

BookletChart™

Beaver Bay to Pigeon Point

NOAA Chart 14967

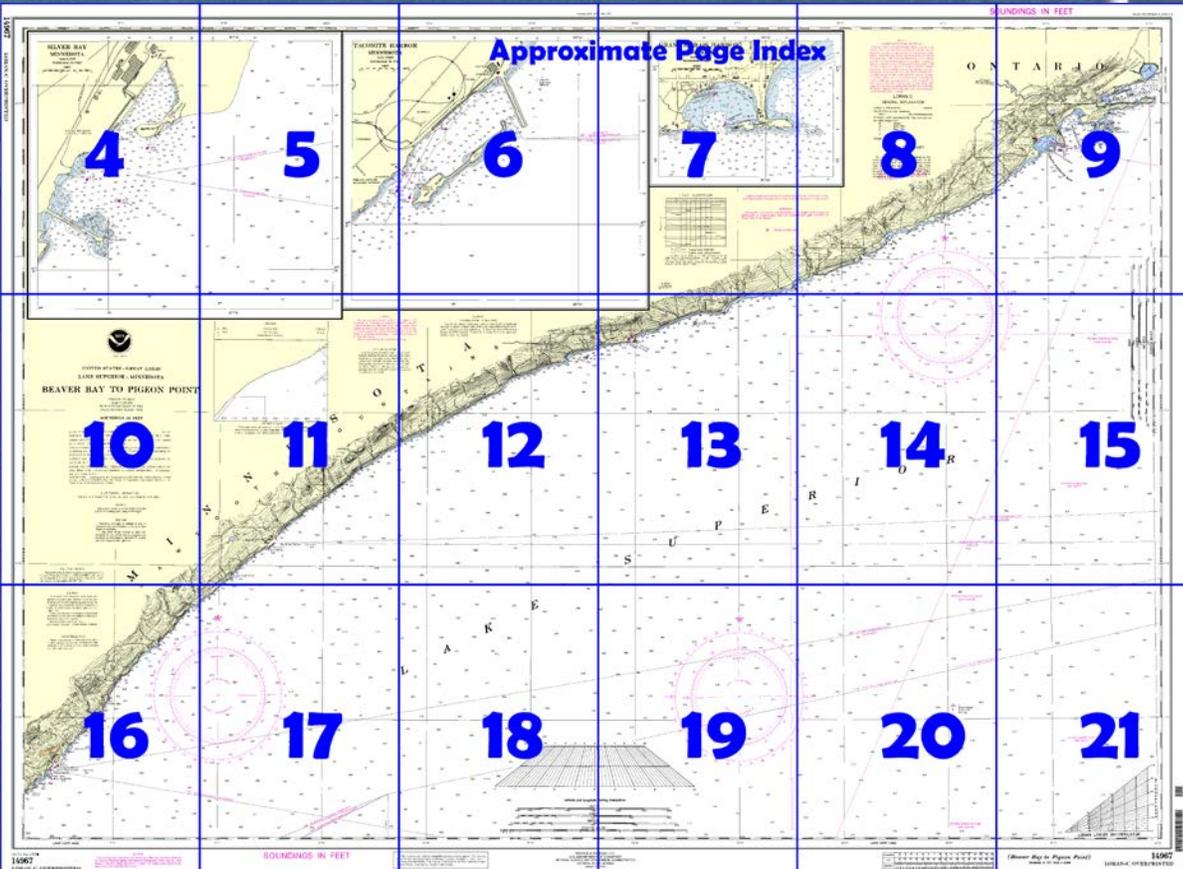


A reduced-scale NOAA nautical chart for small boaters

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.

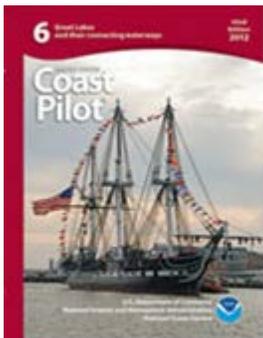
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=14967>.



(Selected Excerpts from Coast Pilot)

Beaver Bay, about 50 miles northeast of Duluth Ship Canal, is about 0.7 mile wide and indents the shore about 0.3 mile. The 16-foot depth contour is within 30 to 200 feet of shore. Large boulders are in all parts of the bay. The shore of the bay is bordered by bluffs that rise 75 to 200 feet above the lake. The bay affords some shelter from south, west, and north storms, but is open and unprotected to northeast, east, and southeast. The most

dangerous storms at this end of the lake are from northeast, the seas having a fetch of more than 250 miles. Two piers are on the north side of the bay. The east pier has a depth of 5 feet at the outer end, and the

West pier 9 feet at the outer end.

Silver Bay Harbor is a private harbor developed by a mining company about 52 miles northeast of Duluth Ship Canal. The stacks on the powerhouse just north of the harbor are prominent. The harbor is about 1 mile long and 0.25 mile wide with depths of at least 30 feet over most of its area. The harbor is protected from the east and northeast by **Beaver Island** and from the southwest by **Pellet Island**, connected to the shore by a breakwater. Private lights mark both Beaver and Pellet Islands; a private sound signal is at the light on Beaver Island. Lighted buoys mark the limit of deep water in Silver Bay and a private light is on the outer end of the wharf. In 2008, a shoal was reported to be encroaching on the entrance to the harbor from the west end of Beaver Island decreasing the available width of the entrance to about 150 feet; a buoy marks the edge of the shoal.

Wharf.—Silver Bay has one deep-draft wharf on the northwest side of the harbor. (For a complete description of the port facilities, refer to Port Series No. 49, published and sold by the U.S. Army Corps of Engineers. See Appendix A for address.) The alongside depths given for this facility are reported depths. (For information on the latest depths, contact the operator.)

Northshore Mining Co. Dock: 2,775 feet of berthing space; 30 feet alongside; deck height, 8½ feet; shipment of iron ore pellets and receipt of coal; occasional receipt of steel.

From Silver Bay Harbor the shore extends northeast for about 23 miles to Taconite Harbor. The shore is bold and rocky, with cliffs and steep slopes. Numerous small points and inlets afford limited shelter. There are no outlying obstructions, and the shore can be approached within 0.5 mile. **Baptism River**, 5 miles northeast of Silver Bay Harbor, is the largest stream flowing into this stretch, and the area around its mouth is a State park. A lighted radio mast about 4 miles northeast of Silver Bay Harbor near the summit of **Palisade Head** is prominent.

Local magnetic disturbance.—Differences from normal variation of from 004°W to 006°W have been observed in the vicinity of Baptism River and Palisade Head.

Taconite Harbor is a private harbor maintained by the Minnesota Power Company and Cleveland-Cliffs Inc., about 75 miles northeast of Duluth at the mouth of **Two Island River**. The harbor is a basin, about 0.8 mile long and 0.3 mile wide, enclosed by **Gull Island**, **Bear Island**, and a series of breakwaters. Three lighted stacks at the powerhouse at the north end of the harbor are prominent.

Gull Island, Bear Island, the breakwater between them, and the breakwater that extends northeast from Bear Island protect the harbor from the southeast. A breakwater that extends southeast from shore at the north end of the harbor protects the harbor from the NE. The harbor is entered north from Lake Superior on the west side of Gull Island and is exited between the breakwaters at the northeast end of the harbor. The entrance to the harbor is marked by lighted buoys, lights, and a **028°** lighted range. Shoals are at the north end of the harbor and off the end of the breakwater on the south side of the harbor exit. All the aids in the harbor are private.

In 1972, the controlling depths were 27 feet in the entrance channel, 27 feet along the face of the dock on the northwest side of the harbor, and 29 feet in the exit channel. Depths inside the harbor range from 27 feet to over 50 feet.

Caution.—In 1975, an anchor was lost in the entrance channel, about 600 feet north of the light on the east side of the entrance.

**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>

14967

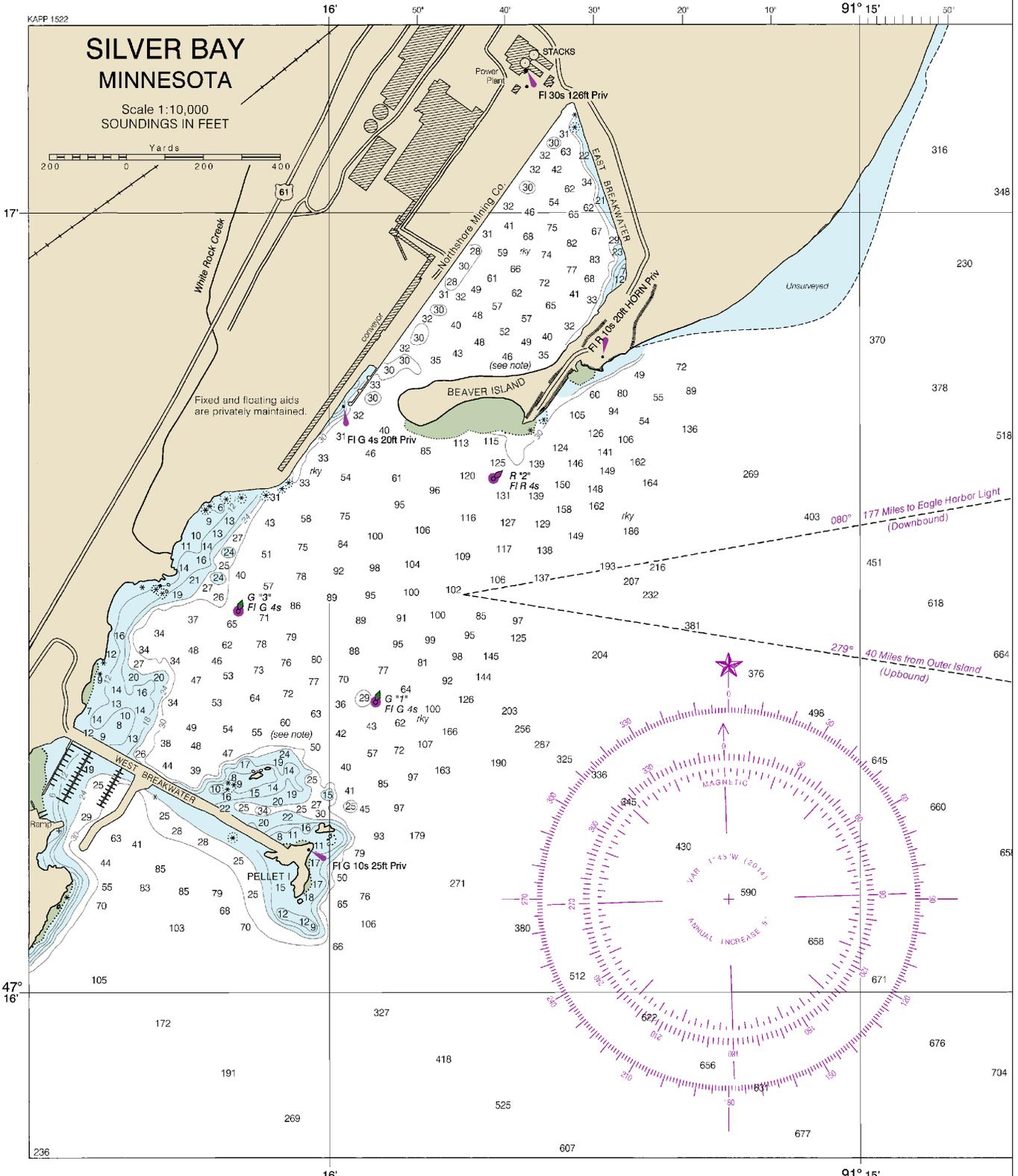
SILVER BAY MINNESOTA

Scale 1:10,000
SOUNDINGS IN FEET



KAPP 1522

91°10' 91°00'

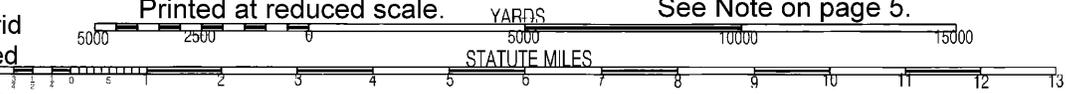


Fixed and floating aids are privately maintained.

Joins page 10

Printed at reduced scale.

See Note on page 5.



4

Note: Chart grid lines are aligned with true north.

90° 50'

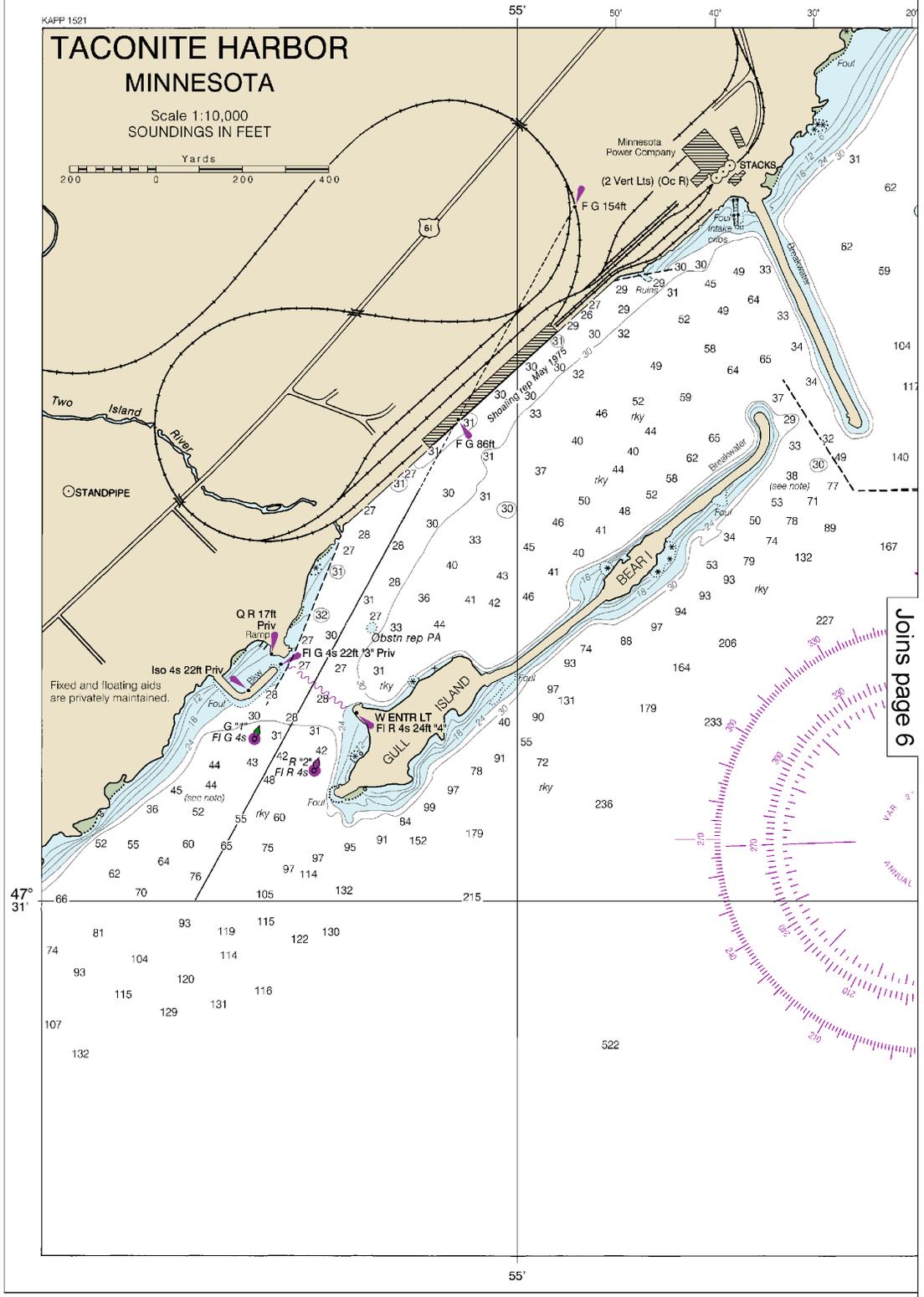
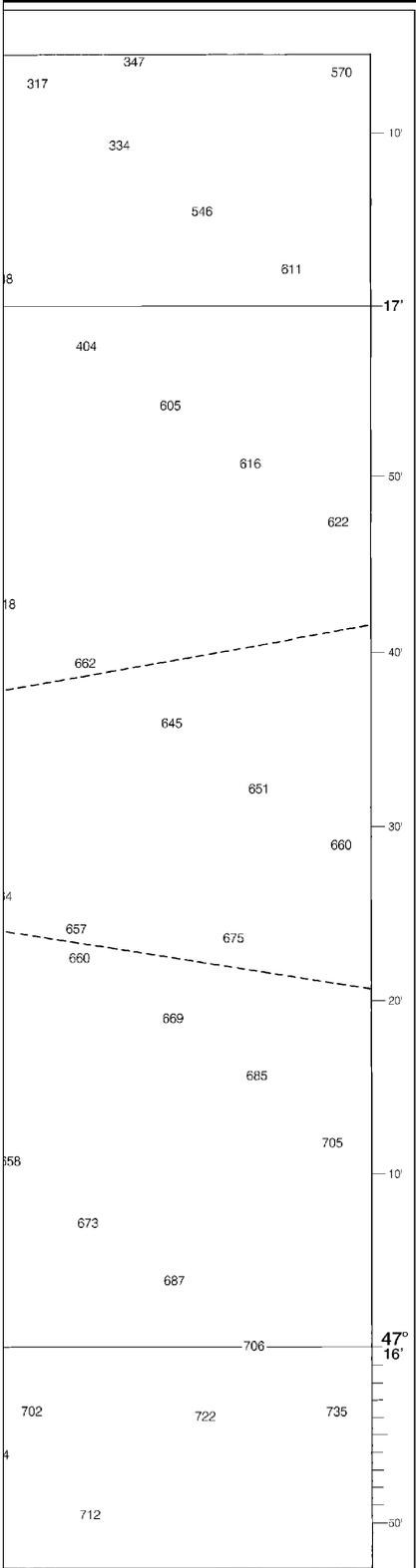
90° 40'

90° 30'

KAPP 1521

TACONITE HARBOR MINNESOTA

Scale 1:10,000
SOUNDINGS IN FEET



Joins page 6

NOT Navigation regulations apply

Joins page 11

CAUTION
POTABLE WATER INTAKE (PWI)

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:160000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

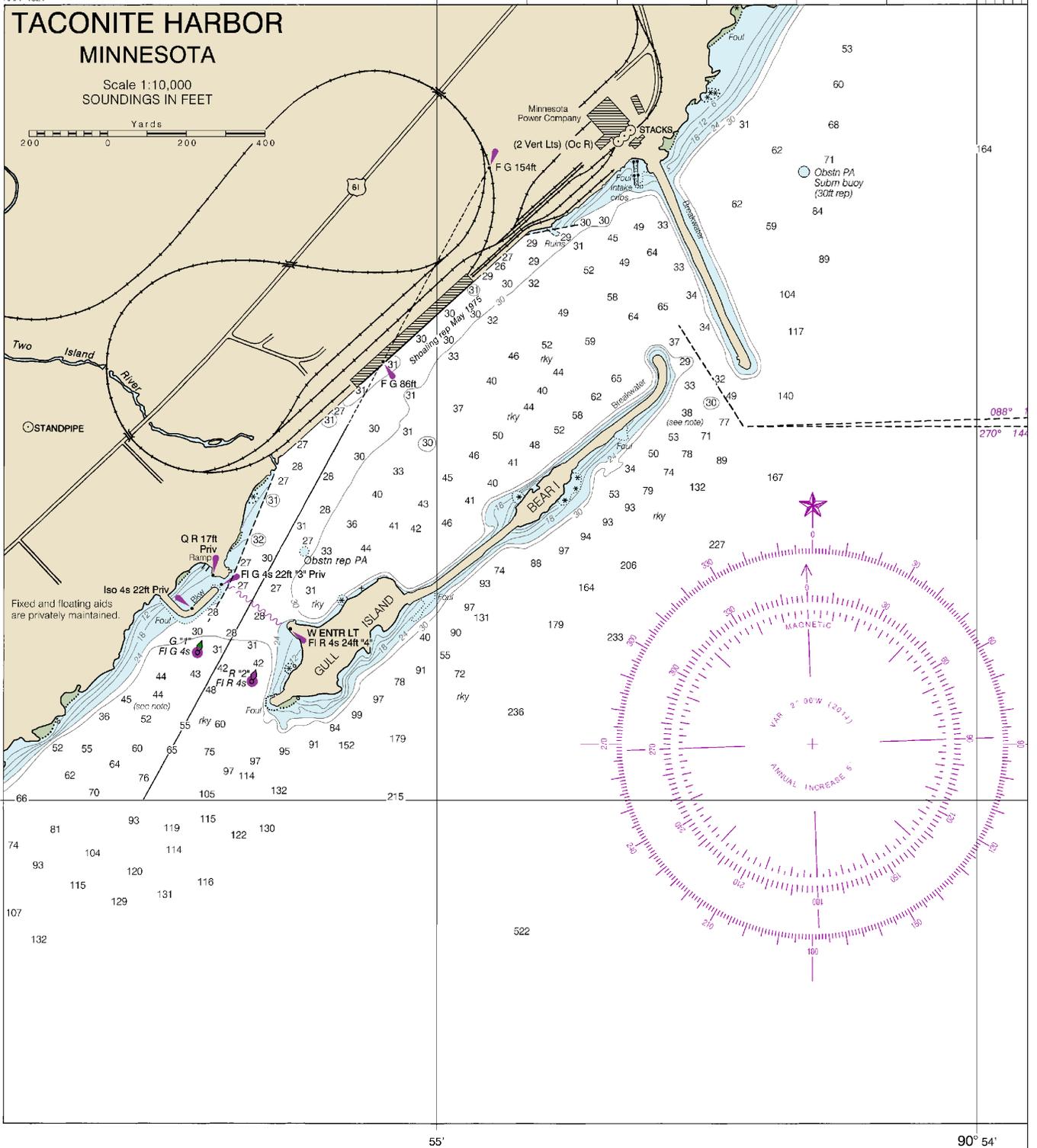


90°50' 90°40' 90°30'

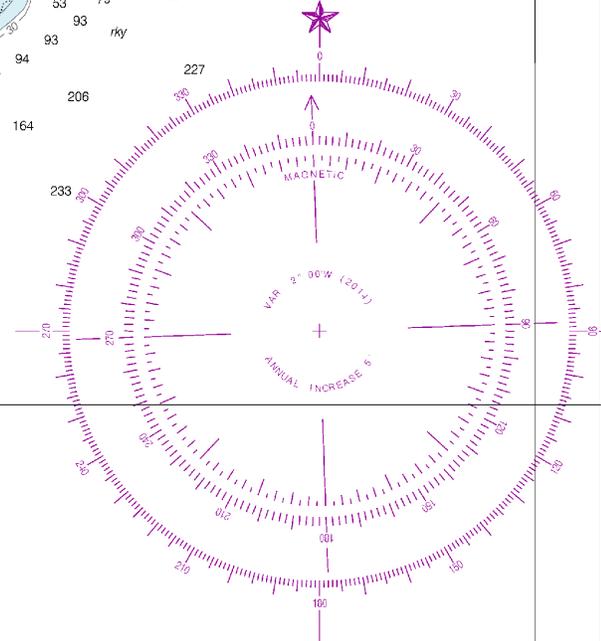
KAPP 1521

TACONITE HARBOR MINNESOTA

Scale 1:10,000
SOUNDINGS IN FEET



STANDPIPE
Fixed and floating aids
are privately maintained.



Joins page 5

Joins page 12

NOTE A
Navigation regulations are published in Chapter 2, U.S.

CAUTION
WATER INTAKE (PWI)



Note: Chart grid lines are aligned with true north.

Printed at reduced scale.



See Note on page 5.

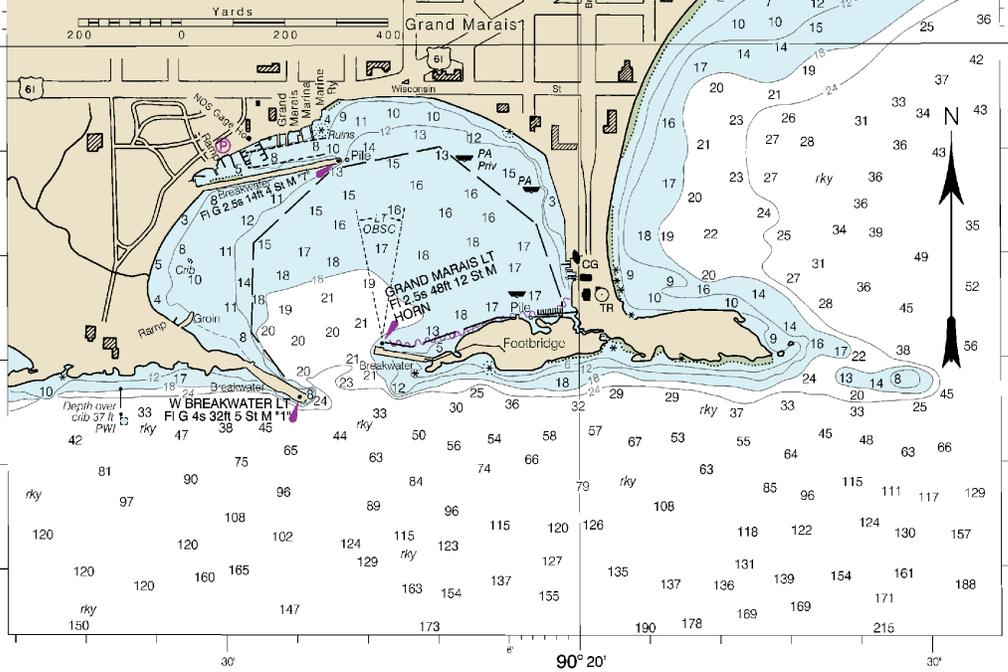
90°20'

90°10'

90°00'

GRAND MARAIS HARBOR MINNESOTA

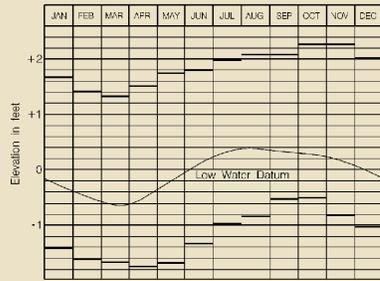
Scale 1:10,000
SOUNDINGS IN FEET



(Downbound)
129 Miles to Eagle Harbor Light
44 Miles from Eagle Harbor Light
(Upbound)

Joins page 8

LAKE SUPERIOR



Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

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

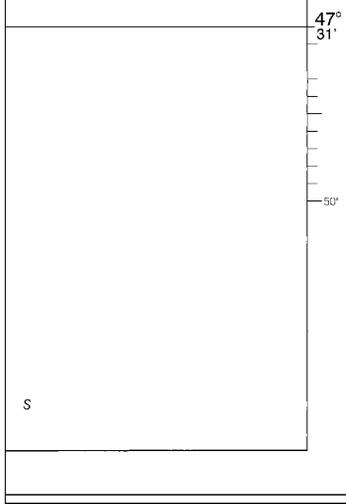
WARNING

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 6 for details.

NOTE B

Mariners should use caution as military craft may be operating within the area. For further information consult the U.S. Coast Guard Local Notice to Mariners.

Pump-out facilities



Joins page 13

Last Correction: 6/3/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

90° 10'

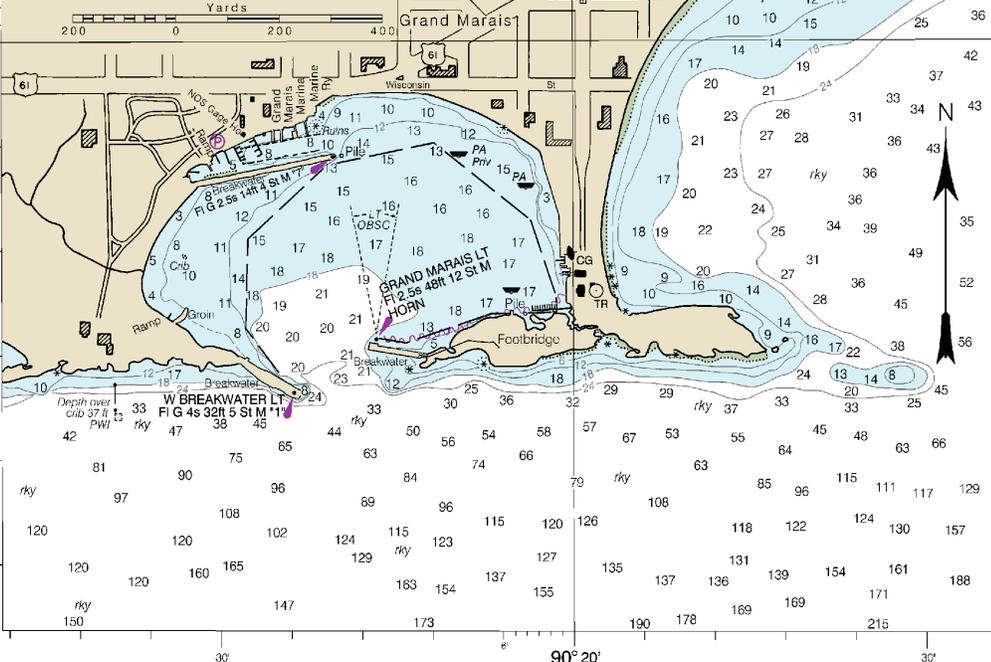
90° 00'

NOTE Z

NO-DISCHARGE ZONE
Michigan waters of Lakes Michigan and St. Clair, all waterways and inland lakes are designated as (NDZ). Under the Clean Water Act, discharging of untreated, into the waters. Commonly include graywater. All vessels with a sanitation device (MSD) that is anchored, or docked within a NDZ, are prohibited from discharging. If a vessel is disabled to prevent the overboard (treated or untreated) or install a holding tank for the NDZ are contained in this chart. Additional information concerning requirements may be obtained from the U.S. Coast Guard or the U.S. Environmental Protection Agency (EPA) web site at http://www.epa.gov/oceans/vessel_wsewage/.

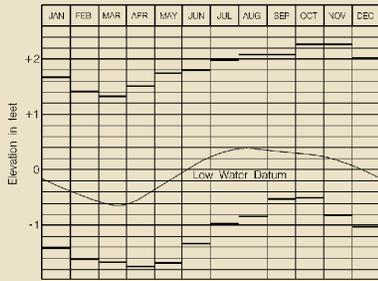
GRAND MARAIS HARBOR MINNESOTA

Scale 1:10,000
SOUNDINGS IN FEET



Joins page 7

LAKE SUPERIOR



Average levels (2004-2013)
Extreme Levels (period of record)
Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

R MAST
(2 Vert Lts)
○ (Oc R) (F R)

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

WARNING

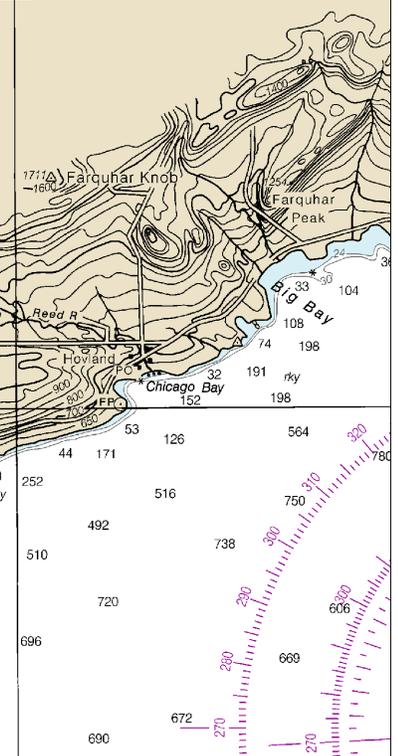
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

NOTE B

Mariners should use caution as military craft may be operating within the area. For further information consult the U.S. Coast Guard Local Notice to Mariners.

⊕ Pump-out facilities

Joins page 14



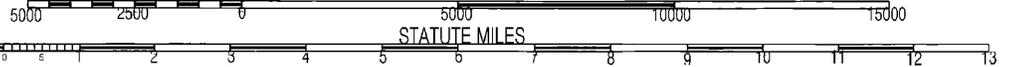
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

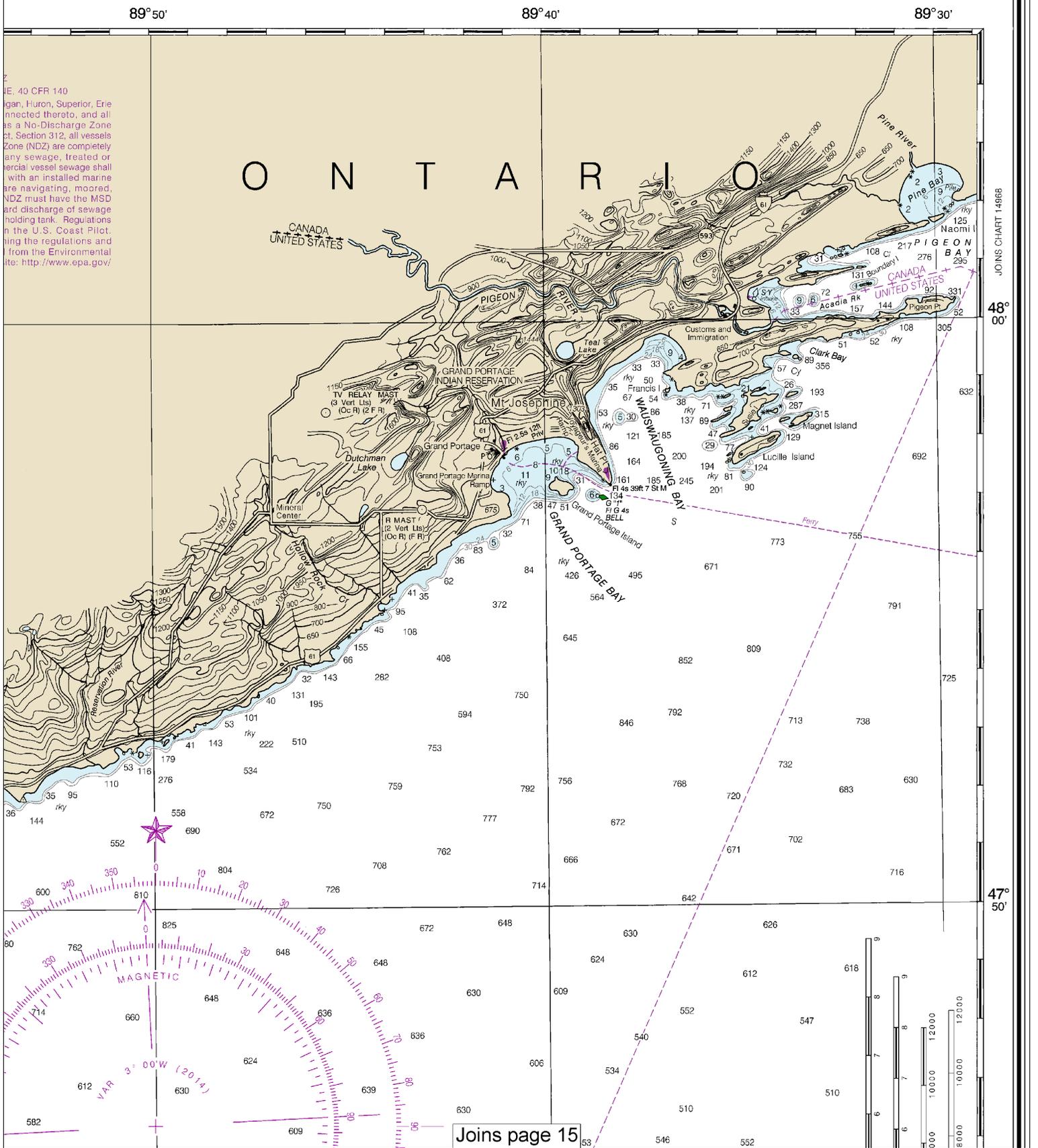
YARDS

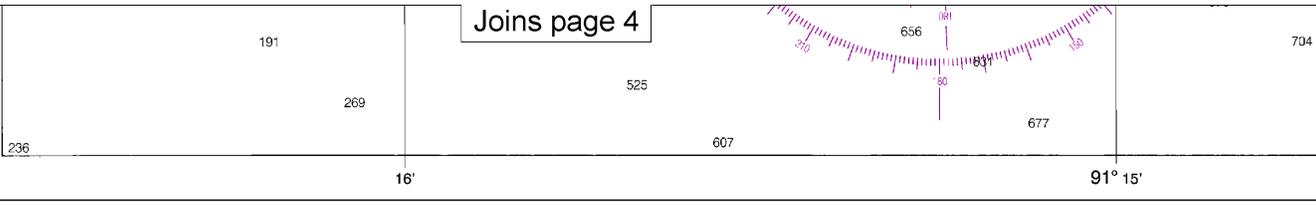
See Note on page 5.

STATUTE MILES



SOUNDINGS IN FEET





THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - GREAT LAKES
LAKE SUPERIOR - MINNESOTA

BEAVER BAY TO PIGEON POINT

Polyconic Projection
Scale 1:120,000

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) 601.1 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.
AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.
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, U.S. Coast Guard, and Canadian authorities.

SUPPLEMENTAL INFORMATION

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

COPYRIGHT

No copyright is claimed by the United States Government under Title 17 U.S.C. However, other nations may claim intellectual property rights on the compilation of data depicting the foreign waters shown on this chart.

CAUTION

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

CAUTION

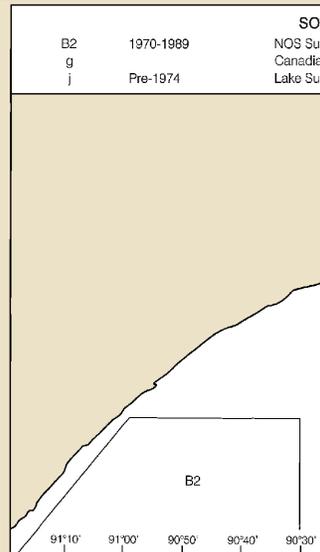
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

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

Limitations on the use of radio signals as aids to navigation may be found in the



SOURCE
Most of the hydrography identified by the Army Corps of Engineers prior to 1970 has been evaluated for charting. Survey date and type of survey. Channels of the Corps of Engineers are periodically updated. Refer to Chapter 1, United States



Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

See Note on page 5.



712

55'

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 St. Paul, Minnesota. Refer to charted regulation section numbers.

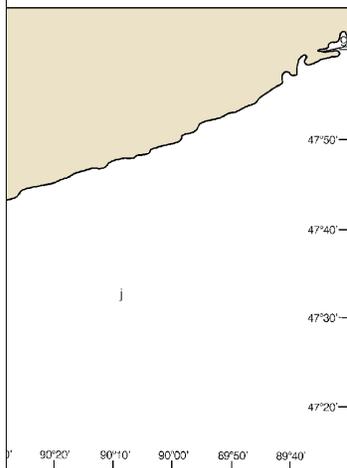
HORIZONTAL DATUM

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 1902 must be corrected an average of 0.543' southward and 0.746' westward to agree with this chart.

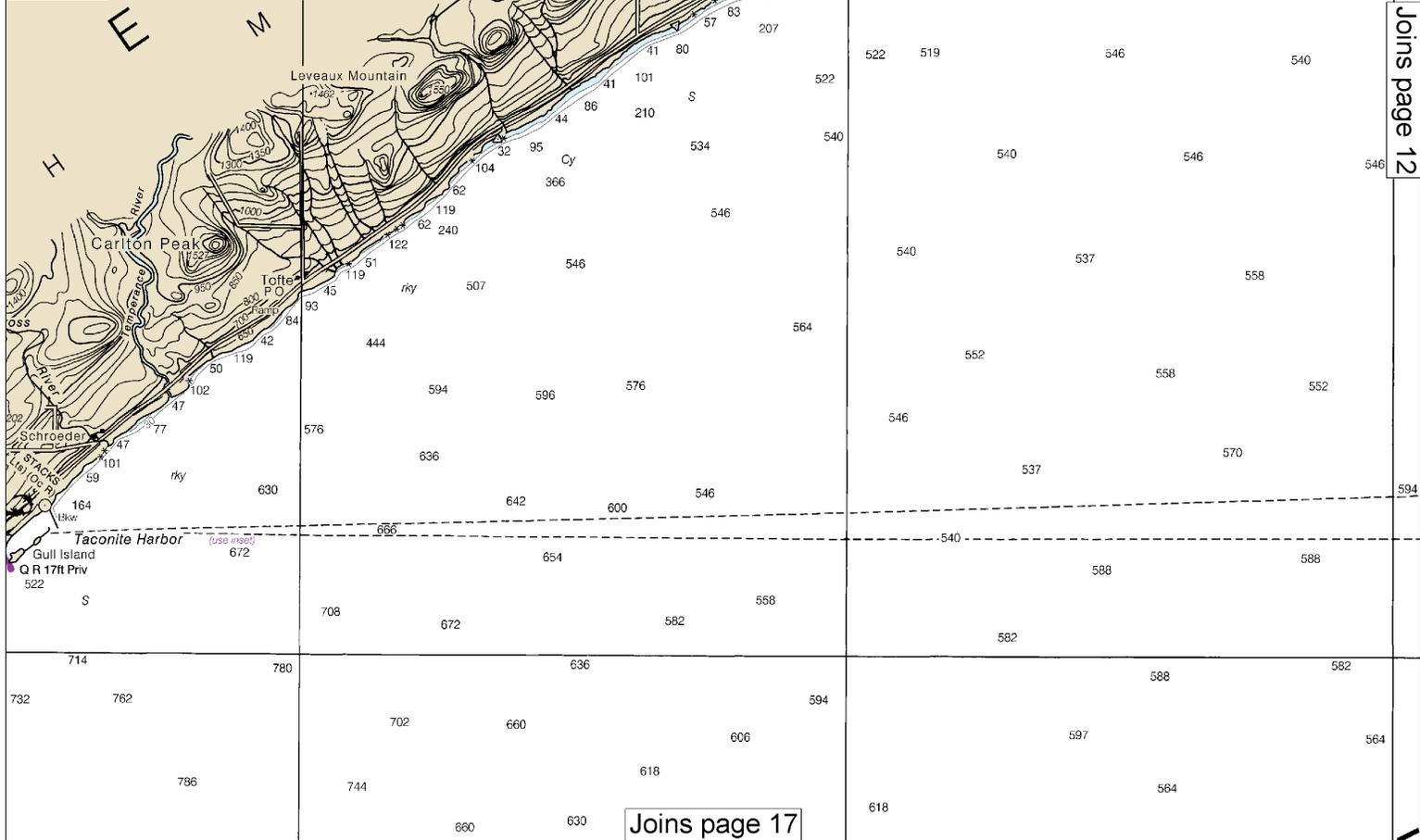
CAUTION POTABLE WATER INTAKE (PWI)

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U. S. Coast Pilot 6 for important supplemental information.

SOURCE
Surveys partial bottom coverage
Plan Surveys partial bottom coverage
Survey Surveys partial bottom coverage



DEPTH DIAGRAM
The area bounded by the letter "J" was surveyed by the U.S. Coast and Geodetic Survey in 1974. Other outlined areas represent hydrographic survey information that has been banded in this diagram by the U.S. Army Corps of Engineers and are not shown on this chart. U.S. Coast Pilot



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 St. Paul, Minnesota. Refer to charted regulation section numbers.

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 1902 must be corrected an average of 0.543' southward and 0.746' westward to agree with this chart.

CAUTION

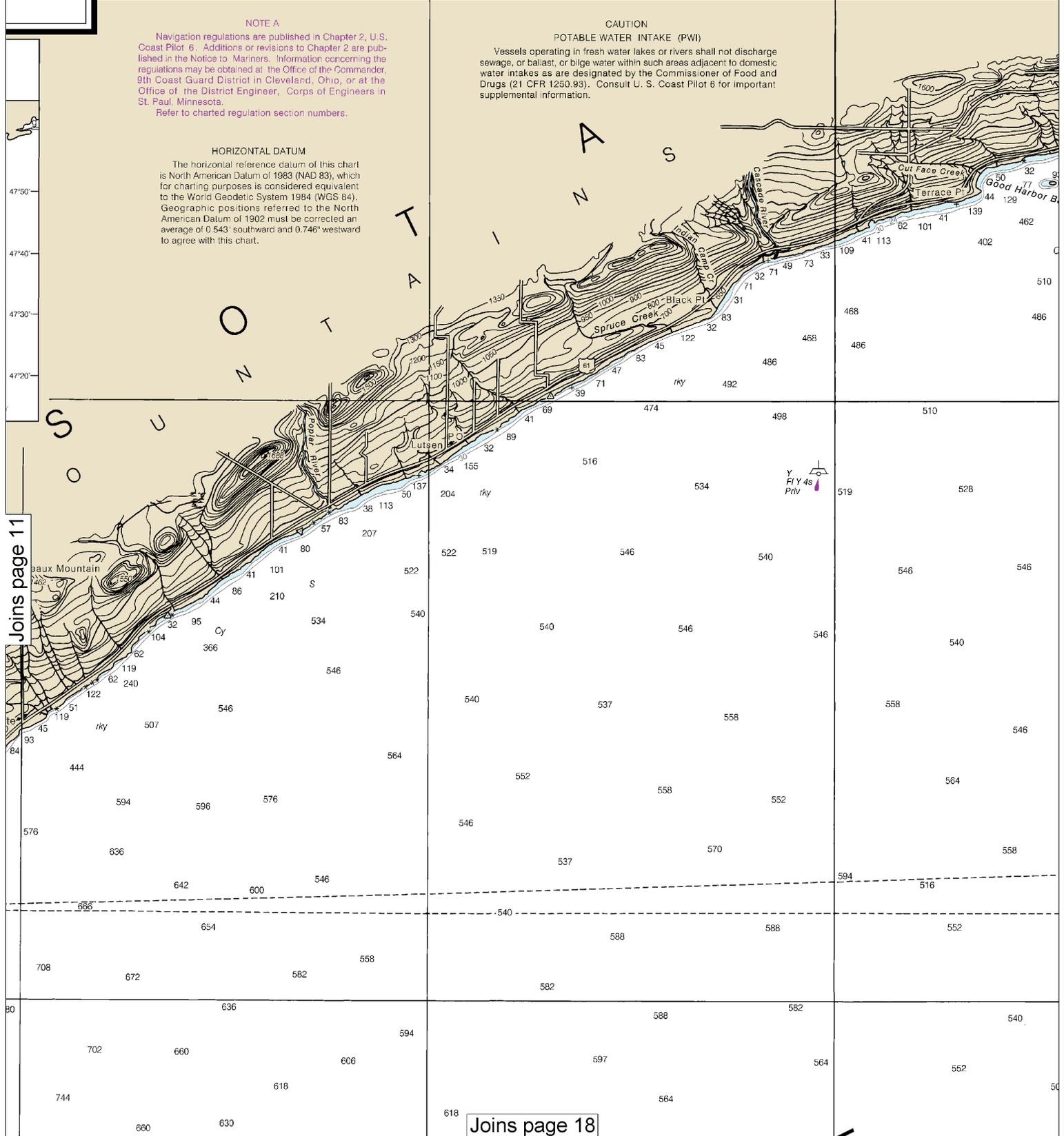
POTABLE WATER INTAKE (PWI)

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U. S. Coast Pilot 6 for important supplemental information.

47°50'
47°40'
47°30'
47°20'

Joins page 11

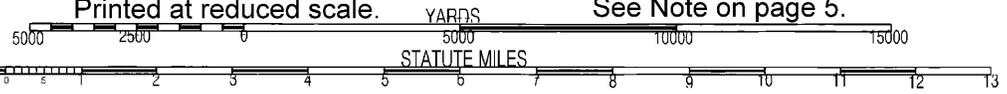
Joins page 18



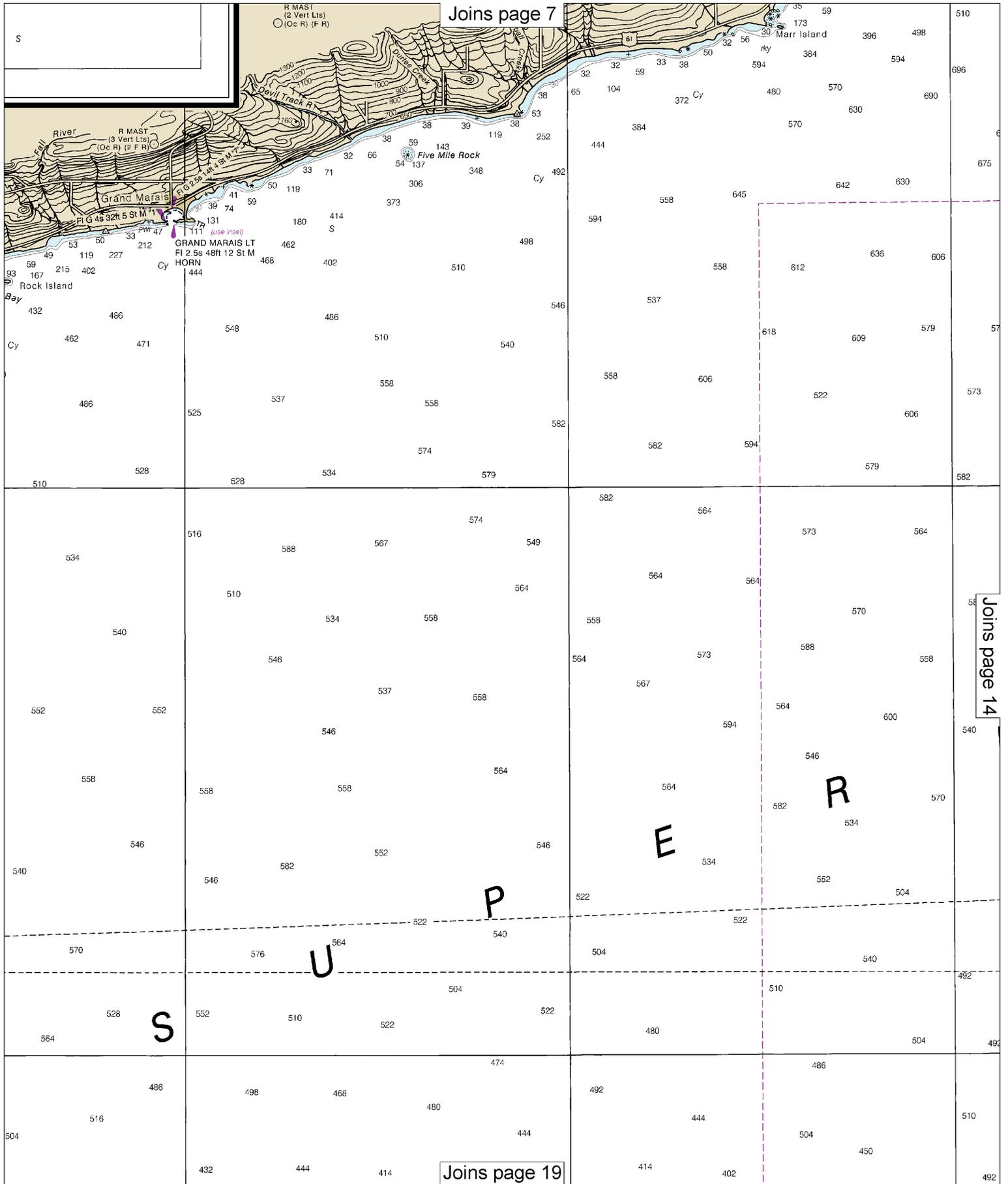
12

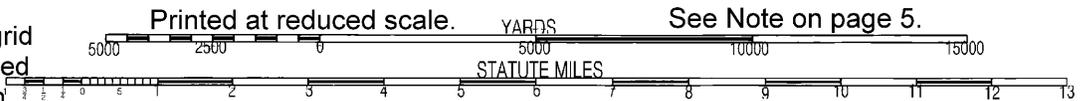
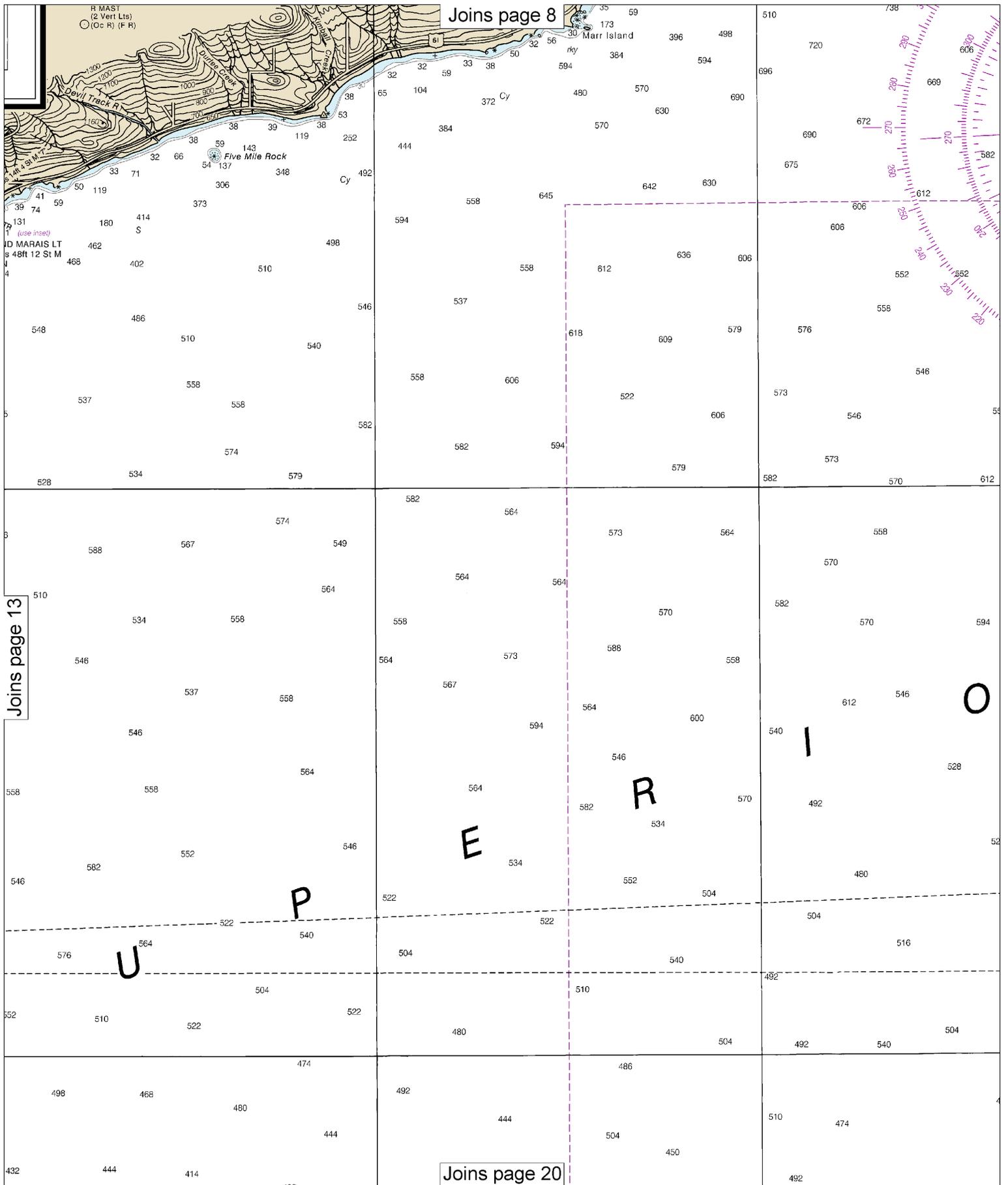
Note: Chart grid lines are aligned with true north.

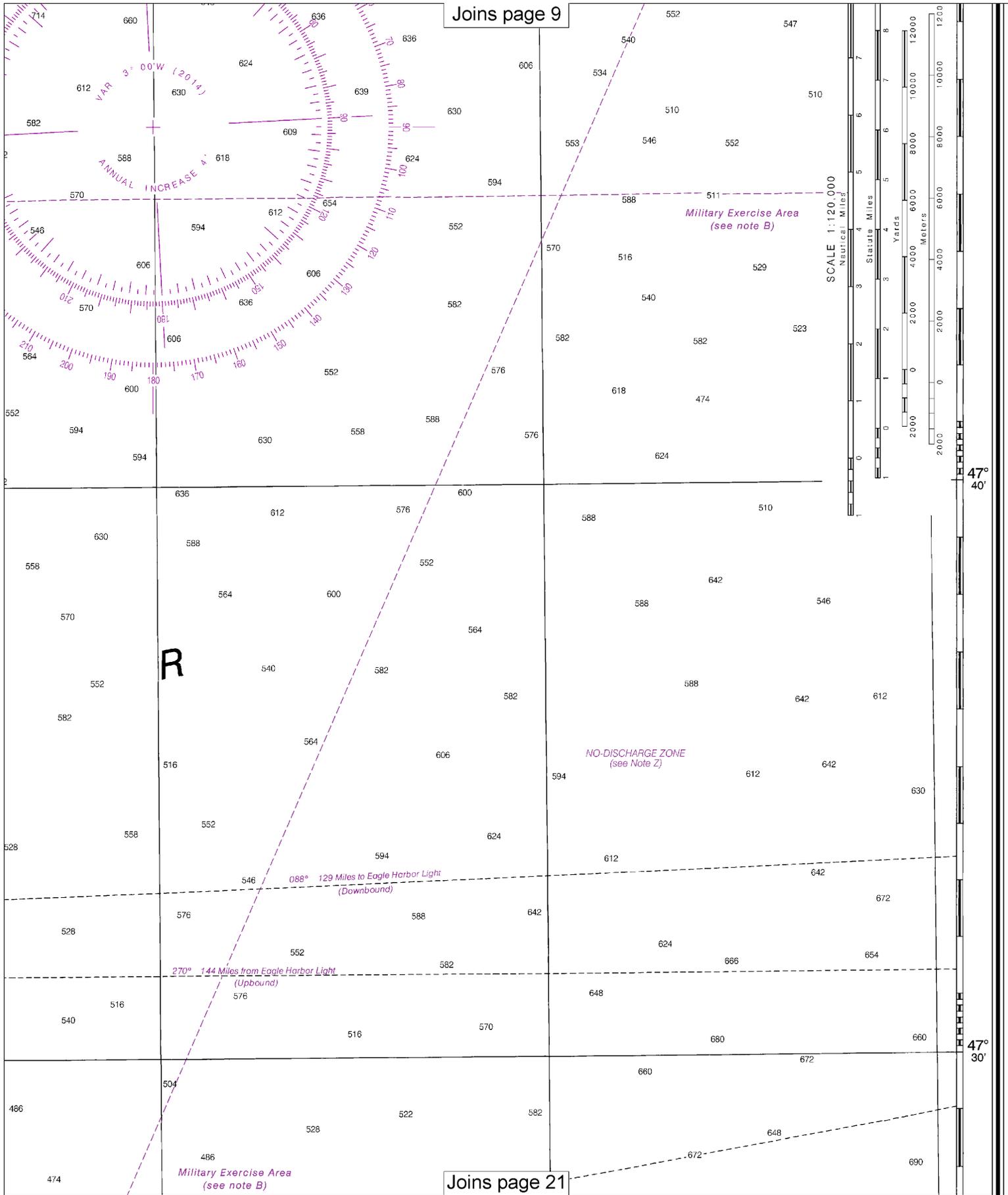
Printed at reduced scale.



See Note on page 5.







30'

Joins page 10

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

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.

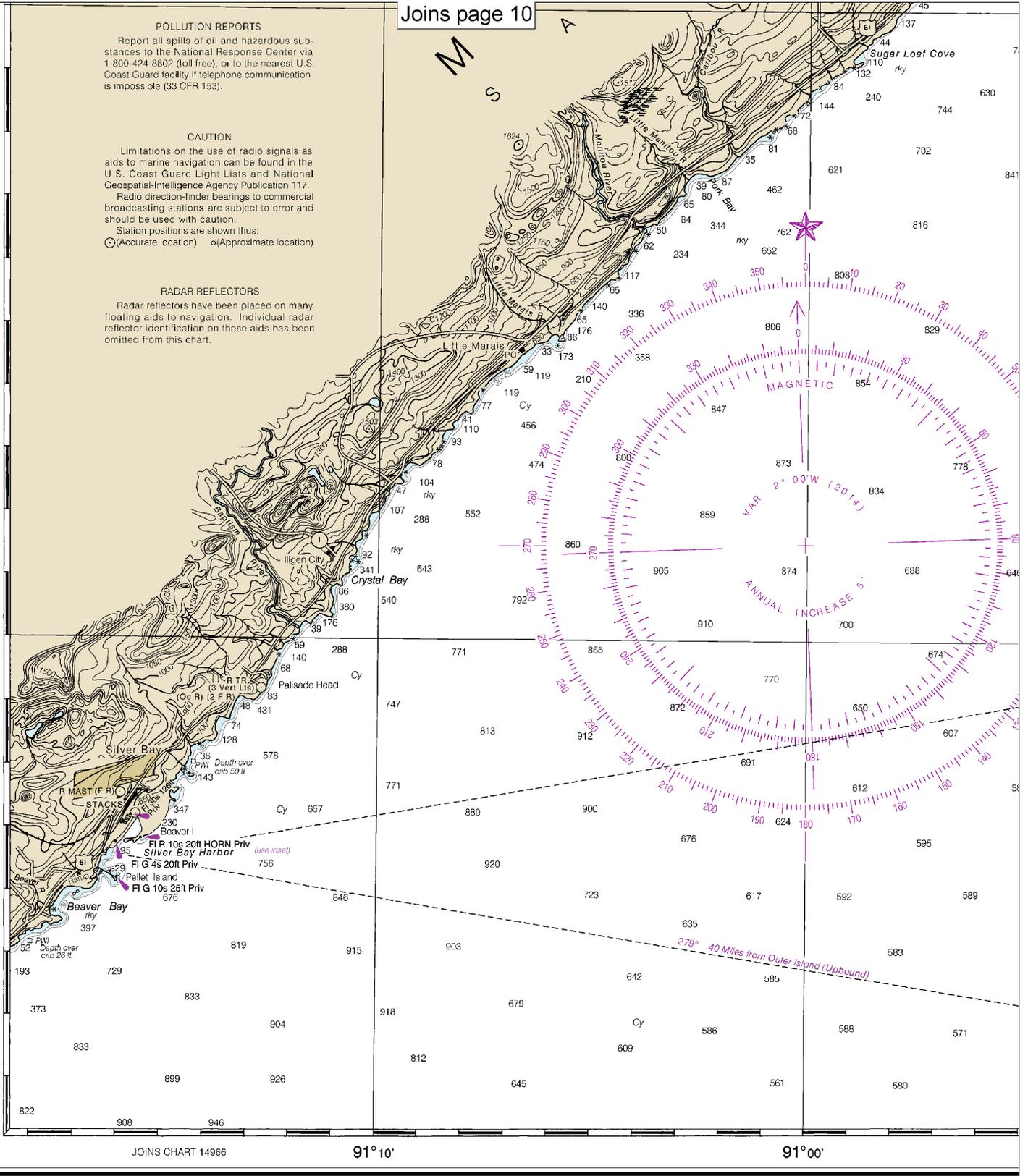
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
○ (Accurate location) ○ (Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

M
S
A



47°
20'

JOINS CHART 14966

91° 10'

91° 00'

24th Ed., Nov. 2014

14967

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.

Last Correction: 6/3/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

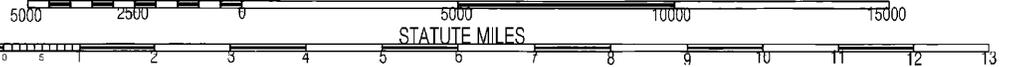
16

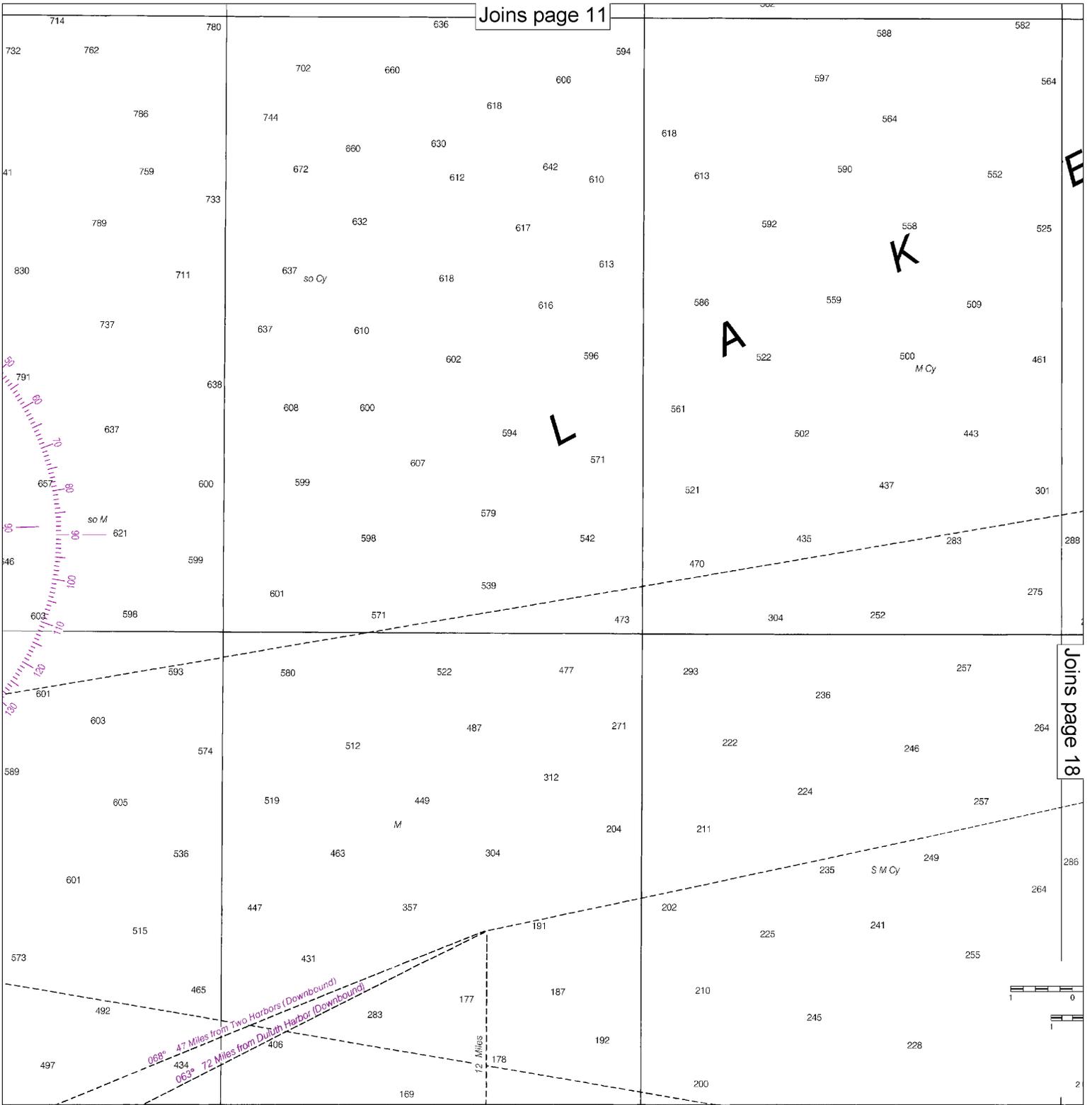
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

YARDS

See Note on page 5.



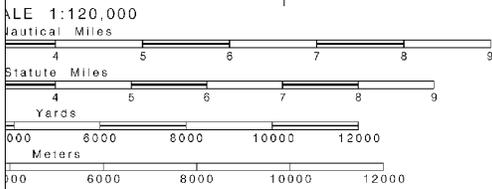
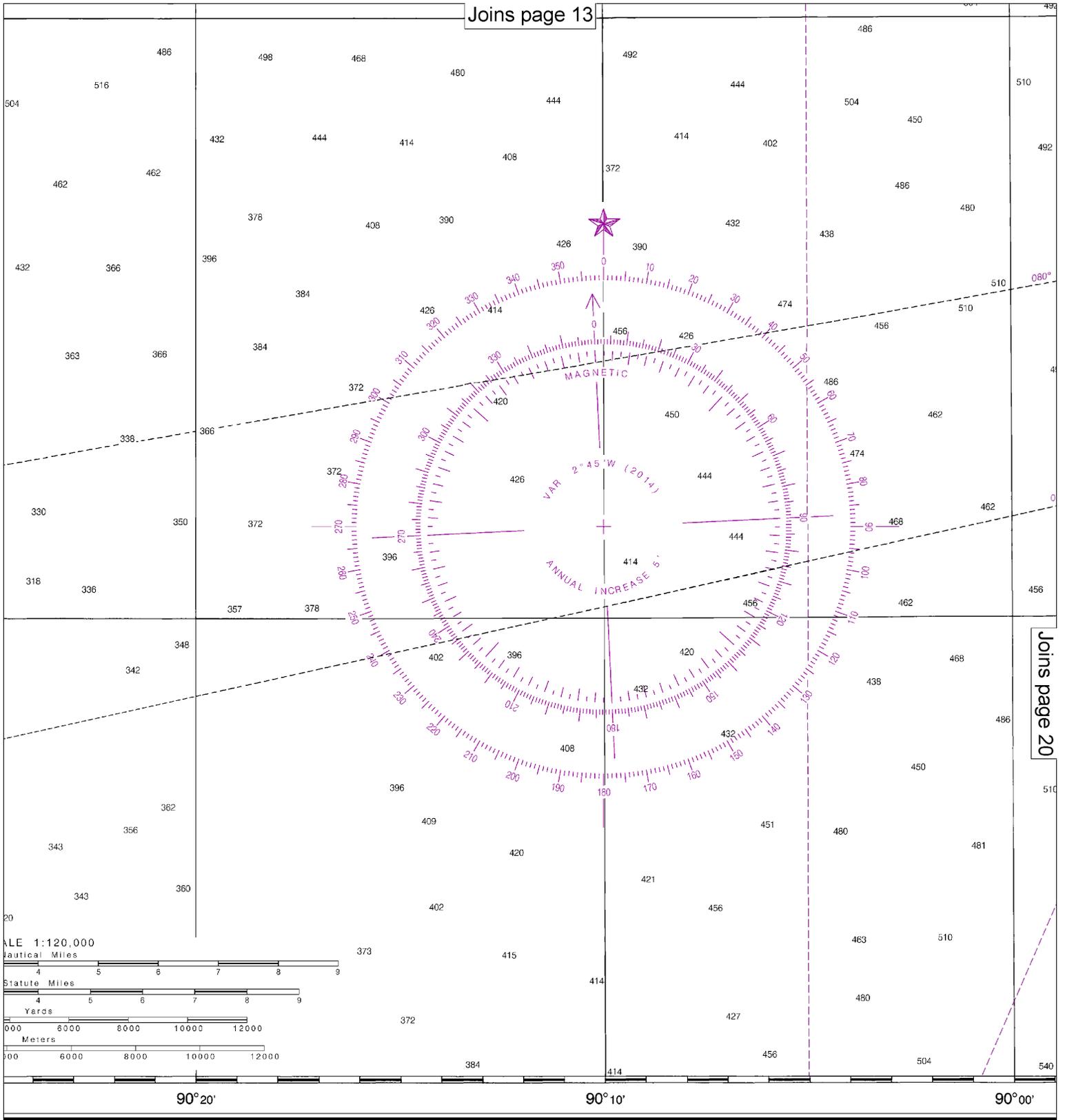


90° 50'

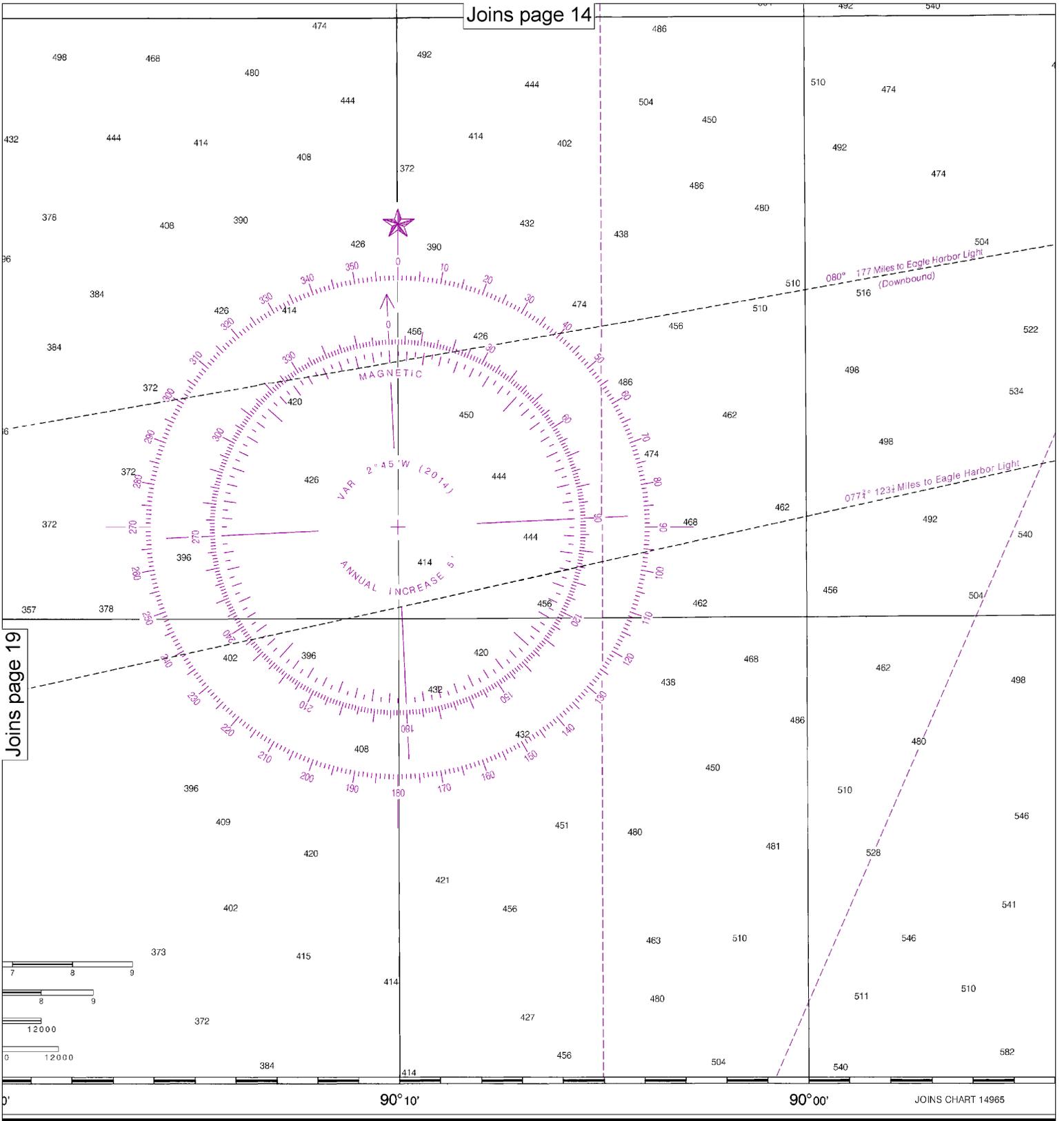
90° 40'

90° 30'

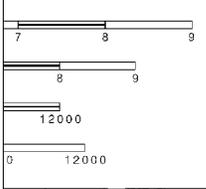
SOUNDINGS IN FEET



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



Joins page 19



0' 90° 10' 90° 00' JOINS CHART 14965

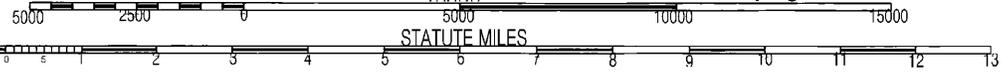
20

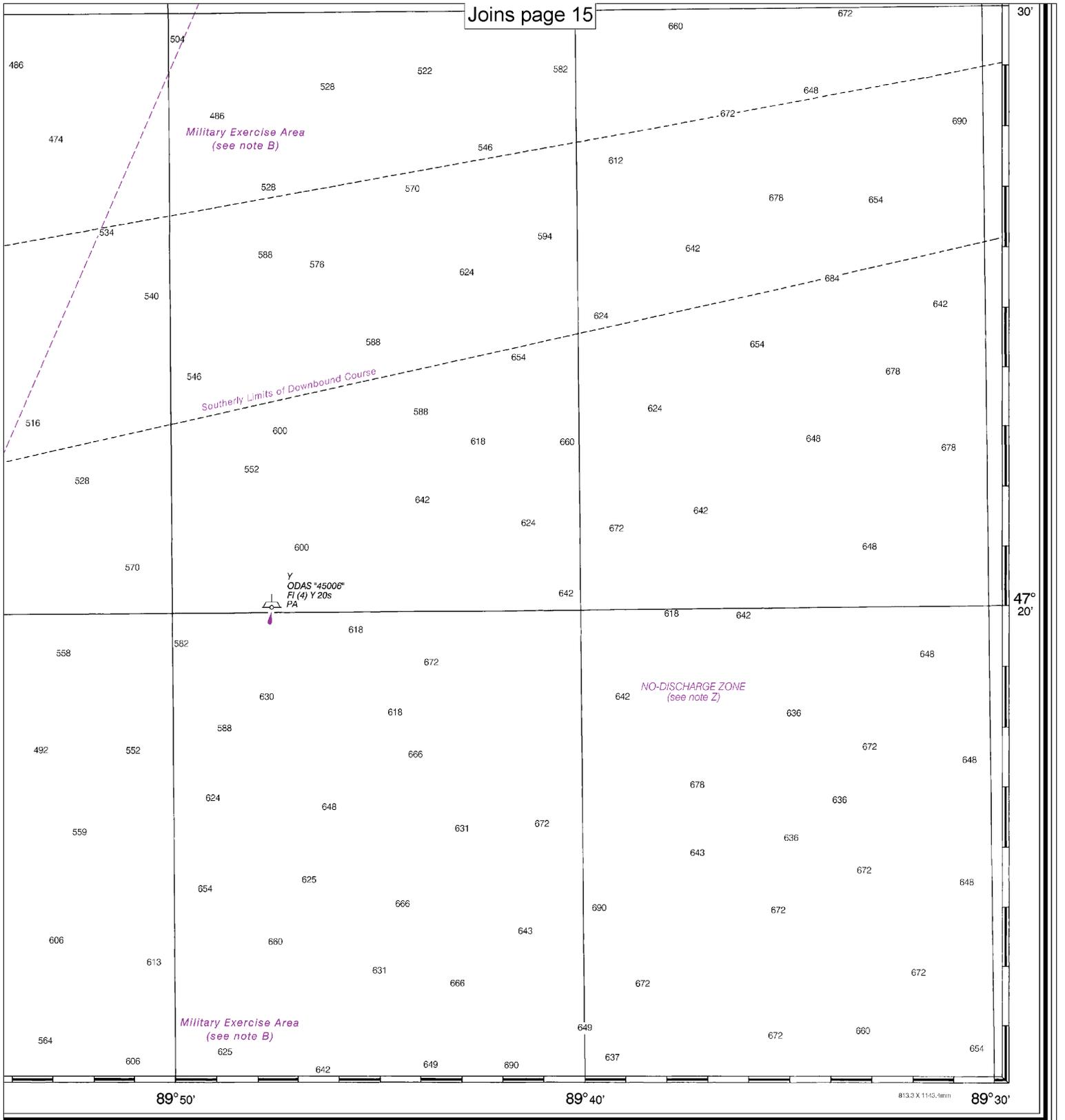
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

YARDS

See Note on page 5.

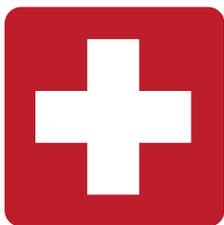




FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Beaver Bay to Pigeon Point
SOUNDINGS IN FEET - SCALE 1:120,000

14967



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.