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4869

Diag. Cht. No. 1215-2

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
E. Lester Jones, Director	
U. S. COAST AND GEODETIC SURVEY L. S. R. APR 18 1928	
State: New York	
DESCRIPTIVE REPORT	
<del>Topographic</del> Hydrographic	Sheet No. 2 4869
LOCALITY	
Jamaica Bay, Long Island	
1928	
CHIEF OF PARTY	
C. D. Meaney	

4869

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SHEET 2.

Instructions

In accordance with instructions dated August 6, 1928, a hydrographic revision survey was made of Grassy Bay.

Survey Methods.

Except for a few positions given in reference to topographic features, three point fixes were used for locating positions. A thirteen-foot sea sled with a six horsepower Evinrude outboard motor was used for the floating and propelling equipment. No positions were plotted in the field as the complement of two officers and four men took up all the available room. Phosphor bronze center mahogany leadline was used for sounding. Topographic, triangulation and one hydrographic signal were used for control.

Channels.

A newly dredged cut with an effective depth at mean low water of 6 feet and a width of from 20 to 40 feet now connects the deep water north of Broad Creek Marsh with an anchorage at the mouth of Bergen Creek. A west branch of this dredged cut, with 5.5 feet at mean low water, leads westward from north of an iron pipe to an anchorage east of the railroad bridge and south of the canals of Hamilton on the Bay.

Currents.

At Broad Channel Highway bridge, currents with a maximum velocity of 2.4 knots under normal conditions were measured in 1928. Swirls and eddies were noted in both approaches to the bridge.

Anchorage.

Under normal conditions, anchorages are limited only by the depth and the requirement of necessary swinging room.

Comparison with Previous Surveys.

The main changes from chart 542 consist of a new cut from the deep water in Grassy Bay to the mouth of Bergen Creek. A west branch of this cut leads to an anchorage east of the railroad bridge and south of the canals of Hamilton on the Bay.

A bridge across Hawtree Creek was located by sextant angles and is shown in blue on the hydrographic sheet. There is no lift span in this bridge. The clearance under the bridge is about 12 feet at high water. The approach to the bridge on the east side is sketched in blue and shown in short dash lines. ✓

A bridge across the canal just west of Hawtree Creek, with 12-foot clearance at high water, was located by the hydrographic party and is shown in blue. Nolins Avenue is also shown in blue. ✓

One position was obtained on the south side of marshy islands which extend from the fast land on the west side of the entrance to Hawtree Creek. The marsh was sketched. ✓

Pilings shown on chart 542 between the highway bridge and the railroad bridge in Grassy Bay were recovered in part. Some of the western line of pilings are covered by marsh. The southern line of pilings were not visible. ✓

The western extremity of Nolins Avenue was located by sextant angles and plotted on sheet 1. The position was transferred to sheet 2 and the direction of the road plotted from sextant angles. The road is shown in blue. North of this road the marsh lands have been filled and street systems laid out. The road shown on chart 542 just west of Flat Creek is no longer in evidence immediately north of Nolins Avenue. ✓

Several small marshy islands were located by sextant angles and are shown in blue. ✓

The remaining main changes since previous surveys were located by topography and are noted in the report to accompany topographic sheet B. ✓

#### Geographic Names.

The well established local name of the beach south of the word Ramblersville on chart 542 is Howarad Beach. The name is lettered in blue on the hydrographic sheet.

#### Statistics for Sheet 2.

Date	Day	No. of positions	No. of soundings	No. of statute miles
October 31	a	138	667	16.0
November 1	b	75	596	13.0
November 14	c	169	557	19.2
Total		382	1820	48.2

Respectfully submitted,  
*W. Mearns*

TIDAL DATA FOR SHEET 2

JAMAICA BAY, 1928

Broad Creek Marsh Gauge

Used for all  
reducers on this  
sheet.

M. L. W. on staff (2!0)

Reading of highest tide on staff (8!3)

Rading of lowest tide on staff (0!4)

April 22, 1929.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
volumes of sounding records for

HYDROGRAPHIC SHEET

Locality: **Grassy Bay, Jamaica Bay, Long Island.**

Chief of Party: **C. D. Meaney, in 1928**

Plane of reference is **mean low water, reading**  
**2.0 ft. on tide staff at Broad Creek Marsh, Jamaica Bay.**

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.

Paul C. Whitson

Chief, Division of Tides and Currents.

Field Records Section  
Report on St- 4869  
Surveyed in 1928

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- ① The records conform the requirements of G. I. except as noted under ~~remarks~~ Paragraph # 5 ✓
- ② The plan and character of the development fulfill the requirements of G. I. ✓
- ③ Considering the artificial character of this field the sounding line crossings were satisfactory note a 1<sup>FT</sup> difference between 3-X-6 and 13-1X-6 (N.W. of O Ros) ✓
- ④ The usual depth curves can be completely drawn ✓
- ⑤ The field plotting was completed to the extent prescribed in G. I. except that .5 or  $\frac{1}{2}$  was plotted as a whole number example - .5<sup>FT</sup> was plotted as - 1<sup>FT</sup> - This should have been plotted as zero sounding. ✓

There are two signals Boys on this sheet |

- ⑥ - The reflective depth was indicated on this sheet as  $5\frac{1}{2}$  feet at the fork of the channel in Lat.  $40^{\circ}-38'-44''$ . ✓

Attention is called to a 4<sup>ft.</sup> and a 5<sup>ft.</sup> sounding straddling the channel in Lat.  $40^{\circ}-38'-42''$

It is a question whether or not the channel is deeper between these two soundings as may be deduced from the 9<sup>FT</sup> and 10<sup>FT</sup> soundings on the North and South of the 4 and 5.

Report on H - 4869

Note also the 3<sup>rd</sup> and 4<sup>th</sup> soundings 40 meters south of the spot just referred to. — The channel here appears to be open as is indicated by the 8<sup>th</sup> and 10<sup>th</sup> soundings.

Attention is called to some 19<sup>th</sup> soundings in Lat.  $40^{\circ}37'26''$

The 12 foot curve was purposely omitted on this sheet.

The plotting was excellent (referring to positions and time interval between soundings). but all minus soundings involving  $\frac{1}{2}$  feet had to be changed.

Respectfully submitted

John Fleming

July - 2<sup>nd</sup> 1929

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

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4869

Grassy Bay, Long Island, New York

Surveyed in 1928

Instructions dated August 6, 1928 (Meaney)

Chief of Party, C. D. Meaney.

Surveyed by C. D. M.

Protracted and soundings plotted by C. D. M.

Verified and inked by J. Fleming.

1. The records conform to the requirements of the General Instructions with the exceptions that  $-1/2$  foot soundings were plotted as  $-1$  foot instead of zero soundings, and that the same name was used for different objects, e.g.  $\odot$  Boy.
2. The plan and extent of development satisfy the specific instructions. It is assumed that the specific instructions did not contemplate a complete delineation of the flats in Grassy Bay. The full extent of the important natural and dredged channels seems to have been determined. There is an indication of a meandering shallow channel west of Hell Gate marsh that was not determined. To the east of Hell Gate Marsh and in the vicinity of Nigger Point, the channels were not determined, due possibly to the close of the season.
3. The usual depth curves could be drawn except the low water line and the curves in the basin at the mouth of Berger Creek. One or two additional east-and-west lines across this deep would have helped materially in drawing the 6, 12, 18 and 30 foot curves.
4. The usual field plotting was done by the field party and was excellent with the exception of the deficiency noted in paragraph 1.
5. There are no contemporary surveys joining this sheet. No comparison was made with the old surveys.
6. No additional work is necessary here, considering the dredging and filling operations going on.

7. In order to more clearly delineate the critical portions of the channel, an enlargement was made in the office of the fork in the channel south of Berger Creek (indicated by blue outline on sheet). The enlargement was plotted on a 1:5,000 scale by replotting the control points used. The final work was then transferred to the lower portion of the sheet and is in correct relation with the projection as shown in the insert. The control points used for the enlarged plotting have been erased in order that no confusion would result.

For the information of the compiler it should be noted that all the soundings on the main sheet that are enclosed in blue outline are plotted in the insert and the latter can be used exclusively without referring to the main <sup>portion of the</sup> sheet.

8. The compiler's attention is called to the topographic information at the northwest corner of the sheet. This information is shown in blue and does not appear on any other sheet. Some of this work, however, will be found modified by Engineer's blue print No. 22385.

9. Reviewed by A. L. Shalowitz, July, 1929.

Approved:

A. M. Sobiralski  
Chief, Section of Field Records (CHARTS)

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

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.  
4869

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. **4869**

State New York

General locality Long Island

Locality Grassy Bay, Jamaica Bay

Scale 1:10,000 Date of survey Oct. 31 - Nov. 14, 1928

~~Launch~~ Launch MARINDIN

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by C. D. Meaney

Soundings penciled by C. D. Meaney

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

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

Inked by J. Fleming - July 2 - 1929

Verified by J.F.

Instructions dated August 6, 1928. 192

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *4869*

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

Number of positions on sheet . . . *382*  
Number of positions checked . . . *255*  
Number of positions revised . . . *6*  
Number of soundings recorded . . . *1820*  
Number of soundings revised . . . *82*  
Number of signals erroneously  
plotted or transferred . . . . . *None*

Date: - - *July - 2<sup>nd</sup> 1929* - - - -  
Cartographer: - - *John Fleming* - - - -