

5670

U. S. COAST & GEODETIC SURVEY
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MAR 4 1935

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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 2
Hydrographic }

State New York

LOCALITY

Hudson River
~~Burden Dock to Brantow Point and~~
~~Hudson River Linlithgo to Hudson~~
~~City Lighthouse.~~

Rondout, Esopus and Catskill Creeks.

1934

CHIEF OF PARTY

John A. Bond

5670

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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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. 5670

StateNew York.....

General localityHudson River
~~Hudson River - Linlithgo to Hudson City Lighthouse.~~
Burden Dock to Brandon Point And

LocalityRondout, Esopus, and Catskill Creeks.....
1:5000

Scale 1:10,000 Date of survey Sept.-Nov., 1934

VesselLaunch MIKAWA.....

Chief of PartyJohn A. Bond.....

Surveyed byD. E. Sturmer.....

Protracted byA. G. Turner and A. van Reuth.....

Soundings penciled byA. van Reuth.....

Soundings in ~~2 fathoms~~ feet

Plane of reference ^{Hudson River} Datum *(Mean Low Water at lowest river stages)*

Subdivision of wire dragged areas by

Inked byA. H. YEOMANS.....

Verified byA. H. Y.....

Instructions datedJuly 25, 1934....., 19

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 2

HUDSON RIVER - NEW YORK

Hudson River from Linlithgo to Hudson City Lighthouse, Rondout Creek, Esopus Creek, and Catskill Creek.

AUTHORITY:

This work was executed in accordance with the Director's Instructions dated July 25, 1934 to the Commanding Officer, Launch MIKAWA: Project No. HT-190. ✓

LIMITS:

Sheet 2 is divided into 4 sections, each surveyed independently of the other. Rondout, Esopus and Catskill Creeks are on a scale of 1:5,000. The section of Hudson River from Linlithgo to Hudson is on a scale of 1:10,000. ✓

Rondout Creek - Joins U. S. Engineer's survey on the east and extends to 0.1 mile west of N.Y.C.R.R. bridge across Rondout Creek.

Esopus Creek - Joins sheet 3 at Saugerties lighthouse (entrance to Esopus Creek) and extends westward (upstream) to power dam.

Catskill Creek - Joins Hudson River section (1:10,000) of sheet 2 at the entrance of Catskill Creek and extends upstream to the railroad bridge.

Hudson River - Joins sheet 3 on the south and the U. S. Engineer's surveys 700 yards south of Hudson City Lighthouse.

SURVEY METHODS:

Standard Coast Survey methods of hand lead soundings and sextant fixes were generally used. Along the shoreline, near docks, between lighters, tugs, etc, where sextant fixes were impracticable the positions were carefully plotted on the boat sheet, in the field, in relation to nearby topographic detail. ✓

In Rondout Creek especially, the large number of lighters, barges and towboats alongside the docks and seawalls made an even spacing of soundings impossible. Soundings were taken between the obstructions as conditions would permit. ✓

The leadline was No. 8 Samson mahogany tiller rope graduated in fathoms and feet. The sounding boat was a 24 ft. skiff with outboard motor. ✓

DISCREPANCIES:

No discrepancies are known to exist. Errors in the sounding records, principally in recording of angles, have been adjusted during the smooth plotting and noted in red in the sounding records. ✓

DANGERS:

In Rondout Creek at position 36 b (Lat. 41-54.9, Long. 73-59.1) is a sunken pile, which at the time of the survey was marked with an electric light and a line of stakes from the shoreline which support the light cord. ✓

The bottom of Esopus Creek west of signal "Had" (Lat. 42-04.4, Long. 73-56.7) is strewn with large boulders. Small craft with local knowledge use this area as an anchorage but it should be avoided by strangers. ✓

Several wrecks along the shoreline, which bare at low water, are shown on the topographic sheets which cover this area. ✓

CHANNELS:

Rondout Creek - Nine feet can be carried into Rondout Creek past the white spar buoy, 150 meters south of signal "Que", by favoring the south shore. Caution must be used in this area because of the many wrecks that border the south edge of the channel. ✓

Esopus Creek - Twelve feet can be carried into Esopus Creek to Lat. 73-56.7 ✓

Catskill Creek - Eight feet can be carried to a point 200 yards south of the railroad bridge. The channel is very narrow south of the highway drawbridge and is near the east side of the creek. ✓

COMPARISON WITH PREVIOUS SURVEYS:

Rondout Creek - The area near the white spar buoy, Lat. 41-54.8, Long. 73-59.3, has shoaled from 10 feet as shown on Chart 283 to 8 feet. ✓

Catskill Creek - The entrance of Catskill Creek has widened and deepened. The area south of the highway bridge over the creek has shoaled from 10 feet, as shown on chart 283, to 6 feet. ✓

Esopus Creek - A shoal, which bares at low water, lies on the west side of the creek near signal "Eye". The shoal is not shown on the chart. ✓

✓ Hudson River - The depth curves, in general, check well with those shown on chart 283. All shoal soundings shown on chart 283 were investigated with the exception of the 6 foot spot at Lat. ~~42-13.8~~ 42° 13.8', Long. 73-50.9, which was inadvertently omitted. The shoalest depth shown in this area by our sounding lines is 11 feet. It is recommended that the 6 foot sounding be retained on the chart pending further investigation.

The 6 ft. sounding from H-799 carried forward see Review Part. G, C, 1. JCL.

MISCELLANEOUS:

The unsurveyed areas outside the high water line are covered with a heavy grass, which would foul the propeller of the motor. Sounding lines were run into the grass area as far as possible. The limits of the grass are shown with a broken line on the smooth sheet, and so noted. ✓

DATUM:

The datum used is North American, carried forward through the unadjusted third order triangulation of C. A. Egner, 1933, and J. A. Bond, 1934. At station Terry, near Kingston, there is a discrepancy of about 4 meters between the third order work and the 1858 second order triangulation. At station Mt. Merino, near Hudson, the discrepancy between the third order and 1858 second order triangulation is about 8 meters. As a scheme of first order triangulation is contemplated over the area in the near future, which will permit adjustment of the third order triangulation as well as establishing the N.A. 1927 datum, projection lines have been left in pencil, (their extremities indicated by short inked lines) the final projection on the N.A. 1927 datum to be supplied by the Office.

see review Part 1, 2, ✓

D. E. Sturmer
D. E. Sturmer
Deck Officer

Approved & Forwarded:

John A. Bond
John A. Bond
H. & G. Engineer
Chief of Party

Smooth sheet No. 2 was plotted under the immediate supervision of the Chief of Party. The sheet and accompanying records have been inspected and are approved. ✓

John A. Bond
Lieut. U.S.C. & G.S.
Chief of Party

✓

STATISTICS FOR FIELD SHEET NO. 2

Day Letter	Vol.	Pos.	Soundings	Sta. Miles
a	1	126	472	7.1
b	1	99	258	4.0
c	1	106	437	6.1
d	1	20	54	0.8
e	1 & 2	166	646	20.7
f	2	91	341	10.1
g	2	149	608	20.6
h	2 & 3	126	415	9.8
j	3	208	786	9.0
k	3	<u>22</u>	<u>83</u>	<u>0.8</u>
Totals		1113	4100	89.0

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5670

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

Number of positions on sheet	1113.
Number of positions checked	.33...
Number of positions revised	..0...
Number of soundings recorded	.4100.
Number of soundings revised	..0...
Number of signals erroneously plotted or transferred	..0...

Date: APRIL 16, 1935

Verification by A.H. YEOMANS

Time: 4 hrs

Review by JOHN G. LADD

Time: 17 hrs

Report on H 5670

Chief of Party J. A. Bond

Protracted by A. G. Turner, A. van Renth

Verified and inked by A. H. Yeomans

Surveyed in Sept. Nov. 1934

Surveyed by D. C. Sturmer

Soundings plotted by A. v. R.

1. The records conform to the requirements of the General Instructions ✓
2. The usual depth curves were completely drawn. ✓
3. The field plotting was completed to the extent prescribed in the hydrographic manual. ✓
4. The drafting done by the field party was satisfactory. ✓
5. The only adjacent sheet #5623 (1934) has not been completed. ✓
6. At lat. 42-13.8 long 73-50.9 (150-151°E) a five foot sounding was recorded. This position was investigated later at 129' g' day and showed that there was nothing less than eleven feet at this position which was plotted on the smooth sheet. ✓

The 5 ft. was disproven
by investigation at pos
129' g. J.G.L.

Submitted by,

A. H. Yeomans

Date. Mar. 7, 1935

GEOGRAPHIC NAMES
NEW YORK

Survey No. H 5670

Chart No. 283

Diagram No. 283

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

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

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	<u>Hudson River</u>	Same			
✓	<u>Esopus Creek</u>	"			
✓	<u>Catskill Creek</u>	"			
	Esopus--	<u>Cat skill</u> <i>one word</i>			
✓	<u>Roundout Creek</u>	Same			
✓	<u>Brandow Point</u>	"			
✓	<u>Corlear Kill</u>	-----			
		✓ <u>Hamburg</u>			
✓	<u>Rogers Island</u>	Same			
✓	<u>Hallenbacks Creek</u>	"			
✓	<u>Burden Dock</u>	"			

LAC

March 27, 1935.

F.E.

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5670

Locality Burden Dock to Brandow Point and Rondout-Esopus and Catskill Creeks,
Hudson River, N. Y.

Chief of Party: John A. Bond in 1934
Plane of reference is (mean low water ^{at lowest river stages} reading) Hudson River Datum
1.4 ft. on tide staff at Kingston
8.8 ft. below B.M. 1

1.2 ft. on tide staff at Tivoli
7.8 ft. below B.M. 1

0.5 ft. on tide staff at Linlithgo
8.7 ft. below B.M. 1

0.4 ft. on tide staff at Hudson
10.8 ft. below B.M. 1

Height of mean high water above plane of reference is 3.8 feet at
Kingston and Tivoli; 3.9 feet at Linlithgo; 4.0 feet at Hudson.

Condition of records satisfactory except as noted below:

Acting Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5670 (1934)

Hudson River, Burden Dock to Brandow Point, and Rondout, Esopus
and Catskill Creeks, New York

Surveyed in 1934

Instructions dated July 25, 1934 (MIKAWE)

Hand Lead Soundings

3 point fixes on shore signals

Chief of Party - John A. Bond.

Surveyed by - D. E. Sturmer.

Protracted and soundings penciled by - A. G. Turner, A. Van Reuth.

Verified and Inked by - A. H. Yeomans.

1. Condition of Records.

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

- a. The projection lines were left in pencil by the field party pending the adjustment of triangulation. (See D. R. page 3, "Datum"). The projection lines have been inked in by the office.
- b. No topographic features are shown for a number of signals which are outside the high water line. However, they are all inside the low water curve and are probably of a temporary nature located on bare or sand banks that are bare except at high water.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project, except for the failure to investigate the 6 foot sounding described in paragraph 6 c (par. 11).

3. Sounding Line Crossings.

The cross lines together with the parallel adjacent lines are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

The junction with H-5623 (1934) on the south in the Hudson River and at the eastern end of Esopus Creek will be considered in the review of that survey. On the north in the Hudson River and on the east in Rondout Creek satisfactory junctions are made with U. S. Engineer's Surveys.

6. Comparison with Prior Surveys.

a. H-665 (1858) and H-978 (1862).

These surveys of Rondout Creek are in satisfactory agreement with the present survey, with the following exception:

The two 6 foot soundings (uncharted) from H-665 (1858) at lat. $41^{\circ}54.76'$, long. $73^{\circ}59.48'$ and the 5 foot sounding (charted) from H-978 (1862) about 200 meters to the east fall on the present survey in depths of 8 to 9 feet. The water front south of this area has been built out considerably since the old surveys and the inshore marsh areas eliminated. This has resulted in narrowing the waterway at this point. From the development on the present survey it is evident that the channel has deepened in this general area and the 5 and 6 foot soundings are considered as now non-existent and should be disregarded in future charting.

b. H-666 (1858).

This survey of Esopus Creek is in radical disagreement with the present survey. The changes are due to dredging operations and construction of long dikes at the mouth of the creek by the U. S. Engineers. A discussion of these changes would serve no usefull navigational purpose. The present survey within its limits should supersede H-666 (1858) for charting purposes.

c. H-799 (1862) and H-800 (1862).

These two surveys which cover the Hudson River are in general good agreement with the present survey, with the following exception:

- (1) The 6 foot sounding (charted) from H-799 (1862) at lat. $42^{\circ}13.8'$, long. $73^{\circ}50.8'$ falls on the present survey between depths of 11 to 13 feet. The failure to verify this sounding, together with recommendations that it be retained on the chart is discussed on page 3 of the D. R. The area is sparsely developed and the 6 foot sounding is not disproved. It has been carried forward to the present survey in red and should be continued on the chart until disproved.

7. Comparison with Chart No. 283.

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs, together with U. S. Engineers' surveys in the various creeks. These surveys are in fair general agreement but should be superseded within the area of the present survey because there appear to have been some natural changes as well as artificial ones.

b. Aids to Navigation.

- (1) The beacons are in substantially the same positions as shown on the chart, with the following exceptions:
 - (a) The lighted beacon at lat. $42^{\circ}13.75'$, long. $73^{\circ}51.16'$ (triangulation sta. "Hanburg Lt. 1934") is about 50 meters south and 50 meters west of the position shown on the chart.
 - (b) The lighted beacon at lat. $42^{\circ}12.88'$, long. $73^{\circ}51.5'$ (triangulation sta. "Catskill W. Flats Lt. 1934") is about 90 meters south of the position shown on the chart.
- (2) The positions of the buoys on the present survey are from 50 to 100 meters different from the positions shown on the chart. However, in the positions shown on the new survey they adequately mark the features intended.

8. Field Plotting.

The field plotting was satisfactory, however the subplans of Catskill Creek and Rondout Creek should have been oriented in the opposite direction to be in conformity with the balance of the sheet.

9. Additional Field Work Recommended.

This survey is adequate and satisfactory. No additional work is required, except that the 6 foot sounding carried forward from H-799 (1862) at lat. $42^{\circ}13.8'$, long. $73^{\circ}50.8'$ should be investigated when work is again resumed in this locality.

Attention is called to the fact that the survey of Rondout Creek, as originally contemplated, is not entirely complete. Suspension of this work was authorized by this office.

10. Superseding Old Surveys.

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

H-665 (1858)	In Part.
H-666 (1858)	Entirely.
H-799 (1862)	In Part.
H-800 (1862)	" "
H-978 (1862)	" "

11. Reviewed by - John G. Ladd and R. L. Johnston, April, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

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

L. O. Solbert
Chief, Division of Charts.

J. B. Borden
Chief, Section of Field Work

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

Applied to chart 283 S.M.A. June 1935

25 June 7, 1936

lls,