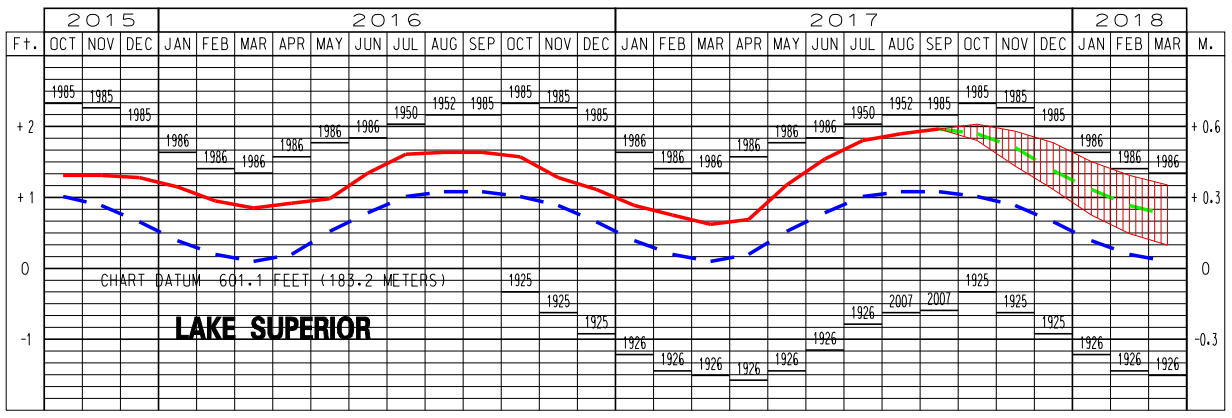
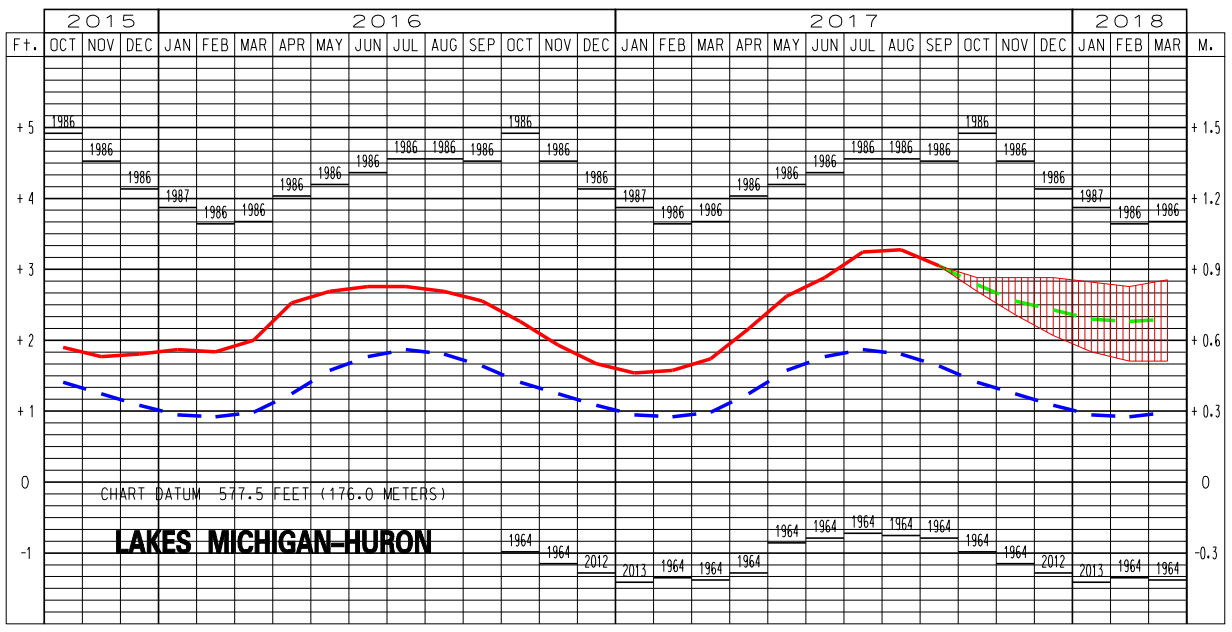
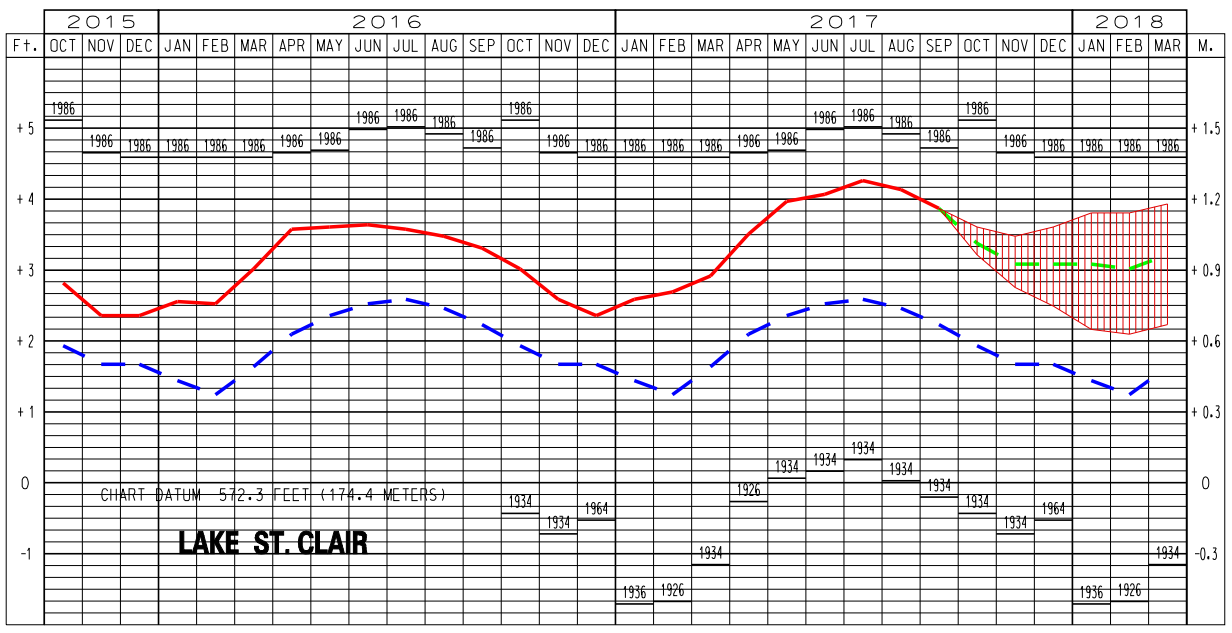
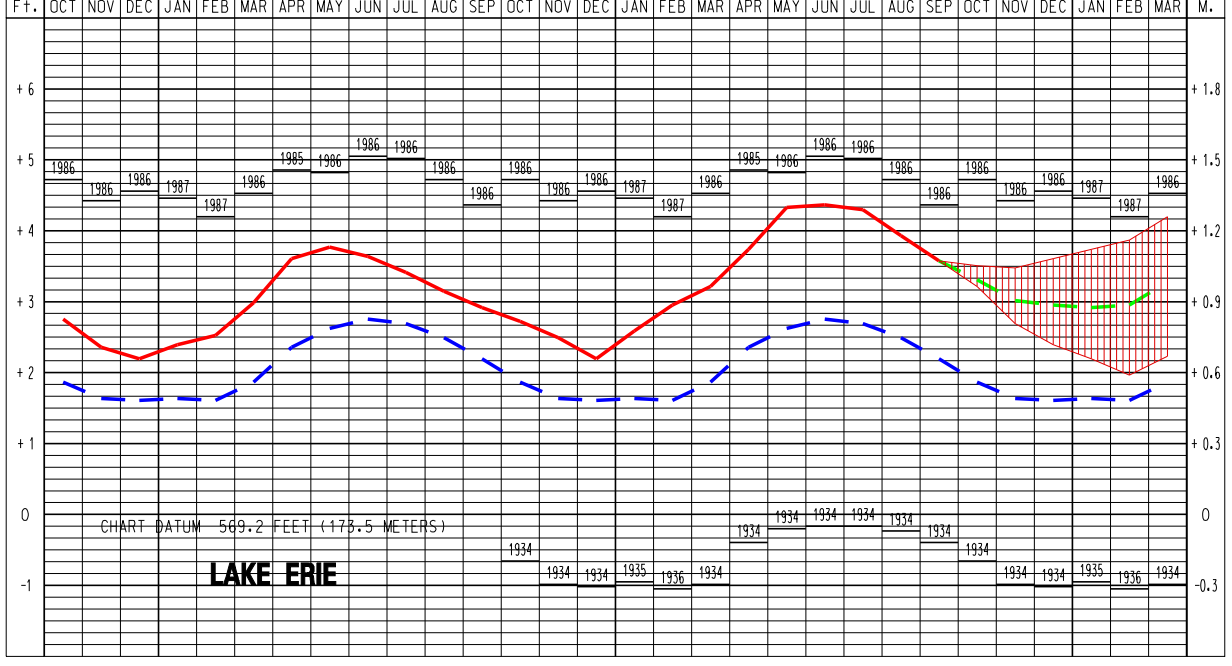
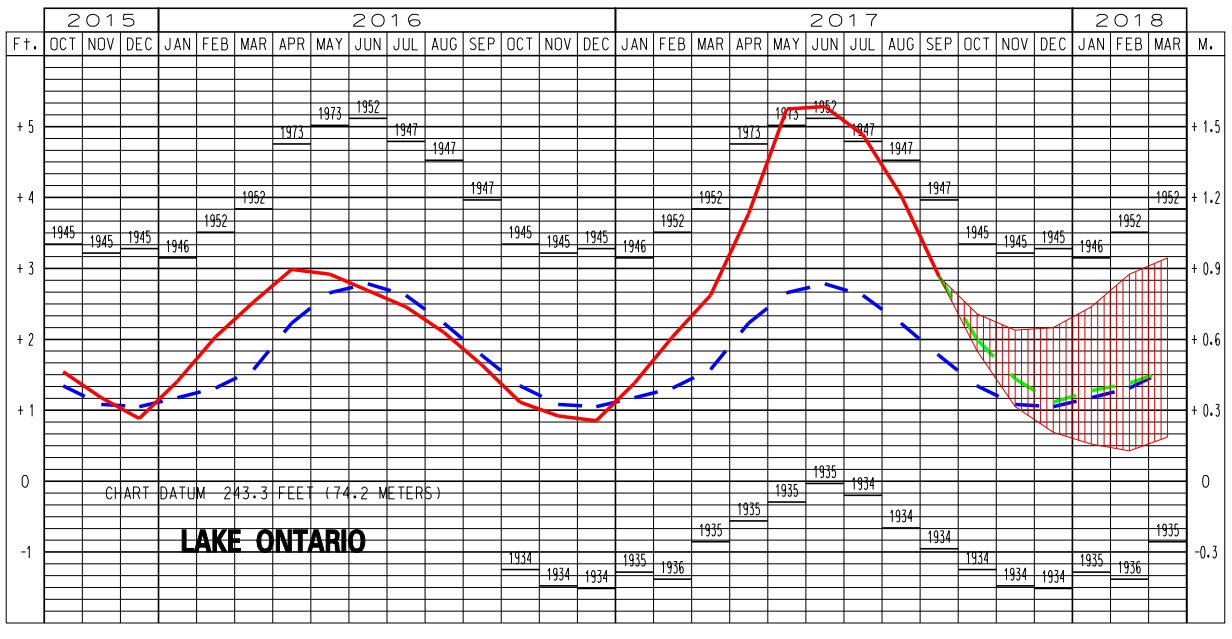










ELEVATIONS REFERENCED TO THE CHART DATUM OF EACH RESPECTIVE LAKE

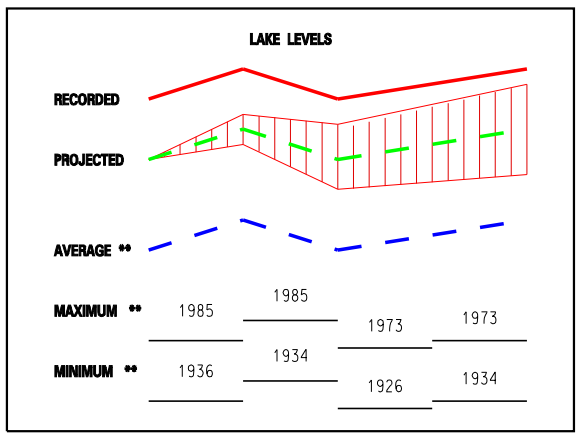
US Army Corps of Engineers
Detroit District

MONTHLY BULLETIN OF LAKE LEVELS FOR THE GREAT LAKES

OCTOBER 2017

Water levels for the previous year and the current year to date are shown as a solid line on the hydrographs. A projection for the next six months is given as a dashed line. This projection is based on the present condition of the lake basin and anticipated future weather. The shaded area shows a range of possible levels over the next six months dependent upon weather variations. Current and projected levels (solid and dashed lines) can be compared with the 1918–2016 average levels (dotted line) and extreme levels (shown as bars with their year of occurrence). The legend below further identifies the information on the hydrographs.

LEGEND



The levels on the hydrographs are shown in both feet and meters above (+) or below (–) Chart Datum. Chart Datum, also known as Low Water Datum, is a reference plane on each lake to which water depth and Federal navigation improvement depths on navigation charts are referred.

All elevations and plots shown in this bulletin are referenced to International Great Lakes Datum 1985 (IGLD 1985). IGLD 1985 has its zero base at Rimouski, Quebec near the mouth of the St. Lawrence River (approximate sea level).

SEPTEMBER MEAN LAKE LEVELS

(IGLD 1985)

		Superior	Mich-Huron	St. Clair	Erie	Ontario
* 2017	Ft.	603.02	580.48	576.05	572.80	246.33
	M.	183.80	176.93	175.58	174.59	75.08
2016	Ft.	602.69	579.99	575.49	572.15	245.08
	M.	183.70	176.78	175.41	174.39	74.70
** MAX.	Ft.	603.22	581.96	576.90	573.59	247.41
	M.	183.86	177.38	175.84	174.83	75.41
	Yr.	1985	1986	1986	1986	1947
** MIN.	Ft.	600.46	576.64	571.98	568.83	242.49
	M.	183.02	175.76	174.34	173.38	73.91
	Yr.	2007	1964	1934	1934	1934
** AVG.	Ft.	602.13	579.07	574.41	571.42	245.21
	M.	183.53	176.50	175.08	174.17	74.74

* provisional
** Average, Maximum and Minimum for period 1918-2016

Information

Recorded water levels in this bulletin are derived from a representative network of water level gages on each lake (see cover map). Providers of these data are the U.S. Department of Commerce, NOAA, National Ocean Service, and Integrated Science Data Management, Department of Fisheries and Oceans, Canada. The Detroit District, Corps of Engineers and Environment Canada derive historic and projected lake levels under the auspices of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data.

This bulletin is produced monthly as a public service. The Corps also, on a weekly basis publishes online the *Great Lakes, Connecting Channels and St. Lawrence River Water Levels and Depths*, which provides a forecast of depths in the connecting rivers between the Great Lakes and the International Section of the St. Lawrence River. This *Monthly Bulletin of the Lake Levels for the Great Lake*s may be obtained free of charge by writing to the address shown on the front cover, by calling (313) 226-6442 or emailing hhpm@usace.army.mil. Notices of change of address should include the name of the publication. This information is available on the internet at http://www.lre.usace.army.mil/Missions/GreatLakesInformation.aspx.

Great Lakes Basin Hydrology
September 2017

According to preliminary estimates, basin-wide precipitation was well below normal for all but Lake Superior, which received 127% of normal September rainfall. On the whole, the Great Lakes basin received only 71% of average September precipitation. Over the last 12 months, the total rainfall has been just above average for the Great Lakes basin. Net basin supply was near or below average for all but Lake Superior, which received well above average net basin supply as a result of the high rainfall. Lake outflows in September were above average for all lakes.

All of the lakes were above their September long-term average water levels. From August to September, Lake Superior rose one inch, but all other lakes' levels declined. Lakes Michigan-Huron and St. Clair fell by 3 inches, Lake Erie fell by 4 inches, and Lake Ontario dropped 14 inches from August to September. This September's levels were 4 to 8 inches above last year's levels for all but Lake Ontario, which was 15 inches above last year's September level. Lake Superior's September level was 2 inches below its record high September level set in 1985. The other lakes are 9 to 18 inches below their record high September levels.

PRELIMINARY PRECIPITATION (INCHES)

BASIN	September				12-Month Comparison			
	2017	Average (1900-2014)	Diff.	% of Average	Last 12 months	Average (1900-2014)	Diff.	% of Average
Superior	4.44	3.50	0.94	127	33.82	30.52	3.30	111
Michigan-Huron	1.71	3.44	-1.73	50	33.78	32.57	1.21	104
Erie	1.42	3.23	-1.81	44	34.68	35.65	-0.97	97
Ontario	1.87	3.28	-1.41	57	40.20	35.87	4.33	112
Great Lakes	2.42	3.41	-0.99	71	34.66	32.76	1.90	106

LAKE	September Net Basin Supplies[1] (cfs)		September Outflows[2] (cfs)	
	2017	Average (1900-2008)	2017	Average[3] (1900-2008)
Superior	119,000	70,000	102,000	83,000
Michigan-Huron	-7,000	27,000	218,000	195,000
Erie	-31,000	-17,000	230,000	204,000
Ontario	3,000	5,000	315,000	249,000

Notes: Values (excluding averages) are based on preliminary computations; cfs denotes cubic feet per second.

[1] Net basin supply is the net result of precipitation falling on the lake, runoff from precipitation falling on the land which flows to the lake, and evaporation from the lake. Negative net basin supply denotes evaporation exceeded runoff and precipitation. The net total supply can be found by adding the net basin supply and the outflow from the upstream lake.

[2] Does not include diversions.

[3] Lake Ontario average water supplies and average outflows are based on period of record 1900-2005