

5118

Diag. Cht. No. 1213

5118

Form 804 Ed. June, 1928 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. PATTON., Director		U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES AUG 25 1931 Acc. No. _____
State: <u>New York</u>		
DESCRIPTIVE REPORT		
Topographic Hydrographic	Sheet No. 5118 Field #/	
LOCALITY		
<u>Long Island Sound</u>		
<u>Eatons Point, N.W. Coast</u>		
1931		
CHIEF OF PARTY		
<u>H. E. Finnegan</u>		

U.S.G.P.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5118

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. 5118

State New York

General locality Long Island Sound

Locality Eatons Point, N.W. Coast

Scale: 1:5,000 Date of survey July 17, 21, 22, Aug. 10, 1923

Vessel Wire Drag Party

Chief of Party H. E. Finnegan

Surveyed by S. B. Grenell, M. A. Hecht

Protracted by M. A. H.

Soundings penciled by M. A. H.

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 June 26, 1923

Remarks: Instructions supplemental to general instructions for seasons work

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC

SHEET NO. 1

INSTRUCTIONS:

The hydrographic survey of Eaton^S Point Harbor was executed in accordance with supplemental instructions of the Director dated June 26, 1931. The original instructions were contained in the Director's orders to the Chief of Party dated April 7, 1931.

SURVEY METHODS:

CONTROL:

The survey was controlled by main scheme and supplemental triangulation established, previous to this project, for the control of the Wire Drag Survey of Long Island Sound. Additional signals were established by the topographic party while running the beach traverse. Position location was accomplished by sextant fixes on shore signals.

SOUNDING:

The hydrography was executed from two dinghies, lashed together, with the exception of (c) day when Launch No. 66 was used. The sounding was done by leadline; the leadsman standing in the bow of the boat. Position angles were taken in the stern a distance of five meters from the sounding position. This distance was corrected for in plotting the smooth sheet. The sounding lines were fifty meters and in general were normal to the shore line. Lines were run on shore ranges.

LIMITS:

This survey includes all of Eaton Point Harbor to a satisfactory junction with the old survey. The lines in general were run off shore far enough to include the thirty foot curve. From Latitude 56° 30' the survey runs North North West along the shore line to Latitude 57° 30'.

EATON POINT CHANNEL AND HARBOR:

The entrance channel to Eaton Point Harbor lies between the two rock jetties shown on the sheet. The rock jetties with the exception of several large bowlders are entirely covered at high water. There are, however, numerous small piling on each jetty which tend to outline its position at high water. The limits of the jetties are plotted in pencil on the smooth and boat sheets.

The channel is quite narrow and the right breakwater should be favored slightly in entering. The least depth in the channel is nine feet at mean low water. There is one seven and several eight feet spots in the harbor. The harbor is an excellent anchorage and shelter for small vessels, and is used mainly by yachts and fishing boats drawing less than eight feet of water. By careful maneuvering vessels of greater draft could use the harbor.

SHOALS AND DANGERS:

On (d) day several lines were run to investigate indicated shoal soundings. No indication of a scounding of 12 feet M. L. W. between positions 6 and 7 (b) day could be found, and it seems that the leadline was read or recorded one fathom in error. Accordingly this sounding was changed to 18 feet M. L. W. on the smooth sheet. A sounding of 7 feet M. L. W. between positions 108 and 109 (b) day was verified and ^{at M. L. W.} the least depth obtained. It is a small shoal area, about 3 or 4 meters square, and is hard sand bottom.

One rock awash, at three quarters tide, is shown on the sheet in Latitude $40^{\circ} 56.6$ Longitude $73^{\circ} 24.3$ one meter north of position 17 (b). This rock is in less than 2 feet M. L. W. and is not considered a danger to navigation.

COMPARISON WITH PREVIOUS SURVEYS:

Since the last survey of this area, the harbor has been dredged and is greatly changed. A large area of sand bar shown on chart No. 224 is covered at high water. The north jetty which is not shown on the chart is on the south end of this sand bar. The bar bares at mean low water. The outer ends of the lines and the thirty foot curve check well with the old sounding. In the few exceptions it is quite probable that the bottom has changed since the old survey. This discrepancy is most noticeable off the end of the sand spit, where it is most probable that changes have occurred.

TIDAL NOTE:

Soundings were reduced to mean low water from tidal data obtained at Eaton Neck Tide Station; a portable guage and staff located at the outer end of the dock near triangulation Station Shellheap 2, 1931, Latitude $40^{\circ} 56.5'$ Longitude $73^{\circ} 24.3'$. A comparison of simultaneous observations was made with the tide guage at Stamford to obtain the datum at Eaton Neck. The plane of reference was 2.3 feet on the staff. The highest tide 8.0 feet occurred on July 16, 1931 and the lowest tide -0.6 feet on July 18, 1931.

STATISTICS:

Day	(a)	(b)	(c)	(d)	Total
Statute miles of sounding lines	3.7	4.2	3.5	1.8	13.2
Area in square(statute) miles					0.2
Number of soundings	374	448	213	118	1153
Number of positions	96	110	55	38	299

Respectfully submitted:

Maurice A. Hecht
Maurice A. Hecht,
Ensign, C. & G. Survey

Approved and forwarded:

Henry E. Finnegan
Henry E. Finnegan,
Chief of Party.

March 11, 1932

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
1. volume~~s~~ of sounding records for

HYDROGRAPHIC SHEET 5118

Locality Eaton Point, Long Island Sound


Chief of Party: H. E. Finnegan in 1931

Plane of reference is Mean low water, reading
1.7 ft. on tide staff at Eaton Neck

11.1 ft. below B. M. 1

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.


Chief, Division of Tides and Currents.

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5118.
Eaton Point, Long Island Sound, N. Y.
Surveyed in July & August, 1931.
Hand lead soundings
Instructions dated June 26, 1931 (Lieut. H. E. Finnegan).

Chief of Party - H. E. Finnegan
Surveyed by - S. B. Grenell, M. A. Hecht
Protracted and soundings plotted by M. A. Hecht
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 line crossings are generally satisfactory. The few differences that exist inside of the harbor are thought to be due to the lumpy character of the bottom.
4. The information is sufficient for completely drawing the usual depth curves.
5. There is no contemporary work adjoining this survey. The old surveys of 1886 and 1916, H. 1708 and H. 3944 should be entirely superseded by the recent work, H. 5118, within this area.
6. The usual amount of field plotting was well done by the field party.
7. The character of the survey is considered excellent and the development sufficient. In the descriptive report the least depth in the entrance is given as 9 feet. Apparently this was based on the boat sheet plotting. The soundings as plotted on the smooth sheet would indicate that at least 10 feet could be carried into Eaton Harbor.
8. No additional work is necessary.
9. Reviewed by R. L. Johnston - March 31, 1932.

Sheet Inspected and recommendations approved by A. L. Shalowitz - April 1932.

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