

5223

5223

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton  
Director



State: Connecticut

DESCRIPTIVE REPORT

~~Topographic~~

Hydrographic

Sheet No. 4 5223

LOCALITY

Long Island Sound

Black Rock to Mill Cove

19 32

CHIEF OF PARTY

S. B. Grenell

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET NO.4

CEDAR POINT TO BLACK ROCK L.H.

LONG ISLAND SOUND

1932

INSTRUCTIONS :

This work was done under the Director's Instructions dated August 10, 1932.

METHOD :

All soundings were taken with hand lead. Three point fixes were used for position; the topographic signals used in each case having been located by a plane table survey.

JUNCTION :

This sheet has no connection with the other 1932 hydrography. The work constitutes inshore work between the inner limits of R.P. Strough's hydrography of 1916 (Register Nos. 3936-3937 ) and shore. Owing to the small number of lines necessary, the survey was made on the wire drag boat sheet, scale 1:20,000. Smooth plotted on scale 1 ; 10,000.

DANGERS :

The work, being inshore, determines merely the depth between Strough's hydrography and the low water line with very little development off shore. For brevity it is safe to say that every point of land on this sheet has a spit extending off shore far enough to prevent close sailing. The shoal area between Shoal Point and Black Rock Bn. can not be crossed by boats drawing over 2 feet and this can only be accomplished by accurate navigation.

## CHANNELS :

Southport Harbor Channel is narrow but satisfactory for small boats. The controlling depth as obtained on this sheet is 7 feet, with an 8 feet the greatest depth through the entrance bar.

Black Rock Harbor Channel has a 13 feet controlling depth to the limit of this sheet. The channel is sufficiently wide at the entrance to permit anchoring.

## COMPARISON WITH PREVIOUS SURVEYS :

The survey connects R.P. Strough's work with the shore and the overlap soundings in most cases are identical. The discrepancies are due to changes in bars and spits since the 1916 survey.

## STATISTICS :

Positions .....	293
Soundings .....	1586
Statute miles of sounding lines .....	35.4

Respectfully,  
*William F. Deane*  
 William F. Deane,  
 Aid, C. & G.S.

Approved and Forwarded

*S.B. Grenell*  
 S.B. Grenell,  
 Chief of Party.

Section of Field Records  
Surveyed in 1932  
Report on #5223.

Chief of Party S. B. Grenell  
Surveyed by J. C. Partington  
Retracted by W. M. F. Deane  
Soundings plotted by W. F. D.

Verified and Inked by ~~W. F. D.~~

1. The records conform to the requirements of the General Instructions
2. The plan and character of development fulfills the requirements of the General Instructions
3. Sounding line crossings are adequate for this survey.
4. The depth curves can not be completely drawn. However the curves agree fairly well with those corresponding curves in the junction with the 1918 surveys (#3936 and #3937) excepting where there are two dredged channels - in Black Rock Harbor {Lat.  $41^{\circ}08.6'$  and  $60m$  east of  $\Delta$  Outer 1882, due south of Southport {Lat.  $41^{\circ}07.3'$  Long.  $73-13.32'$  and  $60m$  east of  $\Delta$  Outer 1882, due south of Southport {Lat.  $41^{\circ}07.3'$  Long.  $73-17.2'$
5. The field plotting was completed to the extent prescribed in the Hydrographic Manual with the exception in plotting minus soundings from 0 to a -1 foot (see page 19 of the Hydrographic Manual #155.)
6. No part of the field drafting was done over with the exception of that mentioned in #5 and the statistics sheet for this survey.

7. There are no contemporary surveys joining the limits of this sheet. See second paragraph of Descriptive Report #5223. For Comparison with 1916 Survey see paragraph 3 of this report.

8. Further surveying is not required unless it is believed that Black Rock Harbor is of sufficient importance to warrant more development.

Respectfully Submitted  
Feb. 4. 1933  
Geo. Straw

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5223.  
Black Rock to Mill Cove, Long Island Sound, Connecticut.  
Surveyed in 1932.  
Hand lead soundings  
Instructions dated August 10, 1932. (Lieut . S. B. Grenell).

Chief of party - S. B. Grenell.  
Surveyed by - J. C. Partington.  
Protracted and soundings plotted by - W. F. Deane.  
Verified and inked by - L. S. Straw.

1. The records conform to the requirements of the Hydrographic Manual.
2. The amount of surveying done does not thoroughly satisfy the specific instructions. It is evidently the intent of the instructions that the spits off the various points be completely surveyed but in some cases the work was not carried far enough out to define the limits of these spits. The instructions call for an overlap with the hydrography of 1916, H. 3936 and H. 3937. No substantial overlap was made. In the areas where changes are known to have occurred such as dredging at Southport Entrance and Black Rock Harbor, the sounding lines should have been carried far enough into the old hydrography to obtain good agreement. The dredged channels cannot be completely followed on this work. Black Rock Channel has recently been surveyed by the U. S. Engineers, but the last survey of Southport Channel was in 1917.
3. There are no cross lines on this work. Adjacent lines agree as well as may be expected.
4. The information is not sufficient for completely drawing the usual depths curves, but they can be indicated in some places.
5. There are no junctions with any contemporary surveys. The work overlaps the older surveys of 1883 and 1885, H. 1575 and H. 1750 but the overlap with the 1916 surveys, H. 3936 and H. 3937 is not large enough.
6. In comparing this work with H. 1750 some differences were noted especially in the low water line. The work on this sheet is not complete enough to entirely replace the older surveys, but the soundings from the recent survey, H. 5223, should supersede the old soundings from H. 1750 and H. 1575 as far as they go, using the old soundings only in the blank areas not covered by this work.
7. The prescribed amount of field plotting was well done by the field party except that minus soundings were not interpreted correctly.
8. Character and scope of surveying.--

The character of the work is excellent but the scope and extent of the survey is hardly sufficient. Besides a deeper junction with the 1916 surveys the sounding lines should have been carried further inshore between Pine Creek Pt. and Shoal Pt. and on either side of Frost Pt. where the low water line was not defined.

H. 5223.

The basin at the entrance to Mill River (Southport) should have been more closely surveyed as there is no Engineers Bp. since 1917, and the five foot rock examined. The spits off the various points should have been better defined.

While the instructions do not call for a junction, attention is called to the fact that there is a gap between the western limits of this sheet, H. 5223 and the eastern limits of H. 5221.

9. Additional work would be necessary to make this survey complete inside the limits of the 1916 hydrography.

10. Reviewed by R. L. Johnston - March 27, 1933.

Inspected: E. P. Ellis.

Approved:

It is recommended that further hydrography be done within the limits of this sheet as indicated in the above review and that extension of the work be carried into Black Rock Harbor and into Mill River as far as Southport.

*L. O. Colbert*  
L. O. Colbert, Chief, Field Records Section.  
*E. H. Pagenhart*  
E. H. Pagenhart, Chief, Division of Charts.

January 26, 1933

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
1 volume of sounding records for

HYDROGRAPHIC SHEET 5223

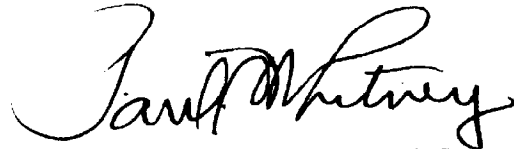
Locality Black Rock to Mill Cove, Long Island Sound.

Chief of Party: S. B. Grenell in 1932  
Plane of reference is mean low water reading  
2.8 ft. on tide staff at South Norwalk  
20.3 ft. below B. M. 3

Height of mean high water above plane of reference is 7.1 ft.

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.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

DEC 23 1932

Acc. No. \_\_\_\_\_

REG. NO. 5223

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. 4

REGISTER NO. 5223

State Connecticut

General locality Long Island Sound

Locality Black Rock to Mill Cove

Scale 1:10,000 Date of survey Sept. 14, 1932

Vessel Project HT-103

Chief of Party S. B. Grenell, Jr. H. & G. S.

Surveyed by J. C. Partington

Protracted by William F. Deane

Soundings penciled by William F. Deane

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated August 10, 1932

Remarks: This work was done as supplemental work to connect R. P. Strough's 1916 hydrography with the shore.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5223

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

Number of positions on sheet	<u>293</u>
Number of positions checked	<u>96</u>
Number of positions revised	<u>5</u>
Number of soundings recorded	<u>1586</u>
Number of soundings revised	<u>27</u>
Number of signals erroneously plotted or transferred	<u>0</u>

Date: Feb 4 1933

Cartographer: [Signature]