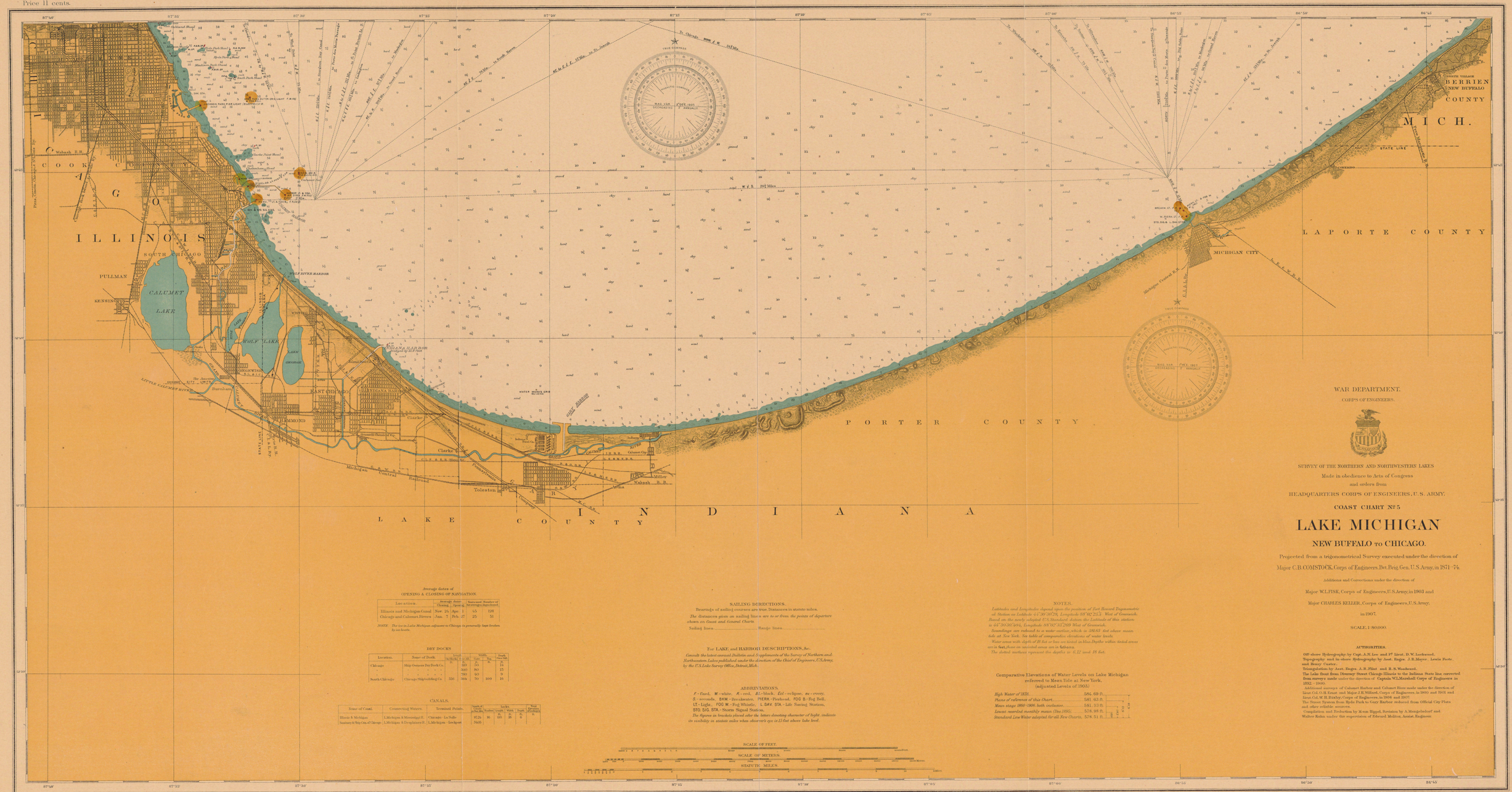
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WAR DEPARTMENT.

CORPS OF ENGINEERS.

SURVEY OF THE NORTHERN AND NORTHWESTERN LAKES

Made in obedience to Acts of Congress

and orders from

HEADQUARTERS CORPS OF ENGINEERS, U.S. ARMY.

COAST CHART № 5

LAKE MICHIGAN

NEW BUFFALO TO CHICAGO.

Projected from a trigonometrical Survey executed under the direction of

Major C.B. COMSTOCK, Corps of Engineers, Bvt. Brig. Gen. U.S. Army, in 1871–74.

Additions and Corrections under the direction of

Major W.L. FISK, Corps of Engineers, U.S. Army, in 1903 and

Major CHARLES KELLER, Corps of Engineers, U.S. Army,

in 1907.

SCALE, 1:80000

AUTHORITIES.

Off-shore Hydrography by Capt. A.N. Lee and 1st Lieut. D.W. Lockwood.
Topography and in-shore Hydrography by Asst. Engrs. J.B. Mayer, Lewis Foote, and Henry Custer.
Triangulation by Asst. Engrs. A.R. Flint and R.S. Woodward.
The Lake front from Diversey Street Chicago Illinois to the Indiana State line, corrected from surveys made under the direction of Captain W.L. Marshall Corps of Engineers in 1892–1900.
Additional surveys of Calumet Harbor and Calumet River made under the direction of Lieut. Col. C.E. Ernst and Major J.H. Willard, Corps of Engineers, in 1900 and 1901 and Lieut. Col. W.H. Bixby, Corps of Engineers, in 1906 and 1907.
The Street System from Hyde Park to Gary Harbor reduced from Official City Plats and other reliable sources.
Compilation and Reduction by M. von Rippel, Revision by A. Mongeledorf and Walter Rohn under the supervision of Edward Molitor, Assist. Engineer.

Average dates of OPENING & CLOSING OF NAVIGATION.

Location	Average dates of Opening	Average dates of Closing	Extreme dates of Opening	Extreme dates of Closing	Numbers of days closed
Illinois and Michigan Canal	Mar. 24	Apr. 1			128
Chicago and Calumet Rivers	Apr. 7	Feb. 27			51
					5

NOTE. The ice in Lake Michigan adjacent to Chicago is generally kept broken by ice boats.

DRY DOCKS

Location.	Name of Dock.	Length in feet.	Width at Gate.	Width at Bottom.	Depth over Sills.
		ft.	ft.	ft.	ft.
Chicago	Ship Owners Dry Dock Co.	550	55		24
	"	300	80		15
	"	700	90		9
South Chicago	Chicago Shipbuilding Co.	526	70	100	16

CANALS.

Name of Canal.	Connecting Waters.	Terminal Points.	Length of Canal in Sea Miles.	Locks. Number.	Locks. Length.	Locks. Width.	Locks. Depth.	Depth of Entrance Channels in ft.
Illinois & Michigan	L. Michigan & Mississippi R.	Chicago - La Salle	95.24	16	110	18	4.5	
Sanitary & Ship Can. of Chicago	L. Michigan & Desplaines R.	Chicago - Lockport	34.65					

SAILING DIRECTIONS.

Bearings of sailing courses are true. Distances in statute miles.
The distances given on sailing lines are to or from the points of departure shown on Coast and General Charts.

Sailing lines..... Range lines.....

For LAKE and HARBOR DESCRIPTIONS, &c.

Consult the latest current Bulletin and Supplements of the Survey of Northern and Northwestern Lakes published under the direction of The Chief of Engineers, U.S. Army, by the U.S. Lake Survey Office, Detroit, Mich.

ABBREVIATIONS.

F.–fixed, *W.*–white, *R.*–red, *Bl.*–black, *Ecl.*–eclipse, *ev.*–every, *S.*–seconds, BKW.–Breakwater, PIER.–Pierhead, FOG B.–Fog Bell, LT.–Light, FOG W.–Fog Whistle, L. SAV. STA.–Life Saving Station, STO. SIG. STA.–Storm Signal Station.
The figures in brackets placed after the letters denoting character of light indicate its visibility in statute miles when observer's eye is 15 feet above lake level.

NOTES.

Latitudes and Longitudes depend upon the position of Fort Howard Trigonometric al Station as Latitude 44°50'30"28, Longitude 88°02'25"5 West of Greenwich. Based on the newly adopted U.S. Standard, datum the Latitude of this station is 44°50'30"494, Longitude 88°02'32"269 West of Greenwich.
Soundings are reduced to a water surface, which is 581.63 feet above mean tide at New York. See table of comparative elevations of water levels.
Water areas with depth of 21 feet or less are tinted in blue. Depths within tinted areas are in feet, those on uncolored areas are in fathoms.
The dotted northern represent the depths of 6, 12 and 18 feet.

Comparative Elevations of Water Levels on Lake Michigan referred to Mean Tide at New York.
(adjusted Levels of 1903.)

High Water of 1838.	584.69 ft.
Plane of reference of this Chart.	581.63 ft.
Mean stage 1860–1906 both inclusive.	581.33 ft.
Lowest recorded monthly mean (Dec 1895).	578.98 ft.
Standard Low Water adopted for all New Charts.	578.51 ft.

Issued September 5, 1907.

ON SALE AT U.S. LAKE SURVEY OFFICE, DETROIT, MICHIGAN.

AIDS TO NAVIGATION CORRECTED FROM INFORMATION RECEIVED TO SEPTEMBER 5, 1907.

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