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Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*

Field No. *5381* Office No. *5382*
5383

LOCALITY

State *New York*

General locality *Western Part*

Locality *Of Gardiners Bay*

1933

CHIEF OF PARTY
S. O. Hilder

LIBRARY & ARCHIVES

DATE

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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. 4, 5 and 6

LOCALITY

North and South Channels of
Shelter Island Sound.
Western Part of Gardiners Bay

1933

CHIEF OF PARTY

L. C. Wilder.

U. S. GOVERNMENT PRINTING OFFICE: 1928

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5381

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. 4

REGISTER NO. **5381**

State New York

General locality Eastern Long Island

Locality Shelter Island Sound *Large cor.*

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

Vessel "Alice" "Bobbie" "Vida" "Dot" and skiff

Chief of Party L.C. Wilder

Surveyed by J.P. McIlwain and E.B. Brown

Protracted by M.A. Norelli and E.E. Mumaw

Soundings penciled by R. Stephenson and H.L. Hawkins

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by P.H. Scherr

Verified by P.H. Scherr

Instructions dated _____ 17 March, 19 33

Remarks: _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5382

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. 5

REGISTER NO. 5382

State New York

General locality Eastern Long Island

Locality Greenport Harbor and Orient Harbor

Scale 1:10,000 Date of survey Sept-Nov., 1933

Vessel "Dot" and "Alice"

Chief of Party L.C. Wilder

Surveyed by E.B. Brown and J.F. McIlwain

Protracted by H.L. Hawkins

Soundings penciled by W.D. Ayers

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by V.P. Behm

Verified by

Instructions dated 17 March, 1933

Remarks:

Applied to Chart 298 - Feb. 1935 - J.D. Gamba

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 5383 ✓

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. 6

REGISTER NO. 5383

State New York

General locality Eastern Long Island
Gardiners Bay L. I.

Locality Orient Point to Long Beach Point

Scale 1:20,000 Date of survey Oct-Nov, 1933

Vessel "Alice" and "Dot"

Chief of Party L.C. Wilder

Surveyed by P.C. Doran and E.B. Brown

Protracted by H.L. Hawkins

Soundings penciled by G.C. McGlasson

Soundings in ~~500~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by A.M. Uzefovich

Verified by A.M.U.

Instructions dated 17 March, 1933

Remarks: _____

*Applied to Chrt. 298, Aug. 24, 1934
K.P.*

Descriptive Report

To Accompany Hydrographic Sheets Nos.
4, 5, and 6 - Eastern Long Island

Season of 1933

L. C. Wilder

Chief of Party

The descriptive report for these three sheets will be written in part by the Chief of Party; the sub-chiefs directly in charge of the work writing such parts as may require actual presence on the working grounds.

INSTRUCTIONS:

Instructions for this work were addressed to L. C. Wilder and were dated March 27¹⁷, 1933.

AREAS COVERED:

- Sheet No. 4 (Scale 1-10,000) covers that part of Shelter Island Sound in the vicinity of Sag Harbor from approximately a mile north-east of Cedar Island Light to the west side of North Haven, including West Neck Harbor, the Sag Harbor Coves, and Northwest Creek.
- 5382 Sheet No. 5 (Scale 1-10,000) covers that part of Shelter Island Sound in the vicinity of Greenport, from about 2 miles southeast of Long Beach Bar Lt. to Jennings Point and Southold Bay and including Long Beach Bay and Coecles Harbor.
- #5383 Sheet No. 6 (1-20,000) covers the western part of Gardiners Bay west of longitude 72°-14'. This sheet was completed eastward to this longitude only.

SURVEY METHODS:

Standard survey methods were used except that the hydrographic sheets had no shore line at the time of the field work. Instead of running a few lines by skiff close to the H. W. line as was done on Sheets 1, 2, and 3, (one line was run parallel to the shore/line by launch near the line of high water and at low water. All shorelines were carefully searched for dangers by the hydrographic party. All rocks 50 meters or more off the H. W. line were located.

It was found very difficult to get even an indication of some of the dangers well off shore and shown on the present charts. An improvised drag, a weighted leadline between two vessels, had to be used in order to locate some of these dangers after which the least water was obtained by leadline.

COMPARISON WITH OLD SURVEYS:

No photostats of old surveys were at hand but a careful comparison was made with Chart No. 298 as the work progressed. Practically all shoals indicated on this chart were found but no uncharted dangers were located. There are few changes from the old surveys. The shoal making

For layout of all sheets, hydrographic and topographic, see Seasons Report.

out from the west side of Orient Harbor has changed considerably. Several shoal indications in the channel east and west of Sag Harbor, shown on the present charts, could not be found.

LANDMARKS:

This subject has been covered in a separate report on landmarks. The topographic descriptive reports mention most of the landmarks but all are classified in the report on landmarks.

GEOGRAPHIC NAMES:

This subject is covered in the Air Photo Field Inspection Report of Lieut. Bolstad who was attached to this party.

COAST PILOT:

Covered in a separate report.

CURRENTS:

Strongest currents prevail in the vicinity of Conkling Pt., Fanning Pt., in the channel at Long Beach Bar L. H., in the channel north of North Haven, and in the vicinity of Cedar Island Light.

Currents were estimated not to exceed 2.5 Knots and as a rule they would not exceed 2.0 Knots. They, as a rule, set fair with the channel.

TIDES AND THE REDUCTION OF SOUNDINGS:

(The report below will suffice for all six hydrographic sheets of the season and will be referred to in descriptive reports for sheets 1-2-3.)

My instructions specified rather completely the location of gages or staffs. A standard gage was required at Greenport throughout the season, a gage at New Suffolk for work in Great and Little Peconic Bays, and a gage was specified on Gardiners Island for work in Gardiners Bay. This last gage was the only item of tidal requirements which was not complied with. This, because no suitable observer could be obtained on Gardiners Island and transportation facilities were not adequate to tend the gage from our base on Long Island. Instead of this gage one was placed on the jetty at the entrance to Three Mile Harbor and a staff on which simultaneous readings were obtained was placed at Orient Point.

Staffs upon which simultaneous readings were obtained were placed in all ponds and creeks, the entrances to which were constricted. A few dredged basins where few soundings were obtained did not require staffs, in my estimation, and were not installed. In several places only a high or low were read by way of comparison, either because of the unimportance of the place or because of practically free ebb and flood conditions.

The accompanying sketch gives the location of all gages and staffs with their periods of operation or reading for simultaneous comparisons. Also this sketch denotes the division of areas as to time and heights as related to gages or staffs, for the reduction of soundings. (Also shown on smooth hydrographic sheets.)

A list of all tide stations is attached. On this list is entered the M.L.W. waters as related to Greenport.

The portable gages gave us considerable trouble at times, due probably to boats bumping docks on which gages were installed.

Reductions for soundings were obtained by transferring the tide curves and plotting staff reading on portable tide gage sheets, scale 16 7/8; one series of these curves for the entire season's work, covering all six hydrographic sheets. Some of these curves were modified as to heights or time or both to represent areas other than those in proximity to gages or staff. All curves for sheets 1 to 3 were plotted to M.L.W. of New Suffolk (0.82) e. i. 0.82 rather than 0 on the graphs represents M.L.W. For sheets 4 to 6, 0 on the graph represented M.L.W. A template placed over these curves was the means of taking off reducers.

To each hydrographic sheet is attached a table of days, hours, areas, etc. of hydrography.

SHINNECOCK CANAL: (See attached sketch.)

There was a staff at the north end at the jetty established by L. C. Wilder, one at the south end under the highway bridge established by A. P. Ratti and two staffs at the locks, one to the north of the gates and one to the south of the gates established by the county. As these staffs at the locks were badly defaced, temporary staffs were nailed thereto. The correction is given below to reduce from the temporary staffs to those of the county which were stated to have been set at the same elevation.

There is no tidal rise and fall in Shinnecock Bay, which accounts for the small range of water level at the south staff. The gates of the locks are one way locks—they function to hold the water in Shinnecock Bay but will not prevent the flow of water from Peconic Bay into Shinnecock Bay when the level is greater in Peconic Bay. The locks are mainly for the purpose of maintaining the level of Shinnecock Bay as desired. For sometime in the past it has been the order of the County Engineer that the gateman at the locks maintain the level of Shinnecock Bay at between 3.0 and 3.8 on the county staffs at the locks.

Correction to temporary N. Locks staff to give County N. Locks staff = plus .01. Correction to temporary S. Locks staff to give County S. Locks staff = minus .01.

The readings below have been corrected to give the correct reading on the staffs established by the county. This is a table of simultaneous readings at slack water on the four staffs. (See tide books.)

Time 75 mer. F. tide falling. R. Tide rising. n-slack water at north staff. C. slack water at county staffs.

		N. Staff	Diff.	N. C. S.	S. S.C.S.	Diff.	S. Staff
June 17	n9;25F.	3.85	.55	3.30	3.30	.75	4.05
"	c9;38F.	3.77	.55	3.22	3.22	.79	4.01
June 22	n9;05R.	3.80	.60	3.20	3.20	.75	3.95
	c9;07R.	3.82	.58	3.24	3.24	.73	3.97
	n14;01F.	3.68	.49	3.19	3.19	.78	3.97
	c14;05F.	3.66	.47	3.19	3.19	.78	3.97
June 24	n11;07R.	3.86	.62	3.24	3.24	.73	3.97
	c11;16R.	3.91	.62	3.29	3.29	.71	4.00

Means .57 (by levels (spirit) July 21 (.545)) .75

N.C.S. - North County Staff

S.C.S. - South County Staff

From the above there seems to be little difference whether the simultaneous readings are made at slack water at the north staff or at the locks. Between the north staff and the staffs at the locks there is a variation of .18, a difference obtained by observing simultaneous readings on a falling and on a rising tide.

The two old county staffs at the locks had been set to the same elevation (within .02 foot). One staff (N. locks staff) is just north of the gates and the other is just south of the locks. We nailed temporary staffs to these county staffs in order that they could be more clearly read. This correction to get actual staff readings is given elsewhere.

By obtaining simultaneous readings on all staffs (four), what is assumed to be a level horizontal line was obtained which corresponds to the following readings,

N. Ent. Staff	Locks Staffs	S. Ent. Staff
3.80	3.25	4.0
or 3.55	3.00	3.75 Shinn. B. MLW
or 1.83 (MLW)	1.28	2.03 Peconic MLW

This difference between the N. Ent. Staff and the Locks Staffs was checked on July 21 by spirit levels. A disagreement of about .005 was found.

The information received from the authorities regarding the level of Shinnecock Bay where there is little or no tidal fluctuation is as follows;

They maintain the level of Shinnecock Bay between a minimum of 3.0 on the staffs at the locks (both set to the same elevation.) and a maximum of 3.8 on these staffs - the general or average level remaining at about 3.5. The locks are one way locks to hold the water in Shinnecock Bay, opening with the flood from Peconic Bay and closing with the ebb. Except that over practically every week end from Friday night to Monday morning the gates are chained open so that there is a natural flow from Peconic Bay to Shinnecock Bay and vice-versa.

The locks remained closed on all days except June 13, 14, and 27 e.i. during the time sounding was in progress. This opening of the gates with the flood in Peconic Bay complicates the conditions. June 22 was the only day that tides were read at the three places during a flood from Peconic Bay. At the top of the flood the staff readings as plotted show a nearly horizontal surface from the N. Ent. to the locks but a 0.2 drop from the N. Locks staff to the S. Locks staff (this is at the sill where the water is confined and the current runs the strongest of any place in the canal). From the S. Locks staff the surface sloped 0.2 feet to the S. Ent. Staff. This was on June 22. On June 13 and 14 the range of the tide at the N. Ent. was 0.4 feet greater than on June 22 (from New Suffolk tides). The staff at the S. Ent. only was read during sounding on that day. From the graph it may be assumed that, at maximum flood, (June 13, 16:36, June 14, 17:12) just south of the locks, the water level was about 0.4 feet higher than at the south staff which was the only staff was read. Therefore soundings near the locks at H.W. should be reduced by 0.4 feet more than those at the S. Ent. Staff. But on June 13 sounding was carried on until 2 hours after the gates opened or till 1 hour before maximum flood and no sounding was done far north of the S. Ent. staff after 2:00. USE S. ENT. STAFF for reducing soundings for June 13. On July 14 no sounding was done above the S. Ent. staff after the opening of the locks. USE S. ENT. STAFF for June 14.

Soundings inside the locks north of the south sill should be reduced to M.L.W. at the N. Ent. Staff. If soundings were taken inside the locks with the north gates closed (water at the level of Shinnecock Bay) soundings should be reduced to M.L.W. on the N. Ent. Staff.

The sounding on the south sill should be reduced to the S. Ent. Staff.

It was decided to reduce all soundings in the canal to two datums, (1) north of the south gate of the locks to M.L.W. on the staff at the north entrance (1.83), (2) south of the south gate to the locks to 3.6 on the south entrance staff. This figure was determined by Lieut. Ratti and approved by the office (0.5 below mean level). I had arrived at a figure of 3.75 to be used as M.L.W. but was authorized to use 3.6.

* * * * *

Report by
J. F. McIlwain
Boat Sheet No. 4. H-5381

EQUIPMENT USED:

Whenever it was practicable the larger launch was used for sounding, with the regular equipment, that is a graduated lead line, that was checked for the true length of each fathom mark before and after each day's work, a hydrographic clock, mariner's compass, sextant, three arm celluloid protractor, and a plotting table.

In sounding the creeks, coves, and harbors a small inboard launch was used that was equipped with a plotting table and all the equipment used on the larger launch, with the exception of the compass; in addition, a graduated bamboo sounding pole that was used generally in the waters of less than twelve foot depth.

SURVEY METHODS:

Due to the strong currents prevailing in this area the courses ran were by ranges on natural objects on shore whenever possible. Actual samples of the bottom were obtained by placing a piece of soap on the bottom of the sounding lead occasionally and the character of the bottom noted in the sounding book.

In sounding this area it was attempted to keep the lines of soundings approximately fifty meters apart, the time interval of sounding being regulated by the depth of water.

All the shore line included in this area was carefully searched at low water for rocks and other dangers and all rocks found were located and sounded on top and alongside. Also a shore line of soundings were ran at high water to determine the approximate low water line.

LOCATION OF HYDROGRAPHIC SIGNALS:

Several hydrographic signals were located and two different methods were used - one method was going ashore and taking several three point fixes at the object to be located. The other method used was to take a cut from three different positions to the object to be located. Complete notes were entered in the sounding record.

When compass headings were used instead of ranges it was noted in the sounding record and all changes in heading recorded.

CHANNELS:

There is a channel that runs north of the rocky shoal that lies to the northward of the flashing red spindle light and this channel is used by small boats entering or leaving Sag Harbor as the current is not so strong as in the main channel; one range used locally to keep clear of the rocky shoal on coming into Sag Harbor from the eastward of Shelter Island is to head directly west after clearing Mashomack Point until the point of woods at signal "Net" comes in line with Cedar Island Light and then head for the flashing white light on the end of the stone breakwater at the east edge of the channel into Sag Harbor. This route crosses a six foot sand shoal to the westward of the flashing red spindle light and should not be used by boats drawing over five feet.

In the channel leading into Sag Harbor west of jetty and into the harbor to the east side of the New London Ferry Dock there is a least water of eleven feet, reduced from predicted tides.

The channel leading into West Neck Harbor on the south side of Shelter Island is very narrow and shoal, with a least water from predicted tides of two feet, the channel being located on the extreme west side of the entrance, just to the eastward of a sand bar. Once within West Neck Harbor there is a depth of ten feet, from predicted tides, up the channel of West Neck Creek into West Neck Bay. *8 feet would be safer, judging from soundings*

The channel leading from Sag Harbor into Sag Harbor Cove has a minimum depth of three feet, and passes under a drawbridge, the clearance was measured and recorded in the sounding record. There is no tender for the bridge and the cove is not generally used as an anchorage for larger boats. The surrounding land is a new development and it is possible that in the future these two coves may be important as anchorages.

The channel leading from Northwest Harbor into Northwest Creek is not very well defined as the mouth of the creek is blocked by a large shoal bar, the deepest water will be found leading up from the west side of the entrance very near the beach with a minimum depth of one and one half feet.

ANCHORAGES:

West Neck Harbor is a well protected anchorage for small boats, up to three foot draft, provided boats of over two feet draft use the entrance channel at high tide.

Sag Harbor is a well protected anchorage for small boats drawing up to ten feet provided they lay alongside the New London Ferry Dock, preferably the east side.

Northwest Harbor is well protected from all except westerly winds but care should be taken to avoid shoals south of Cedar Island Light, especially in the vicinity south of can buoy No. 5.

Boats visiting Sag Harbor of over ten foot draft will find a fairly well protected anchorage to the north of the entrance to the harbor, eastward of North Haven and directly west of black and red horizontal striped can buoy.

Smith's Cove affords a well protected anchorage for fairly large boats.

CURRENTS:

There is a current of about two knots in the section of Shelter Island Sound that is known locally as "North Ferry". There is a vehicular ferry that runs between signal "Cen", on North Haven and signal "GAT", on Shelter Island.

There is also a strong current to the west and north of Cedar Island Light and when the tide is running it has a velocity of about two knots per hour. There is considerable current in all parts of Shelter Island Sound.

DISCREPANCIES:

The present chart shows four shoal spots in the channel about four hundred meters offshore to the east of North Haven, the first an 18 foot spot surrounded by 22 and 23 feet of water - the shoalest water found was 20 feet, by predicted tides, this shoal is about four hundred meters east by northeast of signal "Don".

About two hundred and fifty meters north northwest from the first shoal is shown a shoal spot of 17 feet surrounded by 22 feet on the present chart. No indication of such a shoal was found.

About three hundred and fifty meters north northwest from the second shoal is a third shoal of 17 feet shown surrounded by 19 feet of water. 19 feet was the shoalest depth obtained in this area.

About two hundred and fifty meters northwest of Nun Buoy 14 is shown a shoal of 18 feet surrounded by 20 feet of water. On being investigated 20 feet was the shoalest water found.

In all four of these areas several lines were run and considerable time spent sounding for an indication of a shoal. To facilitate in searching for these spots several nearby oyster stakes were located and the spot approached from different angles.

A fourteen foot sounding was obtained in Smith's Cove with surrounding soundings of 17 and 18 feet. Later, when this sounding was investigated no such depth was found, evidently the lead line was read wrong. This 14 foot sounding plots about five hundred meters from signal "Nat" in line with triangulation station "Farnum".

Lot?
(14 foot s.dg. rejected not recorded in s.dg. book)
194

741 Custom House,
New York City, N.Y.,
12 March, 1934.

To: The Inspector, New York Field Station.
U. S. Coast and Geodetic Survey,
Custom House, New York City.

From: G. C. McGlasson.

Subject: Report on Hydrographic Sheet No. 4 from Capt. Wilder's Party.

5381

The shoreline on this sheet has not been inked as yet; the aerial topographic sheet of this area is not finished.

The Descriptive Report, for this sheet, refers to a 14-ft. sounding in Smith's Cove which we cannot identify in the records. The Descriptive Report states that the sounding is about 500 meters from \odot Nat in range with Δ Farnum. Evidently this location is wrong as it would not plot in Smiths Cove. However, in Smiths Cove as shown on the Boat Sheet, there appears to be a 14-ft. sounding which might be the one in doubt but we can find no authority for it in the records. Lut

In Vol. 4 page 62 there is a 11-ft. sounding between positions 129 and 130 j. This sounding appears to be one fathom in error and probably should be investigated.

In the Descriptive Report under "Currents," "North Ferry" is mentioned. This is probably an error as it is called "South Ferry" and the vehicular ferry which runs between signals "cen" and "Gat" is known as the "South Ferry."

G. C. McGlasson

G. C. McGlasson.

Forwarded Approved.

George D. Cowie.

Chief of Party.

DESCREPANCIES:

A sounding of 11 feet was taken at Lat. 41-05.5 - Long 72-18.1 → 72°-17.1' see next page
(0.9 miles N.W. of triangulation station "Ram"). This sounding falls between 16 feet soundings on all sides. It was investigated and no indication of a shoal could be found. It is believed that this sounding was recorded as one fathom too shoal. 11 ft. sounding not plotted. JCB.

A sounding of 11 ft. was taken at Lat. 41-08.4 - Long. 72-18.9 (400 meters S.E. of signal "Pil"). This sounding falls between 16 and 17 foot soundings. It was later investigated and no indication of a shoal could be found. It is believed that this sounding was recorded one fathom too shoal. Sounding not plotted. JCB.

A sounding of 6 feet is shown on the present chart on the point at the entrance to Orient Harbor. Near red nun buoy No. 4 a search was made for this shoal. No indication of such a shoal could be found. The soundings in the vicinity are 11 and 12 feet.

The 6 ft. sounding on chart is from H-1568, records show it should have been a 12 ft. sounding, see review par 6 b (3) JCB.

DANGERS:

There is a large rock (with a sounding of $3\frac{1}{2}$ feet on top) near the channel, approximately 75 meters to the north of signal "Ches".

There is a rocky area inshore from red nun buoy No. 6. No boat should pass inshore of this buoy.

Shoal water extends near the channel between black can buoy No. 1 and white lighted buoy No. 3.

There is a rock (with sounding of 1 ft. on top) offshore from the entrance to Coecles Harbor. This rock is marked with a red spherical buoy (privately maintained). There are two derelicks in the middle of Sterling Basin; however, they extend well out of the water at any stage of the tide.

CHANNELS:

The channel from Gardiners Bay into Greenport Harbor is well marked. Care must be taken, when running between black can buoy No. 1 and white lighted buoy No. 3, not to go too near to the S.W. side of the channel; for shoal water extends very near the channel in this area. Red nun buoy No. 6 marks a rocky area. Red nun buoy No. 8 marks Fanning Point on the north side of the channel.

There is deep water near the shore at Conklins Point (vicinity of triangulation station "Wickam"). The point in the vicinity of signal "Rock" is rocky. This point should be passed at about 100 meters distance.

The channel into Coecles Harbor is marked with a red spherical and a black spherical buoy offshore and a red spar and black spar buoy nearer the shore. The red spherical buoy marks a rock 1 foot below the surface of the water. All buoys privately maintained. The point on the south side of the entrance is marked with a black spar buoy.

The channel into Orient Harbor is marked with Red Nun buoy on the north-west side and Long Beach Light House on the southeast side. The lighthouse should be passed at a distance of about 400 meters.

741 Custom House,
New York, N. Y.,
16 March, 1934.

To: The Inspector, New York Field Station,
U. S. Coast and Geodetic Survey,
Custom House, New York City.

From: G. C. McGlasson.

Subject: Report on Hydrographic Sheet No. 5 from Capt. Wilders Party.

The shoreline on this sheet has not been inked as yet as the aerial topographic sheet of this area has not been completed.

Shoreline
added in the
office ✓
JCL

Omissions: In Vol. 5, page 17, pos. 45-52 l were not plotted as the sounding lines that were run out of the basin thru an opening between two jetties did not plot in this manner. The position of the jetties should be checked from the aerial topo.

Pos. 48 and 49
Rejected -
rest of line plotted
on sheet. ✓
JCL

In Vol. 18, page 63, positions 91 & 92 n' were not plotted as they depend on the location of the dock which must be obtained from the aerial topo.

Plotted on
sheet in office ✓
JCL

In Vol. 19, page 21, pos. 58 & 59 p' were not plotted as they depend on the location of a slip which must be obtained from the aerial topo.

Plotted on
sheet in office ✓
JCL

Topo \odot Ter falls off the sheet to the north. It was used on only one position as a ~~hydrog~~ was not put on the sheet. The scaled DM's and DP's taken from the topo sheet as $41^{\circ}08'$ 1132.0m; $72^{\circ}15'$ 118.0 m. will be found in the northeast corner of the sheet in pencil.

The discrepancies noted in the descriptive report were found as stated, except that the Long. of the first discrepancy should be $72^{\circ}17.1'$ instead of $72^{\circ}18.1'$.

G. C. McGlasson
G. C. McGlasson.

Forwarded. Approved.
George S. Corrie.
Chief of Party.

The entrance to Long Beach Bay is marked with black (privately maintained) spar buoys to be left on the port side when entering the bay (heading east). The channel in the bay is marked part way up with a line of piles on both sides of the channel and the remainder of the way with temporary channel stakes to be left on the port side when going up the channel (heading north). The slips at the north end of the channel has a controlling depth of about 8 feet. controlling depth as shown on Sheet is 5 ft ✓

The entrance to Sterling Basin is not marked but deep water may be found in the center of the entrance. ✓

The entrance to Dering Harbor is marked with a red nun buoy. A flat extends to the southwestward of this buoy. "N2" ✓

ANCHORAGES:

The northwest side of Orient Harbor is a very good anchorage. ✓

Dering Harbor is a good anchorage.

Sterling Basin is a good anchorage for small craft.

SHIP SWING:

A good range for a ship swing is Greenport Jetty Light (triangulation station "Bea") and Sage Brick Co. Chimney (triangulation station "Tall". The swing may be made to the eastward of Hay Beach Point. The range passes about 25 meters to the southward of the Socony Oil Tanks in the Greenport water front.

CURRENTS:

The currents are strongest to the northward of signal "Rock" with a maximum force of approximately 2.5 knots setting in a direction parallel with the channel. The next strongest is in the vicinity of Fanning Point; 2 knots approximately with channel. At vicinity of Long Beach Light House 2 knots approximately N.W. - S.E. direction. At Hay Beach Point $1\frac{1}{2}$ to 2 knots, parallel with channel. 4 ✓

* * * * *

Report by
Lieut. P. C. Doran
Boat Sheet No. 6 H-5383

SURVEY METHODS:

Standard sextant fixes on shore objects were used for position

finding. All soundings were with hand lead and line from small launch. ✓
All signals were located by triangulation or topography.

DISCREPANCIES:

In general the soundings as plotted on the boat sheet from predicted tides agree very well throughout. When all reducers are applied closer agreement is anticipated. ✓

DANGERS:

A rock with $1\frac{1}{2}$ ft. at 2:25 P. M. , Oct. 26, 1933 was located south of a red and black horizontal striped buoy at Lat. (41-01.1) and Long. (72-14.05) ✓
H5381
(41-02.9)

A rock with 5 feet at 3:45 P. M., Oct. 26, 1933 was located between N 4 and Nichols Point. ✓

A rock was located on the south side of Orient Point. The beach from the steamer wharf at Orient Point westward to the limits of the sheet are clear and sandy. ✓

COMPARISON WITH PREVIOUS SURVEYS:

The general location of rocks and outlines of shoals agree with the depths as shown on chart "298".

Submitted by
R. C. Wilder
Chief of Party

U. S. Custom House,
New York, N. Y.,
23 February 1934.

5383

To: The Inspector, New York Field Station,
U. S. Coast and Geodetic Survey,
Custom House, New York City.

From: G. C. McGlosson.

Subject: Report on Hydrographic Sheet No. 6, from Captain Wilder's Party.

The shoreline on this sheet has been omitted due to the fact that the aerial topographic sheet has not been completed.

Position 68g, vol. 2, page 66, seems to be in error. It is plotted as recorded in the sounding records and it agrees with the boat sheet. But upon inspecting the aerial photograph we find the shoreline very even and regular and it appears that this position is plotted upon the shore. However, when the aerial topographic sheet is completed, this position can be verified and disposition made of it at that time.

*Plot made "Emp" as
left signal. This
is confirmed by
re-sounding range, etc.*

Soundings on this sheet in a number of cases were taken at 15 second intervals. Consequently, they are very, very close together when plotted. In such places, in order to make the work clear and legible, every other sounding was omitted except in critical places. The bottom is even and smooth and the omission of these soundings does not destroy the value of the sheet.

G. C. McGlosson

G. C. McGlosson.

February 23, 1934.

5383

Smooth Sheet No. 6 has been examined by George D Cowie, Inspector,
New York Field Station, and found satisfactory.

George D. Cowie

George D Cowie, Inspector,
New York Field Station

List of Signals on Hydrographic Sheet No. 4
(geographically arranged)

Hydro. Name	Location	Hydro. Name	Location
Bid	Topo, Sheet D	Tip	Topo, Sheet G
Kat	" " D	Til	" " G
Mud	" " D	Con	" " D
Gos	Goose, 1933	Met	" " D
Hap	Topo, Sheet D	Tor	" " D
Chim	" " G	Nes	" " D
War	" " G	Ver	" " D
Lan	" " G	Cab	" " D
Set	" " G	Bon	" " D
See	" " G	Jar	" " D
Win	" " G	Haf	" " D
Mes	" " G	Lam	" " D
Var	" " G	Mit	" " D
Rom	" " G	Bay	" " D
Bes	" " G	Bet	" " D
One	" " G	Ink	" " D
Par	" " G	Zon	" " D
Hap	" " G	Cit	" " D
Vil	" " G	Zip	" " D
Cot	" " G	Ed	" " D
Mag	" " G	Rat	" " D
Cul	" " G	Tic	" " D
Eat	" " G	Tik	" " D
Fis	" " G	Cur	" " D
Mul	" " G	Dol	" " D
Gar	" " G	Pup	" " D
Sir	" " G	Gas	" " D
Sou	" " G	Ser	" " D
Pos	" " G	Ten	" " G
Sal	" " G	Tim	" " G
Bar	Barcelona, 1933	Dep	" " G
Lit	Topo, Sheet G	Tre	" " G
Wat	" " G	On	" " G
Bit	" " G	Tut	" " G
Do	" " G	Cup	" " G
Nut	" " G	Pat	" " G
Lig	Sand Spit Light, 1933	Nab	" " G
Sag	Sag Hbr. Church, 1933	Don	" " G
Dum	Topo, Sheet G	Don	" " G
Jet	Sag Hbr. Jetty Light, 1933	Ned	" " G
Tan	Topo, Sheet G	Pea	" " G
End	" " G	Wag	" " G
Ren	" " G	---	Farnum, 1933
Gra	" " G	Del	Topo, Sheet G
Cra	" " G	Cam	" " G
Qld	" " G	Doc	" " G
Tel	" " G	Van	" " G
Pol	" " G	Gen	" " G
Ray	" " G	Tap	" " G
Les	" " G	Pop	" " G
Nit	" " G	Red	" " G
Top	" " G	Abe	" " G
Nue	" " G	Cook	Cook, 1933

Sheet 4 (Contd)

Hydro. Name	Location		Hydro. Name	Location
Ink	Topo, Sheet	G	Los	Topo, Sheet C
Bar	" "	G	Wat	" " C
Eye	" "	G	Dil	" " C
Ebb	" "	G	Lof	" " C
Cam	" "	G	Non	" " C
Man	" "	G	Tux	" " C
Cap	" "	G	Ola	Ward's Cupola, 1933
Pug	" "	G	Gab	Topo, Sheet G
Bank	" "	G	Gat	" " G
Kid	" "	G	Ros	" " G
Lux	" "	G	Ram	Hydro, Page 5, Vol. 1
Dep	" "	G	Lot	" " 5, " 1
Had	" "	G	Nic	Nichols Cupola, 1933.
Mil	" "	G	Si	Topo, Sheet G
Pet	" "	G	Dan	" " G
Dul	" "	G	Pod	" " G
Sex	" "	G	Can	" " G
Rap	" "	G	Dip	" " G
Pie	" "	G	Fur	" " G
Bug	" "	G	Dot	" " G
Long	Long, 1933		Rip	" " G
Hac	Topo, Sheet	D	Net	" " G
Ile	" "	C	Lum	" " G
Ter	" "	C	Dos	" " G
East	" "	C	Hed	" " G
Nor	" "	C	Flu	" " G
West	West, 1933		Mon	" " G
Tit	Topo, Sheet	C	Din	" " G
Ruk	" "	C	Har	" " G
Mot	" "	C	Out	" " G
Fag	" "	C	Ole	Nichols, 1933
Pal	" "	C	Zat	Topo, Sheet D
Not	" "	C	Mum	" " D
Bon	" "	C	Ach	" " D
Met	" "	C	Nan	" " D
Wer	Westmoreland Water Tank, 1933		Ties	" " D
Wis	Topo, Sheet	C	Dar	Cedar Id. Lt., 1933
Tot	" "	C	Hit	Topo, Sheet G
Nol	" "	C	Nat	" " G
Ran	" "	C	Sol	" " G
Pin	" "	C		
Nit	" "	C		
Rag	" "	C		
Wop	" "	C		
Lat	" "	C		
Tow	" "	C		
Pot	" "	C		
Bus	" "	C		
Sky	" "	C		
Rap	" "	C		
Led	" "	C		
Cut	" "	C		
Hat	" "	C		
Tom	" "	C		

List of Signals on Hydrographic Sheet No. 5
(geographically arranged)

Hydro. Name	Location	Hydro. Name	Location
Ach	Topo, Sheet D	Joe	Topo, Sheet E
Nan	" " D	Mac	" " E
Ties	" " D	Pod	" " E
Car	" " D	Pea	" " E
The	" " D	Bun	" " E
Sir	" " D	Hen	" " E
Wel	" " D	San	" " E
Sic	" " D	Coe	Coeëles - 1933
Can	" " D	Leg	Topo, Sheet E
Loe	" " D	Sun	" " E
Ner	" " D	Flag	Dering Hbr. Flagpole - 1933
Pos	" " D	Any	Topo, Sheet E
Pan	" " D	One	" " E
Erb	" " D	Few	" " E
Cal	" " D	Luv	" " E
Hos	" " D	Nab	" " E
Ros	" " D	Ted	" " E
Nor	" " D	Gut	" " E
Pre	" " D	Mel	" " E
Chu	" " D	Kis	" " E
Pin	" " D	Gob	Co. Eng. Station, Hay Beach - 1933
Sap	" " D	Ches	Topo, Sheet H
Las	" " D	Whi	" " H
Por	" " D	Red	" " H
Que	" " D	Luk	" " H
Low	" " D	Sac	" " H
Gen	" " D	Bit	" " H
Una	" " D	Rye	" " H
Fay	" " D	Ale	" " H
Nue	" " D	Oak	" " H
But	" " D	Gin	" " H
Hat	" " D	Tre	" " H
Ate	" " D	Dam	" " H
Rip	" " D	Rig	" " H
Air	" " D	Bag	" " H
Tab	" " D	Hut	" " H
Imp	" " D	Soc	" " H
Log	" " D	Pay	" " H
Bac	" " D	Tel	" " H
Bug	" " D	On	" " H
Ump	" " D	And	Island - 1933
Ram	Ram - 1933	Bab	Topo, Sheet H
Chim	Topo, Sheet E	Head	" " H
Gas	" " E	Box	" " H
Tez	" " E	Way	" " H
Sex	" " E	Rock	" " H
Shel	" " E	Sq	Sanford Brick Co. Chy -- 1933
May	" " E	Tall	Sage Brick Co. Chy - 1933

Sheet 5 (Contd)

Hydro. Name	Location		Hydro. Name	Location	
Kam	Wickam - 1933	.	Ren	Topo, Sheet	E
Tur	Topo, Sheet	H	Fan	" "	E
Clo	" "	H	Bag	" "	E
Mut	" "	H	Hoc	" "	E
Gun	" "	H	Sot	" "	E
Gus	" "	H	Reds	" "	E
Wim	" "	H	Mon	" "	E
Puc	" "	H	Dogy	" "	E
Bk	" "	H	Bens	Bens - 1933	
Pol	Greenport S. H. Cupola -1933	.	Sin	Topo, Sheet	E
Grey	Topo, Sheet	H	Ban	" "	E
Chi	" "	H	Clay	" "	E
Lip	" "	H	Bat	" "	E
Ame	" "	H	Big	" "	E
Chur	" "	H	Wel	" "	E
Div	" "	H	Pad	" "	E
Sto	" "	H	Art	" "	E
Rat	" "	H	Lit	" "	E
See	" "	H	Bar	" "	E
End	" "	H	Long Beach Lt. Ho. - 1933		
Tar	" "	H			
Dix	" "	H			
Pig	" "	H			
But	" "	H			
Pen	" "	H			
Gul	" "	H			
She	" "	H			
Peg	" "	H			
Bea	Greenport Jetty Light - 1933	.			
Shy	Topo, Sheet	H			
Him	" "	H			
Net	" "	H			
Map	Co. Eng. Sta., Greenport, 1933	.			
Bum	Topo, Sheet	H			
Top	" "	E			
Of	" "	E			
His	" "	E			
Ate	" "	E			
Ham	" "	E			
Six	" "	E			
Oct	Edwards Cup - 1933	.			
Ten	" "	E			
Pil	" "	E			
Tom	" "	E			
Cong	Orient Cong. Ch. - 1933	.			
War	Topo, Sheet	E			
Tank	Douglass Water Tank - 1933	.			
Cat	Topo, Sheet	E			
Dog	" "	E			
Kit	" "	E			
Ewe	" "	E			

List of Signals on Hydrographic Sheet No. 6
(geographically arranged)

Hydro. Name	Location	.	Hydro. Name	Location
Dar	Cedar Id. Lt. Ho. - 1933	.	Reds	Topo, Sheet E
Ole	Nichols - 1933	.	Ter	" " E
Sir	Topo, Sheet D	.	Bate	" " E
Ram	Ram - 1933	.	Com	" " E
Long	Long Beach Lt. Ho. - 1933	.	Al	" " E
Bar	Topo, Sheet E	.	Cha	" " E
Lit	" " E	.	Doc	" " E
Art	" " E	.	Yel	Latham Windmill - 1933
Pad	" " E	.	B	Topo, Sheet E
Wel	" " E	.	A	" " E
Big	" " E	.	Ed	" " "
Cate	" " E	.	Or	Orient Pt. Lt. Ho. - 1933
Bo	" " E	.	Plum	Plum Id. Lt. Ho. - 1933
End	" " E	.	Stack	Brick Stack - 1933
Ban	" " E	.	Ruin	Ruin - 1933
Gab	" " E	.	Crow	Crow - 1933
Tue	" " E	.	Hog	Hog - 1933
Pup	" " E	.	---	Fireplace, Green Tank - 1928
Chime	" " E	.	Box	Topo, Sheet D
Bens	Bens - 1933	.	Thre	Three Point - U.S.E.D. - 1933
Dogy	Topo, Sheet E	.	Gos	Goose - 1933
Mon	" " E	.		

Statistics for Hydrographic Sheets.

Sheet Number	No. of Vols.	No. of Positions	No. of Soundings	Stat. Miles of Soundings
1	23	6792	35815	790.4
2	7	2058	9355	179.3
3	24	8118	34141	857.4
4	16	4516	22812	492.8
5	21	6383	31973	705.5
6	4	1304	6396	206.3

April 25, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 5381

Locality Shelter Island Sound, Long Island, N. Y.

- Chief of Party: L. C. Wilder in 1933
- Plane of reference is mean low water, reading
- 2.0 ft. on tide staff at Noyack Bay
- 13.1 ft. below B. M. 1
- 1.1 ft. on tide staff at Sag Harbor
- 10.2 ft. below B.M. 1
- 0.7 ft. on tide staff at Cedar Island Light
- 6.5 ft. below B.M. 1
- 2.2 ft. on tide staff at West Neck Harbor
- 8.4 ft. below B.M. 1
- 1.4 ft. on tide staff at Sag Harbor Cove (North)
- 8.0 ft. below B.M. 1
- 0.7 ft. on tide staff at Sag Harbor Cove (South)

~~Condition of records satisfactory except as noted below:~~

8.0 ft. below B.M. 1.

Height of mean high water above plane of reference is 2.3 ft. at Noyack Bay and West Neck Harbor; 2.5 ft. at Sag Harbor, Cedar Island Light and Sag Harbor Cove (North); 2.6 ft. at Sag Harbor Cove (South).

Condition of records satisfactory ~~except as noted below:~~

Paul C. Whitney
Chief, Division of Tides and Currents

KAC

April 14, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
21 volumes of sounding records for

HYDROGRAPHIC SHEET 5382

Locality Greenport Harbor and Orient Harbor, Long Island, N. Y.

Chief of Party: L. C. Wilder in 1933

Plane of reference is mean low water, reading

4.8 ft. on tide staff at Greenport

8.3 ft. below B. M. 5

1.0 ft. on tide staff at Orient Bay

8.7 ft. below B.M. 1

1.9 ft. on tide staff at Three Mile Harbor Jetty

11.8 ft. below B.M. 1

1.7 ft. on tide staff at Long Beach Bay (No bench marks)

1.2 ft. on tide staff at Coecles Harbor

6.0 ft. below B.M. 1

0.7 ft. on tide staff at Cedar Island Light

6.5 ft. below B.M. 1

~~Condition of records satisfactory except as noted below:~~

Height of mean high water above plane of reference is
approximately 2.5 feet.

Condition of records satisfactory except as noted below:

Harriman
Chief, Division of Tides and Currents

240

March 12, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5383

Locality Orient Point to Long Beach Point, Gardiners Bay, L. I., N.Y

Chief of Party: L. C. Wilder in 1933

Plane of reference is mean low water, reading

4.8 ft. on tide staff at Greenport (allowance of 45 minutes earlier

8.3 ft. below B. M. 5 made for time of tide on working
grounds)

1.9 ft. at Three Mile Harbor Jetty

11.8 ft. below B.M. 1

Height of mean high water above plane of reference is 2.4 ft.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5381 (1933)

Shelter Island Sound, Eastern Long Island, New York
Surveyed September - November, 1933
Instructions dated March 17, 1933 (L. C. Wilder)

Hand Lead and Pole Soundings

3 Point Fixes on Shore Signals

Chief of Party - L. C. Wilder.
Surveyed by - J. F. McIlwain, E. B. Brown.
Protracted by - M. A. Morelli, E. E. Mumaw.
Soundings penciled by - R. Stephenson, H. L. Hawkins.
Verified and Inked by - P. H. Scherr.

1. Condition of Records.

The sounding records in general conform to the requirements of the Hydrographic Manual. One recorder used the abbreviation "H" instead of "hrd"; The Descriptive Report has a number of errors in statements, especially under the paragraph "Discrepancies."

2. Compliance with Instructions for the Project.

General compliance with instructions is satisfactory.

Attention is called to the position of buoy N14 (see paragraph 7b(2) this review) which was located on the present survey 100 meters out of its charted position. Since the new position constituted a menace to navigation, the Chief of Party should have advised the district Superintendent of Light Houses at once. The D. R. contains no statement that the Superintendent of Light Houses was so advised.

3. Sounding Line Crossings.

Soundings generally are consistent and agreement at crossings is good.

4. Depth Curves.

Depth curves can be drawn satisfactorily, including most of the 6 foot curve and portions of the low water curve.

5. Junction with Contemporary Surveys.

The junction with H-5383 (1933) to the northeast is adequate and the agreement in depth is generally good. There are a few differences of 1 and 2 feet.

The junction with H-5382 (1933) to the northward is satisfactory.

The sheet joins H-5380 (1933) southward of West Neck Harbor. This junction will be considered in the review of that sheet.

The junction on the east with H-5514 (1934) is satisfactory.

6. Comparison with Prior Surveys.a. H-2082 (1891).

This survey is in only fair general agreement with the present survey. In some areas, such as that north of Cedar Island, there have been radical changes, while in others the differences are not so marked but there is evidence of a shifting in position of the channels and shoalings. Among the differences noted are the following:

- (1) The 4 ft. rock northwest of buoy N6, lat. $41^{\circ}02.3'$, long. $72^{\circ}16.3'$, was located about 100 meters westward of its charted position, which originates from a red sounding of uncertain origin shown on H-2082 and has been carried continuously on the charts in that position. (Oldest standard available 1908). The new location and depth should be accepted as the records show a careful search of the area with an improvised drag before the rock was actually located by strong fixes.
- (2) The 18 foot curve north of Cedar Island Light has changed radically. There is no question about the accuracy and the sufficiency of the present survey in the vicinity.
- (3) The former survey shows 3 rocks bare $1\frac{1}{2}$ to 2 feet on the shoal marked by Sand Spit Light (lat. $41^{\circ}01.1'$, long. $72^{\circ}16.9'$). The present survey shows only two, bare 1 foot at MLW. The additional rock was verified in the records of H-2082, 1891 (pos 5a Dinghy) and has been carried forward to the new survey.

The bare sand spot just northward of the position of the light may well have disappeared and has not been added to the new survey.

- (4) The shoaling just south of black buoy C13 is substantially the same except for the charted rock awash in lat. $41^{\circ}00.52'$, long. $72^{\circ}17.35'$. This originates from a zero sounding in the records of H-2082 (1891). A search by the present field party failed to reveal any rock awash but located a rocky patch with depths of 3 feet (pos. 9b-12b). The rock awash symbol should be discontinued in future charting.
- (5) The four sanded spots (charted) with depths of 17 and 18 feet, in the channel east of North Haven between red buoys N12 and N14, were not found on the present survey. The latter covered this area quite closely and searched for these spots without finding them in the position shown on the old survey. There is evidence of shifting and deepening, and the new development should be accepted for this area.

- (6) A 17 foot spot (charted) at FLW buoy No. 15, off the north-east end of North Haven (lat. $41^{\circ}02.6'$, long. $72^{\circ}18.7'$) falls in depths of from 20 to 22 feet on the present survey. The new development is quite open at this point and the depth given in the light list at the time the buoy was planted (date not given) is 16 feet. The 17 foot sounding has therefore been added to H-5381 (1933) and should be retained on the chart.
- (7) After a study of the two surveys, those critical soundings from H-2082 (1891) which are in areas where the surrounding soundings are in agreement and which are not considered disproved have been added to H-5381 (1933). The entire area has probably been subjected to some change in a period of 42 years and other differences appear to be the result of natural causes. With the indicated additions, the present survey, within the area covered, should supersede H-2082 (1891) in future charting.

b. H-2083 (1891).

This survey covers the area in the vicinity of West Neck Harbor and is in general agreement with the present survey which is much more detailed and should supersede H-2083 (1891) within the common area.

c. H-1543 (1882).

This survey covers the area on the eastern limits of the present survey at the entrance to Gardiners Bay. It is in only fair agreement with the present survey and there is evidence that some changes have occurred.

- (1) The 13 foot charted shoal north of Cedar Point Light is shown on H-1543 (1882) in red but actually originates with H-82 (1839). The present survey disproves the existence of this shoal.
- (2) The middle ground northward of Cedar Point has narrowed and the channel to the south of it has deepened. The 18 foot curve on the south side of the channel has changed greatly. The $13\frac{1}{2}$ foot shoal about 200 meters west of buoy C3 has receded so that the 18 foot curve is almost straight in this vicinity.
- (3) The bare rock charted in approximate lat. $41^{\circ}03.0'$, long. $72^{\circ}14.0'$ originates from a rock awash symbol shown on H-1543 (1882) and a charted 1 foot spot, about 250 meters south of it, also originates from that sheet. When investigated it was found that both the rock awash and the 1 foot spot were one and the same rock and both were incorrectly shown on H-1543 (1882). They should be removed from the chart in favor of the rock awash located on both H-5514 (1934) and the present survey in about lat. $41^{\circ}02.9'$, long. $72^{\circ}14.07'$. For the complete discussion of this matter see the review of H-5514 (1934), par. 6d(3).

- (4) The 2 foot spot charted in lat. $41^{\circ}02.9'$, long. $72^{\circ}13.8'$ was found to have been erroneously plotted on H-1543 (1882). It should have been $12\frac{1}{2}$ feet and the 2 should be removed from the chart.
- (5) The entire inshore area east of Shelter Island appears to have changed considerably.

The present survey should supersede H-1543 (1883) for charting the area common to both of them, because of the evidence that changes have occurred.

d. H-78 (1838) and H-82 (1839).

These surveys need not be considered in detail. Many changes have taken place, both natural and artificial. The present survey is detailed and should supersede these sheets in future charting.

7. Comparison with Chart No. 298.

- a. Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs, with the exception of a small area north of Sag Harbor where some of the soundings originate with Engr's. Bp. 12384 (1906) and an 8 foot sounding off the end of the breakwater from chart letter No. 479 (1925). This information should be superseded by the soundings of the present survey.

b. Aids to Navigation.

The following buoys were located in positions considerably different from their charted positions. The remaining buoys which are not mentioned are substantially in their charted positions.

- (1) The H. S. buoy, which marks the position of a rock, was located in lat. $41^{\circ}02.95'$, long. $72^{\circ}14.1'$, about 275 meters southwest from its charted position. The charted position marks the incorrect position of the rocks (see par. 6c(3)).
- (2) Red buoy N14 was located about 100 meters east of its charted position in lat. $41^{\circ}02'$, long. $72^{\circ}18'$. The new position of this buoy is a menace to navigation since it is charted on the west side of a middle ground shoaling but is actually on the east side of the shoal. A vessel passing close to the new position of the buoy would run directly over the shoal.
- (3) Red buoy N4, east of Nichols Pt., was located approximately 120 meters ESE from its charted position.

- (4) Red buoy N6, west of Cedar Island, was located approximately 200 meters south of its charted position.
- (5) FLW buoy No. 15, off the northeastern end of North Haven, ~~was~~ located in nearly the same position as charted, however a marker buoy which is not charted was also located.

8. Field Plotting.

The protracting and plotting of soundings was very well done.

9. Doubtful Soundings.

- a. An 11 foot sounding in lat. $41^{\circ}02.45'$, long. $72^{\circ}16.3'$ appears to be a fathom in error, however there was no basis for rejecting it in the office, as it agrees with the boatsheet and there was a check mark opposite it in the records. (pos. 129-130j - Vol. 4, p. 62).
- b. A 9 foot sounding in lat. $41^{\circ}01.4'$, long. $72^{\circ}17.2'$ also appears to be one fathom in error. The previous survey shows a minimum depth of 15 feet at this point. The 9 foot sounding was not check marked in the record. (pos. 149-150d, blue, Vol. 2 B.48).

10. Additional Field Work Recommended.

The two doubtful soundings, described in paragraph No. 9, should be investigated.

11. Superseding Old Surveys.

Within the area covered, the present survey, with the indicated additions from previous surveys, will supersede the following surveys for charting purposes.

H- 78 (1838) in part.
H- 82 (1839) " "
H-1543 (1882) " "
H-2082 (1891) " "
H-2083 (1891) " "

12. Reviewed by - R. J. Christman and R. L. Johnston, January, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

R. O. Abbott
Chief, Division of Charts.

J. B. Rowden
Chief, Section of Field Work.

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

SECTION OF FIELD RECORDS

Verification

Report on H-5381

Chief of party - L.C.Wilder

Protracted by M.A.Norelli, E.E.Mumaw

Verified and inked by P.H.Scherr

Surveyed in Sept.-Nov., 1933.

Surveyed by J.F.McIlwain, E.B.Brown

Soundings plotted by R. Stephenson, H.L.Hawkins

Topography inked by

- 1.- The records conform to the General Instructions with the following exceptions;
 - Bottom characteristics were not sufficiently given in several of the volumes. Those that were given were not always entered at the top of the page.
 - The geographical locations of the first and last positions of lines were not given.
 - Changes in course are not entered, except for 180° or 90° turns.
- 2.- The usual depth curves were drawn.
- 3.- The field plotting was complete to the extent prescribed in the General Instructions with the following exception;
 - In cases where soundings became crowded some were omitted by the smooth sheet plotter.
- 4.- The office draftsman made a sub-sketch on the smooth sheet to delineate more clearly the soundings surrounding the docks in Sag Harbor.
- 5.- A junction with hydrographic sheet 5383 was made which was satisfactory. This was the only junction made as the other adjoining sheets H-5380 and H-5382 have not been verified as yet.

6.- Remarks

a.- A notation of "Sand spit" is lettered at latitude $41^{\circ}02'.8$; longitude $72^{\circ}21'.1$. A notation of "Jetty" appears at latitude $41^{\circ}02'.8$; longitude $72^{\circ}20'.5$. The stone jetties as indicated in Sag Harbor are mentioned on parallel sounding lines. These remain to be checked against the topographical sheet. The shore line also must be added when it is received.

b.- A 58 sounding appears at latitude $41^{\circ}00'.6$; longitude $72^{\circ}16'.7$ which is surrounded by greater depths. (P.19, Vol.8) *check marks against this in record*

This is the second sounding obtained on 5 days and may be 1 or 2 fathoms in error. However there is no basis for rejecting it since it was OK'd in record, close to 6 feet shall and not of great importance.

c.- A dolphin is indicated which is just off the pier in Sag Harbor. (P.53, Vol.10). *Roly*

d.- The buoy "N 14" (latitude $41^{\circ}02'.0$; longitude $72^{\circ}16'.7$) as plotted on the smooth sheet does not agree with the chart. *14.0*

The new position of this buoy is a menace to navigation, since it is on the east side instead of the west side of the middle ground shoaling.

e.- There are two different buoys located by positions 6a and 7a (Ps 4 and 5, Vol.1) latitude $41^{\circ}02'.6$; longitude $72^{\circ}18'.7$, of which two only one is located on the chart. *Probably the marker buoy is not shown on the chart.*

f.- The red nun buoy (P-14, Vol.4, latitude $41^{\circ}01'.2$; longitude $72^{\circ}16'.4$) was penciled on the smooth sheet as "N8 Fl R". Neither the records nor the chart show it to be a flashing buoy and it was inked as shown on the chart. *Clearly an error by the plotter.*

g.- The rock noted in the records (P.20, Vol.7) is not given a description. It was inked with a rock awash symbol with no notation.

h.- No descriptions of the fish nets (Ps 46 and 47, Vol.7) which are located in Northwest Harbor, are given. Just the notations were inked.

(lat 41-02.45)
(long 72-16.3)
i.- There is an 11 ft. sounding on the line 129-130J (P.62, Vol.4) G.C. Meglosson calls attention to it in his report. *No basis for rejecting as it checks BS. and is OK'd in record, altho it looks to be 1 fm in error.*

j.- The 22' sounding on position 68c (green) (P.58, Vol.9) was rejected. The original entry had been changed.

(Sag Harbor Cove)

- k.- Signal "JET" , on the end of the stone jetty in Sag Harbor is a flashing light. No symbol was placed there. ✓
- l.- Halves were added in some cases to six and twelve ft. soundings. This was done to straighten out the depth curves. ✓
- m.- Crossings are fairly consistent with each other on the sheet.
- n.- The entries in the records for position 2e, (P. 55, Vol. 2) concerning the rocks are not clear. They remain to be checked against the air photo sheets when are received.
- 7.- The quality of the work was good. The protracting was well done and the errors in the penciling of the soundings were held to a minimum.

Respectfully submitted,

Paul H. Scherr

Paul H. Scherr

June 12, 1934.

GEOGRAPHIC NAMES

Survey No. 5381

Date. _____

Chart No. 1212 289

Diagram No. _____

Approved by the Division of Geographic Names, Department of Interior. ✕

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>West Neck Bay</u>				
	<u>West Neck Creek</u>				
	<u>West Neck Harbor</u>				
	<u>South Ferry</u>				
	<u>Shelter Island</u>				
	<u>North Haven</u>				
	<u>Noyack Bay</u>				
	<u>Mashomack Point</u>				
	<u>Nichols Point</u>				
	<u>Barcelona Neck</u>				
	<u>Barcelona Point</u>				
	<u>Northwest Creek</u>				
	<u>Cedar Island</u>				
	<u>Cedar Point</u>				
	<u>Northwest Harbor</u>				
	<u>Gardiners Bay</u>				
	<u>Sag Harbor</u>				
	<u>Sag Harbor Cove</u>				
		<i>Hold for comparison with T-5338</i>			
		APPROVED NAMES UNDERLINED IN RED H. L. FLEMING			

GEOGRAPHIC NAMES

Date. Dec. 4, 1934

Chart No. 298

*Names underlined in red approved Dec 5, 1934.
H. Bacon*

Diagram No. 1212

* Approved by the Division of Geographic Names, Department of Interior.

⊘ Not Approved by the Division of Geographic Names, Department of Interior.

⊙ Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	SHELTER ISLAND	<u>SHELTER ISLAND</u> ✓	✓		
	RAM ISLAND	<u>RAM ISLAND</u> ✓	✓		
	RAM HEAD	<u>RAM HEAD</u> ✓	✓		
	HAY BEACH PT.	<u>HAY BEACH PT.</u> ✓	✓		
	DERING PT.	<u>DERING PT.</u> ✓	✓		
	SHELTER ISLAND HEIGHTS	<u>SHELTER ISLAND HEIGHTS</u> ✓	✓		
	JENNINGS PT.	<u>JENNINGS PT.</u> ✓	✓		
	CONKLING PT	<u>CONKLING PT</u> ✓	✓		
	FANNING PT	<u>FANNING PT.</u> ✓	✓		
	GREENPORT (This name was not on sheet)	<u>GREENPORT</u> ✓	✓		
	YOUNGS PT	<u>YOUNGS PT</u> ✓	✓		
	CLEAVES PT.	<u>CLEAVES PT.</u> ✓	✓		
	PETERS NECK PT	<u>PETERS NECK PT</u> ✓	✓		
	BROWNS PT	<u>BROWNS PT.</u> ✓	✓		
	LONG BEACH PT	<u>LONG BEACH PT</u> ✓	✓		
	LONG BEACH	<u>LONG BEACH</u> ✓	✓		
	GARDINERS BAY	<u>GARDINERS BAY</u> ✓	✓		
	LITTLE BAY	<u>LITTLE BAY</u> ✓	✓		
	LONG BEACH BAY	<u>LONG BEACH BAY</u> ✓	✓		
	ORIENT HARBOR	<u>ORIENT HARBOR</u> ✓	✓		
	GREENPORT HARBOR	<u>GREENPORT HARBOR</u> ✓	✓		
		SEE NEXT SHEET.			

GEOGRAPHIC NAMES

Survey No. H-5382

Chart No. 298+1211

Diagram No. 1212

Date. _____

*Names underlined in red approved Dec. 5, 1934
H. Bacon*

* Approved by the Division of Geographic Names, Department of Interior.

⊘ Not Approved by the Division of Geographic Names, Department of Interior.

⊘ Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
⊘	<u>DERING HARBOR</u>	<u>DERING HARBOR</u> ✓	✓		
	<u>PIPES COVE</u>	<u>PIPES COVE</u> ✓	✓		
	<u>COECKLES HARBOR</u>	<u>COECKLES HARBOR</u> ✓	USGB ✓		
	<u>STERLING BASIN.</u> <i>(This name was not on sheet)</i>	<u>STIRLING BASIN</u> ✓	✓		
	SOUTHOLD BAY	SOUTHOLD BAY			
	<u>SHEEPSHEAD RK</u>	<u>SHEEPSHEAD RK.</u>			
	<u>SOUTHOLD BAY</u>	SOUTHOLD BAY			
		<i>As only a small fraction of Shelter Island Sound and Southold Bay appear on this sheet, would omit the name. H.B.</i>			

REPORT ON H-5382.

The records conform to the requirements of the general instructions except that on P' day the time the soundings were taken was not recorded. This made it difficult to properly locate the soundings especially where the depths changed considerably.

The usual depth curves could be drawn. The area was in general very completely covered.

The field plotting was complete. The major portion of the topography was obtained from aerial photographs so that the verifier had to draw the shore line on this sheet as obtained from the air-photo compilation sheets. At that time these air-photo compilation sheets had not as yet been reviewed. All discrepancies between shore line and hydrography were taken up with Mr. B. G. Jones. The verifier also had to make a sub-sketch of Greenport Harbor and vicinity, to an enlarged scale, 1:5,000, in order to show the hydrography of this area. The field plotter usually did not take the change of the time interval into account, especially in the western part of the sheet where the depths vary considerably.

There are 3 adjoining sheets, H-5380, H-5381 and H-5383. The junction with H-5381 and H-5383 is satisfactory. The depth curves in the overlapping area on these sheets were revised to agree with those on this sheet H-5382. The junction with H-5380 is not as good, the major discrepancies are: A 60 ft. sounding from H-5380 falls in deeper water on this sheet (Lat. 41-04.4, long. 72-23.3), and a 48 ft. sounding in H-5380 falls on a 35 ft. on this sheet (lat. 41-04.5, long. 72-23.4). The depth curves in the overlapping area of H-5380 were not changed to conform to those on this sheet since H-5380 has not as yet been completely verified.

The breakwater shown at lat. 41-05.9, long. 72-20.3, was not shown on the air-photo compilation sheet. This breakwater is located on page 37 of Vol. 18 position 152m'.

Positions 45 to 52L were not plotted. See note in this descriptive report by G. C. McGlosson regarding these positions. The opening between the two jetties referred to by McGlosson agrees with the air-photo compilation sheet. ~~There apparently is something wrong with BS. Shows bend these lines.~~ Pos. 45 and 49 in line between Pos. to go between jetties

Soundings on lines 30-31r and 149-151h were not plotted. The speed of the vessel was considered too great.

* The dimensions of Dock "19" as recorded on pages 15 and 16, Vol. 19, don't agree with the dock shown on T-6016 or that on the compilation. The soundings were spaced uniformly along the dock. air photo.

* Delineation of Dock as shown on Tops. retained on Smooth sheet.

Bad Crossings:

1. A 17 ft. sounding on position 9p' does not check the surrounding soundings, lat. 41-06.1, long. 72-21.45. maximum of 2ft. discrepancy
2. A 30 ft. sounding, 300 m. S of Δ Long on position 81b' falls on a 40 ft. sounding of crossing line 181-182g'. By changing the angle of position 81b' from 41-10 to 42-10 the line would be straightened out and better agreement with the crossing line would result. Plotted with change as mentioned
3. Crossing of line 104-105x with other lines is not so good (about 200 m. W of Δ Long). not excessive
4. A 35 ft. sounding on line 67-68p' taken at 3:47 p.m. (lat. 41-05.7, long. 72-21.1) does not appear correct. The time fix 68p' was taken at 3:47 p.m. (lat. 41-05.7, long. 72-21.1) does not appear correct. The time fix 68p' was taken is not definite. time is ok. Steep slope may account for the 35ft depth.
5. An 11 ft. sounding on line 76-77s (lat. 41-08.3, long. 72-18.9) does not appear correct. This area was developed on n' day (79-90n') and 15 ft. was the minimum depth found. It is believed that this sounding was in error by 1 fathom and should be 17 ft. 11ft. sounding not plotted J.C.H.
6. An 11 ft. sounding on line 34-35y (lat. 41-05.5, long. 72-17.1) was not inked by the verifier. This area was developed on L' day (138-172L') and no 11 ft. sounding was found. See note of hydrographer on page 61 of Vol. 17 where he states he believes the lead line was read 1 fm. in error. ✓
7. A 15 ft. sounding on line 184 to 185p' (lat. 41-04.5, long. 72-16.5) does not agree with adjoining soundings. 15 ft. retained on sheet.
8. A 19 ft. sounding on line 41-42a (lat. 41-05.4, long. 72-22.0) does not agree with adjoining soundings. Slight discrepancy - only
9. An 8 ft. sounding on line 102-103e', extreme NE end of sheet, does not agree with adjoining soundings. Surrounding soundings about 1 fath. shallower than one fath. too deep, otherwise no excuse for rejection retained on sheet. J.C.H.
10. A 15 ft. sounding on line 90-91U (lat. 41-07.8, long. 72-19.6) does not agree with the adjoining soundings. no excuse for rejection retained on sheet. J.C.H.

Rocks:

On position 97r (lat. 41-08.2, long. 72-19.3) the boat struck a rock, the sounding recorded is 2 ft. (reduction for tide is 0). ~~From this information the depth of water over the (rock could vary from 0 to 2 ft. It was recorded as "2 Rk".~~ ✓

The following notes in regard to rocks were not recorded on this sheet:

1. According to a note on page 71, Vol. 18, "The shoreline from \odot Pod to \odot Joe is covered with large rocks extending 20 m. outside the H.W. line. On the same page there is another note stating that "Shoreline from \odot She (probably \odot Shel) to \odot Gas is covered with large rocks. The outside limit of which is a rock baring $1\frac{1}{2}$ ft. 30 m. N of \odot Sax." This latter rock was recorded as baring 1 ft. at M.L.W. The records do not give the time or state of tide when this rock was observed.
2. A note on page 23 of Vol. 19 states that "Boundary of rocks runs 10 m. N of \odot Rock to position 63 and 64p', lat. 41-04.4, long. 72-22.8."
3. A note on page 65 of Vol. 6 states that "The L.W. line from \odot The to \triangle Ram is dotted with rocks some being 15 m. from shore."
4. A note on page 63 of Vol. 6 states that there are several large boulders on the L.W. line near \odot Nan and \odot Ties.
5. A note on page 63 of Vol. 12 states that "The shore line from \odot Whi to \odot Red is generally covered with small boulders."

areas
marked
Rocky shoreline
on sheet.

areas
mentioned
marked
rocky etc
as per
notes in
records.
JEB

All the reports and records required for each survey have been submitted with this sheet except a list of Recoverable Stations (Form 524).

submitted
with topo.

The field plotting was good with the exception that the sounding lines were scored into the paper.

Respectfully submitted,

V. D. Behn.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5382 (1933).

Greenport Harbor and Orient Harbor, Eastern L. I., New York.
Instructions dated March 27, 1933 (L. C. Wilder).
Surveyed - Sept.-Nov. 1933.

Hand Lead and Pole Soundings - 3-Point Fixes on Shore Signals.

Chief of Party - L. C. Wilder.
Surveyed by - E. B. Brown; J. F. Ilwain.
Protracted by - H. L. Hawkins.
Soundings penciled by - W. D. Ayers.
Verified and inked by - V. D. Behn.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, with the following exceptions.

a. On P day, Vol. 19, the time interval for soundings between positions was not recorded. They have been plotted in the office by assuming a uniform time interval.

2. Compliance With Instructions.

The character and extent of the survey satisfactorily complies with the instructions for the project. The survey is complete and shows evidence of careful planning and execution. All the shoals and indications have been intensively developed.

3. Sounding Line Crossings.

There is no regular system of cross lines, but those that result from the work together with the closely spaced parallel lines are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn including a portion of the zero foot curve.

5. Junctions With Contemporary Surveys.

Satisfactory junctions were made with H. 5380 (1933) on the west with the exception of the 60 foot sounding at lat. $41^{\circ}04'.4$, long. $72^{\circ}23'.3$ which falls on H. 5382 (1933) between a 94 and a 92 foot sounding. Since there is insufficient development on H. 5382 (1933) to disprove the 60 foot sounding it has been retained. The junctions with H. 5383 (1933) on the east and with H. 5381 (1933) on the southeast are satisfactory.

6. Comparison With Prior Surveys.

a. H. 79 (1838), H. 81 (1839) and H. 78 (1838).

These three sheets which cover the major portion of the present survey are apparently but one survey. The latter sheet contains practically all the soundings shown on the other two as well as additional soundings on the same lines and a few additional sounding lines.

The three sheets are in good agreement with the present survey with the exception of a few discrepancies, in areas of no navigational importance, which are considered to be the result of changes having taken place. Other discrepancies were found to be due to incorrect plotting of soundings and positions on the original sheet. The most important of these discrepancies is the following.

1. The sunken rock marked "3 ft." on H. 78 (1838) and H. 79 (1838) falls on the new survey in depths of 50 ft. at lat. $41^{\circ}06'.75$, long. $72^{\circ}20'.25$. This rock could not be traced in the sounding volumes as no position numbers are shown on either survey. However the rock is shown on both surveys in red indicating that it was added later from some other source, which can not now be determined. The rock was originally shown on Chart No. 115 but was removed about 1890 when a later survey H. 1568 (1883), which failed to show the rock, was applied to the chart. In 1896 a rock ("Sheepshead Rock") was located and plotted on the 1883 survey (H. 1568) and subsequently charted. This latter rock is about 270 meters to the northeast of the former. In view of the uncertain origin of the rock as shown on H. 78 (1838) and 79 (1838) and the fact that it was removed from the chart in applying the 1883 survey and no rock shown until the charting of Sheepshead Rock in 1896, it is considered that the two are one and the same rock and that the location on H. 78 (1838) and H. 79 (1838) was only approximate.

b. H. 1543 (1882) and H. 1568 (1883).

These two surveys which cover Gardiners Bay and the water to the north of Shelter Island are in good agreement with the present survey with the following exceptions;

1. The two groups of inshore sunken rocks at lat. $41^{\circ}06'.3$, long. $72^{\circ}19'.8$ and lat. $41^{\circ}06'.0$, long. $72^{\circ}19'.3$ originate with H. 1543 (1882). They are not verified as such by the new survey although the old topo. T. 1577a (1883) shows both areas as rocky and the latter area is marked on the present survey as "Rocky Area". Both groups of rocks are considered to be generalizations only, since the sounding records for H. 1543 (1882) states in both cases "rocks on beach". The former area on the present survey has been marked "Rocky area" in red as originating with H. 1543 (1882). The delineation as shown on H. 1543 (1882) should be superseded by that as shown on H. 5382 (1933).

2. The 29 foot sounding (charted) from H. 1568 (1883) at lat. $41^{\circ}04'.6$, long. $72^{\circ}22'.2$, falls on the new survey in depths of 52 feet. This 29 foot sounding is a single sounding on the regular system of lines and is unsubstantiated by other surrounding soundings. In the sounding records the original recorded sounding is

5 fathoms, 2 feet. Inasmuch as the six fathom marker on the lead line ("a piece of leather with one strip") is the same as the marker for 11 fathoms, it is considered likely that the recorded sounding should have been 10 fathom 2 feet. This would then reduce to 59 feet which would satisfactorily agree with the surrounding depths on H. 1568 (1883) as well as the present survey. The area on the new survey is fairly well developed and shows no indication of any depths under 50 ft. It is considered that the 29 is an erroneous sounding and should be disregarded in future charting.

3. The $6\frac{1}{2}$ and $7\frac{1}{2}$ foot sounding (the former charted) from H.1568 (1883) at lat. $41^{\circ}06'.95$, long. $72^{\circ}19'.20$, fall on the new survey in depths of 12 and 13 feet. An examination of the records shows that an error of one fathom was made in the reduction. The correct reduced soundings should be $12\frac{1}{2}$ and $13\frac{1}{2}$ feet, respectively, which depths agree satisfactorily with the new survey. The corrected soundings have been indicated on the old survey.

4. The 12 foot sounding (charted) at lat. $41^{\circ}05'.45$, long. $72^{\circ}21'.7$ (from H. 1568 (1883) falls in depths of 29 feet on the new survey. This 12 ft. sounding marked the end of a spit making out from Fanning Pt. As there is sufficient development on the new survey to indicate that this spit has been cut back about 50 meters, the 12 foot sounding should be disregarded in future charting.

5. The shoal in the middle of the channel from H. 1568 at lat. $41^{\circ}06'.7$, long. $72^{\circ}19'.7$ with a least depth of 20 ft. on the south-east end and 21 ft. on the northwest end (both soundings charted) appears to have shifted somewhat as well as having been partly cut away. The 20 ft. sounding falls on the new survey in depths of 28 ft, and the 21 in depths of 31 ft. However the present survey shows a 20 ft. sounding at lat. $41^{\circ}06'.77$, long. $72^{\circ}19'.65$ which is about 200 meters to the northeast of the shoal as charted. The delineation of the shoal as indicated on the present survey should supersede that as shown on H. 1568 (1883).

6. The line of soundings from Pos. 16h. to 17h. (H. 1568) at lat. $41^{\circ}06'.4$, long $72^{\circ}18'.9$ fall on the new survey in depths 10 to 15 feet deeper. An examination of the records for H.1568 (1883) shows that Pos. 17h. is incorrectly plotted. When correctly plotted (to the westward) the soundings involved are in good agreement with the present survey. The correct plotting has been shown on the old sheet.

7. The six foot sounding on H. 1543 (1882) at lat. $41^{\circ}05'.85$, long. $72^{\circ}18'.5$ which is charted 100 meters too far to the east, falls on the new survey in depths of 8 feet. The development around the charted 6 actually extends far enough to the westward to cover the position of the 6 as plotted on H. 1543 (1882) and 8 feet was the least depth found (See D. R. page 1). The new survey shows a number of 6 ft. soundings about 200 meters to the south and southwest. The 6 ft. sounding as shown on H. 1543 (1882) should be disregarded in future charting.

8. The 8 foot sounding (charted) from H. 1543 (1882) at lat. $41^{\circ}03'.98$, long. $72^{\circ}16'.24$, falls in depths of 14 feet on the new survey. This 8 foot sounding is on the line between 15 and 16 P on which all the soundings except the two nearest Pos. 16 P, are in poor agreement with the new survey. In examining the records for H. 1543 (1882) it was found that time and course for Pos. 15 P does not agree with the plotted position. By using time and course only, the left angle checks the new position and the soundings become in agreement with the new survey and in better agreement with the cross lines on H. 1543 (1882). The position is therefore considered to be incorrectly plotted and the sounding between Pos. 15 to 16 P, including the 8 ft. sounding, should be disregarded in future charting.

9. The area at the entrance to Long Beach Bay, lat. $41^{\circ}07'.5$, long. $72^{\circ}17'.2$, shows appreciable discrepancies with the new survey. Since the changes are considered to be due to the dredging by the ~~U. S. Engineers~~ (see ~~U. S. E.~~ Blueprint No. 9732) a discussion of the discrepancies is omitted.

10. A number of other minor discrepancies, all inshore and uncharted have been disposed of in accordance with the principles laid down in "Instructions for Review of Hydrographic Surveys".

c. H. 2082 (1891).

This survey which covers Coecles Harbor is in satisfactory agreement with the new survey with the following exceptions:

1. The two rocks awash (charted) at lat. $41^{\circ}04'.55$, long. $72^{\circ}19'.08$ originate with H. 2082 (1891). The note in the sounding records at pos. 14h (blue) states, "40 meters from beach, near 2 large rocks". The northernmost only, of the two rocks is verified by the present survey which was located by two 3-point fixes during a $\frac{1}{2}$ foot tide. Inasmuch as this one rock was actually occupied while the tide was nearly zero and no mention was made of a second rock, it is considered that one rock exists. The rock as shown on H. 5382 (1933) should supersede those as shown on H. 2082 (1891) in future charting.

7. Comparison With Chart No. 298.

a. Hydrography.

Except for the dredged channel into Long Beach Bay, the hydrography on the chart is based on surveys discussed in the foregoing paragraphs and needs no further consideration in this review.

The controlling depth of $6\frac{1}{2}$ feet in the Long Beach channel originates with Blueprint No. 9732 (1903), and is a privately

dredged channel (Chart Letter 805 of 1903). The present controlling depth is 4 to $4\frac{1}{2}$ feet at the entrance.

b. Aids to Navigation.

The position of the aids to navigation as shown on the present survey differ with the positions as shown on the chart by 30 to 100 meters. However the present positions of the aids as shown on H. 5382 (1933) adequately mark the features intended. Buoy C-3 on the present survey at lat. $41^{\circ}06'.58$, long. $72^{\circ}19'.4$, is not charted.

c. Islets and Rocks.

A number of bare rocks and rocks awash (charted) originating with T. 1572 (1884) and T. 1577a (1884) are not shown on the old or new hydrographic surveys and are not verified by the air-photo compilation sheet. Since they are not disproved by the present survey they have been carried forward to H. 5382 (1933) and shown in red.

8. Field Plotting.

The field plotting was satisfactory with the exception that frequently in plotting soundings between positions the changes in time interval were not taken into consideration.

9. Additional Field Work Recommended.

No additional field work is recommended.

10. Superseding Old Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H. 78 (1838) in part.
H. 79 (1838) " "
H. 81 (1839) " "
H. 1543 (1882) " "
H. 1568 (1883) " "
H. 2082 (1891) " "

11. Reviewed by - John G. Ladd - January 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

J B Borden
Chief, Section of Field Work.

L. O. Lobbat
Chief, Division of Charts.

G. H. Hilde
Chief, Division of H. & T.

MARCH 15-1934

- 1/ The protracting was found to have been very well done - only one or two positions were revised. Yellow position numbers were used on this sheet and they were somewhat too large. No reason could be determined why red or blue position numbers were not used.
- 2/ The datum the sheets ^{is} referred to i.e. NORTH AMERICAN 1927 - was not noted on the sheet by the field party. The regulation stamp for showing projection and signal plotting data was not used.
- 3/ A large portion of the sounding volumes did not have the day letters entered on every page - in some cases the day letter being given only at the beginning and ending of a day. The notes in the sounding volumes under the REMARKS column - were not properly referenced to the sounding line by the use of an asterisk.
- 4/ The aero topographic sheet has not been received at this time.

Respectfully Submitted
W. H. Bamford

SECTION OF FIELD RECORDS
Report on H. 5383

Chief of Party - L. C. Wilder.
Protracted by - H. L. Hawkins.
Verified and inked by - A. M. Uzefovich.

Surveyed in Oct. - Nov. 1933.
Surveyed by - P. C. Doran, and E. B. Brown.
Soundings plotted by - G. C. McGlosson.

1. The records conform to the requirements of the General Instructions. ✓
2. The field plotting was completed to the extent prescribed in General Instructions. ✓
3. The hydrography is complete, and the usual depth curves can be drawn. ✓
4. The office cartographer did not draw the shore line, having no latest topo. sheet. ✓
5. The junctions with adjacent sheets, H. 5381 and H. 5382, were not made, as these sheets were not inked yet. ✓
6. Remarks - Vol. 2, mentioned rocks:

On page 70, positions 84 - 85, - "Rock to St'bd - 7m." "Also rock on beach at L. W. L. bares 2 ft." These were inked by field party; only letters R K for the first, and a symbol for the second rock - "Bares 4 ft. at M. L. W." (locality B 0) on p. 71, position 91 - "Location of rock about 6 ft. in diam. and surrounded by 7 ft. of water". There is 2 ft. sounding. ✓

On p. 72, position 92, - "Location of rock about 8 ft. in diam. and surrounded by 9 ft. of water". There is 2 ft. sounding. On p. 72, position 93, - "Large rock bare about 2 ft. at edge of water line". There was not inked a symbol by field party, but only letters RK.

In a number of cases every other sounding was omitted (see report on H. 5383 by G. C. McGlosson) ✓

The office cartographer did not have at his disposal the Boat Sheet. ✓

7. The quality of the work is good. ✓

Submitted by - A. M. Uzefovich.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5383 (1933).

Orient Point to Long Beach Point, Gardiners Bay, L. I., N. Y.

Instructions dated March 17, 1933 (Wilder).

Surveyed in 1933

Hand lead soundings and 3 point fixes.

Chief of Party - L. C. Wilder.

Surveyed by - P. C. Doran and E. B. Brown.

Protracted by - H. L. Hawkins.

Soundings penciled by - G. C. McGlosson.

Verified and inked by - W. H. Bamford and A. M. Uzefovich.

1. Condition of Records.

Records in general conform to the requirements of the Hydrographic Manual, except that the day letter was not entered on every page of the sounding record, in some cases only on the first and the last page of the day; no special marks were used in referencing notes in the Remarks Column to time in the Sounding Column.

The Datum note was placed on the sheet by the office draftsman. No shoreline is shown on the smooth sheet. The topo. control sheet has only signals and the air-photo compilation is not yet available.

2. Compliance with Instructions for the Project.

One split line should have been run in the vicinity of Orient Point to keep the spacing of sounding lines within the 100 meters specified for depths less than 20 feet.

3. Sounding Line Crossings.

Soundings in general are consistent. The agreement in depth of the five channel lines (cross lines) southeastward of Long Beach Point is good, the difference being generally less than the difference in depth between successive soundings on the regular system of lines in the vicinity.

4. Depth Curves.

Depth curves can be drawn satisfactorily.

5. Junctions with Contemporary Surveys.

The sheet joins H. 5381 and H. 5382 but the junction has not been examined as those sheets have not yet been verified. There is no contemporary survey to the eastward of this sheet.

6. Comparison with Prior Surveys.

a. H. 1543 (Survey of 1882).

In general the present survey agrees well with this former survey. There are several isolated differences that should be noted here as a matter of record:

1. The $5\frac{1}{4}$ fathom sounding (charted 31 feet) in lat. $41^{\circ}06'.2$, long. $72^{\circ}12'.9$ falls in depths of 37 feet on the new survey. The $5\frac{1}{4}$ fathom was found to have been erroneously plotted and should have been $6\frac{1}{4}$ fathom.

2. The $3\frac{1}{4}$ fathom sounding (charted 19 feet) in lat. $41^{\circ}05'.7$, long. $72^{\circ}14'.5$ falls in depths of 22 feet on the present survey. The $3\frac{1}{4}$ was cleared by a 19 foot drag on H. 3907 (survey of 1916). The development on the present survey is fairly close and shows a smooth bottom. The $3\frac{1}{4}$ should not be used in future charting.

3. The $13\frac{1}{4}$ fathom in lat. $41^{\circ}05'.7$, long. $72^{\circ}16'.1$ falls in depths of 20 feet on the present survey. The $13\frac{1}{4}$ fathom was found to have been erroneously plotted and should have been $3\frac{1}{4}$ fathoms.

b. H. 78, H. 80 and H. 81 (Survey of 1838 - 1839).

These surveys are very open and are in the nature of reconnaissance work. They contain no features that differ materially from the present survey.

c. H. 3907 (1916 Wire Drag Survey) and H-3022 (1909 Wire Drag Survey).

These surveys ~~do~~ not conflict with the present survey.

7. Comparisons with Chart No. 298.

The 13 foot sounding charted in lat. $41^{\circ}05'.7$, long. $72^{\circ}16'.4$ was indicated on the 1920 standard as originating with H. 1543. No such depth is shown on that sheet in that position and it is believed that the compiler confused the plotted $13\frac{1}{4}$ fathom sounding, mentioned in paragraph 6, a, 3, above and assumed it to be a $13\frac{1}{4}$ foot sounding.

8. Field Plotting.

Field pretracting and penciling of soundings was very well done. Yellow color should not have been used for position numbers and day letters (see par. 62 of the Regulations).

Hyd. Manual

9. Additional Field Work.

No further surveys are deemed necessary. The excessive distance

between lines noted in par. 2 is of minor importance.

10. Superseding Old Surveys.

Within the area covered the present survey will supersede the following surveys for charting purposes:

H. 78, H. 80, H. 81 and H. 1543. Each in part only.

11. Reviewed by - R. J. Christman - June 1934.

Sheet Inspected by - A. L. Shalowitz.

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

Examined and approved:

L. O. Robert
Chief, Division of Charts.

F. S. Borden
Chief, Section of Field Work.

G. H. S.
Chief, Division of H. & T.

*Applied to chart 1211
July 12, 1935 G.H.S.*

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *H. 5381*

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

Number of positions on sheet	<i>4,516</i>
Number of positions checked	<i>187</i>
Number of positions revised	<i>13</i>
Number of soundings recorded	<i>22,012</i>
Number of soundings revised	<i>53</i>
Number of signals erroneously plotted or transferred	<i>✓</i>

Date: *June 12, 1934*

Cartographer: *Paul H. Scherr*

Verification of plotting
Verification & inking of rocks & shoals

Time: }
Time: } *25 days 2² hrs*

Verification of inking by

Review by *R. J. Christman*

Time: *51 hrs.*

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5382

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

Number of positions on sheet	6383
Number of positions checked	301
Number of positions revised	23
Number of soundings recorded	31973
Number of soundings revised	?
Number of signals erroneously plotted or transferred	—

Date:.....

Cartographer: *V.D. Behn*

Verification of plotting
Verification & taking of rocks and shoals } by *V.D. Behn*

Verification of taking by

Review by

John S. Loea

Time:

Time: 67 days
2 hrs.

Time: 7 days 2 hrs.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5383.

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

Number of positions on sheet	..1304
Number of positions checked
Number of positions revised
Number of soundings recorded	..6396
Number of soundings revised4
Number of signals erroneously plotted or transferred

Date: April 16, 1934.....

Cartographer: A. M. Uzefovich.....

Hyd. 5383 applied to Chr. 298
Aug. 24, 1934
K. Reynolds

Hyd. 5381 applied to drawing of chart 298
July 8, 1935 G.H.S.

Hyd. 5381 applied to drawing of chart 1211.
July 15, 1935 G.H.S.

25f 27, 1936
K.H.S.

H. 5381 applied to chart 1212 S.M.A. May 4, 1936

H. 5382 applied to 363 (new chart) thru print
of charts 298-299. 13 Nov 1950 - AH.

5381	"	"	"	"
5383	"	"	"	"