4793

Diag. Cht. No. 1215-2

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

....., *Director*

State: New York

DESCRIPTIVE REPORT

~~*Topographic*~~
Hydrographic } *Sheet No.* 4793

LOCALITY

South Coast of Long Island

Long Beach to East Rockaway

1927

CHIEF OF PARTY

C.D. Meaney

GOVERNMENT PRINTING OFFICE

S-103-97

4793

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET #2 4793

U. S. COAST AND GEODETIC SURVEY

E. LESTER JONES, DIRECTOR

C. D. MEANEY, CHIEF OF PARTY

AUTHORITY

In accordance with instructions dated April 8, 1927, a hydrographic survey was made of the water area between latitude 40° 33!8 N. and latitude 40° 38!5 N. and longitude 73° 38' W. and longitude 73° 43'W.

JUNCTIONS

This sheet joins sheet 1 on the west and sheet 3 on the east.

FLOATING EQUIPMENT

The hydrography was executed with the aid of launch #66, a Coast Guard surf-boat, and a sea-sled.

Blue ink positions show work done with launch #66, red ink positions show work done with the sea-sled, and green ink positions show work done with a Coast Guard surf-boat.

FIELD PLOTTING

The positions for the launch hydrography were plotted in the field. Whenever the sheet could be kept dry, surf-boat hydrography was plotted in the field. No field plotting was practical for the hydrography done with the sea-sled, there was not sufficient room.

TIDES

During the progress of the survey, an automatic tide gauge was maintained at Far Rockaway. A Rude tide gauge was maintained at Long Beach near the railroad bridge on the inside for hydrography in that vicinity; another Rude tide gauge was maintained at Woodmere for hydrography adjacent to Woodmere. For work in the vicinity of East Rockaway a tide staff was maintained in the canal which branches west of Wast Rockaway channel to the Valvoline Oil Company's dock north of latitude 40° 38'.

A comparison of the time and range of the tide at the various stations compared with Fort Hamilton is as follows:

	H.W.I.	L.W.I.	Mean range
Far Rockaway	7.53	1.38	3.9
Long Beach Inside	8.57	2.43	3.5
Woodmere	9.00	3.28	3.4
East Rockaway	8.72	3.05	3.6

Tidal reductions were computed by interpolating for positions between tide stations.

UNUSUAL FEATURES

In latitude 40° 34!79 N., 73° 41! 23 W. an unusual swirling of water which was thought to be caused by a wreck or by a undersea fountain similar to the one off the coast of Florida was noted. On close investigation the bubbling water was found to be a sewer outlet.

GENERAL DESCRIPTION

The outside beach which is used extensively for bathing during the summer months slopes off gradually to the southern limit of the hydrography. The bottom is hard sand on the outside coast except for soft bottom in the vicinity of the sewage outlet.

Along the inside coast in Reynolds Channel, dredging combined with natural conditions is responsible for depths ranging from zero to eighty eight feet.

There are natural channels branching out of Reynolds Channel to Woodmere, Bay Park, East Rockaway, Oceanside and the north shore of Island Park.

A dredged channel from Reynolds Channel near the railroad bridge to the north shore of Island Park with 12 feet at M.L.W. exists but is blocked by a pontoon bridge.

From Reynolds Channel to Woodmere, the deepest water is east of Hick's Beach running north into Broad Channel then following the south and west coasts of South Great Ledge and North Great Ledge to Broswere Bay where one branch of the channel runs west to Woodmere Channel while another runs east to anchorages northwest of North Great Ledge. Four feet at M.L.W. may be carried in this channel.

Another channel with 4 feet M.L.W. branches north of Broad Channel east of Cedar Island then south and west of Nums Marsh into Hewlett Bay and Macy Channel.

At some time between June 1926 and June 1927, a canal was dredged north of North Great Ledge connecting Broswere and Hewlett Bays . This canal has a depth of four feet at mean low water but due to muddy bottom and its narrow width it is probably getting shoaler. The channel into Hewlett Bay extends to the head of Bay Park Canal.

Another channel with 4 feet at M.L.W. known as East Rockaway Channel branches east of Broad Channel following a winding course to Oceanside and East Rockaway.

There is no channel with a depth of one foot connecting East Rockaway Channel and Hewlett Bay through the creeks east of Hewlett Bay.

Another channel with 4 feet at M.L.W. known as Hog Island Channel branches north of Reynolds Channel and east of South Black Banks to the north shore of Island Park.

A narrow winding slough with 2 feet at M.L.W. nearly free of grass connects East Rockaway Channel and Hog Island Channel north of North Black Banks.

The controlling depths for the different channels is noted on the smooth sheet.

DEVELOPMENT

In developing channels, a system of cross lines and channel lines were run. As several of the channels were both narrow and winding. Channel lines were run to determine the effective depth in the channels. As all the soundings could not be plotted on the sheet, critical depths in the channels were analyzed and notes were made regarding the effective depth. As some channels are so narrow that deep and shoal soundings plot practically on top of one another the deeper sounding should be plotted on the chart to show the true depth that can be carried.

SMOOTH SHEET PLOTTING

The projection and positions for the smooth sheet were plotted by J. N. Jones, Deck Officer, Coast and Geodetic Survey, in the Washington Office. The soundings and notes are by C. D. Meaney, Lieutenant, Coast and Geodetic Survey.

Respectfully submitted,

C. D. Meaney,

Table of Statistics for Sheet 2.

Launch #66

Vol.	Day	Date	Miles	Positions	Soundings
1	A	June 15	13.2	96	459
	B	June 16	16.6	101	478
	C	July 11	7.5	75	460
	D	August 19	3.5	22	208
2	D	August 19	1.4	9	71
	E	August 20	2.5	19	92
	F	August 22	4.0	63	279
	G	August 23	2.3	17	17
	Total		51.0	402	2874

Coast Guard Surfboat

1	A	June 24	12.6	99	435
	B	August 24	6.0	47	256
	Total		18.6	146	691

Sea Sled

1	a	June 29	5.3	75	323
	b	July 2	4.5	64	326
	c	July 5	8.4	30	606
2	c	July 5	5.8	92	392
	d	July 6	9.0	171	710
	e	July 7	3.0	79	226
3	e	July 7	7.2	130	652
	f	July 9	5.0	100	303
	g	July 11	0.5	7	33
	h	July 25	4.0	56	249
4	j	August 15	9.5	162	786
	k	August 16	10.8	198	867
5	k	August 16	3.6	39	271
	l	August 17	2.7	34	228
	m	August 23	4.2	78	303
	n	September 12	4.5	87	356
	p	September 13	0.6	14	51
6	p	September 13	1.0	28	69
	Total		89.6	1444	6751

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON September 18, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4793

Surveyed in 1927

Chief of Party, C. D. Meaney.

Surveyed by C. D. Meaney.

Protracted by J. N. Jones.

Soundings plotted by C. D. Meaney.

Verified and Inked by J. T. Walker.

1. The sounding records were satisfactorily kept with the exception of a few places where lack of time probably explains the omissions or errors.

2. The boat positions had no ink in the prick holes in a large number of cases in volume one and were difficult to find. Several positions were checked in the sounding records with no indication that they were ever plotted on the smooth sheet. About 9% of the positions checked were found erroneously plotted. In congested areas it was not always clear what point the position number referred to.

3. The time intervals, with very few exceptions, were carefully adhered to in the plotting of soundings. Most of the soundings revised were minus soundings and were changed because of incorrect conversion of equivalents.

4. The sheet had a somewhat untidy appearance when received. The shore line and signals were inked in on the smooth sheet in a rather sloppy manner. The work did not look neat.

5. The drafting conformed to General Instructions except the latitude and longitude of one triangulation station was not on the sheet.

6. A number of small islands were not transferred from the topographic sheet to the smooth sheet. Some of the shore line was also not transferred.

7. Signal Nel is incorrect on the topographic sheet and correct on the smooth sheet - authority Lieut. Meaney and boat sheet.

8. Signal Small is probably correct as shown on the topographic sheet. It was not used as a signal in the determination of any boat position.

9. North on topographic sheet should be Nut as on the smooth sheet - authority Lieut. Meaney.

10. Lieut. Meaney says the buoys are all barrels. He also said they were removed in the winter and were probably not replaced in the same position in the spring.

11. A sub-sketch was made of Bay Park Canal in order to show all the soundings.

12. Reviewed by A. L. Shalowitz, Sept., 1928. (See notes attached.)

13. Report by J. T. Walker, September 10, 1928.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 18, 1928.

Review of Hydrographic Sheet 4793

Instructions dated April 8, 1927 (Meaney)

1. The work conforms to the requirements of the specific instructions.

2. The junction with H. 4792 is satisfactory.

   The junction with the sheet on the east will be taken up when that sheet is reviewed.

3. Additional work on this sheet will depend upon the commercial importance of the various channels in the inside waterways, and whether dredging work is done in these places in the future. For the most part the channels are adequately covered. Some additional soundings would have been desirable in the following places:

   a. Broad Channel between Reynolds Channel and Port Lead.

   b. In Reynolds Channel east of Broad Channel some additional work should have been done, particularly to develop the 7-foot shoal in mid-channel just west of Hog Island Channel.

   c. In Hog Island Channel south of Black Bank Creek, additional soundings are needed to define the limits.

   d. On the outside coast soundings are required to fill in the blank area in latitude 40° 35', longitude 73° 40 1/2'.

4. The 8 foot sounding near the head of Hog Island Channel is unimportant as the channel leads nowhere.

   The 15 foot sounding in Reynolds Channel northwest of △ West is authenticated by the field party.

   In Brosewere Bay, in the vicinity of latitude 40° 37', longitude 73° 42', the soundings between 218 and 219 c (red) appear doubtful, these soundings being considerably shoaler than the

soundings on both the adjacent lines. A 4-9 foot sounding is crossed by a 18 foot sounding. This condition may, however, be the result of dredging and so was accepted as correct.

A. L. Shalowitz

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

(11)

D.H.

July 6, 1928

Copy for Section of Field Records file

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET **4793**

Locality: **South Coast of Long Island, N. Y.**

Chief of Party: **C. D. Meaney, 1927**
Plane of reference is **M. L. W.**
3.5 ft. on tide staff at **Far Rockaway**
2.6 " " " " " **Woodmere**
3.9 " " " " " **Long Beach (inside)**
Condition of records satisfactory except as checked below:
0.7 ft. on tide staff at East Rockaway

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 each 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.

G Walde

Chief, Division of Tides and Currents.

Note: For time and height corrections see notes in sounding books.

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4793

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. 2

REGISTER NO. 4793

State New York

General locality South Coast of Long Island

Locality ~~Vicinity of~~ Long Beach to East Rockaway

Scale 1:10,000 Date of survey June 15 to Sept. 13, 192 7

~~Vessel~~ Launch 66

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by J. N. Jones

Soundings penciled by C. D. Meaney

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by - - - - -

Inked by

Verified by

Instructions dated April 8, 1927

Remarks:

GPO

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4793

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

Number of positions on sheet	1992
Number of positions checked	916
Number of positions revised	80
Number of soundings recorded	10316
Number of soundings revised	342
Number of signals erroneously plotted or transferred	1

Date: September 10, 1928.

Cartographer: J. T. Walker