

4792

Plot. Cht. No. 1215-2

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

G. & G. SURVEY
L. & A.
JUN 27 1928
Acc. No.

State: New York

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. **4792**
~~Hydrographic~~ }

LOCALITY

South Coast of Long Island
East Rockaway Inlet and
Reynolds Channel

1927

CHIEF OF PARTY

C.D. Meaney

S-101 - 5V

4792

C. & G. SURVEY
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JUN 19 1928
Acc. No.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET #1 4792

U. S. C. & G. SURVEY

E. Lester Jones, Director.

C. D. Meaney,
Chief of Party.

INSTRUCTIONS

The hydrography shown on this sheet was executed between June 6, 1927 and August 22, 1927, in accordance with instructions dated April 8, 1927. ✓

EXTENT OF THE SURVEY

The survey is along the south coast of Long Island from longitude 73 - 47 W to longitude 73 - 42.7 W and between the one fathom and the six fathom curves. Included in this area are the approaches to East Rockaway Inlet (known locally also as Deb's Inlet) the development of the inlet, the approach to and the western part of Reynolds Channel, the survey of Bannister Creek, Bannister Bay and two creeks on the north side of Reynolds channel north of East Rockaway Inlet Coast Guard. ✓

GENERAL DESCRIPTION

The beach slopes off gently and gradually deepens off shore along the outside coast except near East Rockaway Inlet. East Rockaway Inlet is a shifting channel connecting Reynold's channel with the Atlantic Ocean. The deep water of East Rockaway Inlet is marked by channel buoys which are frequently shifted and should not be plotted on the chart. On East Rockaway Inlet bar there is seven feet at mean low water. A moderate southerly swell causes heavy breakers on the bar. The best time for crossing depends on the wind, the sea and the current. A northwest wind tends to reduce the swell. A southerly or easterly wind causes a swell. The best time for crossing the bar is around high water. The bar is smoother during flood tide than during ebb tide, swell and wind being the same. ✓

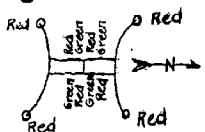
South of the bar the bottom slopes off rapidly to the four fathom curve where the slope of the bottom becomes gradual. Inside and north of the bar the water deepens gradually. West of the channel of East Rockaway Inlet the water becomes very shoal and is consequently breaking in comparatively smooth weather. East of the deep channel the water gradually gets shoaler. In comparatively smooth weather at high water there are no breakers east of the channel of East Rockaway Inlet. ✓

East Rockaway Point is a shifting sand spit which is apparently moving westward. This movement of the sandspit is simultaneous with the shifting of East Rockaway Inlet in a westward direction. Northwest of East Rockaway Point and along the shore of Far Rockaway numerous jetties have been built in an effort to prevent beach erosion. These jetties are built of wooden piles, the outer parts of which are covered with rocks awash at high water. ✓

Between these jetties and East Rockaway point is a deep narrow channel through which a large volume of water must pass. An estimated current of over three knots is likely to be running at the maximum strength of ebb or flood tide.

From northwest of Rockaway Point to the eastern extremity of this sheet there is a depth of thirteen feet at low water.

Eight-tenths of a mile east of East Rockaway Point and crossing Reynold's Channel is a concrete and bascule bridge. The bascule bridge has an opening 100 feet wide, at high water with the bridge down there is fifteen feet of clearance in the centre and 10 feet of clearance near the sides. At night the lights as shown in the sketch distinguish the opening.



Three blasts is the signal to request the bridge be raised.

North of this bridge is Bannister's Creek which drains a low marshy area. There is five feet of water at low water into the mouth of Bannister Creek.

Three hundred forty meters north of the mouth of Bannister's Creek there is only one foot of water. One foot is the controlling depth to Bannister Bay where dredging to build up golf links has given the bay a depth ranging from 8 feet to 76 feet.

From near the mouth of Bannister's Creek north and east of an island there is a controlling depth of one foot. A dredge was working in this creek at the time hydrography was completed.

Between the new bridge described above and the eastern limit of Reynold's Channel are numerous shoals. Between these shoals are excellent anchorages for all conditions of weather.

TIDES

During the progress of the survey a standard tide gauge was maintained 600 meters east of East Rockaway Point on a dock at the foot of Jarvis Lane, Far Rockaway, New York. For hydrography east of the bridge which crosses Reynold's Channel, the tide gauge at Far Rockaway was supplemented by another gauge at Long Beach.

The tide on the outside coast from the best available information has approximately 1.1 times the range of the tide at Far Rockaway.

High water on the outside occurs twenty five minutes ahead of high water at Far Rockaway. ✓

A comparison of the Far Rockaway and Long Beach Inside tide stations compared with Fort Hamilton is as follows: ✓

	Range	H.W.I.
Far Rockaway	3.9	7.53
Long Beach Inside	3.5	8.57

This comparison was used as a basis for reducing soundings in Reynold's Channel, Bannister Creek and the other creeks north of Reynold's Channel. ✓

FURTHER DEVELOPMENT

Between positions 18A and 19A is a 26 foot sounding which is questionable and requires further development. Between positions 14G and 15G is an apparent shoal which requires further development. The apparent discrepancy in the sounding between 101G and 102G and 36K and 37K is due to changes from June 15, 1927 to August 19, 1928. ✓

This sdg. was subsequently rejected by the Chief of Party as being erroneous A.L.S.

FLOATING EQUIPMENT

The blue ink positions show the work done with launch #66, the red ink positions show work done with a thirteen foot sea sled, the green ink positions show work done with a Coast Guard surfboat. ✓

Positions were plotted for launch hydrography on the boat sheet in the field, positions for sea sled hydrography were plotted entirely in the office; no plotting was feasible in the sea sled as there was hardly room for the necessary personnel; positions were generally plotted in the field while sounding with the Coast Guard surfboat. However, when solid seas broke over the surfboat the sheet became so wet that further plotting for the day was not practical. Consequently some of the hydrography with the Coast Guard surfboat was not plotted in the field. ✓

The use of the Coast Guard surfboat aided materially in the efficient prosecution of the development of East Rockaway Inlet and the development of the six foot curve along the outside coastline. For work of a like character the use of a surfboat is recommended. ✓

SMOOTH SHEET PLOTTING.

The smooth sheet was plotted in the Washington Office by F. G. Johnson, Lieutenant (j.g.) U. S. C. & G. Survey. ✓

Respectfully submitted,

C. D. Meaney

C. D. Meaney,
Lieutenant, C. & G. Survey.

Table of Statistics for Sheet 1.

Sea Sled

Vol.	Day	Date	Miles	Soundings	Positions
1	a	June 7	0.7	72	20
	b	June 8	1.5	121	35
	c	June 9	0.5	241	72
	d	June 22	3.0	215	42
	e	June 28	6.3	636	120
	f	June 29	1.0	115	26
2	f	June 29	4.0	277	73
	g	August 19	0.7	40	12
	h	August 22	6.0	282	110
Total			23.7	1999	510

Launch #66

1	A	June 6	6.0	161	34
	B	June 7	2.3	68	17
	C	June 8	3.3	100	27
	D	June 9	1.0	35	9
	E	June 10	1.0	33	6
	F	June 13	2.0	55	14
	G	June 15	16.5	535	114
2	H	June 16	5.8	283	50
	H	June 16	4.7	156	37
	J	July 11	3.5	225	44
	K	August 19	4.25	416	101
	L	August 20	3.0	242	49
	M	August 22	.5	26	11
	Total			53.85	2335

Coast Guard Surfboat

1	A	June 23	1.8	104	23
	B	June 24	12.0	608	147
	C	August 11	2.1	118	26
Total			15.9	830	196

June 30, 1928

7814

Division of Hydrography and Topography:

✓ Division of Charts:

Tide reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 4792

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

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 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.

J. H. ...
Chief, Division of Tides and Currents.

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

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

AND REFER TO No. 11-DFM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 30, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4792

South Coast of Long Island - New York

Surveyed in 1927

Instructions dated April 8, 1927

Chief of Party, C. D. Meaney.

Surveyed by C. D. M.

Protracted and soundings plotted by F. G. Johnson.

Verified and inked by C. E. Christopherson.

1. The records conform to the requirements of the General Instructions except for a general omission of the location of the beginnings and ends of lines. Such notes as "Line begins after lunch," are of little value in locating the line. In many instances it is not even noted that the line begins or ends. ✓
2. The plan and character of development fulfill the requirements of the General Instructions. ✓
3. The plan and extent of development satisfy the specific instructions except in the junction with sheet No. 4797 a gap was left in the vicinity of the 12 foot curve, and in some areas in Bannister Creek there are no soundings between depths ranging from 9 to 32 feet and the shore. ✓
4. In many instances the lines run normal to the shore are one to two feet deeper on the crossings than the lines run parallel to the shore. ✓
5. The usual depth curves can be completely drawn. ✓
6. The field plotting was completed to the extent prescribed in the General Instructions and it was not necessary to do over any part of the drafting done by the field party. ✓

7. In addition to the gap mentioned in paragraph 3 there is a line of 39 foot soundings on sheet No. 4797 that falls inshore of a line of 36 and 37 foot soundings on sheet No. 4792. ✓ Actual difference only 1.2 feet. A.L.S.
8. No further surveying is necessary to develop important areas except as noted in paragraphs 3 and 7. The 24 foot sounding between positions 14G and 15G should be investigated. ✓
9. If a large scale chart of Reynold's Channel is to be published the hydrography should be replotted on a larger scale. It was necessary to omit quite a number of soundings in the closely developed areas that might be of importance in chart construction on a large scale. ✓
10. The protracting was excellent, but there were a large number of errors in the plotting of soundings. ✓
11. The character of the field drafting was good. ✓
12. Reviewed by C. E. Christopherson, August, 1928. ✓

Inspected by A. I. Shalant

Approved:-

Chief, Section of Field Records (Charts)

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4792

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. 4792

State New York

General locality South Coast of Long Island

Locality ~~Vicinity of~~ East Rockaway Inlet and Reynold's Channel

Scale 1:10,000 Date of survey June 16 - August 22, 1927

Vessel Launch 66

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by F. G. Johnson

Soundings penciled by F. G. Johnson

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, 192

Remarks:

Field Record Section (Charts)

HYDROGRAPHIC SURVEY No. ⁴⁷⁹² - - - - -

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

Number of positions on sheet 1219
Number of positions checked 179
Number of positions revised 5
Number of soundings recorded 5164
Number of soundings revised 279
Number of signals erroneously
plotted or transferred 2

Date: *August 29, 1928* - - - - -

Cartographer: *C. E. Christopherson* - - - - -