6125

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 3

State Connecticut

LOCALITY

Long Island Sound

Approaches to Bridgeport Harbor

193 4

CHIEF OF PARTY

G. C. Mattison

U. S. GOVERNMENT PRINTING OFFICE: 1934

6125

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 3

REGISTER NO. H6125

State Connecticut

General locality Long Island Sound

Locality Approaches to Bridgeport Harbor

Scale 1/20,000 Date of survey , 1934

~~Vessel~~ Shore Party #16

Chief of Party G.C.Mattison

Surveyed by W.N.Martin

Protracted by I.L.Montanari, A.O.Dority, G.C.Mattison

Soundings penciled by I.L.Montanari, G.C.Mattison

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated , 19

Remarks: Includes a tracing showing arcs of angles used in survey near Stratford Shoal L.H. and a sub-plan on scale of 1:10,000 of vicinity of Stratford Shoal L.H.

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT

to

Accompany

HYDROGRAPHIC SHEET #3 - 1:20,000 (OFFSHORE APPROACHES TO BRIDGEPORT HARBOR)

Date of Instructions

Letter of instructions dated August 10th, 1933.

Survey Methods

Lines were first run into deep water using continuous sounding speed. It was found that the line could be kept vertical at only very slow speed, so the boat was stopped for casts, running at 3/4 speed between casts. As the spaces between soundings were very regular using this method, a position was taken at alternate soundings when the coxwain had a good range, not letting the distance between soundings be over the allowable spacing of lines.

It was found at Middle Ground Shoal that a satisfactory sextant fix could not be obtained, using stations on the sheet, so a signal was located by triangulation on Long Island and degree arcs were drawn on the sheet. These were extended upward to the 30' curve to facilitate plotting in that broken area.

The whole shoal at Middle Ground was surveyed, running on the degree and part-degree arcs. This was also done in the broken area further north. All shoals that were discovered were fully developed by lines along the ridge and lines drifted across the ridge to find shoalest sounding. These areas were also visited at the start of the incoming tide, and all ripples were investigated.

On one of the first lines run in deep water at slow sounding speed, the soundings were found to be too deep because the lead line was not perpendicular. Another line was run over this area, stopping boat for soundings, and the first line was rejected.

Dangers

Three small shoal spots were discovered north of Middle Ground Lighthouse, with a least sounding of four feet. This was immediately

wired to the office and a buoy should be placed over the spot. A suction dredge is working in the vicinity and the deeps and shoals found in this area are perhaps caused by the dredge; certainly the deeps. The shoals were clearly seen at low water and least soundings taken. Lines were also run in their vicinity to find the extent of the shoals.

The dredge mentioned in Sounding Volume 2, page 24, "K" day, July 9, 1934, belongs to the Obrien Sand and Gravel Co. of New York. Plant from which dredge operates is located in Hempstead Harbor, L.I., at Roslyndale.

Two shoals were found on the sheet which were not shown on chart No. 220, one and a half miles northwest of Stratford Shoal Light-house, and one mile south southeast of Penfield Reef Lighthouse. These were developed fully, but do not constitute dangers. At the junction of the lines with the 1916 survey, a half mile southwest of "Pen", a 24 foot spot was found between the lines of the 1916 survey. Several lines were run to disclose the extent of this spot. In joining the 1932 work on the west end of the sheet, soundings were found several feet deeper than the 1932 survey. Additional overlap was made until soundings checked, and a cross line was run at very slow speed, checking our soundings O.K. As this area constituted a slope, it was decided that the slope-head sluffed into deep water.

All shoal soundings on chart No. 220 were investigated. Most of these were found and many more besides, and all were developed by drift lines.

All buoys were located by sextant fixes and some were found out of position. The white spar "A" shown south of Mill River, was not found on eight occasions while in the vicinity. The Pequot Yacht Club steward reports that a buoy mounted on a skiff is taken out and placed in this approximate position for the occasion of boat races originating in Southport Harbor, and the skiff is taken in at night. Three white buoys kept by the yacht club on the racing grounds from May 15 to October 15, were located.

- -

The above notes were prepared by W.N.Martin, D.O.

Statistics

Total Number of Positions	3,947	
Total Number of Soundings	9,905	
Statute Miles of Lines Plotted	471	Statute Miles
Square Miles Covered	44	Sq. Statute Mi.

Supplemental Notes by Chief of Party.

The field work on this sheet was done by a launch party using the chartered launch "Noble". Mr. W.N.Martin, D.O., was in charge of the field party. A hand lead line with wire center was used for sounding.

The only suitable fix obtainable for developing the shoal in the vicinity of Stratford Shoal Lighthouse included a tall stack on Long Island. Arcs of the angles observed, were constructed on a tracing cloth, and positions plotted using these arcs. A sub-plan of the vicinity of Stratford Shoal Lighthouse, on a scale of 1:10,000, was made on tracing cloth.

A dredging company was actively engaged in obtaining material for construction work in the area covered by the southeastern edge of the sheet. The operations, consisting of digging and discharging unsuitable material, probably caused the shoals found, and also will cause changes in the future in this vicinity. It is recommended that when work is again taken up, that information be obtained as to the operations of the dredging company subsequent to the date of this survey, and a re-survey made of the dredged areas.

G.C.Mattison,
Lieut.Comdr., C. & G.S.
Chief of Party

Field Records Section
Hydrographic Survey 6125(1934) Field No.3.
Approaches to Bridgeport Harbor- Long Island Sound.
Connecticut.
Chief of party G. C. Mattison
Verification Report.

1. Condition of Records.
Double day letters were used extensively throughout the sheet -In congested areas it was difficult to identify the pencilled soundings.

2. Shoreline and Control.
The shoreline is not shown on this sheet. The control for this survey is from T-4902(1934)and T-5262(1932).

3. Sounding Line Crossing.
The agreement in depth on crosslines and parallel lines is satisfactory.

4. Depth Curves.
The usual depth curves can be satisfactory drawn.

5. Aids to Navigation.
The buoys were located by sextant fixes and positions checked. Only one angle was checked on buoys C-3 and bell-buoy No.1 at Pecks Ledge L. H. because one of the objects in either case was outside the limits of this sheet.

6. Junctions with Contemporary Surveys.
(a) The junctions with H-3936(1916) and H-3937(1916)on the north and west ~~is~~ are excellent.
(b) The shoal development of the southern tip of Penfield Reef on H-6123a(1934) comes within a few meters of the limits of this sheet. Because it falls entirely within the limits of H-3936(1916) which is accepted as a basic survey,the overlap should be made with that sheet.
(c) The junction with H-5220(1932) on the south west is satisfactory. The Wire Drag survey,H-5219(1932), makes a large overlap on the west part of this survey.
(d) No contemporary surveys joining on the south have been received. The junction with H-6124 will be made when verified.

7. Field Plotting.
The Field Plotting was accurately executed.

8. Remarks.

The depths are very erratic around and north of Stratford Shoal L. H. due to dredging as explained in the Descriptive Report. The 9 foot(Lat.41°04.2', Long.73°06.06')and the 16 foot(Lat. 41°04.93', Long.73°06.17') soundings on position 2 S and 44 S respectively, although not in harmony with the adjacent soundings, are correct nevertheless. ✓

The exact character of the "Oyster Stakes" recorded in Vol.8 page 59 to 61 - positions 1 to 44 bz, is not clearly evident from the records. They fall in the approximate area Lat.41°06' Long.73°08'. They will be disposed of at the discretion of higher authority. Probably of a temporary nature, they are not plotted RPK

On page 44 to 48 inclusive of Vol.8 is recorded work done by a wire drag. This work was not plotted and from inspection does not give information which would add to the soundings already plotted within the area covered. ✓ It does not disprove the existence of the 10 foot depth charted near Buoy N "2A" southeast of Stratford Shoal Middle Ground Light. (See Rev. 8a(2))

Verified and inked by

Leo S. Straw

Sept. 30.1936. Leo S. Straw

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6125

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	3.947
Number of positions checked	50
Number of positions revised	0
Number of soundings recorded	9.905
Number of soundings revised	10
Number of signals erroneously plotted or transferred	0

Date: Sept. 30 1936.

Verification by [signature] Time: 128 hrs.

Review by P. J. Christman Time: 19½ hrs.

HYDROGRAPHIC SURVEY NO. H6125

Smooth Sheet yes

Boat Sheet 4

Sounding Records 10 Vols.

Descriptive Report yes

Title Sheet yes

List of Signals no

Landmarks for Charts (Form 567) none

Statistics yes

Approved by Chief of Party ~~no~~ YES

Recoverable Station Cards (Form 524) none

Special Chart for Lighthouse Service (Circular Nov. 30, 1933) yes

Remarks 1 Cahier of position arc computations

	Remarks	Decisions
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6	Hyd. sheet has "Georges" but already changed as singular	George
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M 234

GEOGRAPHIC NAMES

Survey No. H6125

Name on Survey	A	B	C	D	E	F	G	H	K	
	On Chart No. 1213	On previous survey No. T-2837, T-2861	On U. S. quadrangle Maps	From local information	On local Maps	H6123a P.O. ~~Guide~~ Or Map	Rand McNally Atlas	U. S. Light List	USCP	
Long Island Sound	*		✓	✓	✓		✓	✓	✓	1
~~Stratford Shoal~~	*							✓		2
Stratford Point	*	✓	✓	✓	✓		✓	✓	✓	3
Bridgeport Harbor	*	✓		✓	✓				✓	4
Penfield Reef	*	✓						✓	✓	5
George Rock	*					✓			✓	6
Stratford Shoal Middle Ground	*							✓	✓	7
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Names underlined in red approved by E.R.N. on 7/15/36

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H 6125
~~No. T~~

received JUN 1[illegible] 1936
registered JUN 22 1936
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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90			

RETURN TO

82	

C. M. Green

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 15, 1936.

Division of Hydrography and Topography:

✓ Division of Charts: **Attention: Mr. E. P. Ellis**

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET **6125**

Locality **Approaches to Bridgeport Harbor, Conn.**

Chief of Party: **G. C. Mattison in 1934**
Plane of reference is **mean low water reading**
2.8 ft. on tide staff at **Bridgeport**
13.4 ft. below B.M. **1**

Height of mean high water above plane of reference is 6.8 feet.

Condition of records satisfactory except as noted below:

Paul O'Reilly

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6125 (1934) FIELD NO. 3

Approaches to Bridgeport Harbor, Long Island Sound, Connecticut
Surveyed in 1934, Scale 1:20,000.
Instructions dated Aug. 10, 1933 (G. C. Mattison)

Hand Lead Soundings — 3 Point fixes on shore signals

Chief of Party - G. C. Mattison
Surveyed by - W. N. Martin
Protracted by - I. L. Montanari, A. O. Dority, G. C. Mattison
Soundings penciled by - I. L. Montanari, G. C. Mattison,
Verified and inked by - Leo S. Straw

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

a. An unusual amount of sounding record was copied to other sheets and cancelled in the volumes appertaining to this sheet.

b. An unusual system of double day letters was used. No description of the system is given in the Descriptive Report and no detailed list of statistics is furnished.

c. No list of signals used on the sheet was furnished.

The Descriptive Report does not make recommendations relative to the "10 RK" charted southeast of Stratford Shoal lighthouse; otherwise the report satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the development are in accordance with the instructions for the project, except that the existence or non existence of the charted "10 RK" near Stratford Shoal L. H. should have been definitely ascertained. (See Par. 8a(2) this review.

3. Shoreline and Signals

The hydrography is not adjacent to the shore and no shoreline is shown on the sheet.
Signals are from control survey T-4102 (1934) and air photo compilation T-5262 (1932).

4. Sounding Line Crossings.

The depths on cross lines are in satisfactory agreement.

5. Depth Curves.

Within the area of the survey the usual depth curves can be satisfactorily drawn.

6. Junction with Contemporary Surveys.

a. The junctions with H-3936 (1916), H-3937 (1916) and H-5220 (1932) on the north and west are satisfactory.

b. The wire drag survey H-5219 (1932) makes a large overlap with the present survey. Two areas of wreckage (charted) in lat. 41°04.7', long. 73°18.4' and lat. 41°05.0', long. 73°16.2' located by the above wiredrag have been carried forward to H-6125 (1934) in green. All other information on H-5219 (1932) is consistent with the present survey.

c. The junction with H-6124a (1934) will be considered in the review of that sheet.

7. Comparison with Prior Surveys.

H-18 (1835)	H-1731 (1886)
H-19 (1835)	H-1736 (1885)
H-20 (1835)	H-1750 (1885)
H-21 (1837)	
H-23 (1837)	
H-29 (1838)	

The 1835-38 surveys are on scales 1:10,000 and 1:20,000; the 1885-86 surveys are on scales 1:10,000 and 1:40,000; both surveys are in use on the present charts. The agreement in depth with the present survey is very good. Minor changes in details have resulted from the dredging of sand and gravel for construction materials. At the time of the 1934 survey the dredge was operating on Stratford Shoal Middle Ground in the vicinity of the light (Signal Sho). In as much as the dredge discharges overboard the unsuitable material, the operation of the dredge causes some shoaling as well as deepening in the area in which it works. In view of these dredging operations together with the closer development shown on the present survey, H-6125 (1934) should supersede the above surveys for charting purposes.

8. Comparison with Chart 220 (New Print dated July 14, 1936).
Chart 1213 (" " " " 15, ").
Chart 1212 (" " " Sept. 4, ").

a. Hydrography

Within the area of the present survey, the charts are based

on the surveys discussed in the foregoing paragraphs, and on other information as follows:-

(1) The 4 foot spot charted in lat. 41°04.3', long. 73°06.1' comes from advance information by the present field party (chart letter #490 of 1934). The present survey shows the least depth over this shoal as 4½ feet.

(2) The 10 foot "RK" charted in lat. 41°03.51', long. 73°06.02' originates with a report from the L. H. Bureau (Chart Letter 507 of 1932) locating the rock as in the southeast edge of a rocky patch (about 75 feet in area), with 18 feet over it and distant 580 feet, (actual measurement by line) 133 degrees true from Stratford Shoal L. H. The rock is 10 feet in diameter. The present field party located the 18 foot rocky patch as described in the L. H. report but failed to locate the 10 foot rock, but there is no indication of any "feeling around" at the spot. A search for the rock was made with an improvised drag, set at an effective depth of 22½ feet, but without success. However the control for a part of the drag work depends on very distant signals, and for the remaining drag work on a navigation buoy for the left object. From the data submitted it is very doubtful whether the drag actually covered this rock. Because of its uncertain character the drag work has not been plotted on the smooth sheet. In view of the definite nature of the L. H. Bureau report, together with the excellent agreement of the surrounding details as developed by the present field party, the 10 foot "RK" should be retained on the chart.

b. Aids to Navigation.

The fixed aids to navigation were located by triangulation. The floating aids were located by three point fixes recorded in the sounding records. Their general location is in agreement with the charted positions. No close comparison was made as the buoys are generally replaced on station each spring. The buoy charted W S "A" (May 20 to Oct. 15) in lat. 41°05.05', long. 73°16.7' is in place only during races. (See Desc. Rep. page 2 last paragraph.)

9. Field Plotting

The field plotting was very satisfactory.

10. Additional Field Work Recommended.

The survey is satisfactory and no further work is required at the present time. However, attention is directed to the recommendation of the Chief of Party (Desc. Rep. page 4) relative to a resurvey of the area in which the dredge is operating, and also, to par. 8a(2) of this review relative to the 10 foot rock.

11. Superseding Old Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes;

H-18 (1835)	in part	H-1731 (1886)	in part
H-19 (1835)	"	H-1736 (1885)	"
H-20 (1835)	"	H-1750 (1885)	"
H-21 (1837)	"		
H-23 (1837)	"		
H-29 (1838)	"		

12. Reviewed by R. J. Christman, Oct. 7, 1936.
and
John G. Ladd

Inspected by A. L. Shalowitz.

Examined and approved:

C. K. Green,
Chief, Section of Field Records.

Chief, Division of Charts.

Fred. L. Peacock
Chief, Section of Field Work.

Chief, Division of H. & T.

Applied to drawing of Chart 220 - Feby. 1, 1937 - J.P.W.
" " " " " 221 " 4 " J.P.W.
" " " " " 219 " " " J.P.W.
" " " " " 1213 " " " J.P.W.
" " " " " 1212 March. 18, 1937 J.P.W.
Applied to Cht 220 During Revision of limits 1-27-61 G.R. Johnson