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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. 3 5370  
Hydrographic }

LOCALITY

Great South Bay L. I.

Fira Island Inlet

1933

CHIEF OF PARTY

Raymond P. Eyma

U. S. GOVERNMENT PRINTING OFFICE: 1928

5370

5370a

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5370

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. 5370

State New York

General locality Great South Bay, L. I.

Locality Fire Island Inlet

Scale 1:10,000 Date of survey May-Sept., 19 33

Vessel Chartered launches- Whale, Eva, and skiffs

Chief of Party Raymond P. Eyma

Surveyed by J.C. Partington, J.C. Tison, R.A. Philleo

Protracted by J.C. Partington, G.C. McGlasson, R. Stenerson

Soundings penciled by H.L. Hawkins

Soundings in ~~YARD~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by None

Inked by \_\_\_\_\_

Verified by \_\_\_\_\_

Instructions dated Feb. 25, 1933

Remarks: \_\_\_\_\_

OK  
EOP

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET NO. 3  
FIRE ISLAND INLET, GREAT SOUTH BAY, LONG  
ISLAND, N.Y.

Date of Instructions:

February 25, 1933.

Survey Methods:

The work on this sheet was accomplished with two launches and a skiff, namely the launch Whale, a 30 foot flat bottom gasoline boat, the Eva, a 33 foot round bottom gasoline boat and a 16 foot skiff propelled with outboard motor.

Standard survey methods were used throughout, depths being taken with a 12 foot sounding pole in shallow water and the leadline in deeper water. Control was furnished by the triangulation stations and topographic signals shown. All buoys were located by the topographic party with the exception of buoys number 5 and 8 which were located by sextant fix (see page 61, Vol. 4). There are strong currents in Fire Island Inlet and the buoys are subject to considerable change in position on account of the long scope of chain and direction and strength of current.

Position numbers are shown in blue ink when the sounding boat was the Whale or Eva. Position numbers when sounding with the skiff are shown in red.

Discrepancies:

*Reduced as in record to 3 1/2 ft*  
(a) On page 24, Vol. 1, "o" day (blue), a sounding of 4 1/2 feet is shown between positions 16a and 17c. This spot was investigated on July 11, 1933, "p" day (blue), Vol. 4, pages 58 and 59, positions 48p to 58p. A buoy was anchored near the spot and the launch drifted over the spot "feeling" with the leadline. The 4 1/2 foot spot could not be found after a search of one-half hour. The 4 1/2 foot sounding probably should be 10 1/2 foot and the presumption is that the leadline was read one fathom too shallow. It is recommended the the 4 1/2 foot sounding be rejected in favor of soundings taken on "p" day (blue) positions 48 to 58.

*Reduced as in record to 3 1/2 ft*  
(b) On page 33, Vol. 1, "d" day (blue), a sounding of 5 foot is shown between positions 19 and 20. This sounding was investigated on July 11, 1933 "p" day (blue). A buoy was anchored over the spot and the launch drifted over the shoal "feeling" with the leadline. Although the 5 foot sounding is verified by an "O.K." in Vol. 1, it could not be found when investigated in Vol. 4. After a search of 45 minutes, it was decided that the 5 foot sounding shown on page 33, Vol. 1 "d" day (blue) was a mistake of one fathom in reading the leadline, and probably should be 11 foot. It is therefore recommended that the 5 foot sounding, Vol. 1, page 33 "d" day (blue) be rejected in favor of the soundings shown on pages 57 and 58, Vol. 4, "p" day (blue) positions 39 to 47.

*Recommendations approved by* → See Vol. 1 page 33 and Vol. 4 page 57.  
(c) 9.6 ft adq. between 529537 (blue) falls on a 4 1/2 ft adq. between 86707 & 86708.  
(d) The Hydrographic location of the wreck 500 m. south of Sunset Point does not agree with the location (6012) probably due to distortion of the Sunset Point chart.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET No. 3,  
FIRE ISLAND INLET, GREAT SOUTH BAY, LONG ISLAND, NEW YORK.- Cont'd.

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Channels:

The channel into Fire Island Inlet is well marked by buoys beginning with the bell buoy about 1 mile southwest of Democrat Point and following the mid-channel buoys to buoy "G". At this point the channel swings to the south shore to can buoy "3-B" where it again swings to the north shore.

On account of storms and strong currents the channel and buoys are subject to frequent changes. The current causes a building up of the shore at Democrat Point and a cutting away of the shore at Oak Beach.

Dangers:

In heavy weather the entrance to Fire Island Inlet breaks all across the channel.

A narrow sand bar, bare at low water, and extending in a northeast and southwest direction lies south of topographic station MUD. The outer point of this bar is about 540 meters south of station MUD.

Fire Island Inlet should not be attempted by strangers except in daylight since none of the buoys are lighted.

Tides:

A standard automatic tide gage was maintained throughout the season at Fire Island Lighthouse wharf about 100 meters north of the lighthouse. A portable automatic tide gage was maintained at topographic station Gage at Democrat Point, while sounding on this sheet. A portable automatic tide gage was maintained in the cove between Oak Beach and Oak Island while sounding in that vicinity. The gage at Fire Island Lighthouse was used as the standard station after simultaneous comparisons with the gage at Whitehall St., New York City. For reducing soundings in Great South Bay, all gages were referred to Fire Island Lighthouse as the standard station and mean values obtained by simultaneous comparisons.

On account of the large differences in time and range of tide between Democrat Point and Fire Island Lighthouse, the area between the two places was divided into sections according to instructions page 68, Instructions for Tide Observations, Special Publication No. 139.

Soundings taken east of topographic station DOG were reduced directly to Fire Island Lighthouse. An arbitrary line was drawn south from a point 40 meters east of topographic station RED. Soundings west of this line were reduced to Democrat Point gage direct. The area between these two lines was divided into sections and soundings reduced in accordance with page 68, Special Publication No. 139.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET No. 3,  
FIRE ISLAND INLET, GREAT SOUTH BAY, LONG ISLAND, NEW YORK - Cont'd.

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Landmarks:

~~A separate sheet Form 567, "Landmarks for Charts",  
accompanies this sheet.~~

Statistics and Tidal sheet are attached.

Respectfully submitted.

J.C. Partington,  
Jr. H & G Engr.,  
U. S. C & G.S.

*Raymond P. Egan,  
Chief of Party.*

STATISTICS for FIELD SHEET NO. 3.

<u>Date</u>	<u>Boat</u>	<u>Day Letter</u>	<u>Stat. Mi.</u>	<u>No. of Soundings</u>	<u>No. of Positions</u>
1933					
May 22	Whale	a	4.5	185	35
" 24	"	b	7.0	266	59
" 25	"	c	5.1	201	42
" 26	"	d	15.1	653	131
" 31	"	e	4.8	243	49
June 2	"	f	10.8	487	99
" 6	Eva	g	13.4	349	85
" 7	"	h	15.1	458	98
" 8	"	j	6.3	245	46
" 9	"	k	5.2	208	46
" 12	"	l	11.2	371	80
" 13	"	m	17.2	489	113
" 15	"	n	11.6	350	78
" 28	Skiff	a	13.8	555	111
July 5	"	b	13.3	517	96
" 6	"	c	13.0	587	109
" 7	"	d	5.2	216	42
" 10	"	e	2.8	114	22
" 11	Eva	p	5.1	205	58
Aug 30	Skiff	f	2.5	142	37
Sept. 1	"	g	2.3	115	24
" 2	"	h	5.0	198	39
" 13	"	j	5.3	183	43
" 21	"	k	10.5	339	72
" 22	"	l	2.5	115	27
		Totals	208.6	7791	1641

LIST OF HYDROGRAPHIC STATIONS USED FOR CONTROL  
FOR HYDROGRAPHIC SHEET NUMBER THREE.

Name	Method of Location
Ax	Topo Sheet C
Bat	Topo Sheet C
Bee	Flagpole Oakbeach C.G. Triang. 1933
Boy	Topo Sheet C
Cab	Topo Sheet C
Cap	Triang. 1933
Chy	Chy Sanitarium Triang. 1933
Dog	Topo Sheet C
Drake	Triang. 1933
East	East Flagpole (Whig Inlet) Triang. 1933
Elk	Topo Sheet C
Fag	Topo Sheet C
Fire	Fire Id. Lighthouse Triang. 1933
Flag	Topo Sheet C
Flap	Topo Sheet C
Gage	Topo Sheet C
Green	Topo Sheet C
Girl	Topo Sheet C
Hit	Topo Sheet D
House	Topo Sheet C
Look	Lookout Tower C.G. station Triang. 1933
Mil	Windmill Tower Triang. 1933
Mud	Topo Sheet C
Nab	Topo Sheet D
Not	Topo Sheet C
Oak	Triang 1933
Pan	Topo Sheet C
Pimk	Topo Sheet D
Rat	Topo Sheet C
Red	Topo Sheet C
Sign	Topo Sheet C
Saw	Topo Sheet D
Sop	Topo Sheet D
Tow	Tower Oak Island Triang. 1933
Tree	Topo Sheet D
Trip	Topo Sheet C
Try	Topo Sheet C
West	West Flagpole (Whig Inlet) Triang. 1933

The smooth sheet was examined by G. D. Cowie, in charge of a temporary drafting unit which completed the smooth sheets. A few minor additions were found necessary and have been added.

*George D. Cowie*

George D. Cowie, Inspector,  
New York Field Station.

Notes on H 5370  
Fire Island Inlet L.I.

1. (a) The position of all buoys except N<sup>6</sup> "N<sup>8</sup>" and C<sup>3</sup> were checked with DM + DP tabulated in Descriptive Report T-6012.

(b) The position of buoys N<sup>6</sup> "and N<sup>8</sup>" were checked with the Hydrographic field record page 61 vol. 4. <sup>page 20, Vol 4</sup>

2. Discrepancies (See corresponding P.D.R.)  
(a) In the investigation of the spot between 16 + 17 c no bottom characteristics were noted in the records. It is noticed, however, that a faint "S" appears on the Smooth sheet close to the development. - This was not noticed in the records and in view of other characteristics on adjacent lines the bottom is believed to be hard. <sup>Lat 40-37.9</sup> <sup>Long 73-15.45</sup>

(b) The 3½ ft sounding between 19 + 20 d (blue) Vol. 1 page 33 <sup>Lat. 40-37.8</sup> <sup>Long 73-15.8</sup> should be retained for the following reasons:

1. It is marked "O.K." in the record page 33 Vol. 1.
2. The note on page 57 of Vol. 4 indicates that a buoy was anchored and <sup>that</sup> the boat drifted about in the immediate vicinity "feeling" for the school.
3. The fix 42 P (blue) page 57 Vol. 4 is the minimum sounding obtained, 4½ ft (reduced), and plots approximately 200 m. west of the spot investigated and is the only sounding in this investigation that does not fall close to 3½ ft. spot between 19 + 20 d
4. The sun angle of fix at position 42 P (blue) runs through the 3½ ft spot and it is possible that the 4½ ft sounding may have been obtained very close to the 3½ ft spot. A confusion of the center object may have caused the above possibility.

(c) A 9.6 ft. adg. between 52 + 53 N (blue) falls on a 4½ ft sounding between 86 + 87 P. - The existence of the 4½ ft. is doubtful and should have been investigated further. The lead line may have been read one fathom too shoal. It is noted that this sounding (4½) is not marked "O.K." in the record.

(d) The Hydrographic location of the wreck 500 m south of Defunct Point (Str. Drumelzier authority see B.P. 12733-1905) on the smooth sheet (H5370) does not quite agree with the Topo 6012 because of the shrinkage of the Hydrographic sheet the triangulation points are closer together although plotted correctly and cause the fix 199 (blue) to plot slightly to the northeastward of its true position. Therefore the wreck is plotted according to the topographic (T6012) location consideration having been taken into account for difference of the projections due to shrinkage.

Geo. Brown

200

February 6, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 5370

Locality Fire Island Inlet, Long Island, N. Y.

Chief of Party: R. P. Eyman in 1933

- (\*) Plane of reference is mean low water, reading
  - 1.5 ft. on tide staff at Democrat Point
  - 6.3 ft. below B. M. 6
  - 2.7 ft. on T.S. at Fire Island Lighthouse
  - 16.8 ft. below B.M. 7
  - 2.7 ft. on T. S. at Bayshore
  - 4.3 ft. below B.M. 1
  - 2.0 ft. on T.S. at Oak Beach
  - 5.5 ft. below B.M. 1

Allowance was made for difference in time and height of tide between  
Democrat Pt. and Fire Island Lighthouse.

Height of mean high water above plane of reference is 2.6 feet at Democrat Pt.  
and approximately 1.0 feet at stations in Great South Bay.

- (\*) Except at Democrat Pt. the plane of reference was taken as 0.5 foot below half  
tide level, the mean range at stations in Great South Bay being less than 1-foot.  
Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents

Field Record Section  
Report on st. 537a

Nov 10, 1934

Chief of Party: Raymond P. Eymon,  
Surveyed by J. B. Partington, J. B. Pison,  
R. A. Philleo

Protracted by: J. B. Partington, G. B. McGlasson,  
R. Stevenson

Soundings Verified by - H. A. Hawkins

Verified by - L. S. Straw & suggested

Inked by Lur Jakob & J. Alvine

The soundings were neat legible & complete.

The protracting was good.

The positions were visually checked  
by L. S. Straw.

The soundings were carefully plotted  
as to time interval & amount. The depths  
conformed to the hydrographic manual,  
except that 0.8 ft was inked as the next  
highest whole foot.

The field drifting in general was  
good. Attention is called to the follow-  
ing discrepancies:

Buoy #4 - Lat 40-37.9 Long 73-15.4  
Position in descriptive Report #6012 erroneous.  
See sounding record.

S. C. Buoy #5 Lat 40-37.6 Long 73-16.2  
not listed in W. R. T 6012. Referred to in sound-  
ing records for 539 (blue) & ~~correct 539~~

(1)

# 5370

B.C. '38' Lat 40-37.7 Long 73-15.7  
Sounding record pos 55 Q (blue). Called  
BC # 4

Hide Staff Lat 40-38.5 x Long 73-17.1 - not  
shown on topo sheet - approximate position  
only shown on boat sheet #5370.

Between Pos 9 & 10 S (red) Lat 40-38.6 Long 73-17.4  
First 13 ft sounding is 1 m. from a dock which  
is not shown on topo or boat sheets.

no. logs were made on this sheet because  
H5369 & H5368 are now in work & these sheets  
were, therefore, not available. The curves adjacent  
to sheets 5369 & 5368 are left in pencil so that  
proper junction may be made without possible erasure.

The crossings in general are in poor agreement.

Respectfully submitted,

J. J. Gaskin

SECTION OF FIELD RECORDS  
Review of Hydrographic Sheet No. 5370.  
Fire Island Inlet, Great South Bay, L. I., New York.  
Surveyed May - September 1933.  
Instructions dated Feb. 25, 1933 (Eyman)

Chief of Party - R. P. Eyman.  
Surveyed by - J. C. Partington, J. C. Tison, R. A. Philleo.  
Protracted by - J. C. P., G. C. McGlasson, R. Stevenson.  
Soundings penciled by - H. L. Hawkins.  
Verified by - L. S. Straw.  
Inked by - I. M. Zeskind.

1. Records in general conform to the requirements of the Hydrographic Manual.
2. The plan and extent of development conform to the regulations and satisfy the specific instructions.
3. Soundings are generally consistent. The two discrepancies noted in the Descriptive Report were examined by drifting over them and the recommendation of the field party is concurred in by the office. The soundings are not plotted on the sheet.  

The discrepancies in buoys noted in the verifier's report are due to a change in buoys during the survey season (Commerce N M No. 33, - par. 1109). On the sheet, buoy "F" has been discontinued and a red nun buoy No. 2 placed in the vicinity, buoy "G" has been renumbered "F", buoy "H" has been renumbered "G", and buoy "I" has been renumbered "H"; the other buoys conform to the conditions existing at the close of the survey season.
4. Depth curves can be drawn satisfactorily. In addition to the usual curves, the 3 foot curve is shown on the sheet.
5. Junction with H. 5369 is adequate. Junction with H. 5368 will be considered with the report on that sheet.
6. Comparison with H. 4369 (1924) shows many changes in details, although the most general features are recognizable. Both the point and the entrance channel have moved westward about 600 meters. Shoals in the channel northward and eastward of Democrat Point have shifted their positions and details are quite different though the general direction of the navigation channel remains the same. Chart 578 gives the area in accordance with the 1924 survey.
7. Field plotting was good. Air photo sheets are not now available to complete the shoreline.
8. Recommendation. This sheet (H. 5370) should supersede all previous information for charting the area represented by it.

H. 5370 - 2.

This entire area, except possibly eastward of long.  $73^{\circ} 14'.5$ , is very changeable and resurveys are desirable at suitable intervals.

9. Reviewed by - R. J. Christman, March 23, 1934.



Examined and approved:

L. O. Colbert,  
Chief, Section of Field Records.

Chief, Division of Charts.

Chief, Section of Field Work.

Chief, Division of H. & T.

5370a

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~~  
Hydrographic

} Sheet No. 5370a

LOCALITY

Captree Island Cut

Great South Bay Long Island

1934

Add'l Work 1934

CHIEF OF PARTY

M. G. Witherbee

5370a

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. 5370

REGISTER NO. 53702

State New York

General locality Great South Bay L.I.

Locality Captree Island Cut

Scale 1:10,000 Date of survey May, 19 34.

Vessel Leased launch "Helen C"

Chief of Party M. O. Witherbee, additional work.

Surveyed by G. A. Stanton, " "

Protracted by.....

Soundings penciled by.....

Soundings in fathoms feet

Plane of reference.....

Subdivision of wire dragged areas by.....

Inked by.....

Verified by.....

Instructions dated February 25th, 19 33.

Remarks: Additional work necessitated by changes since original survey. Print of phototopographic sheet T-5059 used as boat sheet.

DESCRIPTIVE REPORT  
to accompany

HYDROGRAPHIC SHEET #-5370 (Field Number)

This work covers a recently dredged channel through Captree Island, connecting the existing State Channel with Fire Island Inlet.

The western end runs directly into the State Channel at the junction with the branch running towards Babylon. The eastern end opens into Fire Island Inlet at Latitude  $40^{\circ}38.5''$ , Longitude  $73^{\circ}15.0'$

- a. Instructions were dated February 25, 1933.
- b. Standard survey methods were used throughout. All positions by sextant fixes and soundings by hand lead. Signals were located by topography.
- c. No discrepancies were noted in the record.
- g. The western end intersecting channels were unchanged in depth. There was a small sand dump at the south side of the new channel at the western end as sketched on the boat sheet. This was made in and formerly covered with seal water.

At a point on the south side about one-third the distance from the western end a very narrow channel connects the newly dredged channel with the natural channel leading south-west towards Oak Beach. There is about twelve feet in this channel but it is very narrow. The existing chart shows only about four feet at this point.

A basin was dredged on the south side near the east end after the topography was done. The shore line shown on the boat sheet for this basin was sketched in while running close in shore. It is probably not more than three meters in error.

The eastern end of the channel is fanned out and the dredging carried to an existing twelve foot depth in the Inlet. Depths in the Inlet outside the dredged area were found unchanged.

The channel is marked by 4x4" "arrow" markers, all of which are located by sextant fixes. These markers are not very substantial and should not be shown the same as the large pile markers which mark the dredged channel to the westward.

~~Some of the original data on the record books have been forwarded to the Hydrographic Office.~~

Respectfully submitted,

*G. A. Stanton*

G. A. Stanton,  
Hydrographer.

Forwarded:

*M. O. Witherbee*

M. O. Witherbee,  
Chief of Party.

TIDAL NOTE TO ACCOMPANY HYDROGRAPHIC SHEET 5370 (Field Number)

The 1934 hydrography of this sheet was controlled by staff readings at Oak Beach. The datum plane of this station was determined in 1933, but all three bench marks were destroyed during the winter. For this reason a weeks tide observations were taken by auto-portable tide gage, and the marigrams forwarded to the office. The staff used in 1934 is the same as the 1934 staff, and there is nothing to indicate that its elevation has changed; this can be checked in the office from the week of observations in 1934.

On account of the uncertainty of tidal planes the record book is forwarded to the office with soundings unreduced.

STATISTICS FOR BOAT SHEET #5370 (Field Number)

Date	Boat	Day Letter	Stat.Mi.	No. of Soundings.	No. of Positions.
1934					
May 15	Helen C	a'	4.0	189	34
" 16	" "	b'	9.9	440	82
" 28	" "	c'	<u>5.1</u>	<u>366</u>	<u>95</u>
			19.0	995	211

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *5370a*

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

Number of positions on sheet	<i>.211..</i>
Number of positions checked	<i>...5..</i>
Number of positions revised	<i>...0..</i>
Number of soundings recorded	<i>...995..</i>
Number of soundings revised	<i>...0..</i>
Number of signals erroneously plotted or transferred	<i>...0..</i>

Date: *6/14/34*

Cartographer: *C. M. Zeskind*

Verification of protracting by *Ludg* Time: *1/2 hr.*

Verification of inking by *Ludg* Time: *15 hr*

Review by *R. J. Christman* Time: *2 3/4 hrs.*

Field Record Section  
Report on 5370a

June 14, 1934

The sounding records were neat, legible, & complete.

The plotting & penciling were done by the writer.

The sounding in general conform to the hydrographic manual.

The crossings are in good agreement.

The banks of the channel & the limits of the channel (broken line) were changed to conform to tracing submitted by B. G. Jones of this office.

The top sheet (T #5059) shows a broken line running across channel west of O Mac. There is no notation in the sounding records, or descriptive report stating what this line represents. It was not linked on this sheet. <sup>underwater cable crossing</sup> has been added to the smooth sheet.

Respectfully submitted,

W. J. Beckwith

Note

Topographic information used in on this sheet is shown on sheet T 5059 and explained in detail in the report for T 5059

B. G. Jones  
6/29/34

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5370a (1934).

Captree Island Cut, Great South Bay, L. I., New York.

Surveyed May 1934.

Instructions dated May 31, 1934 (M. O. W.)

Hand Lead Soundings - Fixed Positions on Shore Objects.

Chief of Party - M. O. Witherbee.

Surveyed by - G. A. Stanton.

Plotted and verified in office by - I. M. Zeskind.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual.

2. Compliance with Instructions for the Project.

This is a survey of a newly dredged channel completed subsequent to the original survey H. 5370 (1933) under instructions dated Feb. 25, 1933. This survey joins existing hydrography on H. 5370 (1933).

3. Sounding Line Crossings.

No cross lines were run, but a comparison of closely spaced adjacent lines shows good agreement.

4. Depth Curves.

The depth curves can be satisfactorily drawn.

5. Junction with Contemporary Surveys.

The work in the newly dredged channel has been carried to a satisfactory junction with H. 5370 (1933).

6. Comparison with Prior Surveys.

H. 5370 (1933).

This is the only prior survey within the limits of the new survey that needs consideration in this review. The new survey, H. 5370a (1934) covers portions of the area surveyed in 1933 and some of the overlapping hydrography has been transferred to the 1934 survey. Other than these transferred soundings, no other soundings should be used from H. 5370 (1933) that fall within the limits of the new survey, H. 5370a (1934).

7. Comparison with Chart 578.

The present chart shows the results of the new work, having been

applied prior to the final verification of the sheet. No discrepancies are noted.

8. Field Plotting.

Boat sheet and sounding record were submitted. Plotting was done in the office on a copy of air photo compilation, (later registered as T. 5059).

9. Additional Field Work Recommended.

a. Immediately necessary.

Inasmuch as a survey party is still operating in this general locality, it is desirable that the following spots be further examined. These spots fall within the area of the 1933 work (H. 5370) but were not called for in the review of that sheet.

1. In the channel leading from the newly dredged channel<sup>16</sup> southwest towards Oak Beach (lat.  $40^{\circ}38'.55$ , long.  $73^{\circ}14'.95$ ) there is some doubt as to the controlling depth. The descriptive report for H. 5370a (1934) speaks of a narrow 12 foot channel connecting the newly dredged channel with the natural channel leading southwest towards Oak Beach. Whether this refers to the portion of the channel close to the newly dredged channel or to the entire length of the channel leading to Oak Beach is not clear. The 1933 work appears to block this off with 5 feet and it has been so charted.

2. The controlling depth at the turn in the channel in lat.  $40^{\circ}38'.5$ , long.  $73^{\circ}17'.2$ .

3. More lines in the Oak Beach channel in lat.  $40^{\circ}38'.5$ , long.  $73^{\circ}17'.6$  to enable the complete drawing of the depth curves and to determine the controlling depth here.

10. Superseding old Surveys.

Within the area covered and except for the soundings transferred from H. 5370 (1933) the present survey supersedes the following survey for charting purposes:

H. 5370 (1933) in part.

11. Reviewed by - R. J. Christman, July 1934.

Inspected by - A. L. Shalowitz.

*K.T. Adams*  
K. T. Adams,  
Chief, Section of Field Records.

*J.S. Borden*  
Chief, Section of Field Work.

Examined and approved:

*L.O. Polbat*  
Chief, Division of Charts.

*G. Hude*  
Chief, Division of H. & T.

5370a

Additional work

Form 504  
Rev. Dec. 1933

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 5370a  
Hydrographic }

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State New York

LOCALITY

Great South Bay L.I.

Captree Island Cut

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Additional work  
1934

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CHIEF OF PARTY

M.O. Witherbee

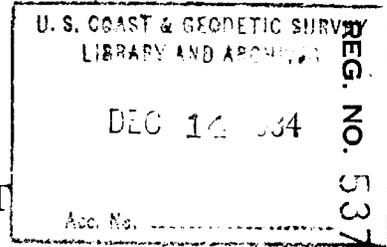
5370a

Additional work

Additional work

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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. \_\_\_\_\_

REGISTER NO. 5370a 53702

State New York

General locality Great South Bay, Long Island

Locality Captree Island Cut

Scale 1:10,000 Date of survey Sept. - Oct., 1934

Vessel \_\_\_\_\_

Chief of Party M. O. Witherbee

Surveyed by A. M. Weber, Karl Greenhaw

Protracted by Paul Scherr

Soundings penciled by P. S.

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by P. S.

Verified by P. S.

Instructions dated Director's letter, Sept. 19, 1934

Remarks: Additional work, supplementing work done in May

1934

20  
POST-OFFICE ADDRESS: P.O. Box #535, Elizabeth City, North Carolina.

81-CKG

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

January 23, 1935.

To: The Director,  
U. S. Coast & Geodetic Survey.

From: M. O. Witherbee,  
Lieut. U.S. Coast & Geodetic Survey.

Subject: Review of Hydrographic Sheet No. 5370a.

Reference: 82-AAP, dated January 22, 1935.

Receipt of a copy of the review of Hydrographic Sheet No. 5370a, Captree Island Cut, Great South Bay, Long Island is acknowledged.

In connection with paragraph 9 of the review, the additional work called for was accomplished in October, 1934 on a separate boat sheet, and was transmitted to the office on November 8th. I believe that all questions brought up in review were cleared up by this additional work.

Respectfully,



Lieut. U.S. Coast & Geodetic Survey.

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SHEET NO. 5370a  
(ADDITIONAL WORK)  
Vicinity of Oak Beach, Long Island, N.Y.

a. Instructions dated Feb. 25, 1933 and Directors letter dated Sept. 19, 1934

b. Standard survey methods were used. This work was recommended by the review of Hydrographic Sheet 5370a which was surveyed in May of this year. A copy of the review is appended to this report.

Paragraph 9a.1 of the review request information as to the channel leading from the newly dredged channel towards Oak Beach ( Lat. 40-38.55, Long. 73-16.95). The controlling depth of this channel was found to be 12 feet. ✓ ✓

Paragraph 9a2 requests the controlling depth in Lat. 40-38.5, Long. 73-17.2 . The controlling depth here was found to be 10 feet. The 5 foot sounding which shows in the channel here could not be located and verified. It is the conclusion of this survey that this sounding as well as the 13 foot sounding directly west of it and apparently on the same line are plotted in erroneous positions. It appears that they should be about 40 to 50 meters east of their plotted positions. *The 5 and 13 soundings have been shifted to the east.* ✓

In compliance with paragraph 9a3 two more lines were run in the channel in Lat. 40-38.5, Long. 73-17.2 . The controlling depth is 10 feet. ✓

Respectfully submitted,

*Albert M. Weber*  
Albert M. Weber,  
Hydrographer.

Forward, approved.

*M. O. Witherbee*  
M. O. Witherbee,  
Chief of Party.

SECTION OF FIELD RECORDS

Verifiers Report - Additional Work on H. 5370,a.

The records conform to the requirements of the General instructions.

Signals " RED " and " GREEN " were transferred to the smooth sheet from the boat sheet in green ink.

The five foot sounding in red from H. 5370 was not removed from the sheet but depth curves are not drawn around the sounding pending review ~~xxxx~~. (Lat.40°38'6; Long. 73°16'9.) *The 5 foot sounding in red from H-5370 has been removed from H-5370a.*

This additional work is differentiated from the other work on H. 5370 by the use of red position numbers for this later work.

Respectfully submitted,

*Paul Scherr.*

April 30, 1935.

RAC

December 28, 1934

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
1 volume# of sounding records for

HYDROGRAPHIC SHEET 5370 (Additional Work)

Locality Captree Island Cut, Great South Bay, L. I., N. Y.

Chief of Party: M. O. Witherbee in 1934

Plane of reference is mean low water reading

2.1 ft. on tide staff at Oak Beach

8.6 ft. below B.M. 4

Height of mean high water above plane of reference is 0.7 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5370.a

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

Number of positions on sheet	.55...
Number of positions checked	...7...
Number of positions revised	...7...
Number of soundings recorded	...242...
Number of soundings revised	...7...
Number of signals erroneously plotted or transferred	...7...

Date: April 30, 1935.

Plotting and  
Verification by P. Scherr

Time: 7 hours

Review by

*Leo A. Straw*

Time: 2 hr.

STATISTICS; HYDROGRAPHIC SHEET 5370a  
 (Additional work, Sept;Oct. 1934)

Date	Letter day	Soundings	Positions	Statute miles.
Sept.25	a	159	34	2.7
Oct. 25	b	<u>83</u>	<u>21</u>	<u>1.0</u>
		242	55	3.7

TIDAL NOTE

Tides were observed on a plain staff at Oak Beach. Plane of reference on this staff determined in May 1934, and all data transmitted to office. Value of MLW on staff could not be found in party files.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5370a (Add. Work 1934)

Captree Island Cut, Great South Bay, L. I., New York  
Surveyed in September & October, 1934

Instructions: Director's letter, Sept. 19, 1934 (M. O. Witherbee)

Hand Lead Soundings

3 point fixes on Shore Signals.

Chief of Party - M. O. Witherbee.

Surveyed by - A. M. Weber, Karl Greenhaw.

Protracted and soundings penciled by - Paul Scherr.

Verified and inked by - Paul Scherr.

1. Purpose.

The purpose of this additional work in the vicinity of Oak Beach and Captree Island Cut was to determine the controlling depth of the channels discussed in paragraph 9 of Hydrographic Review H-5370a (1934). The following paragraph headings and discussion herein refer to paragraphs in the review of H-5370a (1934).

a. Paragraph 9a (1).

Controlling depth of Channel, lat. 40°38.55', long. 73°16.95'.

The examination shows deep water in the channel leading from the newly dredged channel towards Oak Beach. Therefore, the 5 foot sounding in lat. 40°38.55', long. 73°16.95' should be expunged from the chart.

b. Paragraph 9a (2).

Controlling depth of channel, lat. 40°38.5', long. 73°19.2'.

Sixteen to eighteen feet of water is shown at the turn in the channel, lat. 40°38.5', long. 73°17.2'.

c. Paragraph 9a (3).

Controlling depth of Channel, lat. 40°38.5', long. 73°17.6'.

The two additional lines run in the channel at lat. 40°38.5', long. 73°17.6' show a controlling depth of 10 feet.

2. Note to Compiler.

The 1934 additional work has been plotted with red day letters and can so be differentiated from the previous work.

3. Reviewed by - Leo S. Straw, May, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

*L. O. Schubert*  
Chief, Division of Charts.

*Paul W. Smith*  
*Acting*  
Chief, Section of Field Work.

*Act.* *R. H. Rupens*  
Chief, Division of H. & T.