

4868

Diag. Cht. No. 369-7 & 1215-2

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

E. Lester Jones *Director*

G. & C. S.

L. S.

APR 8 1929

Acc. No.

State: New York

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. 1. 4868

LOCALITY

Jamaica Bay, Long Island.

1928

CHIEF OF PARTY

C.D. Meaney.

4868

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SHEET 1.

INSTRUCTIONS.

In accordance with instructions dated August 6, 1928, a hydrographic revision survey was executed of changes noted in the western part of chart 542.

SURVEY METHODS.

For this survey the wire drag launch MARINDIN and a thirteen-foot sea sled equipped with a six horse power Evinrude outboard motor were used. No positions were plotted in the field while using the sea sled. Phosphor bronze center mahogany leadline, graduated in fathoms and feet to seven fathoms and in fathoms and half fathoms for depths greater than seven fathoms, was used to measure depths. Except for a few places where topographic features located by the party under my charge and marked on the hydrographic sheet in green, positions for soundings were located by sextant angles on topographic and triangulation signals. The names of stations shown in green are points easily identified which were located by the party under my charge but were not marked by signals. For sounding in waters where three point fixes could not be obtained, sounding lines were run from one station marked in green to another station marked in green. It seemed advisable to differentiate between stations marked by signals and stations unmarked. Tide gauges were established on the south coast of Barren Island, at the foot of Flatbush Avenue, on the east coast of Barren Island, on the Municipal Airport Dock, at Mill Basin and at Canarsie. Eleven bench marks were established and connections made with old bench marks at three of the tide stations.

DANGERS.

Fifteen wrecks were located during the progress of the survey. A report has been forwarded regarding three of these wrecks which are now plotted on chart 542. The other wrecks were not considered important enough for a separate report. The positions of these wrecks and other information regarding them are as follows:

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Derrick A frame# | Latitude 40° 32' 1694 m. |
| Top bares 6 feet at high water | Longitude 73° 54' 1088 m. |
| Located by sextant angles which are recorded in Vol. 1 MARINDIN, sheet 1, "F" day, pages 71 and 72. Plotted on sheet 1, 1928. Depth near the wreck 14 feet at mean low water. | |

Old wreck on beach

Latitude $40^{\circ} 33' 1443$ m.
Longitude $73^{\circ} 55' 135$ m.

Located by sextant angles which are recorded in Vol 1 MARINDIN, sheet 1, "F" day, page 70. Plotted on sheet 1, 1928. ✓

Wreck on Nova Scotia Bar

Covered at high water, bare at low water and marked by a pile about 10 meters S.E. of the wreck which projects 6 feet out of the water at high water.

Latitude $40^{\circ} 34' 1615$ m.
Longitude $73^{\circ} 52' 342$ m. ✓

Located by sextant angles which are recorded in Vol. 4 Seasled, sheet 1, "g" day, pages 3 and 4. Plotted on sheet 1, 1928.

Wreck alongside dock at Mill Basin.

At low water part of ^{the} smokestack, a davit and a part of the hull at the bow and stern are showing. The wreck is covered at high water and is marked on the pilings of ^{the} dock by a vertical red stripe on a pile at one end of the wreck and a cross on a pile at the other end of the wreck. The davit of the wreck visible at low water is about 45' off the dock.

Latitude $40^{\circ} 36' 705$ m.
Longitude $73^{\circ} 55' 137$ m. ✓

Located by sextant angles which are recorded in Vol. 3 Seasled, sheet 1, "e" day, page 17. Plotted on sheet 1, 1928.

Wreck in Plumb Beach Channel

Latitude $40^{\circ} 35' 249$ m.
Longitude $73^{\circ} 55' 853$ m. ✓

Location found in Vol. 4 Seasled, page 29, between position numbers 115 and 116 "h" day.

Wreck at Mill Basin
alongside bulkhead

Latitude $40^{\circ} 36' 1030$ m.
Longitude $73^{\circ} 55' 286$ m. ✓

Located from position 12, "e" day, Vol. 3 Seasled, page 5.

Wreck at Mill Basin
alongside bulkhead

Latitude $40^{\circ} 36' 1109$ m.
Longitude $73^{\circ} 55' 184$ m. ✓

Located from position 40, "e" day, Vol. 3 Seasled, page 10.

Sunken pontoon at Mill Basin Latitude 40° 36' 830 m. ✓
Longitude 73° 54' 1008 m.

Located by sextant angles. Position 67, "e" day, in Vol. 3, Sealed on page 16.

Wreck at Bergen Beach Latitude 40° 37' 215 m. ✓
Bares at low water. Longitude 73° 53' 1248 m.

Located from position 9, "j" day, in Vol. 4, Sealed, page 43.

Wreck alongside Municipal Airport Dock Latitude 40° 35' 518 m. ✓
Longitude 73° 52' 1050 m.

Located by topography.
Sheet A

Wreck south of Municipal Airport Dock Latitude 40° 35' 380 m.
Longitude 73° 52' 992 m.

Located by topography.
Sheet A

Wreck on beach on S.E. point of Barren Island, Topographic Sheet A Latitude 40° 35' 20 m. ✓
Longitude 73° 52' 892 m.

Wreck on beach at Plumb Island Latitude 40° 34' 1803 m. ✓
Longitude 73° 55' 609 m.

Located by topography.
Sheet A

Wreck at Plumb Island Latitude 40° 35' 107 m. ✓
Longitude 73° 55' 1244 m.

Located by topography.
Sheet A

Wreck at Plumb Island Latitude 40° 34' 1824 m. ✓
Sheet A Longitude 73° 55' 1300 m.

Located by topography. This is a large wrecked barge and is very conspicuous.

CHANNELS.

Island Channel

Island Channel from south of the southeast point of Barren Island to Canarsie has an effective depth of 20 feet at mean low water. This

channel is 1000 feet wide east of Barren Island and Bergen Beach and 500 feet wide south of Canarsie in the east arm of the channel. The channel is well marked by both lighted and unlighted buoys and may be navigated at night. The effective depth of this channel is determined by a shoal 0.6 of a mile S 17° W true of the concrete chimney on the southeast point of Barren Island.

Big Channel

Big Channel is now blocked by a large island and is no longer available as an entrance to Canarsie.

Mill Basin

The channel to Mill Basin which branches west of Island Channel and north of Barren Island has an effective depth of 23 feet to the long wharf lying close to and parallel with Flatbush Avenue. There is an effective depth of 11 feet along this wharf.

Gerritsen Inlet

Six-tenths of a mile south of Point Breeze, buoys C₁ and N₂ have been established to mark the entrance to Gerritsen Inlet. The channel in 1928 had an effective depth of 4.5 feet at mean low water to an anchorage off Point Breeze or in Deep Creek.

A bar with an effective depth of 3 feet at mean low water lies between the deep water of Gerritsen Inlet and the deep water of Plumb Beach Channel.

ANCHORAGES.

Under normal conditions, anchorages are limited only by the depth of water.

For exceptionally stormy weather Mill Basin is an excellent harbor of refuge for vessels drawing 20 feet of water or less. Gerritsen Inlet and Plumb Beach Channel afford protection for small launches in stormy weather.

CURRENTS.

Currents measured in midchannel south of Barren Island near buoy N 12 in 1928 set along the channel with a maximum velocity under normal conditions of 2.2 knots. The current according to these observations changes from flood to ebb about forty minutes after high water at a temporary tide station established on the south coast of Barren Island on a dock located at the foot of Flatbush Avenue.

Currents measured in midchannel off the southeast point of Barren Island near buoy N 4 in 1928 set along the channel with a maximum velocity of 1.5 knots under normal conditions. The current according to these observations changes from flood to ebb about twenty minutes

after high water at a temporary tide station established on the east coast of Barren Island on the Municipal Airport Dock.

COMPARISON WITH PREVIOUS SURVEYS.

Dredging projects in the vicinity of Canarsie have resulted in the formation of two harbors, one east and one west of the reinforced concrete pier at Canarsie. The pier is about 360 feet along its southeast side and about 510 feet along its southwest and northeast sides. There is an effective depth of 11 feet on the southeast side, 18 feet for 480 feet from the outer end of the southwest and 13 feet for 490 feet from the outer end of the northeast side. A maximum current of about one knot under normal conditions sets along the southeast side of the dock. There is very little current on the other sides of the dock.

A comparison of this survey with chart 542 shows numerous changes.

Fifteen uncharted wrecks were located.

The bar at the entrance to Gerritsen Inlet is now 4.5 feet at mean low water where the chart shows only one foot.

Plumb Beach Channel has been dredged, islands in the channel have been removed and the shore line has been changed by the dredging.

Dredging has deepened and widened Island Channel and the entrance to Mill Basin.

Big Channel has been blocked by an island which was formed by pumping dredged material from Island Channel in the vicinity of Canarsie Pol.

Several buoys not shown on chart 542 were located.

An island shown on chart 542 in latitude $40^{\circ} 37:12$, longitude $73^{\circ} 53:1$, was not found. Another island, however, was located in latitude $40^{\circ} 37:12$, longitude $73^{\circ} 53:01$.

Respectfully submitted,


C.D. Meaney.

STATISTICS FOR SHEET, FIELD NO. 1

| Date, 1928 | Day | No. Positions | No. Soundings | Statute miles of sounding lines |
|------------|-----|---------------|---------------|------------------------------------|
| Sept. 28 | A | 102 | 600 | 24.0 |
| Oct. 16 | B | 29 | 168 | 7.2 |
| Nov. 21 | C | 22 | 85 | 2.5 |
| Nov. 28 | D | 44 | 211 | 5.0 |
| Dec. 3 | E | 66 | 158 | 10.0 |
| Dec. 6 | F | 9 | 4 | |
| Oct. 1 | a | 93 | 353 ✓ | 12.5 |
| Oct. 2 | b | 157 | 892 ✓ | 19.0 |
| Oct. 3 | c | 137 | 951 ✓ | 17.5 |
| Oct. 4 | d | 164 | 965 | 24.0 |
| Oct. 15 | e | 126 | 468 | 16.0 |
| Oct. 16 | f | 78 | 296 | 10.0 |
| Oct. 17 | g | 162 | 553 | 18.5 |
| Oct. 22 | h | 154 | 622 | 15.0 |
| Nov. 21 | j | 114 | 355 | 12.0 |
| Nov. 28 | k | 49 | 210 | 4.0 |
| Dec. 1 | l | 123 | 252 | 1.6 |
| Dec. 5 | m | <u>85</u> | <u>158</u> | <u>1.6</u> |
| Totals | | 1714 | 6707 | 200.4 |

TIDAL DATA FOR SHEET 1

WANAPOUNAY, 1928

Barren Island Gauge
Foot of Flatbush Avenue
M.L.W. on staff (1.5)
Reading of highest tide
on staff (8.1)
Reading of lowest tide
on staff (-0.4)

This gauge used for reducers during the following times:
Sept. 28, 8:16-10:38 A.M., 1:00-1:16 P.M.,
2:51-3:45 P.M.
Oct. 16, 8:52-9:02
Nov. 21, 5:02-5:34 P.M.
Oct. 1, 11:21 A.M.- 5:55 P.M.
Nov. 28, 9:44-11:57 A.M.
Dec. 5, 9:51-10:48 A.M.
Oct. 8, 10:18-10:49 A.M., 11:03 A.M.-12:20 P.M.,
1:56-4:39 P.M.
Oct. 17, 2:57-4:10 P.M.
Oct. 22, 9:49-4:06 P.M.
Nov. 25, 1:42-3:42 P.M.

Barren Island Gauge
Municipal Airport Dock
M.L.W. on staff (4.0)
Reading of highest tide
on staff (10.8)
Reading of lowest tide
on staff (3.1)

This gauge used for reducers during the following times:
Sept. 28, 10:38 A.M. - 12:14 P.M., 12:37-1:00 P.M.,
1:16-1:45 P.M., 2:04-2:31 P.M., 2:45-3:07 P.M.
Oct. 16, 8:24-8:52 P.M., 12:41-1:12 P.M.
Nov. 29, 4:17-4:21 P.M.
Dec. 5, 8:58-9:42 A.M.
Oct. 2, 8:45-10:19 A.M., 10:49-11:03 A.M.,
12:20-1:56 P.M., 4:59-4:45 P.M.
Oct. 5, 8:32-9:55 A.M., 11:41-3:09 P.M.
Oct. 15, 2:06-2:50 P.M.
Oct. 17, 9:45-10:45 A.M., 1:35-2:52 P.M.

Mill Basin Gauge
M.L.W. on staff (-0.4)
Reading of highest tide
on staff (6.1)
Reading of lowest tide
on staff (-1.8)

This gauge used for reducers during the following times:
Oct. 16, 1:12-4:45 P.M.
Dec. 5, 1:50-2:23 P.M.
Oct. 15, 9:20 A.M.-2:06 P.M., 2:50-3:29 P.M.
Oct. 17, 8:07-9:45 A.M.
Dec. 5, 2:32-4:07 P.M.

Canarsie Gauge
M.L.W. on staff (4.4)
Reading of highest tide
on staff (11.5)
Reading of lowest tide
on staff (2.8)

This gauge used for reducers during the following times:
Sept. 28, 12:14-12:37 P.M., 1:45-2:04 P.M.,
3:07-3:16 P.M.
Oct. 16, 8:16-8:24 A.M.
Nov. 21, 11:11-11:25 P.M.
Oct. 5, 10:08-11:41 A.M., 3:38-4:23 P.M.
Oct. 4, 8:42 A.M.-4:30 P.M.
Oct. 17, 10:50-1:34 P.M.
Nov. 21, 8:37-1:51 P.M.
Dec. 1, 9:22-12:09 P.M.

Used Coney Island Predicted tides for "F" day.

Dec. 5, 10:40-11:00 P.M.

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To accompany sheet 1
erase

TIDAL DATA FOR SHEET 1

4868

JAMAICA BAY, 1928

Barren Island Gauge
Foot of Flatbush Avenue
M.L.W. on staff (1.3)
Reading of highest tide
on staff (8.1)
Reading of lowest tide
on staff (-0.4)

This gauge used for reducers during the following times:
Sept. 28, 8:16-10:38 A.M., 1:00-1:16 P.M.,
2:31-2:45 P.M.
Oct. 16, 8:52-9:02
Nov. 21, 3:02-3:34 P.M.
Oct. 1, 11:21 A.M.- 3:55 P.M.
Nov. 28, 9:44-11:57 A.M.
Dec. 3, 9:51-10:42 A.M.
Oct. 2, 10:19-10:49 A.M., 11:03 A.M.-12:20 P.M.,
1:56-4:39 P.M.
Oct. 17, 2:57-4:10 P.M.
Oct. 22, 9:49-4:06 P.M.
Nov. 28, 1:42-3:42 P.M.

Barren Island Gauge
Municipal Airport Dock
M.L.W. on staff (4.0)
Reading of highest tide
on staff (10.8)
Reading of lowest tide
on staff (3.1)

This gauge used for reducers during the following times:
Sept. 28, 10:38 A.M. - 12:14 P.M., 12:37-1:00 P.M.,
1:16-1:45 P.M., 2:04-2:31 P.M., 2:45-3:07 P.M.
Oct. 16, 8:24-8:52 P.M., 12:41-1:12 P.M.
Nov. 28, 4:17-4:21 P.M.
Dec. 3, 8:58-9:42 A.M.
Oct. 2, 8:45-10:19 A.M., 10:49-11:03 A.M.,
12:20-1:56 P.M., 4:39-4:43 P.M.
Oct. 3, 8:32-9:55 A.M., 11:41-3:09 P.M.
Oct. 15, 2:06-2:50 P.M.
Oct. 17, 9:45-10:43 A.M., 1:35-2:52 P.M.

Mill Basin Gauge
M.L.W. on staff (-0.4)
Reading of highest tide
on staff (6.1)
Reading of lowest tide
on staff (-1.8)

This gauge used for reducers during the following times:
Oct. 16, 1:12-4:45 P.M.
Dec. 3, 1:50-2:23 P.M.
Oct. 15, 9:20 A.M.-2:06 P.M., 2:50-3:29 P.M.
Oct. 17, 8:07-9:45 A.M.
Dec. 5, 2:32-4:07 P.M.

Ganarsie Gauge
M.L.W. on staff (4.4)
Reading of highest tide
on staff (11.5)
Reading of lowest tide
on staff (2.8)

This gauge used for reducers during the following times:
Sept. 28, 12:14-12:37 P.M., 1:45-2:04 P.M.,
3:07-3:16 P.M.
Oct. 16, 8:16-8:24 A.M.
Nov. 21, 11:11-11:25 P.M.
Oct. 3, 10:08-11:41 A.M., 3:38-4:23 P.M.
Oct. 4, 8:42 A.M.-4:30 P.M.
Oct. 17, 10:50-1:34 P.M.
Nov. 21, 8:37-1:51 P.M.
Dec. 1, 9:22-12:09 P.M.

Used Coney Island Predicted tides for "F" day.

Dec. 5, 10:40-11:00 P.M.

copy of 100m

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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)

Reading of lowest tide on staff (0.4)

Section of Field Records
Hydrographic Sheet No. 4868
Surveyed in 1928

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by R. C. Bolstad

Sounding plotted by R. C. Bolstad

Verified and linked by J. C. Mac Nab.

1. The records conform to the requirements of the general instructions.

2. The plan and character of development ~~satisfy the~~ fulfill the requirements of the general instructions except for the following.

(a) The distances between positions both with regard to channel lines and cross channel lines are too great in many instances.

(b) Lines across channels should be controlled by no less than three positions.

(see P 132 - 133 Hyd Manual)

3. The plan and extent of development satisfy the specific instruction except as noted in the above paragraph and the following.

(a) A greater development around Nova Scotia Bar would have enabled more accurate and complete depth curves to be drawn.

4. The sounding line crossings are adequate.

5. In several instances the depth curves cannot be completely drawn however in most cases this is unimportant.

(a) The areas south and west of Nova Scotia Bar are probably the most important instances.

6. The field plotting was completed to the extent prescribed in the Gen. Inst.

7. The office draftsmen did not have to do ~~any~~ original drafting but did check more than fifty percent

of the positions because of the type of survey (lines not straight - shortlines and the fact that the channels had been dredged and did not follow natural contours.)

8. There are no junctions with adjacent sheets of contemporary date.
9. No further surveying is believed necessary at present. ~~to be done~~
10. In the records signal "Lew" is written "Lon".
11. Rating of work (a) Character and scope of surveying Good
(b) Field drafting Excellent
12. Reviewed by J. C. Mac Nab.

Inspected July 2, 1903

April 23, 1929.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 4868

Locality: Jamaica Bay, Long Island, N. Y.

Chief of Party: C. D. Meaney in 1928

Plane of reference is mean low water, reading

1.3 ft. on tide staff at foot of Flatbush Avenue, Brooklyn, N.Y. (Barren I.)

~~XXXXXXXXXX~~

4.0 ft. on tide staff at Municipal Airport Dock, Barren Island.

4.4 ft. on tide staff at Canarsie, Brooklyn, N. Y.

-0.4 ft. on tide staff at Mill Basin, Brooklyn, N. Y.

Predicted tides for Coney Island, N. Y.

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

C. & G. SURVEY
L. & A.
APR 8 1929
Acc. No.

REG. NO.
4868

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. 4868

State New York

General locality Long Island

Locality Jamaica Bay and Rockaway Inlet

Scale 1:10,000 Date of survey Sept. 28 - Dec. 6, 1928

~~Motor~~ Launch MARINDIN

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by R. C. Bolstad

Soundings penciled by R. C. Bolstad

Soundings in ~~XXXXXX~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated August 6, 1928

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4868

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

Number of positions on sheet . 1711 .
Number of positions checked . 961 .
Number of positions revised . 10 .
Number of soundings recorded . 7130 .
Number of soundings revised . 560 .
Number of signals erroneously
plotted or transferred . None .

Date: - - June 19, 1929 - - - -

Cartographer: John C. MacNeil - - - -