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U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: New York

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 1 5136
Hydrographic }

LOCALITY

~~Port Jefferson and vicinity~~

Long Island, N. Y. Sound

Port Jefferson and Mt. Sinai Hbrs.

and Approaches

19 31

CHIEF OF PARTY

C. A. Egner

DESCRIPTIVE REPORT

TO ACCOMPANY

SHEET NO. 1, PORT JEFFERSON

AND VICINITY, N. Y.

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DATE OF
INSTRUCTIONS:

The work was done under the Director's Instructions dated September 14, 1931.

LIMITS:

The work was indicated by a section of Chart 1212 sent with the instructions. This prescribed a survey of the south shore of Long Island Sound from Flax Pond easterly to Longitude $73^{\circ}-01'.0$ and extending offshore approximately to Latitude $40^{\circ}-59'.5$; in addition, a survey was to be made of Conscience Bay, Strongs Neck, Setauket Harbor, Port Jefferson Harbor, and Mount Sinai Harbor. A supplementary 1:5000 sheet of the entrances to Port Jefferson and Mount Sinai was to accompany this sheet.

The entrances to Port Jefferson and Mount Sinai Harbors are covered by Sheet No. 2.

SURVEY
METHODS:

Standard methods were used in this survey, sextant fixes being used for control and the hand lead for soundings. All signals were located by triangulation or plane table. The launch was used for all the harbor work and for all the off shore work to the ten fathom curve.

The ship was used to survey that portion between the 10 fathom curve and the northerly limit, using hand lead entirely.

The launch was used for the development of the area off Old Field Point and for Mount Misery Shoal.

The off shore crossing lines were run with the current or during slack water.

DISCREPANCIES:

No discrepancies were found during the course of the work on the boat sheet.

TIDE
GAUGES:

For the off shore work the tide gauge at Port Jefferson Entrance was used. The tide gauges for Conscience Bay, Strongs Neck, Setauket Harbor, Port Jefferson Harbor, and Mount Sinai Harbor were, respectively; Conscience Bay, Strongs Neck, Setauket Bridge, Port Jefferson Entrance and Bayles Dock, and Sinai Harbor. There were no range or time corrections for each integral part.

The predicted tides were found at fault and in a number of cases unnecessary lines were run to correct crossings. It is suggested that these tide predictions be investigated.

CHANNELS
AND DANGERS:

The channels at the entrances to Port Jefferson and Mount Sinai are described in the report accompanying Sheet No. 2. Conscience Bay almost bares at low water, 2 feet being the maximum at Mean Low Water, and entry is nearly blocked by a mid-channel bar where Strongs Neck connects with Conscience Bay. There is little water in Strongs Neck at low tide and a mid-channel bar at the entrance is a hindrance to boats. The controlling depths between the bars at both ends is 2 feet. A controlling depth of 8 feet at Mean Low Water is found in the channel leading to Setauket Harbor. This harbor itself bares at Low Water beyond the bridge.

Port Jefferson has a controlling depth of 11 feet at low tide from the buoys to the principal docks. At the face of these docks the

7 ft. - Post 128d
Steamboat OK
P. 29

depth is 11 feet. Mount Sinai Harbor almost bares at low water and the depth is not sufficient for small boats past the common line between signals MAR and FIN. The controlling depth from the entrance to this line is 7 feet. Prior to dredging in the entrance there was enough water for small boats nearly anywhere in this harbor, the dredge having removed a natural bar which acted as a dam, confining the water inside the harbor.

Numerous rocks which bare at low water or extreme low water are found along the south shore of the sound, but these are no appreciable distance off shore.

MOUNT MISERY
SHOAL:

A depth of 7 feet was found on this shoal. However, the black can buoy C 11 which marks the off shore edge should be moved somewhat in a southwesterly direction. This is for the reason that vessels entering and leaving the harbor normally would proceed from this can buoy to the bell buoy, or vice versa. In the present position of the can buoy this line cuts across Mount Misery Shoal in a depth of about 8 feet. It is suggested that buoy C 11 be shifted 400 meters W by S (true), a line outside these buoys then falling in deep water.

STATISTICS:

Number of positions	1856
Number of soundings	7962
Statute miles of sounding lines	244.6
Square statute miles of sounding	14.8

Respectfully, submitted

William F. Deane

William F. Deane
Aid C. & G. Survey.

Approved and forwarded;

C. A. Egnor
C. A. Egnor
Lieut. C. & G. Survey
Commanding NATOMA.

HYDROGRAPHIC STATISTICS FOR SHEET #1

PORT JEFFERSON HARBOR, N. Y., AND VICINITY

1931	Day	Vol.	Boat	Miles Sn dg lines	Sn'dgs, No. of	Pos., No. of	Add. Miles
Oct. 6	a	1	Launch	19.6	653	161	8.0
7	b	1	"	12.7	428	102	5.5
8	c	1	"	7.3	260	65	5.0
8	c	2	"	8.5	300	81	3.0
9	d	2	"	17.6	624	180	3.0
12	e	3	"	1.4	47	14	.7
12	e	2	"	15.7	559	124	3.1
13	f	3	"	21.0	730	161	9.0
14	g	3	"	21.5	676	145	9.2
19	h	4	"	17.3	573	115	9.0
20	j	4	M/S	8.0	373	85	2.0
21	k	4	"	9.3	541	95	2.0
22	l	4	"	2.3	174	32	2.0
22	l	5	"	15.4	487	100	1.0
26	m	5	Launch	2.4	82	18	4.0
27	n	5	M/S	9.2	377	80	3.5
30	A	1	Ship	28.3	434	140	9.0
Nov. 3	B	1	"	17.4	296	86	7.8
3	p	5	Launch	9.7	348	72	3.5
TOTALS				244.6	7962	⁵⁶ 1847	90.3

January 5, 1932

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5136

Locality Port Jefferson and Mt. Sinai Harbors, Long Island, N. Y.

Chief of Party: C. A. Egner in 1931

Plane of reference is mean low water, reading

1.9 ft. on tide staff at Port Jefferson Entrance

11.0 ft. below B. M. 1

2.3 ft. on tide staff at Mt. Sinai

9.3 ft. below B.M. 1

2.0 ft. on tide staff at Bayles Dock, Port Jefferson

15.0 ft. below B.M. 9

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

CONTINUED:

3.2 ft. on tide staff at Setauket

8.9 ft below B.M. 1

2.8 ft on tide staff at Strongs Neck

6.9 ft below B.M. 1

0.5 ft. on tide staff at

Conscience Bay

13.1 ft. below B.M. 1

L. A. ...
Acting Chief, Division of Tides and Currents.

See accompanying letter from Div. Tides & Currents,
dated Jan. 11, 1932

EG-1-11-33

pac

January 11, 1933.

HYDROGRAPHIC SHEET 5136.

The soundings on this sheet for Port Jefferson Entrance and Port Jefferson Harbor are referred to mean low water as determined by the U. S. Engineers. Subsequent to the completion of the sheet, however, the U. S. Engineers adopted new mean low water datums for both localities, based on longer series of observations, which are 0.3 foot below the old datums. If it is desired to refer the soundings to the new datums 0.3 foot should be subtracted from each sounding.

See letter No. 73, 1932, on file in Chart Division.

Section of Field Records.

Report on Hydrographic Sheet No. 5136.
Port Jefferson and Sinai Harbors and
approaches, Long Island Sound, New York.

Surveyed in 1931.

Instructions dated September 14, 1931 (Matoma)

Chief of Party, C. A. Egner.

Surveyed by C. A. Egner and N. F. Deane.

Protracted and soundings plotted by N. F. Deane.

Verified and inked by J. W. Torrey.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the depth curves.
6. The protracting and plotting done by the field party is generally good. A number of errors in protracting developed in verification many of which were so apparent in error that the field party should have picked them up.
7. Signal Wreck in Port Jefferson Harbor was found to be about 50 meters out of

position as shown on the Topographic and
boat sheets. This position had been checked
by the field party.

8 Money Hollow Rock and a rock which bears
at low water between signals "Big" and "Keg"
are the only rocks developed in this survey.
Chart No. 1212 show a number of inshore
rock in the area of this sheet.

9. The survey is satisfactory but an
additional line or two adjacent to the
wharves in Port Jefferson Harbor would
have been advisable.

10

J. W. Torrey.

Feb 16, 1932

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5136
Port Jefferson and Mt. Sinai Harbors and Approaches,
Long Island, N. Y.
Surveyed in Oct. & Nov., 1931.
Hand lead soundings
Instructions dated Sept. 14, 1931. (Natoma)

Chief of party - C. A. Egner.
Surveyed by - C. A. Egner, W. F. Deane.
Protracted and soundings plotted by - W. F. Deane.
Verified and inked by - J. D. Torrey.

1. The records conform to the requirements of the Hydrographic Manual.
2. The plan, character and extent of the survey fully satisfy the general and specific instructions.
3. The sounding lines generally cross fairly well. There are some cases where adjacent lines do not show good agreement and in the entrance to Port Jefferson the bottom is so irregular that the soundings cannot be expected to agree closely.
4. The information is sufficient for completely drawing the usual depth curves.
5. There are no contemporary surveys adjoining this work except the sheet showing the entrance to Port Jefferson and Mount Sinai Harbor on a large scale, H. 5132. The work on H. 5132 checks the work on this sheet H. 5136 fairly well, but is in poor agreement with the Army Engineers survey of May, 1931, Blp. 24390. (See the review of H. 5132). However the latest survey by the Army Engineers, in Jan. 1932., Blp. 24741 checks our surveys about as closely as any two surveys could be expected to agree where the character of the bottom is so irregular.
6. Comparison with previous work.

The old surveys of 1874, H. 1283a and H. 1283b should be completely superseded but attention is called to one sounding on H. 1283b which has never been charted and might be worth investigating. A rock with $1\frac{1}{2}$ feet over it, west of the outer end of the steamboat wharf in Port Jefferson, in approximate Lat. $40^{\circ}-56.88'$, Long. $73^{\circ}-04.'28$. This rock probably was left off the obsolete chart No. 116 because of its small scale and when the large scale chart No. 3614 was prepared in 1888, the later survey of 1886 was apparently used.

The survey of 1886, H. 1734 should also be superseded with the exception of a 17 foot sounding, in Lat. $40^{\circ}-58.'9$, Long. $73^{\circ}-06.'8$ which is shown on chart 3614 and should be retained.

The 7 foot sounding which is prominently shown on Chart 3614 in Lat. $40^{\circ}-58.'53$, Long. $73^{\circ}-06.'7$, was found to have been incorrectly reduced in the records of H. 1734 and should be removed from the chart.

The other survey of 1886, H. 1733 should be completely superseded in-so-far as the hydrography is concerned.

H. 5136.

7. Rocks.

There are no dangerous off lying rocks in this area but there are a number of rocks rather close inshore shown on the old sheets which have not been located by the new survey. Since these rocks have not been disproved they have been added to this sheet H. 5136 in red.

The most prominent of these is Hatch Rock shown as a bare rock on Chart 3614 in Lat. 40°-58.'2, Long. 73°-04'.07. This rock is indicated on two of the old surveys H. 30 and H. 1733, but as it was not seen by either the topographer or the hydrographer on the new work it is probably not a bare rock. It has been added to this sheet, H. 5136, as a rock awash.

There are two sunken rock symbols shown on Chart 3614 in Lat. 40°-58.'37, Long. 73°-04.'38. The only authority which could be found for these is a location at pos. 34m in the records of H. 1733, which is rather indefinite because no fixes are given, but the note clearly states that the rocks are 75 meters from the high water line, which is about half the distance on the chart, and the measured distance on H. 1733 is much less than on the chart. These rocks have been added to this sheet, H. 5136 but placed closer inshore.

Other inshore rocks have been added to this sheet, H. 5136 in the vicinity of Mt. Misery Pt. and in Port Jefferson Harbor.

8. The prescribed amount of field plotting was fairly well done by the field party. A few rather apparent errors were found in the protracting and one signal was incorrectly transferred. The shoreline and features outside of the shoreline were poorly transferred.

9. The character of the work is thought to be very good and development sufficient. Some recommendations should have been made about the rocks shown on the chart which were not located.

10. No additional hydrography is necessary but some investigation of the rock shown on H. 1283b off the steamboat wharf in Port Jefferson is recommended. Also Hatch Rock and possibly some of the other inshore rocks described in par. 7 might be further investigated.

11. Reviewed by - R. L. Johnston - March 18, 1932.

Inspected: E. P. Ellis.

Approved: A. M. Sobieralski *(signed)*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5136

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1

REGISTER NO. 5136

State New York

General locality Long Island Sound

Locality Port Jefferson and Mt. Sinai Hbrs. and Approaches

Scale 10,000 Date of survey Oct. 6 - Nov. 3, 1923

Vessel Natoma

Chief of Party C. A. Egner

Surveyed by C. A. E., W. F. Deane

Protracted by W. F. D.

Soundings penciled by W. F. D.

Soundings in fathoms _____ feet _____

Plane of reference _____

Subdivision of wire dragged areas by _____

Inked by J. D. Torrey

Verified by J. D. T.

Instructions dated Sept. 14, 1923

Remarks: _____