

5623

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director



State: New York

DESCRIPTIVE REPORT

Topographic } Sheet No. 3
Hydrographic }

5623

LOCALITY

Hudson River

Barrytown to Burden Dock

19 34

CHIEF OF PARTY

John A. Bond

5623

DEPARTMENT OF COMMERCE
U. S. COAST AND 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. 3

REGISTER NO. 5623

State New York

General locality Hudson River

Locality Barrytown to Burden Dock

Scale 1:10,000 Date of survey Sept. - Nov., 19 34

Vessel Launch MIKAWA

Chief of Party John A. Bond

Surveyed by D. E. Sturmer

Protracted by A. van Reuth

Soundings penciled by A. van Reuth

Soundings in ~~fathoms~~ feet

Plane of reference ~~M.L.W.~~ Hudson River Datum (M.L.W. at lowest River stages)

Subdivision of wire dragged areas by _____

Inked by R. W. Cochran

Verified by _____

Instructions dated July 25, 19 34

Remarks: _____

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet No. 3

HUDSON RIVER

Barrytown to Catskill

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

On the south, sheet 3 joins sheet 1; on the north and at the entrance to Esopus Creek it joins sheet 2. Both adjoining sheets were executed by the Launch MIKAWA this season.

SURVEY METHODS

Standard Coast Survey methods of hand lead soundings and sextant fixes were generally used. Along the shoreline and near docks where sextant fixes were impracticable the positions were plotted in the field in relation to nearby topographic detail. The leadline was No. 8 Samson mahogany tiller rope, graduated in fathoms and feet. The leads varied in weight from 8 to 12 pounds. The sounding boat was a 24 ft. skiff with out-board motor. ✓

DISCREPANCIES.

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

DANGERS

A submerged wreck lies 215 meters north of signal "Ma", Pos. 70k (Lat. 42° 05.4', Long. 73° 55.7') in 20 feet of water. Numerous soundings were taken to determine the least depth and the shoalest one of 14 feet recorded. The wreck is on the edge of the channel and is not a menace to navigation, if it is shown on the chart. At present the location is marked by a buoy made from a 50 gal. oil drum.

Several wrecks along the shoreline were located on topographic sheets B, D and F. ✓

CHANNELS

The dredged channels at Tyler Pt. (Lat. 42° 00') and Silver Pt. (Lat. 42° 09') regularly surveyed by the U.S. Engineers were not developed in detail. ✓

COMPARISON WITH PREVIOUS SURVEYS

The depth curves, in general, check well with chart 283. The middle ground at Lat. 42° 07.7' Long. 73° 54.7 has a minimum depth of 12 ft. instead of 14 ft. This area was thoroughly developed for depths shoaler than 12 ft. but none were found. This middle ground extends several hundred yards farther south than shown on the chart. ✓

Imbought Channel, shown on the chart at Lat. 42° 10', no longer exists. The name should be removed from the chart. The cove northwest of Imbought Channel has shoaled from 1 ft. as shown on the chart to $\frac{1}{2}$ and 0 feet. ✓

MISCELLANEOUS

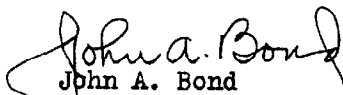
The unsurveyed area such as "Green Flats" (Lat. 42° 06', Long. 73° 55') and "Upper Flats" (Lat. 42° 07') are covered with heavy grass which fouled the propeller of the motor. Sounding lines were run into the grass area as far as possible. A note is made in the "bottom" column of the sounding records upon entering or leaving the grass area. Other small unsurveyed areas along the shoreline are also covered with heavy grass. The limits of the scattered grass areas are shown with a broken line on the smooth sheet, and so noted. Limits of heavy grass, as taken from the topographic sheets, are shown by dotted lines. ✓

There are numerous one and two pile dolphins at 42° 03', 73° 56.1, which bare at low water but are often covered at high water. They are a menace to navigation and should be noted on the chart. ✓

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. ✓
projection lines were inked in, in the office, J.G.L.

Approved & Forwarded:

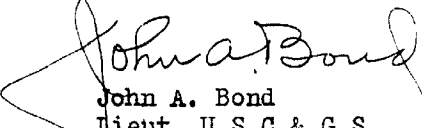

John A. Bond
H. & G. Engineer
Chief of Party


D. E. Sturmer
Deck Officer

STATISTICS
FOR
Sheet 3
Hudson River, N. Y.

<u>Day Letter</u>	<u>Vol. No.</u>	<u>No. Of Positions</u>	<u>No. of Sdgs.</u>	<u>Stat. Miles</u>
a	I	39	163	5.3
b	I	135	657	21.7
c	I	67	303	10.2
d	I & II	145	623	17.9
e	II	154	706	20.8
f	II	127	631	18.9
g	II & III	108	339	8.4
h	III	143	492	13.0
j	III & IV	141	742	24.4
k	IV	111	321	16.3
l	IV	153	588	19.9
m	IV & V	178	861	28.6
n	V	173	723	22.4
p	V & VI	127	536	16.5
q	VI	168	906	31.0
r	VI & VII	177	673	21.0
s	VII	39	142	4.3
t	VII	1	1	0.1
Totals.		2186	9407	300.7

Smooth sheet No. 3 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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5623

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

Number of positions on sheet	2186.
Number of positions checked	202.
Number of positions revised	2.
Number of soundings recorded	9407.
Number of soundings revised	51.
Number of signals erroneously plotted or transferred	0.

Date: July 13, 1935

Verification by R. W. Cochran

Time:

Review by

Time:

To: H.M. Strong
 From: C.F.M.

GEOGRAPHIC NAMES
 NEW YORK

Survey No. H 5625

Date Feb. 1, 1935

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>Barrytown</u>			✓
	<u>Astor Pt.</u>	Same			✓
	<u>Tyler Pt.</u>	"			✓
	<u>Turkey Pt.</u>	"			
	<u>South Bay</u>	"			
	<u>Cruger I.</u>	"			
	<u>Magdalen I.</u> *	"	✓		
	<u>Saw Kill Creek</u>	<u>Saw Kill</u>	✓		
	<u>Eves Pt.</u>	Same			
	<u>WANTON I.</u>	"	✓		
	<u>Wentin I.</u>	"	✓		
	<u>Silver Pt.</u>	"			
	<u>Duck Cove</u>	"	✓		
	<u>Dewitt Pt.</u>	"			
	<u>Green Pt.</u>	"			
	<u>Livingston Creek</u> *	"	✓		
	-----	<u>Burden Dock</u>	✓		
	<u>Picnic Pt</u>	<u>PIENIG PK.</u>			✓
	Heath <u>Ulster</u> ^{used} <u>landing</u> ^{decision} Heath				✓
		<u>Rock Island</u>	✓		
		<u>Hogs Back</u>	✓		
		<u>Saddle Bags</u>	✓		
		<u>Green Flats</u>	✓		
		over			

F.E.

Rac

March 27, 1935.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 5623

Locality Barrytown to Burden Dock, 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)
1.2 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

Height of mean high water above plane of reference is 3.8 feet
at Tivoli; 3.9 feet at Linlithgo

Condition of records satisfactory except as noted below:
It was necessary to smooth out some reducers when changing
from one tide station to another.

Harmer
Acting Chief, Division of Tides and Currents.

July 15, 1935

Verifier's report on sheet H-5623.

- 1.) The records conform to the requirements of the General Instructions. ✓
- 2.) The usual depth curves can not be completely drawn. In some places they fall almost on top of each other. ✓
- 3.) The field plotting was completed to the extent prescribed in the Hydrographic Manual. ✓
- 4.) The office draftsman did not have to do over any part of the drafting done by the field party. ✓
- 5.) The junctions with contemporary adjacent sheets are satisfactory. Contemporary adjacent are H-5670 (1934) and H-5610 (1934). ✓
- 6.) A piece of the shore line at the mouth of the Eopus Creek has to be added by the office draftsman. ✓

Respectfully submitted.
R. W. Cochran

POST-OFFICE ADDRESS: Box 870 New Bern, N. C.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

November 22, 1935

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

From: Commanding Officer,
U.S.C. & G.S.S. MIKAWA

Subject: H 5623 -- Islet shown on boat sheet.

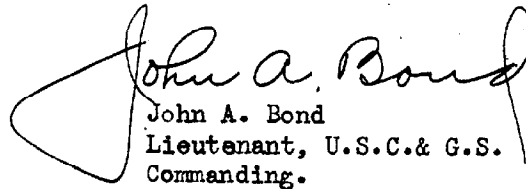
In reply to your letter of November 19, 1935 (80-DRM) which inquires as to the nature of an islet shown on the boat sheet for H 5623, the following information is submitted:

The inshore area in which the islet is sketched is covered with grass, fairly thick in some places and scattered in other places. The feature interpreted as an islet is most probably a clump of grass somewhat thicker than that surrounding it, and was probably sketched on the boat sheet by the hydrographer as a visual guide for running his lines. The fact that grass exists in the area is appropriately shown by the legend "grass". The islet should not be charted and may well be removed from the smooth sheet.

The islet has been
removed from the Smooth Sheet

J.G.H.

Jan. 9, 1936


John A. Bond
Lieutenant, U.S.C. & G.S.
Commanding.

1935 NOV -25- AM 9:26

JO

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5623 (1934) FIELD NO. 3

Barrytown to Burden Dock, Hudson River, New York
Surveyed in Sept. - Nov. 1934
Instructions dated July 25, 1934

Hand Lead and Machine Soundings.

3 Point fixes on shore signals.

Chief of Party - John A. Bond.
Surveyed by - D. E. Sturmer.
Protracted by - A. Van Reuth.
Soundings penciled by - A. Van Reuth.
Verified and inked by - R. W. Cochran.

1. Condition of Records.

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

- a. The shoreline had not been completely transferred from the topographic surveys to the smooth sheet. This has been accomplished in the office.
- b. The projection lines were left in pencil by the field party pending adjustment of triangulation. (See D. R. page 2, "Datum"). The projection lines have been inked in by the office.
- c. A number of signals plot outside the high water line for which no topographic feature is shown. However, they are all inside the low water curve and are probably of a temporary nature located on bars or sand banks that are bare except at high water.
- d. * The small island at latitude $42^{\circ} 10.35'$, longitude $73^{\circ} 52.23'$ which originates with the boat sheet, is not verified by the new topographic survey T-6207 (1934). Also no mention of the island is made in the sounding records, although a sounding line apparently crosses right through it. The matter has been referred to the field for further information and pending its receipt the island should not be charted.

The islet has been removed from the Smooth sheet. See letter from chief of party, (attached)

J.G.H. Jan. 9, 1936

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Shoreline.

The shoreline and topographic signals originate with T-6203 (1934) T-6205 (1934), T-6206 (1934), and T-6207 (1934).

4. Sounding Line Crossings.

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

5. Depth Curves.

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

6. Junction with Contemporary Surveys.

The junctions with H-5670 (1934) on the north and at the mouth of Esopus Creek and with H-5610 (1934) on the south are satisfactory.

7. Comparison with Prior Surveys.a. H-666 (1858).

This survey on a scale 1:5000, overlaps the present survey at the mouth of Esopus Creek and vicinity. A comparison between the two surveys show some changes in depths and appreciable changes in shoreline at the mouth of Esopus Creek. The creek has been dredged and long breakwaters constructed by the U. S. Engineers subsequent to the above survey. A discussion of the changes noted is, therefore, omitted since it would serve no useful cartographic purpose. H-666 (1858) should be superseded by the present survey in future charting. In Esopus Creek H-666 should be superseded by surveys by the U. S. Engineers.

b. H-752 (1861), H-753 (1861), H-798 (1862) and H-799 (1862).

These surveys, all on a scale 1:10,000, together cover the entire area of the present survey. A comparison between these and the present survey reveals numerous changes in depths and locations of shoals, and channels, as well as appreciable natural and artificial changes in shoreline, especially along the western bank of the river. In general the changes in the shoals has been a movement downstream, while the channel changes are mostly confined to shoaling and elimination of secondary channels. The most important example of the latter case is the complete disappearance of the narrow 30 to 40 foot channel shown on H-799 (1862) just east of Swards Island at latitude $42^{\circ} 09.7'$, longitude $73^{\circ} 53.8'$. Considering the time elapsed between these old surveys and the present one, the general character of the area and the nature of the bottom, (no rocky bottom being found anywhere), it is unnecessary to consider in detail the changes noted since it would serve no useful cartographic purpose. The above listed prior surveys should be superseded by the present survey for charting purposes.

8. Comparison with Chart No. 283 (corrected to Oct. 19, 1934).a. Hydrography.

Within the limits of the survey the chart is based on surveys discussed in the foregoing paragraphs, together with various U. S. Engineers' surveys of the general areas of the two dredged channels at latitude $42^{\circ} 09.1'$, longitude $73^{\circ} 54.0'$, and latitude $42^{\circ} 00'$, longitude $73^{\circ} 56.6'$, respectively. The latest surveys of the two areas are shown on blue prints Nos. 24695 and 24696 (1930-31). These blue prints are in fair agreement with the present survey. A comparison shows that the middle ground or shoal at latitude $42^{\circ} 08.8'$, longitude $73^{\circ} 54.1'$, covered by blue print No. 24696 (1930-31), has shifted downstream by at least 100 meters. Within the area covered, the present survey should supersede the above blue prints for charting purposes.

b. Aids to Navigation.

The beacons and buoys shown on the present survey are in substantially the same position as charted, except the beacon off Livingston Creek and buoys C5A, N12, Can buoy off Duck Cove, lighted buoy (FL.W) on "Hogs Back" shoal and lighted buoy FL.R) off Tyler Point, which are located from 25 to 200 meters from their charted positions. However, in the positions as shown on the present survey they adequately mark the feature intended, except for the lighted buoy off Tyler Point at latitude $41^{\circ} 59.85'$, longitude $73^{\circ} 56.52'$, which is too far to the east to properly mark the charted 27 foot dredged channel.

c. Controlling Depths in Channels.

The charted controlling depths of the two channels (off Duck Cove and Tyler Point respectively), of 27 feet are in agreement with the depths as shown on the present survey.

d. Miscellaneous.

Sewards Island is not shown on this sheet, nor on T-6207, and it has evidently disappeared. Another islet has been formed 500 meters SSW of the location of Sewards Island, and it falls on the spoil bank shown on blue print 24696. This new islet is unnamed and can not be considered to be Sewards Island. Triangulation station Sewards Island was located in 1858. The description states "it is on a small island in flats, probably covered at high water." The point has never been included in later triangulation.

It is shown on H-799 (1862) as a triangulation station without shoreline. This hydrographic sheet is also the only source of topography for this area prior to the recent surveys. It does appear on blue print 24696 (1930-31). Swards Island and its name should be omitted from the charts.

9. Field Plotting.

The field plotting was excellent.

10. Additional Field Work Recommended.

This survey is a well planned and executed one and no additional field work is necessary.

11. Superseding Old Surveys.

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


H-666	(1858)	in part
H-752	(1861)	" "
H-753	(1861)	entirely
H-798	(1862)	"
H-799	(1862)	In part.


12. Reviewed by - John G. Ladd, October 12, 1935.


Inspected by - E. P. Ellis, October 25, 1935.

Examined and approved:

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


Chief, Section of Field Work.


Chief, Division of Charts.


Chief, Division of H. & T.

25 J 10, 1936

Call

Applied to drawing of Chart 283 - June 15, 1936 - J.F.W.