

BookletChart™



North End of Lake Michigan, Including Green Bay

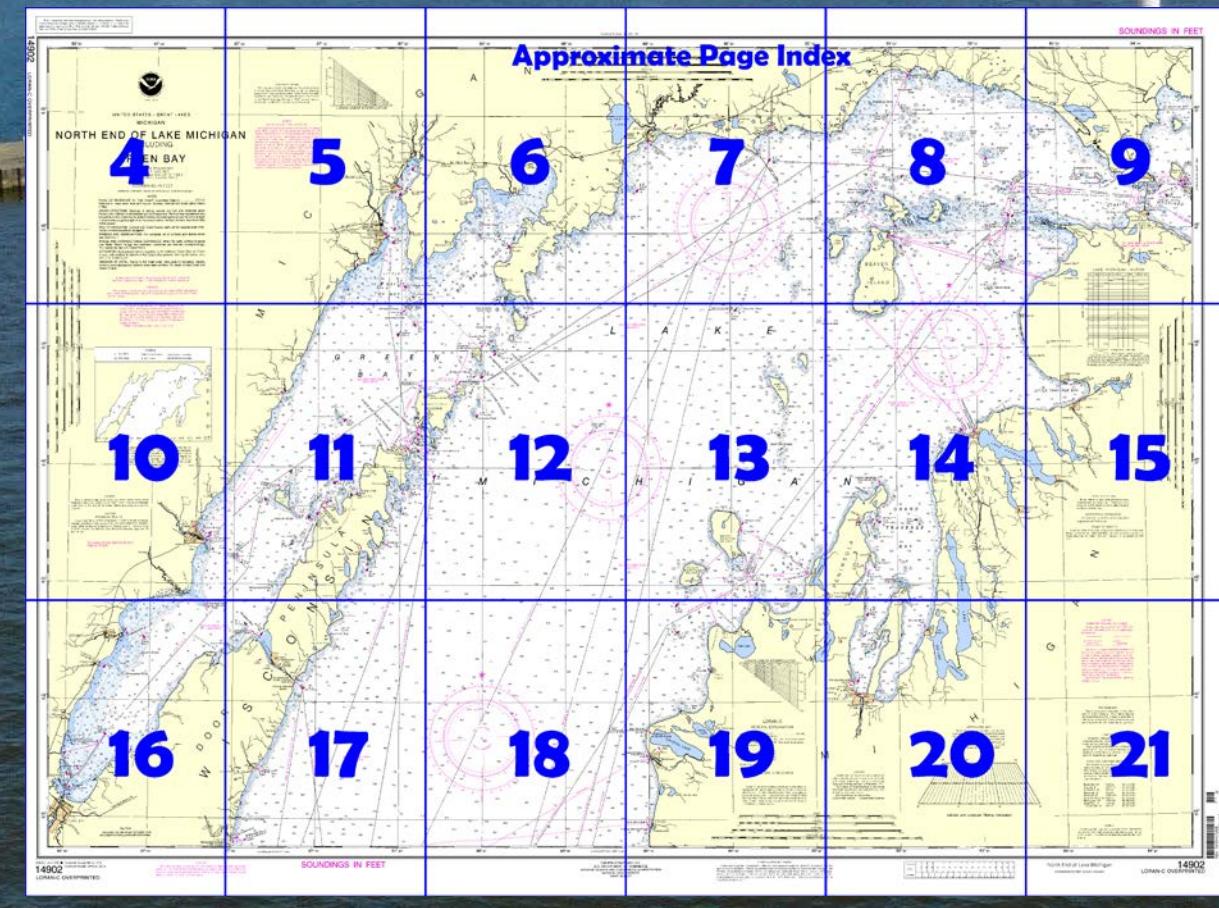
NOAA Chart 14902

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.

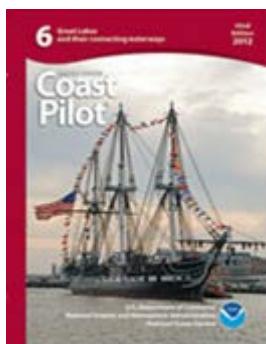
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=149_02



(Selected Excerpts from Coast Pilot)
Old Mackinac Point ($45^{\circ}47.3'N$, $84^{\circ}43.8'W$), 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**

($45^{\circ}04.2'N$, $87^{\circ}07.2'W$.), 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.

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

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

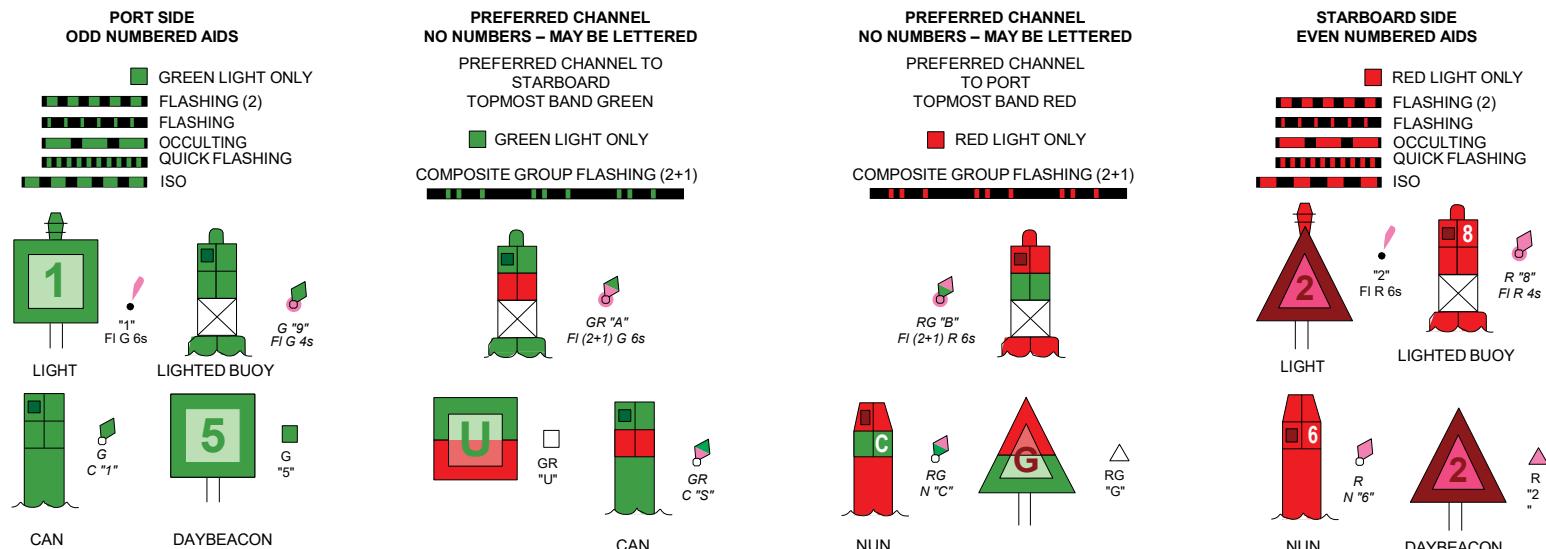
Navigation Manager Regions



To make suggestions, ask questions, or report a problem with a chart, go to <https://www.nauticalcharts.noaa.gov/customer-service/assist/>

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>

14902

88° 00'

87° 45'

87° 30'



46°
00'

UNITED STATES - GREAT LAKES

MICHIGAN

NORTH END OF LAKE MICHIGAN INCLUDING

GREEN BAY

Polyconic Projection

Scale 1:240,000

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

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

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).

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure. The true bearing between any two points on this chart may be determined by connecting the two points with a straight line and measuring the angle of its intersection with a meridian line at or near the middle of the course.

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.

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, and U. S. Coast Guard.

OMISSION OF DETAIL. Owing to the small scale many aids to navigation, depths, contours and topographic features have been omitted. For detail consult Coast and Harbor Charts.

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

WARNING

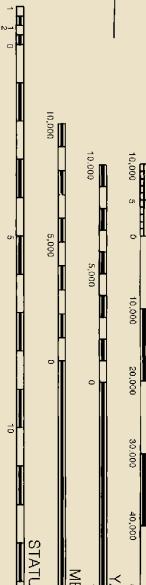
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE 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.

45°
45'



SCALE

HORIZONTAL DATUM

The horizontal reference datum of this chart is the North American Datum of 1983 (NAD 83), which for plotting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions on this chart are in degrees and minutes. Positions converted to NAD 83 for plotting on this chart.

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 1

This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Seafarers operating within a No-Discharge Zone are prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessels shall include graywater. All vessels with an integrated sanitation device (MSD) that are navigating, anchored, or docked within a NDZ must have disabled to prevent the overboard discharge (treated or untreated) or install a holding tank for the NDZ are contained in the U.S. Additional information concerning the requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.oceans/regulatory/vessel_sewage/.

Join page 10

4

Note: Chart grid lines are aligned with true north.

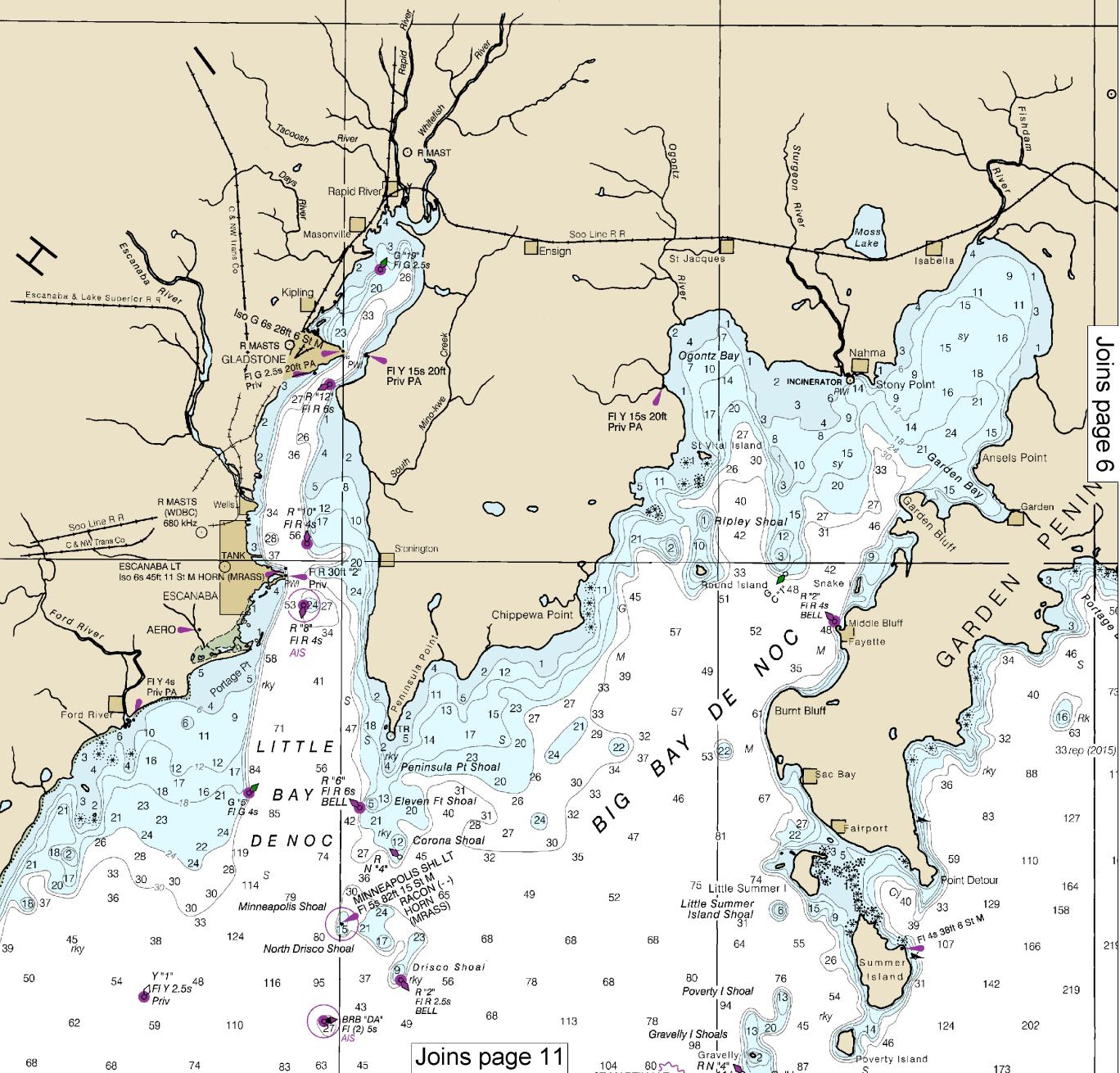
87° 15'

87° 00'

86° 45'

86° 30'

chart is North
for charting
World Geodetic
Systems referred
to not require
chart.

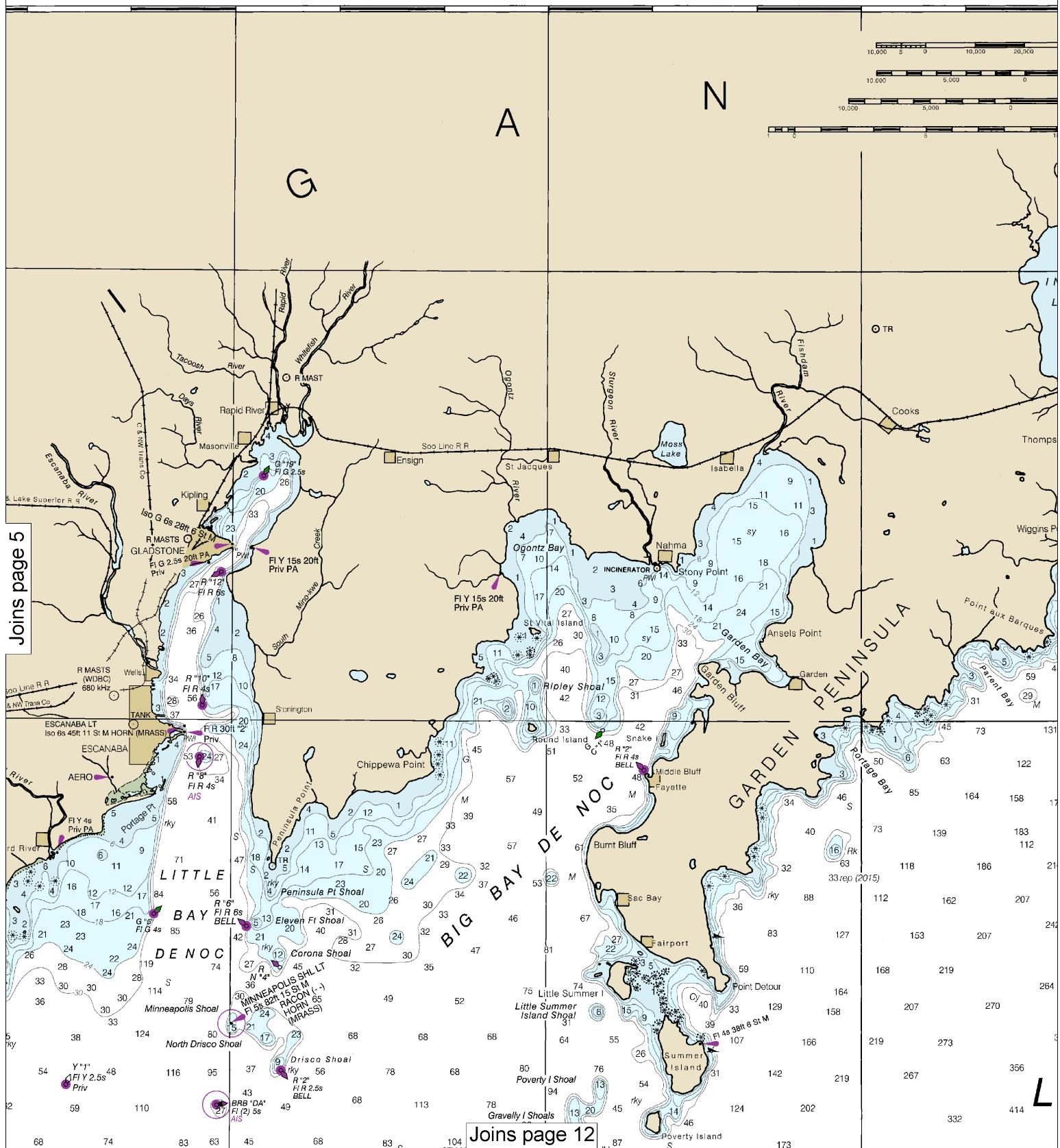


This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:320000. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

87° 00'

86° 45'

86° 30'



6

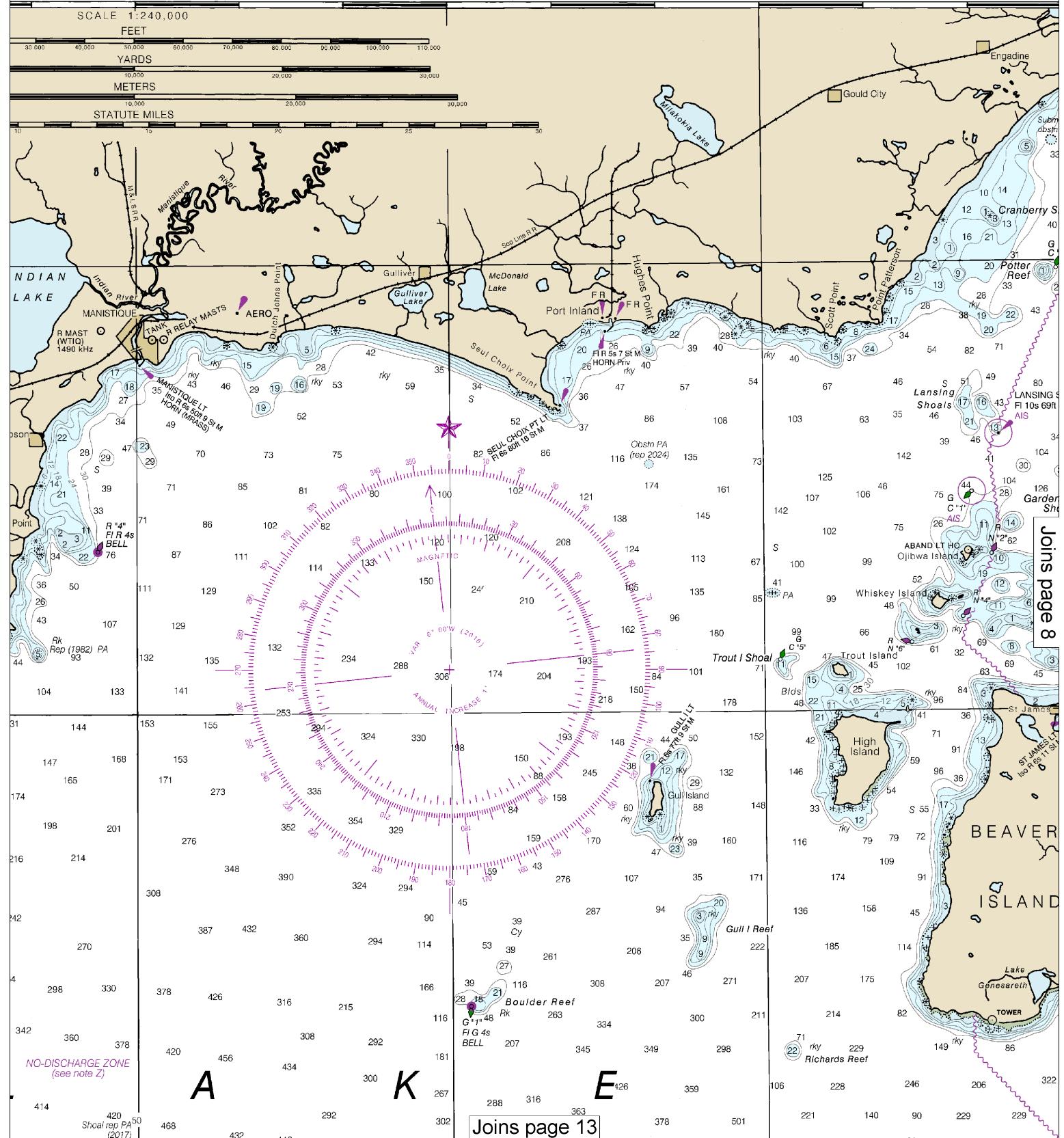
Note: Chart grid lines are aligned with true north.

86° 15'

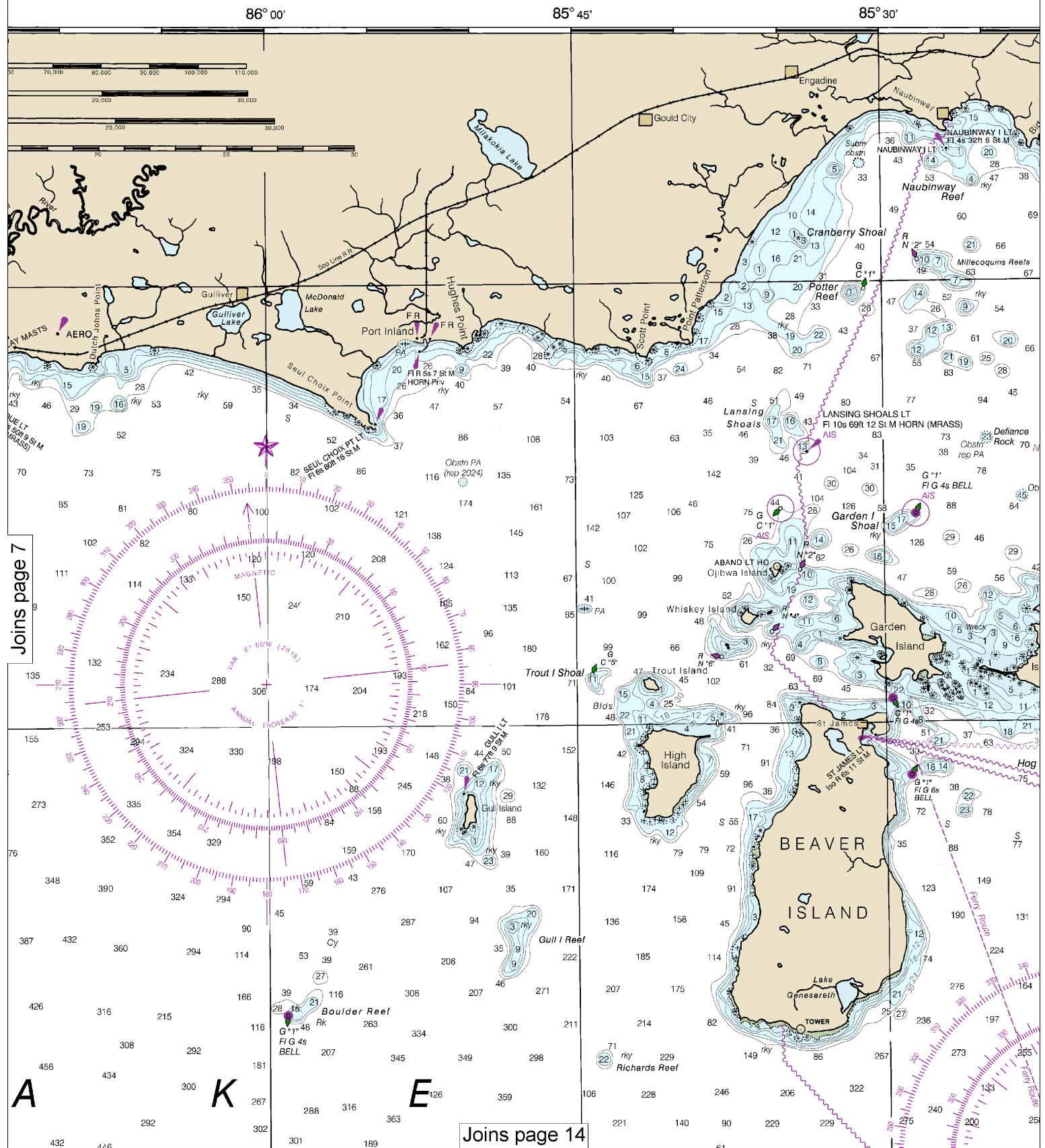
86° 00'

85° 45'

8



Joins page 7



8

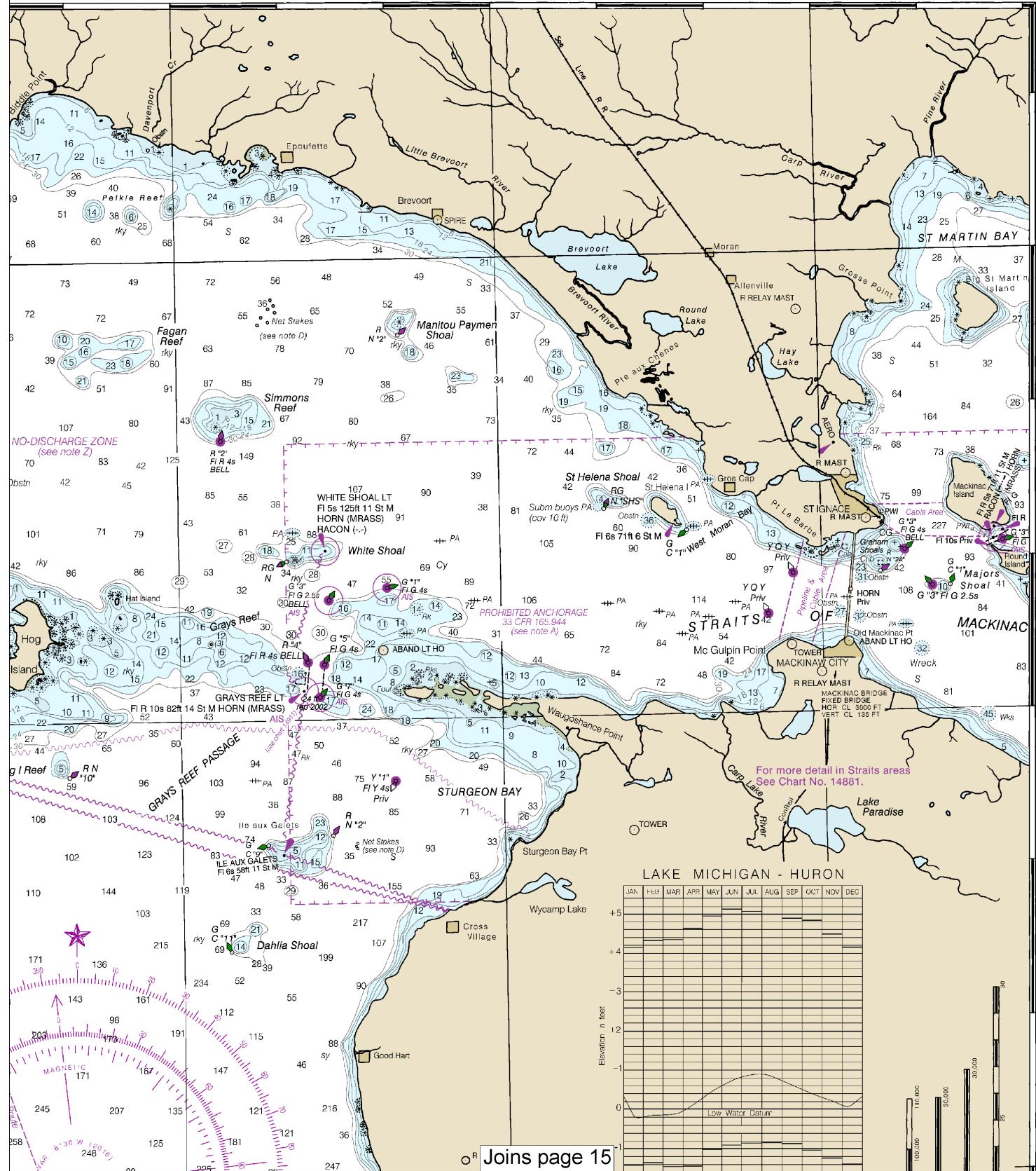
Note: Chart grid lines are aligned with true north.

SOUNDINGS IN FEET

85° 15'

85° 00'

84° 45'



CONTINUED ON CHART 14880

45°

45°

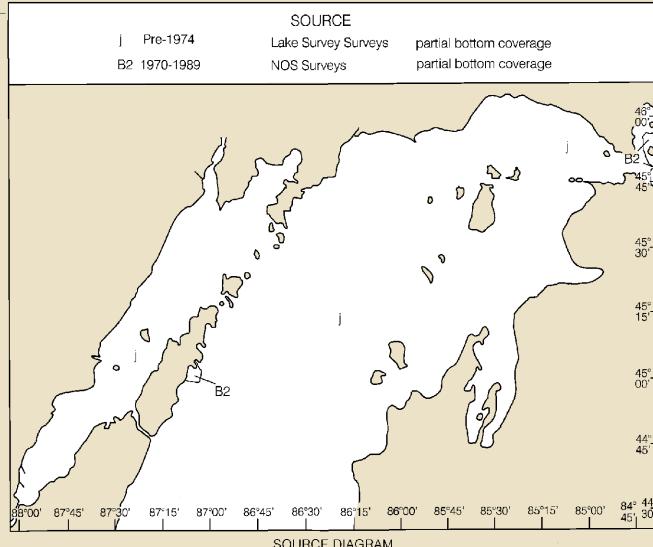
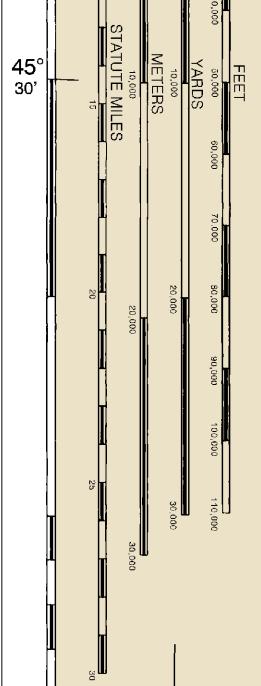
particularly on floating aids, see
Pilot for details.

Joins page 4

NOTE A

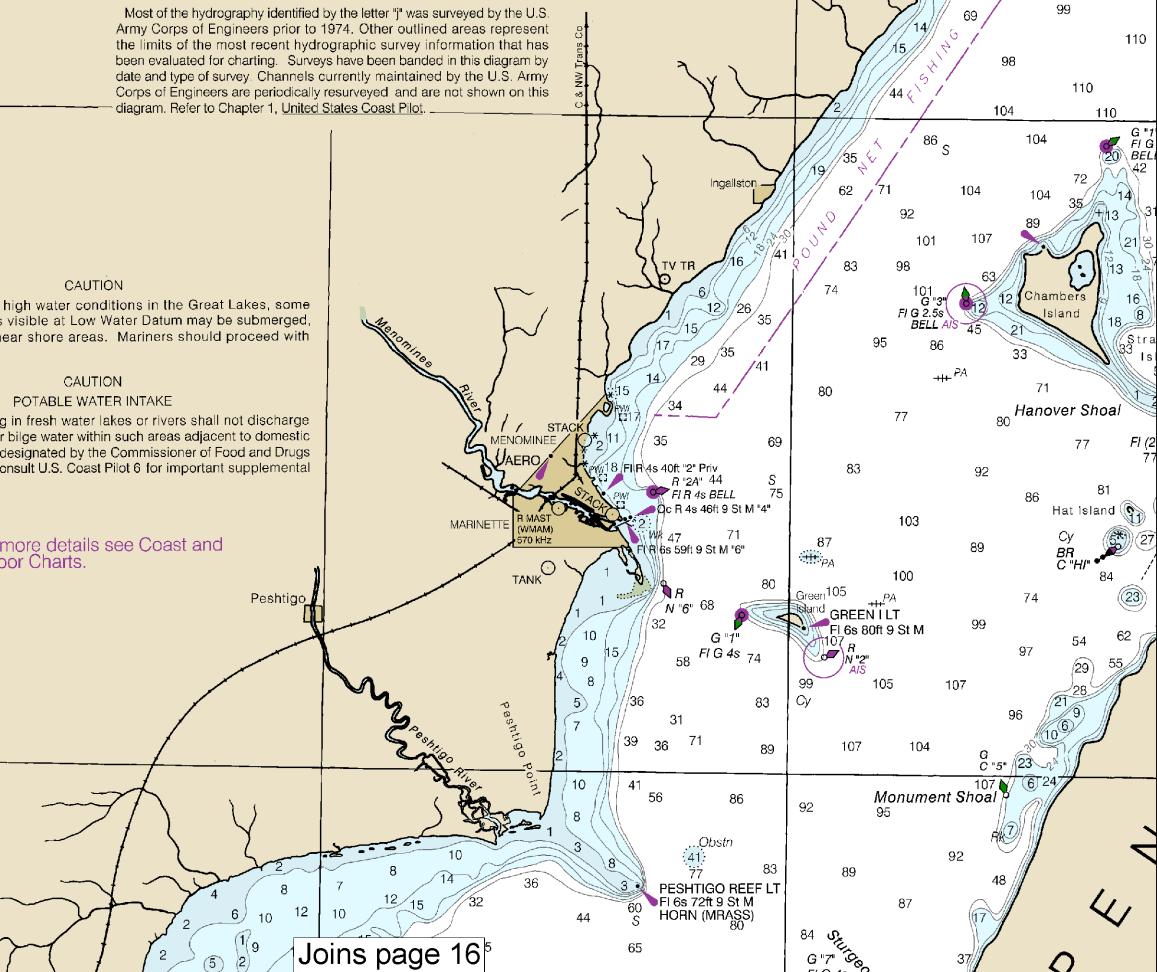
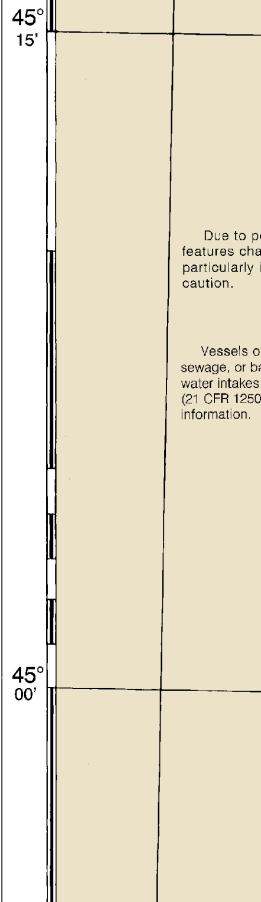
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the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

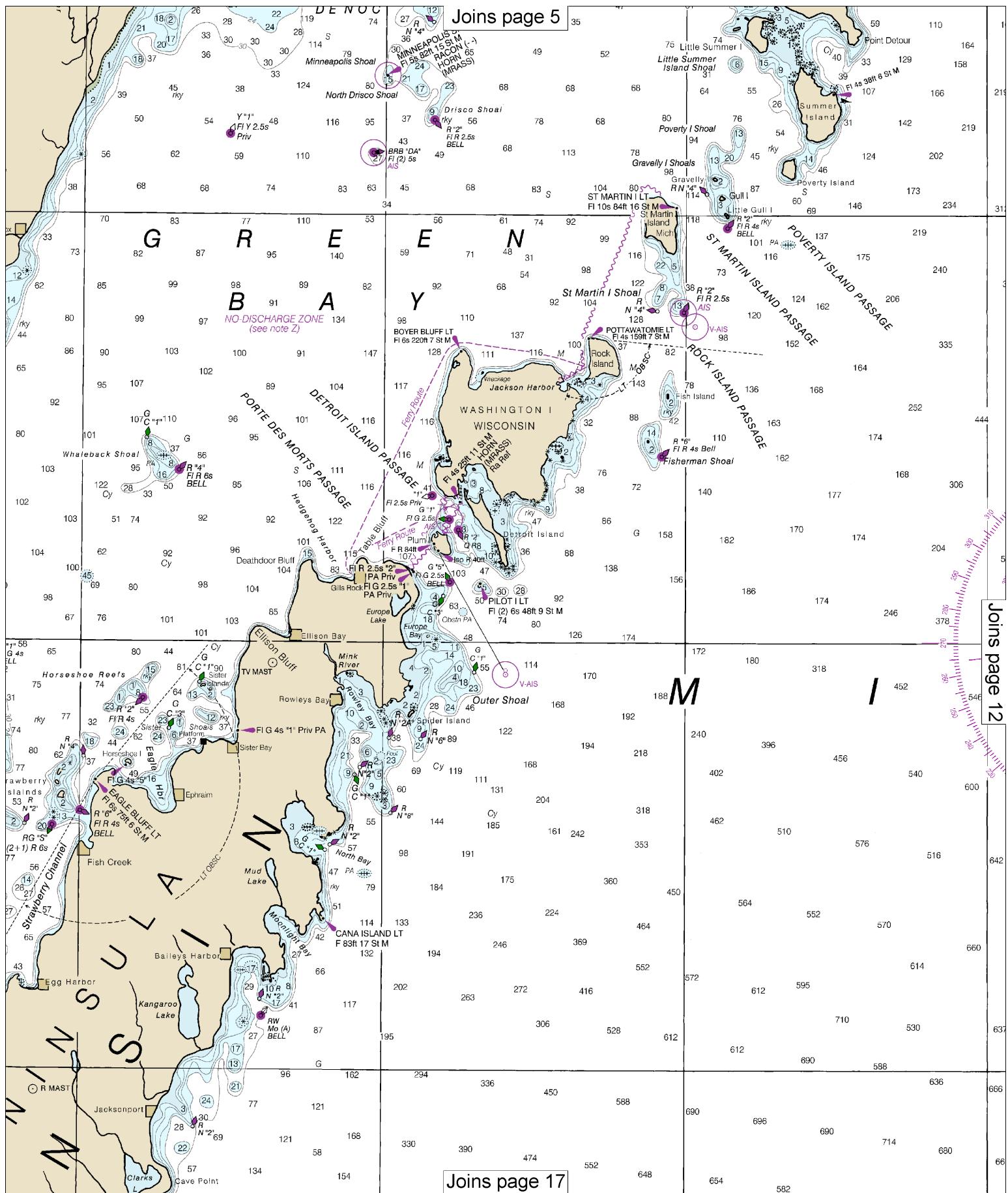
Refer to charted regulation section numbers.



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 Chapter 1, United States Coast Pilot.

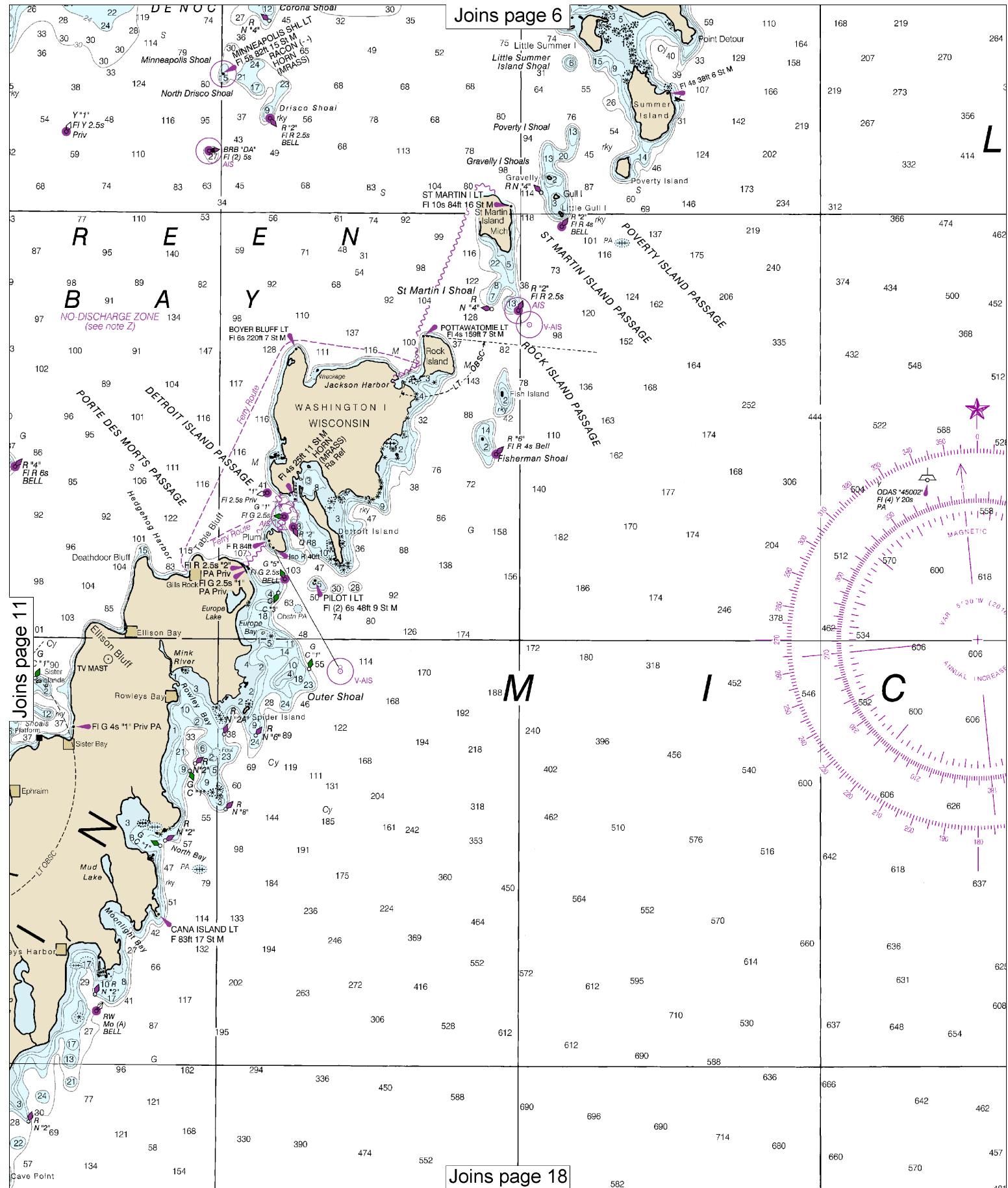




Joins page 11

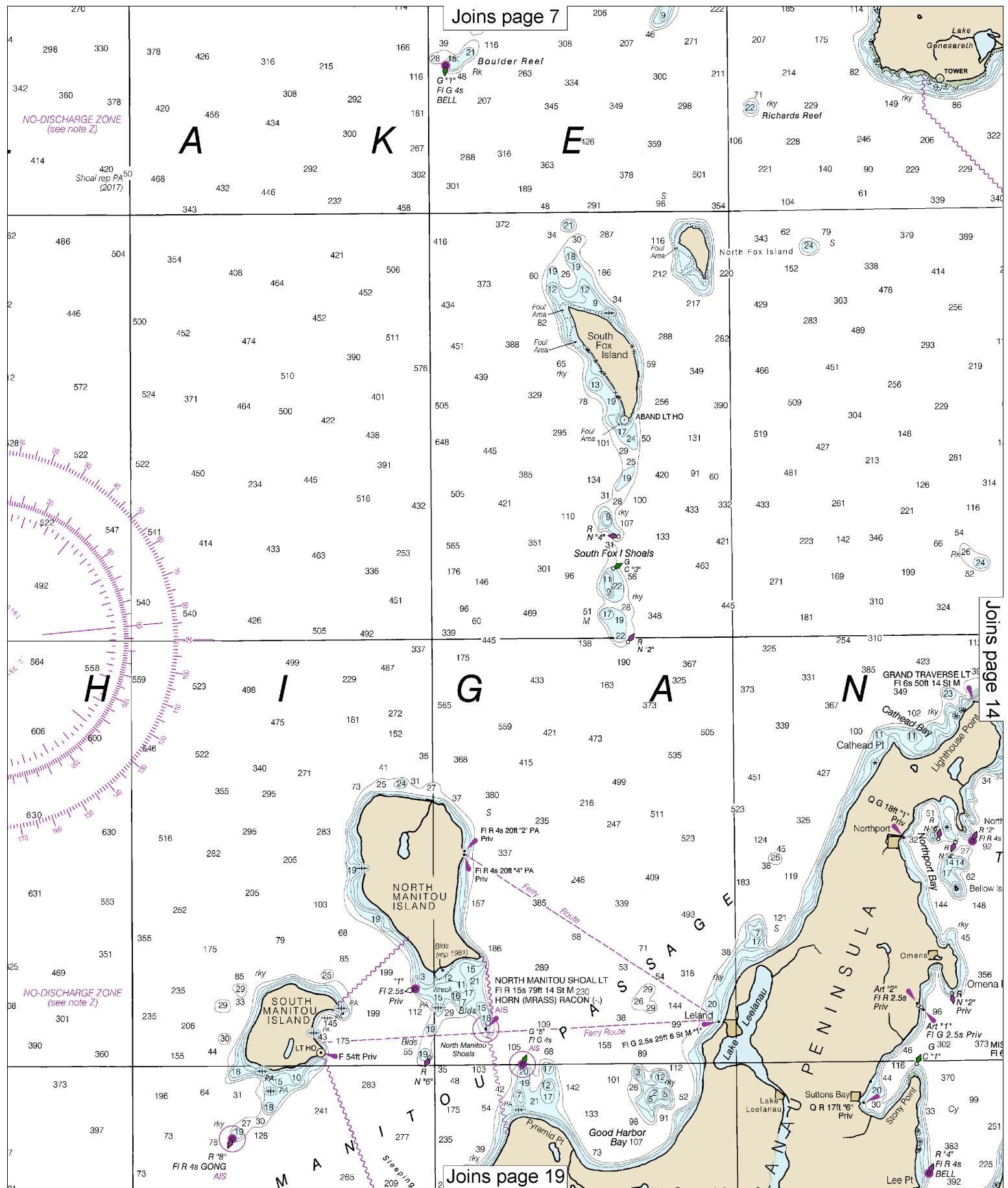
Joins page 6

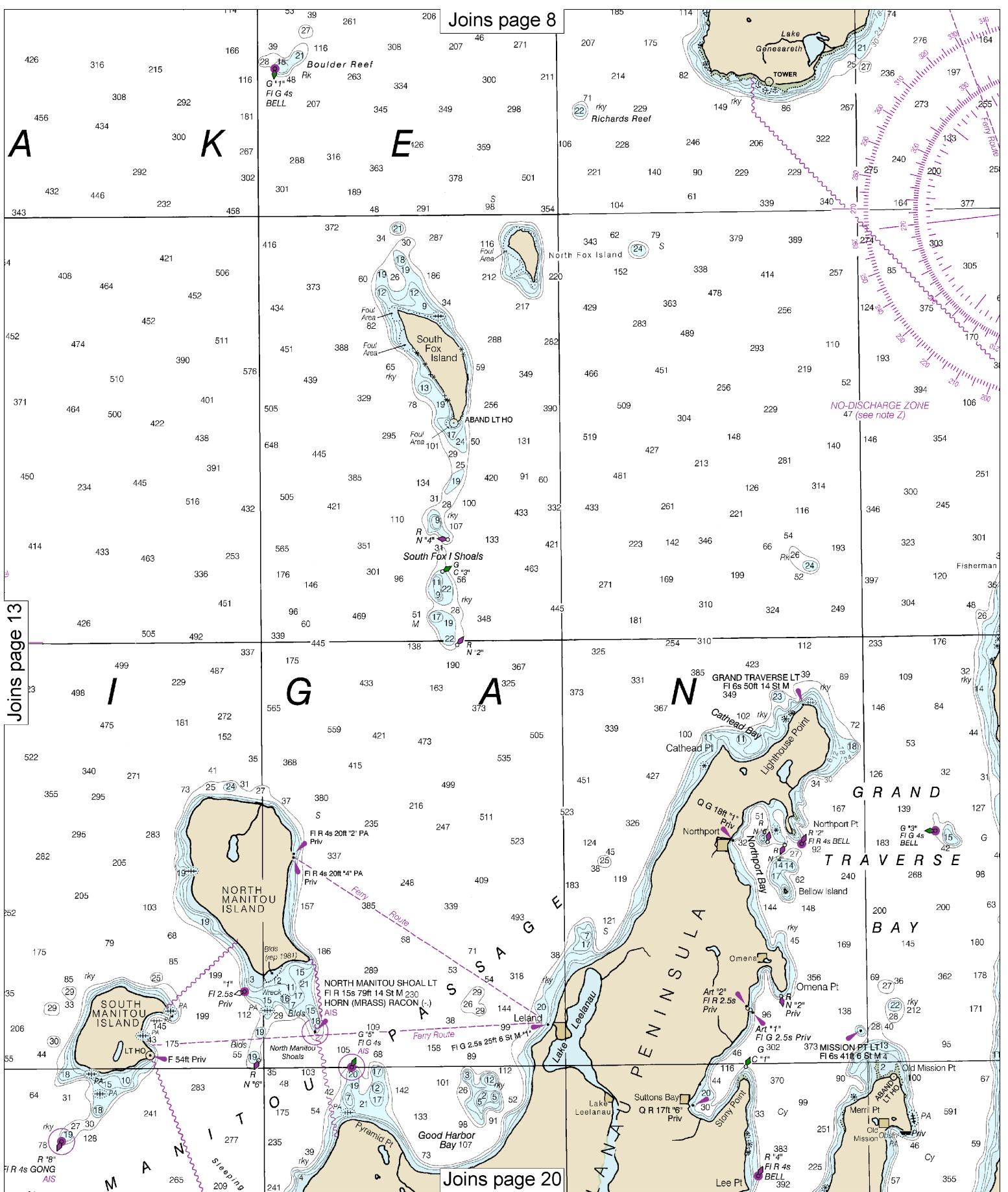
Joins page 18



12

Note: Chart grid lines are aligned with true north.

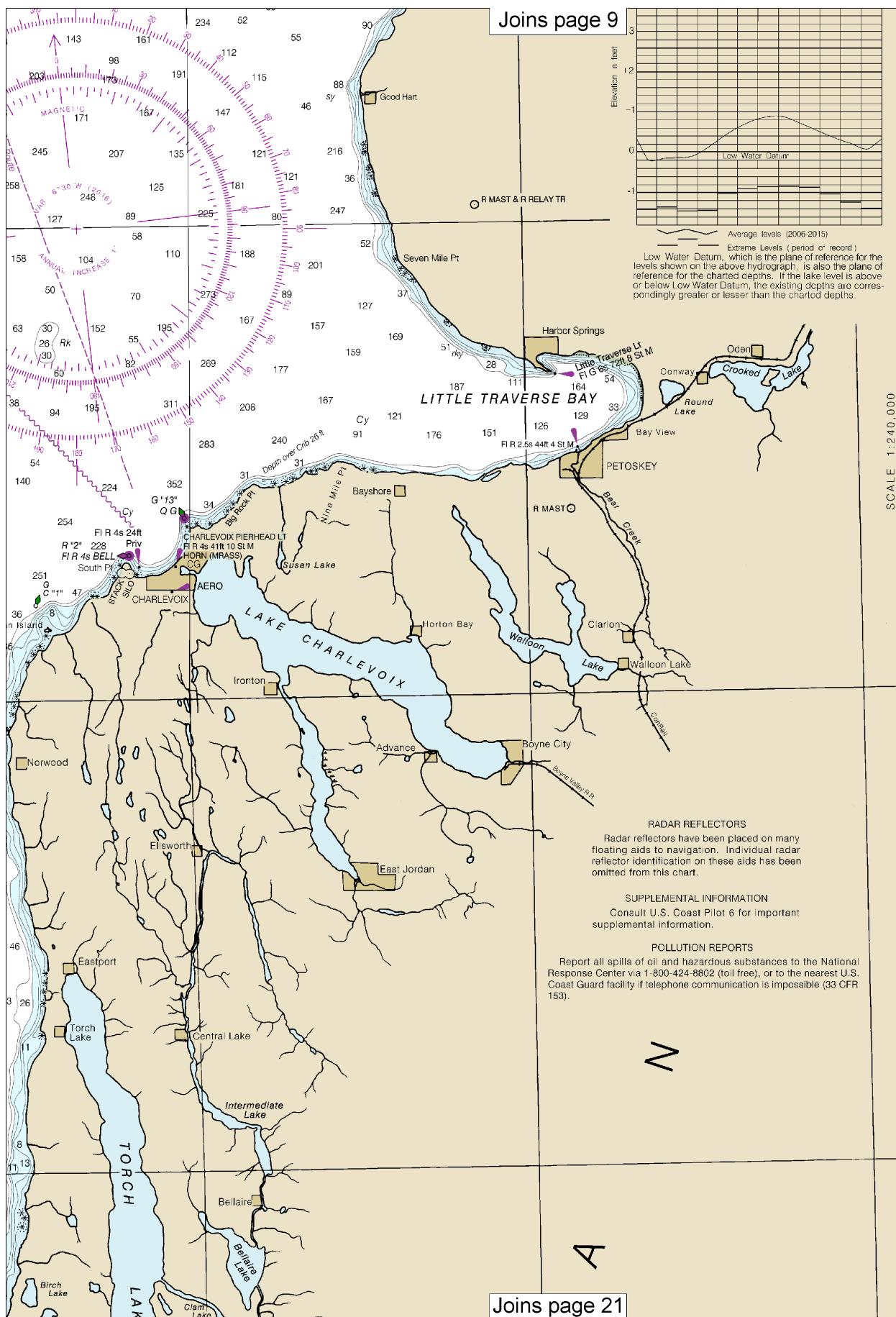


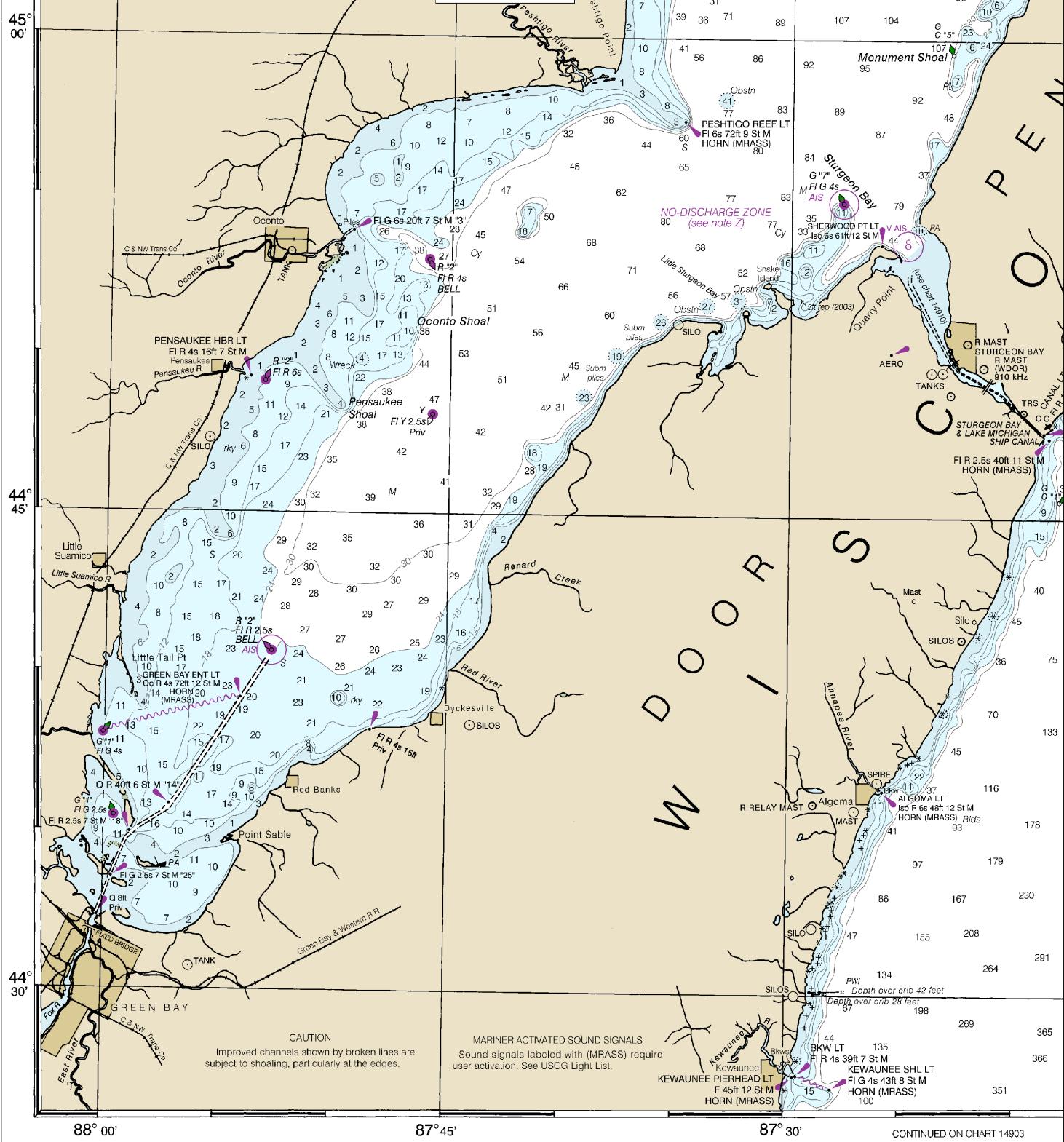


14

Note: Chart grid
lines are aligned
with true north.

Joins page 9





14902

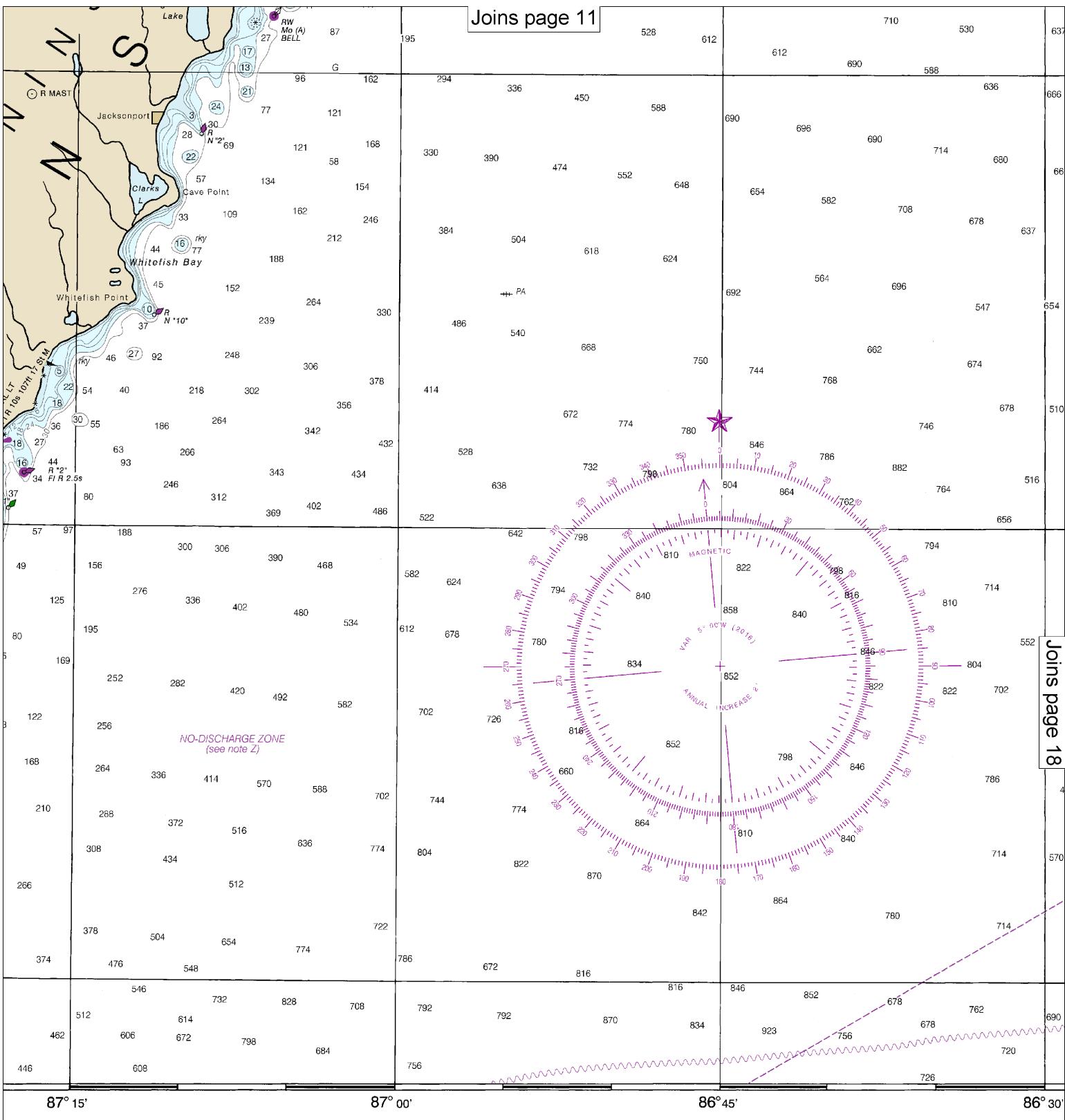
Note: Chart grid
lines are aligned
with true north.

Use ENC charts for the most up to date information. References to other charts may no longer be applicable.

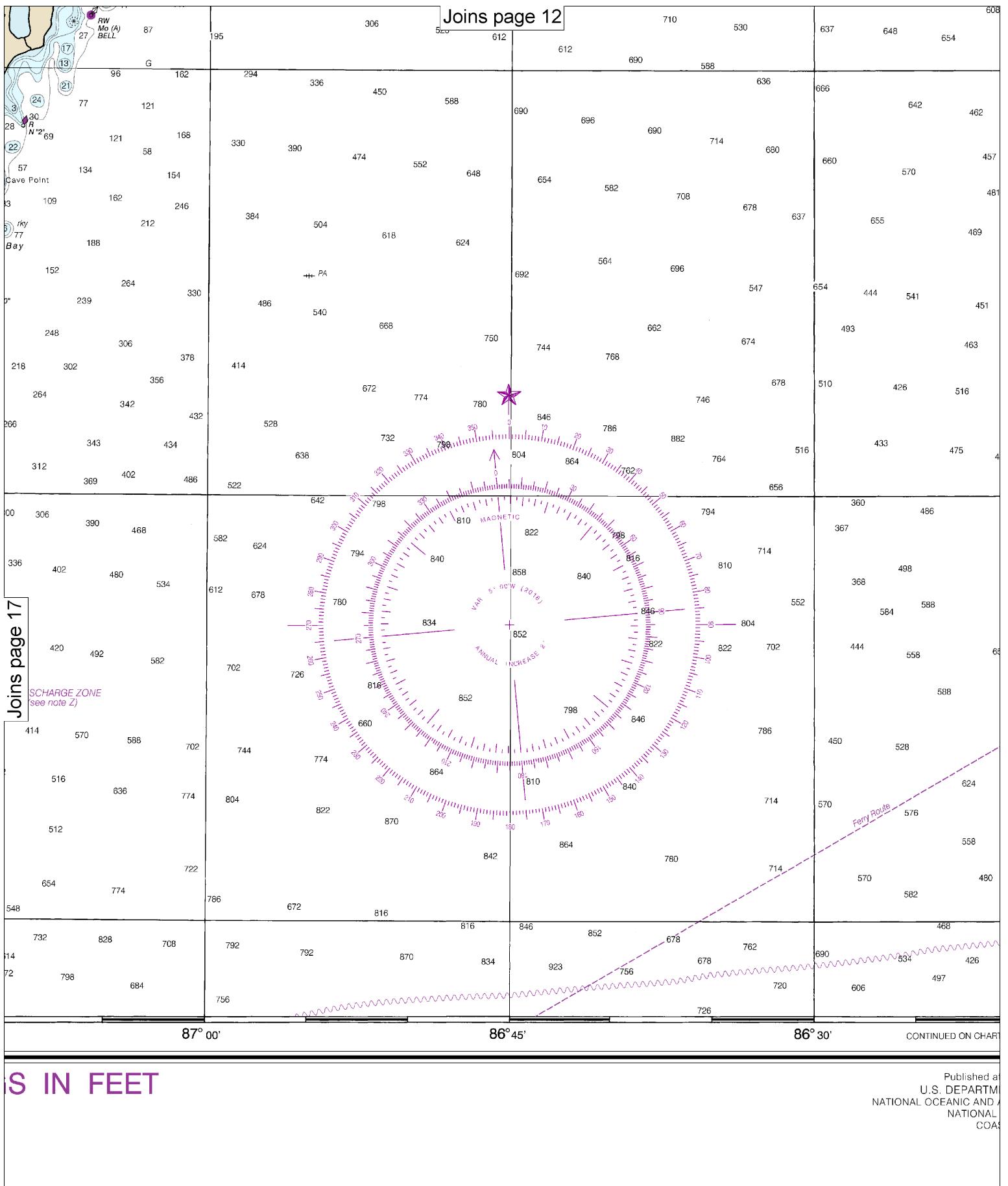
32nd Ed., Nov. 2020. Last Correction 2/20/2024. Cleared through:
LNM: 0824 (2/20/2024), NM: 0924 (3/2/2024), CHS: 0224 (2/23/2024)

CAUTION
This chart has been corrected from the Notice to Mariners (NTM) 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.

16

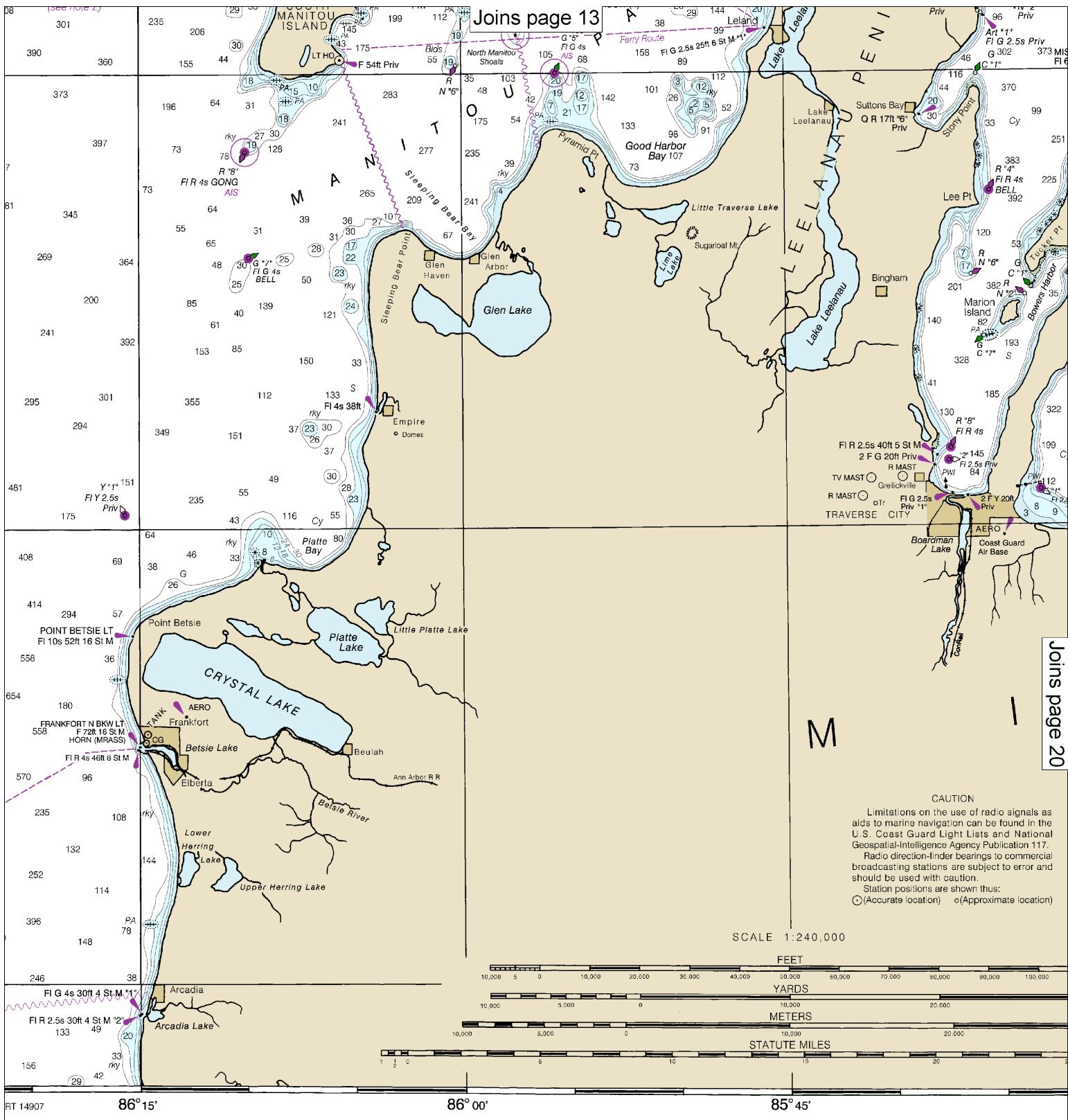


SOUNDINGS IN FEET

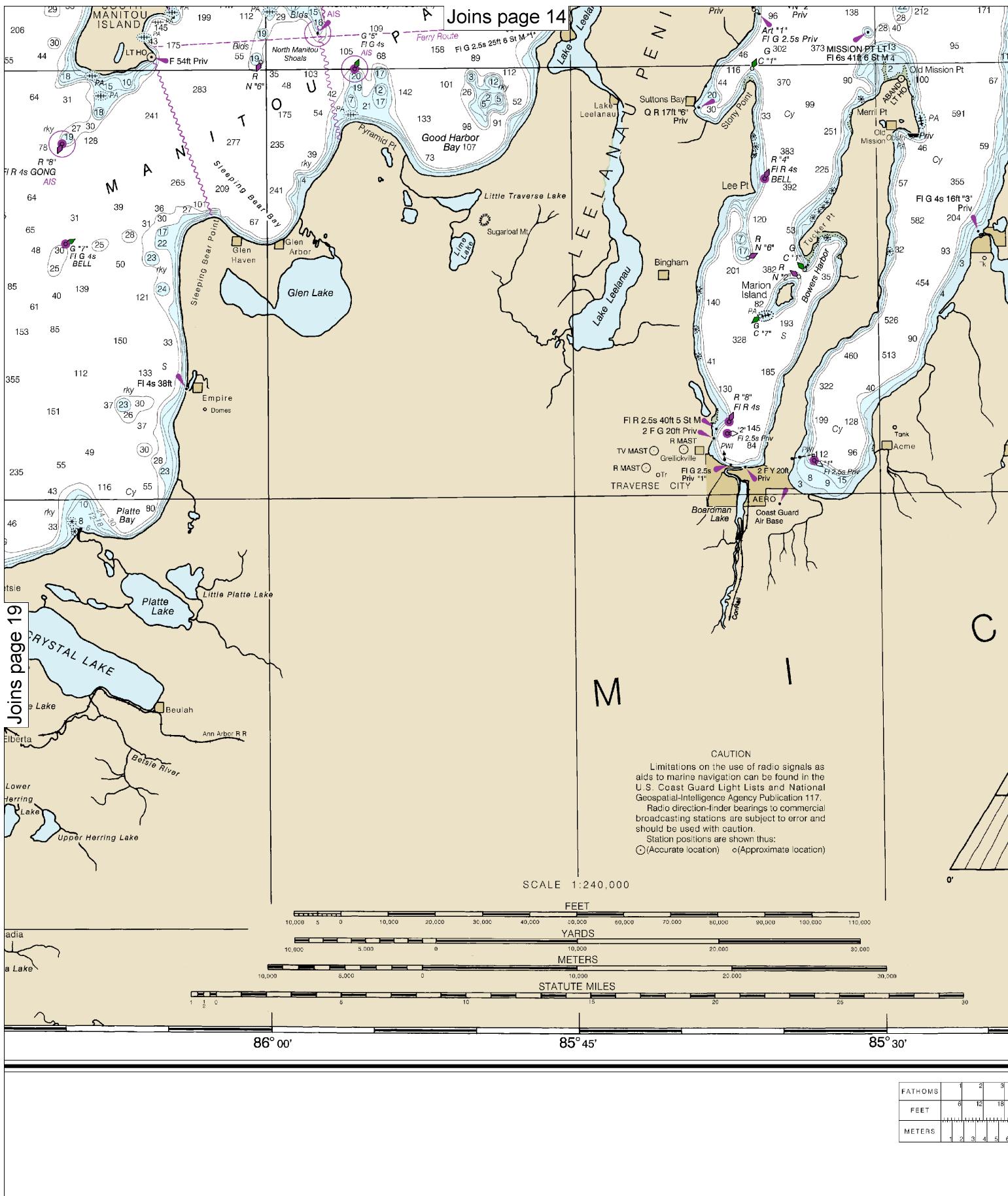


18

Note: Chart grid
lines are aligned
with true north.

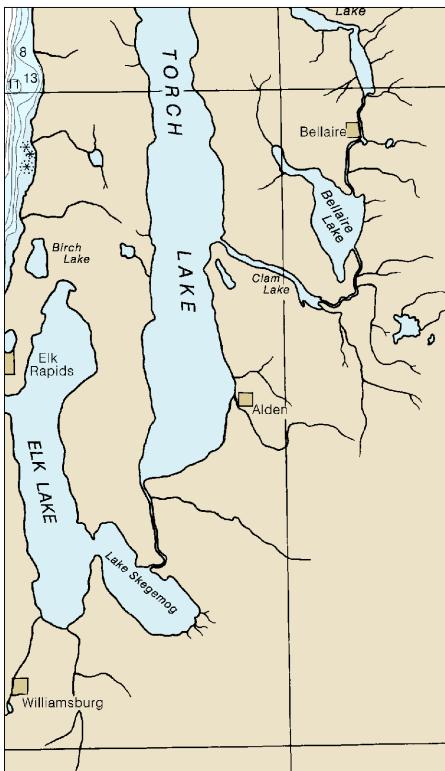


at Washington, D.C.
 MENT OF COMMERCE
 ATMOSPHERIC ADMINISTRATION
 OCEAN SERVICE
 AST SURVEY

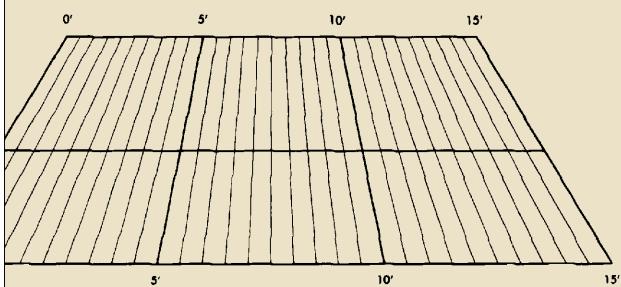


20

Note: Chart grid lines are aligned with true north.

**ARTICULATED AIDS**

An articulated aid to navigation consists of a pipe structure that oscillates around a universal coupling connected to a sinker. The structure is kept upright by the buoyancy of a submerged flotation chamber. It is designed primarily to mark narrow channels in depths of up to 60 feet. All articulated aids are labelled "Art".



Latitude and Longitude Plotting Interpolator

North End of Lake Michigan

SOUNDINGS IN FEET-SCALE 1:240,000

14902

3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
8	24	30	36	42	48	54	60	66	72	78	84	90	96	102
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

**CAUTION
SUBMARINE PIPELINES AND CABLES**

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

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

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 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.

Escanaba, MI	KZZ-35	162.500 MHz
Gaylord, MI	WWF-70	162.500 MHz
Green Bay, WI	KIG-65	162.550 MHz
Marquette, MI	KIG-66	162.550 MHz
Newberry, MI	WNG-576	162.450 MHz
Sault Ste Marie, MI	KIG-74	162.550 MHz
Sheboygan, WI	WWG-91	162.425 MHz
Sister Bay, WI	WXN-69	162.425 MHz
Traverse City, MI	KIH-22	162.400 MHz

NOTE D

Numerous fish traps and stakes have been reported in the area of this chart; some may be submerged. Small craft should use caution when operating outside the main channel.

45°
00'44°
45'44°
30'

mm

21



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://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx>

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>

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.