

BookletChart™

Saginaw Bay

NOAA Chart 14863

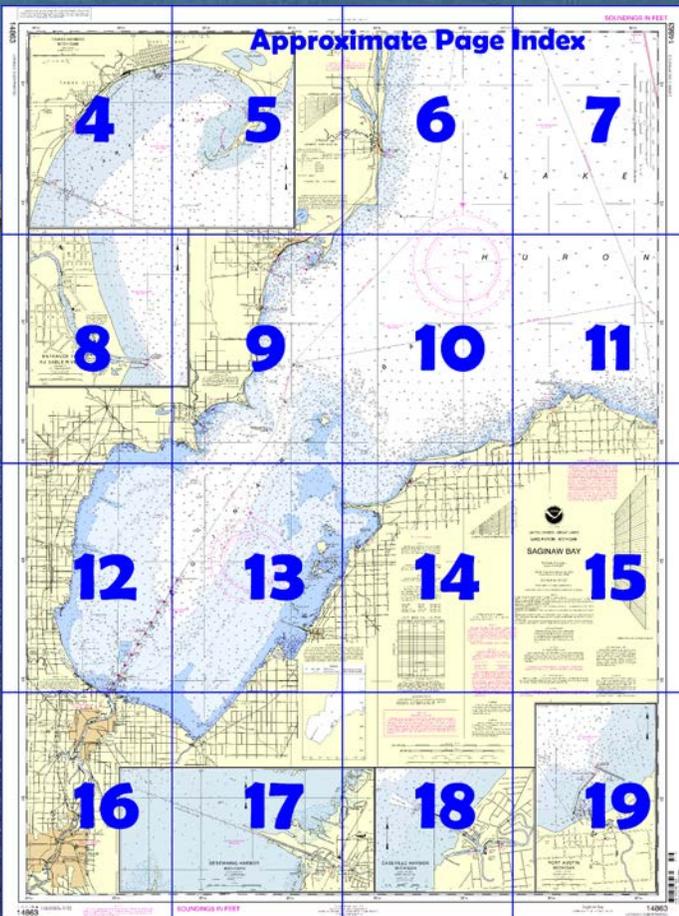


A reduced-scale NOAA nautical chart for small boaters

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.

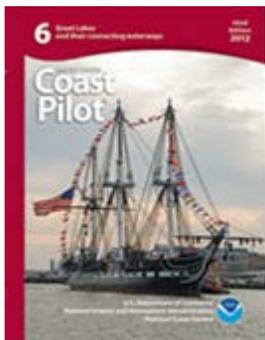
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=14863>



(Selected Excerpts from Coast Pilot)

From Points aux Barques Light to **Pointe aux Barques** (44°04.1'N., 82°57.9'W.), 9 miles NW, the shore continues low and wooded. Ledges and detached rocky spots render the stretch dangerous within 3 miles of shore. **Orion Rock**, covered 3 feet, is about 0.8 mile offshore 3 miles NW of Points aux Barques Light.

Grindstone City, Mich., a small settlement 5.5 miles NW of Points aux Barques Light, has a small-craft harbor formed by two

jetties. A privately dredged channel, marked by private buoys, leads along the NW side of the SE jetty, thence angles W between projections

on the inner sides of the jetties to a harbor basin. In 1977, the reported controlling depth was 4 feet in approach, entrance channel, and basin. **Port Austin, Mich.**, is a village and small-craft harbor at the mouth of **Bird Creek** about 2 miles SW of Points aux Barques on the shore of a shallow bay between that point and **Flat Rock Point** (44°02.7'N., 83°01.6'W.).

From Port Austin, the E shore of Saginaw Bay trends generally SW for 22 miles to **Sand Point**. From **Flat Rock Point**, 1.5 miles W of Port Austin, the shore consists of low bluffs for 3 miles SSW to the mouth of **Pinnebog River**, thence 3 miles W to **Hat Point**. The bluffs become wooded from Hat Point W for about 8 miles to **Oak Point** (43°58.5'N., 83°15.7'W.). At Oak Point the shore turns SW for 2 miles to Caseville Harbor, thence SW and W for 7 miles to the extremity of Sand Point.

Caseville Harbor, Mich., is at the mouth of the **Pigeon River**, about 18 miles SW of Points aux Barques and 6.5 miles ENE of Sand Point. A white spire in the town is prominent.

Sand Point (43°54.8'N., 83°24.0'W.) is a narrow point extending 4 miles W from about midpoint of the E shore of Saginaw Bay. Canals and approach channels have been privately dredged at the W end and along the S side of the point. Dockage for small craft is available in the canals, but the channels are subject to shoaling and caution is advised.

Quanicassee River, flowing into the SE corner of Saginaw Bay, is practically closed by the bars at its mouth. Depths less than 6 feet extend 2 miles off the mouth. W of the river mouth, the 6-foot contour extends 5 miles offshore and then narrows to about 1 mile at the mouth of Saginaw River. The entrance to Quanicassee River is marked by private seasonal buoys.

In 1977, it was reported that the **Tittabawassee River** was navigable by small boats for only about 1.5 miles above Green Point. Above that point stumps, sunken logs, and snags severely obstruct the river.

The **Shiawassee River**, near Green Point, has an available depth of 5 to 6 feet, and the crooked channel across Shiawassee Flats is 15 or 16 feet deep in many places. Above the flats, the Shiawassee River is very narrow and crooked, but is navigable for small boats to the junction with **Bad River**, and thence the Bad River to the village of St. Charles, 13 miles from Green Point.

Saginaw River Coast Guard Station is on the E side of the river about 1.7 miles above the mouth.

Fluctuations of water level.—The water level in Saginaw Bay is subject to sudden changes due to the wind. A NE gale driving water into the bay can raise the level at the mouth of Saginaw River 3 to 4 feet, sometimes in less than an hour, while a SW wind sometimes lowers the level sufficiently to cause large vessels to ground in the channel.

Caution.—The course across the mouth of Saginaw Bay is dangerous in heavy weather. Tawas Bay, on the W side of the mouth, has good anchorage with protection from all but SW winds.

Numerous charted and uncharted fish net stakes and structures, some submerged, are in Saginaw Bay.

Fluctuations of water level.—Each year the normal variation in level between the highest and lowest mean monthly stages in the Saginaw River is about 3 feet. In addition, spring floods and excessive rains may cause an abnormal rise of as much as 14 feet in the river at Saginaw. Occasionally a considerable change takes place within a few hours, resulting from the raising or lowering of Saginaw Bay by violent NE or SW winds. Water level information for the river may be obtained by contacting Saginaw Coast Guard Station on VHF-FM channel 16.

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

RCC Cleveland

Commander

9th CG District

(216) 902-6117

Cleveland, OH

Table of Selected Chart Notes

Pump-out facilities

NOTE F

Fog signal is activated by keying radio mike, CH 79 VHF 5 times within 5 seconds. Horn will remain active for 30 minutes.

POINT LOOKOUT HARBOR (AU GRES RIVER)

A controlling depth of 6 feet was available from North Pier Light 1/4 to 900 yards past the end of the parallel piers and thence 3/4 feet for a distance of 1300 yards and thence 2 1/2 feet to the end of the project. Jun 2004-Sep 2006

KAWKAWLIN RIVER

The entrance is subject to continual change. Entrance buoys are not shown because they are frequently shifted in position. Due to shoaling at the river's mouth, conditions may be unsafe for navigation without local knowledge.

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.

NOTE B WARNING

Unexploded ordnance may exist in this area. Anyone finding unexploded ordnance should notify the nearest U.S. Coast Guard or law enforcement facility.

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.

CAUTION

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

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 0.061' northward and 0.172' eastward to agree with this chart.

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)

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.

NOTE E

CAUTION

Buoy positions are approximate and buoys may be relocated as necessary to best mark the channel limits.

NOTE D

Mariners are warned that numerous uncharted stakes and fishing structures, some submerged, may exist in the area of this chart. Such structures are not charted unless known to be permanent.

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.

Alpena, MI	KIG-83	162.550 MHz
Clio, MI	KIH-29	162.400 MHz
Sandusky, MI	WNG-582	162.450 MHz
West Branch, MI	KXI-33	162.450 MHz

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.

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.

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.

CAUTION POTABLE WATER INTAKE

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.

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

SOURCE DIAGRAM

Most of the hydrography identified by the letter 'J' 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 to Chapter 1, United States Coast Pilot.

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.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8302 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION CHANGES in BUOYAGE

Mariners are advised that authorized aids to navigation are being changed to conform to maritime standards of the International Association of Lighthouse Authorities Maritime Buoyage System, Region B. Significant changes are: black port hand buoys to green; black and white vertically striped buoys to red and white vertically striped buoys; and lateral lights from white to red and green as appropriate. Changes to aids to navigation will be announced in the National Geospatial-Intelligence Agency weekly Notice to Mariners and the U.S. Coast Guard Local Notice to Mariners.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....577.5ft.
 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.

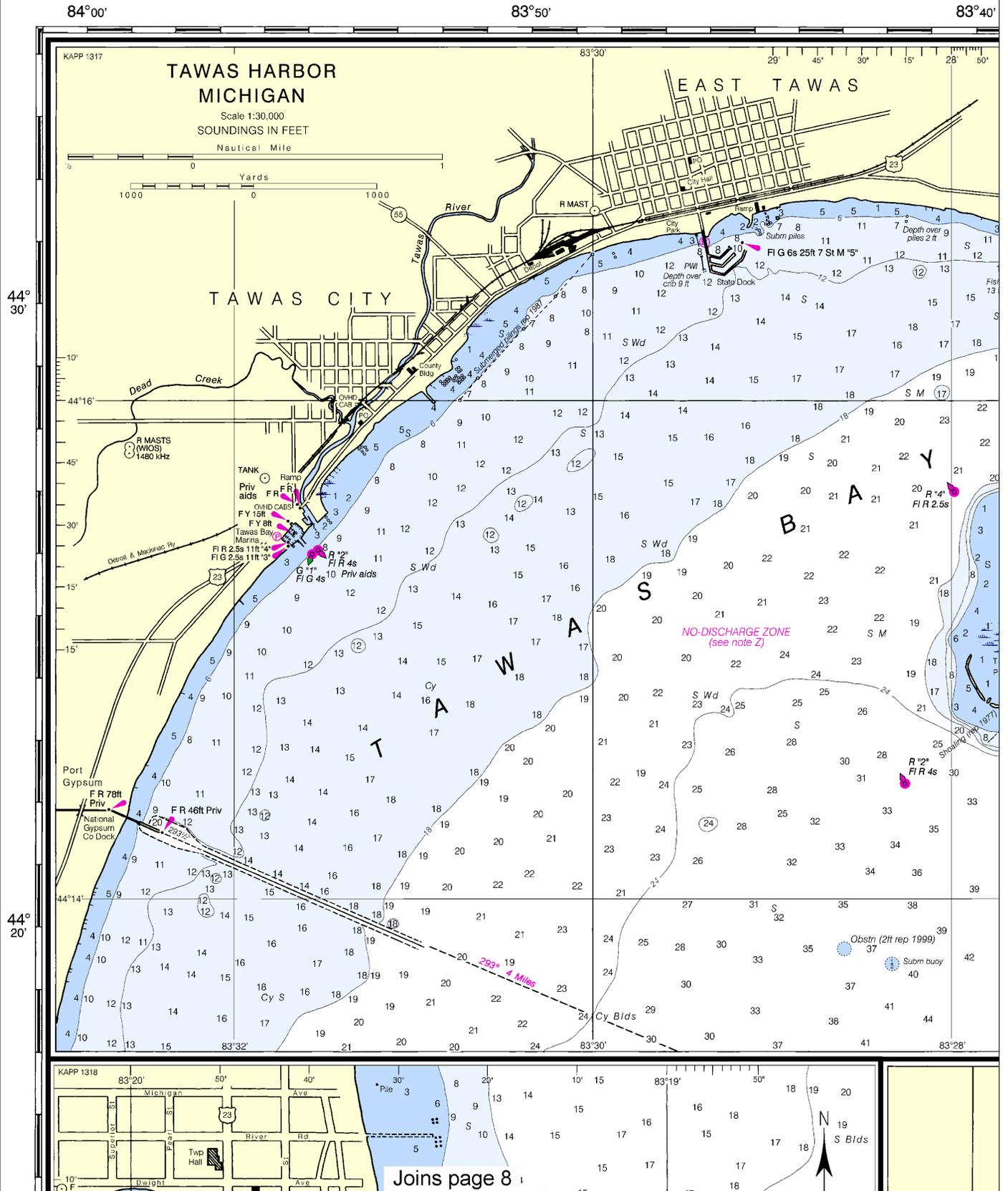
AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

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.

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.

14863

LORAN-C OVERPRINTED

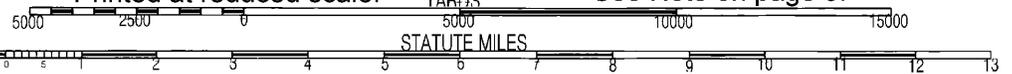


Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

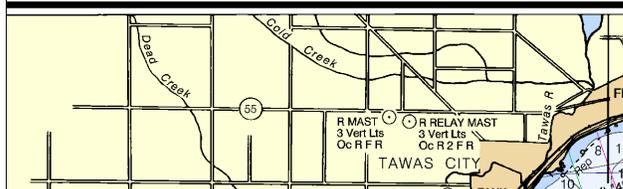
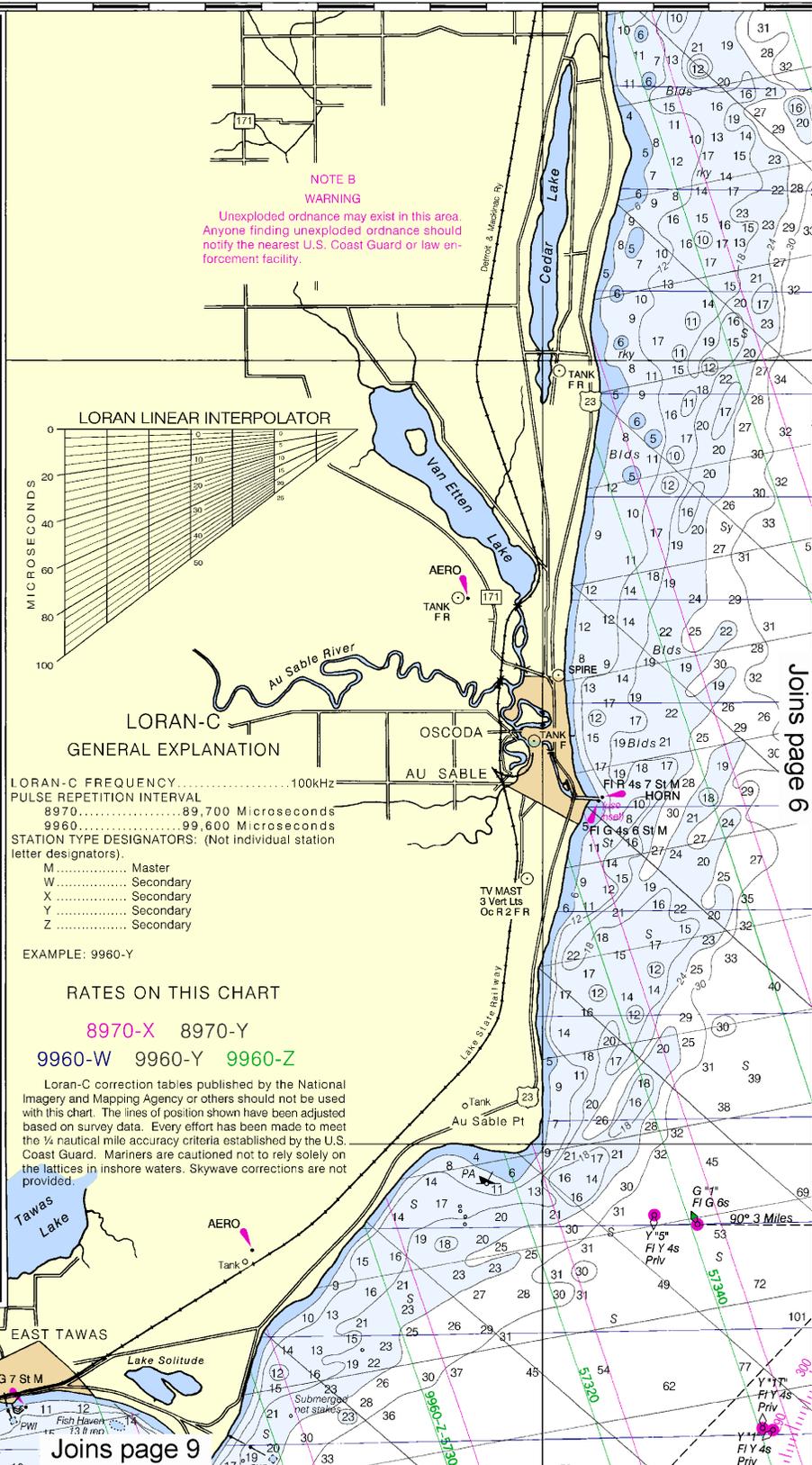
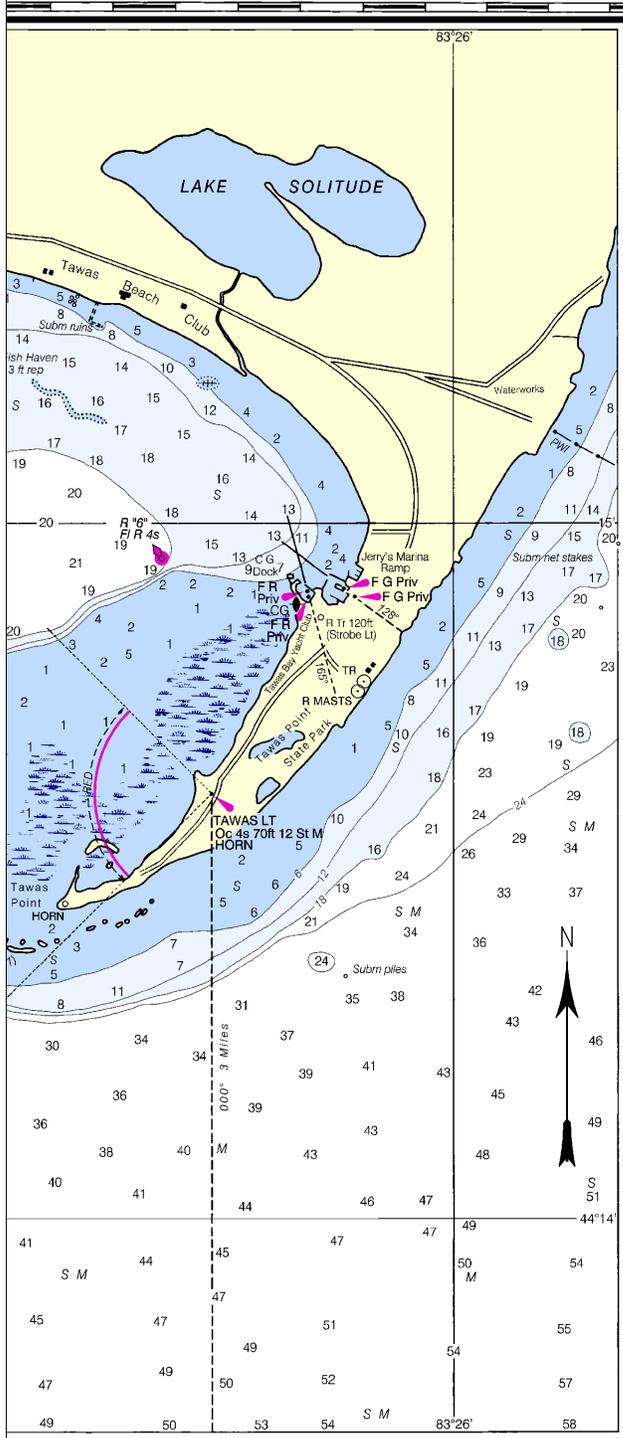
See Note on page 5.

4



83°30'

83°20'



Joins page 6

Joins page 9

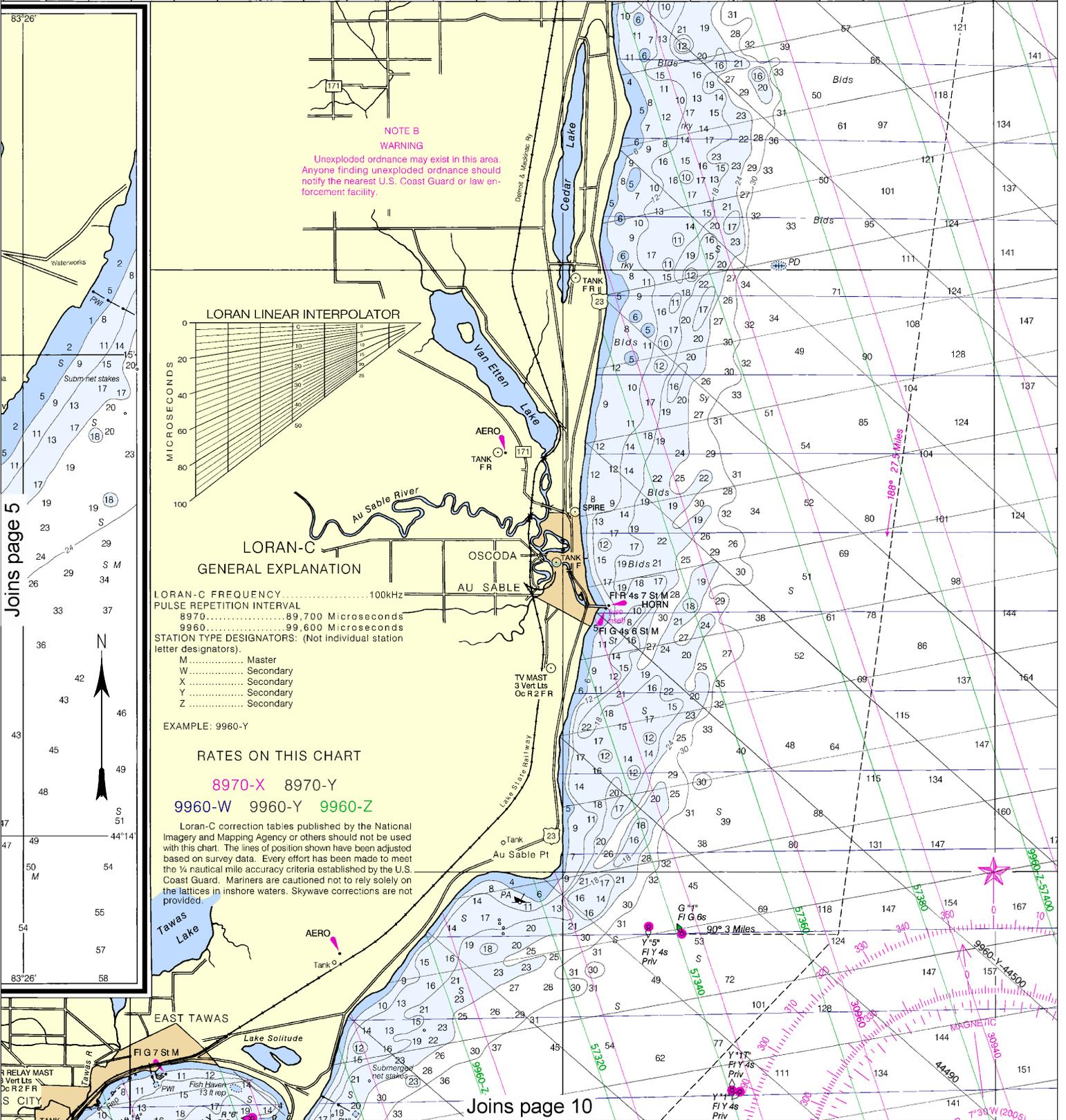
This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:160000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



83°30'

83°20'

83°10'



Note: Chart grid lines are aligned with true north.

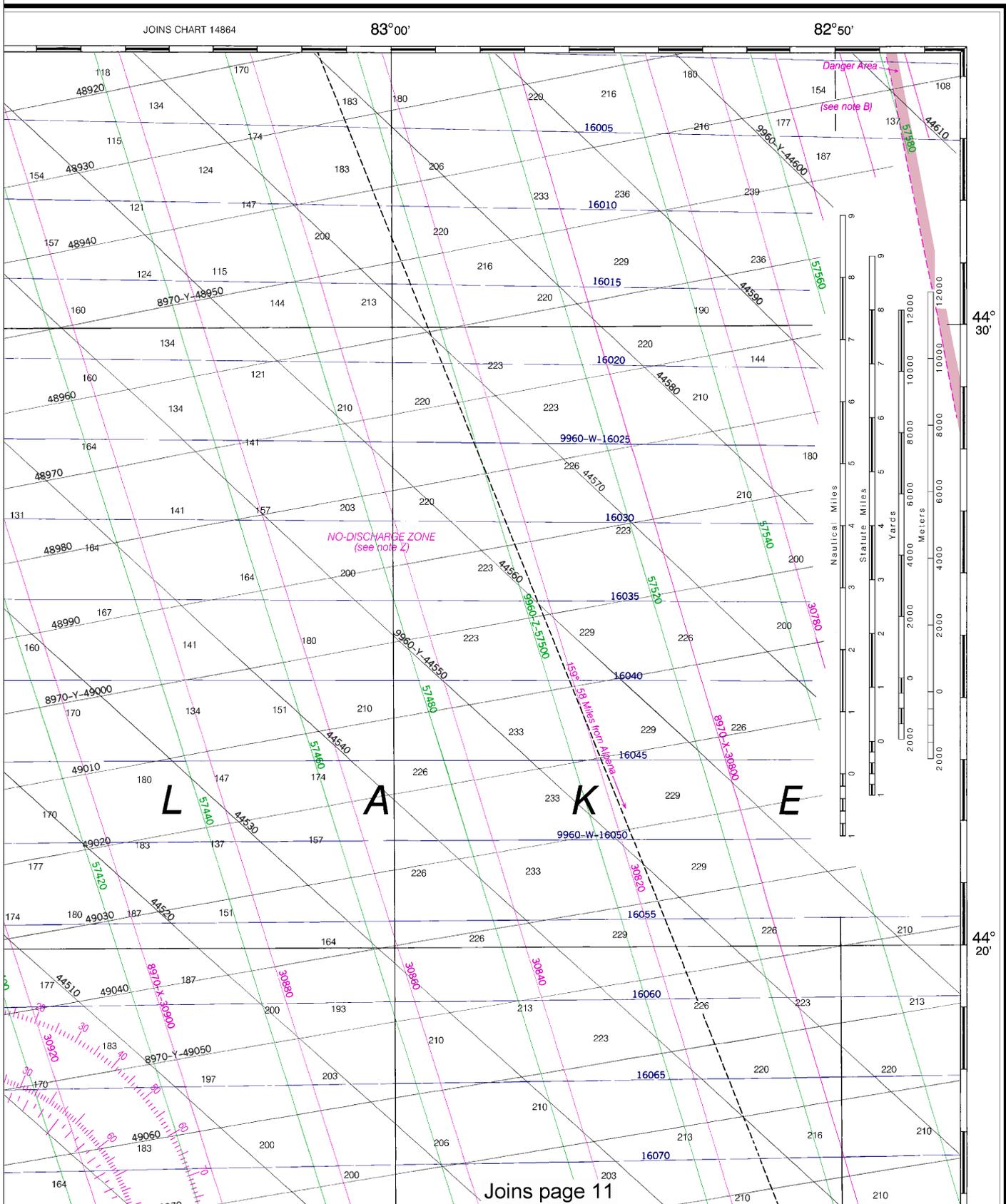
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YARDS

See Note on page 5.



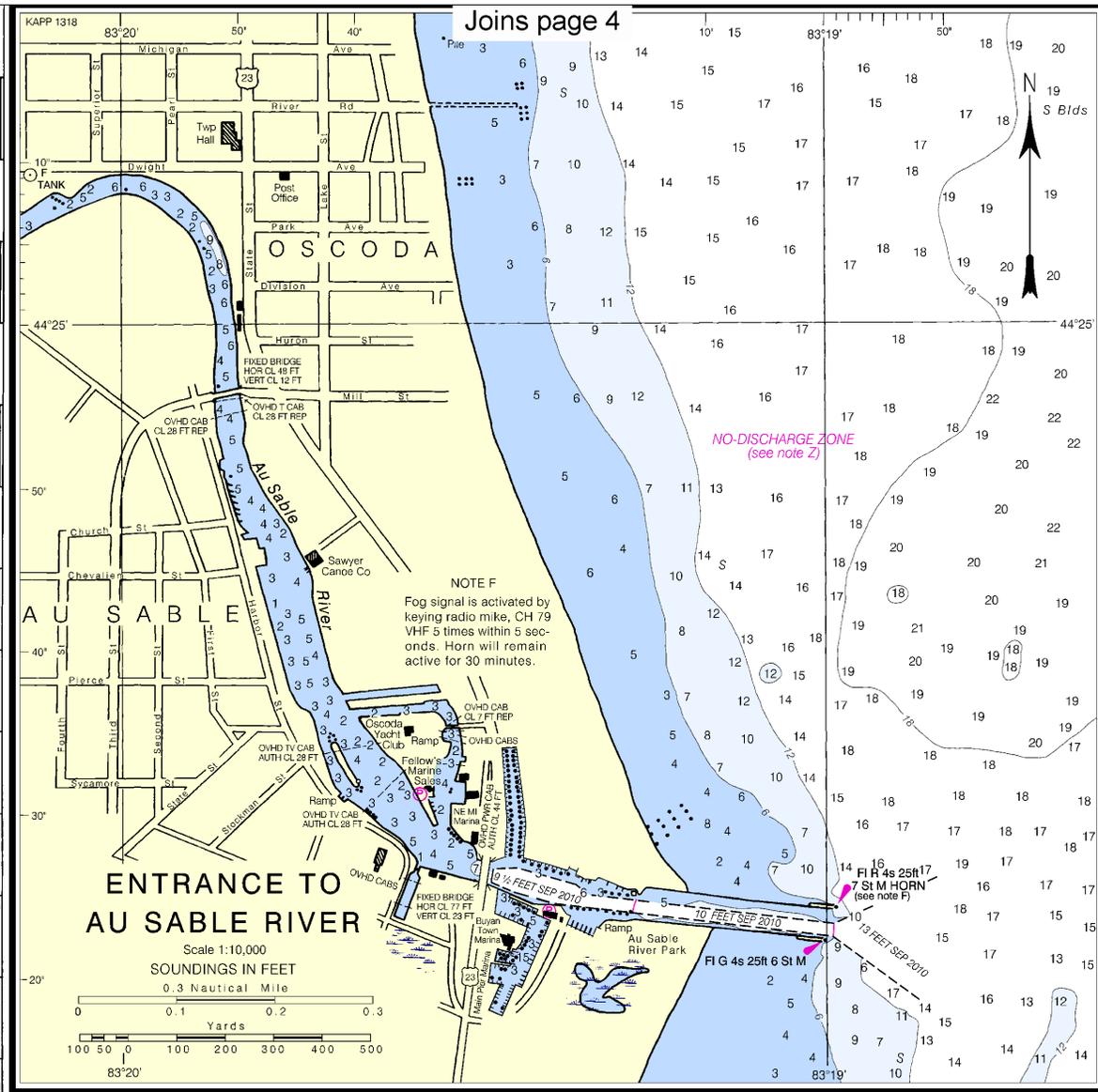
SOUNDINGS IN FEET



14863
LORAN-C OVERPRINTED

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 0413 1/22/2013,
NGA Weekly Notice to Mariners: 0413 1/26/2013,
Canadian Coast Guard Notice to Mariners: 0113 1/25/2013.





8

Note: Chart grid lines are aligned with true north.

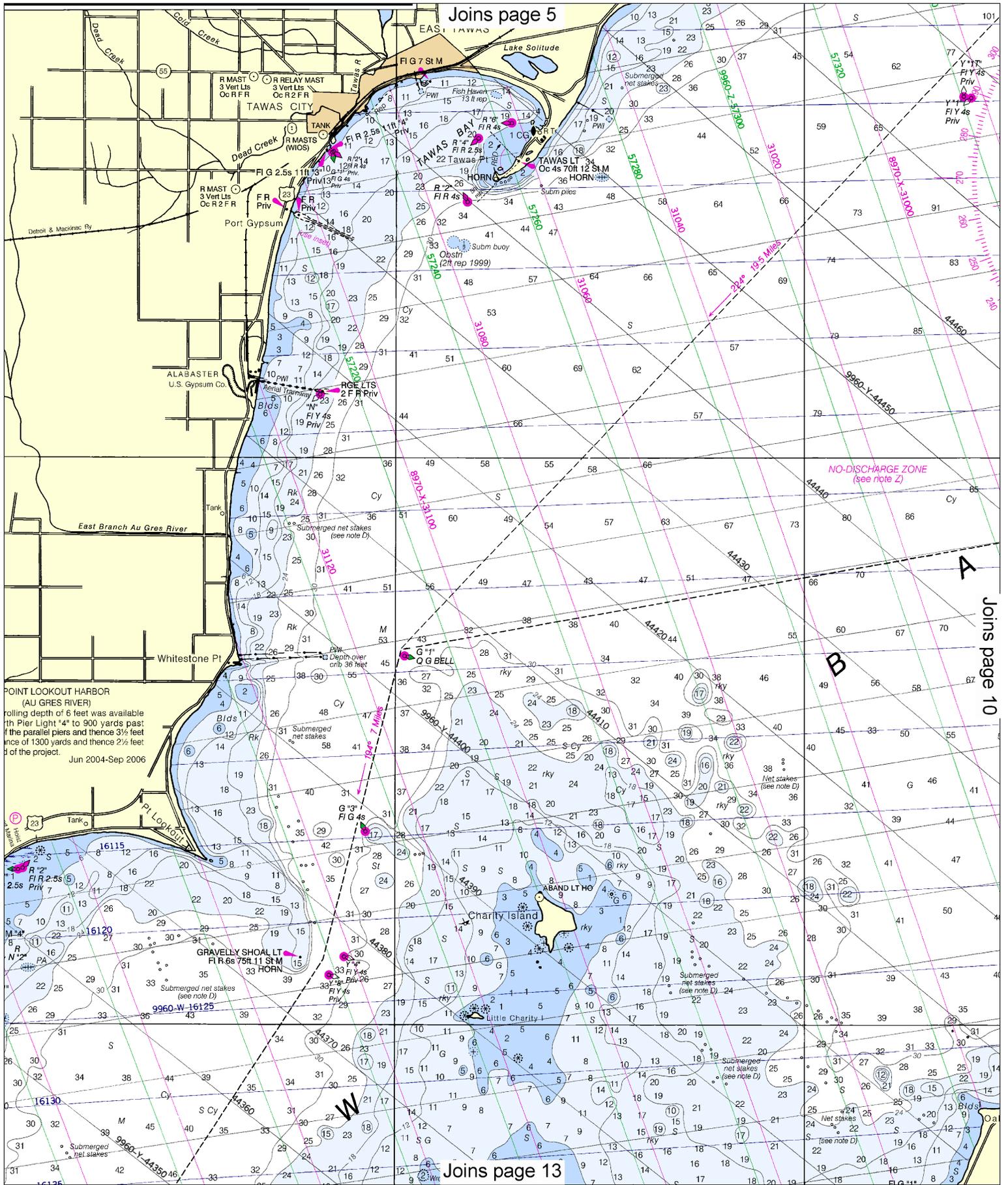
Printed at reduced scale.



See Note on page 5.

Joins page 12

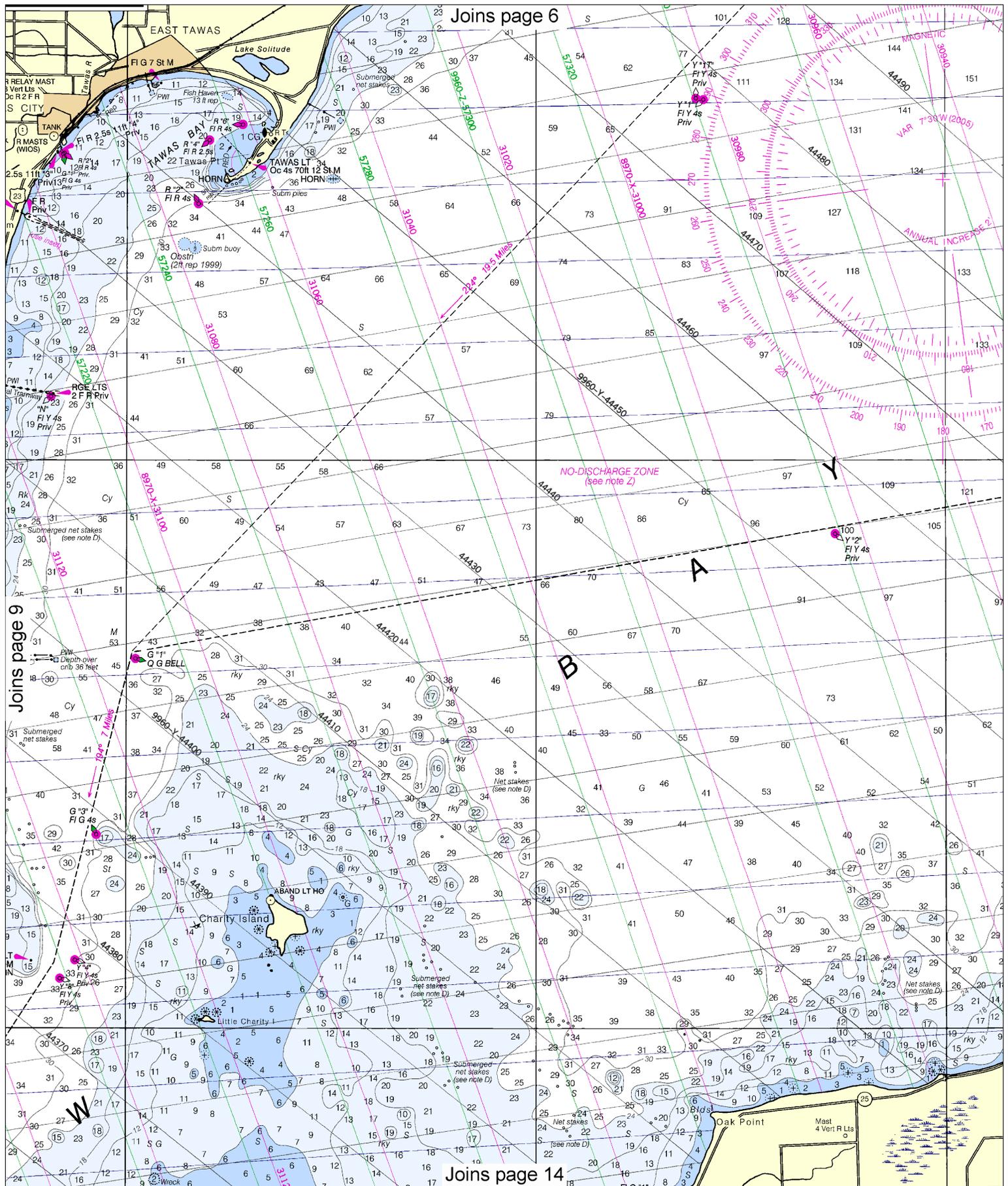
Joins page 4



POINT LOOKOUT HARBOR
 (AU GRES RIVER)
 rolling depth of 6 feet was available
 with Pier Light "4" to 900 yards past
 the parallel piers and thence 3 1/2 feet
 in case of 1300 yards and thence 2 1/2 feet
 in case of 1000 yards of the project.
 Jun 2004-Sep 2006

NO-DISCHARGE ZONE
 (see note 2)

Net stakes
 (see note D)



Joins page 6

Joins page 9

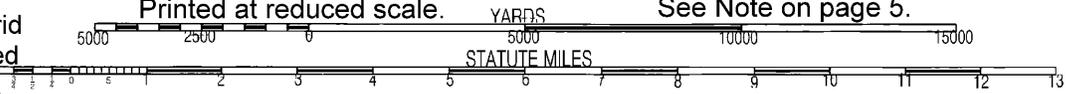
Joins page 14

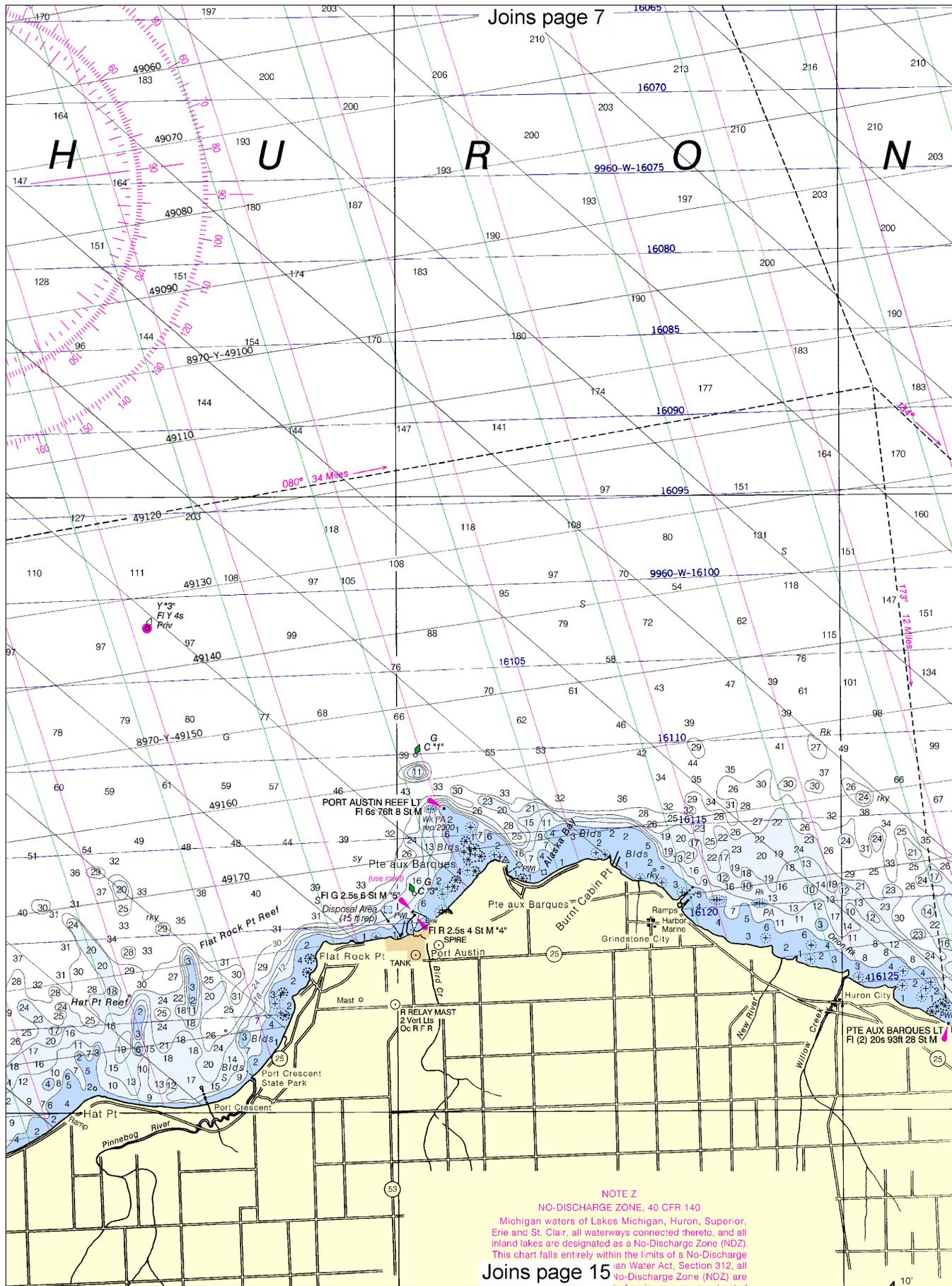
10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

See Note on page 5.





44° 10'

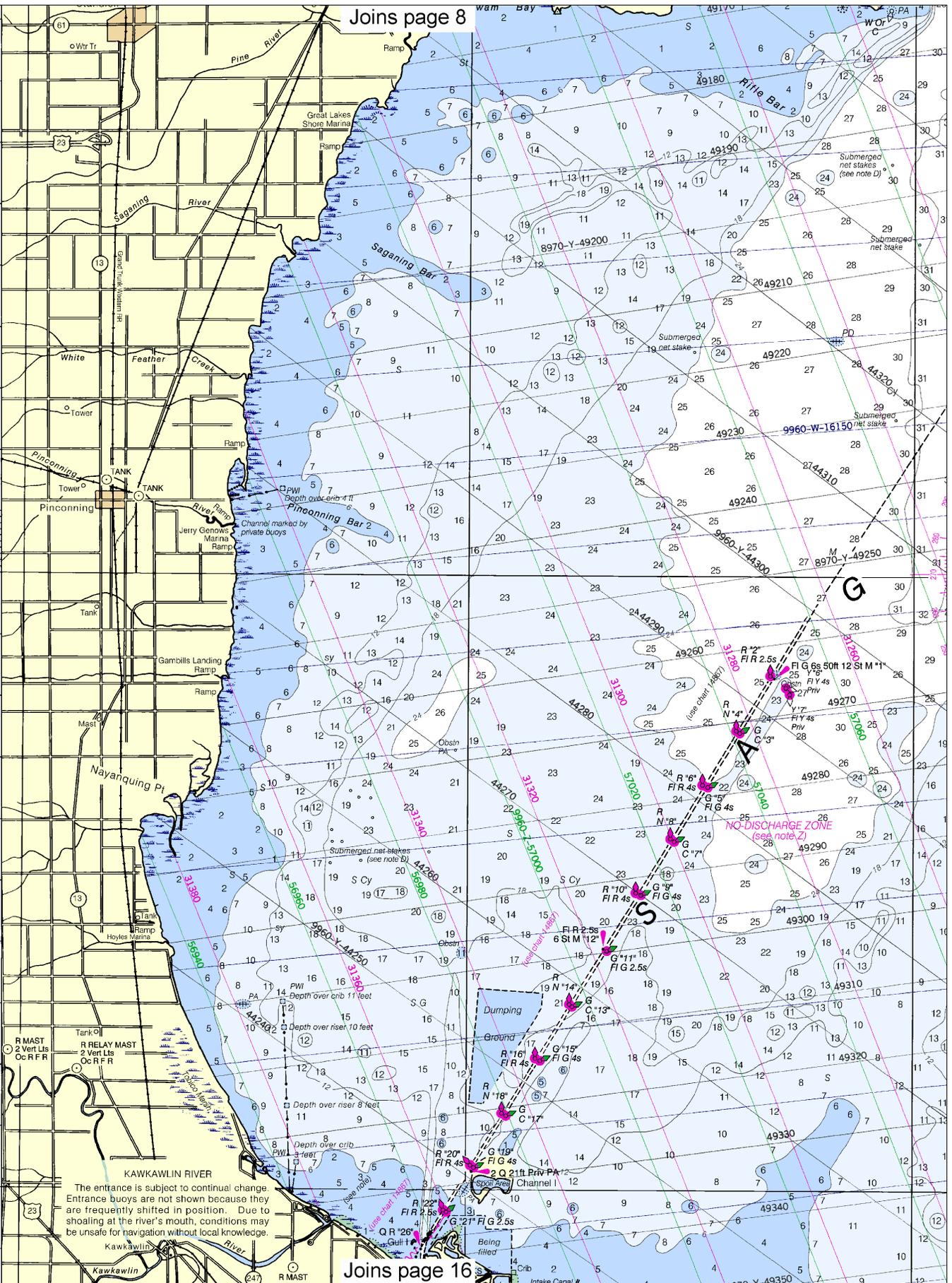
JOINS CHART 14862

44° 00'

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) as defined in the Clean Water Act, Section 312, all No-Discharge Zone (NDZ) are

43° 50'

43° 40'



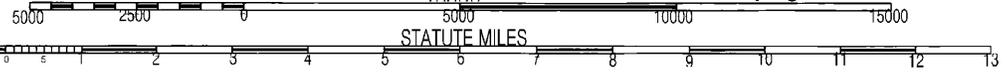
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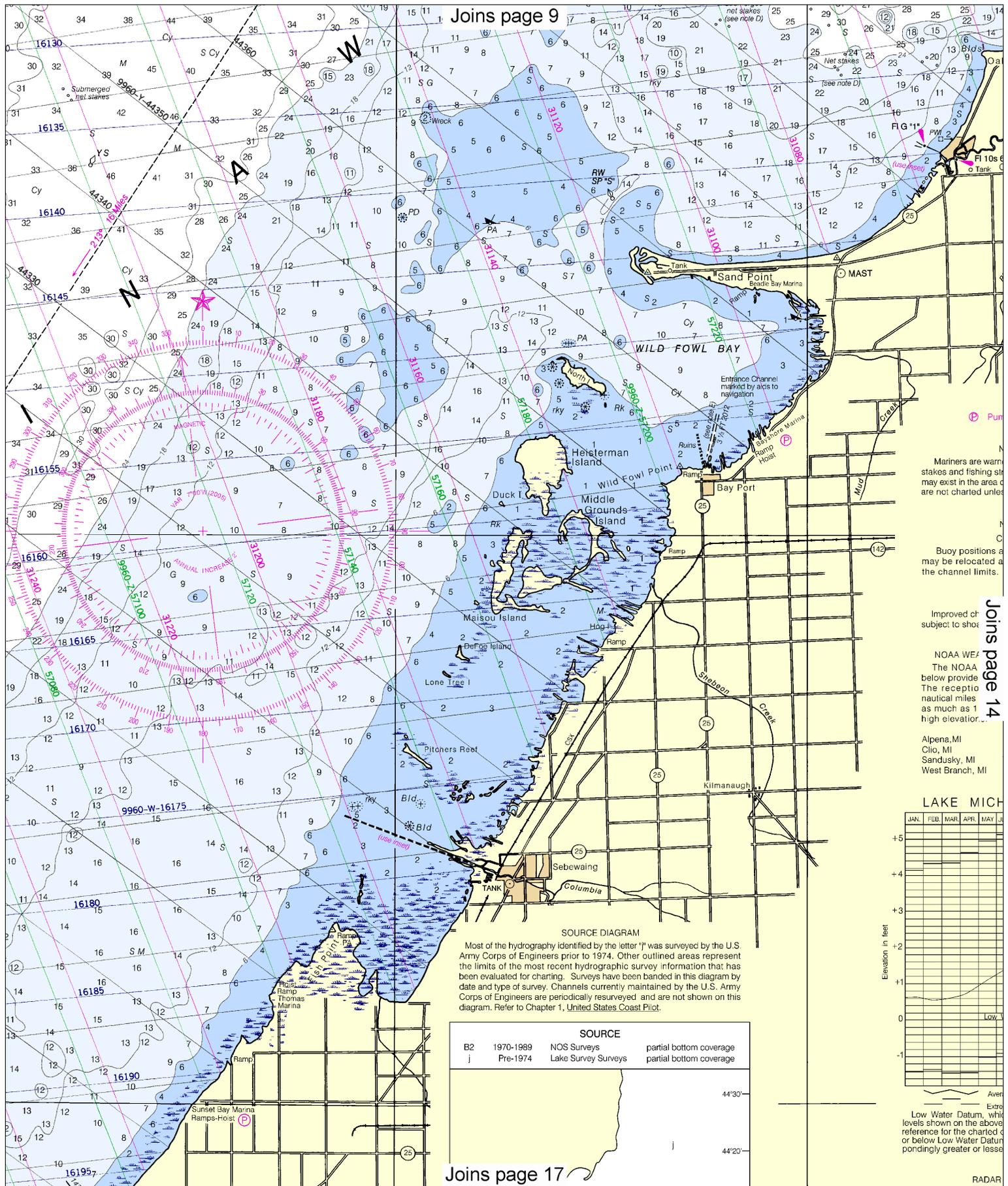
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YARDS

See Note on page 5.





Joins page 9

Joins page 14

Joins page 17

Mariners are warned that stakes and fishing stakes may exist in the areas shown and are not charted unless otherwise noted.

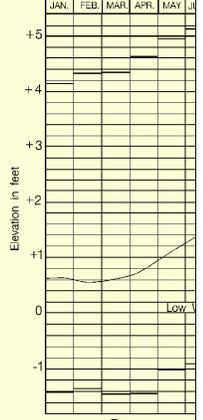
Buoy positions are subject to change and may be relocated at the discretion of the Coast Guard.

Improved charting subject to change.

NOAA WEF The NOAA charts below provide the reception nautical miles as much as 1 high elevation.

- Alpena, MI
- Clio, MI
- Sandusky, MI
- West Branch, MI

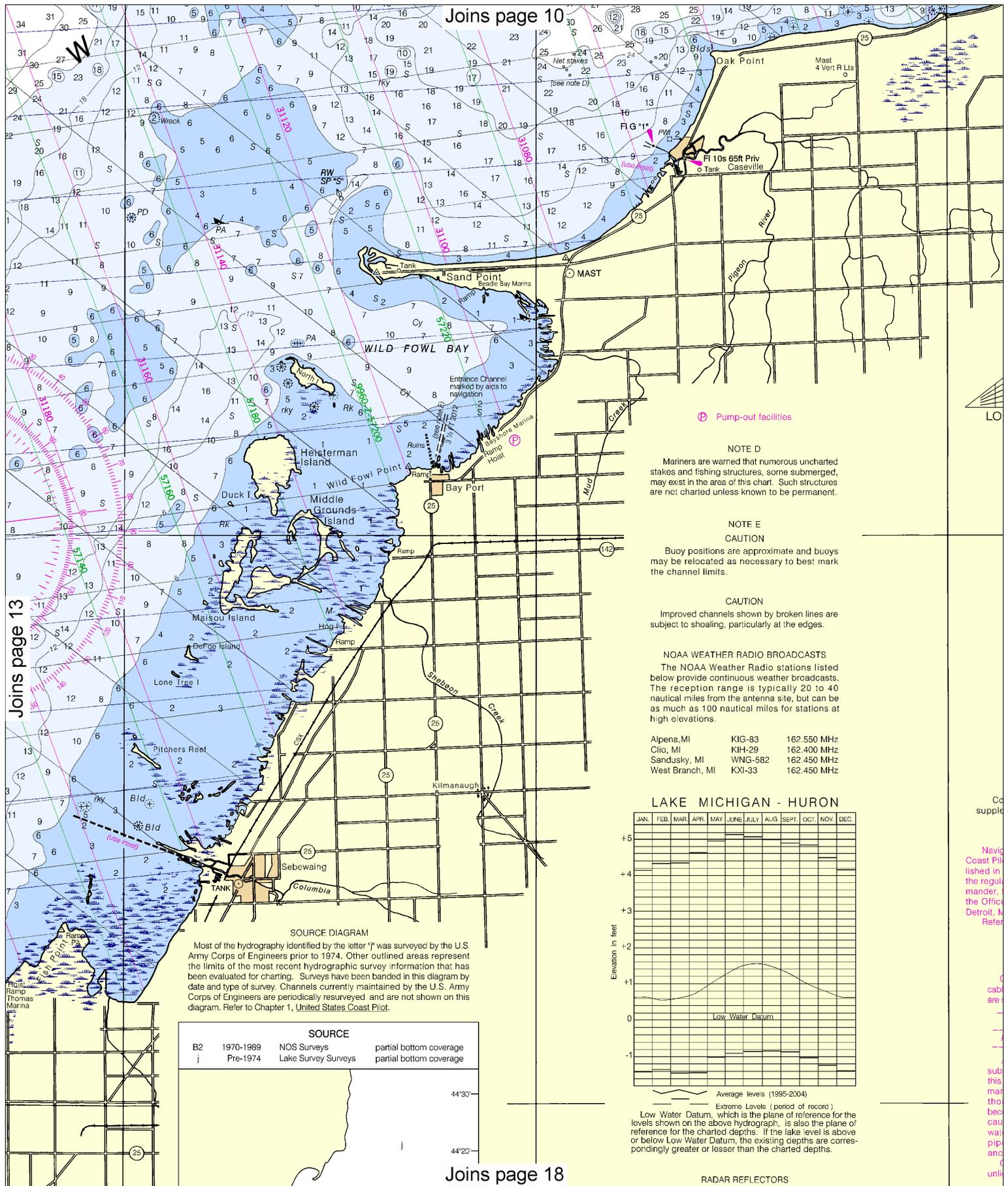
LAKE MICH



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 to Chapter 1, United States Coast Pilot.

SOURCE			
B2	1970-1989	NOS Surveys	partial bottom coverage
j	Pre-1974	Lake Survey Surveys	partial bottom coverage

Low Water Datum, which levels shown on the above reference for the charted depth or below Low Water Datum pondingly greater or less.



Joins page 10

Joins page 13

Joins page 18

Pump-out facilities

NOTE D

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NOTE E

CAUTION

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CAUTION

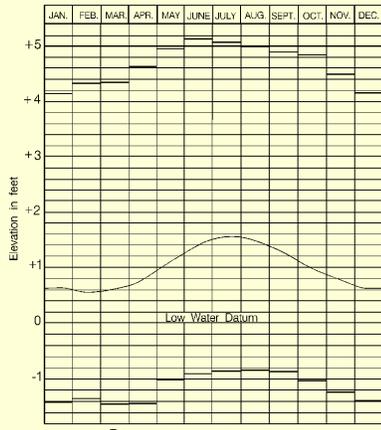
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LAKE MICHIGAN - HURON



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RADAR REFLECTORS

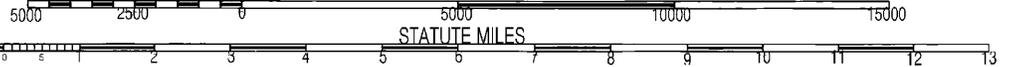
14

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Printed at reduced scale.

YARDS

See Note on page 5.



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/coast/regulatory/vessel_sewage/.



UNITED STATES - GREAT LAKES
LAKE HURON - MICHIGAN

SAGINAW BAY

Polyconic Projection
Scale 1:120,000

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

For Symbols and Abbreviations see Chart No. 1

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

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....577.5ft.
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.
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.

ACKNOWLEDGMENT

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

CAUTION

POTABLE WATER INTAKE

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.

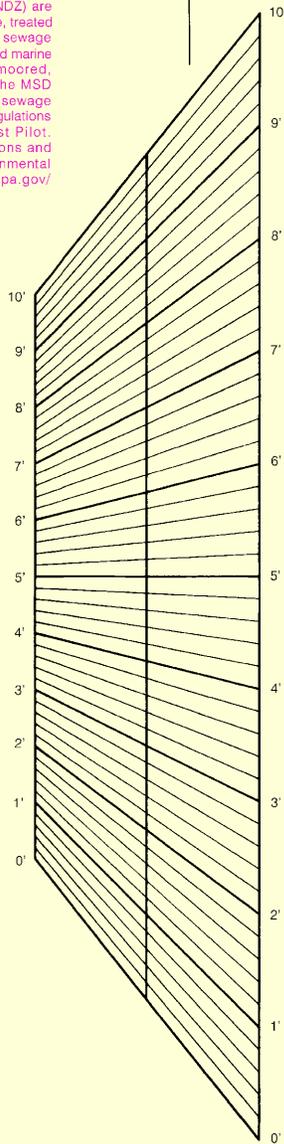
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WARNING

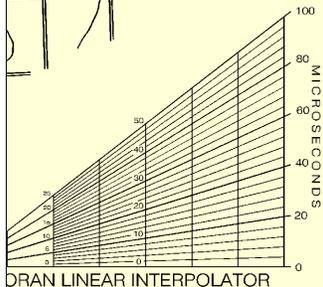
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Latitude and Longitude Plotting Interpolator

43° 50'

43° 40'



GRAPHICAL LINEAR INTERPOLATOR

SUPPLEMENTAL INFORMATION

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

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 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 Michigan. Refer to charted regulation section numbers.

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HORIZONTAL DATUM

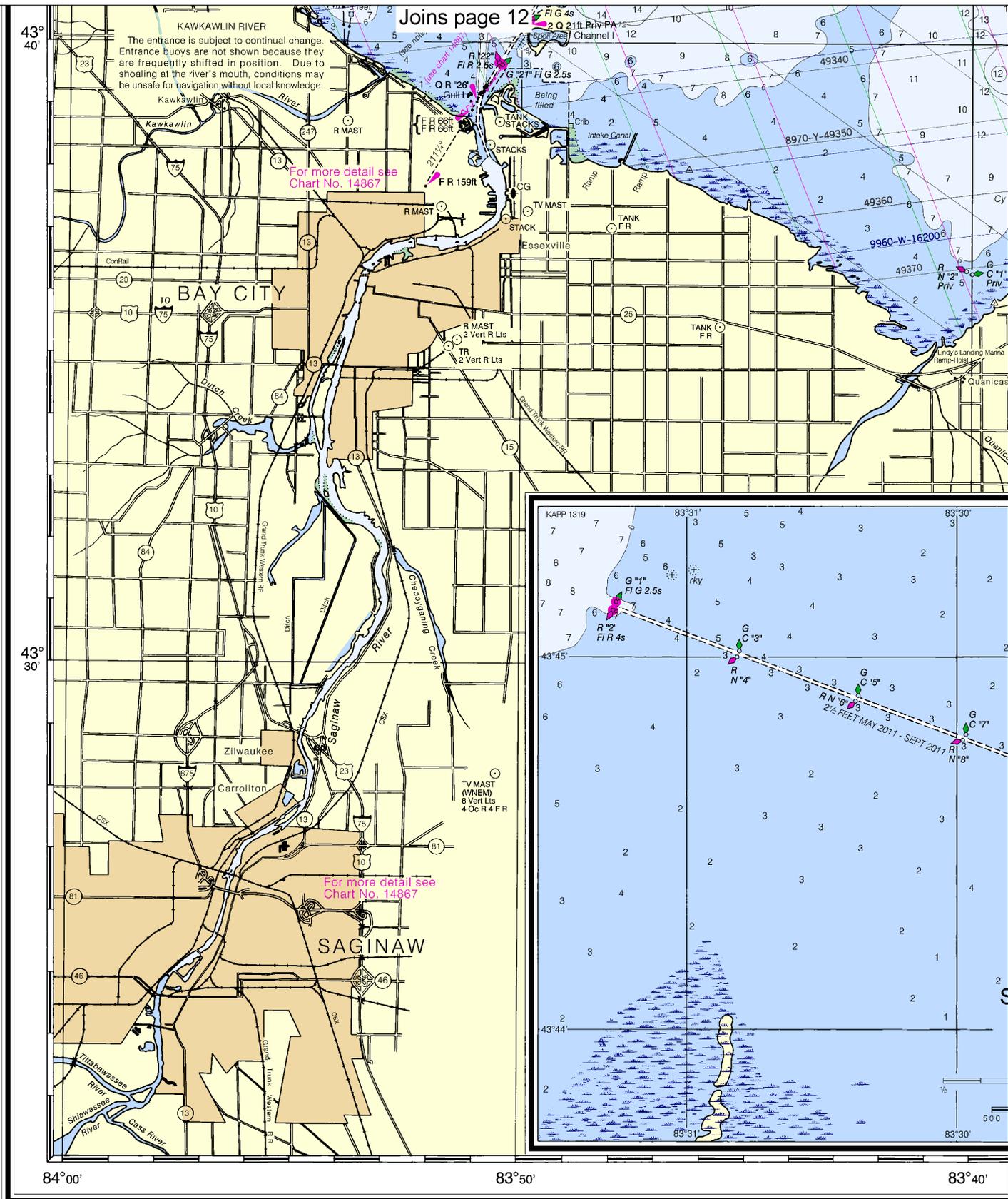
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Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

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



31st Ed., Oct. / 05 ■ Corrected through NM Oct. 08/05
 Corrected through LNM Oct. 04/05

14863

LORAN-C OVERPRINTED

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.

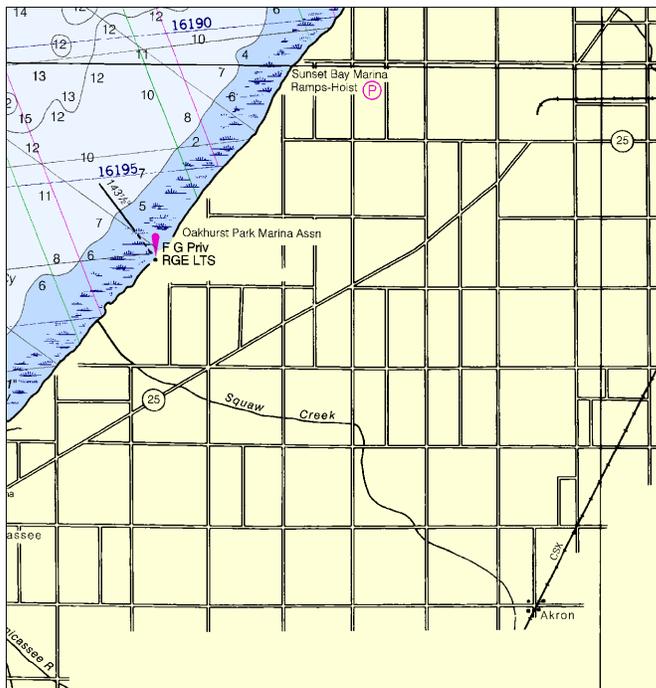
16

Note: Chart grid lines are aligned with true north.

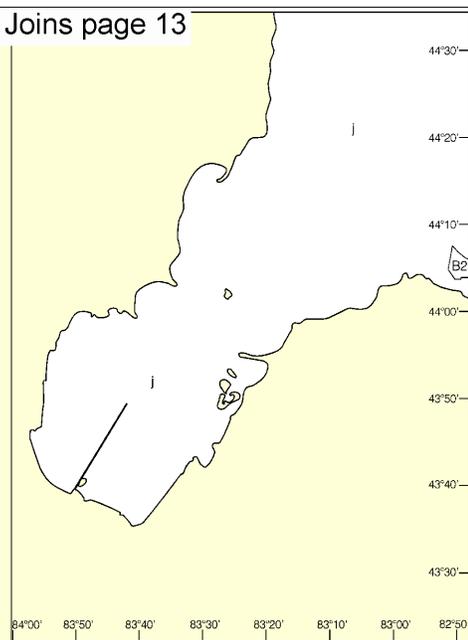
Printed at reduced scale.



See Note on page 5.



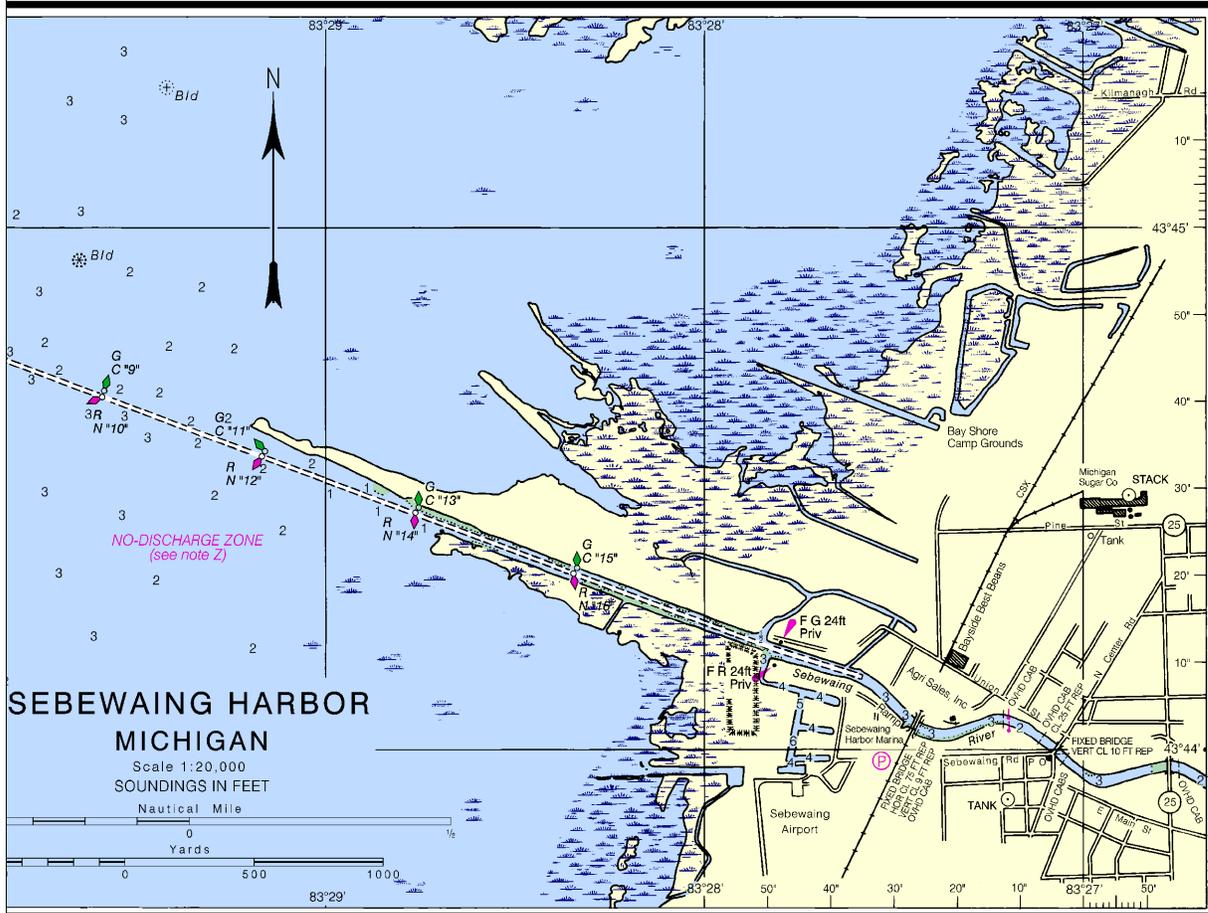
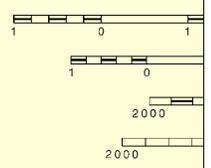
Joins page 13



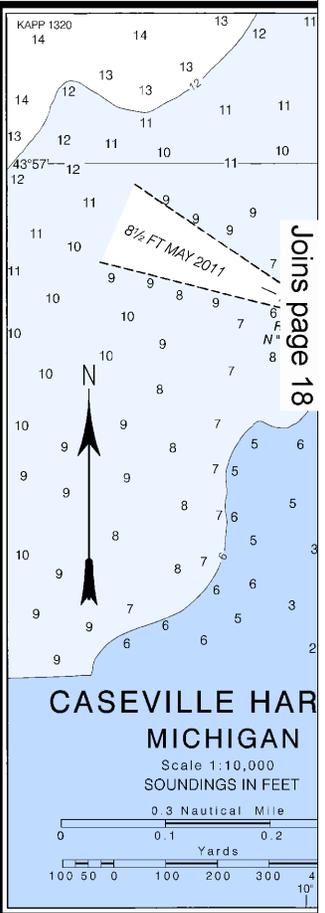
Low Water Datum, which levels shown on the above reference for the charted depth or below Low Water Datum pondingly greater or lesser

RADAR
Radar reflectors have been omitted for navigation. Individual reflectors have been omitted.

CHANGE
Mariners are advised that authorized changes to maritime standards of the U.S. Coast Guard Buoyage System port hand buoys to green; black and vertically striped buoys, and lateral light changes to aids to navigation will be an Agency weekly Notice to Mariners for Mariners.



SEBEWAING HARBOR
MICHIGAN
Scale 1:20,000
SOUNDINGS IN FEET
Nautical Mile
Yards



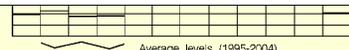
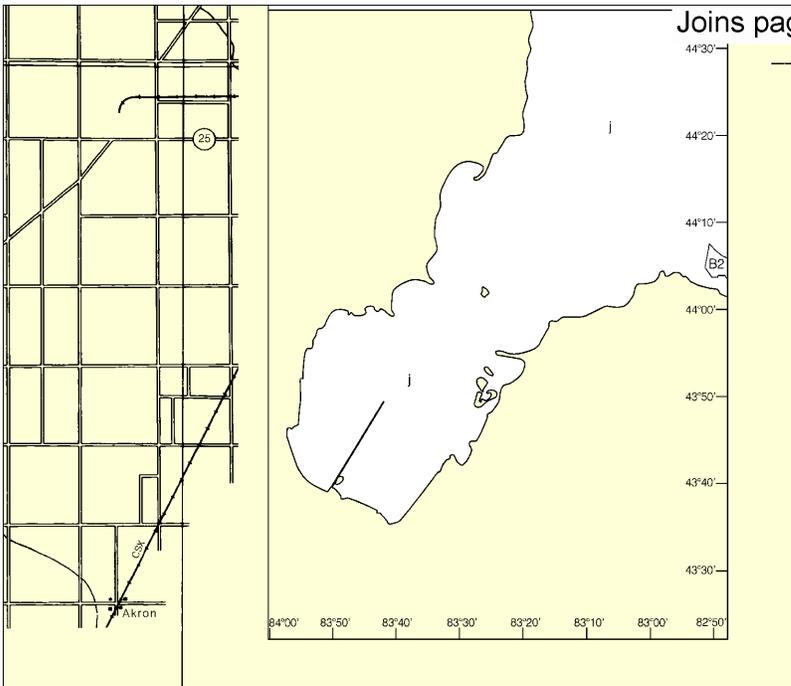
CASEVILLE HARBOR
MICHIGAN
Scale 1:10,000
SOUNDINGS IN FEET
0.3 Nautical Mile
Yards

83°30'

83°20'

SOUNDINGS IN FEET

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

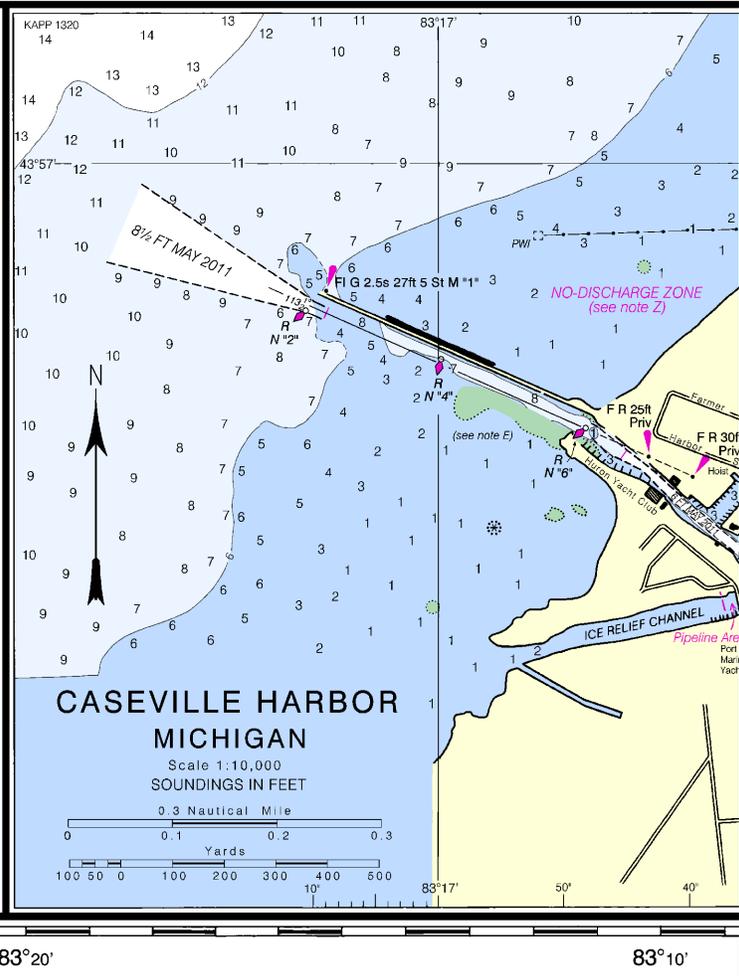
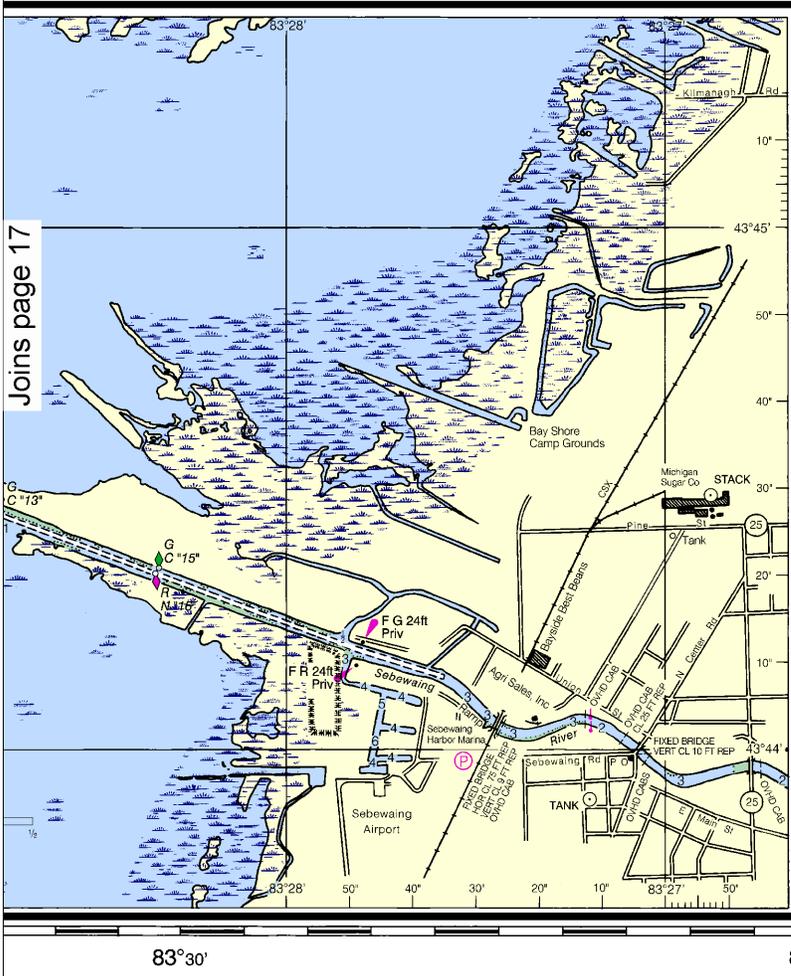


Average levels (1995-2004)
 Extreme Levels (period of record)
 Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

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.

CAUTION
CHANGES in BUOYAGE

Mariners are advised that authorized aids to navigation are being changed to conform to maritime standards of the International Association of Lighthouse Authorities Maritime Buoyage System, Region B. Significant changes are: black port hand buoys to green; black and white vertically striped buoys to red and white vertically striped buoys; and lateral lights from white to red and green as appropriate. Changes to aids to navigation will be announced in the National Geospatial-Intelligence Agency weekly Notice to Mariners and the U.S. Coast Guard Local Notice to Mariners.



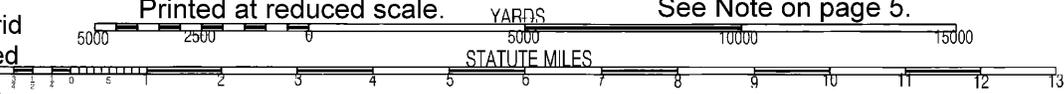
Joins page 17

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 NATIONAL OCEAN SERVICE
 COAST SURVEY

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

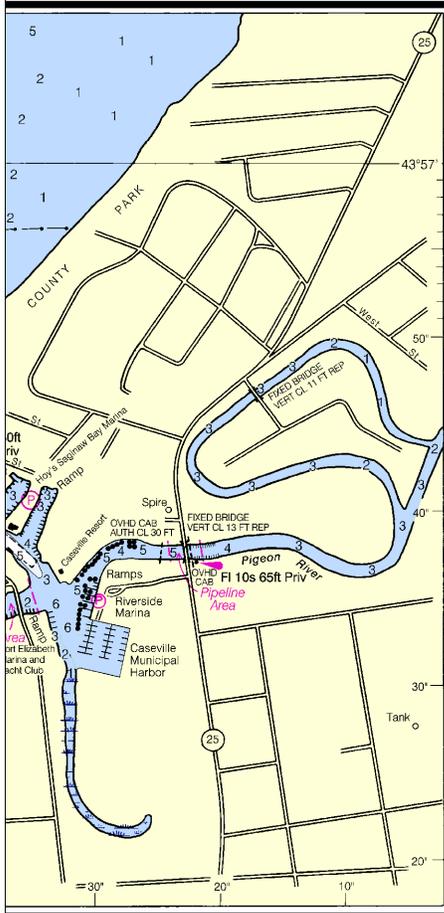
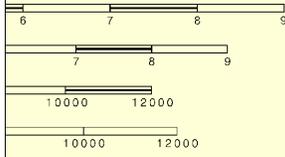
See Note on page 5.



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 lighted buoys.

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.

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 Joins page 15

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).

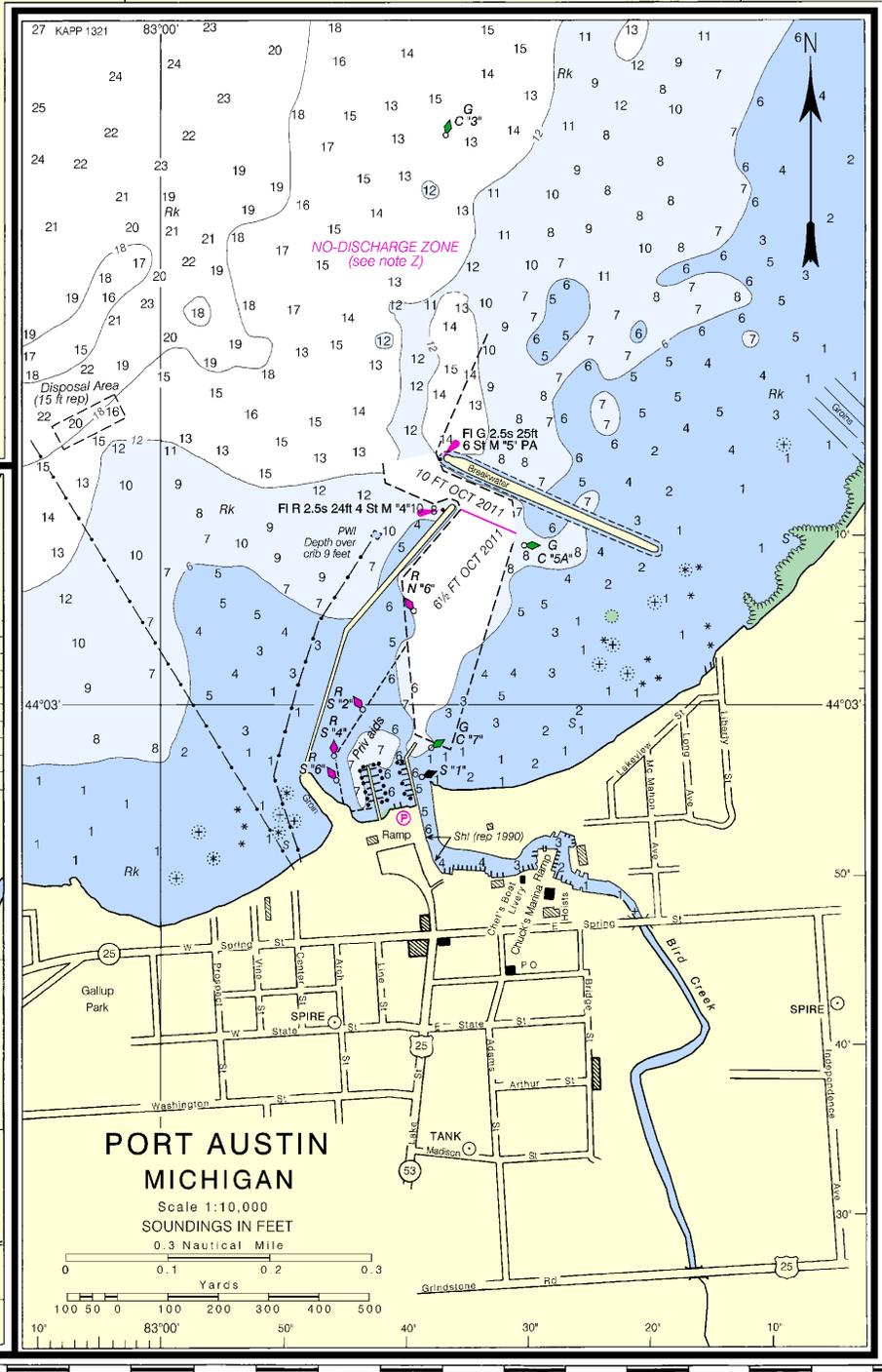
WARNING

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.

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)

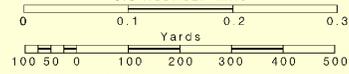
43° 40'



43° 30'

PORT AUSTIN MICHIGAN

Scale 1:10,000
SOUNDINGS IN FEET
0.3 Nautical Mile



83°00'

82°50'

Saginaw Bay
SOUNDINGS IN FEET - SCALE 1:120,000

14863
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ED. NO. 31
NSN 7642014010584
NGA REFERENCE NO. 14XC014863



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>
- Online chart viewer — <http://www.nauticalcharts.noaa.gov/mcd/NOAChartViewer.html>
- 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.

