LOCAL NOTICE TO MARINERS

District: 9

Issued by: Commander (dpw)
Ninth Coast Guard District
1240 East Ninth Street,
Cleveland, OH 44199-2060
Telephone: (216) 902-6069

Direct questions about this LNM to the above address.

All distances in this publication are STATUTE MILES unless otherwise noted.*

*District Nine Internet Address*  https://www.atlanticarea.uscg.mil/Our-Organization/District-9/
*District Nine Local Notice to Mariners email Address* D09-DG-District-D9-LocalNoticetoMariners@uscg.mil

** Navigation Information Service watchstander, 24 hours a day at (703) 313-5900 **  **Internet Address**  https://www.navcen.uscg.gov/


The Local Notice to Mariners is available on the Internet at https://www.navcen.uscg.gov/local-notices-to-mariners-by-cg-district. You will also have links to other government agencies- web pages including the US Army Corps of Engineers and the National Ocean Service.

REPORT DISCREPANCIES IN AIDS TO NAVIGATION TO THE NEAREST COAST GUARD UNIT

The Ninth District and all Sector offices for their areas of responsibility issue a BROADCAST NOTICE TO MARINERS. The following Broadcast Notice to Mariners have been incorporated into this week’s Local Notice to Mariners:

- Sector Buffalo, NY - B148-22 through B151-22
- Ninth District - C140-22 through C143-22
- Sector Detroit, MI - D070-22 through D071-22
- Sector Lake Michigan, WI - M251-22 through M254-22
- Sector Sault Ste Marie, MI - S118-22 through S119-22

The United States Coast Guard Navigation Information Service (NIS), operated by the USCG Navigation Center, is staffed 24 hours a day, 7 days a week. The NIS provides information on the current operational status, effective policies, and general information for GPS and DGPS. The NIS also disseminates Safety Broadcasts (BNM), Local Notice to Mariners (LNM), and the latest Notice Advisory to Navstar Users (NANU). NANU notices can be obtained via email subscription through the USCG Navigation Center website: https://cgls.uscg.mil/mailman/listinfo/nanu. In addition, the NIS investigates all reports of degradation or loss of GPS, DGPS or AIS service. Users are encouraged to report all degradation or loss of radio navigation services to the NIS via any of the following: Phone: (703) 313-5900, mail to: webmaster@smtp.navcen.uscg.mil, or on the internet at: https://www.navcen.uscg.gov

ABBREVIATIONS

A through H

- ADRIFT - Buoy Adrift
- AICW - Atlantic Intracoastal Waterway
- AI - Alternating
- B - Buoy
- BKW - Breakwater
- bl - Blast
- BNM - Broadcast Notice to Mariner
- bu - Blue
- C - Canadian
- CHAN - Channel
- CGD - Coast Guard District
- C/O - Cut Off
- CONT - Contour
- CRK - Creek
- CONST - Construction
- DAYMK/Daymk - Daymark
- DBN/Dbn - Daybeacon
- DBD/DAYBD - Dayboard
- DEFAC - Defaced
- DEST - Destroyed

I through O

- I - Interrupted
- ICW - Intracoastal Waterway
- IMCH - Improper Characteristic
- INL - Inlet
- INOP - Not Operating
- INT - Intensity
- ISL - Islet
- Iso - Isophase
- kHz - Kilohertz
- LAT - Latitude
- LB - Lighted Buoy
- LBB - Lighted Bell Buoy
- LBH - Lighted Horn Buoy
- LBB - Lighted Bell Buoy
- LGB - Lighted Gong Buoy
- LONG - Longitude
- LNM - Local Notice to Mariners
- LT - Light
- LT CONT - Light Continuous
- LTR - Letter
- LWB - Lighted Whistle Buoy

P through Z

- PRIV - Private Aid
- Q - Quick
- R - Red
- RACON - Radar Transponder Beacon
- RA ref - Radar reflector
- RBN - Radio Beacon
- REBUILT - Aid Rebuilt
- RECOVERED - Aid Recovered
- RED - Red Buoy
- REL - Reflective
- RRL - Range Rear Light
- RELIGHTED - Aid Relit
- RELOC - Relocated
- RELOC - Relocated
- SET ON STATION - Aid Reset on Station
- RFL - Range Front Light
- RIV - River
- RRASS - Remote Radio Activated Sound Signal
- s - seconds
- SEC - Section
- SHL - Shoaling
SECTION I - SPECIAL NOTICES
This section contains information of special concern to the Mariner.

Cancellation of NOAA Paper and Raster Nautical Charts
The National Oceanic and Atmospheric Administration (NOAA) is undertaking a multi-year program to end production and maintenance of its suite of over 1,000 traditional paper nautical charts and all associated raster chart products and services, including: Print-on-Demand (POD) paper nautical charts, Full-size chart PDF files, BookletChart™ PDF files, NOAA raster navigational charts (NOAA RNC®), the NOAA RNC tile service, and the online RNC viewer.

Six months notice of the intent to cancel a specific chart is provided in a “Last Edition” notice. The final cancellation of a chart is made in a “Canceled” notice. Both types of notices will appear in LNM Section IV, “Chart Correction.” A comprehensive list of all canceled NOAA charts is available at: http://www.charts.noaa.gov/MCD/Dole.shtml.

Traditional paper nautical chart production is ending to enable the creation and maintenance of larger scale, more up-to-date, higher quality coverage of NOAA’s electronic navigational chart (NOAA ENC®) product. This will significantly enhance the amount of charted detail available to mariners. More information about NOAA’s program to sunset traditional paper charts is on the NOAA Coast Survey website at: https://nauticalcharts.noaa.gov/charts/farewell-to-traditional-nautical-charts.html

An online NOAA Custom Chart application at: https://devgis.charttools.noaa.gov/pod is available to create chart images from ENC data, which may then be printed. Notices to Mariners will not be issued for NOAA Custom Charts.

LNM: 04/20

USACE NOTICE TO NAVIGATION INTERESTS
Current Federal Channel conditions, shoaling, and the most recent channel surveys are available at the following Army Corps of Engineers web sites:

Buffalo: http://www.irb.usace.army.mil/
Detroit: http://www.lre.usace.army.mil/
Chicago: http://www.lrc.usace.army.mil/
Rock Island: http://www.mvr.usace.army.mil/
St. Paul: https://www.mvp.usace.army.mil/

LNM: 28/12

GREAT LAKES - Great Lakes Water Levels
See Enclosure 1

The current and four week expected water level table for the Great Lakes, Connecting Channels and the St. Lawrence River, will be published in Enclosure 1 following SECTION VIII - LIGHT LIST CORRECTIONS of the Local Notice to Mariner or by visiting the link below:


LNM: 32/20
Lake Erie – NY - Barcelona Harbor – Chart 14823
Due to significant shoaling in the Barcelona Harbor Main Entrance, vessels are no longer able to transit the channel. All mariners are requested to transit the area with caution. The following Aids to Navigation have been temporary discontinued until dredging operations are complete.

Barcelona Harbor East Breakwater Light (LLNR 3480)
Barcelona Harbor West Breakwater Light (LLNR 3485)

ST. MARYS RIVER SYSTEM - DE TOUR PASSAGE TO WHITEFISH BAY - Charts 14882,14883,14884
Due to unusually high water levels, SOO Traffic requests all mariners transiting the St. Marys River System to monitor their speed and corresponding wake to protect the shoreline.

ST. MARYS RIVER - AMERICAN CANAL - CHART 14884
Northeast Pierhead Light (LLNR 14205) The U. S. Army Corps of Engineers will be relocating this light to the top of their new camera tower. As soon as the position and height of the light’s new location is confirmed it will be advertised in Section VIII - Light List Corrections of the LNM.

LAKE ERIE – Buffalo River – Chart 14833
Due to a collapse seawall in the Buffalo River. 2 Obstruction buoys have been placed to mark the debris. The buoys are to best mark the wreckage and debris of the breakwater from the NFTA building that is submerged in the water approximately 75 feet long and 15 feet wide from the building. All mariners are request to transit the area with caution.

BUFFALO RIVER SOUTH MICHIGAN AVE BRIDGE OBSTRUCTION "A"
POSN: 42-52.332N, 078-52.419W, DEPTH OF WATER: 24 FEET.
Q FL W

BUFFALO RIVER SOUTH MICHIGAN AVE BRIDGE OBSTRUCTION B
POSN: 42-52.324N, 078-52.396W, DEPTH OF WATER: 24 FEET.
Q FL W

LAKE MICHIGAN – New Buffalo Harbor - Chart 14905
Shoaling has been reported near the middle of the channel immediately inside the break wall in New Buffalo Harbor, MI. The actual water depth is currently significantly below the charted depth. Mariners are urged to use caution when transiting the area. For further details, contact Sector Lake Michigan at (414) 747-7182 or VHF channel 16.

LAKE MICHIGAN - Waugoshance Point to Seul Choix Point - Chart 14911
The abandoned Waugoshance Lighthouse located in approximate position 45-47-20N / 085-05-28W has become structurally unsafe. Landing and embarking on the light should not be attempted because of failing structural condition and it’s in danger of collapsing. Mariners are advised to remain at least 300’ from the structure at all times.

LAKE MICHIGAN – Sheboygan River – Chart 14922
Shoaling has been reported in entrance of the Sheboygan River in the vicinity of 43-44.928N, 087-42.170W AND 43-44.936N, 087-42.110W. The actual water depth is currently significantly below the charted depth. Mariners are urged to use caution when transiting the area. For further details, contact Sector Lake Michigan at (414) 747-7182 or VHF channel 16.

LAKE MICHIGAN – Muskegon Harbor – Chart 14934
Shoaling has been reported in entrance of Muskegon Harbor. The actual water depth is currently significantly below the charted depth. Mariners are urged to use caution when transiting the area. For further details, contact Sector Lake Michigan at (414) 747-7182 or VHF channel 16.

SECTION II - DISCREPANCIES
This section lists all reported and corrected discrepancies related to Aids to Navigation in this edition. A discrepancy is a change in the status of an aid to navigation that differs from what is published or charted.

DISCREPANCIES (FEDERAL AIDS)
### DISCREPANCIES (FEDERAL AIDS) CORRECTED

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### DISCREPANCIES (PRIVATE AIDS)

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<td>20729</td>
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### PLATFORM DISCREPANCIES CORRECTED

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**SECTION III - TEMPORARY CHANGES and TEMPORARY CHANGES CORRECTED**

This section contains temporary changes and corrections to Aids to Navigation for this edition. When charted aids are temporarily relocated for dredging, testing, evaluation, or marking an obstruction, a temporary correction shall be listed in Section IV giving the new position.

#### TEMPORARY CHANGES

<table>
<thead>
<tr>
<th>LLNR</th>
<th>Aid Name</th>
<th>Status</th>
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<td>5435</td>
<td>West Harbor Inner Channel Daybeacon 12</td>
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<td>22245</td>
<td>Green Bay Harbor Entrance Channel Light 25</td>
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### PLATFORM TEMPORARY CHANGES

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SECTION IV - CHART CORRECTIONS

This section contains corrections to federally and privately maintained Aids to Navigation, as well as NOS corrections. This section contains corrective actions affecting chart(s). Corrections appear numerically by chart number, and pertain to that chart only. It is up to the mariner to decide which chart(s) are to be corrected. The following example explains individual elements of a typical chart correction.

<table>
<thead>
<tr>
<th>Chart Number</th>
<th>Chart Edition</th>
<th>Date to Mariners</th>
<th>Horizontal Datum Reference</th>
<th>Source of Correction</th>
<th>Current Local Notice to Mariners</th>
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<td>12327</td>
<td>91st Ed.</td>
<td>19-APR-97</td>
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Chart Title: NY-NJ-NEW YORK HARBOR - RARITAN RIVER

Main Panel 2245  NEW YORK HARBOR

(Temp) ADD NATIONAL DOCK CHANNEL BUOY 3 at 40-41-09.001N 074-02-48.001W

Corrective Action: Object of Corrective Action: Position: 41-46-32.490N

(Temp) indicates that the chart correction action is temporary in nature. Courses and bearings are given in degrees clockwise from 000 true. Bearings of light sectors are toward the light from seaward. The nominal range of lights is expressed in nautical miles (NM) unless otherwise noted.

14901  18th Ed.  01-AUG-20  Last LNM: 19/22  NAD 83  Page/Side: -

Chart Title: LAKE MICHIGAN (Mercator Projection)

Main Panel 1361 LAKE MICHIGAN - -. Page/Side: -

DELETE Sounding in Fathoms; 8 (NOS NW-31308) 41-45-28.250N 087-20-27.360W

ADD Sounding in Fathoms; 6 (NOS NW-31308) 41-46-35.868N 087-22-28.484W

ADD Sounding in Fathoms; 7 (NOS NW-31308) 41-46-06.958N 087-22-04.494W

14905  34th Ed.  01-AUG-20  Last LNM: 46/21  NAD 83  Page/Side: -

Chart Title: Waukegan to South Haven;Michigan City;Burns International Harbor;New Buffalo

Main Panel 1371 LK MICH WAUKEGAN ILL-SOUTH HAVEN MICH - -. Page/Side: -

DELETE Sounding in Feet; 47 (NOS NW-31308) 41-47-32.490N 087-26-42.030W

ADD Sounding in Feet; 41 (NOS NW-31308) 41-47-36.259N 087-26-39.103W

14926  14th Ed.  01-MAY-19  Last LNM: 05/21  NAD 83  Page/Side: -

Chart Title: SMALL-CRAFT BOOK CHART - Chicago and South Shore of Lake Michigan (book of 30 charts)

Extension 1480 CHICAGO AND SOUTH SHORE PAGE 29 - -. Page/Side: -

DELETE Sounding in Feet; 47 (NOS NW-31308) 41-47-32.490N 087-26-42.030W

ADD Sounding in Feet; 41 (NOS NW-31308) 41-47-36.259N 087-26-39.103W

14927  27th Ed.  01-AUG-20  Last LNM: 46/21  NAD 83  Page/Side: -

Chart Title: Chicago Lake Front; Gary Harbor

Main Panel 1482 CHICAGO LAKE FRONT - -. Page/Side: -

DELETE Sounding in Feet; 47 (NOS NW-31308) 41-47-32.490N 087-26-42.030W

ADD Sounding in Feet; 37 (NOS NW-31308) 41-46-35.868N 087-22-28.484W

ADD Sounding in Feet; 39 (NOS NW-31308) 41-44-25.666N 087-20-17.154W
SECTION V - ADVANCE NOTICES

This section contains advance notice of approved projects, changes to aids to navigation, or upcoming temporary changes such as dredging, etc. Mariners are advised to use caution while transiting these areas.

SUMMARY OF ADVANCED APPROVED PROJECTS

<table>
<thead>
<tr>
<th>Approved Project(s)</th>
<th>Project Date</th>
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Advance Notice(s)

- **LAKE ERIE – SOUTH SHORE OF LAKE ERIE – CHART 14842**
  - Squaw Island Light (LLNR 5085) Change the name of the aid to Muddy Creek Light (LLNR 5085)
  - LNM: 18/22

- **ST. MARYS RIVER – DE TOUR PASSAGE TO MUNUSCONG LAKE – CHART 14882**
  - Squaw Island Light “4” (LLNR 12895) Change the name to St Marys River Light “4” (LLNR 12895)
  - LNM: 18/22

- **LAKE MICHIGAN – WAUGOSHANCE POINT TO CHOIX POINT – CHART 14911**
  - Squaw Island Shoal Buoy “2” (LLNR 21560) Change the name to Garden Island Buoy “2” (LLNR 21560)
  - Squaw Island Shoal Buoy “1” (LLNR 21565) Change the name to Garden Island Buoy “1” (LLNR 21565)
  - LNM: 18/22

- **GREEN BAY – LITTLE BAY DE NOC – CHART 14915**
  - Squaw Point Lighted Buoy “12” (LLNR 14915) Change the name to Little Bay De Noc Lighted Buoy “12” (LLNR 21690)
  - LNM: 18/22

- **LAKE SUPERIOR – DULUTH SUPERIOR HARBOR - Chart 14975**
  - Duluth Harbor Basin Traffic Lighted Buoy (LLNR 15870) Permanently discontinue the physical and continue the aid as a Virtual AIS MMSI 993672226.
  - LNM: 20/22

- **MINNESOTA-ONTARIO BORDER LAKES – NAMAKAN LAKE – CHART 14994**
  - Squaw Narrows Daybeacon “4” (LLNR 17460) Change the name to Namakan Lake Light “4” (LLNR 17460)
  - LNM: 18/22

SECTION VI - PROPOSED CHANGES

Periodically, the Coast Guard evaluates its system of aids to navigation to determine whether the conditions for which the aids to navigation were established have changed. When changes occur, the feasibility of improving, relocating, replacing, or discontinuing aids are considered. This section contains notice(s) of non-approved, proposed projects open for comment. SPECIAL NOTE: Mariners are requested to respond in writing to the District office unless otherwise noted (see banner page for address).

PROPOSED WATERWAY PROJECTS OPEN FOR PUBLIC COMMENT

<table>
<thead>
<tr>
<th>Proposed Project(s)</th>
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Proposed Change Notice(s)

For any comments or questions on these proposed changes please contact:

The Ninth District Aids to Navigation office at D09-DG-District-D9-LocalNoticetoMariners@uscg.mil or call (216) 902-6078

LNM: 30/13

SECTION VII - GENERAL

This section contains information of general concern to the Mariners. Mariners are advised to use caution while transiting these areas.

Waterways Analysis and Management System
The Ninth Coast Guard District will be reviewing the following waterways beginning in 2022. The study focuses primarily on aids to navigation in the waterway. Public comments are an important tool in this process so that we can provide the adequate markings and the right mix of signals to a waterway for safe navigation. Comments on the below listed waterways can be sent to Brian.A.Smicklas@uscg.mil or by calling (216) 902-6064. You may also complete the survey attached to the Local Notice to Mariner and either email it or mail it to: Commander (dpw), Ninth Coast Guard District, 1240 East Ninth St., Cleveland, Ohio 44199.

Sackets Harbor
(LLNR 1755-2024.9)
Buffalo Harbor/Black Rock Canal
(LLNR 2665-3360)
Dunkirk Harbor
(LLNR 3365-3492)
Erie Harbor
(LLNR 3495-3696)
Conneaut Harbor
(LLNR 3700-3735)
Ashtabula Harbor
(LLNR 3740-3830)
Fairport Harbor
(LLNR 3835-3955)
Cleveland Harbor
(LLNR 3975-4260)
Huron Harbor
(LLNR 4430-5455)
Erie Islands
(LLNR 5520-6025)
Detroit River / East Outer Channel
(LLNR 6885-8270)
St. Clair Rec/Belle Isle Channel
(LLNR 8280-8396)
Lake St. Clair
(LLNR 8665-9300)
Anchor Bay
(LLNR 9305-9565)
Toledo / Maumee Channel
(LLNR 6030-6455)
Monroe Harbor
(LLNR 6460-6680)
St. Clair River / Huron Cut
(LLNR 9570-10090)
St. Mary's River
(LLNR 12765-13755)
Lake Nicolet / Bayfield Channel
(LLNR 13955-14192)
Keweenaw Waterway
(LLNR 14725-15250)
Knife River / Two Harbors
(LLNR 16495-16580)
Straits of Mackinaw Western Section
(LLNR 17770-18950)
Sturgeon Bay Ship Canal
(LLNR 20990-21225)
Green Bay Entrance
(LLNR 21985-22360)
M.I.R.
(LLNR 11780-12170)
Marquette Harbor
(LLNR 14620-14720)
Apostle Islands
(LLNR 15255-15590)
St. Joseph / Benton Harbor
(LLNR 19515-19534.4)
Milwaukee
(LLNR 20635-20765)

GREAT LAKES - Marine Events

Marine events such as races, parades, regattas, and fireworks displays are frequently held in the Great Lakes region. Advance information on specific events is contained in enclosure (2) of this publication. The public is reminded to listen to the local broadcast notice to mariners for the most up-to-date information on a marine event. Mariners are advised that some events may require temporary aids to navigation that are not displayed on a chart or in the Light List, and that they should exercise additional caution while operating in the vicinity of a scheduled marine event.
SAILDRONE, INC. is conducting fish population surveys in Lake Superior along the Michigan, Wisconsin, and Minnesota coastline between August 8th, 2022 and September 30th, 2022. The survey will be conducted by two (2) Uncrewed Surface Vehicles (USVs), called “Saildrones”, each 23 ft in length, 16 ft tall, orange in color with a white all-round light on the mast and marked “SAILDRONE”. The two Saildrones will be deployed from Ashland, WI on or about August 8th 2022. Both vehicles are uncrewed and wind and solar powered and will have limited maneuverability during survey operations. Mariners are requested to transit areas with caution and to remain greater than 500 meters away from the research equipment. Questions regarding saildrone operations should be directed to Saildrone Mission Control, missioncontrol@saildrone.com or (510) 722-6070.

From 20 Jun 2022 to 21 Dec 2022 the Crane-Hogan Structural Systems, Inc will be conducting pier repair in the vicinity of West side of the channel from Little Sodus Bay to Lake Ontario (Fair Haven, NY). Hours of operation are from 0600 to 1730 Monday through Friday. All mariners are requested to transit the area with caution.

From 23 May 2022 to 15 Sep 2022 Great Lakes Dock and Materials LLC will be conducting pier repairs at the Rochester Harbor East Pier in Charlotte NY. Hours of operation is 24 hours a day 7 days a week. Tug Duluth, Barge Jacqueylyn, Barge Hannah Avery, and GLDM can be contacted on VHF channels 7 and 16. All traffic should stay clear of the operations if possible. Please have positive contact with equipment, marine equipment shall be located near east pier in Rochester Harbor, both channel and Lake Ontario sides of pier. Marine equipment will traverse in and out of the harbor daily.

From 1 Sep 2022 to 30 Oct 2022 Ryba Marine Construction Co. will be conducting breakwater repairs on the north breakwater Buffalo, NY. Hours of operation are 24 hours a day 7 days a week. Tug Thomas R. Morrish can be contacted on VHF channels 13 and 16. All mariners are requested to transit the area with caution.

Construction of submerged breakwater in Ashtabula Harbor remains partialy unfinished. Buoys are unlighted marking the hazard of the breakwater. Buoys may change position as seasonal weather changes. Current positions as follows:

- Buoy "1" 41-55-07.841N / 080-47-25.303W
- Buoy "2" 41-54-58.921N / 080-47-16.850W
- Buoy "3" 41-54-58.281N / 080-47-14.290W
- Buoy "4" 41-54-56.304N / 080-47-11.234W
- Buoy "6" 41-54-56.474N / 080-47-02.054W

Mariners are advised to remain at least 300' from the breakwater. All mariners are requested to transit the area with caution.

From 20 Jun 2022 to 14 Sep 2022 the Geo Gradel Co. will be conducting dredging in the Ashtabula River and Harbor. Hours of operation are from 0700 to 1900 7 days a week, Tug John Francis and Barge Crow can be contacted on VHF channels 10, 16, and 18. All mariners are requested to transit the area with caution.

From 25 Jul 2022 to 31 Aug 2022 Ryba Marine Construction Co. will be conducting hydraulic dredging in the Monroe Harbor MI. Hours of operation are 24 hours a day 7 days a week. Dredge Buxton II can be contacted on VHF channels 16, 18 and 73. Submerged pipe laying on the lake floor marked by orange round buoys every 500 feet. The disposal pipe is up to 20,000’ long and will be pumped into a government-owned containment area (CDF). Main contact will be the Superintendent Joseph Martin. Cell# listed below. During rough seas our pipe pontoon will be floating outside of the
LAKE ERIE – Monroe Harbor - Chart 14830
channel. It is bright yellow, 25’x8’x6’ and has flashers on each end that come on at night.

LAKE ERIE – SANDUSKY HARBOR – CHART 14845
From 19 Sep 2022 to 31 Oct 2022 Luedtke Engineering Co. will be conducting maintenance dredging in the Sandusky Harbor federal channel. Hours of operation are 24 hours a day 7 days a week. Tug Paul L. Luedtke can be contacted on VHF channels 10, 16 and 19. All mariners are requested to transit the area with caution and reduce speed around dredging equipment. Loaded scows will be moved from the entrance of Sandusky Bay to the unloading equipment located off the Cedar Point Causeway on the east end of Sandusky Bay.

LAKE ST. CLAIR – St. Clair Flats – Chart 14850
From 30 Aug 2022 to 30 Nov 2022 Great Lakes Dock and Materials will be conducting maintenance dredging of Lake St. Clair. Hours of operation are 12 hours a day 7 days a week. Barges Hannah Avery, Jacquelyn, Tug Fischer Hayden and Duluth can be contacted on VHF channels 16 and 18. All mariners are requested to transit the area with caution, stay clear of operations if possible. Dredge equipment will be located on the eastern side of the Lake St. Clair flats channel. Offloading equipment will be located near Dickinson Island, tugs and material scows will be trans versing between the two.

LAKE ST. CLAIR - MI - St. Clair Shores, MI - Chart 14850
E. C. Kozneffes Co. will be installing boardwalks and piers into Lake St. Clair at Blossom and Heath Park from 13 Sep. 21 to 01 Dec 22 from 0700 to 1900 Monday through Saturday. Tug Captain Dave and barge Comanche can be contacted on VHF channels 13 & 16. All mariners are requested to transit the area with caution.

LAKE HURON – MI – Saginaw River – Chart 14867
From 15 July 2022 to 31 Sep 2022 Luedtke Engineering Co. will be conducting maintenance dredging near the mouth of the Saginaw River. Hours of operation are 24 hours a day 7 days a week. Tug Paul Luedtke can be contacted on VHF channels 10, 16, and 19. All mariners are requested to transit the area with caution.

LAKE HURON – Thunder Bay – Chart 14864
The United States Geological Survey in coordination with the Michigan Department of Natural Resources will be conducting data collection to the north of the approach to Alpena, MI in NW Thunder Bay, Lake Huron. Surface floats will mark submerged receivers and will be in place through November 2022. Questions may be directed to Research Scientist Tom Binder, tbinder@usgs.gov. All mariners are requested to transit the area with caution.

ST. MARYS RIVER – Lime Island – Chart 14882
From 8 Aug 2022 to 31 Oct 2022 drilling operations will be taking place in the vicinity if Fincantieri Marine. Tug Ruth Lucille and Mary Helen will be on scene with 5 barges and will extend approximately 200 feet from the shoreline. On scene vessels can be contacted on VHF channels 8 and 16. All mariners are requested to transit the area with caution. For further details, contact Sector Lake Michigan at (414)747-7182.

STRAITS OF MACKINAW - Point LaBarbe to Point Emmet - Chart 14881
From 15 Apr 2022 to 31 Dec 2022 Kokosing Industrial, Inc will be conducting dock and breakwall repair in the vicinity of Lime Island. Hours of operation will be from 0700-1900 7 days a week. Tug Nancy Anne can be contacted on VHF channels 13 and 16. Vessels will be working inside of the Lime Island Harbor constructing a new dock and breakwall. Passing vessels are requested to remain a safe distance of 200 feet away and transit the area with caution.

LAKE MICHIGAN – New Buffalo Harbor - Chart 14905
From 17 Aug 2022 to 14 Sep 2022 Viking Marine Construction will be conducting dredging operations in the New Buffalo Harbor. Hours of operation are 24 hours a day 7 days a week. Tug Barry J can be contacted on VHF channels 16 and 73. All mariners are requested to transit the area with caution.

LAKE MICHIGAN – Menominee River – Chart 14917
From 8 Aug 2022 to 31 Oct 2022 drilling operations will be taking place in the vicinity if Fincantieri Marine. Tug Ruth Lucille and Mary Helen will be on scene with 5 barges and will extend approximately 200 feet from the shoreline. On scene vessels can be contacted on VHF channels 8 and 16. All mariners are requested to transit the area with caution. For further details, contact Sector Lake Michigan at (414)747-7182.

LAKE MICHIGAN – Western Lake Michigan– CHART 14903, 14906
LAKE MICHIGAN – Western Lake Michigan – CHART 14903, 14906
From 02 May 2022 to 31 Aug 2022 Geodynamics will be conducting hydrographic survey in support of nautical chart updates 14nm offshore of Fox Point up to 14nm offshore of Kewaunee Nuclear Power Plant. Survey operations will begin near Port Washington and transition north to Sheboygan and Manitowoc area in June 2022. Surveys will be conducted 24 hours a day, 7 days a week, on the RV Substantial and 12 hours a day, 7 days a week on the RV Benthos. The RV Benthos is a 30 ft Armstrong aluminum catamaran survey vessel operating multibeam sonar. The RV Substantial is a 65 ft steel hull survey vessel operating multibeam sonar and towing sound speed equipment. Please provide .5 nautical mile distance when possible. Mariners are urged to transit at their slowest safe speed in the vicinity of the survey vessels to minimize wake. All survey vessels have AIS and will monitor VHF channels 16/13.

LNM: 18/22

LAKE MICHIGAN – Green Bay – Chart 14918
From 29 Aug 2022 to 15 Oct 2022 Ryba Marine Construction Co. will be conducting maintenance dredging in Green Bay, WI. Hours of operation are 24 hours a day 7 days a week. Tug Kristin Joelle can be contacted on VHF channels 13 and 16. All mariners are requested to transit the area with caution.

LNM: 34/22

LAKE MICHIGAN – Sheboygan – Chart 14922
From 19 Sep 2022 to 1 Nov 2022 Kokosing Industrial, Inc will be conducting pipeline, dredging, and diving operations near the Sheboygan Water Utility. Hours of operation are from 0700 to 1900 7 days a week. Tug Valerie B can be contacted on vhf channels 13 and 16. Operations will be approximately 1.25 miles north of Sheboygan river entrance. Diving operations are present, nearby vessels maintain 500 foot CPA, minimum. Please craft and passing vessels should remain a safe distance from the work at all times. Additional barges will be moored on anchor buoys inside the Sheboygan river breakwalls.

LNM: 31/22

LAKE MICHIGAN – IN – Michigan City – Chart 14927 – Bridge Discrepancy
The Coast Guard has received a report that the submarine cable on the west side of the Amtrak Bridge at mile 0.85 over trail creek has floated to the surface. Workers are marking the cable with white fenders to warn mariners.

LNM: 32/21

LAKE MICHIGAN – IL – Whiting – Chart 14929
From 1 Jul 2022 to 30 Nov 2022 Kokosing Industrial, Great Lakes Marine Division will be conducting intake replacement offshore from the BP Whiting Refinery in position 41-40-49.325N. 087-28-24.272W. Hours of operation are 0700 to 1900 Monday through Saturday. Tug Nancy can be contacted on VHF channels 13 and 16. Crane and diving barges will be spudded down within 200 feet of the intake cribbing. All mariners are requested to transit the area with caution.

LNM: 23/22

LAKE MICHIGAN – Manistee – Chart 14938
From 15 Aug 2022 to 31 Oct 2022 Roen Salvage Company will be conducting repairs on the Manistee South Breakwater. Hours of operation are 24 hours a day 7 days a week. Tug Stephan Asher can be contacted on VHF channels 7 and 16. All mariners are requested to transit the area with caution.

LNM: 31/22

LAKE MICHIGAN – Manistee – Chart 14938
From 3 Aug 2022 to 31 Aug 2022 The King Company Inc will be conducting hydraulic dredging in the Manistee Channel. Hours of operation are 24 hours a day 7 days a week. Dredge Barry J can be contacted on VHF channels 16, 18, 73. Submerged 22” pipe laying on the lake floor marked by orange round buoys every 500 feet. (2) White buoys will be seen North and South of the dredge. The white buoys indicate winch anchor locations. Disposal area starts 3,000 feet south of the breakwater and runs for an additional 2,000’. Main contact will be the Superintendent Robert Lister. Cell# listed below. During rough seas our pipe pontoon will be floating outside of the channel. It is bright yellow, 25’x8’x6’ and has (2) flashers on each end that come on at night. TELEPHONE #: 616-399-1784(Office) Cell#: (989) 464-1511.

LNM: 31/22

LAKE MICHIGAN – Manistee Harbor - Chart 14908
From 01 Aug 2022 to 15 Sept 2022 Luedtke Engineering Co will be conducting maintenance dredging in Manistee Harbor. Hours of operation are from 0600 to 2000 7 days a week. Tug Kurt R. Luedtke can be contacted on VHF channels 10, 16 and 19A. All mariners are requested to reduce speed and use caution around dredging equipment. Material scows will be transported from the dredge to the disposal site at the west end of Harbor View Dr. Survey vessel will be conducting dredging surveys. Please transit at "No Wake" speeds

LNM: 30/22

LAKE MICHIGAN - Charlevoix - Chart 14942
From 14 Aug 2022 to 19 Sep 2022 The U.S. Army Corps of Engineers will be conducting the removal of a pedestrian bridge south side of Charlevoix entry piers. Hours of operations 0700 to 1700 daily. Tugboat Mike Donlon, Crane Barge Veler, Scow BC-6576 can be contacted on VHF channels 10, 16 and 19A. USACE vessels will require a 30 minute notice upon vessel traffic to allow time to shift out of channel for commercial traffic. Small vessel traffic that can safely navigate past working vessels, will pass on the north or green side of channel. When vessels are outside of working hours, they will be moor up at and adjacent to the Charlevoix U.S.C.G. base. All mariners are requested to transit the area with caution.

LNM: 32/22

LAKE SUPERIOR – Keweenaw Waterway – Chart 14961
From 4 Aug 2022 to 1 Oct 2022 Roen Salvage Company will be conducting maintenance dredging in the federal navigational channel in the vicinity of the Keweenaw Waterway. Hours of operation is from 0600 to 2000 7 days a week. Tug Charles Asher can be contacted on VHF channels 7 and 16.
LAKE SUPERIOR – Keweenaw Waterway – Chart 14961
Equipment will be tied up on North side of channel when work is not taking place. All mariners are requested to transit the area with caution and to remain clear of dredging equipment.

LNM: 31/22

LAKE SUPERIOR - Apostle Islands - Chart 14966
The University of Wisconsin (Madison) is commissioning 8 water environment monitoring buoys around the Apostle Islands from 15 June 2022, to 30 September 2022. The buoys are yellow in color and are 2’ in diameter with sensor equipment. All mariners are advised to use caution while transiting Apostle Islands during this timeframe

LNM: 18/22

LAKE SUPERIOR – DULUTH SUPERIOR HARBOR - Chart 14975
From 11 Jul 2022 to 15 Sep 2022 Roen Salvage Company will be conducting maintenance dredging in the federal navigation channel in the Duluth-Superior Harbor. Hours of operation are 24 hours a day 7 days a week. Tug John Asher can be contacted on VHF channels 7 and 16. All mariners are requested to transit the area with caution.

LNM: 26/22

LAKE SUPERIOR – MN – Spirit Lake – Chart 14975
From 09 May 2022 to 15 Sept 2022 the J.F. Brennan Company will be conducting dredging and capping operations. Operations will be in the vicinity of 46°41' 35.0"N 92°12'11.4"W out to 46°41'37.7"N 92°11'54.4"W and down to 46°41'12.8"N 92°11'46.2"W and in the vicinity of from shoreline out to 46°40'37.9"N 92°11'50.4"W then north up to 46°40'50.9"N 92°11'54.9"W and back into the shoreline. HDPE pipeline will be running from the dredges and exiting the water in the vicinity of 46° 41 '03.8" N, 92° 12 '18.4" W. Hours of operation will be 24 hours a day Monday through Saturday. Dredge Mark Anthony, Dredge Calumet and Spreader Barge Neenah can be contacted on VHF channels 16. All mariners are requested to transit the area with caution.

LNM: 13/22

LAKE SUPERIOR – MN – Spirit Lake – Chart 14975
From July 2022 to November 2023 J.F. Brennan Company, Inc will be conducting Hydraulic Dredging operations are to be conducted in this area, with a sunken dredge pipeline running north from near the Spirit Lake Marina to Hallett Dock #7 along the western shoreline of the St. Louis River. The pipeline will be demarcated with buoys along the entirety of the pipe, approximately every 500 FT. Floating booster pump platforms will be between Hallett Dock #7 and Spirit Lake Marina, with construction signage upstream and downstream of the work zone. The work zone will mainly be between Munger Landing and the island just to the east of the landing. Within the work zone, there will be several pieces of equipment along with floating dredge pipelines.

LNM: 26/22

LAKE SUPERIOR – Upper St. Louis River – Chart 14975
From 6 Jul 2022 to 3 Sep 2022 J.F. Brennan Company will be conducting dredging and cover replacement behind the Erie Pier along the St. Louis River in the vicinity of 46-44-24.42N, 092-09-08.68W. Hours of operation are 24 hours a day Monday through Saturday. All mariners are requested to transit the area with caution.

LNM: 27/22

LAKE SUPERIOR – Western Lake Superior – Chart 14961
From 10 Aug 2022 to 8 Sep 2022 The U.S. Geological Survey will be conducting fish population surveys using unmanned drones in the western half of Lake Superior including waters west of Black Bay, Ontario to Upper Entry, Michigan. Hours of operation are from 2100 to 0600 24 hours a day. Research vessel Kiyi can be contacted on VHF channel 16. The two drones will resemble a small sailboat. They are 22' long with a 17' high-lighted mast. They are painted orange and normally travel at 2 mph, but can reach speeds of 5 mph. During daylight these drones may be either stationary or transiting. Both drones will be moving at night. All mariners are requested to keep a safe distance to avoid compromising the science mission.

LNM: 32/22

SECTION VIII - LIGHT LIST CORRECTIONS
An Asterisk *, indicates the column in which a correction has been made to new information

<table>
<thead>
<tr>
<th>No.</th>
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<th>Position</th>
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<th>Height</th>
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ENCLOSURES

(1) LNM Section I - Special Notices
1-Great Lakes Water Levels

LNM: 06/22

(2) LNM Section II - Discrepancies
N/A

LNM: 19/19
(3) LNM Section III - Temporary Changes and Temporary Changes Corrected

N/A

LNM: 19/19

(4) LNM Section IV - Chart Corrections

N/A

LNM: 19/19

(5) LNM Section V - Advance Notices

N/A

LNM: 19/19

(6) LNM Section VI - Proposed Changes

N/A

LNM: 19/19

(7) LNM Section VII - General

1-Marine Events

2-Current Ninth District Bridge Maintenance/Activities

3-Waterway Analysis and Management System Survey

4-R/V Lake Char operations in Lake Superior, April-June 2022

LNM: 19/19

(8) LNM Section VIII - Light List Corrections

N/A

LNM: 19/19

M. J. Johnston, RADM
U. S. Coast Guard
Commander, Ninth Coast Guard District
### GREAT LAKES, CONNECTING CHANNELS AND ST. LAWRENCE RIVER

**WATER LEVELS AND DEPTHS**

Expected water levels on the Great Lakes, Connecting Channels and the St. Lawrence River are given in inches above (+,0) or below (-,0) Low-Water Datum (LWD,0). LWD is a plane of reference on a navigation chart, also known as Chart Datum. LWD elevations shown below are given in International Great Lakes Datum, 1985 (IGLD 1985,0).

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<tr>
<th>Forecast Point</th>
<th>Low Water Datum</th>
<th>Expected Levels (inches above or below Low Water Datum,0)</th>
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<tr>
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<td>IGLD 1985 2-Sep</td>
<td>9-Sep</td>
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<tr>
<td><strong>GREAT LAKES</strong></td>
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<tr>
<td>Lake Ontario</td>
<td>243.3</td>
<td>20</td>
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<tr>
<td>Lake Erie</td>
<td>569.2</td>
<td>40</td>
</tr>
<tr>
<td>Lake St. Clair</td>
<td>572.3</td>
<td>39</td>
</tr>
<tr>
<td>Lake Michigan-Huron</td>
<td>577.5</td>
<td>29</td>
</tr>
<tr>
<td>Lake Superior</td>
<td>601.1</td>
<td>17</td>
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<tr>
<td><strong>ST. LAWRENCE RIVER</strong></td>
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<tr>
<td>Above Long Sault Dam</td>
<td>237.9</td>
<td>15</td>
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<tr>
<td>Above Iroquois Dam</td>
<td>240.3</td>
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<td>Ogdensburg</td>
<td>242.4</td>
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<td>Alexandria Bay</td>
<td>243.0</td>
<td>18</td>
</tr>
<tr>
<td>Head of river at Cape Vincent</td>
<td>243.3</td>
<td>20</td>
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<tr>
<td><strong>DETROIT RIVER</strong></td>
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</tr>
<tr>
<td>Lake Erie at Pelee Passage</td>
<td>569.2</td>
<td>40</td>
</tr>
<tr>
<td>Mouth of River at Gibraltar</td>
<td>569.5</td>
<td>44</td>
</tr>
<tr>
<td>Fort Wayne</td>
<td>571.1</td>
<td>43</td>
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<tr>
<td>Head of River above Belle Isle</td>
<td>572.0</td>
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<tr>
<td><strong>ST. CLAIR RIVER</strong></td>
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<td>Mouth of River at St. Clair Flats</td>
<td>572.3</td>
<td>39</td>
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<tr>
<td>Algonac</td>
<td>572.8</td>
<td>42</td>
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<tr>
<td>St. Clair</td>
<td>574.4</td>
<td>35</td>
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<tr>
<td>Blue Water Bridge</td>
<td>576.2</td>
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<tr>
<td>Head of River at Fort Gratiot</td>
<td>577.2</td>
<td>31</td>
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<tr>
<td>Lake Huron Approach Channel</td>
<td>577.5</td>
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<tr>
<td><strong>ST. MARYS RIVER</strong></td>
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<tr>
<td>Mouth of River at Detour</td>
<td>577.5</td>
<td>29</td>
</tr>
<tr>
<td>West and Middle Neebish</td>
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<td>27</td>
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<tr>
<td>Head of Little Rapids</td>
<td>578.4</td>
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<tr>
<td>U.S. Slip</td>
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<td>27</td>
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<tr>
<td>Above Locks</td>
<td>600.4</td>
<td>20</td>
</tr>
<tr>
<td>Head of River at Point Iroquois</td>
<td>601.1</td>
<td>17</td>
</tr>
</tbody>
</table>

**UNDERSTANDING THE FORECAST**

Available water depth is determined for a location by adding (+) or subtracting (-) the amount from the above table to the appropriate channel depth shown in the profile Connecting Channel Depths Graphic or to water depths shown on National Oceanic and Atmospheric Administration (NOAA) navigational charts.

**CAUTION**

Depths so determined are representative of a still water surface elevation, disturbed by neither wind nor other causes. Depths, however, may be reduced or increased as much as several feet for short periods due to these disturbances, or when sections of channels develop shoals. Vessel masters should refer to "Local Notice to Mariners" for extent of shoaling and scattered bedrock projections in all channels. Ice conditions can have a dramatic impact on actual channel depth and can lead to large short-term water level fluctuations. Ice information can be found at the National Ice Center’s website.

**FOR FURTHER INFORMATION CONTACT:**

Detroit District Corps of Engineers: Detroit District Great Lakes Homepage

Detroit MI, 48226: Great Lakes Information Network

1-888-694-8318 ex. 1: NOAA Tides and Currents

email: hhpm@usace.army.mil

**FOR MORE INFORMATION VISIT:**

NOAA, National Ocean Service: SSMC4, STATION 7523

International Joint Commission: 1305 East-West Hwy

NOAA, National Ocean Service: 20910-3233

U.S. Coast Guard - District 9: (301) 713-2902
GREAT LAKES-MARINE EVENT-SAFETY ZONES-SECURITY ZONES

Events listed below are those events that may have accompanying special local regulations.

<table>
<thead>
<tr>
<th>Location</th>
<th>Name of Event</th>
<th>Date / Time</th>
<th>POC</th>
<th>Tel #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester, NY</td>
<td>Fall Frontier Thistle Regatta</td>
<td>10-Sep-22 to 11-Sep-22</td>
<td>Mary Ellen Brown</td>
<td>703-408-7298</td>
</tr>
<tr>
<td>Rochester, NY</td>
<td>Newport Yacht Club Sunday Afternoon Racing</td>
<td>6/26/2022 to 10/16/2022</td>
<td>Kenny Fourspring</td>
<td>585-902-2183</td>
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<tr>
<td>Cleveland, OH</td>
<td>MTKYN</td>
<td>17-Sep-22</td>
<td>Chris Mele</td>
<td>724-510-6194</td>
</tr>
<tr>
<td>Conneaut, OH</td>
<td>CACC Perch and Pilsner</td>
<td>10-Sep-22</td>
<td>George Augustine</td>
<td>724-923-6602</td>
</tr>
<tr>
<td>Buffalo, NY</td>
<td>Buffalo Harbor Sailing Club-Racing Season</td>
<td>5/17/2022 to 9/28/2022</td>
<td>Gregory Toole</td>
<td>917-993-2976</td>
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<tr>
<td>Muskegon, MI</td>
<td>Muskegon Yacht Club - Wednesday Night Racing Series</td>
<td>each Wed. May 5 - Oct 12, 2022</td>
<td>MSTC Sherrill</td>
<td>414-747-7148</td>
</tr>
</tbody>
</table>
CURRENT NINTH DISTRICT BRIDGE MAINTENANCE/ACTIVITIES
Week [36/22]

Note: Short-term bridge maintenance closures and various activities may only be published through Broadcast Notice to Mariners and may not be included in the Local Notice to Mariners. Mariners should both listen to Broadcast Notice to Mariners (BNM) and read Coast Guard Local Notice to Mariners (LNM) available by clicking HERE for the most recent and complete marine information.

PUBLIC NOTICES FOR 9th District BRIDGES: https://www.navcen.uscg.gov/D9BN

Please contact us with any questions or concerns:
Blair Stanifer (216) 902-6086 or William.B.Stanifer@uscg.mil
Lee Soule (216) 902-6085 or Lee.D.Soule@uscg.mil
Michael Walker (216) 902-6087 or Michael.O.Walker2@uscg.mil
FAX: (216) 902-6088

Commander (dpb)
Ninth Coast Guard District
1240 E. 9th St. Room 2047B
Cleveland, Ohio 44199-2001

NOTES:
The Coast Guard Hearing Office in recent delay report cases ruled that a 30-minute call ahead is not a signal as defined under 33 CFR 117.15 to request an opening of a bridge. While mariners and some bridge operators in the Great Lakes have informally agreed to a 30-minute call ahead in the past, the Coast Guard has and does not recognize it as binding on mariners or operators under federal regulations. Accordingly, mariners should be cautious of relying on ANY call-ahead, as the sole means to request an opening. Mariners should request openings for a bridge based upon the operating regulation for the bridge outlined in Subparts A or B of 33 CFR Part 117, and should consider maintaining regular communications with the drawtender until the opening. Any delays should be reported to this office using the Ninth District Bridge Delay Report form, making sure to provide a narrative of ALL communications with the drawtender. Please reach out to Michael Walker, Bridge Management Specialist, at 216-902-6087 or michael.o.walker2@uscg.mil with questions.

ACTIVE BROADCAST NOTICE TO MARINERS (BNM)

SAFETY BCST PLUS SKED BCST UNTIL 122000Z SEP 22
U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C137-22
IL- LAKE MICHIGAN – CALUMET SAG CHANNEL


SAFETY BCST PLUS SKED BCST UNTIL 142200Z SEP 22
U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C139-22
IL - LAKE MICHIGAN - CHICAGO HARBOR
FROM SEPTEMBER 7 THROUGH OCTOBER 7, 2022 BETWEEN THE HOURS OF 0600 AND 1800, MONDAY THROUGH SATURDAY A 30-FOOT HARCON BRIDGE INSPECTION VESSEL WILL BE WORKING UNDER ALL HIGHWAY BRIDGES BETWEEN RIVER MILE 0.67 (CORPS MILE 326.5) AND RIVER MILE 2.44 (CORPS MILE 324.8) OVER THE MAIN AND SOUTH BRANCHES OF THE CHICAGO RIVER AND TO INCLUDE THE KENZIE STREET BRIDGE AT MILE 1.81 (CORPS MILE 325.7) OVER THE NORTH BRANCH OF THE CHICAGO RIVER. THE HARCON WILL MOVE IS PROVIDED A 15-MINUTE ADVANCE NOTICE ON VHF-FM MARINE CHANNEL 16.

SAFETY BCST PLUS SKED BCST UNTIL 142200Z SEP 22
U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C140-22

NY - NEW YORK BARGE CANAL SYSTEM

SAFETY BCST PLUS SKED BCST UNTIL 150500Z SEP 22
U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C141-22

IL- LAKE MICHIGAN –CALUMET HARBOR
ON SEPTEMBER 14, 2022 BETWEEN THE HOURS OF 0700 AND 2300, THE 95TH STREET BRIDGE AT MILE 1.09 (CORPS MILE 332.1) OVER THE CALUMET RIVER WILL BE SECURED TO MASTED NAVIGATION. VESSELS ABLE TO PASS UNDER THE BRIDGE WITHOUT AN OPENING MAY DO SO AT ANY TIME.

SAFETY BCST PLUS SKED BCST UNTIL 202200Z SEP 22
U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C142-22

MN - LAKE SUPERIOR - RAINER
FROM SEPTEMBER 12 THROUGH SEPTEMBER 27, 2022, BETWEEN THE HOURS OF 0700 AND 1900 DAILY, A 53-FOOT BY 30-FOOT BARGE WILL BE DRILLING BORE SAMPLES AT THE CANADIAN NATIONAL RAILROAD BRIDGE AT MILE 85.0 OVER THE RAINY RIVER. THE BARGE WILL
MONITOR VHF-FM MARINE CHANNEL 16 AND WILL LEAVE ENOUGH ROOM FOR VESSELS TO PASS THE BARGE.

2021 FEDERAL REGULATIONS DOCKET STATUS
USCG-2021-0336 – NPRM – Oshkosh – FR Pending
USCG-2022-0237 - TD – Keweenaw Waterway – open for public comments until November 1, 2022

ACTIVE LOCAL NOTICE TO MARINERS (LNM)

GREAT LAKES REGION

GREAT LAKES, Drawbridge Delay Reports, Chart 14500
Mariners are requested to submit Reports of Drawbridge Signal/Operations Delays directly to the Ninth Coast Guard District Bridge Branch using the attached form. Reports of signal or drawbridge delays have been processed by Coast Guard Marine Safety Offices in recent years, but will now be processed and traced by the Bridge Branch. Reports may be sent by mail, e-mail, or by fax. The mailing address and fax number are on the form. The updated form is printed and also attached on the last page of this list.
[08/05] [34/12]

ST. LAWRENCE SEAWAY

NY STATE CANAL SYSTEM
(Everything West of St. Johnsville, NY)

NEW YORK STATE CANAL SYSTEM – NY - Erie Canal – Chart 14786 – Bridge Maintenance
From October 1, 2022 through April 1, 2024 snooper trucks will be working under the E-200 North Main Street Bridge, mile 293.15, over the Erie Canal to rehabilitate the bridge in the fully open position. The permitted navigation lights will be removed and temporarily replaced with steady burning yellow lights on the bottom and four-corners of the drawspan. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass.
[22/22]

NEW YORK STATE CANAL SYSTEM – NY - Erie Canal – Chart 14786 – Bridge Inspection
From July 11, 2022 through April 30, 2023 scaffolding will be installed under one half of the E-99a Forgham Street Bridge at Mile 220.27 over the Erie Canal.
[24/22]

NEW YORK STATE CANAL SYSTEM – NY - Erie Canal – Chart 14786
From September 7 through October 7, 2022 between the hours of 0700 and 1800, each day inspectors will use a 30-foot Harcon Bridge inspection vessel under all highway bridges between the E27 River Road Bridge at Mile 71.45 and the E60 Higginsville Road Bridge at Mile 126.04 over the Erie Canal. The Harcon will monitor
VHF-FM Marine channel 16 and will move to accommodate vessel traffic with a 15-minute advance notice. [32/22]

**LAKE ONTARIO**

**LAKE ONTARIO – NY – Rochester Harbor – Chart 14815**
On **September 25, 2022** between the hours of 0745 and 0930 the O’Rourke Bridge at Mile 1.25 over the Genesee River will be secured to masted navigation in conjunction with the Rochester Marathon. Vessels able to pass under the bridge without an opening may do so at any time. [31/22]

**LAKE ERIE - MAHONING RIVER - NIAGARA RIVER- ALLEGHENY RIVER**

*****REVISED*****

**LAKE ERIE – OH – Toledo Harbor – Chart 14847 – Bridge Construction/Demolition**
From July 1, 2019 through **July 23, 2023** a temporary causeway will be constructed between mile 6.73 and 6.76 for the construction of the new and demolition of the old Michael V. DiSalle Memorial (I-75) Bridge at Mile 6.73 over the Maumee River. The causeway will be marked with flashing yellow lights spaced approximately 10 meters apart with red over red lights marking the ends of the causeway. A 100 foot wide channel will be provided for vessels to pass through the construction area. Mariners are encouraged to pass through the area at a slow speed. [26/19] [21/20]

**LAKE ERIE – OH – Cleveland Harbor – Chart 14839 - Bridge Special Event**
On **October 8, 2022** between the hours of 0700 and 1400 the Carter Road Bridge at Mile 2.43 over the Cuyahoga River will be secured to masted navigation in conjunction with the Towpath Marathon event. Vessels able to pass under the bridge without an opening may do so at any time. [46/21]

**LAKE ERIE – OH – Cleveland Harbor – Chart 14839 - Bridge Maintenance**
From June 22 through **October 28, 2022**, inspectors will be utilizing Bosun Chairs and Snooper vehicles under the Main Avenue Viaduct at Mile 1.01, the Detroit Superior Bridge at Mile 1.42, and the Hope Memorial Bridge at Mile 3.14, over the Cuyahoga River. Spotters will warn of approaching vessels and move the inspectors to allow vessels to pass. [25/22]

**LAKE ERIE – NY – Buffalo Harbor – Chart 14833**
From August 20 through **November 1, 2022**, scaffolding that hangs approximately 3-feet below low steel will be installed under the Ohio Street Bridge at Mile 2.10 over the Buffalo River. If provided at least 2-weeks’ notice the center 75-feet of the scaffolding shall be pulled up to within 1-foot of the low steel to allow passage of vessels during foul weather. Advance notice should be provided directly to the drawtender. [34/22]

**DETROIT RIVER - LAKE ST. CLAIR - ST. CLAIR RIVER – RIVER ROUGE**

*****REVISED*****

**DETROIT RIVER – MI – Main Channel – Chart 14848 – Bridge Construction.**
From November 1, 2022 through **August 30, 2024**, contractors will be constructing the Gordie Howe International Bridge at mile 16.7 over the Detroit River. No equipment will be placed in the water. Overhead
work will have temporary steady burning yellow lights to mark new construction. A moving platform with quick flashing red lights and orange or red ball fenders on the bottom four corners with a safety net that hangs approximately 15-feet below low steel will be constructing the bridge. Mariners should avoid passing directly under the platform at any time. Snooper type vehicles will be utilized on the bridge throughout construction. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. When construction is completed and all equipment removed, the final vertical clearances for the bridge will be 152-feet for the center 100-feet of the navigation channel. No less than 137-feet of vertical clearance will be available at the channel limits. Vertical clearances are based on IGLD85.

ST. CLAIR RIVER – MI – Pine River – Chart 14853 – Bridge Maintenance
From January 1, 2023 through March 17, 2023, the Riverside Avenue, State Route 29 Bridge at Mile 0.10 over the Pine River will be secured to masted navigation. Vessels able to pass under the bridge without an opening may do so at any time.

DETOUR RIVER – MI – Trenton Channel – Chart 14848
From September 19 through September 23, 2022 between the hours of 0600 and 1800 the Grosse Isle Parkway (Free) Bridge at Mile 5.60 over the Detroit River Trenton Channel, will require a 15-minute advance notice on Monday and Friday and a 1-hour advance notice on Tuesday, Wednesday, and Thursday. Mariners should provide advance notice directly to the drawtender.

LAKE HURON

LAKE MICHIGAN – MI – Saginaw River – Chart 14867
From January 1 through February 28, 2023, the Lafayette Street Bridge at Mile 6.78 over the Saginaw River will be secured to masted navigation. Vessels able to pass under the bridge without an opening may do so at any time.

– MI – Saginaw River – Chart 14867
From August 23 through September 30, 2022 between the hours of 0700 and 1900 Monday through Friday the Liberty Street Bridge at Mile 4.99 over the Saginaw River will require a 2-hour advance notice for openings. An 80-foot by 60-foot barge and push boat will be working under the bridge along with snooper vehicles under the bridge. Mariners should provide advance notice for bridge openings and to request the barges to move by calling the drawtender at 608-425-0171 or email JDesmet@kraemerNA.com.

STRAITS OF MACKINAC, SAINT MARY’S RIVER AND FALLS

LAKE MICHIGAN – EAST

LAKE MICHIGAN – MI – Grand Haven – Chart 14933- Bridge Maintenance
From November 1, 2022 through April 30, 2023, the U.S. Route 31 Bridge at Mile 2.89 over the Grand River will be secured to masted navigation. From May 1, 2023 through May 26, 2023, one leaf of the bridge will be secured to masted navigation and the other leaf will operate normally.
LAKE MICHIGAN – MI – Grand Haven – Chart 14933- Bridge Maintenance
From September 6, 2022 through October 30, 2022, one leaf of the U.S. Route 31 Bridge at Mile 2.89 over the Grand River will be secured to masted navigation and the other leaf will operate normally.

LAKE MICHIGAN – MI – Grand Haven – Chart 14933 – Bridge Maintenance
From May 1 through September 30, 2022, scaffolding will be installed under the U.S. Route 31 Bridge at Mile 2.89 over the Grand River that hangs approximately 4-feet below low steel. Between the hours of 0600 and 2000 Monday through Saturday, four barges 80-feet by 40-feet or smaller will be utilized under the approach spans. The barges will monitor VHF-FM marine Channel 16 and move to accommodate vessels if provided a 20-minute advance notice of arrival. No equipment will be used in the navigation draw of the bridge and the bridge operating schedule will not be changed.

LAKE MICHIGAN – MI – Saugatuck Harbor – Chart 14906 - Bridge Maintenance
From August 1 through November 15, 2022, scaffolding that extends approximately 4-feet below low steel of the Douglas-Saugatuck US-31Highway Bridge at the Southeast Corner of Lake Kalamazoo. A 20-foot by 10-foot barge will be working under the bridge daily.

LAKE MICHIGAN – MI – Grand Haven – Chart 14933
From August 15, 2022 through April 30, 2023, two 60-feet by 40-feet barges will be working around the piers and banks of the U.S. Route 31 Bridge at Mile 2.89 over the Grand River and the M-104 Bridge at Mile 3.15 over the Spring Lake Channel installing new riprap. The barges can be contacted on VHF-FM Marine Radio and will move to accommodate vessels passing if a 20-minute advance notice is provided. From September 6, 2022 through May 26, 2023, one-half of the U.S. Route 31 Bridge at Mile 2.89 over the Grand River will be secured to masted navigation and scaffolding that extends approximately 3-feet below low steel will be installed under the secured spans. Two 120-feet by 40-feet barges will be used to install a new submarine cable starting in November of 2022.

*****REVISED*****
LAKE MICHIGAN – MI – Charlevoix Harbor – Chart 14942 – Bridge Maintenance
From 0700 on January 1, 2024 through 0700 on March 31, 2024 the US 31 Bridge Street Bridge, over the Pine River will be secured to masted navigation. Vessels able to pass under the bridge without an opening may do so at any time.

LAKE MICHIGAN – MICHIGAN CITY & INDIANA HARBOR & GARY HARBOR
LAKE MICHIGAN – IN – Indiana Harbor – Chart 14927 - Bridge Inspection
On August 31, 2022 between the hours of 0700 and 1900, the Dickey Road Bridge at Mile 1.21 over the Indiana Harbor Canal will require a 1-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender. Inspectors will utilize snooker trucks under the bridge. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass under the bridge.
LAKE MICHIGAN – CALUMET RIVER & LITTLE CALUMET RIVER

LAKE MICHIGAN – IL – Calumet Harbor – Chart 14927
On September 14, 2022 between the hours of 0700 and 2300, the 95th Street Bridge at Mile 1.09 (CORPS MILE 332.1) over the Calumet River will be secured to masted navigation. Vessels able to pass under the bridge without an opening may do so at any time.

[36/22]

CHICAGO RIVER – MAIN RIVER CHANNEL, NORTH BRANCH, NORTH SHORE CHANNEL, AND SOUTH BRANCH AND SOUTH FORK OF SOUTH BRANCH

LAKE MICHIGAN – IL – Chicago River – Chart 14927 – Bridge Discrepancy
The Coast Guard has received a report that the protection cells of the Fullerton Avenue Bridge at Mile 5.30 (CORPS MILE 329.1) over the North Branch of the Chicago River are leaning away from the channel.

[23/20]

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927 – Bridge Maintenance
From midnight on February 13 through noon on November 1, 2022, one leaf of the Dearborn Street Bridge at Mile 1.13 over the Main Branch of the Chicago River will be secured to masted navigation. The other leaf will operate normally. Monday through Friday between the hours of 0700 and 1530, a 125-foot by 35-foot barge will be working under the secured leaf and will move to accommodate vessels if a 1-hour advance notice is provided directly to the barge on VHF-FM Marine Channel 16.

[04/22]

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927 – Bridge Maintenance
From July 18 through November 12, 2022 between the hours of 0700 and 1600 daily a 100-foot by 80-foot barge will be working under the Grand Avenue Bridge at Mile 2.0 (CORPS MILE 325.9) over the North Branch of the Chicago River. The barge will move if a 2-hour advance notice is provided directly to the barge on VHF-FM Marine Channel 16 or by calling 708-253-5818. Snooper trucks will be used under the bridge. Spotters will warn of approaching vessels and move the man lifts to allow vessels to pass.

[27/22]

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927
From September 7 through October 7, 2022 between the hours of 0600 and 1800, Monday through Saturday a 30-foot Harcon Bridge inspection vessel will be working under all highway bridges between River Mile 0.67 (CORPS MILE 326.5) and River Mile 2.44 (CORPS MILE 324.8) over the Main and South Branches of the Chicago River and to include The Kenzie Street Bridge at Mile 1.81 (CORPS MILE 325.7) over the North Branch of the Chicago River. The Harcon will move is provided a 15-minute advance notice on VHF-FM marine Channel 16.

[31/22]

CALUMET SAG CHANNEL

LAKE MICHIGAN - IL – Calumet-SAG Channel - Chart 14926 - Bridge Maintenance
From June 1 through November 1, 2022 scaffolding that extends approximately 1-foot below low steel will be installed under one half of the Western Avenue Bridge at Mile 15.01 (CORPS MILE 318.0) over the Calumet-SAG Channel.

[07/22]

LAKE MICHIGAN – IL – Calumet-SAG Channel – Chart 14927 – Bridge Maintenance
from April 4 through November 18, 2022, scaffolding that hangs approximately 1-foot below low steel will be
installed under one-half of the Francisco Avenue at Mile 15.63 (CORPS MILE 317.4), the Crawford Avenue Bridge at Mile 17.01 (CORPS MILE 316.0), the Ridgeland Avenue at Mile 20.47 (CORPS MILE 312.5), 104th Avenue Bridge at Mile 25.56 (CORPS MILE 307.3) over the Calumet-SAG Channel.

[12/22]

*****REVISED*****

LAKE MICHIGAN - IL – Calumet-SAG Channel - Chart 14926
From September 6 through September 29, 2022 between the hours of 0700 and 1700, Monday through Saturday, a 120-foot by 40-foot barge will be working under the Sag Highway Bridge at Mile 28.76 (CORPS MILE 304.2) over the Calumet-SAG Channel. The barge will monitor VHF-FM Marine Channel 16 and will move if a 3-hour advance notice is provided by calling 630-739-2460. Containment that hangs approximately 3-feet below low steel will be installed under the bridge.

[21/22] [32/22]

LAKE MICHIGAN - IL – Calumet-SAG Channel
From September 6 through September 23, 2022 between the hours of 0600 and 1800, Monday through Saturday a 120-foot by 30-foot barge will be working under the Southwest Highway Bridge at Mile 22.25 (CORPS MILE 310.7) over the Calumet-SAG Channel. The barge will move if a 1-hour advance notice is provided directly to the barge on VHF-FM Marine Channel 16.

[33/22]

CHICAGO SANITARY AND SHIP CANAL, KANKAKEE RIVER & ROCK RIVER

(Lake Michigan to Mile 36.2/291.1)

LAKE MICHIGAN – IL – Chicago Sanitary and Ship Canal – Chart 14927
From August 22 through November 11, 2022 between the hours of 0700 and 1530, Monday through Saturday a 125-foot by 35-foot barge will be working under the South Western Avenue Bridge at Mile 6.7 (CORPS MILE 320.6) over the Chicago Sanitary and Ship Canal. The barge will move if a 1-hour advance notice is provided on VHF-FM Marine Channel 16 or by calling (312) 747-2470.

[32/33]

LAKE MICHIGAN – WEST

LAKE MICHIGAN – WI – Milwaukee Harbor
on September 17, 2022 between the hours of 0900 and noon the Wisconsin Avenue Bridge at Mile 1.46 over the Milwaukee River will be secured to recreational masted navigation, except at the discretion of the police department, in conjunction with the AI’s Run-Walk Event.

[36/22]

LAKE MICHIGAN – Sturgeon Bay Ship Canal – Green Bay – Fox River – Wolf River

LAKE MICHIGAN – WI – Fox River – Chart 14972- Bridge Maintenance
From April 27, 2022 through October 7, 2022 the Tayco Street Bridge at Mile 37.52 over the Fox River at Menasha will require a 2-hour advance notice from 0800 to Midnight and a 6-hour advance at all other times, each day, for openings. Mariners should call 920-360-5792 to provide advance notice.

[45/21]

LAKE MICHIGAN – WI – Fox River – Chart 14972- Bridge Maintenance
From May 1, 2023 through September 1, 2023 scaffolding that hangs approximately 3-feet below low steel will be installed under the Tower Driver / Leo Figaro Bridge at Mile 0.41 over the Fox River.

[11/22]
On October 1, 2022 between the hours of 0500 and 1000 the Ray Nitschke Bridge at Mile 1.58 over the Fox River will be secured to masted navigation in conjunction with the Berlin Women’s Half Marathon event. Vessels able to pass under the bridge without an opening may do so at any time.

LAKE SUPERIOR

The Coast Guard has issued a temporary deviation (87 FR 30418) from the operating schedule that governs the US41 Bridge, mile 16.0, over the Keweenaw Waterway between the towns of Houghton and Hancock, Michigan to test the effectiveness of a new bridge operating schedule.

From May 26, 2022 through September 6, 2022 the US41 Bridge, mile 16.0, over the Kewanee Waterway, shall open on signal: except that from 0700 to 1900 Monday through Friday, less federal holidays, the draw only need to be opened on the hour and half hour for any vessel. Between midnight and 0400, the draw shall be placed in the intermediate position and opened if a 2-hour advance notice is given. The bridge shall be opened on signal to pass any vessels over 300 feet in length or at any time 5 or more vessels gather at the bridge requesting an opening. All other provisions of 33 CFR 117.635 shall remain in effect.

If you have questions on this proposed rule, call or e-mail Mr. Lee D. Soule, Bridge Management Specialist, Ninth Coast Guard District, telephone 216-902-6085, e-mail Lee.D.Soule@uscg.mil. You may read the entire docket or submit comments identified by docket number USCG-2022-0237 using Federal Decision Making Portal at https://www.regulations.gov. Comments and relate material must reach the Coast Guard on or before November 1, 2022.

LAKE SUPERIOR – MN – Rainy River – Chart 14998

From September 12 through September 27, 2022, between the hours of 0700 and 1900 daily, a 53-foot by 30-foot barge will be drilling bore samples at the Canadian National Railroad Bridge at Mile 85.0 over the Rainy River. The barge will monitor VHF-FM Marine Channel 16 and will leave enough room for vessels to pass the barge.
(Revised 11/19) NINTH DISTRICT DRAWBRIDGE SIGNALS OR OPERATION DELAYS FORM

TO: Commander (dpb)  
Ninth Coast Guard District  
1240 E. 9th Street – Room 2047b  
Cleveland, Ohio 44199-2060  
Phone: (216) 902-6087  
Fax: (216) 902-6088  
E-Mail: William.B.Stanifer@uscg.mil  
Lee.D.Soule@uscg.mil  
Michael.O.Walker2@uscg.mil

CONFIDENTIALITY: Please check here if you wish to keep names of vessels and persons confidential

1. NAME OF VESSEL: ______________________________

2. PORT: _________________________________________

3. DATE OF DELAY: _______________ ( ) INBOUND ( ) OUTBOUND

4. BRIDGE NAME: _______________________________

5. WATERWAY: __________________ MILE: __________
   (Bridge name, waterway, and mile from Coast Pilot #6)

NOTE: IF DELAY IS AT RAILROAD BRIDGE, AND TRAINS ARE "CONTINUOUSLY" BEING RUN ACROSS OR STOPPED ON A DRAWBRIDGE, PLEASE INDICATE ON REVERSE SIDE OF FORM THE STARTING AND ENDING TIMES FOR EACH TRAIN, OR TIMES THAT TRAINS ARE STOPPED ON BRIDGE.

6. IF ADVANCE NOTICE IS PROVIDED, TIME NOTICE GIVEN: __________________

7. TIME FIRST SIGNAL GIVEN FOR BRIDGE: _____ TIME ARRIVED AT BRIDGE: ________

8. TIME FIRST SIGNAL RECEIVED FROM BRIDGE: __________

9. DID RESPONSE INDICATE AN IMMEDIATE OPENING COULD BE EXPECTED OR THAT THE RESPONSE COULD BE A DELAY?
______________________________________________________________________________
______________________________________________________________________________

10. NAME(S) AND PHONE NUMBER OF BRIDGE TENDER: ________________________________

11. TIME BRIDGE OPENED: ______ TIME LOST: ______

12. WHAT WAS REASON PROVIDED FOR DELAY AND WHO PROVIDED IT?: ____________________

13. WHAT NAVIGATIONAL OR MANEUVERING DIFFICULTIES WERE CAUSED BY DELAY?: __________

14. PRINTED OR TYPED NAME(S) AND ADDRESS(ES) OF REPORTING SOURCE(S):

15. PHONE NUMBERS AND/OR E-MAIL FOR REPORTING SOURCE(S) (FOR ADDITIONAL QUESTIONS BY COAST GUARD AND FOR FINAL STATUS OF REPORT):

   (SIGNATURE)
Waterway Analysis and Management System Survey

Name of Waterway: _________________________________________

User Information

___ Commercial User
___ Recreational User

Number of years in the maritime industry or number of years using this waterway: ____________________________________________________

Number of transits in the waterway per year: ________________________

Number of night transits of waterway: _____________________________

Seasonal Dates:      Start: ______________End:____________________

Name of Vessel: __________________________________________________

Vessel Description: _____________________________________________

Length: ___________ Beam:__________ Draft:_________ Gross Tons:_____

Net Tons: _________ Bridge Height of Eye:

Cargo Carried: __________________

Navigational tools used: (ECDIS/ECPINS, GPS, DGPS,VISUAL, RADAR)

What area do you believe is the most dangerous or difficult to navigate:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

Are the floating aids to navigation (lighted and unlighted buoys) adequate for this waterway:

_________________________________________________________________
Are the fixed aids to navigation (lights, ranges, lighthouses, daybeacons) adequate for this waterway: ____________________________________________

Are the year round and lighted ice buoys adequate: ____________________________

Are there buoys that you feel should be changed to fixed aids to navigation? ____________________________________________

Are there any buoys that could be eliminated from this waterway: ______

Are there any buoys with sound signals that the bell or gong could be removed:

Are there any areas that require additional aids to navigation in this waterway:

Do the nautical charts, Coast Pilot, and Light List meet your needs for this waterway:__________________________________________
Are there private Aids to Navigation that you find misleading or interfere with the current system in the waterway:

_____________________________________________________________
_____________________________________________________________
_____________________________________________________________

Any addition comments on this waterway:

_____________________________________________________________
_____________________________________________________________
_____________________________________________________________
_____________________________________________________________

Thank you for taking time to comment on this waterway. Your input as a mariner very valuable to the U. S. Coast Guard in evaluating waterways to make them safe and as easily navigable as possible. Please feel free to contact D09-DG-District-D9-ATON-Support@uscg.mil with any other questions or concerns about any aids to navigation in the Great Lakes. The survey can be mailed to:

Commander (dpw-2)
Ninth Coast Guard District
1240 East Ninth Street
Cleveland, Ohio 44199
SAILDRONE, INC. will operate two Uncrewed Surface Vehicles, called “Saildrones”, to study fish populations in Lake Superior waters. They will be launched from Ashland, WI on or about August 8th and transit through the central and western areas of Lake Superior through September 30, 2022. They will have track lines nearshore and offshore throughout the lake.

Vessels are requested to transit the area with caution, and remain greater than 500 meters away from the research equipment.

Saildrones are wind-powered Uncrewed Surface Vehicles that carry important oceanographic and fisheries acoustics research instrumentation and are controlled from shore through satellite communications.

- Color: Orange
- Light: white all-round light on top of mast
- Radar Reflector: Yes
- Notation: “Saildrone”
- Length: 23 ft & Width: 2 ft
- Height: 16 ft above water line
- Draft: 6 ft, Avg. speed: 3 kts
- GPS / AIS / Cameras: Yes
- AIS identifiers: “SD-1063”, “SD-1064”

SAILDRONE MISSION CONTROL
(510) 722-6070
missioncontrol@saildrone.com
USCG Autonomous Vessel Mission Notification - Submitted May 10th, 2022
Submitted to: LTJG Gagnon, Waterways Management Branch, USCG 9th District
Submitted by: Stephen Constant, Physical Science Tech., NOAA, Great Lakes Environmental Research Lab

Boeing Liquid Robotics SV2 WaveGlider, Autonomous Wave Driven Surface Vehicle

1. Characteristics:
   a. Size:
      i. Surface component - “Float” 82” x 24”
      ii. Sub-surface component - “Sub” 42” x 75”
      iii. Sub and Float joined by 6m (20ft) tether (Figure 1)
   b. Propulsion: Mechanical conversion of wave energy into forward propulsion, max speed 1.4 knots
   c. Draft: Float 12”. Sub when hanging below Float 20’
   d. Color: Float @ surface is Safety Yellow w/ Yellow Flag
   e. Lighting Configuration: Shore activated, LED, white, all around on 4’ mast

2. Capabilities:
   a. Communication: Real time Iridium Short Burst Data - Real time, on demand commands from Pilot in Charge, vehicle sends status updates every 5 minute or up to every 1 minute if an AIS equipped vessel approaches within 1km.
   b. Collision Avoidance: remotely commanded manual evasive action, as directed by Pilot in Charge/On Duty
   c. Means Of Lookout: Map based web interface displaying all control systems, charts, AIS targets, waypoints, path, etc. All updated at 5 or 1 minute intervals as listed in “Communication” above. A 24hr watch schedule will be instituted when the vehicle is deployed.

3. Contact Info:
   a. Stephen Constant, Physical Science Technician, Marine Instrumentation, Great Lakes Environmental Research Lab, NOAA, Ann Arbor, MI. Office 734-741-2336, Mobile 734-717-0205, steve.constant@noaa.gov

4. Location and Time of Deployment:
   a. Launch - 1300 July 5th, 2022. Thunder Bay, 14.86nm southeast of Alpena, MI Lighthouse
   b. Operational Area - Please see attached polygon boundaries for Thunder Bay, Outer Saginaw Bay, and Southern Basin.
   c. Recovery - Estimated to be between August 18th and 20th, 2022 depending on rate of travel/wave conditions. Exact time TBD. Retrieval at deployment location.

5. Ability to recover vessel: As needed in waves up to 1.5’. Launch and recovery via crane on R/V NOAA 5503 (55ft)

6. Other - Assessment
   a. Mission - The Wave Gliders will be placed in the water from an NOAA vessel and begin their mission near the outer Thunder Bay polygon. They will then split up and cover the other remaining polygons (Outer Saginaw Bay and Southern Basin) before returning to the deployment location on or around 8/18/22.
   b. Risk Mitigation - The Wave Glider is bright yellow in color (highly visible during daylight hours) and contains an all around white LED at the top of the mast for night navigation. The average speed is approximately 1 knot, giving ample time to maneuver as needed in the event a change of course is warranted. The Wave Glider will be monitored/piloted 24 hours/day using software that provides sufficient means of collision avoidance. It has an AIS receiver that will be programmed to give the
pilot early notification of an approaching vessel (equipped with AIS). If any malfunction occurs, the vessel will be programmed to enter a "holding pattern" until an NOAA vessel arrives on scene to troubleshoot. Above contact information will also be affixed to the vessel topsides. If all vessel power is lost, an attached stand-alone back-up satellite tracking device will be used for location and recovery.

Figure 1 - Simple schematic of vehicle and means of propulsion

Figure 2 - Example screenshot of the Wave Glider Management System (WGMS) use by remote pilots to control the WaveGlider during deployment
Outer Saginaw Bay Polygon Boundaries:

-83.2713, 44.2383
-83.2598, 44.1746
-83.0017, 44.4333
-82.8859, 44.2234
Thunder Bay Polygon Coordinates:

-83.1227, 44.9380
-83.1238, 44.7960
-82.9209, 44.9204
-82.8387, 44.7488
Southern Basin Lake Huron Polygon:

-82.5318, 43.9187  
-82.2484, 43.9590  
-82.4933, 43.8157  
-82.2744, 43.8372