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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. 5378 5379 5380

LOCALITY

State New York

General locality Eastern

Locality Long Island Riverhead to Shelter Id.

1983

CHIEF OF PARTY

L. C. Wilder

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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.* 1, 2 and 3

LOCALITY

5378 5378 5380

Eastern Long Island

Riverhead to Shelter Island

193 3

CHIEF OF PARTY

L. C. Wilder.

U. S. GOVERNMENT PRINTING OFFICE: 1933

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Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 2

REGISTER NO. 5378

State New York.

General locality Great Peconic Bay, L.I.

Locality Riverhead to S. Jamesport

Scale 1:10,000 Date of survey May 19 - June 23, 19 33

Vessel Launch Wanderer

Chief of Party L.C.Wilder

Surveyed by R.C.Bolstad - E.B.Brown

Protracted by E.E.Mumaw

Soundings penciled by H. L. Hawkins.

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by H. W. Murray + A. E. Perkins

Verified by H. W. Murray + A. E. Perkins

Instructions dated March 17, 1933., 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

Form 537
Ed. Dec., 1930

REG. NO. 5379

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 5379

State New York

General locality Eastern Long Island

Locality Great Peconic Bay — Turges

Scale 1:10,000 Inset 1:5,000 Date of survey May-Jun, 19 33

Vessel various "Dot" Skiff "Wanderer"

Chief of Party L.C.Wilder

Surveyed by P.C.Doran; J.F.McIlwain; E.B.Brown; and R.C.Bolstad

Protracted by T.F.Donlan and E.E.Mumaw

Soundings penciled by H.L.Hawkins

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by L. E. Dalleat + S E Perkins

Verified by L E D + S E Perkins

Instructions dated March 17, 19 33

Remarks:

U. S. GOVERNMENT PRINTING OFFICE, 1931

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5380

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. 3

REGISTER NO. 5380

State New York

General locality Eastern Long Island

Locality ~~Little Peconic Bay~~ and Shelter Island Sound.

Scale 1:10,000 Date of survey May-July, 1933

Vessel Various Skiff, "Dot" "Wanderer"

Chief of Party L.C.Wilder

Surveyed by P.C.Doran; J.F.McIlwain; E.B.Brown

Protracted by H.Leonard Hawkins

Soundings penciled by P.C.D., J.F.McI. and G.C.McGlasson

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by J.Levine + J. McCormick

Verified by J.Levine "

Instructions dated March 17, 1933

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

Descriptive Report

To Accompany Hydrographic Sheets Nos.
1,2, and 3 - Eastern Long Island

Season of 1933

L. C. Wilder Chief of Party

The descriptive report for these three sheets will be written as one report to avoid duplication and to condense the required information. The Chief of Party will write certain parts of this report but those parts which require the experience of actual work with the areas covered will be written by the sub-chiefs which will include any deviations from usual Survey Methods, "Discrepancies", "Dangers", "Channels", "Currents", "Inlets",etc.

INSTRUCTIONS:

Instructions for this work were dated March 17, 1933 and called for complete New Surveys from Riverhead to Gardiners Island.

AREAS COVERED BY SHEETS:

H5379

Field Sheet No. 1 (1:10,000) covers Great Peconic Bay from Red Cedar Point and South Jamesport to Cow Neck and New Suffolk including several lines of sounding on the east side of Robbins Id, Shinnecock Canal, Cold Springs Pond, West Neck Hbr, Scallop Pond, Willis Creek, and a second creek to the eastward. Shinnecock Canal was surveyed on an insert, Scale 1:5,000.

H5378

Field Sheet No. 2 (1:10,000) covers Flanders Bay, Reeves Bay, Peconic River, and Meeting House Creek from Riverhead to South Jamesport and Red Cedar Point.

H5380

Field Sheet No. 3 covers Little Peconic, Noyack and Southold Bays from New Suffolk and Cow Neck to Jennings and Conkling Points, west of Greenport and to the South Channel, Shelter Island Sound at the north west end of North Haven.

As the smooth sheets have not been completed and for each Sheet there were more than one boat sheet, the areas covered by the sectional boat sheets will be stated in order to assist in this report.

Sheet No. 1 comprised Great Peconic Bay except the alongshore work.

Sheet No. 1a covers the skiff work along the South Shore of Great Peconic Bay, Shinnecock Canal, West Neck, Scallop and Cold Springs Ponds.

Sheet 1b covers skiff work along the North Shore of Great Peconic and around Robins Island.

Sheet No. 2 covers the same area as the smooth sheet, Riverhead to Red Cedar Point.

Sheet 3a covers skiff work along the south side of Little Peconic Bay to Jessup Neck including North Sea Harbor.

Sheet 3b covers the north shore of Little Peconic Bay east of New Suffolk to Conkling Point, including Town and Jockey Creek and Wunnetta Lake.

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

Sheet 3c covers launch work in Cutchogue Harbor.

SURVEY METHODS:

Standard survey methods were used except for some of the skiff work along the shores and the work in Shinnecock Canal.

On these three sheets work alongshore was done by a party in a skiff in order to get the low water line. As this was slow and expensive it was not done on the three sheets to the eastward. (Sheets 4-5-6)

Shinnecock Canal was sounded out along a series of ranges located by topography. This work is explained elsewhere in this report.

LANDMARKS:

Landmarks were selected by Lieut. Bolstad in his photo control work and in recovering old triangulation stations in the course of which he covered practically all of the area east of Riverhead. He selected all landmarks bearing in mind that many might be of use to surveyors or aviators which would be of little use to navigators. Later in the course of a Coast Pilot trip by boat the landmarks were classified as to their importance as related to the several charts of different scale of the locality.

Landmarks and objects from which the Lighthouse Service may locate their floating aids are covered in a separate report.

As a report to the office, all landmarks were plotted on a combined large scale chart (Charts 298 and 299). This included all objects which were considered of sufficient importance for charting on the large scale charts. Each landmark was plotted in its exact position if known, otherwise as close as possible and the fact that it was not plotted in exact position indicated by a symbol. A description of the landmarks was not written on the charts but each was given a number and by reference to the list of landmarks its description could be obtained.

This combined large scale chart also showed all objects (also given numbers) to be used by the Lighthouse Service for locating aids, shown in a different colored ink. Opposite each buoy the numbers of the landmarks or lesser landmarks which might be used to locate the aids are given. A list of these lesser landmarks (not sufficiently important for charting) was attached.

COMPARISON WITH OLD SURVEYS:

The published large scale charts of the locality of the work were compared freguently as the work progressed, with the boat sheets. No photostats of old hydrographic sheets were at hand. There were no changes of importance.

North of Robins Island in the vicinity of Cutchogue Harbor were found differences from old surveys but as this is used only by small boats they are not particularly important.

No surveys of Sebonac Inlet, Cold Springs Pond, and other bodies of water were available so comparisons cannot be made.

GEOGRAPHIC NAMES:

This subject is covered in the season's report. The correct

geographic names were checked up by Mr. Bolstad, engaged in air photo inspection. A check on new names was obtained from at least three persons.

COAST PILOT:

This subject is covered in a special report.

CURRENTS:

See the following reports by the hydrographers. One current station, off the south end of Robins Island, was occupied.

TIDES:

Gauges were operated at South Jamesport, New Suffolk, Noyack Bay, and in Southold Bay. Staffs were placed where considered necessary on account of carrying soundings into ponds and inlets.

See sketch and report included in descriptive report for sheets 4-5-6 for detailed information. This information was placed in one descriptive report in order to simplify and avoid duplication. It concerns all hydrographic sheets of the season, Nos. 1 to 6 inc. and must be consulted for complete tidal information.

* * * * * * *

REPORT written by Lieut. R. C. Bolstad Boat Sheet No. la 5377

Report by
Lieut. R. C. Bolstad
Boat Sheet No. la.

GENERAL:

In accordance with instructions dated March 27, 1933 a hydrographic survey was executed of Shinnecock Canal and the approach at the south terminus. This was carried out on a scale of 1 - 5,000 as it was felt that the importance of this waterway would warrant a scale no smaller than this.

SPACING OF SOUNDINGS AND SOUNDING LINES:

Sounding lines were spaced not over eight meters apart and soundings taken as fast as possible with the boat running at its slowest speed. This resulted in a close spacing of sdgs. in the shallow (critical) depths and a slightly wider spacing at the deeper depths.

METHODS:

All lines were run on ranges and parallel to the axis of the channel. Special range signals were previously established and located by the topographic party.

The special signals X', Y', Z' were small red flags securely attached to a wire which was reeled out between the signals U' and D where it was secured at marks on the wire which had been made to give this exact location of each of the signals. It was necessary to station a man at signal D to drop the end of the wire as boats passed by but in each case the exact location of the mark at "D" was replaced. Similarly for signal "T" this same procedure was followed. Signals S' and T' were range poles driven in the sand and were removed after the survey was completed. The red lines shown on the boat sheet show clearly the ranges used. In all other cases natural objects were used either alone or together with the signals.

In running the main channel lines of the canal the "Wanderer" was used and the procedure was as follows: The boat was brought on the range by the helmsman (care being taken to have the helmsman stand at the same side of the boat as that at which the sdgs. were taken) about 50 meters before the sdg. line was started. One officer stood by with a pair of binoculars and his sole duty was to watch carefully to observe any departure from the range and to aid the helmsman in maintaining the range. It was found after a few practice lines were run that the range could be held to without appreciable departure. Just before coming abeam of a signal the signal was given to sound and another officer reads the sextant angle (about 90°) between the range line and signal and plots the position. One man sounds with the sounding pole and another man stands by with the lead line to catch any soundings too deep for the pole. Each of the men sounding check one anothers reading and the entry by the recorder, and the officer in charge furnishes an additional check except for the short interval taken to plot the position.

At the south entrance and in the shallow indentations along the canal the skiff with the outboard motor attached was used.

DANGERS:

At signal V' is a portion of a steel bridge truss showing about 4½ ft. above H. W. and along this side of the channel (about 4 meters from the bank) just to the north and south are a few large rocks and the remains of a pile cribbing. This is not exceedingly dangerous but sufficiently so to call attention to as it has been the practice for small boats to tie up in this canal wherever a place could be found.

The bar at the south entrance to the locks has to be passed on the west side.

At the south entrance to the canal care must be taken in passing over the bar not to adhere too close to the pile marker (⊙ Red) established by the village of Southampton. It should be passed on the west side about 25 meters distant. It is understood that this bar shifts considerably from season to season.

CURRENTS:

The tidal gates at the locks are so constructed that they open when the water is at a higher level on the Peconic Bay side than on the Shinnecock Bay side (unless lashed back) and there is a strong current particularly between the highway bridge and the vicinity of the locks.

The locks were closed (except as noted in the records) when the hydrography was performed.

* * * * * * *

REPORT written by J. F. McIlwain Boat Sheet No. 1b. 5379

Report by
J. F. McIlwain
Boat Sheet No. 1b.

SOUNDING APPARATUS:

The sounding rod used was a bamboo cane graduated in feet, the foot graduations being marked by a coil of copper wire securely fastened in place. At each three foot or $\frac{1}{2}$ fathom mark a different colored rag was attached. The rod was graduated up to twelve feet. On the end of the rod was attached a wooden disc about three inches in diameter to facilitate the determination of the character of the bottom.

For depth over twelve feet a sounding line was used, graduated in feet and fathoms. On occasions when the sounding line was used a note was made in the record and the length of the line checked.

The sounding rod was read to the nearest one quarter foot and this reading was recorded.

EQUIPMENT:

The party consisted of five men, right angle man plotting, left

angle man, recorder, leadsman, and outboard motor operator steering the courses.

The boat used was a sixteen foot skiff, equipped with a Johnson twelve horse power seahorse, twin cylinder, outboard motor. A plotting table and canopy was constructed amidships. A court celluloid protractor was used for plotting.

METHODS OF WORK:

The skiff party was used to develop shore lines, shoal bars, and inlets.

The first line was run as close as possible to the water's line, from five to twenty-five meters depending on the depth of the water. Very often in running this first line offshore it was necessary to take a "described fix", that is marking the time that the skiff came directly opposite a hydrographic signal, that is, perpendicular to the line of two signals on range and estimating the distance to the signal, this distance usually being between five and twenty-five meters, on a few occasions it was necessary to estimate a longer distance. This method had to be resorted to due to the fact that usually one of the angles was too large to be read with a sextant--the line being run very close to the signals. The average depth of water on this linewas about one foot.

In running this first line inshore often an obstruction was encountered, small boat piers and docks of a very temporary character extending from five to fifty meters offshore and from 3 to 6 ft. in width, the planking and superstructure being removed during the winter months; on the occasion of the line being obstructed by one of these piers the point where the line being run met the pier was marked, the time being broken while the skiff circled around the pier and resumed the line on the opposite side and the line was continued.

On other occacisons it was necessary to drop the anchor in order to distinguish between hydrographic signals or to make minor repairs on the outboard motor.

In a case like this the skiff was kept in a stationery position and the time of stopping and starting noted in the record. As the skiff was kept in a stationery position it was not necessary to end the line and begin a new one at each stop.

The second line was from sixty to one-hundred meters offshore and sextant fixes only were used. The average depth of this second line was about two feet.

Additional lines were run offshore from fifty to one hundred meters apart until a depth of about one fathom was obtained.

All possible dangers to navigation were located such as rocks, piles, wreckage,etc. And in the case of rocks and wreckage a sounding was taken on the shoalest part and alongside, also a description of size and area covered given in the record book.

INLETS:

On boat sheet 1b two inlets were developed, the most westerly one being "Willets Creek" or as it is locally known "Deep Hole Creek". An attempt was made to run a line up the entrance showing the deepest water, there was no well defined channel and at some places across the entrance not over 2 ft. of water. A tide staff was placed in this inlet and read while the area was being sounded. The southern end of

is
the inlet characterized by deep holes up to twelve feet in depth. The northern end was shallow containing a very rank growth of kelp that was thick enough to stall the motor by clogging the propeller.

The second inlet developed was about four hundred meters east of Willets Creek. It was found to have a well dredged entrance to a private small yacht basin; other than this basin, the creek was very shallow and was not sounded.

It was necessary to plot these two inlets, part of the easterly shore line, and Robins Island as an insert on the sheet.

boat

DOCKS:

On Robins Island on the north side soundings were taken alongside a private dock and a sketch showing distances along the dock where soundings were taken, was drawn in the record book.
Wharf Wharf

* * * * * * *

REPORT written by Lieut. P. C. Doran Boat Sheet No.1. 5979

Report by
Lieut. P. C. Doran
Boat Sheet No. 1.

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:

Soundings between 36 Q day and 37 Q day, inclusive, are 1 fathom too deep. Lead line was read wrong. This area was covered again on E' day and no such depths as the above mentioned were found.

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:

Great Peconic Bay is very clear of dangers to navigation.

A rock, 6 ft. in diameter, bare 1 foot at M.L.W. is located at 40-54.6 and 72-32.2. Rock is 270 meters N. W. of a rock, showing 1 foot above high water, located 550 meters N. W. of triangulation station "Squire Pond - 1933". See position 60-K day- Vol. 4. and also position 1p, skiff.

A rock awash at M. L. W. was located just east of black and red horizontal striped buoy, 1470 meters west of the south end of Robins Island. This rock and buoy are shown on the present chart. Position 37-S day, Vol. 7.. Lat. 40-57.4, Long. 72-28.3.

A rock about 5 feet in diameter with 2 feet of water on it at M. L.W. was located 240 meters west of station NO on the west side of Robins Island. This rock is shown on the present chart. Position 68, W day, Vol. 10., Lat. 40-57.9, Long. 72-28.2.

A rocky patch with 6 feet, predicted tides, was located 1¼ miles west of Cow Neck. Three quarters on an hour was spent sounding on this patch. Spot is marked by red and black horizontal striped buoy. Position I4, D' day, Vol. 12., Lat. 40-56.3 and Long. 72-28.~~0~~.

CHANNELS:

The channel south of Robins Island is the one used by most crafts entering Great Peconic Bay. It is clear, well buoyed and will carry 15 feet at M.L.W. Boats of 10 feet or less can go westward from N18 buoy without danger if they keep clear of the buoy marking the 6 foot rocky patch.

The Channel north of Robins Island is shoal, irregular and not marked. It is used only by small boats and boats with local knowledge.

A flashing white buoy "A" is at the outer end of the channel to Sebonac Creek. A framed and lighted range on shore leads into the creek. In summer small local white and black buoys mark channel from "A" to creek.

A red and black buoy mark the entrance to Shinnecock Canal. A light on the end of the east jetty marks entrance at night.

COMPARISON WITH PREVIOUS SURVEYS:

The general location and outline of the shoals agree with the depths as shown on chart 299. Where the chart showed a shoal spot a development was made in that area on the boat sheet and a depth of within a foot of the chart sounding was usually found.

CURRENTS:

Strong currents are encountered in the channel south of Robins Island but as they run along the channel and everything is clear no danger is caused by them. Choppy seas result here when tide and wind are opposed.

Fairly strong currents are encountered at Sebonac Creek and Shinnecock Canal and should be watched as the entrances are narrow.

* * * * * * *

H-5378

REPORT written by E. B. Brown, Jr., Aid Boat Sheet No. 2.

Report by
E. B. Brown, Jr., Aid
Boat Sheet No. 2.

SURVEY METHODS:

Soundings were taken with pole and lead line. No unusual survey methods were used.

DISCREPANCIES:

A sounding of 7 feet was entered in the record book between positions 2 and 3 A day. This sounding is located between a 10 foot and a 12 foot sounding. It is most probable that the sounding was called 11 by the leadsman and recorded as 7 as it is hard to distinguish between the two numbers. The sounding was thoroughly investigated and no indication of a shoal was found. It is recommended that this sounding of 6 feet (reduced) be left off the chart. 6' sdg omitted from sheet

DANGERS:

None.

CHANNELS:

The channel from Great Peconic Bay to Flanders Bay is marked with a red, unlighted buoy and a black, unlighted buoy. The channel to Peconic River is marked with a red fixed lighted pile beacon alongside

5378

To be attached to Descriptive Report.

Sag Harbor, N.Y.
October 18, 1933.

Field Sheet 2 together with all records pertaining thereto have been examined by me and approved. The sheet is complete through the smooth plotting of positions and the records through the reduction of soundings except for certain points where the photo-topo is needed.

L.C.Wilder.
Chief of Party.

Pos. 1r 3 red piles.
Pos 5r 1 red pile
Pos 9r 2 red piles

Pencil lines on sheet show division of areas for tidal reducers.

5378

Pos 120d to 128d are detached locations of temporary channel markers, small stakes.

9c.

Note at bottom proj by 5378

One triang. sta.
Sheet joins
Tide stas. — [illegible]

Sta should be Indiana

Light off point west of S. Davenport should be plotted and entered in record.

O.K. H.L.H.

SIZE & shape of small basin near O Min. necessary to complete sheet. O.K. 2/1/34. H.L.H.

a red nun buoy and privately maintained pile beacon (fixed light) (which seems to be out of place 150 meters E.S.E. of the correct position for such a marker). The mouth of the river is marked with three red, privately maintained pile beacons. (fixed red lights on each beacon) (See Coast Pilot report for information as to which beacons are lighted because beacons were lighted after the survey was made.)

The channel up the river is marked with temporary channel stakes to be left to starboard when heading west. The controlling depth up the river (according to the predicted tides used on the boat sheet) is $3\frac{1}{2}$ feet south of ⊙ Kid.

The channel entering Reeves Bay is marked by a black pile beacon. In the bay the channel is marked by temporary channel stakes to be left on port side when heading south. The channel leads to a private boat landing called Brennan's Landing.

The channel into Meeting House Creek is marked with temporary channel stakes. The controlling depth is 2 feet at the mouth of the creek. There is no channel to the northward of ⊙ Tax. There is a private dock and private bulkhead to the southward of ⊙ Win.

ANCHORAGES:

The area to the westward of Red Cedar Point is a very good anchorage. The area to the southward of ⊙ Hoe may be used as an anchorage.

CURRENTS:

There is very little current in this area. The strongest current is found to the northward of Red Cedar Point but even here it is small.

* * * * * * *

REPORT written by Lieut. P. C. Doran Boat Sheet No. 3. 5380

Report by
Lieut. P. C. Doran
Boat Sheet No. 3.

SURVEY METHODS:

Standard sextant fixes on shore objects were used for position finding. All soundings were with hand lead and line from small launch. Station "Nit" was located by sextant angle from triangulation station and taped distance. Signal "Lap" was located by sextant fixes with station in range with known signals.

DISCREPANCIES:

Between position 75 and 76 B' day a shoal sounding occurs. As the bottom is very irregular I believe that this sounding will prove to be correct when plotted on the smooth sheet. See Verifiers Report

As the present chart shows very uneven bottom numerous developments were made in the spots shown shallow on the chart. Soundings within 1 or 2 feet, from predicted tides, of the chart soundings were obtained in all these developments. Good Developments

DANGERS:

Little Peconic Bay has a number of shoals and a few rocks but would be called clear for navigation.

A rock with 5' on it at M.L.W. was located in Hog Neck Bay at Lat. 41-00.9 and Long. 72-26.3. This rock is a sharp pinnacle rising abruptly from small rocky patch about 20 ft. in diameter. Rock is 920 meters east of triangulation station "Neck - 1933".

Black Dog Rock with 6 feet on it was located in Lat. 41-02.5 and Long. 72-21.8 just west of triangulation station "West - 1933". This rock rises out of 11 feet of water to a sharp pinnacle 6 feet below the surface. Due to the smoothness of the top of this rock much time was spent locating it. A drag of lead line and anchors towed between launch and skiff finally hung up on rock long enough to get position and sounding.

A sand spit with very little water on it extends about $\frac{1}{2}$ mile south of Nassau Point. It southern end is marked by red nun buoy.

The shoal extending $1\frac{1}{2}$ miles southwestward from Great Hog Neck had a least depth of 7 feet at positions 29 K and 8 D - Lat. 41-01.0, Long. 72-24.2 and Lat. 72-24.8, Long. 41-00.7 respectively. ~~See Verifiers Report~~

Depths shoaler than charted

CHANNELS:

The passage between Shelter Island Sound and Little Peconic Bay is deep and clear north of the flashing buoy marking the north end of sand spit extending northward from Jessup Neck.

The channel south of Robins Island is well buoyed and clear.

The narrow pass at Paradise Point is deep and clear to the east of flashing buoy which marks the east end of sand spit making out from Paradise Point.

CURRENTS:

In all the above mentioned channels the currents are very strong but as they set with the clear channel they are not dangerous. Choppy seas are found at these when wind and tide are opposed.

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.

5380

Subject: Report on Hydrographic Sheet No. 3, from Capt Wilder's Party.

The shoreline on this sheet has not been inked because the aerial topographic sheet is not finished at this time.

The following are a list of positions which were not plotted due to reasons given below.

1	Vol. 19,	page 33,	positions	12g-18g
2	20	36		34L-41L
3	20	38		42L-49L
4	20	49		38m-68m
5	20	51		73m-75m
6	21	61		47s
7	22	3		1t-240t

See Verifier Report

All of the above positions are located by reference to topography and can be plotted when the shoreline is inked.

8 In Vol. 15, page 44, the line between positions 157x' and 158x' a three-foot sounding is recorded, which we believe to be in error. The original soundings were at first rejected as the positions were thought to be wrong, but later were considered good. The "R" was erased and the soundings recopied. We believe that in recopying the soundings the one shown as 4' was originally one fathom 4 feet and that the reduced sounding should be 9'. The paper shows the imprint of a "1" in the fathom column.

Rejected-accepted

9 In Vol. 14, page 20, between positions 140s' and 141s' a 44' sounding is recorded. This was investigated at 87W' and the least depth found was 64'. Therefore, the 44' sounding is probably wrong and should be rejected.

Rejected-accepted

10 In Vol. 20, page 44, the line between positions 16m and 17m is shown as straight on the smooth sheet and also on the Boat Sheet. We believe this is an error and the boats course should be approximately parallel with the shoreline around this point. If the above assumption is correct the soundings on this line will agree with the adjacent hydrography.

G. C. McGlasson.

G. C. McGlasson.

Forwarded Approved.
George D. Cowie
Chief of Party.

COMPARISON WITH PREVIOUS SURVEYS:

The general form and position of shoals agree with former surveys. The bottom is very irregular necessitating numerous developments.

The least water found was within 1 or 2 feet of the charted sounding, using predicted tides.

On the shoal extending for 1½ miles southwestward from Great Hog Neck a least depth of 7 feet was found, the chart shows 5 feet but no such sounding was found. Bottom is hard but not rocky and may have been changed by oyster dredges.

The 4 foot spot shown on chart 299-450 meters S.E. of Paradise Point was not found by lead line or pole drag after two and one half hours search.

* * * * * * *

Report by
J. F. McIlwain
Boat Sheet No. 3a.

The same equipment and boat were used as described in the report of boat sheet No. 1b and approximately the same methods of work were employed.

In developing sand bars and shoals it was necessary at times to wade the bars to determine their limits and in this case sextant fixes were taken as usual and minus soundings were approximated. Quite a bit of this was found necessary at the mouth of the entrance to North Sea Harbor. There was no clearly defined channel through these bars. A channel line was very carefully run in the entrance to the harbor a fix being taken at all turns and it was found that the entrance near the harbor proper was very shallow due to a bar extending completely across the entrance.

In North Sea Harbor proper the water is uniformly shallow with no channels. Extending south from a "Hil" there is a dredged channel adjacent to a property development. A center line of soundings were run in this channel and a sketch drawn so that the course could be spotted on the aerial photo . The soundings were taken at a regular interval and the skiff run at a constant speed, the exact time was

noted in the record book when the skiff came abreast of certain landmarks, described on the sketch.

On the eastern side of "Jessup Neck" near the base quite a number of positions were rejected due to trouble in distinguishing hydrographic signals.

* * * * * * *

Report by
J. F. McIlwain
Boat Sheet No. 3b.

The boat and equipment were the same as used while working on Sheet 1b. The methods of working were also the same.

INLETS:

School House Creek, located in New Suffolk, east of triangulation station "Barn", was developed by running a centerline up the channel at constant speed and sounding at regular intervals, marking the time the skiff came abreast certain landmarks, shown on a sketch in the record book so that the positions can be spotted from an aerial photo. The same method was employed in running centerlines up adjoining boat slips as shown on the sketch.

The first inlet northeast of School House Creek was developed by running a channel line in deepest water, taking a fix at each turn. The adjoining boat slips were developed by running at constant speed and sounding at regular intervals so that with the aid of a sketch shown in the record book the course could be plotted from the aerial photo.

The first yacht basin on the west side of Nassau Point near the base was developed by the above method running a centerline that could be plotted from the aerial photo with the aid of a sketch in the record book. No staff gages were used in the above inlets.

"Wunnetta Lake", south of the above yacht basin on Nassau Point, was developed by the skiff using hydrographic signals. Channel lines were run, being careful to show the deepest water. It was necessary to locate three additional signals with sextant angle location. In the event that it was necessary for the party on the skiff to locate additional signals a complete description was recorded in the record

book telling exactly the method used in locating the signal and such signals are indicated on the boat sheet in blue ink.

A tide staff was placed in "Wunnetta Lake" and read while the soundings were taken.

The next inlet developed was a yacht basin on the northeastern side of Great Hog Neck. It was developed in the usual manner using hydrographic signals. A channel line wss run to show the greatest depth of water. No tide staff was read.

The next two inlets developed were adjoining inlets with a common entrance into Southold Bay, the most westerly being "Jockey Creek" and the one to the east being "Town Creek". A tide staff placed near the head of "Town Creek" was read while the sounding was done in both creeks.

The channel lines in both creeks were carefully run showing the deepest water. Sextant fixes and described fixes were used entirely.

"Beixedon Yacht Basin", located east of Southold was developed by running a channel line partly by regular "fixes" and partly by timed interval to be spotted from aerial photo, also the breakwater enclosing the basin was measured and soundings taken at various points as shown on a sketch in the record book. No tide staff was used.

"Mill Creek", locate to the east of the above yacht basin was developed and lines run to show the deepest water. One fix to be spotted from aerial photo. No tide staff was used.

DOCKS:

"Private Dock", on the western side of Nassau Point was measured and soundings taken at different points as shown on sketch in record book.

"Dock at Founders Landing", in Southold, was measured and soundings taken alongside at different points as shown on sketch in record book. Tide staff for Southold Bay located on this dock, which was read while sounding in Southold Bay.

DOUBTFUL POSITIONS:

On the first line inshore in the vicinity of triangulation station "Cupola" (Southold Bay) the fixes from 48 to 52 on "G" day are weak if not swingers.

"9" (blue)

Submitted by
R. C. Wieder
Chief of Party

22
26

POST-OFFICE ADDRESS: 741 Custom House, New York City.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

20

1934 MAR - 6 AM 9:35

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

NEW YORK FIELD STATION

March 5, 1934.

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Inspector, New York Field Station.

Subject: Smooth Sheet No. 1, Peconic Bays, New York, L. C. Wilder,

There are sent you herewith a report on the smooth plotting of the above sheet and a list of errors and omissions by Mr. McGlasson.

The smooth sheet has been examined by me and found satisfactory.

George D. Cowie.

George D. Cowie, Inspector,
New York Field Station.

2 encs.

U. S. Custom House,
New York, N. Y.
1 March, 1934.

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

From: G. C. McGlasson.

H5379

Subject: Report on Hydrographic Sheet #1 from Captain Wilder's Party.

The amount of shoreline available was transferred to this sheet. The remainder can be finished when the aerial topographic sheet, covering this area has been completed.

From lack of shoreline we find it impossible to plot soundings in a number of instances. Consequently a list of these omissions will accompany the sheet and may be added when the shoreline is inked.

Due to recent dredging in the vicinity of Ram Island and the strip of land known as Cow Neck, a number of new names have been added by the local people and they differ from Chart No. 299. All the land from A Cow westward to Sebonac Creek is now called Cow Neck. The first creek east of Ram Island is called West Neck Creek and the second creek Northeast of Ram Island is called Island Creek.

Scallop Pond as shown on Chart No. 299 is now part of West Neck Creek. The entrance to Scallop Pond, as shown on Chart No. 299, has been filled and it does not exist at this time. The body of water between Cow Neck and North Sea is now called Scallop Pond and entrance is made through Sebonac Creek, West Neck Creek and a newly dredged channel leading directly into Scallop Pond. Names referred to Division of Geographic Names H.B.

This information was obtained from Mr. H. L. Hawkins, a draftsman of the U. S. Coast and Geodetic Survey, and a local resident of this vicinity. However, part of this may be verified from the aerial topographic sheet. Furthermore W.H.Haley of South Hampton made a map of this area for the County and the above names were used as we have them on the smooth sheet.

G. C. McGlasson

G. C. McGlasson.

SHEET 1

Errors and Omissions

Volume	Boat Sheet	Page	
16	1a	12-14	Pier in Scallop pond and soundings to be located from the Air Photo.
16	1a	49	Small Marsh island in Island Creek.
17	1a	64-68	Dock at West Neck and soundings to be plotted from Air Photo.
18	1a-b	10-21	Sebonac Yacht Basin and docks to be plotted from Air Photo and soundings plotted.
19	1b	56	Dock at Robbin's Island and soundings from air Photo.
21	1a		Check topo locations with the Photo topo locations of the docks in Shinnecock Canal, and the location of the two bridges.

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

20

Form 413
Ed. March, 1928

REFER TO NO.

LETTER TRANSMITTING FIELD RECORDS

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

New York, N. Y.

March 5, 1934

To: The Director, U. S. Coast and Geodetic Survey, Washington, D. C.

From: The Inspector, New York Field Station, C. and G. Survey, Chief of Party.

Subject: Records.

The following-named records, computations, sheets, packed in two package s, , were forwarded to you on March 5 and 6, 1934, by ordinary, registered, mail, & express (Government bill of lading No. C-137979).

1 pkg.	1 smooth sheet No. 1. - L.C.Wilder, Peconic Bay, NY	5379
1 pkg.	3 boat sheets - for above smooth sheet.	5379
2 pkg.	23 vols. for sheet No. 1 - L. C. Wilder, Peconic Bay, NY	

Sent to 1 & 2

Rec'd March 6 and 7, 1934.

Only 22 V. rec'd in Library March 7, 1934.

Volume No. 6. is missing. 5379

By order of the Chief of the Field Records Section this sheet, Field No. 1. (H-5379), is registered as having 23 volumes with notations in the records stating the fact that Vol. 6 is not included. If in the future this volume is found it may be placed with the other records.

L. O. Colbert
Ch. Sect. Field Records

George D. Cowie.

George D. Cowie, C. and G. Survey, Chief of Party.

Letter filed 2 wks. before receipt was acknowledged because Vol. No. 6. was missing. See correspondence attached.

ACKNOWLEDGED
MAR 20 1934
L. A. A. Sec.

Received the above:

Chief Clerk,
Coast and Geodetic Survey.

This letter and one copy should be sent to the office. The copy will then be returned as a receipt.

U. S. GOVERNMENT PRINTING OFFICE: 1928 11—2934

POST-OFFICE ADDRESS: 741 Custom House, New York City.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

16

RECD MAR 10 AM 9:49

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

NEW YORK FIELD STATION

March 9, 1934.

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Inspector, New York Field Station.

Subject: Field Records.

In replying to letter from Chief Clerk -- 16-KC-March 8th, the following explanation is made:

The Inspector and Mr. McGlasson counted the record books and piled them into one pile--there were 23 volumes--they were checked by their numbers and put in numerical order--No. 6 being among them.

Then Mr. Lyons of this office picked them up and placed them all in a pasteboard carton, counting them but not checking their volume numbers. He states that there were 23 volumes. The package was then wrapped and delivered to the express man at this office.

It would appear therefore that either the package was opened in transit and volume 6 extracted, or that the man who unpacked the carton failed to remove all volumes in Washington.

If the former (which seems rather improbable, the record being of no value to any but the Survey), the package may have shown some evidence of having been tampered with, when received in Washington If the latter, it is suggested that the carton if available be searched for the missing record.

George D. Cowie.

George D. Cowie, Inspector,
New York Field Station.

Survey No. H-5379

Date. NOV. 20, 1934

GEOGRAPHIC NAMES
NEW YORK

Chart No. 121 ~~24~~ 299

Names underlined in red approved Nov. 26, 1934
H. Bacon

Diagram No.

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

¢, Not Approved by the Division of Geographic Names, Department of Interior. Compared with USGS and Prog. Military Maps.

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

Q Name being investigated

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Approx. Location
	SHINNECOCK CANAL ✓	SHINNECOCK CANAL USGB			40°-53', 72°30
	SOUTH JAMESPORT * ✓	SOUTH JAMESPORT			40°-56', 72°34
	MIAMOGUE PT. * ✓	MIAMOGUE PT.			40-56, 72-34
	RED CEDAR PT. * ✓	RED CEDAR PT.			40-55, 72-34
	RED CREEK POND * ✓	RED CREEK POND			40-55, 72-33
	SOUTH PORT * ✓	SOUTHPORT			40-54, 72-33
	SQUIRE POND * ✓	SQUIRE POND			40-54, 72-31
	SQUIRETOWN * ✓	SQUIRETOWN			40-54, 72-31
	WILLIS CREEK	WILLIS CREEK Q	WILLETS CREEK or DEEP HOLE CREEK Let G.N.70	await investigation	40-59, 72-31
	E. WILLIS CREEK * Q			East Willets Creek	40-59, 72-30
	DOWNS CREEK *	DOWNS CREEK			40-59, 72-30
	NEW SUFFOLK * ✓	SUFFOLK			40-59, 72-28
	ROBBINS ISLAND NO	ROBINS ✓ I. USGB			40-58, 72-28
	COW NECK * ✓	COW NECK			40-57, 72-27
	SCALLOP POND * R	in another location on chart.	Scallop Pond	DGN	40-56, 72-26
	ISLAND CREEK * R		Island Creek	DGN	40-55½, 72-26
	WEST NECK CREEK * R		West Neck Cr.	DGN	40-55, 72°-26½
	RAM ISLAND * ✓	RAM ISLAND			40-55, 72-27
	SEBONAC CREEK ✓	SEBONAC CREEK ✓			40-55, 72-27
	SEBONAC NECK ✓	SEBONAC NECK USGB			40-54½, 72-27½
	COLD SPRING POND ✓	COLD SPRING POND			40-54, 72 28

(M 100)

New York

GEOGRAPHIC NAMES

Survey No. H- 5379

Date. Apr.9,1935

Chart No. 299- 1212

Diagram No. 1212-2
1214-2

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
	Scallop Pond *				
	West Neck Creek *				
	Little Sebonac Creek				
	Island Creek *				
	West Neck Harbor		Same		
	Bullhead Bay		"		

(M-136)

L&C

March 7, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 5378

Locality Riverhead to South Jamesport, Peconic Bay, L. I., New York

Chief of Party: L. C. Wilder in 1933
Plane of reference is mean low water, reading
2.7 ft. on tide staff at South Jamesport
6.4 ft. below B. M. 1 (1917)

0.9 ft. on tide staff at Meetinghouse Creek
7.5 ft. below B.M. 1

1.6 ft. on tide staff at Riverhead
8.3 ft. below B. M. T 38

Height of mean high water above plane of reference is 2.7 ft. at South Jamesport; 2.8 ft. at Meetinghouse Creek; and 2.9 ft. at Riverhead.

Condition of records satisfactory except as noted below:

Harmon
Acting Chief, Division of Tides and Currents

RAC

April 10, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
22 volumes of sounding records for

HYDROGRAPHIC SHEET 5379

Locality Great Peconic Bay, Long Island, N. Y.

Chief of Party: L. C. Wilder in 1933
Plane of reference is mean low water, reading
0.8 ft. on tide staff at New Suffolk
6.8 ft. below B. M. 4
1.2 ft. on tide staff at Cold Spring Pond
12.0 ft. below B. M. 1
1.5 ft. on tide staff at Scallop Pond
10.1 ft. below B.M. 1
2.2 ft. on tide staff at West Neck Harbor
8.4 ft. below B.M. 1
3.6 ft. on tide staff at Shinnecock Canal, S. Entrance
8.3 ft. below B.M. 1

~~Condition of records satisfactory except as noted below:~~
1.8 ft. on tide staff at Shinnecock Canal, N. Entrance
10.7 ft. below B.M. 1
2.1 ft. on tide staff at Willis Creek (No bench marks)
2.0 ft. on tide staff at first Creek East of Willis Creek (No bench marks)
Condition of records satisfactory except as noted below:

Paul C. Whitney
Chief, Division of Tides and Currents

NOTE: Height of mean high water above plane of reference is 2.6 feet at New Suffolk; 1.5 feet at Cold Spring Pond; 2.7 feet at Scallop Pond; 2.2 feet at West Neck Harbor; 2.4 feet at N. Entrance Shinnecock Canal. No tide at South Entrance to Shinecock Canal.

Rae

April 10, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
24 volumes of sounding records for

HYDROGRAPHIC SHEET 5380

Locality Little Peconic Bay and Shelter Island Sound, Long Island, N.Y.

Chief of Party: L. C. Wilder in 1933
Plane of reference is mean low water, reading
0.8 ft. on tide staff at New Suffolk
6.8 ft. below B. M.4
2.0 ft. on tide staff at Noyak Bay
13.1 ft. below B.M. 1
1.5 ft. on tide staff at Southold Bay
6.9 ft. below B.M. 1
1.8 ft. on tide staff at North Sea Harbor
10.0 ft. below B.M. 1
2.2 ft. on tide staff at Winnetta Lake (No bench marks)
2.1 ft. on tide staff at Town Creek (No bench marks)

[redacted]:

Height of mean high water above plane of reference is 2.6 feet at New Suffolk; 2.3 feet at Noyak Bay and Southold Bay, and 2.4 feet at North Sea Harbor.
Condition of records satisfactory except as noted below:

Paul T. Whitney

Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5379

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

Number of positions on sheet	6792
Number of positions checked	205
Number of positions revised	16
Number of soundings recorded	35815
Number of soundings revised	38
Number of signals erroneously plotted or transferred	0

Date: June 21, 1934

Cartographer: Ralph E. DeMent

Verification of protracting by RED. **Time** 265½ hrs.

Verification and inking by R.E.D. **Time** 39½ hrs.

VERIFICATION + INKING BY S.E.P

Review by R. J. Christman **Time** 24 hrs.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H. 5380

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

Number of positions on sheet	8118
Number of positions checked	288
Number of positions revised	32
Number of soundings recorded	34141
Number of soundings revised	356
Number of signals erroneously plotted or transferred	None

Date: April 2. 1935

Verification by J. Levine Time: 846 Hours.

Review by H. W. Murray Time: 604 "

SECTION OF FIELD RECORDS

Report on H-5378
Chief of Party - L. C. Wilder
Surveyed by - R. C. Bolstad
and E. B. Brown
Verified by H. W. Murray and
S. E. Perkins
Inked by H. W. Murray and
S. E. Perkins

Surveyed - May, 19 - June 23, 1937
Protracted by - E. E. Mumaw
Soundings plotted by - H. L.
Hawkins
Topography inked by Field Party

1. The Field Plotting was completed to the extent specified in the general instructions, except that 1/4 foot was considered 1/2 instead of 0, and 3/4 foot was plotted as 1 ft. instead of 1/2.

2. There was no datum reference on the sheet.

3. The records conform to the general instructions.

4. With few exceptions the protracting and spacing were very good.

5. The usual depth curves were drawn including the 3 foot curve.

6. Half feet were inked in with the 3 and 6 foot soundings, when their use aided in smoothing out the curve.

7. H - 5379 which joins this sheet on the East, was not verified at the time of the writing of this report.

8. (see Par. 14) The air photo compilation sheet has not been received in the office at this time. The air photo control sheet gives no topograhic outline. Since there are numerous instances on the sheet where soundings fall on the shore line, it will be necessary to check the shore line when the air photo compilation sheet is received.

9. Attention is called to a line of stakes 72L - 77L, which are probably temporary in character. While mentioned in the sounding records, no precise location could be found on the Boat Sheet or in the records.

10. Any color other than green would have been more desirable for use in inking of position numbers.

11. The smooth sheet is soft in texture and renders it difficult to make clear cut sounding figures.

12. All three point fix locations of bouys and channel markers listed in the index column of the records, have been verified by Mr. Murray. ✓

13. The tip of a small island is mentioned at position 70 p. It cannot be found on the topographic sheet. However there is a small island shown on the topo sheet nearby. There is some question about the existance of this island. ~~XXXXXXX~~

14. Air photo compilation sheet T - 5065 has lately been received in the office. This sheet gives a small section of the topography for H-5378. The spit which is Red Cedar Pt. extended, is shown on T - 5065 but does not agree with H - 5379. This should be looked into more closely when H - 5379 is verified.

Respectfully Submitted,

S. E. Perkins

April 13, 1934

Report on Hydrographic Sheet No. 5379.

1. The records conform to the Hydrographic Manual.

2. Sounding crossings are adequate and in good agreement.

3. All depth curves up to 30' are shown.

4. The field plotting was completed to the extent prescribed in the Hydrographic Manual except that soundings on blue letter days were entered in the records to the quarter foot. These quarter soundings were plotted and inked in the following manner:

   a. Over shoals, the shoalest half-foot was inked, and $\frac{3}{4}$ fractions of a foot, if they had the same digit as the shoal sounding were reduced to one-half.

   b. In sloping waters, $\frac{1}{4}$' was dropped, $\frac{1}{2}$' was plotted if it was the unit of depth, and $\frac{3}{4}$' plotted as 1'.

   c. Minus $\frac{1}{2}$' was considered as zero feet.

5. All topography west of longitude 72°28' was erased and redrawn. The error was from 10m to 25m.

6. Junction with H. ~~7398~~ 5398 on the west is satisfactory.

7. Remarks.

   a. All rocks, buoys, piles, and isolated soundings were checked.

   b. Soundings in the creeks and ponds, in the southeast corner were left partially inked. This area is to be inked after the air photo compilation has been reviewed, and an accurate shore line can be established. The ends of several lines plotted on shore, when the shore line from the unreviewed T. 5066 was transferred. (See next page)

   c. Topography on the south shore was checked and redrawn. No check was available on the north shore line. Inasmuch as this was probably transferred from a celluloid sheet it will probably bear checking when the air photo sheet is available.

Submitted by - R. E. DeMent,
June 21, 1934.

R. E. DeMent.

PARTIAL REPORT ON H-5379.

A. The shoreline from Willis Creek to New Suffolk, and from meridian 72°27' eastward was completed by adjusting the airphoto compilation with the hydrography.

B. The hydrography in Willis Creek and in Sebonac and West Neck Creek was completed by this verifier. No list HAD BEEN made of the unverified soundings so lines were picked up by finding penciled soundings.

C. The minus $3\frac{3}{4}$ (90t) on the north spit of Robins Island which is approximately 1 foot above the high water line is plotted as a minus 4 with the note "Spit awash at extreme high water." The soundings on line 132p - 133p, at Red Cedar Point, that plotted on the shore and were minus soundings above the plane of mean high water, were omitted.

D. Line 28 - 30z off Cow Neck was replotted by this verifier, the right angle being changed 10 degrees.

E. A 15 foot sounding at 23j (lat. 40°58.10', long. 72°30.50') was left in pencil. Apparently it is 1 fathom in error.

F. The hydrography, as done by this verifier, was done in accordance with the following rules:

(1) $\frac{1}{4}$ foot was dropped.

(2) $\frac{1}{2}$ foot was dropped when accompanying a whole foot, except in shallow places where it was desirable to show the maximum depth more precisely.

(3) $\frac{3}{4}$ foot was considered as $\frac{1}{2}$ foot when it was a fractional sounding, but when the $\frac{3}{4}$ accompanied a whole foot, the $\frac{3}{4}$ was dropped. This was not the rule that DeMent used in verifying the largest part of the sheet. (See DeMent's report, Paragraph #4(b)). This conflict of rules is due to different interpretations of Paragraph 153, Page 19, Hydrographic Manual. There is at present no definite rule on the method of plotting soundings in feet accompanied with $\frac{3}{4}$ of a foot. Being investigated HB.

G. The spelling of the name of the creek in lat. 40°59.20', long. 72°30.30', is in question. "Willis Creek" is on the chart #299 and on the air photo compilation but the descriptive report refers to it as "Willets Creek" and "Deep Hole Creek" (see descriptive report of boat sheet No. 1b).

H. The positions 1p - 79p, 1q - 148q, and 1r - 65r, were in the missing volume (#6) (see photostatic copies of correspondence, in this report, the originals of which are to be found in the library). Hence soundings could not be verified but they were inked in in black, exactly as the field party plotted them. In order to

differentiate these soundings from those verified, the color of the position numbers was changed from red to green. The boat sheet was used for comparison to locate possible errors in protracting.

Respectfully submitted,

S. E. Perkins

Nov. 21, 1934. S. E. Perkins

SECTION OF FIELD RECORDS.

Report on: H-5380
Chief of Party: L.C.Wilder.
Protracted by: H.L. Hawkins,
Verified and Inked by: J.Levine,

Surveyed in: May-July 1933
Surveyed by: P.C.Doran, J.F.McIlwain, E.B.Brown.
Soundings Plotted by: P.C.Doran, J.F.McIlwain,

The records conform to the requirements of the General Instructions with the following exceptions:

(a) Colors of day letters on cover labels and title pages do not correspond with colors assigned to respective days' work. (Corrected by verifier.)

(b) ~~In many~~ instances results of ~~tests for lead~~ lines are ~~omitted on first~~ and last pages of each ~~day's~~ work. Notation only ~~is~~ made to ~~the~~ effect that lead line is "O.K."

(c) Notations in the "Remarks" column such as L.T.R. and L.T.L. are in many cases misleading, the note reading L.T.R. when line actually turns left and vice versa. (Corrected by verifier)

The usual depth curves can be drawn satisfactorily. Where the low water line is not well defined by soundings such line was transferred from Air Photo Compilations.

The field plotting was complete with the exception of several areas where plotting could not be executed until Air Photo Compilations were available. These compilations supplied the necessary information for shoreline as well as control for such areas

where construction or use of signals was evidently considered impractical. The verifier transferred all shore line from Air Photo Comp. to the smooth sheet and also plotted the remaining hydrography where the control depended upon these compilations. This work was done after all discrepencies were adjusted in conference with Mr. B. G. Jones.

The verifier also plotted several sketches which appear in inserts on the smooth sheet, details of which are mentioned elsewhere in this report.

Some of the drafting had to be revised in the office on account of the following deficiencies:

(a) Failure to check with boat sheet in critical areas where boat sheet agreed with records while smooth sheet showed otherwise.

(b) Incorrect spacing of soundings in critical areas, especially in buoyed channels.

(c) Failure to plot soundings along path of vessel in turning.

(d) Faulty protracting and incorrect transfer of soundings from the records.

(e) Soundings plotted in reverse order (between positions) from that shown in records.

(f) Position numbers interchanged which resulted in confused hydrography.

~~(g) Rock awash symbols drawn too large.~~

(h) Nearly all soundings between positions 73 V and 147 V (Vol. 7, Pages 56 to 69) had to be revised to conform to the latest reduced soundings resulting from the application of revised tide reducers.

There are three adjoining contemporary sheets, H-5379, H-5381 and H-5382 (all 1933). Junctions with H-5379 and H-5381 are made on this sheet (H-5380) and are satisfactory. Junction with sheet H-5382 is made on that sheet and the depth curves in the overlapping area have been transferred to this sheet (H-5380).

The following discrepancies appearing on the smooth sheet are listed here for consideration by the reviewer:

Reference					Item	Remarks
Sdg. Vol	Rec Page	Smooth Sheet Pos.	Lat.	Long		
3	5	10G-11G	41° 00.1'	72° 24.3'	OK 41' sounding on H-2097 (1891) 41 ft. sounding (reduced)	Appear to be 1 fm. too deep compared to adjacent hydrography
3	11	45G-46G	41° 00.3'	72° 24.1'	42 ft. sounding (reduced) Expunged from
5	8	81M-82M	40°57.6'	72° 25.5'	32 ft. sounding (reduced) Expunged from
7	4	5T-6T	40°57.3'	72°26.7'	Two 23 ft. soundings (reduced) Expunged from
13	51	24R'-25R'	41°03.5'	72° 22.7'	34 ft. sounding (reduced) accepted
5	17	3N-4N	41° 01.7'	72°23.4'	10 ft. sounding (reduced) Rejected from
7	21	107 T	40°59.1'	72° 26.1'	13 ft. sounding (reduced) Erroneous sounding (change angle) from	Appear to be 1 fm. too shoal compared to adjacent hydrography
8	12	17X-~~18X~~	40°58.0'	72° 26.1'	40 ft. sounding (reduced) accepted from
9	38	118 B'	41° 00.4'	72° 24.3'	33ft. sounding (reduced) accepted. Near 36 on H-2097
8	11	10X	40°59.1'	72°25.1'	40 ft. sounding (reduced) accepted from Near 41 on H-2097	Does not agree with adjacent hydrography – surrounded by 52 ft. to 55 ft.

In addition to the above discrepencies there are plotted on the smooth sheet two signals with the same name — ⊙ Bad, one at Lat. 40° 59.8', Long. 72° 22.28' (Southwest of Jessup Neck), the other at Lat. 41° 00.08', Long. 72° 20.65' (South side Noyack Bay) (See Vol. II Page 69) These two signals are also listed in the "List of Signals on Hydrographic Sheet No. 3" which is filed with the descriptive report. Signals do not cause confusion. xxxm.

Attention is called to a "stake" plotted on smooth sheet at Lat. 41° 03.34', Long. 72° 23.2'. Field draftsman failed to plot this obstruction either on smooth sheet or boat sheet. Reference to the "stake" is made on Page 51, Vol. 14 of the sounding records, and according to the latter, "stake" is located in 36(±) ft. of water. (probably a pile)

In connection with the sketch shown in the sounding records, Vol. 20, Page 49, of the Private Dock on the west side of Nassau Point, at Lat. 40° 59.9' Long. 72° 27.2', the dimension recorded for the second leg (out from shore) of the dock is 99.7 m., representing the measured distance between positions "F" and "Q". This distance is apparently in error. According to the note at top of page 49 soundings were taken along dock "6 m. apart unless otherwise noted". Between positions "F" and "Q" there are 8 intervals at 6 m. and 1 interval at 3.7 m. making a total distance of 51.7 m. This distance checks with the length as shown on Plane Table Sheet T-6019 (1933) and on Air Photo Compilation T-5070 (1934). (Sdg. Rec. corrected) The dock is shown in an insert on the smooth sheet.

In addition to rocks plotted by the field draftsman from the sounding records, the following rocks were plotted by the verifier:

Location		Source	Remarks
Lat.	Long.		
41°04.25	72°23.1	Air Photo. Comp. T-5073 (1934)	Just west of Jennings Point ✓ 2 rocks plotted as *
40°59.6'	72°26.25	Air Photo Comp. T-5070 (1934)	Just east of Nassau Point - ✓ plotted as *
40°58.52'	72°27.4	H-5379 (1933) This rock also shown on T-5020, latter position used. xxxx	Transferred to H-5380 account being in ✓ overlapping area within junction limits. Plotted as "*-bares 2ft. M.L.W"
40°56.9'	72°25.65'	Air Photo Comp.-T-5066 (1934)	At ⊙ Pen Plotted as "Rk-~~bare 1ft~~ awash M.H.W" ✓

In the sounding records Vol. 22, Page 25, between positions 6 u and 7u, there is a note in the Remarks Column - "numerous rocks out from shore". "rky" plotted on chart - xxxx. ✓ (Location: Southeast of Jennings Point, Lat. 41°03.95', Long. 72°22.9')

In the sounding records Vol. 16, Page 51 there is a note in the Remarks Column - "Shore line from ⚓ Cook to ⊙ Pet generally covered with large boulders". This was plotted on chart xxxx ✓ (Location: West side of North Haven Peninsula - Lat. 41°00.6' to Lat. 41°02.1'; Long. 72°19.0' to Long. 72°19.9')

With reference to the notations in the "Remarks Columns" mentioned in the above two paragraphs, verifier has indicated same on the smooth

sheet by similar pencil notations at or near the designated locations, the matter of permanent notations in ink being left for consideration by the reviewer. ← Remarks entered on page 5. [illegible]

On W' day (Vol. 15 Pages 5 to 8) a certain area (Positions 50 W' to 68 W', Lat. 41° 03.55±; Long. 72° 24.15±) was drag lined to locate a shoal spot of 15 ft. (See note in "Remarks" column Page 8, Vol. 15). The drag was set at 24 ft. By this operation no depths less than 24 ft. were encountered which, in effect, verified the least depths of the lead line soundings in this area. } See report on drag by J.A.M.

The following comments are made in connection with certain items in the Descriptive Report.

Under the heading of "Discrepancies" there appears an item concerning the correctness of a shoal sounding between 75 B' and 76 B'. The sounding in question is 29 ft. (reduced), (Vol. 9, Page 31, Lat. 40° 58.8', Long 72° 25.42'.) From the adjacent hydrography, particularly the soundings on lines between positions 106 A and 108 A (Vol. 1, Page 21) and between positions 84 B' and 85 B' (Vol. 9, Page 32) it will be noted that the bottom in this vicinity is very irregular. Other sounding lines nearby also bear out this condition, especially at a location just south of the sounding in question where there is developed a pronounced shoal (least depth 24 ft. surrounded by water of much greater depths. In view of the above, verifier agrees with the statement in the Descriptive Report to the effect that the questionable sounding (29 ft) is reasonably correct and is therefore plotted as such on the smooth sheet.

Sdg. accepted. [illegible]

Under the heading of "Dangers" there appears an item concerning a shoal extending 1½ miles southwestward from Great Hog Neck, having a least depth of 7 ft. (reduced) at positions 29k (Vol. 4, Page 9, Lat. 41° 01', Long. 72° 24.2') and 8 D (Vol. 2, Page 13, Lat. 41° 00.7', Long. 72° 24.75'). Referring to this shoal on the smooth sheet it will be noted that two shoal spots, each 6½ ft. (reduced) are plotted as recorded, one on line between positions 49 G and 50 G (Vol. 3, Page 11, Lat. 41° 01.03', Long. 72° 24.14'), the other between positions 100 B' and 101 B' (Vol. 9, Page 35, Lat. 41° 00.86', Long. 72° 24.53'). These two soundings appear to be at the shoalest spots on the shoal in question and were each plotted as 6 ft., surrounded by a 1 fathom curve to make them stand out.

With reference to Mr. G.C. McGlosson's report on the field smooth plotting of this sheet (Letter: G.C. McGlosson to the Inspector, N.Y. Field Station, dated March 16, 1934) which is filed with and made part of the Descriptive Report, the following disposition is made of the various items contained therein, each item being referred to by a number. (in green on the report)

Item 1. Positions and soundings plotted after shoreline transferred from Air Photo Compilation, T- 5066 (1934). (Location: Southwest corner of North Sea Harbor, Lat. 40°56'±, Long. 72° 25.1 ±)

Item 2. Positions and soundings plotted after shoreline transferred from Air Photo Compilation, T- 5070 (1934). (Location: West side of Cutchogue Harbor, Lat. 40°59.7', Long. 72° 28.4'±)

Item 3. Positions and soundings plotted in accordance with note (red) at top of Page 38 (Vol. 20) after shoreline transferred from Air Photo Compilation, T-5070 (1934). The positions recorded on Page 38 and 39, (421 to 451) were not plotted on account of indefinite control. New lines were run and positions and soundings recorded on Pages 55 and 56, (Vol. 20) positions 95m to 104 m. These latter are plotted on the smooth sheet and are considered correct.
(Location: Northwest side of Cutchogue Harbor, Lat. 41° 00.2±, Long. 72° 28.2'±)

Item 4. This item refers to soundings along the Private Dock on the west side of Nassau Point. (Lat. 40° 59.9'±, Long. 72° 27.2'±). The positions and soundings were plotted in accordance with the information given at top of page 49 (Vol. 20). In order to provide better control for plotting and to include as many positions and soundings as possible, the dock and adjacent hydrography were plotted on a 1:2500 scale in an insert on the smooth sheet.

Item 5. Positions and soundings plotted after shoreline transferred from Air Photo Compilation, T-5070 (1934). (Location: Yacht Basin on west side of Nassau Point, Lat. 40° 59.95'±, Long. 72° 27.2'±)

Item 6. Positions and soundings plotted after transferring shoreline from Air Photo Compilation, T-5337 (1934). (Location: Beixenden Yacht Basin, west side of Southold Bay, Lat. 41° 04.1'±, Long. 72° 24.6'±) (For additional hydrography see under Item 7)

Item 7. This item refers to plotting of positions and

Soundings in Beixenden Yacht Basin, (For additional hydrography see under Item 6) and at Founder's Landing Dock (Location: Southwest side of Southold Bay, Lat. 41° 03.6±, Long. 72° 24.8'±) Positions and soundings in Yacht Basin were plotted after shoreline was transferred from Air Photo Compilation, T-5337 (1934). For both locations (Yacht Basin and Founders Landing Dock) topography and hydrography were plotted on a 1:2500 scale in an insert on the smooth sheet to insure better control and to include as many positions, soundings and other details as possible.

Item 8. This item concerns the correctness of a 3ft. (reduced) sounding recorded on Page 44, Vol. 15 and plotted on the smooth sheet between positions 157 X' and 158 X', (Lat. 41° 01.32', Long. 72° 19.66'). In the remarks column on Page 44 there is a note to the effect that positions 156, 157 and 158 were rejected originally but when the soundings were being put on the boat sheet the line was rerun and found to be O.K. The original recorded soundings were rejected by writing an "R" across them and it appears that when the "R" was erased after the soundings were found to be correct the figure "1" in the fathom column was erased but not restored. In other words, where there formerly was allegedly recorded 1 fm. 4 ft., there now appears "nothing" in the fm. column and "4" in the ft. column. However, the paper still shows the imprint of a "1" in the fathom column. The boat sheet shows a 9ft. sounding, which seems to back up the belief that there was originally

1 fm - 4 ft. erased 1 fm.

recorded a "1" in the fathom column, also a 9ft. sounding at this location agrees with the adjacent hydrography, which, in the absence of any recorded rocks or rocky bottom or otherwise unusual shoaling in this vicinity, indicates strongly that the 9ft. sounding is probably more correct than the 3 ft sounding. The sounding now appears on the smooth sheet in pencil as "3", the matter being left to the reviewer for consideration and final disposition. 1fm-4ft. accepted. =8' reduced

Item 9. This item refers to the correctness of a 44 ft. sounding (reduced) recorded on Page 20, Vol. 14 and plotted on the smooth sheet (and boat sheet) between positions 140 S' and 141 S', (Lat 41° 03.22', Long. 72° 22.82') This sounding plots in an area with depths varying from 61 ft. to 87 ft. As a result of this apparent discrepency an investigation was made in this vicinity on W' day from positions 70 W' to 90W' (Vol. 15, Pages 9, 10 & 11) and the shoalest depths found were 64ft. (reduced), these being recorded on Page 11 at positions 87 W' and 88 W', the former being taken (according to the plotting) at almost the same location as that of the doubtful sounding. The recorded depth (unreduced) at position 87 W' is 10 fm. 5 ft. while that between 140 S' and 141 S' is 7 fm 5ft. In view of a similarity in sound of 7fm 5ft. and 10 fm 5ft. it is highly probable that leadsmens 10 fm was mistaken for 7 fm by the recorder, this error resulting in the 44 ft. sounding. In his report, Mr. McGlosson contends that "... 44 ft. sounding is probably wrong and should be rejected." On the basis of the later investigation coupled with the above explanation as to the probable source of

44' fdg. rejected

error in recording, verifier concurs in the belief of Mr. McGlosson, i.e. the rejected 44 ft. sounding should be replaced with the later found 64 ft.

The sounding now appears on the smooth sheet in pencil as 44ft., the matter being left to the reviewer for consideration and final disposition. Reported item.

Item 10. Soundings on line from positions 16m to 17m (Lat. 41° 00.1±, Long. 72° 27.4±) have been replotted on line approximately parallel with the shoreline around this point and agree very well with the adjacent hydrography. (shoreline traced from Air Photo Compilation, T-5070 (1934))

Notation in the sounding records (Vol. 20, Page 44) to the effect that the above "---soundings should be rejected," has been voided by the verifier.

With further respect to the field records, particular attention is directed to the dilapidated condition of the various boat sheets submitted. Considerable time was spent by the ~~reviewer~~ verifier in making comparisons between the smooth sheet and boat sheets. In many instances, especially at shoal developments, it was almost impossible to identify either the protracting or the soundings. The paper of the boat sheet is of a very soft texture and in several places the paper has rubbed or torn away from the linen thus destroying or obliterating the record.

The field plotting is good with the exception that the sounding lines were scored too deeply into the paper. ~~In a short time this may cause the~~

~~surface to crack along these lines and eventually destroy the records thereon.~~

All reports and records which are required to be submitted with each survey have been received in the office with the exception of "Recoverable Station, Form 524"

Respectfully submitted

J. Levine

J. Levine

April 2, 1935.

Verifier's Report on Wire Drag on H-5380.

Records:

Records are very bad. No time was recorded except in a general statement that dragging was done from 12:00 to 2:30. Consequently no times were entered. Positions were taken on only one boat. No tests were taken for lift. No notes indicate where lines begin and end.

Drafting:

Field plotting was ignored by the verifier. Field party showed only scattered positions with no attempt to hook them up. Verifier replotted strips on an overlay which accompanies descriptive report.

Remarks:

There is little doubt in the verifier's mind that the 14 foot spot in question was adequately covered. But the records are in such sloppy condition that it makes it hard to accept this drag work.

Verifier worked on the assumption that the uprights were fastened directly to the boats and no towlines used. A normal bight in the wire would place the boats approximately 0.8 of the length of the wire apart. The wire was 120 meters along so the boats were figured to be 95 meters apart.

Positions 50-54 W' were not used because of the incompleteness of the notes. This strip looks as if it would cover the shoal too if the notes were complete.

Lt. Green suggests that the records ~~sho~~ for H-1568 showing the source of the 14 foot spot be investigated and if the sounding is <u>not O.K.'ed</u> in the record

Sdg not OK'ed in old Records - H.W.M.

that the drag be accepted as disproving it.

June 12, 1935

Submitted,
Jane Carmick

25'
04'

72° 24'
41° 04'

No tides or time in record. No test for lift.

Effective Depth 20-24 ft. (?)

Location of charted 15 ft sdg. from H-1568 (1883)

03'
25'

03'
24'

Tracing of Wire Drag

to accompany

H-5380

Survey No. H 5380

GEOGRAPHIC NAMES

Date. Mar. 27, 1935

Chart No. 1212

Diagram No. 1212

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

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

Under investigation. Q

Names underlined in red approved, Mar. 27, 1935
Harlow Bacon

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Shelter Island	* Same			
	West Neck	"			
	Shelter Island Sound	"			
	Great Hog Neck	* "			
	North Haven Peninsula	* "			
	Cutchogue Harbor	* "			
	Hog Neck Bay	"			
	Jessup Neck	"			
	Little Peconic Bay	"			
	Nassau Point	* "			
	Robins Island	* "			
	Noyack Bay	"			
	Black Dog Rock	"			
	Jennings Point	"			
	New Suffolk	"			

Note: West Neck is that portion of Shelter Island shown on this sheet (in pencil)

(M-136)

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5378 (1933)

Riverhead to South Jamesport, Great Peconic Bay, L. I., New York
Instructions dated March 17, 1933 (L. C. Wilder)
Surveyed in 1933

Hand Lead and Pole Soundings - Three Point Fixes on Shore Objects

Chief of Party - L. C. Wilder.
Surveyed by - B. C. Bolstad, E. B. Brown.
Protracted by - E. E. Mumaw.
Soundings penciled by - H. L. Hawkins.
Verified and Inked by - H. W. Murray and S. E. Perkins.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual, except that definite recommendations were not always made when later examinations apparently discredited a sounding, for example, a later examination in the vicinity of a $3\frac{1}{2}$ foot sounding (pos. 39g), Lat. 40°55.75', Long. 72°35.0', disclosed no less than 6 feet reduced for tide, but no recommendation for disposal of the $3\frac{1}{2}$ was entered in the record or made in the Descriptive Report. In all such cases, office dispositions were made as the individual cases warranted. Corrections of 10 to 20 meters in portions of the shoreline were made. The errors possibly were due to transferring from preliminary air-photo compilations.

2. Compliance with Instructions for the Project.

The plan and extent of the survey are in accordance with the instructions for the project, except that differences from prior surveys and the chart are not explained as directed by par. 10 of the instructions.

3. Sounding Line Crossings.

The agreement of depths on cross lines is satisfactory.

4. Depth Curves.

Within the limits of the survey the usual depth curves including portions of the low water line may be satisfactorily drawn.

5. Junction with Contemporary Surveys.

The junction with H-5379 (1933) to the eastward is satisfactory.

6. Comparison with Prior Surveys.

a. H-77 (1838).

The many differences between this survey and later surveys show that this is a changeable area and none of the information on the old survey should be used for charting purposes.

b. H-2099 (1891).

This survey shows a fair general agreement with the present survey in the deeper areas but with many changes in details on and near the shoal areas. The controlling depth in the Peconic River is now 2½ feet where the earlier survey shows 4 to 5 feet. Reeves Bay shows 1 to 2 feet less water in the deeper portion, but the entrance channel is about the same in width and depth. Slightly deeper water is found on the shoal extending northward from the entrance to Goose Creek. The controlling depth over the bar at the entrance to Flanders Bay is reduced from 6½ to between 5 and 6 feet.

7. Comparison with Chart No. 299.

a. Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

b. The survey gives slightly different locations for the charted aids to navigation, but they are not sufficiently in error to warrant hand corrections on the chart. The survey also gives the locations of a number of uncharted beacons and channel markers, some of which are privately maintained.

c. To cross the bar into Flanders Bay with the maximum depth, it would appear that Buoy C "1" should be moved about 100 meters to the southeastward.

8. Field Plotting.

The protracting of positions and the penciling of soundings were satisfactory. Apparent conflicts between hydrography and shoreline were eliminated after correcting the latter as noted in par. 1 of this review.

9. Doubtful Soundings.

The following soundings, although doubtful, have been retained on the sheet and should be charted unless disproved:

a. In Lat. 40°54.6', Long. 72°34.65' a 2½ foot sounding is not supported by surrounding depths nor by the old survey. It is impossible to determine whether it is misplaced in position or a misreading of depth. It was the first sounding taken on the first day's work.

b. In Lat. 40°55.6', Long. 72°34.4', a 5 foot sounding plots in the middle of the channel in a general depth of 9 to 10 feet. This sounding may be an error in recording. The unreduced sounding is recorded as "7⅝" feet. It may have been called "11⅝" feet by the leadsman (pos. 76g). In this connection attention is called to a note in the sounding records on "a" day that "trouble was had in distinguishing 11 from 7 as leadsman called them."

10. Additional Field Work Recommended.

a. The 5 foot sounding in Lat. 40-55.6, Long. 72-34.4. This sounding derives its importance from the fact that the controlling depth over the bar into Flanders Bay is 5 feet. If the sounding is not in error as suggested in par. 9 b, this review, then there is no assurance that the single sounding of 5 feet represents the least depth on the shoal.

11. Superseding Prior Surveys.

Within the area covered, the survey supersedes the following surveys for future charting purposes.

H-77 (1838) In Part.
H-2099 (1891) In Part.

12. Reviewed by - R. J. Christman, December, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

Chief, Division of Charts.

Chief, Section of Field Work.

Chief, Division of H. & T.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5379 (1933)

Great Peconic Bay, Eastern Long Island, New York
Instructions dated March 17, 1933 (L. C. Wilder)
Surveyed in 1933

Hand Lead and Pole Soundings - 3 Point Fixes on Shore Objects

Chief of Party - L. C. Wilder.
Surveyed by - P. C. Doran; J. F. Ilwain; E. B. Brown; R. C. Bolstad.
Protracted and Soundings Plotted by - T. F. Donlan; E. E. Mumaw; H. L. Hawkins.
Verified and Inked by - R. E. DeMent and S. E. Perkins.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual except that in some places the transfer of shoreline to the smooth sheet was 10 M to 25 M in error. This has been corrected in the office.

2. Compliance with Instructions for the Project.

The plan and extent of the development are in accordance with the instructions for the project. The sheet is an excellent example of a well covered area and of close inshore work.

3. Sounding Line Crossings.

Wherever crosslines were run the agreement in depth is good.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn, including most of the low water curve.

5. Junction with Contemporary Surveys.

a. The junction with H-5378 (1933) on the west is satisfactory.

b. H-5323 (1933). This sheet overlaps H-5379 (1933) at the south end of the Shinnecock Canal. The agreement in depth is fair. H-5379 (1933) is on a larger scale (1-5,000) with a closer development and should be given preference.

c. The junction with H-5380 (1933) will be considered in the review of that sheet.

6. Comparison with Prior Surveys.

a. H-77 (1838).

The agreement in depth in the deeper area is good. The sounding lines are spaced too far apart to show detail in the shoal areas

with any degree of accuracy. All features indicated on this sheet are amply covered in the later surveys.

b. H-2097 (1891), H-2098 (1891) and H-2099 (1891).

These surveys are in good agreement with H-5379 (1933) except in the following areas:

(1) The channel south of Robins Island has deepened considerably in places, but general details remain the same. The controlling depth has not changed much, being now about 15 feet as against 14 feet on H-2097 (1891).

(2) The area in the vicinity of the Shinnecock Canal is considerably shoaler on the new survey, especially to the eastward of the channel leading to the entrance to the canal. H-2098 (1891) does not show the channel through the shoal area adjacent to the shore.

(3) The area southwest of buoy N "2A" Lat. 40°55.6', Long. 72°33' has deepened 2 to 6 feet in places and details of the 18 foot curve have changed considerably. There is fair agreement between the two surveys in the vicinity of the buoy and in the shoaler water northward of the channel.

(4) In Lat. 40°57.75', Long. 72°29.7' an 18½ on H-2098 (1891) has been charted as a detached 18. The present survey shows a depth of 20 feet in this vicinity and the 18 should not be retained on the chart.

Unimportant. Let for the present. F.M.C. 3/9/36

(5) Off the southwest shore of Robins Island H-2097 (1891) shows three rocks whose source is T-1772 (1891). A plotted position (117 i blue) was rejected in the sounding records but apparently erroneously transferred to H-2098 (1891) as an additional rock. All three rocks are shown on the present survey but in slightly different locations. The southern one has an elevation of 6 feet at M H W; the other two are awash at some stage of the tide. The present survey shows several additional rocks awash along this shore. All of these rocks were located by 3 point fixes and are believed to be accurate. They should supersede the locations given on the above mentioned prior surveys.

(6) A bare rock charted close inshore at Robins Island in Lat. 40°57.8', Long. 72°27.85' is derived from H-2098 (1891) apparently transferred from T-1772 (1891). It is probably a boulder close to the low water line and not distinctive, as the present survey shows 2 feet of water with bottom characteristic of rocks and sand in the vicinity. It should not be retained on the chart.

Several shoal soundings from the above surveys have been retained and are shown in red on H-5379 (1933). They fall between sounding lines on the present survey in areas that appear to be fairly stable.

c. H-3520 (1913).

This is a survey of the channel south of Robins Island. The area is changeable and the survey shows a condition intermediary between that shown on H-2097 (1891) and on H-5379 (1933).

7. Comparison with Chart No. 299.

a. The 5 foot sounding in Lat. 40°56.4', Long. 72°28.1' was charted from L. H. Notice to Mariners 31 of 1909 based on a report from the tender John Rodgers. The shoal falls in depths of 15 to 16 feet on the present survey and about 200 meters to the northwest of a 6 foot rock located thereon. The latter rock is marked by a danger buoy and is undoubtedly the same rock reported by the John Rodgers. Considerable time was spent in the examination of the spot and the least depth was probably obtained. Because of the uncertain method and time of locating the original rock, the location and depth as determined by the present field party should supersede the present charted rock.

b. The sunken rock in Lat. 40-57.95, Long. 72-28.2 was reported by a yachtsman in chart letter 510 of 1928. The least depth found by the present survey was 2 feet at MLW. There is a slight difference in position of the charted sunken rock and the 2 foot sunken rock found on the present survey. This difference, however, is due to the approximate location of the originally reported rock.

c. Buoy N "2a" (Lat. 40-55.7, Long. 72-32.9) is located about 550 meters southwest of its charted position, but marks the channel just as well. The other buoys are located in approximately the positions in which they are charted.

Except for the above the chart is based on surveys discussed in paragraph 6, and contains no additional information that needs consideration in this review.

8. Field Plotting.

Protracting of positions and penciling of soundings were satisfactory.

9. Additional Field Work Recommended.

The survey is complete and satisfactory and no additional field work is required.

10. Superseding Old Surveys.

Within the area covered the present survey with indicated additions from prior surveys, supersedes the following surveys for charting purposes:

H- 77 (1838)	In Part.
H-2097 (1891)	" "
H-2098 (1891)	Entirely.
H-2099 (1891)	In Part.
H-3520 (1913)	In Part.

11. Reviewed by - R. J. Christman, December, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Colbert
Chief, Division of Charts.

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

H. Rude
Chief, Division of H. & T.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5380 (1933) - FIELD NO. 3

Little Peconic Bay and Shelter Island Sound, Eastern Long Island, N. Y.
Surveyed May - July, 1933
Instructions dated March 17, 1933 (L. C. Wilder)

Hand Lead Soundings. 5 Point Control on Shore Signals

Chief of Party - L. C. Wilder.
Surveyed by - P. C. Doran, J. F. McIlwain and E. B. Brown.
Protracted by - H. Leonard Hawkins.
Soundings plotted by - P. C. Doran, J. F. McIlwain and G. C. McGlasson.
Verified and Inked by - J. Levine.

1. Condition of Records.

The records are neat, legible and conform to the requirements of the Hydrographic Manual, except as follows:

a. On the cover label and title page of the sounding records, the position numbers and day letters were in black ink. These were changed to the proper color in the office. (Par. 138).

b. No copy of "Landmarks for Charts" on Form 567 accompanied this particular sheet. (Par. 168).

c. Position day letters were recorded in a number of volumes and subsequently plotted on the smooth sheet as capital letters instead of small letters as required by Par. 61. No change was made in the office.

d. The field plotting of the drag work was incomplete and necessitated a complete re-plotting in the office. In addition, the work was incompletely recorded in that the positions were not accompanied by time, which is essential to determination of tidal reducers, nor was any record made of actual or estimated lift, which is essential to the determination of effective depths. (See verifiers report).

The "Descriptive Report" is clear and comprehensive and satisfactorily covers all matters of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project except as noted in paragraphs 5 and 9 of this review. In this connection, sufficient sounding lines should have been run in the vicinity of several charted shoal soundings so as to afford adequate information for their disproval. They are shown on H-5380 (1933) in color.

3. Sounding Line Crossings.

While no general system of cross lines was run, those that were run, as well as the adjacent lines, show good agreement. However, a portion of soundings on line 11 to 13N (red) in lat. 41°01.7', long. 72°23.3' varied 3 to 4 feet deeper than those of the adjacent lines, caused illogical irregularities in the depth curves, and therefore were expunged from the sheet.

4. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn, except as noted in paragraph 5 of this review.

5. Junctions with Contemporary Surveys.

a. The junction on the west with H-5381 (1933) is satisfactory.

b. The junction on the southwest with H-5379 (1933) is satisfactory with the exception that the 6 and 12 foot curves in the vicinity of lat. 40°58.8', long. 72°28.2' are not clearly defined.

c. The junction on the north with H-5382 (1933) is satisfactory except that the 60 foot sounding of the present survey, which falls in depths of about 93 feet on the adjoining survey (lat. 41°04.4', long. 72°23.3') ~~and~~ appears to be too shoal but has been retained because the area in question is insufficiently developed on the present surveys, as well as on prior surveys in this vicinity, to disprove its existence.

6. Comparison with Prior Surveys.

a. H-77 (1838), H-78 (1838) and H-79 (1838).

These sheets actually constitute but one survey of the area involved. Each sheet contains a large overlap from one or more of the others, but as plotted, appears as though all the work was original with it. Considering the time elapsed and the fact that the old surveys are among the first made by this Bureau when methods and equipment were in the developmental stage, a detailed comparison will serve no useful cartographic purpose. Although differences of as muchas 10 feet are noted between these surveys and the present survey, all important shoals or rocks are adequately covered on subsequent surveys in this area.

b. H-1568 (1883).

Soundings of this survey generally vary $\frac{1}{2}$ to 3 feet shoaler than those of the present survey. However, a few areas vary 1 to 3 feet deeper, while many others are practically unchanged in depth.

(1) Position 17o (red) of line 16 to 18o in lat. 41°01.5', long. 72°22.0' is incorrectly plotted (angles reversed). Soundings in the vicinity of the position vary 10 to 20 feet shoaler than those of the present survey. While correct plotting improves agreement, there still remain differences of 1 to 6 feet. In view of the fact that soundings on the present survey in this vicinity are sufficiently extensive to show a fairly uniform bottom, the existence of shoal depths other than those shown on the present survey is very doubtful and the shoal soundings of line 16 to 18o should be disregarded in future chartings.

(2) The 4½ foot sounding (4 feet, charted) in lat. 41°02.9', long. 72°22.8' falls in depths of 11 feet on the present survey. According to the records of the 1883 survey, the 4½ foot sounding was obtained between a 7½ foot sounding about 20 m. to the NWxW and an 11½ about 20 m. SExE. It is possible that the 7½ may have been mistaken for an 11 and the 4½, a leadsman's error of 1 fm., for both soundings would then be in excellent agreement with the present survey. In addition, the field party "spent 1 hour feeling around" (see note, Vol. 11, page 8) during a 2 foot tide or greater and found no indication. The shoal is considered non-existent and should be disregarded in future chartings.

(3) The 23 foot sounding (charted) in lat. 41°01.4', long. 72° 22.5' is apparently a leadsman's error, for it falls in depths of 29 feet on the present survey and is unsupported by shoaling indications on either survey. The sounding should be disregarded in future charting.

(4) The 14-3/4 foot sounding (15 charted) in lat. 41°03.6', long. 72°24.1' falling in depths of 28 feet on the present survey, was cleared by a drag set to a depth of 24 feet (w' day, red), although no allowance was made for tide nor lift. It is apparent from the sounding records that the tidal range was decreasing and varied from 2 to ½ feet during the dragging period, however, no reliable estimate can be made of the lift. In view of the fact that the hydrographer spent over 2 hours feeling around on another day (see page 63, Vol. 14) and found no indication, it is evident that the sounding is non-existent, and is probably a leadsman's error of 2 fms., for by adding this amount and correcting the result for the change in bottom of about 2½ feet, the sounding agrees excellently with depths on the present survey. The sounding should be disregarded in future chartings.

c. H-2083 (1891).

Soundings of this survey vary ½ to 2½ feet deeper than those of the present survey in some areas and ½ to 3 feet shoaler in others. However, a few areas are practically unchanged, whereas differences of 1 to 6 feet occur in depths of 25 feet or more and in areas where the bottom changes rapidly.

(1) The two detached shoals (charted) in lat. 41°00.1', long. 72°19.5', with least depths of 17 and 18 feet fall in depths of 21 feet on the present survey and in well developed areas. Depths on the present survey indicate a general deepening of 1 to 4 feet and the shoal spots should be disregarded in future chartings.

(2) The 6 foot shoal (charted) in lat. 40°59.8', long. 72°19.9' falls in depths of 10 feet on the present survey but is approximately 45 m. NE of two 7 foot soundings shown thereon. Since soundings on the present survey in this vicinity vary 1 to 2 feet deeper and show a general change in the bottom, the 6 should be disregarded in future charting.

(3) The 36 foot sounding (charted) in lat. 41°01.3', long. 72° 23.2' falls in depths of about 50 feet on the present survey and was obtained on line 103 to 104m (red), soundings of which vary 7 to 20 feet shoaler than those of the present survey as well as differing by that amount on the crossline of the 1891 survey. Soundings on this shoal line should be disregarded in future chartings.

(4) The 12 foot sounding (charted) in lat. 41°02.8', long. 72° 22.7' falls in depths of 15 to 16 feet (comparatively even bottom) on the present survey. The 12 is a single sounding on line and is not supported by other soundings. The present survey indicates a small deepening (1 foot) in this area and in view of the intensive development thereon the 12 should be disregarded in future chartings.

(5) The two detached 6 foot shoals (charted) in lat. 41°02.4', long. 72°20.5', falling in depths of 7 feet even bottom on the present survey. The 6 foot soundings are probably slightly too shoal, since the crosslines on the old survey also show 7 feet. The 6 foot shoals should, therefore, be disregarded in future charting.

(6) The 10, 11 and 12 foot shoals (charted) in the general vicinity of lat. 41°02.5', long. 72°22.7' are slightly shoaler than the depths of the present survey which developed the area very closely and shows a general least depth of 11 feet in about the same position as the old shoals. As this sandy area is probably subject to some change, the present development should be accepted and the old soundings disregarded in future charting.

d. H-2097 (1891).

In general, a good agreement exists between soundings of this survey and the present survey. However, variations of ½ to 1½ feet occur frequently and larger differences are noted in areas where the bottom changes rapidly. In addition, a number of soundings on the 1891 survey are very poorly spaced with respect to time interval.

The following policy has been followed in disposing of the shoaler soundings from this survey. Soundings shoaler than the present average depths, which fall in blank, undeveloped areas on the present survey, have been carried forward provided the surrounding depths are in agreement with the present ones. In areas where the present development plainly indicates general changes, the shoaler soundings from the 1891 survey have been disregarded. The following dispositions have been made:

(1) The 16 foot sounding (charted) in lat. 40°59.1', long. 72° 28.2' was obtained between a 21 and 22 foot sounding (line 33 to 34c, red) and falls in depths of 21 feet, even bottom, on the present survey. Soundings on both surveys in the immediate vicinity agree within 1 foot and show no indications of shoaling. The sounding is probably 1 fm. too shoal and should be disregarded in future chartings.

(2) The 24½ foot sounding (charted 24 feet) at lat. 40°58.4, long. 72°25.1' falls in depths of from 29 to 35 feet on the present survey, which shows a 24 about 150 meters northeast of the old 24. A general change in the position and shape of this shoaling is clearly indicated by the present development which is adequate and should be accepted. The old soundings in this area should be disregarded in charting.

(3) In the vicinity of the 7 foot sounding (charted) in lat. 40°59.2', long. 72°28.3', a marked deepening of 5 or more feet is shown on the present survey. The 7 should be disregarded in future chartings.

(4) The three 20-3/4 foot soundings (20 feet charted) of line 75 to 76h (red), as well as two 19.7 foot soundings just east of the above (not plotted on old survey) in lat. 40° 59.2, long. 72°23.5, fall in depths of 26 to 28, and 23 feet, respectively, on the present survey, which shows depths of 19 and 20 feet about 150 meters to the southeast. The soundings are obviously too shoal and the representation on H-5380 (1933) should be accepted for charting.

(5) The 26½ foot sounding (two recorded in records) (not charted) of line 8 to 9e (red) in lat. 40°58.5', long. 72°26.3' is incorrectly plotted due to an error in protracting of pos. 8. Correct plotting places the sounding about 100 m. WSW where it falls in depths of 30 feet on the present survey, which indicates general changes in the area. The 26½ foot sounding should be disregarded in future charting.

(6) The 28, 29 and 30 foot soundings (28 charted) on the latter part of line 24 to 25i (red) in lat. 41°00.1', long. 72° 24.2' and falling in depths of about 36 feet (even bottom) on the present survey, are apparently 1 fathom too shoal. Soundings on both surveys in the immediate vicinities agree within one foot and show no indications of shoaling. The shoal soundings should be disregarded in future chartings.

e. H-3520 (1913).

Generally speaking, the few soundings of this survey which fall within the limits of the present survey (SE of Robins L) are in good agreement. However, variations of 1 to 2 feet and more occur in some spots.

The 26 foot sounding (not charted) of this survey in lat. 40° 57.7', long. 72°26.4' falls in depths of about 33 feet on H-2097 (1891) and 34 feet on the present survey and is probably a leadsman's error, as it was the first sounding obtained on the day's work (pos. lf, red). While the area in question is not fully developed on any of the above surveys, soundings do not indicate any shoaling nor changes in depth exceeding 2 feet. The 26 should be disregarded in future chartings.

7. Comparison with Charts No. 298 and 299.

a. Hydrography.

(1) The charted rock (on chart No. 299) with least depth of $4\frac{1}{2}$ feet in lat. 41°00.9', long. 72°26.3' originates with Letter No. 1352 (1892) of the Hydrographic Office. A least depth of 5 feet was obtained on the present survey in practically the same position and in view of some uncertainty regarding the $4\frac{1}{2}$, the least depth as determined on the present survey should be used for charting purposes.

(2) The charted rock (Black Dog Rk.) with least depth of 5 feet on Charts 298 and 299 in lat. 41°02.5', long. 72°21.8' originates with Chart Letter No. 472 (1916) which is the result of an investigation authorized by this Bureau. In the letter, the rock is referred to as two boulders and as spotted on a section of a chart are about 60 m. apart. The position as determined on the present survey agrees substantially with the outermost rock but is about 60 m. WxS of the other rock. As the area in the vicinity of the latter rock is well sounded, it is possible that the two rocks are closer together than spotted on the section of the chart submitted. The 1916 locations were evidently by fixes to

natural objects and for this reason the present location is considered more accurate. The 5 foot depth found over the rock in 1916 does not appear to be discredited, however. It should be retained on the charts in the position of the 6 foot sounding which was obtained on the rock by the present survey.

(3) The charted character in lat. 40°58.7', long. 72°27.7', which may be interpreted as a bare rock, originates with T-1772 (1887) and is apparently the outermost edge of a low water line shown thereon. In view of the fact that the hydrographer of H-5379 (1933) was in the vicinity during tides of ½ to 2 feet and has located other rocks in this vicinity, it is probable that he would have located this one if it existed. The rock is believed to be non-existent and should be disregarded in future chartings.

b. Aids to Navigation.

(1) Buoys N16, C1, N14, and C5 were located on the present survey in practically the same positions as charted.

(2) Buoy N12 as well as lighted buoys 7, 5A, 16 and 10 were located in positions varying 90 to 220 m. from their charted positions but correctly mark the features intended as determined on the present survey.

(3) Buoy C9 and 10A in lat. 40°57.1', long. 72°26.95' and lat. 41°02.46', long. 72°22.53', respectively, were located in positions varying 160 and 210 m., respectively, from their charted positions and do not correctly mark the features as delineated by the present survey. However, the Lighthouse Service replaces buoys during May of each year to take care of changes in the channels.

8. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual except as follows:

a. Penciled lines connecting successive positions were too heavily drawn and caused deep grooves in the smooth sheet.

b. Numerous soundings were incorrectly plotted due to failure in observing proper time interval, sequence of positions and probable course of the boat on turns. These were corrected in the office.

c. Numerous position numbers were interchanged. These were corrected in the office.

9. Doubtful Soundings.

A number of doubtful soundings were obtained which should have been investigated in the field. Those which appeared too deep when compared with depths on the present survey, as well as with those on prior surveys in the immediate vicinity were rejected. Dispositions regarding those which appear to be too shoal are as follows:

a. A 10 foot sounding of line 3 to 4N (red) in lat. 41°01.7', long. 72°23.4' falls in depths of about 14 feet and is evidently a leadsman's error for two other sounding lines were later run directly over the 10 and no depths less than 14 feet were found. The 10 has been rejected.

10. Additional Field Work Recommended.

This is an excellent survey in respect to area covered and in the development of detail. No additional work is required; however, when work is resumed in this locality, the soundings which have been carried forward from previous surveys (see list below), as well as the 60 foot sounding discussed in paragraph 5c of this review should be investigated.

The following soundings were carried forward from previous surveys:

26 foot	lat.	40°58.1',	long.	72°26.35'
30	"	40°58.05,	"	72°26.37'
5, 5 and 6	"	40°59.0',	"	72°25.85'
28, 30, 30, 29, 29, and 30	"	40°58.8',	"	72°25.1'
30	"	40°58.8',	"	72°25.2'
23	"	40°59.6',	"	72°25.3'
22	"	40°57.8',	"	72°24.9'
27, 29 and 30	"	41°01.7',	"	72°23.1'
26	"	41°03.5',	"	72.22.75'
19	"	41°00.4',	"	72°23.1'
21	"	41°03.4',	"	72°22.6'

11. Superseding Previous Surveys.

Within the area covered, the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

H- 77 (1838) in part.	H-2083 (1891) in part.
H- 78 (1838) " "	H-2097 (1891) " "
H- 79 (1838) " "	H-3520 (1913) " "
H-1568 (1883) " "	

12. Reviewed by - Harold W. Murray and R. J. Christman, May 10, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Colbert
Chief, Division of Charts.

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

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

Applied to Charts 298 + 299
Aug. 10, 1935 J. H. S.

Applied to Chart 1212
Apr. 27, 1936 J. M. A.

25 Jan 27, 1936

11 Dec 50 - Nichols Ch. 363 - all fully applied.