

U.S. Department of Homeland Security

United States Coast Guard

LOCAL NOTICE TO MARINERS

District: 9 Week: 29/22

> 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/ Light List Reference: Commandant Publication P16502.7, VOL VII, 2022 Edition Coast Pilot Reference: 2022 U.S. Coast Pilot 6 Great Lakes 52nd Edition

Coast Pilots, along with corrections are available at: https://nauticalcharts.noaa.gov/publications/coast-pilot/index.html 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 - B105-22 through B113-22 Ninth District - C111-22 through C112-22 Sector Detroit, MI - D053-22 through D054-22 Sector Lake Michigan, WI - M188-22 through M198-22 Sector Sault Ste Marie, MI - S093-22 through S096-22

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 Al - 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 LHB - Lighted Horn Buoy LGB - Lighted Gong Buoy LONG - Longitude LNM - Local Notice to Mariners LT - Liaht

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

REFL - Reflective RRL - Range Rear Light RELIGHTED - Aid Relit **RELOC** - Relocated RESET ON STATION - Aid Reset on Station

RFL - Range Front Light RIV - River

RRASS - Remote Radio Activated Sound Signal s - seconds

SEC - Section SHL - Shoaling

DISCON - Discontinued DMGD/DAMGD - Damaged

ec - eclipse EST - Established Aid

ev - every

EVAL - Evaluation EXT - Extinguished

F - Fixed fl - flash Fl - Flashing G - Green

GIWW - Gulf Intracoastal Waterway

HAZ - Hazard to Navigation

HBR - Harbor

HOR - Horizontal Clearance

HT - Height

LWP - Left Watching Properly

MHz - Megahertz MISS/MSNG - Missing Mo - Morse Code

MRASS - Marine Radio Activated Sound Signal

MSLD - Misleading N/C - Not Charted

NGA - National Geospatial-Intelligence Agency

NO/NUM - Number NOS - National Ocean Service

NW - Notice Writer OBSCU - Obscured OBST - Obstruction

OBSTR - Obstruction Oc - Occulting

ODAS - Anchored Oceanographic Data Buoy

si - silent SIG - Signal SND - Sound

SPM - Single Point Mooring Buoy

SS - Sound Signal STA - Station STRUCT - Structure St M - Statute Mile

TEMP - Temporary Aid Change

TMK - Topmark

TRLB - Temporarily Replaced by Lighted Buoy TRLT - Temporarily Replaced by Light TRUB - Temporarily Replaced by Unlighted Buoy

USACE - Army Corps of Engineers

W - White Y - Yellow

Additional Abbreviations Specific to this LNM Edition:

LIB - Lighted Ice Buoy

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.lrb.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/

LNM: 28/12

Navigation Center Website Transition

The U.S. Coast Guard Navigation Center is going to transition the Navigation Center website to a new, enhanced version in the first quarter of 2022. As part of this transition, URLs will be updated across the site including URLs linked to PDFs. Therefore, once the transition is complete, legacy site URLS will no longer function, including bookmarked URLs and URLs used in automatic downloading of data and/or products. Outdated URLs will automatically redirect to the home page of the site, and from there you will be able to easily navigate to your preferred page.

Below are a few of the "old"/new URL pairs listed for your convenience. Please note that the new URLs will not be active until we launch the new website. Of course, once it is launched, the new URLs will be available for re-bookmarking. As a reminder, these are top level URLs that may contain additional links that you use.

This notice will be updated when the final launch date is determined and another notice will be issued to notify you when the site goes live. Questions/concerns may be directed to the NAVCENWebTEAM@uscg.mil.

Local Notices to Mariners (LNMs)

Current URLs: https://www.navcen.uscg.gov/?pageName=InmMain

Replacement: https://www.navcen.uscg.gov/local-notices-to-mariners-by-cg-district

Light Lists Annual Publication

Current URLs: https://navcen.uscg.gov/?pageName=lightLists

Replacement: https://www.navcen.uscg.gov/light-list-annual-publication

Light List - Weekly

Current URLs: https://navcen.uscg.gov/?pageName=lightListWeeklyUpdates

Replacement: https://www.navcen.uscg.gov/weekly-light-lists

Light List - Corrections

Current URLs: https://navcen.uscg.gov/?pageName=lightListCorrections Replacement: https://www.navcen.uscg.gov/light-list-summary-of-corrections

LNM: 05/22

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:

https://www.lre.usace.army.mil/Missions/Great-Lakes-Information/Great-Lakes-Water-Levels/Water-Level-Forecast/Connecting-Channels-Forecast/

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)

LNM: 23/22

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.

LNM: 14/20

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.

LNM: 10/21

LAKE ERIE - BUFFALO HARBOR - Chart 14833

North Entrance Light "7" (LLNR 2720) The light has been temporarily discontinued due to construction on the breakwater. A temporary light without day marks and lowered focal plane has been established in position 42-52'50.220"N / 078-53'45.474"W. The characteristic is FL G 2.5s. Another lantern was mounted on the Northwest end of the breakwater in position 42-53'04.590"N / 078-54'05.880"W. The characteristic of this light is QW.

LNM: 51/19

LAKE HURON - MI - Alpena - Chart - 14869

From 19 July 2022 to 26 July 2022 USCGC SPAR will be assisting Thunder Bay National Marine Sanctuary (TBNMS) in the deployment of 12 wreck mooring buoys to include subsurface mooring buoys. Operations for positioning wreck moorings approximately in the vicinity of Alpena, MI (North PT: Lat: 45-32-03.268N / Long: 083-30-32.446W to Southern PT: Lat: 45-14-03.480N / Long: 083-16-42.420W. Underwater ROV deployment will be used while positioning wreck mooring buoys and subsurface buoys.

USCGC SPAR can be contacted on VHF channel 16. All mariners are requested to remain 1000 yards from the vessels while operations are being conducted and to transit the area with caution.

LNM: 28/22

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.

LNM: 15/22

LAKE MICHIGAN - WAUKEGON TO SOUTH HAVEN - CHART 14905

Michigan City – Two red nun unlighted buoys have been established in the following positions to best mark shoaling in Michigan City Harbor. The buoys are located across the channel from the Michigan City Outer Basin Light (LLNR 19570). The buoys positions may change as the shoaling changes.

Michigan City Buoy "2" 41-43-30.719N / 086-54-32.796W Michigan City Buoy "4" 41-43-28.625N / 086-54-31.842W

LNM: 23/21

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.

LNM: 45/20

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.

LNM: 24/22

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.

LNM: 24/22

LAKE SUPERIOR

The following NOAA Weather buoys have been commissioned for the season. Due to electronic positioning issues the buoys have been placed in their approximate position advertised in the light list.

A. NOAA LIGHTED WEATHER BUOY 45001 (LLNR 16880).

B. NOAA LIGHTED WEATHER BUOY 45004 (LLNR 16850).

LNM: 16/22

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)

LLNR	Aid Name	Status	Chart No	. BNM Ref.	LNM St LNM End
25	St. Lawrence Seaway Lighted Buoy 5	LT EXT		B113-22	29/22
5815	Erie Proving Ground Buoy H	OFF STA	14842		24/22
8400	Peche Island Range Front Light	LT EXT	14853		26/22
8410	Peche Island Range Rear Light	LT EXT/DAYMK MISSING	14853	D017-22	13/22
13025	Winter Point Range Rear Light	DAYMK MISSING	14887	S105-21	46/21
13205	Harwood Point West Range Rear Light	LT EXT	14887	S096-22	29/22
13475	West Neebish Channel (Downbound) Upper Range Rear Light	DAYMK MISSING	14887	S113-21	51/21
13515	West Neebish Channel (Downbound) Oak Ridge Range Front Light	DAYMK MISSING	14887	S56-21	25/21

13515	West Neebish Channel (Downbound) Oak Ridge Range Front Light	LT EXT	14887	S029-22	14/22
14050	Six Mile Point Range Rear Light	DAYMK MISSING	14883	S016-21	10/21
14465	Point Iroquois Shoal Lighted Buoy 33	LT EXT/TRUB	14884	S084-22	24/22
16650	Hat Point Lighted Bell Buoy 1	LT EXT		S075-22	23/22
16660	Isle Royale West End Buoy 2	OFF STA		S071-22	23/22
16965	Flag Island Lighted Buoy 4	OFF STA	14999	S95-21	43/21
17015	Warroad Range Front Light	LT EXT			43/21
17020	Warroad Range Rear Light	DAYMK MISSING			43/21
17210	Canoe Channel Daybeacon 8	STRUCT DEST/TRUB	14998		23/22
18245	West Arm Buoy 6	OFF STA	14913	S095-22	29/22
18405	Arcadia Harbor Light 1	LT EXT	14907		29/22
21275	Rowley Bay Buoy 2	MISSING	14909	M111-22	21/22
21455	Gravelly Island Shoal Buoy 4	MISSING	14909	M110-22	21/22
22180	Green Bay Harbor Entrance Channel Range Front Light	DAYMK DMGD	14918		24/21
22185	Green Bay Harbor Entrance Channel Range Rear Light	DAYMK MISSING	14918		44/20

DISCREPANCIES (FEDERAL AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
14640	Marquette Breakwater Inner Light	WATCHING PROPERLY	14970		29/22	29/22
17790	Ile Aux Galets Buoy 9	RESET ON STATION	14911		22/22	29/22
18815	Bank Point Light	WATCHING PROPERLY	14934		22/22	29/22
20635	Milwaukee Breakwater Light	WATCHING PROPERLY	14924		29/22	29/22

DISCREPANCIES (PRIVATE AIDS)

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
2517	Youngstown Safe Boating Zone Lighted Float C	LT EXT	14816		27/22	
2525	Lewiston Ski Jump Light	LT EXT	14816		27/22	
2670	Buffalo Intake Crib Light	LT EXT	14833		27/22	
2740	Buffalo River Light 5	LT EXT	14833		27/22	
2790	State Breakwater Light 2	LT EXT	14833		27/22	
3505	International Paper East Crib Light	LT EXT	14835		18/22	
3890	Fairport Harbor Port Authority Boat Ramp Light	LT EXT	14837		27/22	
3905	Painesville Inner Intake Crib Lighted Buoy 1	MISSING	14837		27/22	
3910	Mentor Harbor Light 1	LT IMCH	14825	B045-22	20/22	
3930	Mentor Harbor Yacht Club Range Front Light	LT EXT	14825		27/22	
3935	Mentor Harbor Yacht Club Range Rear Light	LT EXT	14825		27/22	
4021	Newport Harbor Entrance Light 1	LT EXT	14826		27/22	
4022	Newport Harbor Entrance Light 2	LT EXT	14826		27/22	
4030	Cleveland Waterworks Intake Crib Light	SS INOP	14826		22/22	
4104	Bkl Regulated Navigation Area Light	LT EXT	14839		25/22	
4105	Lakeside Yacht Club Entrance North Light	LT IMCH	14839	B029-22	17/22	
4110	Lakeside Yacht Club Entrance South Light	LT EXT	14839	B029-22	17/22	
4150	North Coast Harbor Light 2	LT EXT	14839		20/22	
4240	Cuyahoga River Abutment Light	LT EXT	14839		27/22	
4255	Bradstreet Landing Dock Light	LT EXT	14826		18/22	

4274	Avon Lake Launch Basin Light 1	LT EXT	14826	27/22
4300	Sheffield Lake Light 1	LT IMCH	14826	27/22
4385	U.S. Steel Corporation Mooring Cell Light	LT EXT	14841	27/22
4460	Beachwood Villa Light 2	LT EXT	14830	28/22
12610	St Ignace Marina Northeast Breakwall Light	LT EXT	14881	18/22
19575	Baileytown Water Intake Crib Light	LT IMCH	14926 M166-22	27/22
19605	Gary Bulkhead Light	LT EXT	14926 M167-22	27/22
19636	Buffington Harbor Inner Breakwater East Light 2	LT IMCH	14926	30/21
19665	Indiana Harbor East Bulkhead Light	LT IMCH	14926	14/22
20090	Belmont Harbor Light	LT EXT	14926 M189-22	28/22
20386	Northpoint Marina Reef Obstruction Lighted Buoy A	MISSING	14904	22/22
20387	Northpoint Marina Reef Obstruction Lighted Buoy B	MISSING	14904	22/22
20388	Northpoint Marina Reef Obstruction Lighted Buoy C	MISSING	14904	22/22
20389	Northpoint Marina Reef Obstruction Lighted Buoy D	MISSING	14904	22/22
20729	South Shore Park Entrance Lighted Buoy 1	MISSING	14924 M162-22	26/22
20730	South Shore Park Entrance Lighted Buoy 2	OFF STA	14924 M161-22	26/22

DISCREPANCIES (PRIVATE AIDS) CORRECTED

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
11525	Rockport Harbor Crib Light R	WATCHING PROPERLY	14869		27/22	29/22

PLATFORM DISCREPANCIES

Name Status Position BNM Ref. LNM St LNM End

None

PLATFORM DISCREPANCIES CORRECTED

Name Status Position BNM Ref. LNM St LNM End

None

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

LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
2105	Oswego Harbor West Channel Light 2	TRLB	14813		17/19	
2720	Buffalo Harbor North Entrance Light 7	DISCONTINUED	14833		33/19	
3480	Barcelona Harbor East Breakwater Light	DISCONTINUED FOR DREDGING	14823		23/22	
3485	Barcelona Harbor West Breakwater Light	DISCONTINUED FOR DREDGING	14823		23/22	
5435	West Harbor Inner Channel Daybeacon 12	TRUB	14842		33/21	
5470	West Harbor Inner Channel Daybeacon 14	TRUB	14842		48/20	
8240	William Livingstone Memorial Light	Reduced Intensity	14853		33/21	
9690	Grande Pointe Light 23	TRLT	14853		47/20	
14020	Frechette Point Range Rear Light	Reduced Intensity	14883		21/22	
15220	Ontonagon Harbor East Breakwater Light	DISCONTINUED			02/22	

16963	Driftwood Point Light	DISCONTINUED			45/20	
21635	Escanaba Light	Reduced Intensity	14915		49/20	
22245	Green Bay Harbor Entrance Channel Light 25	TRLB	14918	01/21	33/21	
TEMPORARY CHAN	GES CORRECTED					
LLNR	Aid Name	Status	Chart No.	BNM Ref.	LNM St	LNM End
None						
PLATFORM TEMPOR	RARY CHANGES					
Name	Status		Position	BNM Ref.	LNM St	LNM En
lone						
LATFORM TEMPOR	RARY CHANGES CORRECTED					
Name	Status		Position	BNM Ref.	LNM St	LNM En
None						
	SECTION IV -	CHART CORREC	TIONS			
Main Panel 224 Temp) ADD NA I . Gree Corrective Action	Edition Last Local Notice Horizon Date to Mariners Datum F 19-APR-97 Last LNM: 26/97 NAD 8 W YORK HARBOR - RARITAN RIVER STORM YORK HARBOR ATIONAL DOCK CHANNEL BUOY 3 en can Object of Corrective Action the chart correction action is temporary in natu	Reference Correction	Current Local Notice to Mari . I 27/97 09.001N 074-02-46	B.001W	n 000 true	
searings of light sector	ors are toward the light from seaward. The nor th Ed. 01-SEP-20 Last LNM: 24/2	minal range of lights is exp				noted. 29/22
ChartTitle: Intracoas	stal Waterway Tolomato River to Palm Sho	res				LJILL
CHART FL	-ICW-TOLOMATO RIVER TO PALM SHORE	S. Page/Side: N/A	CGD09			
RELOCATE	Fighting Island North Lighted Buoy 104D ((C)	from 42-15 to 42-15	-01.630N -00.000N		5-57.726W 7-05.520W
4820 22r ChartTitle: Lake Eric	nd Ed.	19 NAD 83				29/22
	1134 LAKE ERIE Page/Side: -	. N 1 . V.11 . (NOC NIV 3	NOS	1100	002.4	- 26 00214
ADD	, -	rt No. 1: K41 (NOS NW-3	31295) 41-37-36	.119N	082-4	5-36.092W
ChartTitle: West En	th Ed. 01-FEB-19	e Harbor; Lorain to Detro	oit River; Vermilio	n		29/22
ADD	•	o. 1: K41 (NOS NW-3129	NOS 95) 41-36-31	.204N	082-4	5-14.894W
ADD	Obstruction in Feet; 18 Obstn Chart N	o. 1: K41 (NOS NW-3129	NOS 95) 41-37-36	.119N	082-4	5-36.092W
ChartTitle: SMALL-0	th Ed. 01-NOV-18 Last LNM: 38/1 CRAFT BOOK CHART - Port Clinton to Sand 189 ISLANDS IN LAKE ERIE 28 Page/S	dusky, including the Isla	ands (book of 35 c	harts)		29/22

						NOC	
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	NOS 41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
	Extension 119	1 ISLANDS IN LAKE ER	IE 30	Page/Side: -			
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	NOS 41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
	Extension 1192	2 ISLANDS IN LAKE ER	IE 31	Page/Side: -			
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	NOS 41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C	bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
	Extension 120	WEST END OF LAKE	ERIE 38	Page/Side: -			
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	NOS 41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
14844	34th E	Ed. 01-JUN-19	Last L	NM: 27/18	NAD 83		29/22
ChartT		ake Erie;Put-In-Bay	NE INO.	LIDING GANDUG	OV DAY OUIO D-		
	Main Panei 120	08 ISLANDS IN LAKE EF	KIE INCL	UDING SANDUS!	NY BAY OHIO Pa	NOS	
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
14846 <i>ChartT</i>	Pt., Ont. (bo	AFT BOOK CHART - We bok of 34 charts)	st End o			ne Maumee R. to Huron R., Mich.	29/22 , and Bar
	Extension 1249	WEST END OF LAKE I	ERIE PA	GE 36 Page/S	ide: -	NOS	
	ADD	Obstruction in Feet; 13 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-36-31.204N NOS	082-45-14.894W
	ADD	Obstruction in Feet; 18 C)bstn	Chart No. 1: K41	(NOS NW-31295)	41-37-36.119N	082-45-36.092W
14848 ChartT	60th E	0.00.10	Last L	NM: 04/17	NAD 83		29/22
	CHART DETR	OIT RIVER. Page/Side:	N/A				
	RELOCATE	Fighting Island North Lig	hted Bud	y 104D (C)		CGD09 from 42-15-01.630N to 42-15-00.000N	083-06-57.726W 083-07-05.520W
14961	13th E	Ed. 01-FEB-16	Last L	NM: 36/19	NAD 83		29/22
ChartT	•	ior (Mercator Projection)				
	Main Panel 149	99 LAKE SUPERIOR. Pa	age/Side	: A		CGD09	
	RELOCATE	West Isle Royale Weathe	r Wave E	Buoy 2		from 47-54-47.000N to 47-54-51.300N	089-13-45.100W 089-20-20.800W

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

Approved Project(s)
None
Project Date Ref. LNM

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

Proposed Project(s) <u>Closing</u> <u>Docket No.</u> <u>Ref. LNM</u>

None

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@uscq.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

Waterways Analysis and Management System

(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 17720-17850) (LLNR 21525-21580) 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

LNM: 09/20

GREAT LAKES - Marine Events

(LLNR 20635-20765)

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.

LNM: 24/13

LAKE ONTARIO - NY - Little Sodus Bay - Chart 14811

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.

LNM: 23/22

LAKE ONTARIO-Rochester Harbor-Chart 14815

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 Jacquelyn, 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.

LNM: 19/22

LAKE ERIE - OH - Ashtabula Harbor - Chart 14836

Construction of submerged breakwater in Ashtabula Harbor remains partial 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 / 080-47-14.726W Buoy "5" 41-54-56.307N / 080-47-11.234W Buoy "6" 41-54-58.474N / 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.

LNM: 43/21

LAKE ERIE - OH - Ashtabula - Chart 14836

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.

LNM: 23/22

LAKE ERIE - Fairport Harbor - Chart 14837

From 25 Jul 2022 to 31 Aug 2022 Ryba Marine Construction Co. will be conducting dredging in the Fairport Harbor. Hours of operation are 24 hours a day 7 days a week. Tug Kathy Lynn can be contacted on VHF channels 13 and 16. All mariners are requested to transit the area with caution.

_NM: 29/22

LAKE ERIE - OH - Cleveland Harbor - Chart 14839

From 27 Jun 2022 to 30 Sep 2022 Dean Marine and Excavating will be conducting breakwater repairs on the Cleveland Harbor West Basin Cuyahoga River channel. Hours of operation are from 0700 to 1900 7 days a week. Tug Madison R and Paige Noel can be contacted on VHF channel 16. Request 2 hour notice of arrival for commercial traffic. All mariners are requested to transit the area with caution.

LNM: 28/22

LAKE ERIE - Lake Erie Islands - Chart 14844

From 15 Jul 2022 to 01 Aug 2022 Nerone and Sins Inc. will be installing Sub-Aqueous power lines in the vicinity of Middle Bass Island (41°40'53.29"N / 82°48'9.58"W) to Ballast Island (41°40'44.13"N / 82°47'9.87"W). Hours of operation from 0700 to 1700 Monday through Friday. Tug Theresa can be contacted on VHF channels 16 and 69. Vessels are requested to remain 200 yards in all directions and to transit the area with caution.

INM: 28/22

LAKE ERIE -Western Basin - Chart 14839

From 02 May 2022 to 30 Sep 2022 NOAA Ship Thomas Jefferson will be conducting hydrographic survey operations in the vicinity of Cleveland, Erie, and South Passage. Hours of operation are 24 hours a day 7 days a week. Gear may be towed astern. The ship and TJ small boats (TJ2903 and TJ2904) can be contacted on VHF channels 13 and 16. All mariners are requested to transit the area with caution.

LNM: 18/22

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 Blassom 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.

LNM: 37/21

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.

LNM: 13/22

St. Mary's River - MI - Saint Mary's SOO Locks - Chart 14887

Kokosing-Alberici LLC will commence construction on the New Soo Lock Upstream Approach Walls April of 2021. Construction activities will be generally limited to the upstream north channel approach to the decommissioned Sabin and Davis Locks. Delivery by barge and boat of materials, equipment and crew will cross the upstream approach to the Soo Locks navigation channel throughout construction. Operations will commence from 25 Mar 21 to 15 Oct 23 Monday through Saturday 24 hours a day.

LNM: 09/21

STRAITS OF MACKINAW - Point LaBarbe to Point Emmet - Chart 14881

From 15 Apr 2022 to 31 Dec 2022 Kokosing Industrial Durocher Marine Division will be conducting backfill operations to protect new American Transmission Company 138kv submarine power cables installed in 2021. hours of operation are 24 hours a day 7 days a week. Tugs Valerie B, Nancy Anne, Champion, General, Barges Kokosing I, Kokosing IV, D-2002, D-2006, crew boat Timmy V and 24' work boat will be onscene and monitoring VHF channels 13 and 16. All vessels are requested to remain 1500' (500-yard safety zone) away from construction vessels and transit the area with caution.

LNM: 06/22

STRAITS OF MACKINAC - Chart 14881

From 18 July 2022 to 09 Aug 2022 Collins Engineers Inc will be conducting hydrographic survey and underwater bridge inspection of the Mackinac Bridge. Hours of operation are from 0700 to 1900 7 days a week. Dive vessel Bottom Bouncer can be contacted on VHF channel 16. A white 28 ft cabin boat marked "Collins Engineers" will be on the water and conducting multi-beam sonar survey operations and underwater dive operations with surface supplied air dive gear. All vessels are requested to transit the area with caution.

LNM: 28/22

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 - Michigan City - Chart 14926

From 01 June 2022 to 31 July 2022 Roen Salvage Company will be conducting breakwater repairs in Michigan City Harbor outer 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 keep clear of the operations and pass with no wake.

LNM: 20/22

LAKE MICHIGAN - Burns Harbor - Chart 14926

From 5 Jul 2022 to 15 Aug 2022 Ryba Marine Construction Co will be conducting maintenance dredging in Burns Harbor, IN. Hours of operation are 24 hours a day7 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: 27/22

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 - IL - Calumet Harbor - Chart 14972

From 23 May 2022 to 31 July 2022 Luedtke Engineering Co. will be conducting maintenance dredging in the Calumet Harbor and River. Hours of operation are 24 hours a day 7 days a week. Tug Ann Marie and Tug Kurt can be contacted on VHF channels 10, 16, and 19. Reduce speed and use caution around dredging equipment. Tugs will be transiting the river with loaded scows from Lake Calumet to the CDF located in the outer harbor.

LNM: 19/22

LAKE MICHIGAN - Port Washington - Chart 14904

From 5 Jul 2022 to 30 Jul 2022 Roen Salvage Company will be conducting breakwater repairs on the Port Washington Breakwater. Hours of operation are 24 hours a day 7 days a week. Tug Stephan Asher can be contacted on VHF 7 and 16. All mariners are requested to transit the area with caution.

LNM: 27/22

Lake Michigan - IL - Waukegan Harbor - Chart 14905

From 7 Jun 2022 to 15 Aug 2022 the Great Lakes Dock and Material, LLC will be conducting breakwater repair work on the Waukegan Harbor Breakwater. Hours of operation are 24 hours a day 7 days a week. Barge Justin Avery and Tug Duluth can be contacted on VHF channels 16 and 18. Please have positive contact with equipment, marine equipment will be located along the north breakwater of Waukegan Harbor and shall travel in and out of the harbor. Equipment include crane barge, material barges and tug boats. All mariners are requested to transit the area with caution.

LNM: 23/22

LAKE MICHIGAN - Muskegon Harbor - Chart 14934

From 15 Jun 2022 to 30 Jul 2022 The King Company, Inc will be conducting hydraulic dredging in the outer channel in Muskegon, 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. Disposal area starts 3,500 feet south of the breakwater and runs for an additional 2,000'. All mariners are requested to transit the area with caution.

LNM: 24/22

LAKE MICHIGAN - St. Joseph River - Chart 14905

From 23 Jul 2022 to 05 Aug 2022 Roen Salvage Company will be conducting dredging in the St. Joseph River MI. Hours of operation are from 0700 to 1900 7 days a week. Tug Stephen Asher can be contacted on VHF channels 7 and 16. All mariners are requested to remain clear of dredging equipment and to transit the area with caution.

LNM: 29/22

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

	An Aste		ION VIII - LIGI e column in which			n made to new informat	ion		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure		(8) Remarks	
115	Fighting Island North Lighted Buoy 104D (C)	42-15-00.000N 083-07-05.520W	FIR 4s			Red.	Spar; win Seasonal.	ter marker.	29/22
16665	West Isle Royale Weather Wave Buoy 2	* 47-54-51.300N 089-20-20.800W	FI W 2.5s				Maintaine Nov.31. Private Ai	d from May.1 to	29/22
20635	Milwaukee Breakwater Light	* 43-01-37.021N 087-52-54.959W	F R	61 19	15	Black lantern on white square structure. 61	R (2) 10s Flashes ir HORN: 2 (2s bl-2s Operates	. Two Red n 10 seconds. blasts ev 20s si-2s bl-14s si). by keying the ne five times on	29/22
			ENCLO	OSURES					
	(1) LNM Section I -	Special Notices							
1-G	reat Lakes Water Levels						LNM:	06/22	
N/A	(2) LNM Section II -	Discrepancies							
IN/A	ı						LNM:	19/19	
N/A	(3) LNM Section III	- Temporary Chan	ges and Tempor	ary Change	s Correc	eted			
							LNM:	19/19	
	(4) LNM Section IV	- Chart Correction	ns						
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

5-Solo Chicago to Mackinac Challenge

6-Solo Port Huron to Mackinac Challenge

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).

	F	Low Water	Expected Levels (inches above or below Low Water Datum,0)					
	Forecast Point	Datum	Current	Week 1	Week 2	Week 3	Week 4	
	Point	IGLD 1985	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	
GREAT LAKES								
Lake Ontario		243.3	31	30	28	27	25	
Lake Erie		569.2	44	44	43	42	41	
Lake St. Clair		572.3	43	43	42	41	41	
Lake Michigan-Huron		577.5	31	31	31	30	30	
Lake Superior		601.1	16	16	17	17	17	
ST. LAWRENCE RIVER								
Above Long Sault Dam	0	237.9	21	19	20	19	16	
Above Iroquois Dam	1	240.3	17	16	16	15	12	
Ogdensburg	2	242.4	27	25	24	23	20	
Alexandria Bay	2.1	243.0	29	27	26	25	23	
Head of river at Cape Vincent	3	243.3	31	30	28	27	25	
DETROIT RIVER								
Lake Erie at Pelee Passage	4	569.2	44	44	43	42	41	
Mouth of River at Gibraltar	5	569.5	45	44	43	43	42	
Fort Wayne	5.1	571.1	47	47	46	45	45	
Head of River above Belle Isle	6	572.0	44	43	43	42	42	
ST. CLAIR RIVER								
Mouth of River at St. Clair Flats	7	572.3	43	43	42	41	41	
Algonac	8	572.8	46	45	45	44	44	
St. Clair	9	574.4	38	37	37	36	36	
Blue Water Bridge	10	576.2	38	37	37	37	36	
Head of River at Fort Gratiot	11	577.2	34	33	33	33	32	
Lake Huron Approach Channel	12	577.5	31	31	31	30	30	
ST. MARYS RIVER								
Mouth of River at Detour	13	577.5	31	31	31	30	30	
West and Middle Neebish	14	577.8	29	28	28	27	27	
Head of Little Rapids	15	578.4	28	28	27	27	27	
U.S. Slip	16	578.7	27	27	26	26	26	
Above Locks	17	600.4	19	19	19	19	20	
Head of River at Point Iroquois	18	601.1	16	16	17	17	17	

UNDERSTANDING THE FORECAST

Available water depth is determined for a location by adding (if+) or subtracting (if-) 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:	FOR MORE INFORMATION VISIT:	WATER LEVEL INFORMATION SUPPLIED BY:	
Detroit District Corps of Engineers	Detroit District Great Lakes Homepage	NOAA, National Ocean Service	
477 Michigan Avenue	International Joint Commission	SSMC4, STATION 7523	
Detroit MI, 48226	Great Lakes Information Network	1305 East-West Hwy	
1-888-694-8318 ex. 1	NOAA Tides and Currents	Silver Spring, MD 20910-3233	
email: hhpm@usace.army.mil	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.

<u>Location</u>	Name of Event	<u> Date / 1</u>	<u>ime</u>	<u>POC</u>	Tel#
Clayton, NY	Bassmaster Elite	14-17 Jul 22	0700-1700	Lisa Talmadge	505.550.4765
Clayton, NY	1000 Islands Charity Poker Run	16-Jul-22	1000-1700	Robert Cantwell	315.882.3145
Alexandria Bay, NY	Paddle for Betterment	23-Jul-22	0800-1100	Trevor Garlock	315.486.4900
Morristown, NY	Shark 24 Eastern Championship	23 and 24 Jul-22	0800-1630	Michael Henson	613.213.3933
LAKE ONTARIO					
Rochester, NY	Newport Yacht Club Saturday Morning Racing	6/25/2022 to 10/22/2022	1000-1330	Kenny Fourspring	585-902-2183
Rochester, NY	Newport Yacht Club Sunday Afternoon Racing	6/26/2022 to 10/16/2022	1200-1600	Kenny Fourspring/	1585-902-2183
Rochester, NY	Newport Yacht CLub THursday Night Racing	6/30/2022 to 8/6/2022	1800-2000	Kenny Fourspring/	1585-902-2183
Tonawanda, NY	Canal Fest of the Tonawanda's (Ruber Duck Race)	23-Jul-22	0900-2300	Peter Chenier	716-846-4296
Tonawanda, NY	Canal Fest of the Tonawanda's (Sika Cup Challenge)	24-Jul-22	0900-2300	Peter Chenier	716-846-4296
Rochester, NY	JY15 Regatta	22-Jul-22	0900-1630	Mary Ellen Brown	703-408-7298
LAKE ERIE					
Buffalo, NY	Water Lantern Festival	23-Jul-22	1800-2100	Dylan Gallup	801-895-0990
Cleveland, OH	Whiskey Island Parade Of Lights	23-Jul-22	0900-2300	Denny Prochaska	440 390 8228
Cleveland, OH	Blazing Paddles Paddlefest	23-Jul-22	07:30-14:00	James Ridge	216-496-3763
Conneaut, OH	D-Day Conneaut (Reenactment event)	18-20AUG 2022	Daily, 1345-1715	Betsy Bashore	419-350-6354
Cleveland	Tall Ships	6JUL2022-29AUG2022		Steve Such	814-450-2561
Cleveland, OH	Whiskey Island Parade Of Lights	23-Jul-22	2100-2200	Denny Prochaska	440 390 8228
Cleveland, OH	Blazing Paddles Paddlefest	23-Jul-22	0730-1400	James Ridge	216-496-3763
Sandusky	Ironman 70.3 Ohio Triathlon	7/24/2022	0430-1000	Tracy Girard	313.568-9564.
Sandusky	I-LYA Optimist Championships	7/23/2022	0900-1700	Tracy Girard	313.568-9564.
Buffalo, NY	Buffalo Harbor Sailing Club-Racing Season	5/17/2022 to 9/28/2022	1800-2100	Gregory Toole	917-993-2976
DETROIT RIVER					
Grosse Isle	FYC Dacron Series Sailboat Race #7	7/24/2022	1000-1600	Tracy Girard	313.568-9564.
Grosse Isle	FYC Monday One Design Series Sailbaot Race #7	7/25/2022	1800-2100	Tracy Girard	313.568-9564.
LAKE ST. CLAIR/S	St. Clair River				
St. Clair	St. Clair River Classic Offshore Race Set Up & testing	7/25/2022	1100-1900	Tracy Girard	313.568-9564.
Harrison Twp	Top Gun Twilight Races #21	7/21/2022	1000-1700	Tracy Girard	313.568-9564.
St. Clair	St. Clair River Classic Offshore Race Set Up & testing	7/26/2022	1100-1900	Tracy Girard	313.568-9564.
LAKE HURON	1 2			•	
Bay City	Bay City Yacht Club Wednesday Night Racing - Summe	er 7/20/2022	1900-2200	Tracy Girard	313.568-9564.
Tawas	Taws Bay Yacht Club Sailboat Races	7/24/2022	0800-2000	Tracy Girard	313.568-9564.

LAKE MICHIGAN & Green Bay

Muskegon, MI	Muskegon Yacht Club - Wednesday Night Racing Series	each Wed. May 5 - Oct 12, 2022	1730-2200	MSTC Sherrill	414-747-7148
Milwaukee, WI	Milwaukee Air and Water Show	July 21-24, 2022	0800-1800	MSTC Sherrill	414-747-7148
Arcadia, MI	Arcadia Days Firworks	July 22, 2022	2100-2300	MSTC Sherrill	414-747-7148
Lake Leelanau, MI	Great Lakes Coastal Beach Sprints	July 23, 2022	0700-1800	MSTC Sherrill	414-747-7148
Milwaukee, WI	Northwestern Mutual Fireworks	July 24, 2022	2100-2300	MSTC Sherrill	414-747-7148
Saugatuck, MI	Saugatuck Venetian Festival FW	July 30, 2022	2100-2300	MSTC Sherrill	414-747-7148

CURRENT NINTH DISTRICT BRIDGE MAINTENANCE/ACTIVITIES Week [28/22]

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 <u>HERE</u> 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:

ACTIVE BROADCAST NOTICE TO MARINERS (BNM)

SAFETY BCST PLUS SKED BCST UNTIL 180600Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C090-22

WI - LAKE MICHIGAN - MILWAUKEE HARBOR

FROM JULY 15 THROUGH JULY 17, 2022 BETWEEN THE HOURS OF 2300 AND 0100 ALL BRIDGES FROM MILE 0.79 TO 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 FESTA ITALIANA. VESSELS ABLE TO PASS UNDER THE BRIDGES WITHOUT AN OPENING MAY DO SO AT ANY TIME.

SAFETY BCST PLUS SKED BCST UNTIL 122200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C091-22

NY - NEW YORK BARGE CANAL SYSTEM

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 THAT HANGS APPROXIMATELY 4-FEET BELOW LOW STEEL.

SAFETY BCST PLUS SKED BCST UNTIL 142200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C098-22

OH- LAKE ERIE - CLEVELAND HARBOR

FROM JULY 12 THROUGH JULY 14, 2022 FROM 0600 TO 1800 DAILY, THE NORFOLK SOUTHERN

RAILROAD BRIDGE AT MILE 0.76 OVER THE CUYAHOGA RIVER WILL REQUIRE A 2-HOUR

ADVANCE NOTICE FOR OPENINGS. MARINERS SHOULD PROVIDE ADVANCE NOTICE DIRECTLY

TO THE DRAWTENDER.

SAFETY BCST PLUS SKED BCST UNTIL 142100Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C100-22

WI- LAKE MICHIGAN – GREEN BAY

FROM 0700 ON JULY 11 TO 1600 ON JULY 14, 2022, THE WALNUT STREET BRIDGE AT MILE 1.81 OVER THE FOX RIVER WILL BE SECURED TO MASTED NAVIGATION FOR EMERGENCY REPAIRS. VESSELS ABLE TO PASS UNDER THE BRIDGE WITHOUT AN OPENING MAY DO SO AT ANY TIME.

SAFETY BCST PLUS SKED BCST UNTIL 132200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C101-22

FROM JULY 6, THROUGH AUGUST 12, 2022 BETWEEN THE HOURS OF 0700 AND 1730, MONDAY THROUGH SATURDAY CONTRACTORS WILL UTILIZE SNOOPER TRUCKS UNDER THE JOHN A. BLATNIK, I-535 BRIDGE AT MILE 2.74 OVER THE ST. LOUIS BAY AND RIVER. SPOTTERS WILL WARN OF APPROACHING VESSELS AND MOVE THE MAN LIFT TO ALLOW VESSELS TO PASS.

SAFETY BCST PLUS SKED BCST UNTIL 192200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C102-22

NY - NEW YORK BARGE CANAL SYSTEM

FROM JULY 11 THROUGH AUGUST 12, 2022, BETWEEN THE HOURS OF 0730 AND 1700, MONDAY

THROUGH FRIDAY A 35-FOOT HARCON VESSEL WILL BE UNDER THE S1 US 20 FREE BRIDGE

AT MILE 0.54, THE S3 STATE ROUTE 89 BRIDGE AT MILE 5.70, AND S6 OVID STREET

BRIDGE AT MILE 8.65 OVER THE CAYUGA-SENECA CANAL, INCLUDING THE BRIDGES BETWEEN

THE E73 COLD SPRINGS ROAD AT MILE 167.10 AND THE E92 ARMITAGE ROAD BRIDGE AT MILE 205.59 OVER THE ERIE CANAL. THE HARCON WILL MOVE IF A 30-MINUTE ADVANCE NOTICE OF ARRIVAL IS PROVIDED DIRECTLY TO THE HARCON ON VHF-FM MARINE CHANNEL

SAFETY BCST PLUS SKED BCST UNTIL 152359Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C103-22

IL- LAKE MICHIGAN - CHICAGO SANITARY AND SHIP CANAL

FROM JULY 11, THROUGH JULY 15 BETWEEN THE HOURS OF 0700 AND 1900 EACH DAY, A 110 -FOOT BY 35-FOOT BARGE WILL BE TAKING BORE SAMPLES NEAR THE OUTER EDGE OF THE CHANNEL AT THE SOUTH WESTERN AVENUE BRIDGE AT MILE 6.7 (CORPS MILE 320.6) OVER THE CHICAGO SANITARY AND SHIP CANAL. THE BARGE WILL MONITOR VHF-FM MARINE CHANNEL 16 AND WILL NOT BE ABLE TO MOVE ONCE DRILLING STARTS.

SAFETY BCST PLUS SKED BCST UNTIL 202100Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C104-22

WI - LAKE MICHIGAN - STURGEON BAY SHIP CANAL

ON JULY 20, 2022, BETWEEN THE HOURS OF 0700 AND 1600, THE BAYVIEW BRIDGE AT MILE 3.0 OVER THE STURGEON BAY SHIP CANAL WILL BE SECURED TO MASTED NAVIGATION FOR MAINTENANCE. VESSELS ABLE TO PASS UNDER THE BRIDGE WITHOUT AN OPENING MAY DO SO AT ANY TIME.

SAFETY BCST PLUS SKED BCST UNTIL 192200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C105-22

IL - LAKE MICHIGAN - CHICAGO HARBOR

FROM JULY 18 THROUGH JULY 28, 2022 BETWEEN THE HOURS OF 0900 AND 1500 EACH DAY INSPECTORS WILL USE SNOOPER TRUCKS UNDER THE EISENHOWER EXPRESSWAY BRIDGE (I -290) AT MILE 2.94 (CORPS MILE 324.87) OVER THE SOUTH BRANCH OF THE CHICAGO RIVER. SPOTTERS WILL WARN OF APPROACHING VESSELS AND MOVE THE MAN LIFT TO ALLOW VESSELS TO PASS. THE BRIDGE OPERATING SCHEDULE WILL NOT BE CHANGED.

SAFETY BCST PLUS SKED BCST UNTIL 140200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C107-22

MI - LAKE HURON - SAGINAW RIVER

FROM JULY 11 THROUGH JULY 13, 2022 BETWEEN THE HOURS OF 0700 AND 1900 FROM

MONDAY THROUGH WEDNESDAY THE INDEPENDENCE BRIDGE AT MILE 3.88 WILL REQUIRE A

2-HOUR ADVANCE NOTICE FOR OPENINGS DUE TO INSPECTIONS ON THE BRIDGE. MARINERS SHOULD PROVIDE ADVANCE NOTICE BY CALLING 989-892-2351. THE DRAWTENDER WILL BE MONITORING THAT NUMBER AND VHF-FM MARINE CHANNEL 16.

SAFETY BCST PLUS SKED BCST UNTIL 262200Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C108-22

IL - LAKE MICHIGAN - CHICAGO HARBOR

FROM JULY 25, THROUGH AUGUST 19, 2022 BETWEEN THE HOURS OF 0600 AND 1800, MONDAY THROUGH SATURDAY A 30-FOOT HARCON BRIDGE INSPECTION VESSEL WILL BE INSPECTING ALL BRIDGES BETWEEN: WILSON AVENUE AT MILE 8.35 (CORPS MILE 352.5) TO THE SOUTH DAMEN AVENUE BRIDGE AT MILE 6.14 (CORPS MILE 321.2) OVER THE CHICAGO RIVER AND FROM THE SOUTH WESTERN AVENUE BRIDGE AT MILE 6.7 (CORPS MILE 320.6) TO THE SOUTH CICERO AVENUE BRIDGE AT MILE 10 (CORPS MILE 317.3) OVER THE CHICAGO SANITARY AND SHIP CANAL AND FROM THE 95TH STREET BRIDGE AT MILE 1.09 (CORPS MILE 332.1) OVER THE CALUMET RIVER TO THE INDIANA AVENUE BRIDGE AT MILE 1.80 (CORPS MILE 322.3) OVER THE LITTLE CALUMET RIVER. THE HARCON WILL MONITOR VHF-FM MARINE CHANNEL 16 AND WILL MOVE IF A 30-MINUIT ADVANCE NOTICE IS PROVIDED DIRECTLY TO THE HARCON.

SAFETY BCST PLUS SKED BCST UNTIL 272300Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C109-22

IL- LAKE MICHIGAN – CALUMET SAG CHANNEL

FROM JULY 18 THROUGH JULY 27, 2022 BETWEEN THE HOURS OF 0600 AND 1800, MONDAY THROUGH FRIDAY, A 120-FOOT BY 30-FOOT BARGE WILL BE WORKING UNDER THE SAG HIGHWAY BRIDGE AT MILE 28.76 (CORP MILE 304.2) OVER THE CALUMET-SAG CHANNEL. THE BARGE WILL MONITOR VHF-FM MARINE CHANNEL 16 AND WILL MOVE TO ACCOMMODATE VESSELS IF A 1-HUOR ADVANCE NOTICE IS PROVIDED DIRECTLY TO THE BARGE.

SAFETY BCST PLUS SKED BCST UNTIL 152359Z JUL 22

U.S.C.G. NINTH DISTRICT NOTICE TO MARINERS C110-22

FROM JULY 18 THROUGH JULY 27, 2022 BETWEEN THE HOURS OF 0600 AND 1800, MONDAY THROUGH FRIDAY, A 120-FOOT BY 30-FOOT BARGE WILL BE WORKING UNDER THE SAG HIGHWAY BRIDGE AT MILE 23.2 (CORP MILE 304.1) AND THE WEST SHORE AERIAL PIPELINE AT MILE 24.0 OVER THE CHICAGO SANITARY AND SHIP CANAL. THE BARGE WILL MONITOR VHF-FM MARINE CHANNEL 16 AND WILL MOVE TO ACCOMMODATE VESSELS IF A 1-HUOR ADVANCE NOTICE IS PROVIDED DIRECTLY TO 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

USCG-2022-0303- NPRM – Michigan City Amtrak Remote Ops - open for public comments until July 25, 2022.

USCG-2022-0465-TFR- Erie Canal-pending internal review

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 May 11 through August 17, 2022 between the hours of 0700 and 1730, Monday through Saturday, a 50-foot by 20-foot barge will be working under the E-138, Main Street SR 96 at Mile 253.50 over the Erie Canal. The barge will monitor VHF-FM Marine Channel 16 and will move to accommodate vessels as needed. [11/22]

NEW YORK STATE CANAL SYSTEM - NY - Erie Canal - Chart 14786 - Bridge Maintenance

From April 25 through **August 31, 2022** between the hours of 0700 and 1700, Monday through Friday, contractors will be washing the E234 Transit Road Bridge at Mile 320.82, the E233 Main Street Bridge at Mile 320.82, the E236A Lockport Bypass Road Bridge at Mile 322.16, and the E248, Webster Street Bridge at Mile 338.44 over the Erie Canal. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. Mariners should avoid passing under any falling water from the bridge.

[15/22]

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 Maintenance

From May 31 through **August 31, 2022** between the hours of 0800 and 1700 daily workers will be using snooper trucks to wash the underside of all bridges from the E-93 CSX Railroad Bridge at Mile 209.36 to the E-212 Marshall Road Bridge at Mile 305.63 over the Erie Canal. Spotters will warn of approaching vessels and will move the man lift to allow vessels to pass. Mariners should avoid passing under the clean water falling from the bridge.

[22/22]

NEW YORK STATE CANAL SYSTEM - NY - Erie Canal - Chart 14786 - Bridge Inspection

From July 11 through **August 12, 2022**, between the hours of 0730 and 1700, Monday through Friday a 35-foot Harcon Vessel will be under the S1 US 20 Free Bridge at Mile 0.54, the S3 State Route 89 Bridge at Mile 5.70, and S6 Ovid Street Bridge at Mile 8.65 over the Cayuga-Seneca Canal, including the bridges between the E73 Cold Springs Road at Mile 167.10 and the E92 Armitage Road Bridge at Mile 205.59 over the Erie Canal. The Harcon will move if a 30-minute advance notice of arrival is provided directly to the Harcon on VHF-FM Marine Channel 16.

[23/22]

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]

LAKE ONTARIO

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 – Ashtabula – Chart 14836 – Bridge Contacts

The Norfolk Southern Railroad Bridge at Mile 1.5 over the Ashtabula River is remotely operated and will open on horn signal, or by calling on VHF-FM Marine Channel 16, or by calling: 404-877-9698, or 404-877-9699, or texting 717-514-0643.

[40/21]

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 – NY – Buffalo Harbor – Chart 14833 – Bridge Maintenance

From March 21 through **August 30, 2022** between the hours of 0700 and 1600, Monday through Sunday, you are authorized to utilize two barges 40-foot by 10-foot at the Niagara Street Bridge at the mouth of Scajaquada Creek. A 20-foot navigation channel will be maintained for vessels to pass through the work area. [06/22]

LAKE ERIE – OH – Toledo Harbor – Chart 14847 – Bridge Maintenance

From April 28 through **August 31, 2022** between the hours of 0700 and 1700, Monday through Friday a 150-foot by 50-foot barge will be working at the Norfolk Southern Railroad Bridge at Mile 5.76 over the Maumee River. During this time the bridge will require a 2-hour advance notice for openings. Mariners should provide advance notice on VHF-FM Marine Channel 16 or by calling 419-254-1539.

LAKE ERIE – NY – Niagara River – Chart 14832 – Bridge Maintenance

From May 30 through **July 15, 2022** between the hours of 0700 and 1600, Monday through Friday a 100 foot by 34-foot barge will be washing the South Grand Island Bridges at Mile 27.5 over the Niagara River. The barge will monitor VHF-FM Marine Channel 16 and will move to accommodate other vessels. [18/22]

LAKE ERIE - OH - Cleveland Harbor - Chart 14839 - Bridge Maintenance

On July 18 and again on **July 20, 2022** from 0700 to 1700 each day, the Norfolk Southern Railroad Bridge at Mile 0.76 over the Cuyahoga River will be secured to masted navigation. Vessels able to pass under the bridge without an opening may do so at any time.

[24/22]

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 – OH – Cleveland Harbor – Chart 14839 - Bridge Inspection

From July 12 through **July 14, 2022** from 0600 to 1800 daily, the Norfolk Southern Railroad Bridge at Mile 0.76 over the Cuyahoga River will require a 2-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender.

[27/22]

LAKE ERIE – OH – Cleveland Harbor – Chart 14839 - Bridge Special Event

On **July 23, 2022** between the hours of 1000 and 1030 the Carter Road Bridge at Mile 2.43 over the Cuyahoga River will be secured to masted navigation in conjunction with the Parrot Head Race. Vessels able to pass under the bridge without an opening may do so at any time.

[27/22]

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.

[47/20] [07/22]

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.

[18/22]

LAKE HURON

LAKE HURON – MI – Port Huron – Chart 14852- Bridge Special Event

On **July 13, 2022** between the hours of 0615 and 0900 the Military Street Bridge at Mile 0.33, the 7th Street Bridge at Mile 0.50, and 10th Street Bridge at Mile 0.94, all over the Black River will be secured to masted navigation in conjunction with the Annual Rotary International Day Parade.

[27/22]

LAKE HURON – MI – Port Huron – Chart 14852- Bridge Special Event

On **July 16, 2022** between the hours of 0900 and noon the Military Street Bridge at Mile 0.33, the 7th Street Bridge at Mile 0.50, and 10th Street Bridge at Mile 0.94, all over the Black River will operate on an intermediate schedule to accommodate the annual Mackinac Race.

[27/22]

LAKE HURON – MI – Saginaw River – Chart 14867- Bridge Maintenance

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.

[28/22]

LAKE HURON - MI - Saginaw River - Chart 14867- Bridge Inspection

From July 11 through July 13, 2022 between the hours of 0700 and 1900 from

Monday through Wednesday the Independence Bridge at Mile 3.88 will require a

2-hour advance notice for openings due to inspections on the bridge.

Mariners should provide advance notice by calling 989-892-2351. The

drawtender will be monitoring that number and VHF-FM Marine Channel 16.

[27/22]

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. [42/20]

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. [43/20]

LAKE MICHIGAN – MI – Charlevoix Harbor – Chart 14942 – Bridge Maintenance

From 0700 on January 16, 2023 through 0700 on **April 1, 2023** 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.

[05/22]

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. [12/22]

LAKE MICHIGAN - MI - Grand Haven - Chart 14933 - Bridge Special Event

From 2200 on August 6 until 0200 on **August 7, 2022**, the U.S. 31 Bridge at Mile 2.89 over the Grand River will be secured to masted navigation in conjunction with the Annual Coast Guard Day Celebration. Vessels able to pass under the bridge without an opening may do so at any time.

[14/22]

LAKE MICHIGAN – IN – Michigan City – Chart 14926 - Bridge Inspection

On August 30, 2022 between the hours of 0700 and 1900, the Franklin Street Bridge at Mile 0.5 over Trail Creek will require a 1-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender. Inspectors will utilize snooper trucks under the bridge. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass under the bridge.

[27/22]

LAKE MICHIGAN – MICHIGAN CITY & INDIANA HARBOR & GARY HARBOR

LAKE MICHIGAN – IN – Michigan City – Chart 14927 - Bridge Regulation

The Coast Guard proposes to modify the operating schedule that governs the Amtrak Railroad Bridge, mile 0.9, over Trail Creek, in Michigan City, Indiana, to allow it to operate remotely. The bridge has operated remotely since 2003 without inclusion in the CFR and without incident or public complaint. We invite your comments on this proposed rulemaking. 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

<u>Lee.D.Soule@uscg.mil</u>. To view the entire docket or to submit comments please visit https://www.regulations.gov and type USCG-2022-0303 in the search field. Comments and related material must reach the Coast Guard before **July 25, 2022**.

LAKE MICHIGAN - IN - Michigan City - Chart 14926 - Bridge Inspection

On **August 30, 2022** between the hours of 0700 and 1900, the Franklin Street Bridge at Mile 0.5 over Trail Creek will require a 1-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender. Inspectors will utilize snooper trucks under the bridge. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass under the bridge.

[27/22]

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 snooper trucks under the bridge. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass under the bridge. [27/22]

LAKE MICHIGAN – IN – Indiana Harbor – Chart 14927 - Bridge Inspection

On September 1, and **September 2, 2022** between the hours of 0700 and 1900, the Indianapolis Boulevard Bridge at Mile 2.59 over the Indiana Harbor Canal will continue to require a 12-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender. Inspectors will utilize snooper trucks under the bridge. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass under the bridge.

[27/22]

LAKE MICHIGAN – IN – Michigan City – Chart 14926 - Bridge Special Event

On August 6, 2022 between the hours of 1800 and 1900 the Franklin Street Bridge at Mile 0.50 over Trail Creek will be secured to masted navigation in conjunction with the Great Lakes Grand Prix boat parade. Vessels able to pass under the bridge without an opening may do so at any time.

[27/22]

LAKE MICHIGAN – CALUMET RIVER & LITTLE CALUMET RIVER

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927 – Bridge Inspections

From July 25, through **August 19, 2022** between the hours of 0600 and 1800, Monday through Saturday a 30-foot Harcon bridge inspection vessel will be inspecting all bridges between: Wilson Avenue at mile 8.35 (CORPS MILE 352.5) to the South Damen Avenue Bridge at Mile 6.14 (CORPS MILE 321.2) over the Chicago River and From the South Western Avenue Bridge at Mile 6.7 (CORPS MILE 320.6) to the South Cicero Avenue Bridge at Mile 10 (CORPS MILE 317.3) over the Chicago Sanitary and Ship Canal and From the 95th Street Bridge at Mile 1.09 (CORPS MILE 332.1) over the Calumet River to the Indiana Avenue Bridge at Mile 1.80 (CORPS MILE 322.3) over the Little Calumet River. The Harcon will monitor VHF-FM Marine Channel 16 and will move if a 30-munit advance notice is provided directly to the Harcon.

<u>CHICAGO RIVER – MAIN RIVER CHANNEL, NORTH BRANCH, NORTH SHORE CHANNEL, AND SOUTH BRANCH AND SOUTH FORK OF SOUTH BRANCH</u>

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]

*****REVISED****

LAKE MICHIGAN - IL - Chicago Harbor - Chart 14927 - Bridge Maintenance

From February 14 through **July 29, 2022**, between the hours of 0600 and 1800, Monday through Friday a 100-foot by 50-foot barge will be working at the Webster Avenue Bridge at Mile 4.85 (CORPS MILE 328.6) over the North Branch of the Chicago River. The barge will move if provided a 2-hour advance notice by calling the barge on VHF-FM Marine Channel 16 or 630-514-0695 or 773-842-7470-1570. [05/22] [16/22] [24/22]

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927 – Bridge Inspections

From July 25, through **August 19, 2022** between the hours of 0600 and 1800, Monday through Saturday a 30-foot Harcon bridge inspection vessel will be inspecting all bridges between: Wilson Avenue at mile 8.35 (CORPS MILE 352.5) to the South Damen Avenue Bridge at Mile 6.14 (CORPS MILE 321.2) over the Chicago River and From the South Western Avenue Bridge at Mile 6.7 (CORPS MILE 320.6) to the South Cicero Avenue Bridge at Mile 10 (CORPS MILE 317.3) over the Chicago Sanitary and Ship Canal and From the 95th Street Bridge at Mile 1.09 (CORPS MILE 332.1) over the Calumet River to the Indiana Avenue Bridge at Mile 1.80 (CORPS MILE 322.3) over the Little Calumet River. The Harcon will monitor VHF-FM Marine Channel 16 and will move if a 30-munit advance notice is provided directly to the Harcon.

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 – Bridge Inspection

From July 18 through **July 28, 2022** between the hours of 0900 and 1500 each day inspectors will use snooper trucks under the Eisenhower Expressway Bridge (I-290) at Mile 2.94 (CORPS MILE 324.87) over the South Branch of the Chicago River. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. The bridge operating schedule will not be changed. [27/22]

CALUMET SAG CHANNEL

LAKE MICHIGAN - IL - Calumet-SAG Channel - Chart 14926 - Bridge Maintenance

From March 1 through **August 31, 2022** scaffolding that extends approximately 1-foot below low steel will be installed under one half of the 96th Avenue Bridge (LaGrange US 45) at Mile 24.56 (CORPS MILE 308.4) over

the Calumet-SAG Channel. The other half of the bridge the scaffolding will be pulled up tight against low steel. Steady burning yellow lights will warn mariners of the temporary reduction in vertical clearance. [07/22]

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]

LAKE MICHIGAN - IL - Calumet-SAG Channel - Chart 14926 - Bridge Maintenance

From June 13 through **June 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]

LAKE MICHIGAN - IL - Calumet-SAG Channel - Chart 14926 - Bridge Inspection

On July 14 and **July 15, 2022** between the hours of 0700 and 1500 each day, Inspectors will utilize snooper trucks under the Cicero Avenue at Mile 18.08 (CORPS MILE 314.9) over the Calumet-SAG Channel. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. [27/22]

LAKE MICHIGAN - IL - Calumet-SAG Channel - Chart 14926 - Bridge Inspection

From July 18 through **July 27, 2022** between the hours of 0600 and 1800, Monday through Friday, a 120-foot by 30-foot barge will be working under the Sag Highway Bridge at Mile 28.76 (CORP MILE 304.2) over the Calumet-SAG Channel. The barge will monitor VHF-FM Marine Channel 16 and will move to accommodate vessels if a 1-huor advance notice is provided directly to the barge. [27/22]

CHICAGO SANITARY AND SHIP CANAL, KANKAKEE RIVER & ROCK RIVER

(Lake Michigan to Mile 36.2/291.1)

$LAKE\ MICHIGAN\ -\ IL\ -\ Chicago\ Sanitary\ and\ Ship\ Canal\ -\ Chart\ 14927\ -\ Bridge\ Maintenance$

From July 11, through **July 15, 2022** between the hours of 0700 and 1900 each day, a 110-foot by 35-foot barge will be taking bore samples near the outer edge of the channel at the South Western Avenue Bridge at Mile 6.7 (CORPS MILE 320.6) over the Chicago Sanitary and Ship Canal. The barge will monitor VHF-FM Marine Channel 16 and will not be able to move once drilling starts.

*****REVISED****

LAKE MICHIGAN – IL – Chicago Sanitary and Ship Canal – Chart 14927 - Bridge Maintenance From March 21 through August 1, 2022, between the hours of 0700 and 1530, Monday through Friday, a 125-foot by 35-foot barge will be working at the South Cicero Avenue Bridge at Mile 10.0 (CORPS MILE 317.3)

over the Chicago Sanitary and Ship Canal. The bare will monitor VHF-FM Marine Channel 16 and will move if a 1-hour advance notice is provided. [10/22] [21/22] [26/22]

LAKE MICHIGAN – IL – Chicago Harbor – Chart 14927 – Bridge Inspections

From July 25, through **August 19, 2022** between the hours of 0600 and 1800, Monday through Saturday a 30-foot Harcon bridge inspection vessel will be inspecting all bridges between: Wilson Avenue at mile 8.35 (CORPS MILE 352.5) to the South Damen Avenue Bridge at Mile 6.14 (CORPS MILE 321.2) over the Chicago River and From the South Western Avenue Bridge at Mile 6.7 (CORPS MILE 320.6) to the South Cicero Avenue Bridge at Mile 10 (CORPS MILE 317.3) over the Chicago Sanitary and Ship Canal and From the 95th Street Bridge at Mile 1.09 (CORPS MILE 332.1) over the Calumet River to the Indiana Avenue Bridge at Mile 1.80 (CORPS MILE 322.3) over the Little Calumet River. The Harcon will monitor VHF-FM Marine Channel 16 and will move if a 30-munit advance notice is provided directly to the Harcon.

LAKE MICHIGAN - IL - Chicago Sanitary and Ship Canal - Chart 14926 - Bridge Inspection

From July 18 through **July 27, 2022** between the hours of 0600 and 1800, Monday through Friday, a 120-foot by 30-foot barge will be working under the Sag Highway Bridge at Mile 28.76 (CORP MILE 304.2) and the West Shore Aerial Pipeline at Mile 24.0 over the Chicago Sanitary and Ship Canal. The barge will monitor VHF-FM Marine Channel 16 and will move to accommodate vessels if a 1-huor advance notice is provided directly to the barge.

[27/22]

LAKE MICHIGAN – WEST

LAKE MICHIGAN – WI – Milwaukee Harbor – Chart 14924 – Bridge Special Event

From June 23 through **July 9, 2022** from 2300 to 0100, Thursday through Saturday, all bridges from Mile 0.79 to 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 **Summerfest** event. Vessels able to pass under the bridges without an opening may do so at any time. [12/22]

LAKE MICHIGAN – WI – Milwaukee Harbor – Chart 14924 – Bridge Special Event

From July 15 through **July 17, 2022** between the hours of 2300 and 0100 all bridges from Mile 0.79 to 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 **Festa Italiana**. Vessels able to pass under the bridges without an opening may do so at any time. [12/22]

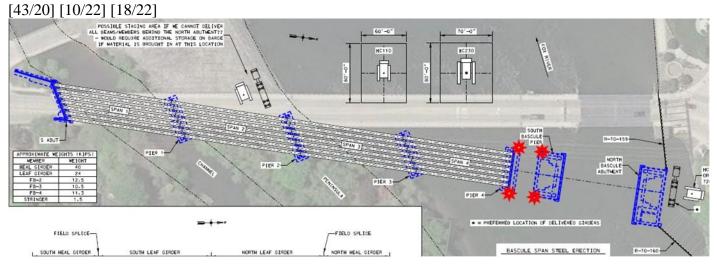
LAKE MICHIGAN - Sturgeon Bay Ship Canal - Green Bay - Fox River - Wolf River

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]

*****REVISED****

From October 29, 2020 through **August 31, 2022**, between the hours of 0700 to 2200, Monday through Friday, eight barges, 80-feet by 70-feet or smaller, will be used to construct the Racine Street Bridge at Mile 37.91 over the Fox River at Menasha. The old bridge has been removed. The temporary bridge over the slip near the George Banta Dock will continue to remain through the summer for temporary access. A 20-foot channel will be maintained for vessels through the construction area, between pier 4 and the south bascule pier until the bascule spans have been constructed and installed. Steady burning red lights will mark the temporary channel for vessels to pass through the construction area. Cranes in the drawspan will move if a 12-hour advance notice is provided by calling: 920-224-2068 or 920-450-4987



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]

LAKE MICHIGAN – WI – Green Bay – Chart 14918- Bridge Emergency Maintenance

From 0700 on July 11 to 1600 on **July 14, 2022**, the Walnut Street Bridge at Mile 1.81 over the Fox River will be secured to masted navigation for emergency repairs. Vessels able to pass under the bridge without an opening may do so at any time.

[26/22]

LAKE MICHIGAN - WI - Sturgeon Bay - Chart 14919- Bridge Maintenance

On **July 20, 2022**, between the hours of 0700 and 1600, the Bayview Bridge at Mile 3.0 over the Sturgeon Bay Ship Canal will be secured to masted navigation for maintenance. Vessels able to pass under the bridge without an opening may do so at any time.

[26/22]

LAKE SUPERIOR

LAKE SUPERIOR - MI - Keweenaw Waterway - Chart 14972- Bridge Test Schedule

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 - Duluth - Chart 14975- Bridge Special Event

[20/22]

On **July 8, 2022** between the hours of 1900 to 2330 of the Duluth Ship Canal Bridge at mile 0.24 over the Duluth Ship Canal will be secured to masted navigation and the Minnesota Slip Bridge will be secured to masted navigation from 1100 to 2330. Vessels able to pass under either bridge may do so at any time. [27/22]

LAKE SUPERIOR - MI - Keweenaw Waterway - Chart 14972- Bridge Maintenance

From July 6 through **July 8, 2022** the US 41 Bridge at Mile 16.0 over the Kewanee Waterway will only open on the top of the hour from 0800 to 1900 daily, instead of opening twice an hour as authorized by the test deviation, and from 1900 to 0300 the bridge will require a 3-hour advance notice for openings. Mariners should provide advance notice directly to the drawtender by calling 906-482-7552. [27/22]

LAKE SUPERIOR - MN - Duluth - Chart 14975- Bridge Inspections

From July 11, through **July 28, 2022** between the hours of 0900 and 1530, Monday through Thursday inspectors will utilize Snooper trucks under the John A. Blatnik, I-535 Bridge at mile 2.74 over the St. Louis Bay and River. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. [27/22]

LAKE SUPERIOR - MN - Duluth - Chart 14975- Bridge Maintenance

From July 6, through **August 12, 2022** between the hours of 0700 and 1730, Monday through Saturday contractors will utilize Snooper trucks under the John A. Blatnik, I-535 Bridge at mile 2.74 over the St. Louis Bay and River. Spotters will warn of approaching vessels and move the man lift to allow vessels to pass. [27/22]

LAKE SUPERIOR - MN - Duluth - Chart 14975- Bridge Maintenance

From June 27 through **July 22, 2022** between the horus of 0700 and 1730 each day a 70-foot by 50-foot barge will be working under the John A. Blatnik, I-535 Bridge at mile 2.74 over the St. Louis Bay and River. The barge will monitor VHF-FM Marine Channel 16 and will move as needed to allow other vessels to pass. [27/22]

RAINY LAKE, RAINY RIVER, LAKE OF THE WOODS, WISCONSIN RIVER, MISSISSIPPI RIVER, & RED RIVER OF THE NORTH

(Revised 11/19) NINTH DISTRICT DRAWBRIDGE	SIGNALS OR OPERATION DELAYS FORM	
TO: Commander (dpb) Ninth Coast Guard District 1240 E. 9 th 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	DATE: NOTE: Reports of Delay will be processed only when all it are fully addressed and reports submitted within days of reported delay / difficulty. Attach additionsheets if necessary.	15
CONFIDENTIALITY: Please check here if you wis	sh to keep names of vessels and persons confidential	
1. NAME OF VESSEL:		
2. PORT:		
3. DATE OF DELAY:() INBO	OUND () OUTBOUND	
4. BRIDGE NAME:		
5. WATERWAY:	MILE:	
(Bridge name, waterway, and mile from Coast P	Pilot #6)	
INDICATE ON REVERSE SIDE OF FORM THE STAF BRIDGE.	TRAINS ARE "CONTINUOUSLY" BEING RUN ACROSS OR STOF RTING AND ENDING TIMES FOR EACH TRAIN, OR TIMES THA	AT TRAINS ARE STOPPED ON
	TICE GIVEN:	
ETA PROVIDED:	TO WHOM:	
7. TIME FIRST SIGNAL GIVEN FOR BRIDGE:	TIME ARRIVED AT BRIDGE:	
8. TIME FIRST SIGNAL RECEIVED FROM BRIDGE	:	
	ENING COULD BE EXPECTED OR THAT THERE COULD BE A	
DELAY?		
10. NAME(S) AND PHONE NUMBER OF BRIDGE	TENDER:	
11. TIME BRIDGE OPENED:	TIME LOST:	
	AND WHO PROVIDED IT?:	
13. WHAT NAVIGATIONAL OR MANEUVERING D	DIFFICULTIES WERE CAUSED BY DELAY?:	
14. PRINTED OR TYPED NAME(S) AND ADDRESS	S(ES) OF REPORTING SOURCE(S):	
15. PHONE NUMBERS AND/OR E-MAIL FOR REF	PORTING SOURCE(S) (FOR ADDITIONAL QUESTIONS BY COA	 AST GUARD AND FOR FINAL

STATUS OF REPORT):

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: _____ Start: _____End:____ Seasonal Dates: Name of Vessel: 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, daybead 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 nav	vigation?
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:	pe
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 twaterway:	for this

re there private Aid	s to Navigation that	t you find misleading or interfe
with the current syste		•
any addition comme	nts on this waterway	y:

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

Coast Guard "Cardinal Points"

IN AN EMERGENCY. If an emergency occurs during the event, such as a person overboard, medical problem, taking on water, or disabling damage from storm, unaccounted for paddlers, and assistance from the Coast Guard is required, we recommend you contact us via VHF-FM channel 16. You do not need to know what the closest Coast Guard station is -- we will determine that -- simply call "Mayday, mayday, mayday, Coast Guard, this is [vessel name] on channel 16, over." During your initial contact, we ask that you provide the following information:

- Location (GPS coordinates and/or geographic reference),
- Nature of distress,
- Number of persons on board and
- Description of your vessel.

If you have an EPIRB or PLB (preferred over SPOT devices) on board, activate that as well because the SARSAT satellite system has global coverage beyond VHF-FM or cellular antenna range. Launching of flares or displaying of other visual signaling devices should also be considered. Use of cellular telephones should be considered a tertiary means of distress alerting.

WHAT TO EXPECT. Once the Coast Guard receives your distress call, we can decide what the closest response units are, what capabilities to bring and approximately how long it will take to get to your location. The Coast Guard communications watch stander on the other end of the radio may have additional questions for you to further ascertain your situation. For those accustomed to police or fire units responding within a few minutes in your city, be aware that Coast Guard boats and helicopters may take longer to reach your location because we may have to transit dozens or even hundreds of miles. Do your best to stabilize your situation in the meantime. The Coast Guard can also provide basic first responder medical care from our boats or helicopters, but paramedic-level (and greater) medical support must be provided from land-based resources. Please be aware that we do not have divers with subsurface or SCUBA capability. Our helicopters carry a rescue swimmer who can conduct rescues on or near the surface only. If subsurface rescue may be required, let us know that as soon as possible because SCUBA capability must come from other agencies and can take hours to coordinate and transport.

RESCUE 21. The Coast Guard recently installed the Rescue 21 communications system around the Great Lakes, greatly increasing our reception and transmission capability. For event participants, your procedure for contacting us remains unchanged - see the "Mayday" call guidance in the "In an emergency" paragraph above. For our part, Rescue 21 allows us to

rapidly obtain a line of bearing from our radio towers to the location of the VHF-FM caller. This helps us home in on your position more quickly and easily, and also helps us catch hoax callers. Again, you do not need to know where our towers or stations are - call us on VHF-FM channel 16 and we will work with you on a case-by-case basis. In addition, all participating members are required to monitor their VHF-FM radios.

IN CASE OF STORMS. If severe storms do occur, it is up to event participants to decide whether to continue their courses or to divert toward cover or safe harbors. The Coast Guard cannot make that decision for you, and we are prohibited from providing specific sailing directions (courses to steer, etc.) to you. The Coast Guard communications watch stander can, however, transmit to you published/charted navigational aids, hazards and information that may be helpful in making your decision.

A WORD ABOUT HYPOTHERMIA. Even if air temperatures during the event days are warm and seasonable, be advised that lake temperatures will likely be cold enough in many locations to cause moderate to severe hypothermia within hours. Participants should dress themselves with those water temperatures in mind - and of course, wear their personal flotation device. Hypothermia is an insidious killer that catches unprepared people in the water off guard, so you stack the deck in your favor by wearing a survival suit, dry suit, wet suit or anti-exposure coveralls.

NINTH COAST GUARD DISTRICT "SAR ETHOS." The men and women of the Ninth Coast Guard District take our search and rescue (SAR) responsibilities very, very seriously. In fact, our philosophy, or "SAR Ethos" is to treat every potential victim as we would our own family. So know that if you get in trouble out there, we will do our very best. Good luck!

GREAT LAKES SEARCH AND RESCUE LINE - 1-800-321-4400.

Joint Rescue Coordination Center Cleveland
Ninth Coast Guard District
1240 E. 9th Street
Cleveland, OH 44199

1-216-902-6117/6118/6109 ninthdistrictcommandcenter@uscg.mil

DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD Date Approved PERMIT FOR MARINE EVENT 04/21/2022 Name of Event Location Date of Event Chicago Yacht Club 113th Annual Race to Mackinac Lake Michigan, Huron, Mackinac Island 07/22/2022 Sponsoring Organization Name of Representative (Last, First, MI) Title Chicago Yacht Club On Water Director

Your application for the following event is approved. Special services to be rendered by the Coast Guard are listed. You are reminded that your organization is primarily responsible for safety in the regatta area and that this permit does not relieve you of such responsibility. Participants shall be adequately briefed and their boats equipped as required by law. A permit may also be required by a state, county or municipal agency. This authorization grants no exemption from state or local ordinances. In the event of any change in the information furnished in your application you will notify this office.

Dieball, Skip

- There will not be a Special Local Regulation issued. No restriction is placed on the use of any navigable waters by other parties. Your event shall not obstruct any channel or normal shipping lane, or interfere with any aid to navigation. The Committeeman in Charge shall control participants to prevent conditions hazardous to other craft in the area.
- There will be a Special Local Regulation issued establishing a restricted area and other controls. You will be provided a copy for guidance. The Committeeman in Charge shall control participants to prevent conditions hazardous to other craft in the area.
- There **will be** a Local Notice to Mariners issued to inform maritime interests and solicit their cooperation.
- There will not be a Regatta Patrol assigned by the Coast Guard.
- There **will be** a Regatta Patrol assigned by the Coast Guard. The attached instruction for Patrol Commanders outlines their responsibility and authority. You should work out specific details with the Patrol Commander.
- X Additional safety equipment is stipulated below.

The 113th 'Race to Mackinac' will begin on Friday, July 22, between 1400 and 1530 CDT with the departure of approx. 50 vessels in the 'Cruising Division'. The remaining divisions will depart Chicago, Saturday, July 23, between 1130 and 1500 CDT. The race will conclude on Wed. July 27th at or around 1300 near Mackinac Island. The sponsor organization anticipates approximately 300 participating vessels (26-110' in length),10 race committee and up to 100 spectator boats on scene.

During this event, Skip Dieball (Person in Charge) will be at the Race Start then will drive up to Mackinac Island, mobile is (419) 392-4411. Chuck Nevel (Person in Charge) will be on Mackinac Island the entire race period, mobile (312) 617-2279.

The designated on-scene Coast Guard PATCOM has the authority to postpone, temporarily stop, or cancel the event because of violation(s) of permit stipulations, a loss of control over the participants, or hazardous conditions. Special Local Regulations, pursuant to 33 C.F.R Part 165.929, will be in effect for the start of this event.

The sponsor organization must comply with all existing Federal, State, Local laws, and other requirements that may impact your ability to hold your event as proposed. Specifically, I bring to your attention the two Inland Rules of the Road:

- 1. Compliance with rule 9: in all narrow channels, a vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel that can safely navigate only within a narrow channel or fairway.
- 2. In the event of restricted visibility, race participants will navigate in accordance with Rule 35 of the Inland Navigation Rules as well as all other pertinent Rules of the Road applicable to the current conditions.

-Continued-

DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD Date Approved PERMIT FOR MARINE EVENT 04/21/2022 Name of Event Location Date of Event Chicago Yacht Club 113th Annual Race to Mackinac Lake Michigan, Huron, Mackinac Island 07/22/2022 Sponsoring Organization Name of Representative (Last, First, MI) Title Chicago Yacht Club On Water Director Dieball, Skip

Your application for the following event is approved. Special services to be rendered by the Coast Guard are listed. You are reminded that your organization is primarily responsible for safety in the regatta area and that this permit does not relieve you of such responsibility. Participants shall be adequately briefed and their boats equipped as required by law. A permit may also be required by a state, county or municipal agency. This authorization grants no exemption from state or local ordinances. In the event of any change in the information furnished in your application you will notify this office.

- There will not be a Special Local Regulation issued. No restriction is placed on the use of any navigable waters by other parties. Your event shall not obstruct any channel or normal shipping lane, or interfere with any aid to navigation. The Committeeman in Charge shall control participants to prevent conditions hazardous to other craft in the area.
- There will be a Special Local Regulation issued establishing a restricted area and other controls. You will be provided a copy for guidance. The Committeeman in Charge shall control participants to prevent conditions hazardous to other craft in the area.
- There **will be** a Local Notice to Mariners issued to inform maritime interests and solicit their cooperation.
- There **will not be** a Regatta Patrol assigned by the Coast Guard.
- There will be a Regatta Patrol assigned by the Coast Guard. The attached instruction for Patrol Commanders outlines their responsibility and authority. You should work out specific details with the Patrol Commander.
- ★ Additional safety equipment is stipulated below.

Continued...

The Ninth Coast Guard District strongly recommends that all participants wear either an inherently buoyant or Inflatable Personal Flotation Device (PFD) with an affixed, registered Personal Locator Beacon (PLB) whenever underway, for the duration of this event.

As the event sponsor, you remain responsible for the overall safety of this event. This may include providing instructions to the participants, verifying crew qualifications, conducting equipment inspections, providing rescue and first aid facilities, and controlling obstructions or menaces to navigation as applicable. You are also responsible for obtaining any additional permits from other Federal, State, or local authorities that may be required.

Lastly, I have enclosed a copy of the Coast Guard District's "Cardinal Points" for Regattas. This document provides information concerning how to notify the Coast Guard Guard, should a distress situation develop during your event.

 \mathscr{U} Jason A. Radcliffe \mathscr{U}

Lieutenant, U.S. Coast Guard Waterways Management

Ninth Coast Guard District

Jason A Radcliffe

by direction





RESEARCH EQUIPMENT IN WATER

Lake Superior, Michigan, Wisconsin, Minnesota August 8th to September 30th, 2022

SAILDRONE, INC. will operate two Unmanned 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: YesNotation: "Saildrone"

• Length: 23 ft & Width: 2 ft

• Height: 16 ft above water line

Draft: 6 ft, Avg. speed: 3 kts

GPS / AIS / Cameras: Yes

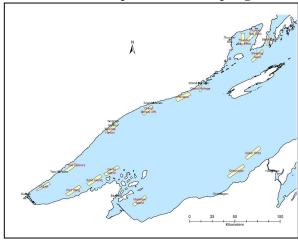
AIS identifiers: "SD-1063", "SD-1064"

Saildrone



SAILDRONE MISSION CONTROL (510) 722-6070 missioncontrol@saildrone.com

Western Lake Superior with sampling sites



SCIENCE CONTACTS

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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.
- 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

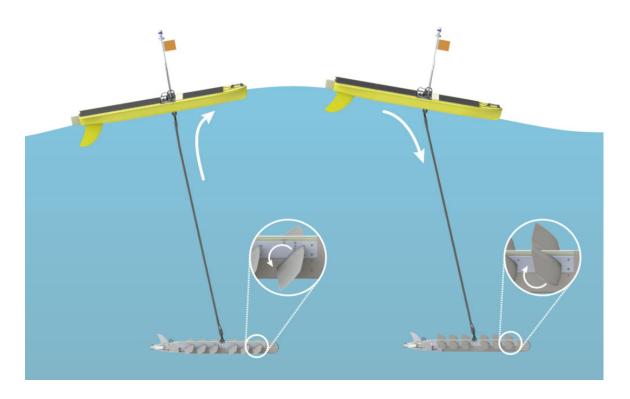
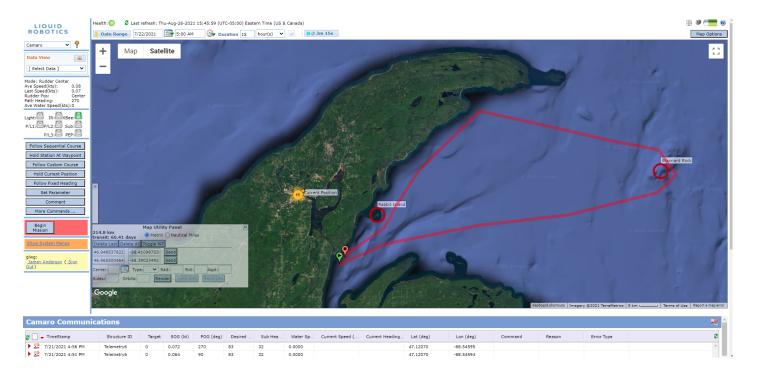
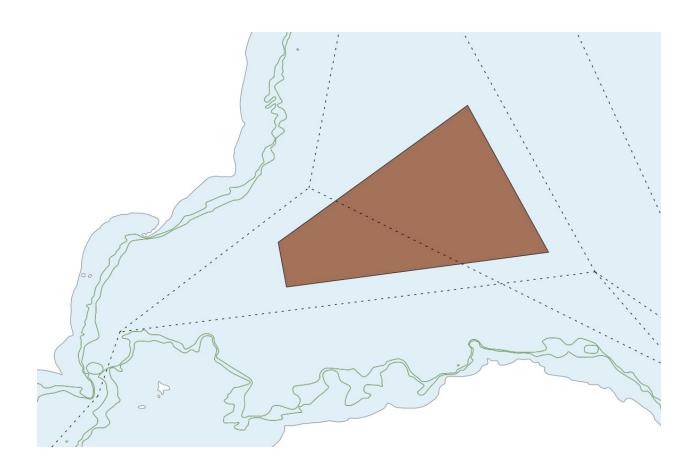


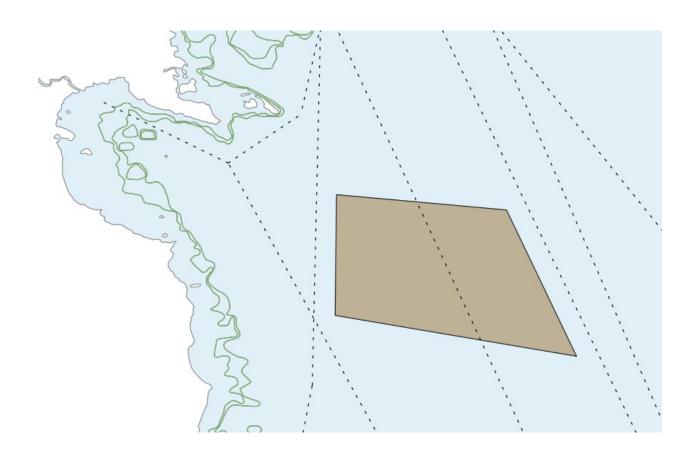
Figure 2 - Example screenshot of the Wave Glider Management System (WGMS) use by remote pilots to control the WaveGlider during deployment





Outer Saginaw Bay Polygon Boundaries:

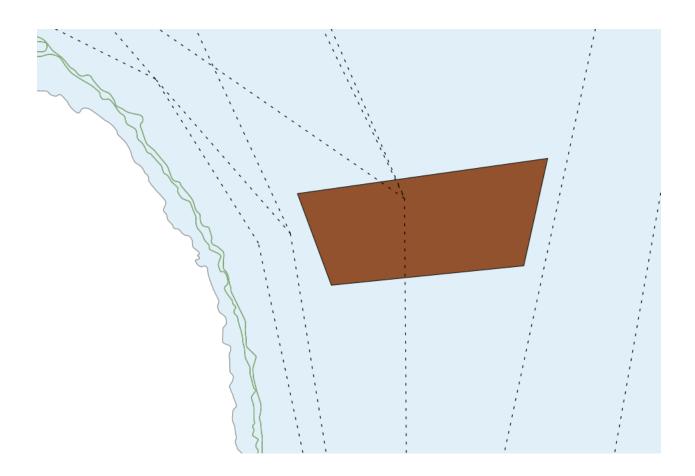
-83.2713, 44.2383 -83.2598, 44.1746 -83.0017, 44.4333 -82.8859, 44.2234



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