

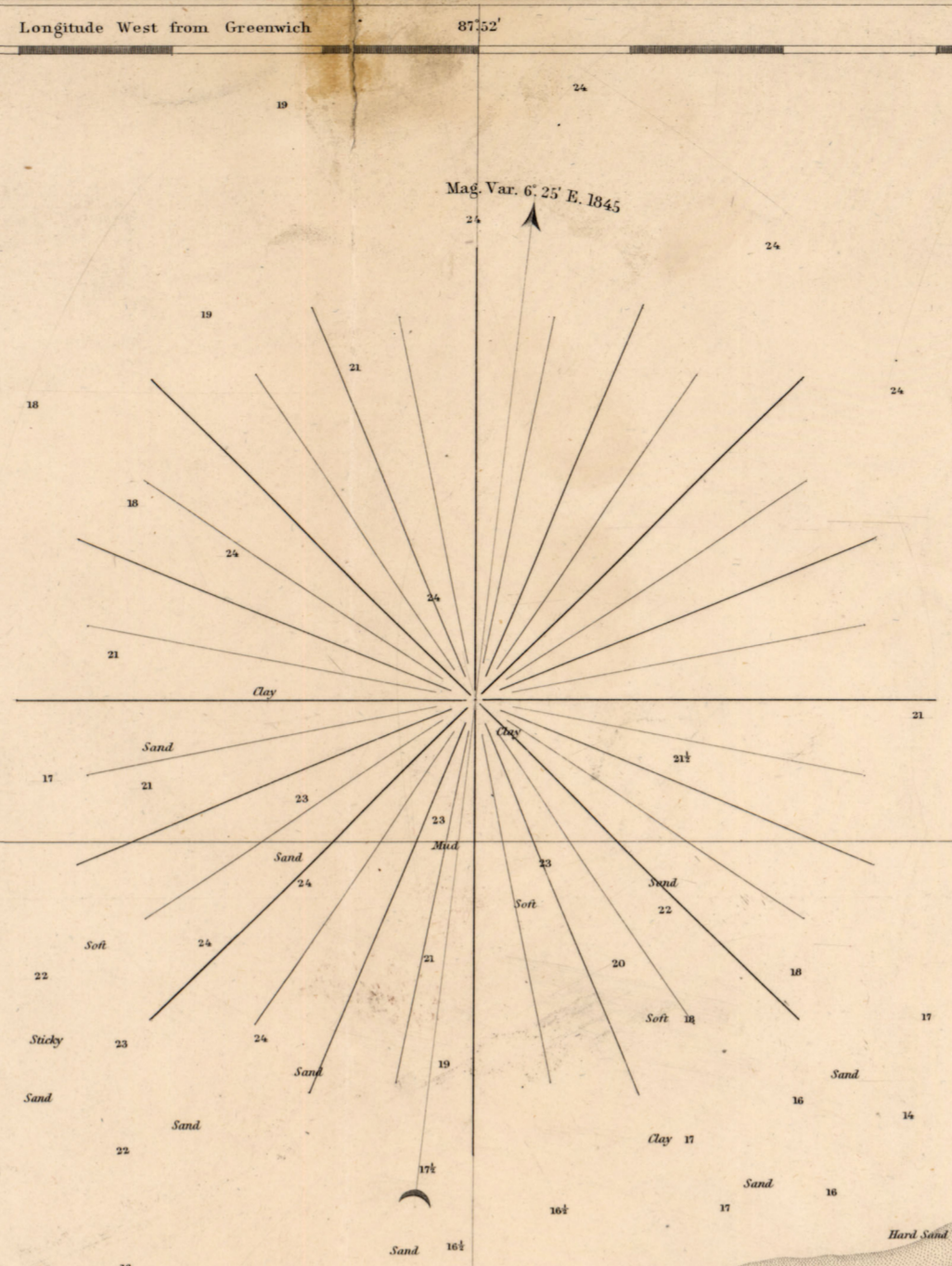


GEOGRAPHICAL POSITIONS

Latitude Light House Long Tail point $42^{\circ} 52' 56''$
 Longitude (adapted) West from Greenwich $87^{\circ} 52' 25''$
 Do. do. in time $5^h 57^m 56^s$
 Do. West from Washington Capital $82^{\circ} 52' 56''$
 Do. do. in time $5^h 52^m 56^s$

NOTES

The Soundings are expressed in feet and are referred to the stage of water in July 1845.
 Characteristics Soundings only are given.
 The dotted surfaces represent the bottom to the depths of 6, 9 & 12 feet showing at a glance the limits of navigation.



SAILING DIRECTIONS

For passing through Green Bay from the middle entrance by Rock Island Light House formerly called Lewis Island Light House.

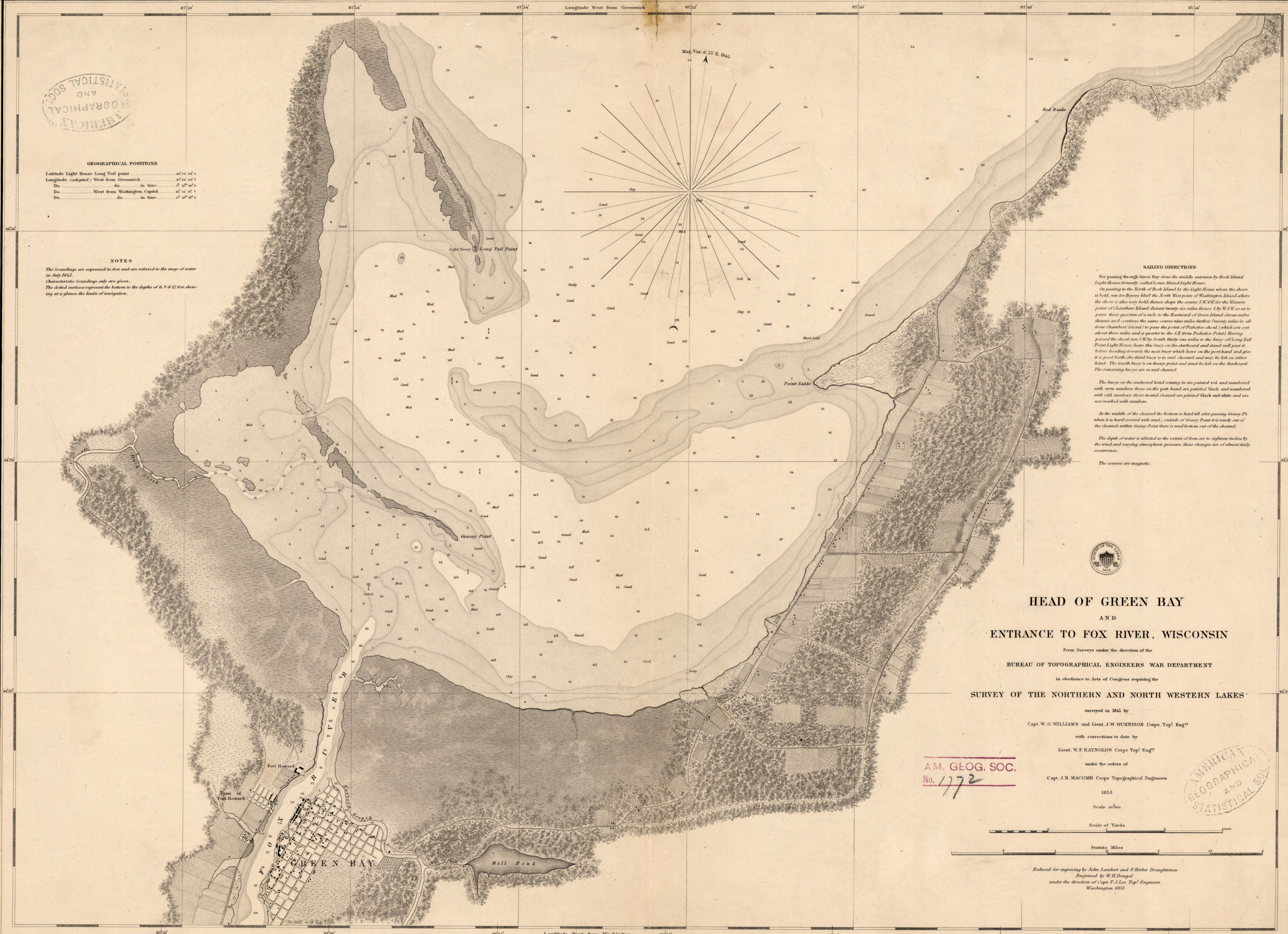
The passing to the North of Rock Island by the Light House where the shore is bold, run for Beaver Island the North West point of Washington Island where the shore is also very bold, thence shape the course S.W. by W. for the Western point of Chambers Island distant twenty six miles thence S. by W. 1/2 W. so as to pass three quarters of a mile to the Eastward of Green Island eleven miles distant and continue the same course nine miles further twenty miles in all from Chambers Island to pass the point of Peabody Island (which sits out about three miles and a quarter to the S.E. from Peabody Point) Having passed the shoal run S.W. by South three miles to the buoy off Long Tail Point Light House leave this buoy on the starboard and stand well past it before heading towards the next buoy which lies on the port hand and give it a good berth, the third buoy is in mid channel and may be left on either hand. The fourth buoy is on Grassy Point and must be left on the Starboard. The remaining buoys are in mid channel.

The buoys on the starboard hand coming in are painted red and numbered with even numbers those on the port hand are painted black and numbered with odd numbers those in mid channel are painted black and white and are not marked with numbers.

In the middle of the channel the bottom is hard till after passing Grassy Pt. when it is hard covered with mud - outside of Grassy Point it is sandy out of the channel within Grassy Point there is mud bottom out of the channel.

The depth of water is affected to the extent of from six to eighteen inches by the wind and varying atmospheric pressure these changes are of almost daily occurrence.

The courses are magnetic.



**HEAD OF GREEN BAY
AND
ENTRANCE TO FOX RIVER, WISCONSIN**

From Surveys under the direction of the
BUREAU OF TOPOGRAPHICAL ENGINEERS WAR DEPARTMENT
 in obedience to Acts of Congress requiring the
SURVEY OF THE NORTHERN AND NORTH WESTERN LAKES

surveyed in 1845 by
 Capt. W. G. WILLIAMS and Lieut. J. W. GUNNISON Corps Top. Engrs.

with corrections to date by
 Lieut. W. F. RAYNOLDS Corps Top. Engr.

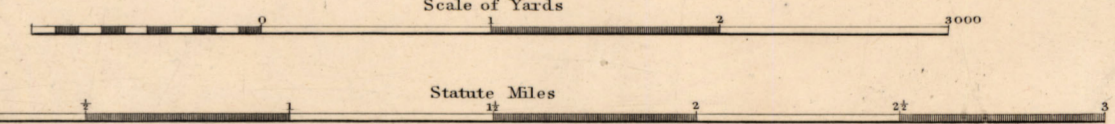
under the orders of
 Capt. J. N. MACOMB Corps Topographical Engineers

1853

Scale 20000

Scale of Yards

Scale of Statute Miles



Reduced for engraving by John Lambert and F. Herbet Draughtsmen
 Engraved by W. H. Douglas
 under the direction of Capt. T. J. Lee Top. Engineers
 Washington 1853

AM. GEOG. SOC.
 No. 1772



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 ALS 1003a

BDD-6
 HVAR
 Series I/3a

Green Bay (head of, and entrance to Fox River Wis.)