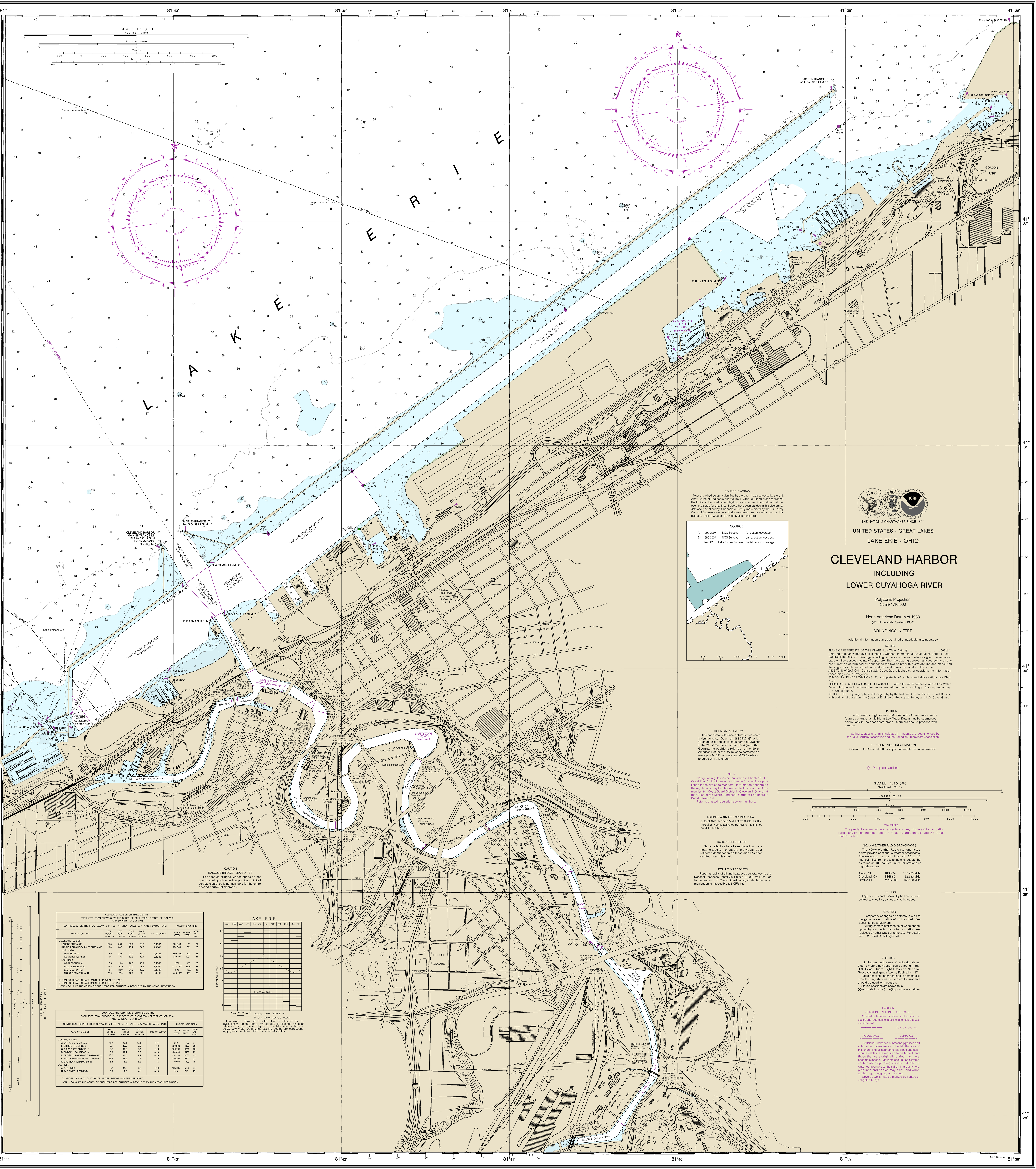
NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

Formerly LS - 354, 1st Ed., Sept., 1901 KAPP 1161



UNITED STATES - GREAT LAKES

LAKE ERIE - OHIO

CLEVELAND HARBOR

INCLUDING LOWER CUYAHOGA RIVER

Polyconic Projection
Scale 1:10,000

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

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

THE NATION'S CHARTMAKER SINCE 1807

SOURCE DIAGRAM

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

SOURCE			
A	1990-2007	NOS Surveys	full bottom coverage
B1	1990-2007	NOS Surveys	partial bottom coverage
j	Pre-1974	Lake Survey Surveys	partial bottom coverage

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum)........569.2 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. The true bearing between any two points on this chart may be determined by connecting the two points with a straight line and measuring the angle of its intersection with a meridian line at or near the middle of the course.
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

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.

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

SUPPLEMENTAL INFORMATION

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

Pump-out facilities

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.189" northward and 0.536" eastward to agree with this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.
Refer to charted regulation section numbers.

MARINER ACTIVATED SOUND SIGNAL

CLEVELAND HARBOR MAIN ENTRANCE LIGHT - (MRASS) Horn is activated by keying mic 5 times on VHF-FM Ch 83A.

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.

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).

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.

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.

Akron, OH	KDO-94	162.400 MHz
Cleveland, OH	KHB-59	162.550 MHz
Grafton,OH	WNG-698	162.500 MHz

CAUTION

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

CAUTION

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

CAUTION

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

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

CAUTION
BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

CLEVELAND HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2015 AND SURVEYS TO OCT 2015

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
CLEVELAND HARBOR								
HARBOR ENTRANCE	25.8	28.5	27.1	22.8	9,10-15	600-700	1150	29
BASINS & CUYAHOGA RIVER ENTRANCE	23.4	26.9	27.7	24.8	9,10-15	230-760	1200	28
WEST BASIN								
MAIN SECTION	18.9	22.9	22.2	13.0	9,10-15	800-1560	4400	28
WESTERLY 400 FEET	14.5	13.2	12.3	10.1	9,10-15	330-800	400	28
EAST BASIN								
WEST SECTION (A)	16.9	23.3	26.6	16.7	9,10-15	1560	1300	28
MIDDLE SECTION (A)	12.1	20.5	21.2	19.8	9,10-15	1270-1560	3800	27
EAST SECTION (B)	18.7	22.0	21.9	13.8	9,10-15	500	14600	25
NICHOLSON APPROACH	22.4	22.4	22.2	22.0	9,10-15	400-1600	1300	25

A. TRAFFIC FLOWS IN EAST BASIN FROM WEST TO EAST.
B. TRAFFIC FLOWS IN EAST BASIN FROM EAST TO WEST.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CUYAHOGA AND OLD RIVERS CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF APR 2016 AND SURVEYS TO APR 2016

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
CUYAHOGA RIVER							
(J) ENTRANCE TO BRIDGE 1	13.2	19.6	13.5	4-16	230	1700	27
(B) BRIDGE 1 TO BRIGE 6	5.1	15.5	7.6	4-16	250-300	6300	23
(C) BRIDGE 6 TO BRIDGE 12	5.7	12.9	5.4	4-16	180-700	5500	23
(D) BRIDGE 12 TO BRIDGE 17	5.3	17.1	5.6	4-16	120-400	6400	23
(E) BRIDGE 17 TO END OF TURNING BASIN	10.2	16.4	8.9	4-16	110-250	4000	23
(F) END OF TURNING BASIN TO BRIDGE 23	13.2	16.9	7.2	4-16	110-200	5200	23
(G) UPSTREAM TURNING BASIN	5.3	5.3	5.3	4-16	0-600	1000	18
OLD RIVER							
(A) OLD RIVER	6.7	15.8	7.2	4-16	125-200	5300	27
(H) OLD RIVER UPPER END	9.0	7.5	6.1	4-16	120	710	27

(*) BRIDGE 17 - OLD LOCATION OF BRIDGE. BRIDGE HAS BEEN REMOVED.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

LAKE ERIE

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

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

38th Ed., May 2015. Last Correction: 11/18/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 4916 (12/3/2016), CHS: 1116 (11/25/2016)

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

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.

This chart was distributed as a PDF (Portable Document Format). Printing PDFs may alter the chart scale, color, or legibility that may impact suitability for navigation. Printed charts provided by NOAA certified Print on Demand (POD) providers fulfill a vessel's requirement to carry a navigational chart "published by the National Ocean Service" in accordance with federal regulations, including but not limited to 33 C.F.R. 164.33(a), 33 C.F.R. 164.72(b), and 46 C.F.R. 28.225(a). POD charts meet stringent print standards and can be recognized by an official certification of authenticity printed on the chart. A list of POD providers can be found at: nauticalcharts.noaa.gov/pod