5282

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, *Director*

State: New York

DESCRIPTIVE REPORT

5282

~~*Topographic*~~
Hydrographic } *Sheet No.* Field No. 1

LOCALITY

Hudson River

Tarrytown to Ossining, N.Y.

19 32

CHIEF OF PARTY

C. A. Egner

U. S. GOVERNMENT PRINTING OFFICE: 1931

5282

Form 537
Ed. Dec., 1930

REG. NO. 5282

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. 5282

State New York

General locality Hudson River

Locality **Piermont Pier to Ossining**

Scale 1:10,000 Date of survey August-Sept., 1932

Vessel M. V. NATOMA and Motor Launch

Chief of Party C. A. Egner

Surveyed by C. A. Egner and J. T. Jarman

Protracted by C. R. Bush

Soundings penciled by C. A. Egner, and A. W. Green

Soundings in ~~fathoms~~ feet

Plane of reference Arbitrary Hudson River data

Subdivision of wire dragged areas by

Inked by A. M. Uzefovich

Verified by A. M. U.

Instructions dated Continuation of work of previous year (May 25, 1932) (Spec. Inst. 1930)

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET

NO. 1 (FIELD)

HUDSON RIVER

1932

PROJECT HT-108

M. V. NATOMA — C. A. EGNER, COM' DG.

INSTRUCTIONS AND AUTHORITY:

The work on this sheet was done as a part of the season's work on Combined Operations by the Motor Vessel NATOMA in the Hudson River from June to November, 1932. Since it was a continuation of the 1930 work and executed under similar conditions the Instructions for the previous work were considered to apply. Therefore, except in the case of Tidal Observations, the Instructions for which were dated June 18, 1932, no definite Instructions govern the area surveyed this year.

LIMITS:

Sheet 5 (H-5046) in 1930 carried as far north as Tarrytown on the east side of the river and Piermont Pier on the west, with channel lines covering all of the deeper water as far north as Kingsland Point. Sheet No. 1 this year, therefore, joins and overlaps, the former and carries northward to Rockland Light House joining sheet No. 2 (H-5283) at the parallel of that light house, which is opposite Sing Sing Prison.

Hydrography was done from the east bank to the west bank throughout this area.

DIVISION OF WORK:

Both ship and launch sounding was done. Since there is quite a little current in the river, channel lines were run with the current by the ship, thereby avoiding any bow in the leadline. Arbitrarily, it was considered that no appreciable error due to bow of leadline would occur in depths of 15 feet or less, so that these ship lines were run only to the east and west sides of the channel far enough to overlap this 15 foot curve. These lines were spaced approximately 60-75 meters apart. Inshore of this, to better control the sounding, the launch completed the area to both beaches by 100 meter lines normal to the shore.

All shoal indications were developed to determine least water.

METHODS:

Since the depth of water throughout this sheet was shoal enough to permit it, all sounding was done with the hand lead in the usual manner.

TIDES:

Two tide gages controlled the area, viz: Tarrytown and Ossining. Both were of the portable automatic type. These gages were tied by leveling to First Order Bench Marks along the N. Y. Central Railroad, the plane being set by an arbitrary determination agreed upon in cooperation with the Army Engineers, basing data on results at Governer's Island after application of a correction for river gradient.

An arbitrary division line was marked off on the sheet (see boat sheet) dividing the area between the Tarrytown and Ossining gages. Sounding north of this line were referred to Ossining, south of it to Tarrytown. No appreciable discrepancy was introduced by this method.

DANGERS
DISCOVERED:

There were none, strictly speaking. The Hook Mountain rocky shelf extends into the river with numerous lumps rising above the surrounding bottom. However, their presence is signalled by a gradual rise rather than termination in dangerous pinnacles. Since navigation by large vessel is in all cases confined to the eastern part of the channel proper in this uncertain area, these shoals are not dangerous to navigation.

Only one shoal is worthy of mention, an 18 foot spot one mile WxS of Rockefeller Wharf in Latitude 41-06.8 Longitude 73-53.3. This rises above a surrounding depth of 22-23 feet.

The Tarrytown waterfront area was surveyed in 1930 and no additional work was done this year.

CONTROL:

Good control for the work was provided by an abundance of triangulation stations supplemented by many natural objects located by intersection with the plane-table. Since no traverses were run in doing the topography, all topo signals are well tied down.

CHANGES
NOTED:

Few natural changes were noted since the previous survey. This area is building up rapidly in population, which carries the usual artifical development of wharves, etc. On the east bank the N.Y. Central Railraod has quadruple-tracked its right of way which has made necessary a rock fill which alters the old shore line slightly. Nyack has seen some development in respect to yacht wharves, etc.

In such a rocky, high class, expensive, area, changes are not undertaken lightly, and naturally the river bed itself does not change appreciably from year to year.

DATES
SURVEYED:

The area was surveyed between August 15 and September 2, 1932.

IN CHARGE:

The sounding with the ship was in charge of C. A. Egner, Commanding Officer.

All launch work was in charge of J. T. Jarman, Aid.

STATISTICS:

Statute miles of sounding lines	308.5
Number of Soundings	11,241
Number of positions	2,442

TIDAL NOTATION:

Tidal data was forwarded to the Office on February 3 and 11, 1933.

Respectfully submitted,

C. A. Egner
Hyd. & Geod. Engineer,
Commanding M. V. NATOMA.

HYDROGRAPHIC STATISTICS

HUDSON RIVER, NEW YORK

SHEET NO. 1

DATE 1932	DAY	VOLUME	BOAT	STATUTE MILES SOUNDINGS	NUMBER OF SOUNDINGS	NUMBER OF POSITIONS
8/15	a	1	Launch	20.7	964	180
8/16	b	1	"	20.1	881	186
8/17	c	2	"	25.9	970	190
8/18	d	2	"	11.8	494	100
8/22	e	2	"	9.2	412	70
8/22	e	3	"	11.5	476	91
8/23	f	3	"	31.2	1094	213
8/24	g	3	"	6.7	253	60
8/24	g	4	"	15.5	642	165
8/25	h	4	"	20.0	789	221
8/26	j	4	"	6.7	271	75
8/26	j	5	"	11.0	445	117
8/29	k	5	"	27.2	1017	222
8/30	l	6	"	9.2	263	53
8/31	m	6	"	3.7	97	22
9/12	n	6	"	13.8	476	126
9/1	A	1	Ship	32.4	976	178
9/2	B	1	"	31.9	721	173
		TOTALS		308.5	11241	2442

EaL

August 9, 1933.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 5282

Locality **Piermont to Ossining, Hudson River, N.Y.**

Chief of Party: **C. A. Egner in 1932.**
Plane of reference is **Hudson River Datum (mean low water during lowest river stages)**
2.0 ft. on tide staff at **Tarrytown** reading
21.5 ft. below B. M. **6**

0.2 ft. on tide staff at Ossining

7.6 ft. below B. M. 106.

Height of mean high water above plane of reference is 3.0 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents

Dec. 13, 1933

Section of Field Records

Report on H-5282

Chief of Party C.A.Egner Surveyed by Egner and J.T.Jarman
Protracted by C.R.Bush Soundings plotted by C.A.Egner and A.W.Green
Verified and inked by A.M.Uzefovich

1. The records conform to the requirements of the General Instructions.
2. Depth curves are completely drawn.
3. The field plotting was completed to the extent prescribed in General Instructions.
4. The office cartographer did not have to do over any part of the drafting done by the field party, except small prolongation of shore line south of △FISH, according to the Topo. N°4560.
5. The junction with adjacent sheet H-5283 was verified, and it is satisfactory.
   The junction with adjacent sheet H-5046 was verified, and it is satisfactory, except an area N.E. of PIERMONT PIER.
6. Remarks: There are remarks in sounding volumes (Vol. I, p.26, Vol. 3, p.26, and Vol. 4, p. 32) mentioning rocks. These rocks are not shown on Topo. or Boat sheets.
   Also Vol. 3, p.26 mentions a "row of stakes". They are not shown on Topo. or Boat sheets.
   Signal ⊙ ED on Boat and Smooth sheets, on Topo. N°4700 is marked as ⊙ TED
   Soundings 21 (near ⊙ SIGN) and 27 (near ⊙ POW) are suspicious.
7. The quality of the work is good.

Respectfully submited
Alexis M. Uzefovich

SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5282.
Piermont Pier to Ossining, Hudson River, New York.
Surveyed Aug. - Sept. 1932.
Instructions dated May 25, 1932 (NATOMA)
(Spec. Inst. in 1930).

Chief of Party - C. A. Egner.
Surveyed by - C. A. Egner and J. T. Jarman.
Protracted by - C. R. Bush.
Soundings penciled by - C. A. Egner and A. W. Green.
Verified and inked by - A. M. Uzefovich.

1. The records conform to the requirements of the Hydrographic Manual except that the Descriptive Report does not make recommendation relative to the two 6 foot spots shown on chart 281 southwest of Sparta.

2. The plan and extent of development conform to the regulations and satisfy the specific instructions (see Instructions for 1930 work).

3. Soundings are consistent and depths at crossings of lines are in good agreement.

4. Depth curves are adequate. In the area just north of Piermont Pier, a few 13 foot soundings were omitted and the 12 foot curve generalized and adjusted to the information on H. 5046 (1931), as approved by the Chief of Field Records.

5. Junction with H. 5283 on the north is adequate. In the overlap with H. 5046 (1931) on the south, there are differences of 1 and 2 feet which may be due to a difference in tide reductions. The 1931 tide staff was at Irvington; the 1932 staff at Tarrytown with the plane of reference given as Hudson River Datum. These differences give a slight uncertainty in the 12 foot curve northeast of Piermont. The curve has been adjusted as noted in paragraph 4 above.

6. Comparison with H. 2485 (1900) and H. 2549 (1901) shows good general agreement in depths. The former survey shows slightly less water on some of the shoaler areas. The existence of a 5 foot and two 6 foot spots (H. 2459) shown on chart 281 southwest of Sparta was not confirmed by the present survey. No special search for them seems to have been made but the bottom in the vicinity appears regular and the development is sufficient to warrant their omission from future editions of the chart.
A 9' in ⌀ 41°08.3 λ 73°51.75 has been carried forward from a 9½ on H 2485.

7. Field drafting was satisfactory. The soundings 21 and 27 mentioned in the verifier's report as suspicious were marked in the record as OK by the field party. They probably represent very small areas of deep water similar to the larger area just north of Kingsland.

8. Recommendations. This sheet (H. 5282) should supersede all previous surveys for charting the area represented by it.

No further surveys are deemed necessary at this time.
An investigation of the 9 foot spot mentioned in par. 6 is desirable.
The 17 foot shoal 1 mile W x S from Rockefeller shoal is believed sufficiently developed to supersede the representation of this shoal (13¾ ft) on H 2485. GE

H. 5282 - 2.

Attention is invited to the paragraph "Changes Noted" on page 3 of the Descriptive Report.

9. Reviewed by - R. J. Christman, Jan. 6, 1934.

Examined and approved:

L. O. Colbert,
Chief, Section of Field Records.

K. T. Adams
Asst Chief, Division of Charts.

Fred. L. Peacock
Chief, Section of Field Work.

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5282.

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

Number of positions on sheet	2,442
Number of positions checked	41
Number of positions revised	3
Number of soundings recorded	11,241
Number of soundings revised	38
Number of signals erroneously plotted or transferred	—

Date: Dec. 13, 1933

Cartographer: Alexis M. Uzefovich

Applied in part to Chart Correction 748. 10/14/37. H.E. MacEwen