

# *The Discovery of Superior Shoal*

**Fred Landon**

[fadedpage.com](http://fadedpage.com)

## **\* A Distributed Proofreaders Canada eBook \***

This eBook is made available at no cost and with very few restrictions. These restrictions apply only if (1) you make a change in the eBook (other than alteration for different display devices), or (2) you are making commercial use of the eBook. If either of these conditions applies, please contact a <https://www.fadedpage.com> administrator before proceeding. Thousands more FREE eBooks are available at <https://www.fadedpage.com>.

This work is in the Canadian public domain, but may be under copyright in some countries. If you live outside Canada, check your country's copyright laws. IF THE BOOK IS UNDER COPYRIGHT IN YOUR COUNTRY, DO NOT DOWNLOAD OR REDISTRIBUTE THIS FILE.

*Title:* The Discovery of Superior Shoal

*Date of first publication:* 1959

*Author:* Fred Landon (1880-1969)

*Date first posted:* Aug. 14, 2023

*Date last updated:* Aug. 14, 2023

Faded Page eBook #20230829

This eBook was produced by: John Routh & the online Distributed Proofreaders Canada team at <https://www.pgdpcanada.net>

# The Discovery of Superior Shoal

By FRED LANDON

Inland Seas, Volume XV, #1, 1959

Lake Superior is, at one and the same time, the greatest in area, greatest in volume of water and greatest in maximum depth of the Great Lakes group. It has an area of 31,820 square miles contained in “the oldest, the largest and the most picturesque” of the several rock bowls which, with their connecting rivers, form a navigable channel between the mid portion of the continent and the waters of the Atlantic. Harlan Hatcher has described Lake Superior as a genuine antique, complete with ancient carvings, statues and hieroglyphs. Geologically, it presents a fascinating story, its shores and its depths revealing chapters in the earth’s evolution through prehistoric ages. The great mineral wealth about its shores has had much to do with determining the economic character of the life of many millions of people and in adding to their comfort, convenience and well-being. For more than three centuries men have been traversing its waters, exploring its shores and islands and plumbing its depths, often making startling discoveries. Such, for example, was the finding, made during surveys in 1929, that in an area of the Lake, far from land and which was thought to be of great depth, there was a group of peaks rising from the bottom to within forty-five feet of the surface. A Canadian survey in 1930 revealed one peak actually coming to within twenty-one feet of the surface. It was a discovery that at once gave rise to the suspicion that here was a possible explanation of the disappearance in years gone by of ships that had never arrived at their appointed port.

Colonel Edmund H. Lang, Corps of Engineers, District Engineer at Detroit, gives this account of the discovery of Superior Shoal:

Superior Shoal was discovered by the Offshore Section of the U.S. Lake Survey in June 1929. Mr. Harry F. Johnson was Chief of the Section and Captain Frank Greene was master of the survey steamer *Margaret*. While sounding cross lake lines in deep water the indicator on the flashing-dial-type echo sounder showed a depth of less than 50 feet, and it was thought that the machine was registering erratically. Then, the machine seemed to start

functioning normally again and the sounding operations were continued. Considering the possibility that the sounding machine had not been erratic, but had been registering correctly all the time, Mr. Johnson gave orders to return to the possible shoal area and the *Margaret* retraced its course. This time, a least depth of 45 feet was found which was definite evidence that shoal water did exist. The results of this discovery were first published on a revised edition of Lake Survey Chart No. 9 in August 1929.<sup>[1]</sup>

In the following year (1930) the Canadian Hydrographic Survey made a detailed sounding of the area and found a least depth of 22 feet. Mr. N. G. Gray, the present Dominion Hydrographer, who participated in this 1930 investigation, has provided the following account of the operations of that year:

The first report or indication in this office that shoal water existed in the middle of Lake Superior was from the U.S. Lake Survey in 1929. Consequently, the following year, this Service moved one of the survey ships, the C.G.S. *Bayfield*, from the East Coast to Lake Superior to conduct an offshore survey of the Lake. Prior to 1930, north of the International Boundary, the Canadian Hydrographic Service had sounded offshore to well over 100 fathoms, but the U.S. Lake Survey had completed all of their side of the Lake south of the Boundary. This left a large blank area in the central part of the Lake without soundings, and it had been considered as all deep water.

The survey was conducted by Mr. H. L. Leadman and the blank area completely filled in; as well, a detailed survey was made of the shoal. The existence of 3½ fathoms was immediately reported by a Canadian Notice to Mariners #54 of 1930.

A chart of Lake Superior, showing the soundings north of the International Boundary, which included an inset at a scale of 1:60,000, was first published in 1931.<sup>[2]</sup>

The survey made in 1930 by the Canadian government is further described in the annual report of the Department of Marine for 1930-31 (p. 101). Sounding operations lasted from June 12th to August 9th and covered the deep water area from Isle Royale to Caribou Island on the Canadian side of the international boundary:

. . . the reported danger, an extensive bank with a shoal-water summit having as little as 21 feet of water over it, was located, thoroughly examined and charted. In addition, in the 2,300 square miles of hitherto uncharted deep water of the lake there were discovered twenty new banks with least depths of from 36 to 50 fathoms.

The summit of the 21-foot spot, now known as Superior shoal, and lying directly in the path of shipping from Port Arthur to Sault Ste. Marie via the channel north of Michipicoten island, is quite small, about 100 feet in diameter, with a depth of 630 feet only two cables distant northeasterly from it. It lies in the main deep of the lake, 38½ statute miles from the nearest land of Slate islands. On earlier foreign charts there is shown, less than 3 miles from this position, a depth of 1,008 feet. It is not surprising, therefore in the light of the foregoing data that the existence of this isolated menace to lake navigation had never previously been reported and hydrographers had no cause to even suspect its existence, and no doubt it has been the cause of many marine disasters.

An examination of the shoal made in 1934 indicated that the rock formation might lend itself to the use of explosives for the demolition of the upper part of the obstruction to navigation. Accordingly, “a trial shot consisting of 30 cases of dynamite was fired on the shoal in 1934. Later examination by a diver indicated, however, that the results were negligible and that it would not be feasible to remove the shoal by explosive without very costly drilling operation.”<sup>[3]</sup>

The shoal was first marked by spar buoys in 1934 and subsequently by whistle, bell and radar reflector buoys. In August, 1948, after years of effort, the Canadian Department of Transport finally succeeded in anchoring a lighted whistle buoy, showing a flashing white light, in 45 fathoms of water. In 1953 it was officially reported that the point of least depth, 21 feet, was marked by “a black and red horizontally striped conical buoy equipped with radar reflector.” No light was shown. This buoy was placed about 5½ cables southwestward of the 21-foot pinnacle. Due to difficulties in maintenance, all forms of marking were discontinued in 1954 and the present report is that the shoal is quite unmarked in any way.

The upbound course from Sault Ste. Marie to Passage Island passes 17 miles away in a southwesterly direction from the shoal, and the course to Battle Island, off Rossport, is 14 miles away to the northeastward.

Apparently, some United States fishermen knew of the existence of this shoal. When the Canadian survey was conducted in 1930, nets were found across the westernmost head which has a least depth of 11 fathoms. The fishing tug *Columbia*, out of Eagle Harbour, Michigan, recovered the nets and made off to the southward, when the *Bayfield* was working in the vicinity.

During World War II (1941) and because of the great need for iron ore and grain, the U.S. Lake Survey was ordered—with permission from Canada—to sweep the area of the shoal for least depth. Mr. William T. Laidly was the engineer-in-charge and Captain Nimrod Long was master of the survey steamer *Peary*. Four shoal water areas separated by relatively deep trenches were found as follows:

- a. A least depth of 21 feet on the former 22-foot spot.
- b. A 28-foot depth,  $\frac{1}{2}$  mile NE of (a).
- c. A 30-foot depth, 1 mile south of (a).
- d. A 43-foot depth, a few miles west of (a).

Since the summer of 1956, the Offshore Section has been conducting the first rigidly controlled offshore survey of Lake Superior and it was expected that the work would be completed in 1958. In 1957, using EPI (Electronic Position Indicator) to position the vessel and recorders capable of depicting bottom conditions at any depth, sounding lines were run over the Superior Shoal area. Mr. F. Wells Robison, Chief, Charting and Geodetic Branch, was in charge of the sounding operations and Captain Harvey M. Hodge was master of the survey ship *Williams*. This work substantiated the geographic position of the shoal as determined by dead reckoning runs on the previous surveys. During the 1957 survey, an unpainted spar buoy was seen in the vicinity of the least depth area.

Colonel Lang states that the area of the Superior Shoal which would be considered a menace to navigation in any weather is  $1\frac{3}{8}$  miles long lying along a  $36^{\circ}$ - $216^{\circ}$  line. A peak having a least depth of 28 feet is at the northerly end of this area. A peak at the southerly limit of the line has a least depth of 30 feet. The shoalest peak, the one having a depth of only 21 feet, lies about one mile NE from the 30-foot spot and about  $\frac{1}{2}$  mile SW of the 28-foot spot.

It has been reported by vessel masters that in a seaway the whole region is very choppy and turbulent and should be avoided. It is, of course, avoided by navigators today since it is well marked on both American and Canadian

charts but the possibility remains that it was the graveyard of some vessels before 1929. This may have been the fate of the two mine sweepers, *Cerisolei* and *Inkerman*, built at Fort William during World War I for the French Government. They disappeared in a gale November 24, 1918, with their crews of 76 officers and men.

In contrast to the least depth of 21 feet found over one of the peaks of Superior Shoal is the deepest recorded depth of 1,333 feet. This is at a point 25 miles northeast of Grand Island off Marquette and Munising. Superior Shoal lies approximately 77 miles (statute) northwestward of Caribou Island, 58 miles eastsoutheastward of Passage Island and northward of the courses usually followed.

- 
- [1] Letter of Colonel Edmund H. Lang, District Engineer at Detroit, 1 July, 1958.
- [2] Letter of Mr. N. R. Gray, Dominion Hydrographer, Ottawa, 12 June, 1958.
- [3] Letter of Mr. H. V. Anderson, Director of Marine Services. Ottawa, 4 January, 1954.

## TRANSCRIBER NOTES

Mis-spelled words and printer errors have been corrected. Where multiple spellings occur, majority use has been employed.

Punctuation has been maintained except where obvious printer errors occur.

A cover was created for this eBook which is placed in the public domain.

[The end of *The Discovery of Superior Shoal* by Fred Landon]