

BookletChart™

Ludington Harbor

NOAA Chart 14937

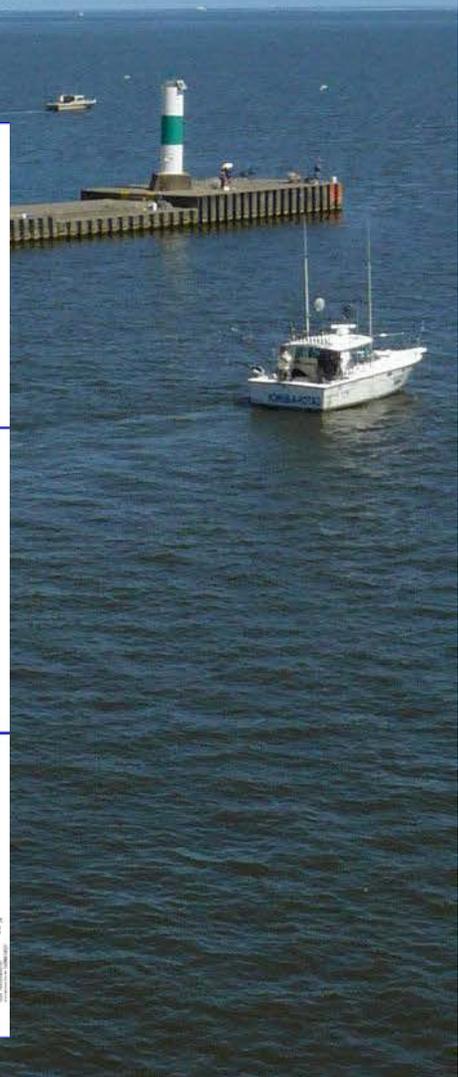
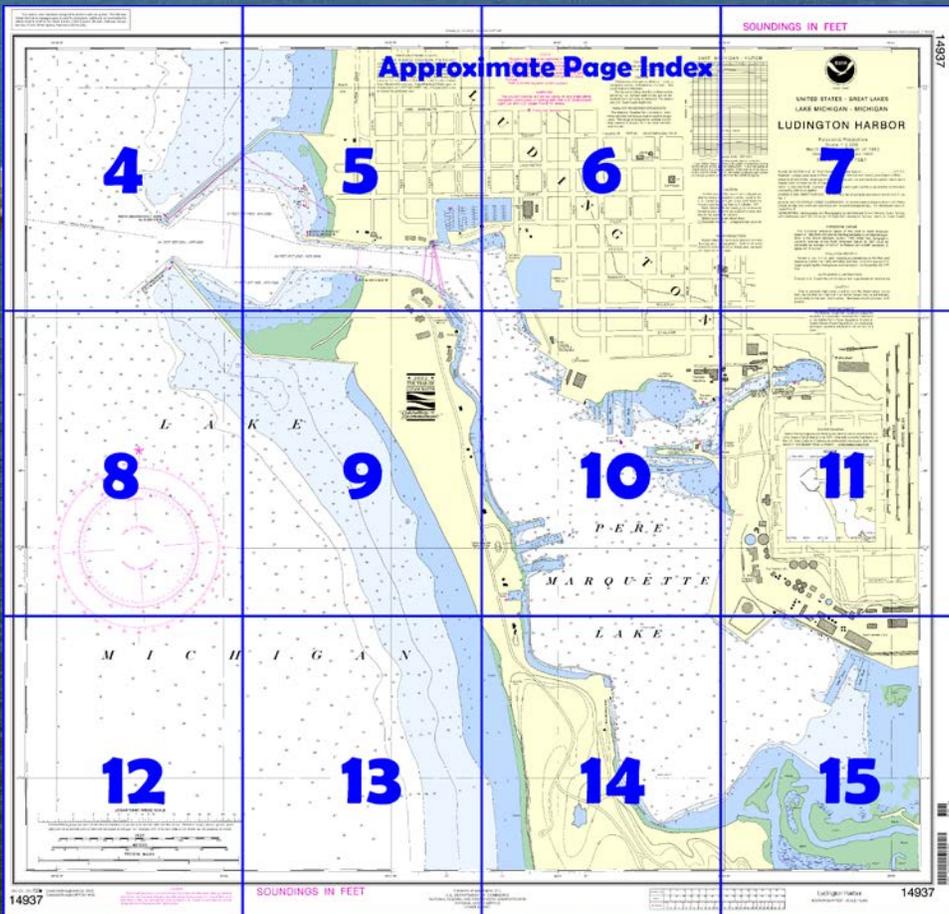


A reduced-scale NOAA nautical chart for small boaters

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=14937>



(Selected Excerpts from Coast Pilot).

Ludington Harbor is in Pere Marquette Lake, 7.5 miles south of Big Sable Point. The city of **Ludington, MI**, is on the north side of the lake.

Ludington North Breakwater Light (43°57'13"N., 86°28'10"W.) is shown from a white square pyramidal tower on the outer end of the north breakwater. A sound signal, which operates by keying the microphone five times on VHF-FM channel 79, is at the light.

Channels.—A dredged entrance channel leads east from deep water in Lake Michigan between converging breakwaters to an outer harbor

basin. The outer ends of the breakwaters are marked by lights. From the basin, the channel leads to the north end of Pere Marquette Lake. (See Notice to Mariners and the latest edition of the chart for controlling depths.) The channel is protected by piers and revetments on the north and south sides. The piers are marked at their outer ends by lights. The outer basin is not adapted for anchorage of vessels, but reduces wave action in the inner harbor. Mooring to the breakwaters, piers, and revetments is prohibited. Mariners are cautioned against navigating outside channel limits in the vicinity of structures protected by stone riprap.

Pere Marquette Lake is about 2 miles long, including a marsh at the south end, has an average width of 0.5 mile, and is up to 43 feet deep. The anchorage is good. **Pere Marquette River**, which flows into the south end of Pere Marquette Lake, is not navigable above the lake except for rowboats and small launches.

A buoy marks the outer end of submerged dock ruins on the west side of Pere Marquette Lake. Buoys mark the north side of the channel leading to the small-craft facilities in the inlet on the northeast side of the lake.

Caution.—Northwest and southwest winds make entry between the breakwaters hazardous. Vessels usually increase their speed until just inside the breakwaters to compensate. Small-craft operators transiting from south to north have reported that South Breakwater Light is sometimes difficult to see because of the brilliance of North Breakwater Light.

Bridges.—A fixed highway bridge with a clearance of 12 feet crosses the inlet on the northeast side of Pere Marquette Lake.

Coast Guard.—Ludington Coast Guard Station is on the north side of the harbor entrance.

Harbor regulations.—A **speed limit** of 8 mph (7 knots) is enforced when entering or leaving Ludington Harbor. (See **33 CFR 162.120**, chapter 2, for regulations.)

Wharves.—Ludington has one major deep-draft facility. (For complete information on the port facilities, refer to Port Series No. 48, published and sold by the U.S. Army Corps of Engineers. See Appendix A for address.) The alongside depths given for these facilities are reported depths. (For information on the latest depths, contact the operators.) Occidental Chemical Corporation, Ludington Plant West Wharf: (43°56'28"N., 86°26'31"W.); 1,367-foot face; 23 to 27 feet alongside; deck height, 4½ feet; open storage for 500,000 tons of limestone; receipt of limestone; owned and operated by Occidental Chemical Corporation.

Occidental Chemical Corporation, Ludington Plant East Wharf: (43°56'20"N., 86°26'23"W.); 550-foot face; 28 feet alongside; deck height, 4½ feet; shipment of liquid calcium chloride; owned and operated by Occidental Chemical Corporation.

Small-craft facilities.—A municipal marina is on the north side of Pere Marquette Lake just inside the entrance. The marina has several transient berths and provides gasoline, diesel fuel, electricity, water, ice and a pump-out facility. A large marina is just southeast of the municipal marina with about 60 transient berths and provides gasoline, diesel fuel, electricity, water, ice and pump-out facility. Additional private marinas are along the west side of Pere Marquette Lake and in the northeast arm of the lake. All marinas monitor VHF-FM channel 9.

Ferries.—Ferry service is available from Ludington to Manitowoc, WI from about mid May to the end of October for autos, and passengers. The terminal is about 1 mile southeast of the harbor entrance.

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

RCC Cleveland

Commander

9th CG District

(216) 902-6117

Cleveland, OH

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.

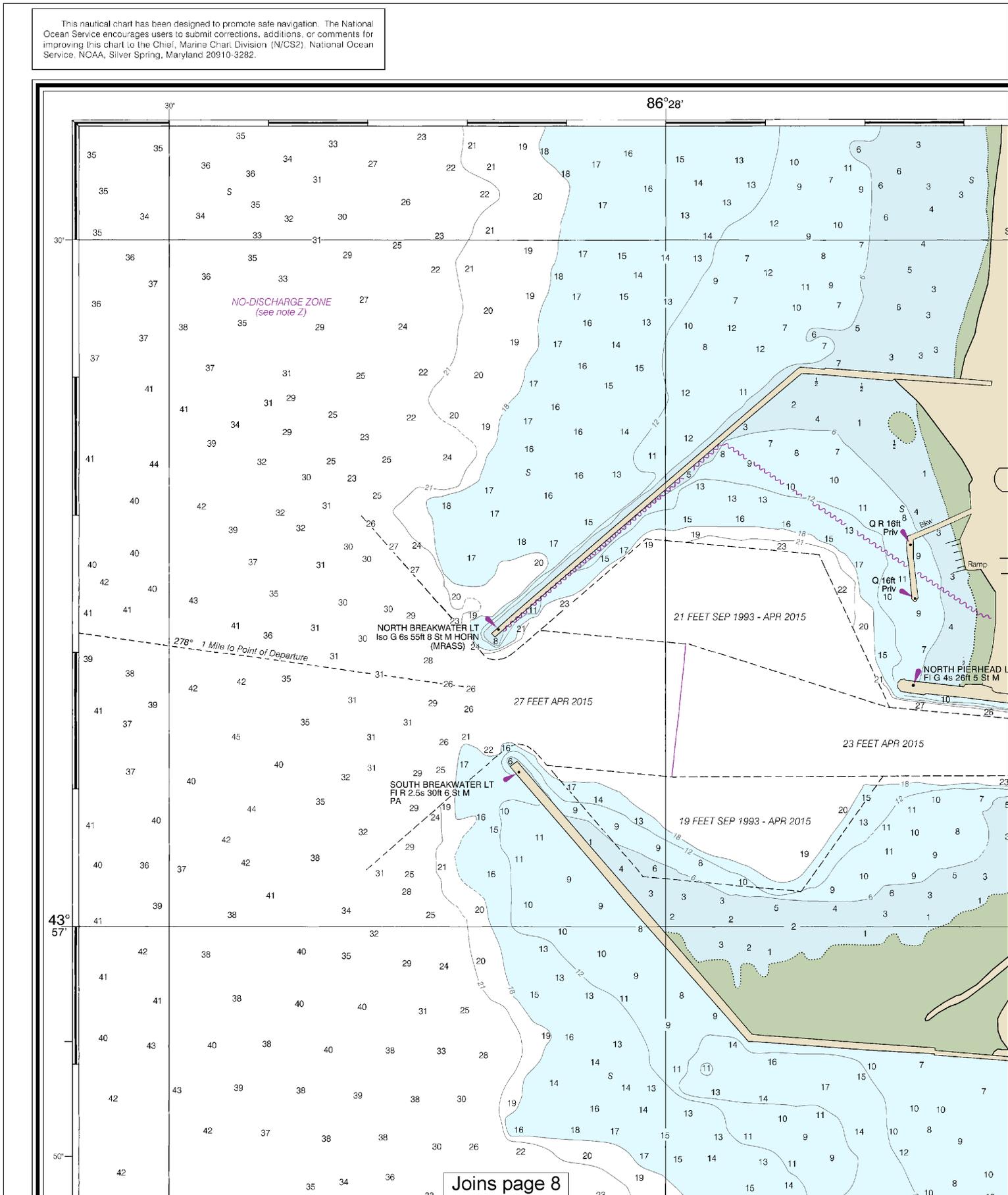
Lateral System As Seen Entering From Seaward

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>

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.



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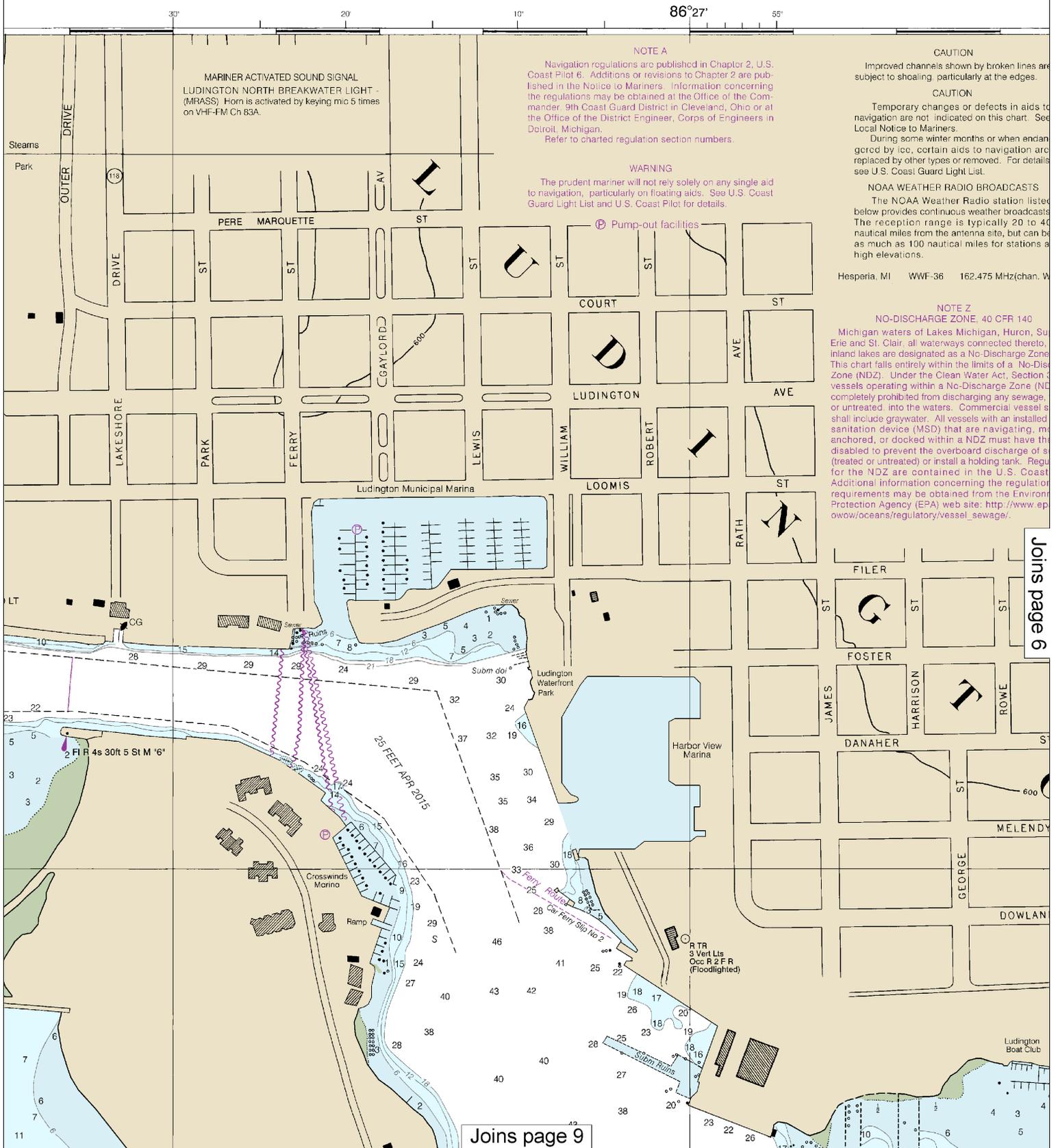
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

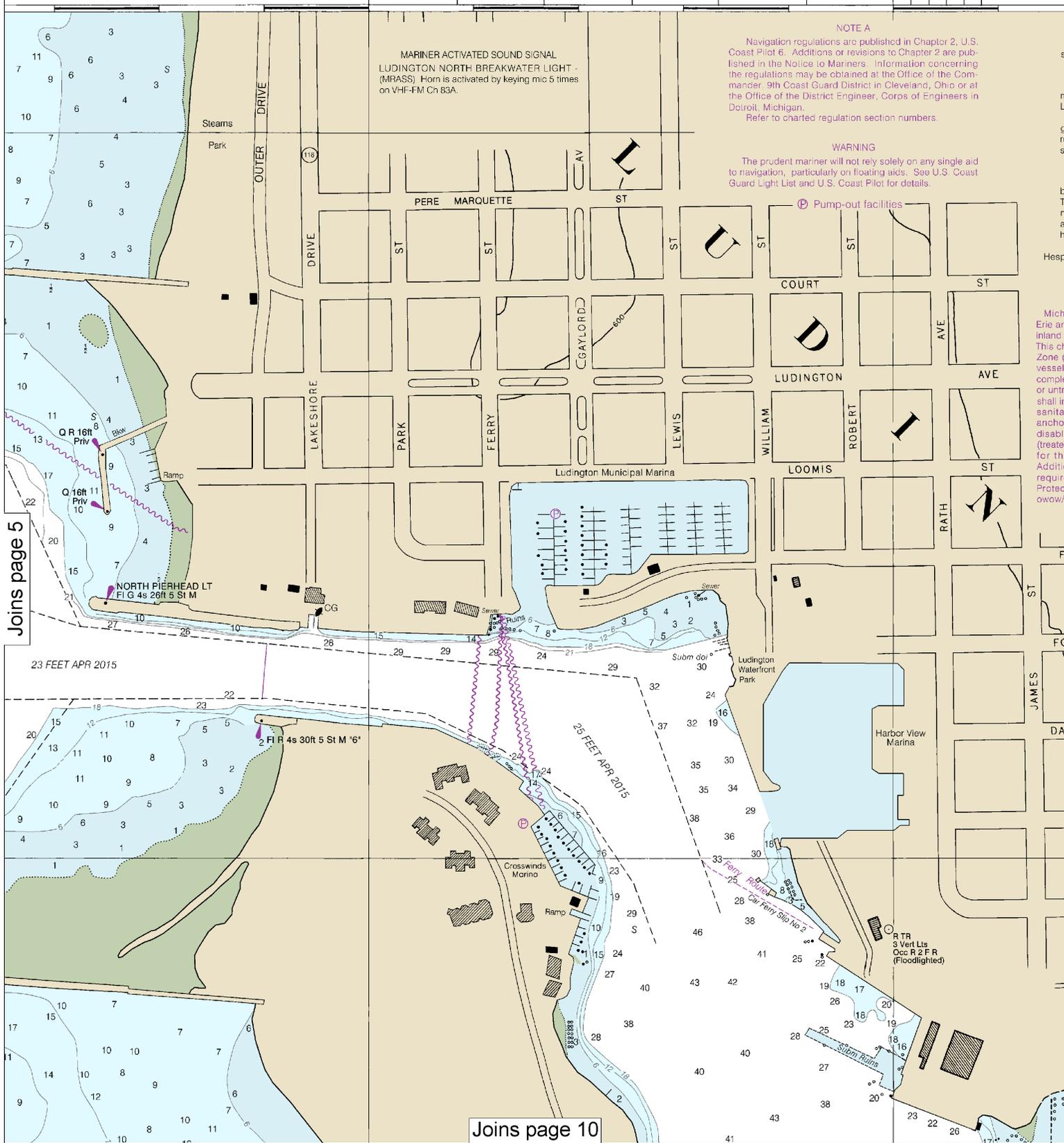
SCALE 1:5,000
0.5 Nautical Miles

See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:6666. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



Joins page 5

Joins page 10



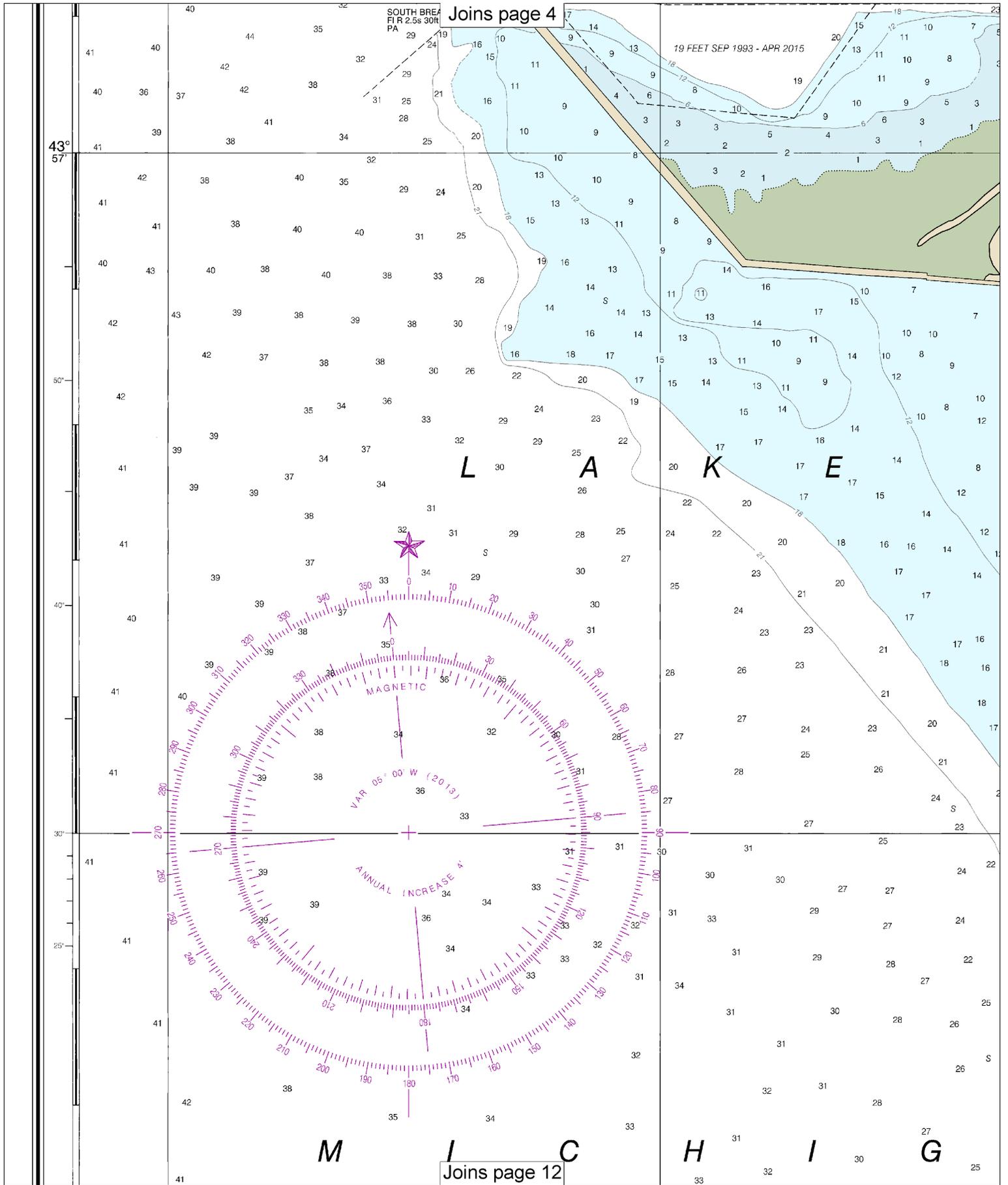
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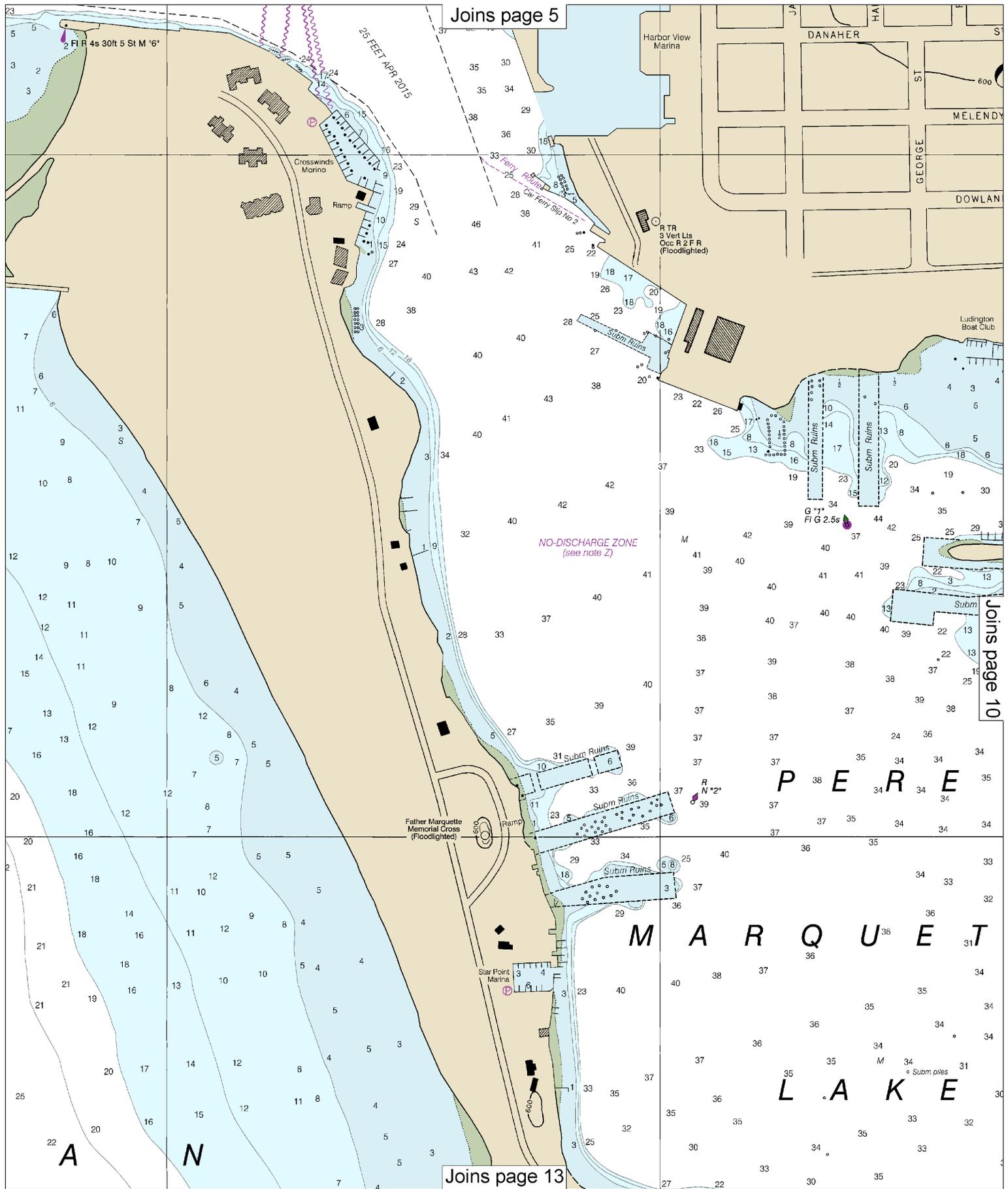
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0.5 Nautical Miles

See Note on page 5.





Note: Chart grid lines are aligned with true north.



Joins page 5

Joins page 10

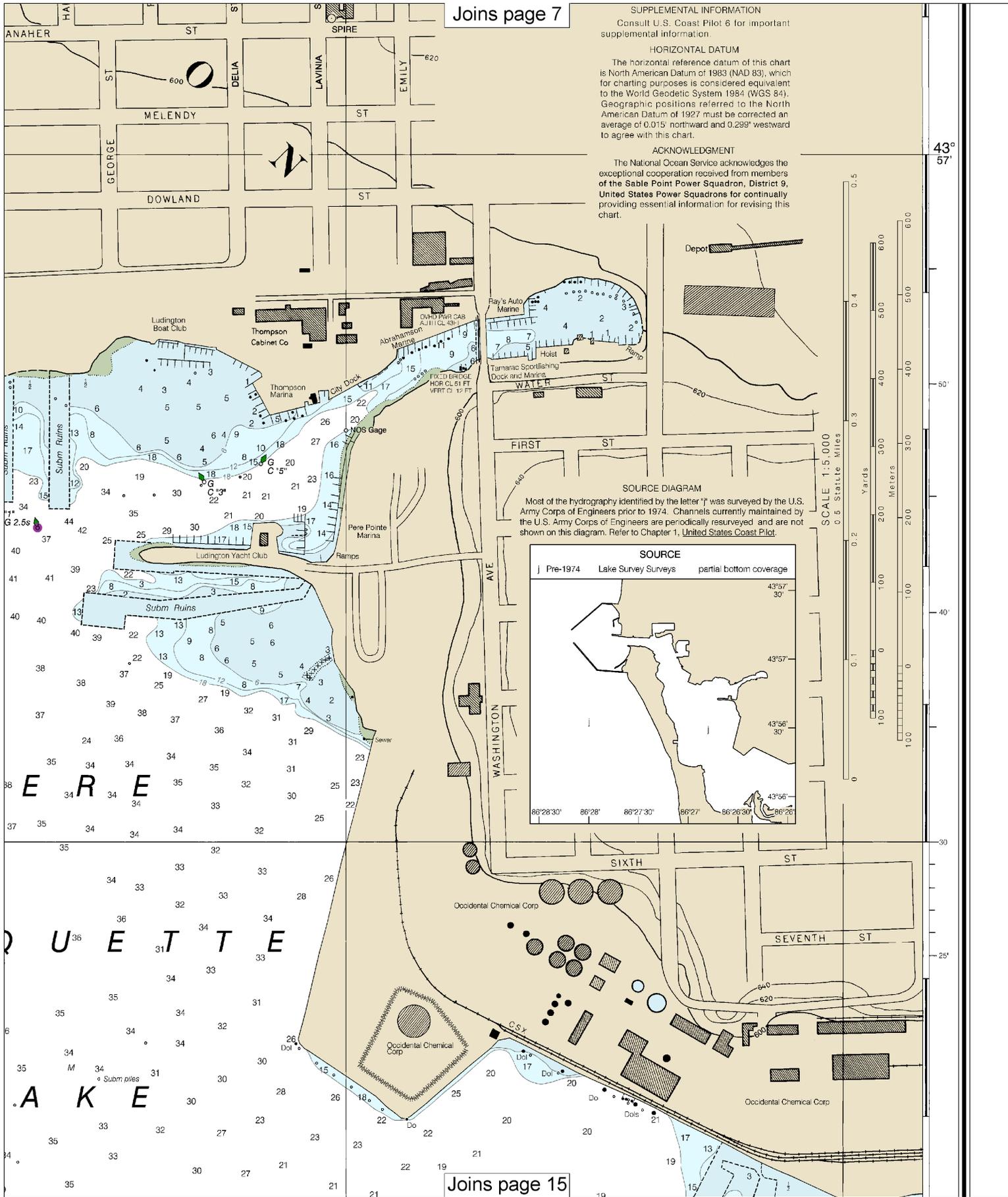
Joins page 13

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

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 0.015' northward and 0.299' westward to agree with this chart.

ACKNOWLEDGMENT
The National Ocean Service acknowledges the exceptional cooperation received from members of the Sable Point Power Squadron, District 9, United States Power Squadrons for continually providing essential information for revising this chart.

43° 57'



SOURCE DIAGRAM
Most of the hydrography identified by the letter 'P' 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

E R R E

U E T T E

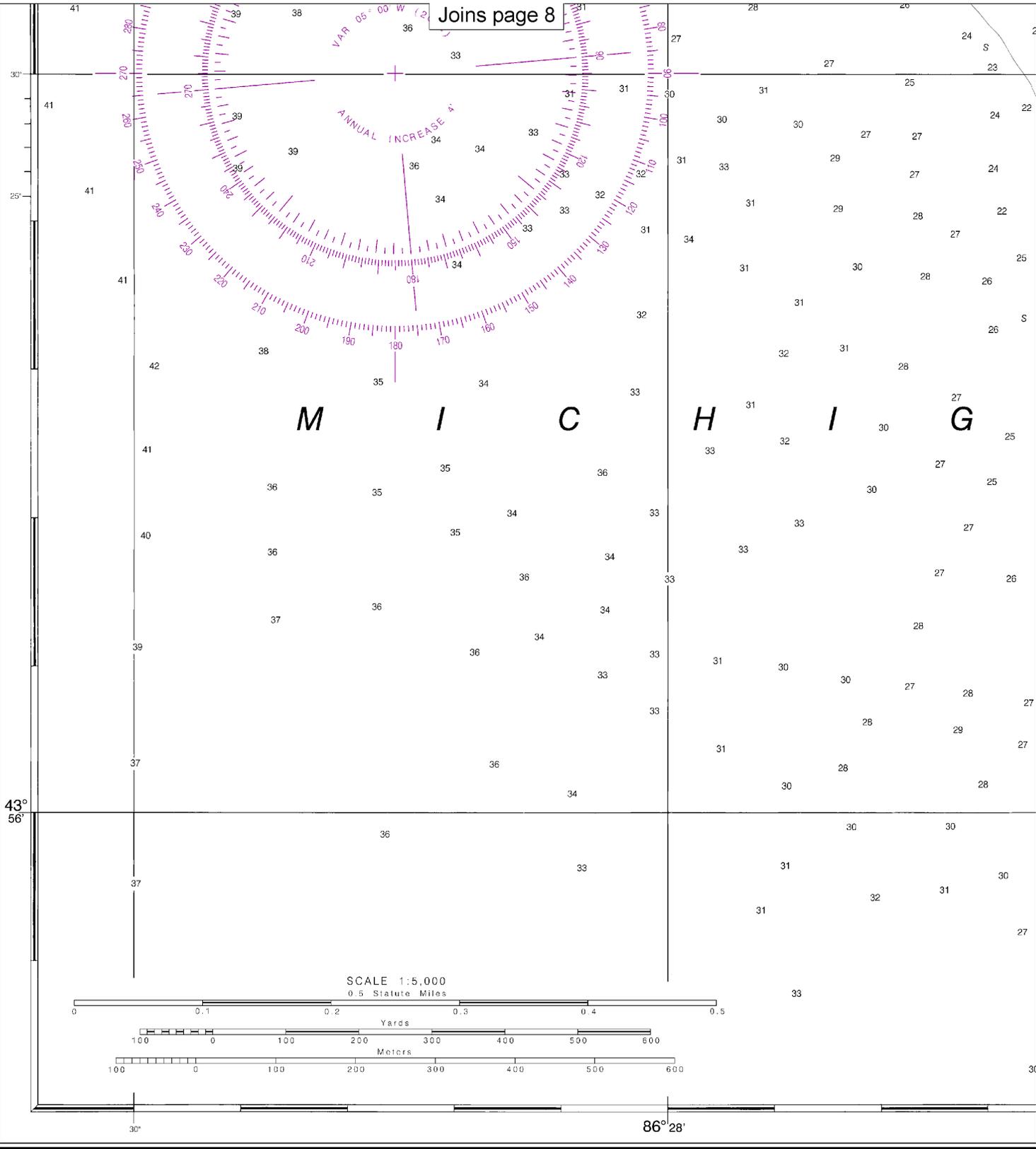
A K E

Joins page 8

VAR 05° 00' W (2)

ANNUAL INCREASE 4

M I C H I G



25th Ed., Sep. 2013

14937

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.

SOUNDINGS IN FEET

Last Correction: 1/6/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

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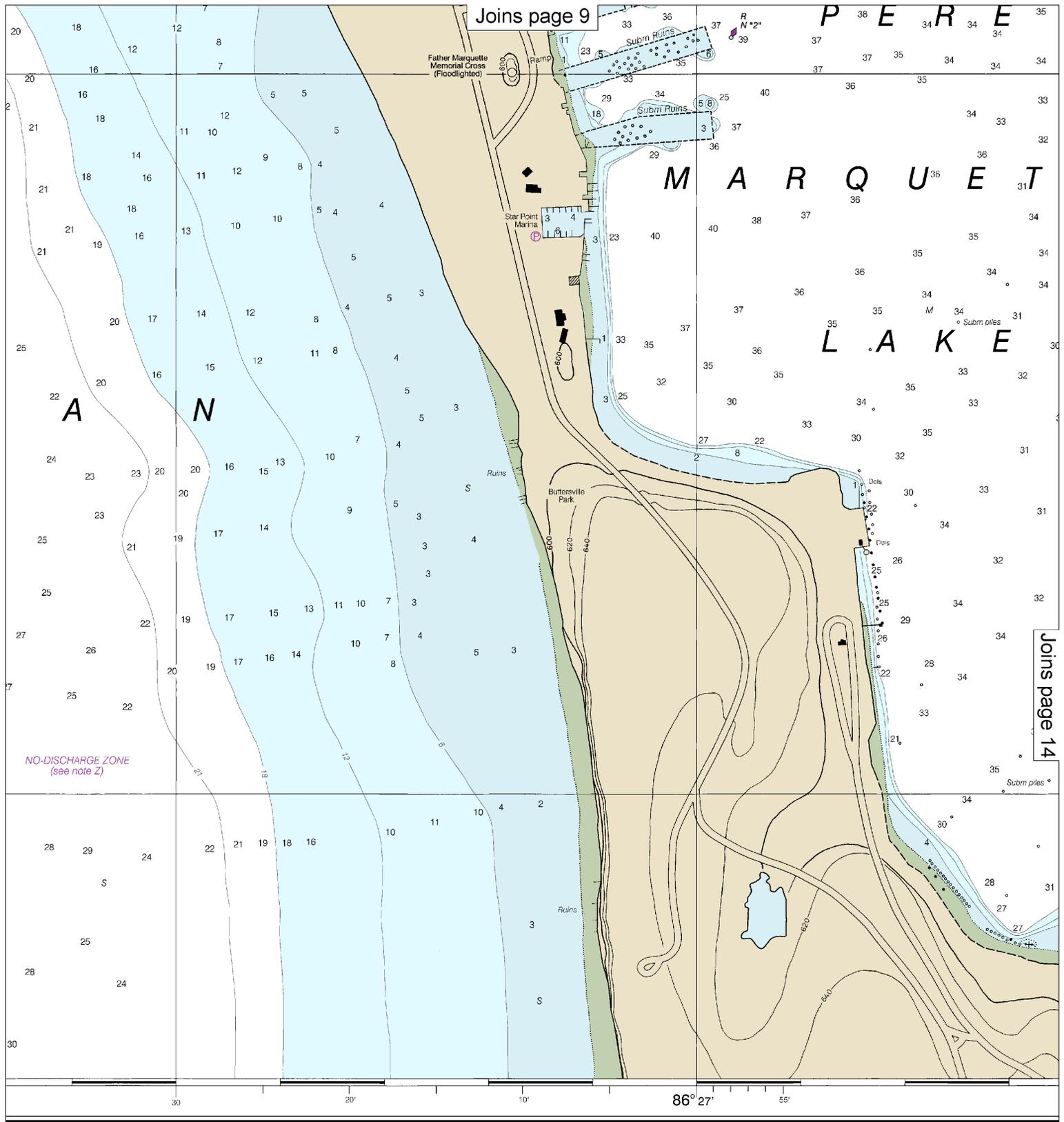
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:5,000
0.5 Nautical Miles

See Note on page 5.

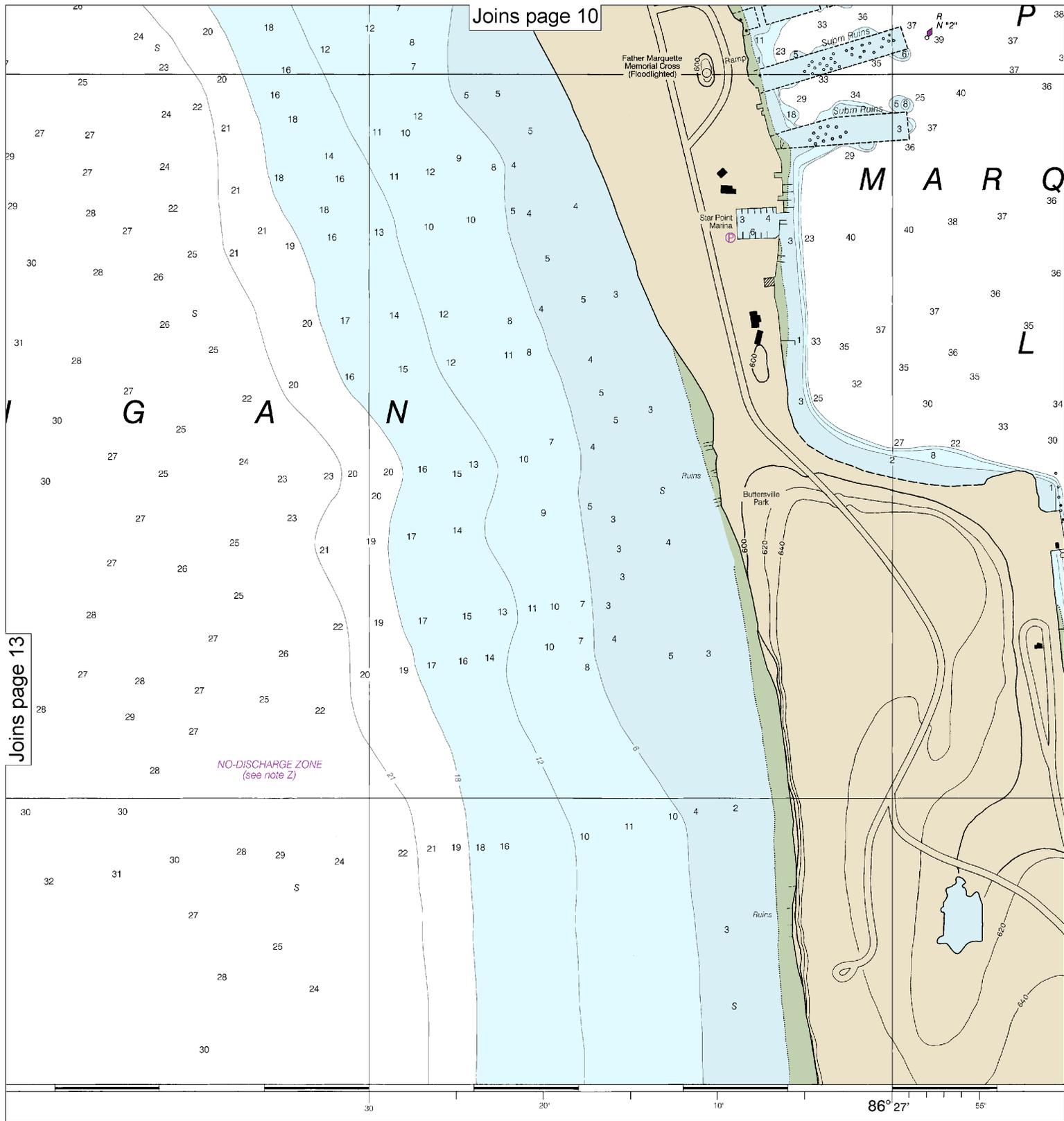




ET

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 U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY

FATHOMS	1	2	3
FEET	6	12	18
METERS	1	2	3



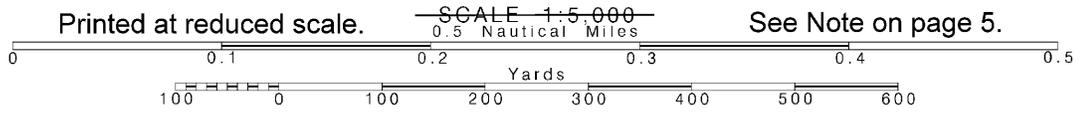
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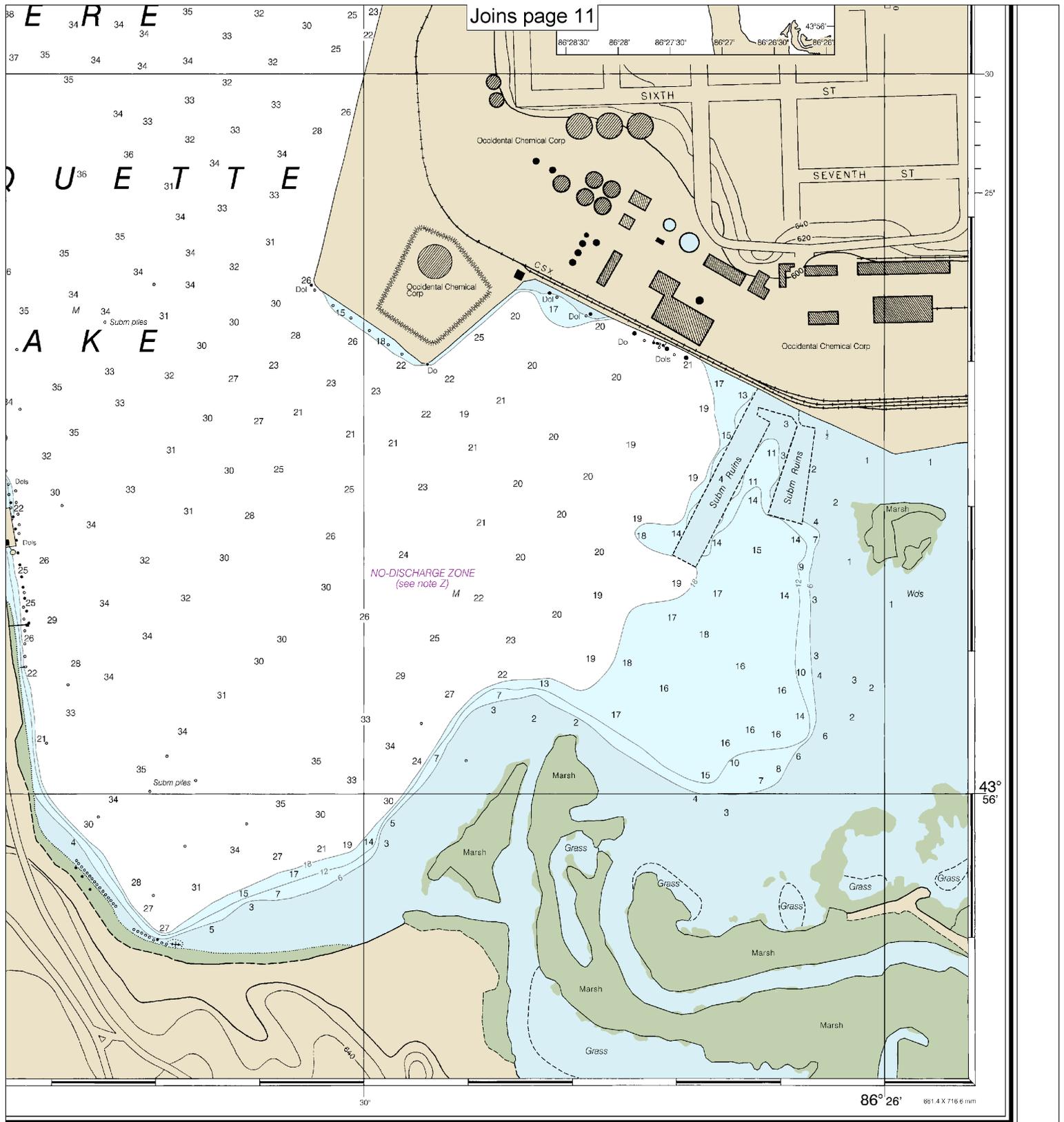
DINGS IN FEET

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 COAST SURVEY

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Note: Chart grid lines are aligned with true north.





FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17



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>



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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.