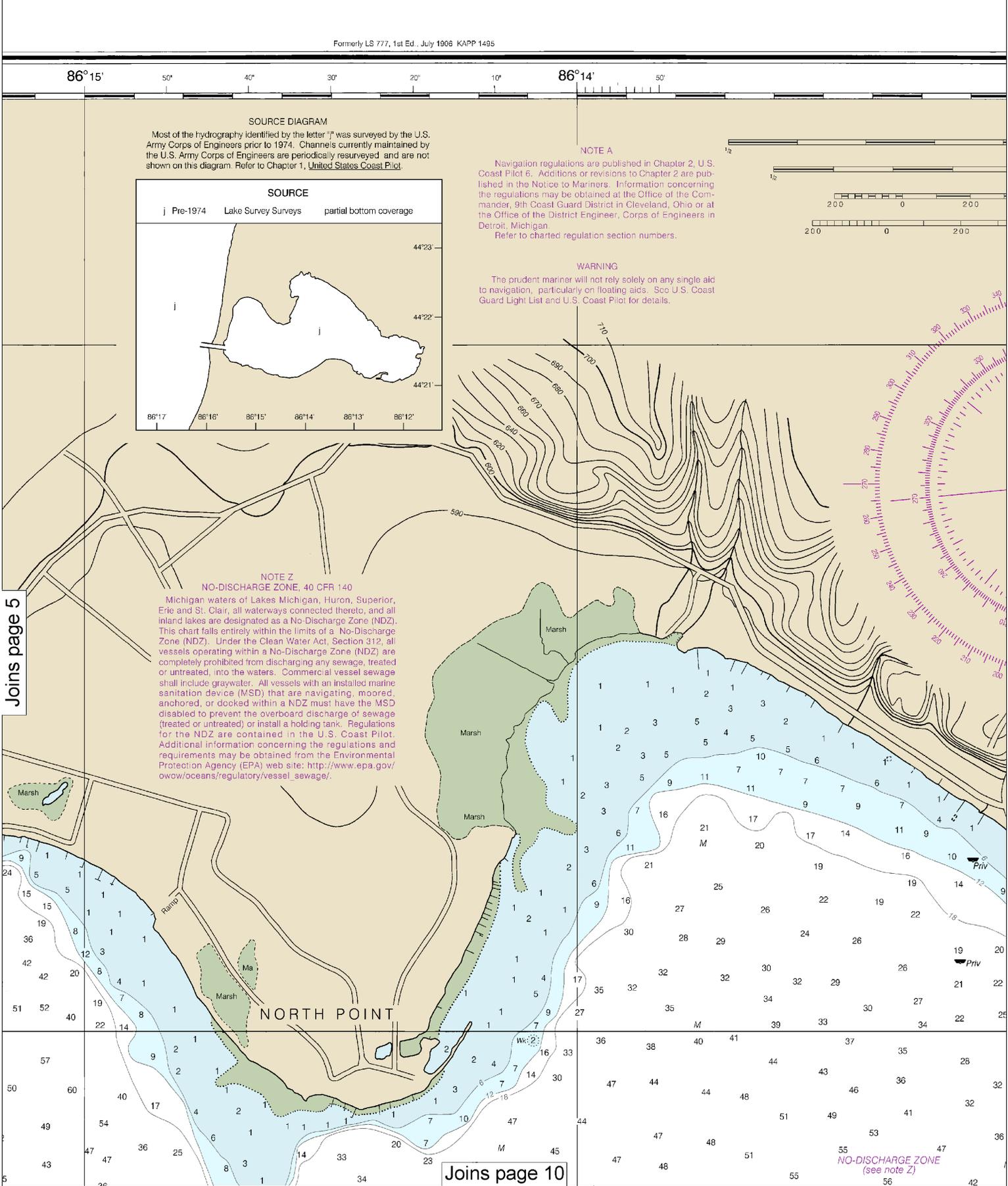
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Joins page 5



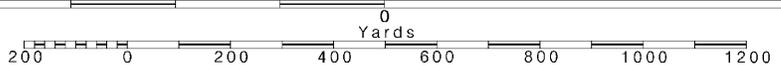
Joins page 10



Note: Chart grid lines are aligned with true north.

Printed at reduced scale. SCALE 1:10,000 Nautical Miles

See Note on page 5.



86°13'

86°12'

SCALE 1:10,000

Nautical Miles

Statute Miles

Yards

Meters



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES-GREAT LAKES
LAKE MICHIGAN-MICHIGAN

PORTAGE LAKE

Polyconic Projection

Scale 1:10,000

North American Datum of 1983

(World Geodetic System 1984)

SOUNDINGS IN FEET

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) 577.5 ft. Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985). AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1. AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard. 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.

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

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).

CAUTION

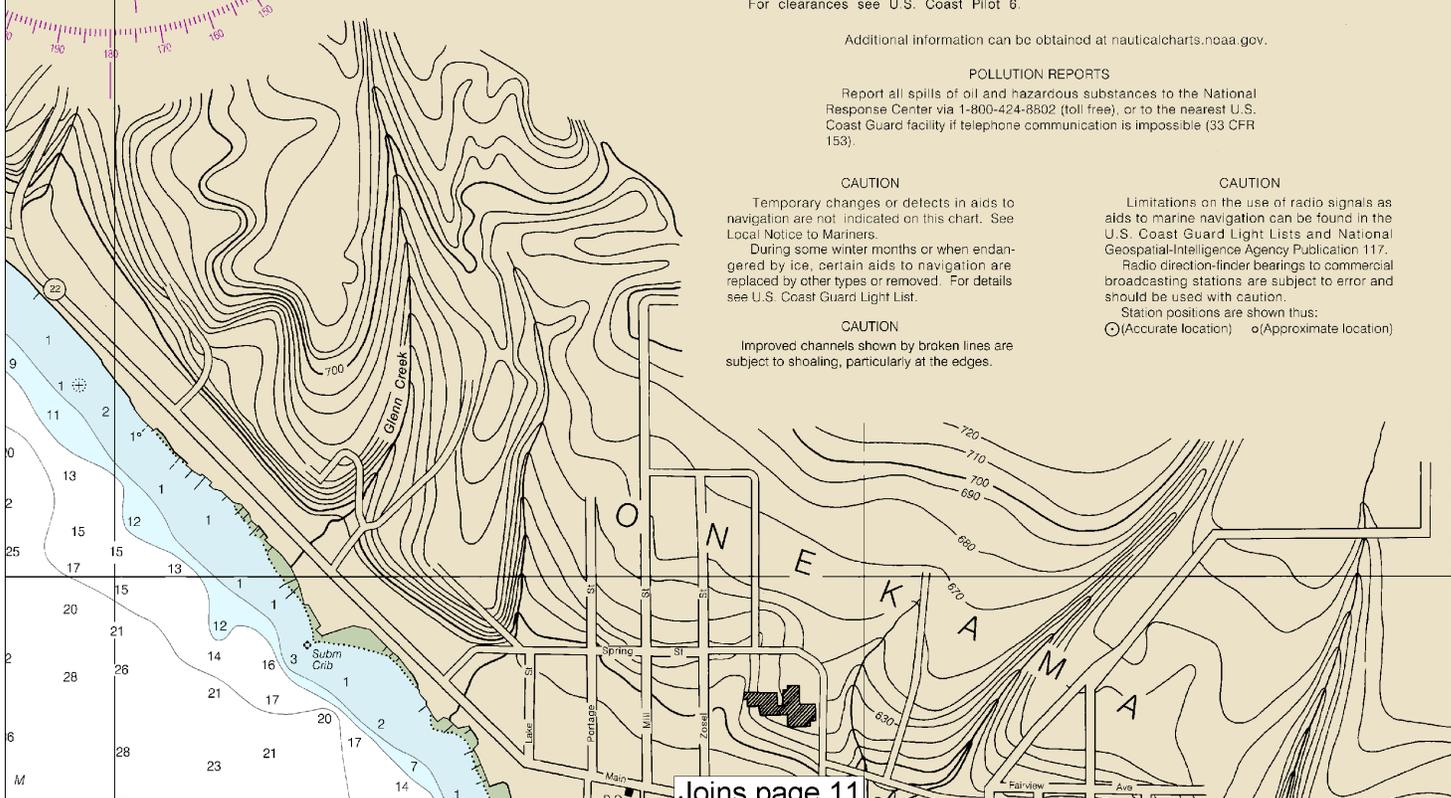
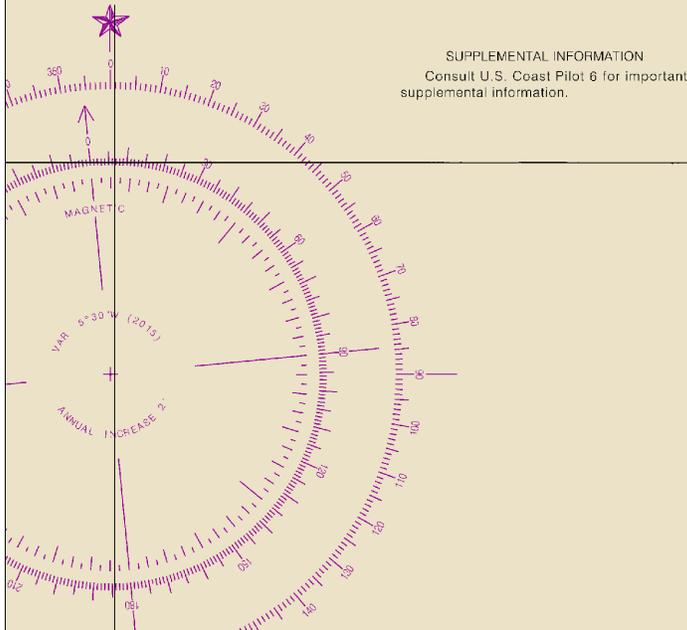
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners. During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

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

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: (o) (Accurate location) (o) (Approximate location)

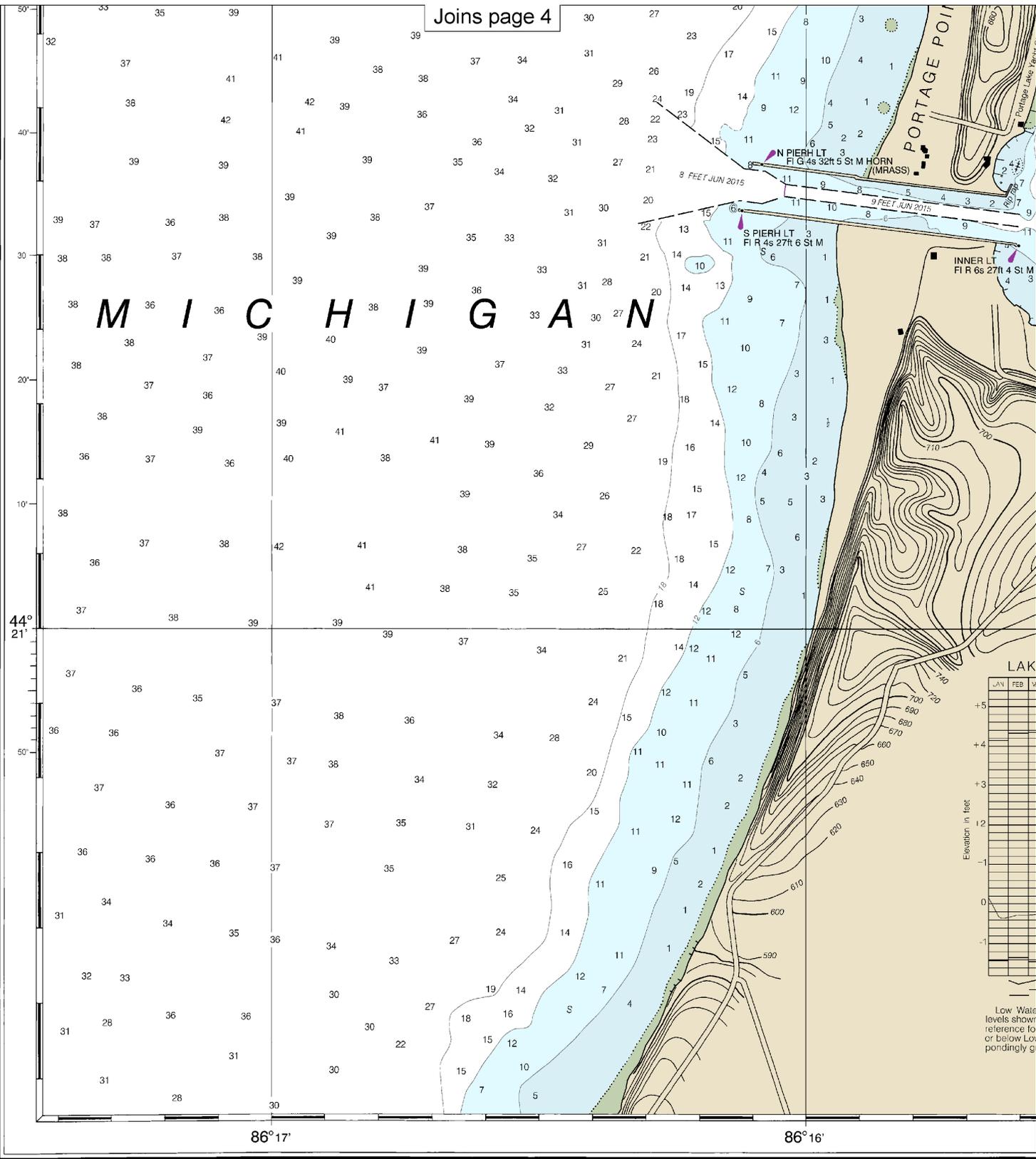


Joins page 11

Last Correction: 11/30/2015. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

Joins page 4

M I C H I G A N



24th Ed., Oct. 2015

14939

Last Correction: 11/30/2015. Cleared through:
 LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

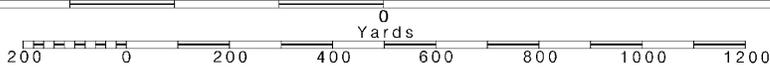
CAUTION
 This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.



Note: Chart grid lines are aligned with true north.

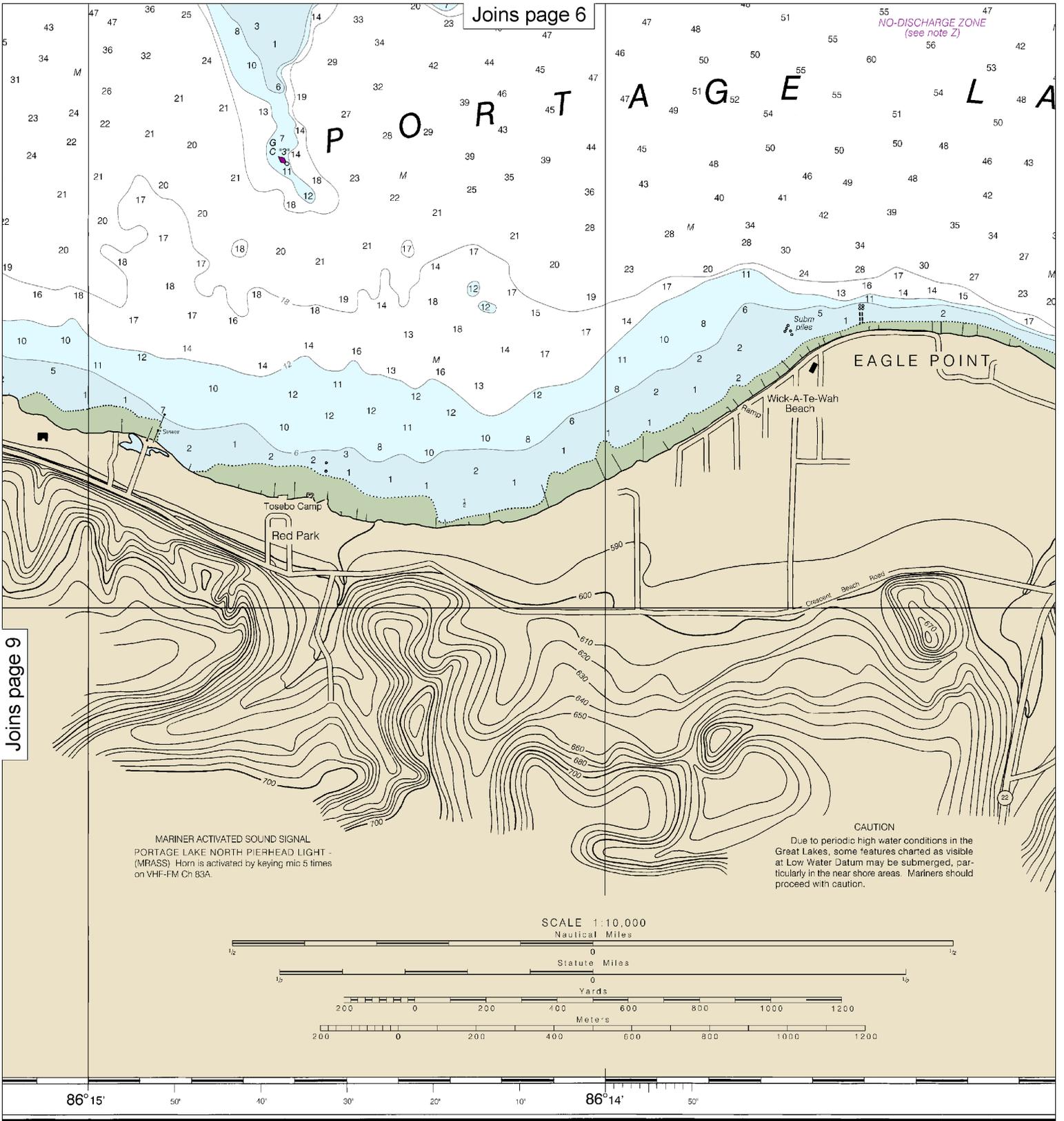
Printed at reduced scale. — SCALE 1:10,000 —
 Nautical Miles

See Note on page 5.



Joins page 6

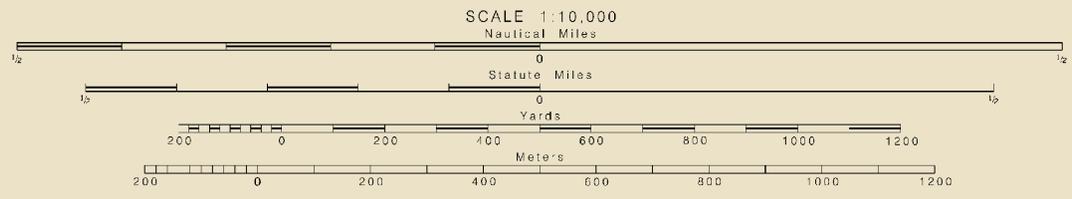
NO-DISCHARGE ZONE
(see note Z)



Joins page 9

MARINER ACTIVATED SOUND SIGNAL
 PORTAGE LAKE NORTH PIERHEAD LIGHT -
 (MRASS) Horn is activated by keying mic 5 times
 on VHF-FM Ch 83A.

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.



86° 15' 50' 40' 30' 20' 10' 86° 14' 50'

N FEET

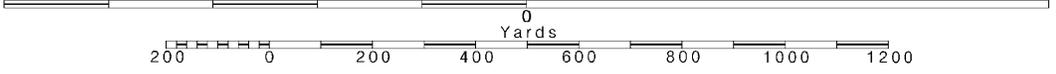
Published at Washington, D.C.
 U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY

| | | | | | | | | | | |
|---------|---|----|----|----|----|----|----|----|----|----|
| FATHOMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| FEET | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| METERS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

10

Note: Chart grid
 lines are aligned
 with true north.

Printed at reduced scale. SCALE 1:10,000 Nautical Miles See Note on page 5.





HORIZONTAL DATUM
 The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.006' northward and 0.314' westward to agree with this chart.

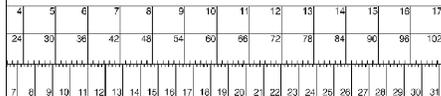
NOAA WEATHER RADIO BROADCASTS
 The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

| | | |
|-------------------|--------|-------------------------|
| Traverse City, MI | KIH-22 | 162.400 MHz (Chan WX-2) |
| Hesperia, MI | WWF-36 | 162.470 MHz (Chan WX-3) |

86°13'

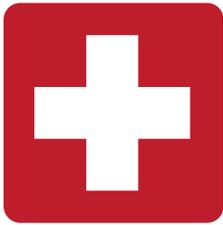
86°12'

557.1 x 825.3 mm



Portage Lake
 SOUNDINGS IN FEET - SCALE 1:10,000

14939



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>
- Interactive chart catalog — <http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml>
- 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
- 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 @NOAAcharts



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.