NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

Formerly LS 93, 1st Ed., 1910 KARP 1904

SOUNDINGS IN FEET

14963

CONTINUED ON CHARTS 14960 AND 14961

CONTINUED ON CANADIAN CHART 2310

SCALE 1:120,000
FEET
YARDS
METERS
STATUTE MILES

SOURCE

B1	1990-1993	NOS Survey	partial bottom coverage
	Pre-1974	Lake Survey Surveys	partial bottom coverage

SOURCE DIAGRAM

Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been bandied in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

NO-DISCHARGE ZONE (see note 2)

Diamond Rock 1 Fl W 10S 10 M
Diamond Rock (1981)

L A K E S U P E R I O R

MAGNETIC VAR 6°15'W (2024) ANNUAL INCREASE 5'

MAGNETIC VAR 6°15'W (2024) ANNUAL INCREASE 5'

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Escanaba, MI	KZZ-35	162.500 MHz
Houghton, MI	WXK-73	162.400 MHz
Marquette, MI	KIG-66	162.550 MHz
Newberry, MI	WNG-576	162.450 MHz

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

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

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83). Mean for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to this North American Datum of 1927 must be corrected an average of 0.527 southward and 0.776" westward to agree with this chart.

MARINER ACTIVATED SOUND SIGNAL
MARQUETTE BREAKWATER OUTER LIGHT - (MRASS) From is activated by keying mic 5 times on VHF-FM Ch 83A.

CAUTION
Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

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

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

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

Pump-out facilities

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

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light List and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) ⊙(Approximate location)

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

LAKE SUPERIOR

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
602.0	601.9	601.8	601.8	601.9	602.1	602.3	602.4	602.4	602.3	602.2	602.1

Average levels (1918-2013)

603.3	603.2	603.2	603.2	603.3	603.5	603.7	603.8	603.8	603.7	603.6	603.5

Extreme Levels (period of record)

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the depths shown on this chart. At times when the Low Water Datum, the existing depths are correspondingly greater or lower than the charted depths.

Courtesy of NOAA

NOTE 1
Navigation regulations are published in Chapter 2 U.S. Coast Pilot 6. Additional navigation regulations in Chapter 3 are summarized in the Notice to Mariners section containing the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.
Refer to charted regulation section numbers.

POLLUTION REPORTS
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE 2
NO-DISCHARGE ZONE: 40 CFR 140
Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all navigable waters bordering the State are designated a NDZ. This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) must have the device sealed, locked, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or meet a holding tank. Regulations for the NOZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - GREAT LAKES
LAKE SUPERIOR - MICHIGAN

GRAND MARAIS TO BIG BAY POINT

Polyconic Projection
Scale 1:120,000
North American Datum of 1983
(World Geodetic System of 1984)

SOUNDINGS IN FEET

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) ..... 601 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum(1985).

SAILING DIRECTIONS: Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

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

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

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

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

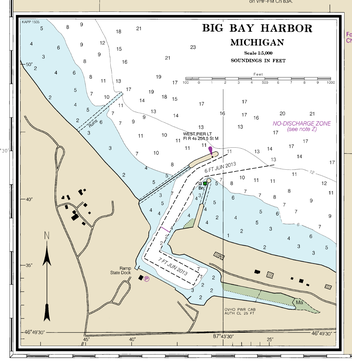
Pipeline Area — Cable Area

Additional unplotted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and the burial depth may change or the pipeline may become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

For more detail see inset on Chart No. 14962

For more detail see Chart No. 14970

For more detail see Chart No. 14969



21st Ed., Oct. 2014

14963

Last Correction: 1/5/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4616 (11/12/2016), CHS: 1016 (10/28/2016)

To ensure that this chart was printed at the proper scale, the line below should measure six inches (152 millimeters).
If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.

CAUTION:
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district for the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov

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

SOUNDINGS IN FEET

FATHOMS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
FEET 0 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 48 51 54
METERS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Grand Marais to Big Bay Point
SOUNDINGS IN FEET - SCALE 1:120,000

14963