

4702

U. S. COAST & GEODETIC SURVEY  
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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. "D" 4702

LOCALITY

Hudson River, south of ~~Haverstraw~~ Croton on Hudson  
to Grassy Point.

1932

CHIEF OF PARTY

C. A. Egnor

U. S. GOVERNMENT PRINTING OFFICE: 1928

4702  
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DESCRIPTIVE REPORT  
TO ACCOMPANY  
TOPOGRAPHIC SHEET "D", PROJECT 108  
HUDSON RIVER, NEW YORK  
SOUTH OF HAVERSTRAW TO GRASSY POINT

\* \* \* \* \*

INSTRUCTIONS:

There were no instructions issued to cover the topography under this project. As the work was similar to that executed in 1930 on the lower sections of the river, instructions for that year were considered to apply.

METHODS OF SURVEY:

Methods described in the Topographic Manual 144 were used. Signals were located by cuts from triangulation stations, where possible, three-point fixes, and by traverse. It was impossible to locate all signals by cuts because of the width of the river in this section. Six traverses were run; (1) on the west side of the river from triangulation station PECK 2, 1932, to signal Rain. Signals in the limits of this traverse were located by rod readings and cuts from set-ups; (2) from triangulation station PECK 2, 1932, to lake west of Bowlines Point. This was a short traverse of one set-up from PECK 2, 1932. (3) From GRASSY 2, 1932, around the north end of Grassy Point and back to GRASSY 2, 1932. This traverse closed flat. All signals in the limits were located by rod readings only. (4) On the east side of the river from triangulation station CROW to triangulation station CURVE. All signals in the limits of this traverse were located by rod readings and cuts from set-ups. The traverse closed to two meters and adjustments made. (5) After adjusting the traverse, a spur line was run to get the layout of the town of Croton. (6) From signal Ox eastward along road leading east from Oscawana railroad station. (7) And from signal Tug eastward to the railroad. These last three short traverses were not closed.

On the west side of the river five three-point fixes were taken; (1) Just south of signal White to get the shore line from signal Buff to signal White. (2) On the edge of lake west of signal Ash. (3, 4, & 5) In the vicinity of Minisceongo and Cedar Creeks.

#### DESCRIPTION:

The shore line on the east side of the river is quite uniform, rocky and abrupt. There is practically no change in the shore line at high and low water.

On the west side of the river the shore line is almost completely lined with docks. Most of the docks have not been used in many years and are in disrepair.

The lakes shown on the west side of the river are formed by excavations for the brick industry.

On the west side of the river up as far as triangulation station SPIRE, 1932, no attempt was made to obtain topographic features other than those in the immediate vicinity of the shore line as this section is covered by aerial photographs. Prominent spires, water tanks, and buildings were located by triangulation and cuts. Triangulation stations were plotted on the sheet to facilitate the adjusting of the photographs. On the photographs triangulation stations are indicated by black circles and the topographic signals by green circles. On the east side of the river the general feature back from the shore line is abrupt and thickly wooded to about  $\frac{1}{4}$  mile. There were no buildings or prominent objects that could be located.

The topographic features just west of the shore line from Haverstraw to Grassy Point have changes considerably due to the fact that the brick industry in this section has been discontinued. The buildings and kilns that once showed so prominently are now in disrepair and are not shown on this sheet.

#### CONTROL:

The control was furnished by second and third order triangulation brought forward from Project 66, Hudson River, New York, 1930.

#### MAGNETIC DECLINATIONS:

Magnetic Declinations were taken at triangulation stations BOAT, 1932, and LEDGE, 1932.

#### NEW NAMES:

None--the lakes shown on the west side of the river are not named.

STATISTICS:

Shore line	18.6 statute miles.
Traverse	6.0 statute miles.
Area	8.9 sq. statute mi.

LANDMARKS:

Shown on Form 567 "Landmarks for Charts."

Respectfully submitted,

*John C. Bull*  
John C. Bull,  
Aid.

Approved and forwarded,

*C. A. Egner*  
C. A. Egner,  
H. & G. Engineer,  
Commanding NATOMA.

51-4-  
SIGNALS LOCATED BY TOPOGRAPHY, SHEET "D", HUDSON RIVER

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NAME	LATITUDE	LONGITUDE	DESCRIPTION
	" o ' meters	" o ' meters	
East side			
Fly	41-11 ( 106.2)	73-53 450.9 ( 946.8)	N. R.
Ad	41-12 62.3	979.2	N. R.
Dol	177.0 (1673.9)	585.1 ( 812.6)	N. R.
Fish	280.0 (1570.9)	567.8 ( 829.9)	Fire sirens ✓
Soap	282.2 (1568.7)	797.2 ( 600.0)	N. R.
Yel	406.0 (1444.9)	639.6 ( 758.1)	Yellow gable.
Rail	563.2 (1287.7)	797.2 ( 600.5)	Small brick house. ✓
Stuc	711.5 (1139.4)	848.3 ( 549.4)	White stucco house, green roof. ✓
Bite	830.6 (1020.3)	467.7	Brick house, w. porch. ✓
Dog	779.3 (1071.6)	182.2	N. R.
Bug	844.9 (1006.0)	57.3	N. R.
Ship	1036.6 ( 814.3)	73-54 186.7 (1211.0)	N. R.
Kid	1228.8 ( 622.1)	452.5 ( 945.2)	N. R.
Stop	1397.3 ( 453.6)	621.2 ( 776.5)	Flag station ✓
Goat	1492.7 ( 358.2)	774.4 ( 623.3)	N. R.

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NAME	LATITUDE	LONGITUDE	DESCRIPTION
East side	"	"	
	o ' meters	o ' meters	
Cot	41-13 31.2 (1819.7)	73-54 1053.3 ( 344.4)	N. R.
Ring	223.3 (1627.6)	1216.3 ( 181.4)	N. R.
Con	359.8 (1491.9)	1264.3 ( 133.4)	Stripped box, R.R. ✓
Hill	519.7 73-55 (1331.2)	19.5 (1378.2)	N. R.
Jack	640.0 (1210.7)	183.5 (1214.2)	Flag station. ✓
Drum	752.0 (1098.9)	307.2 (1090.5)	SW edge of small yellow house ✓ south of station at Oscawana.
Ox	909.8 ( 941.1)	519.8 ( 877.9)	N. R.
Yoke	1053.8 ( 797.2)	647.0 ( 750.3)	N.R.
Spit	1067.7 ( 783.3)	967.1 ( 430.2)	N. R.
Cane	1149.5 ( 701.5)	922.1 ( 475.0)	Green gable, boat house. ✓
Stone	1416.3 ( 434.7)	1008.4 ( 387.9)	N. R.
Pan	1665.8 ( 185.2)	1178.5 ( 218.8)	W. gable--red roof. ✓
Pank	1745.8 ( 105.2)	1181.2 ( 216.1)	NW gable small house. ✓
Coup	1830.0 ( 21.0)	1228.3 ( 169.0)	N. R.
Tug	1811.3 73-56 ( 39.7)	100.5 (1296.8)	N. R.
Tree	1745.2 ( 105.8)	381.2 (1016.1)	N. R.
But	1819.6 ( 31.4)	610.1 ( 787.2)	N. R.

NAME	LATITUDE "		LONGITUDE "		DESCRIPTION
East side	o ' meters		o ' meters		
Hen	41-14	15.8 (1835.2)	73-56	636.4 ( 760.9)	N. R.
Fee		207.6 (1643.4)		664.7 ( 732.6)	N. R.
Bird		159.2 (1691.8)		825.2 ( 572.1)	N. R.
West side					
Buff	41-10	(158.4)	73-57	54.3 (1344.1)	East gable yellow house ✓
White	41-11	318.5 (1532.4)		321.8 (1076.6)	N. R.
Set		592.7 (1258.2)	73-56	152.7 (1245.7)	N. R.
Rain		743.3 (1107.6)	73-57	404.7 ( 993.7)	Sq. brick stack. ✓
Brik		741.2 (1109.7)		570.8 ( 827.6)	South gable, shed. ✕
House		659.6 (1191.3)		1105.5 ( 292.9)	Center gable, house on hill side. ✓
Sil		884.5 ( 966.4)		676.8 ( 721.6)	Silver gas tank. ✕
Shed		912.8 ( 938.1)		614.6 ( 783.8)	North gable, shed. ✕
Tall		990.5 ( 860.4)		826.7 ( 571.3)	Tall square stack. ✕
Green		1169.0 ( 681.9)		882.2 ( 515.8)	Green cupola. A ✓
Jar		1333.5 ( 517.4)		835.5 ( 562.5)	S. gas tank. ✕
Hot		1440.9 ( 410.0)		921.6 ( 476.4)	NE corner hotel. ✓
Ver		1591.4 ( 259.5)		752.5 ( 645.5)	Gas tank. ✕

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NAME	LATITUDE	LONGITUDE	DESCRIPTION
	"	"	
West side	o ' meters	o ' meters	
Up	41-11 1622.6 ( 222.3)	73-57 821.2 ( 576.8)	Tall black stack. ✓
Man	1839.5 ( 11.4)	694.0 ( 704.0)	N. R.
Volt	41-12 206.7 (1644.2)	647.7 ( 750.3)	N. R.
Amp	315.7 (1535.2)	784.2 ( 613.8)	Brick stack. <i>just north of West side</i>
Flit	384.7 (1466.2)	630.7 ( 767.3)	N. R.
Wife	593.4 (1257.5)	673.4 ( 724.6)	N. R.
Egg	608.3 (1242.6)	1098.8 ( 299.2)	S. gable shed.
Toby	862.5 ( 988.4)	1162.3 ( 235.7)	Red water tank. <i>East side</i>
Milk	1136.7 ( 714.2)	1178.3 ( 219.4)	N. R.
Ash	1207.4 ( 643.5)	1205.5 ( 192.2)	Gas tank. <i>51-12</i>
Dust	1361.5 ( 489.4)	1293.3 ( 104.4)	South brick stack ✓
Coal	1430.0 ( 420.9)	1289.9 ( 107.8)	Center brick stack. ✓
Spot	1590.2 ( 260.7)	1281.4 ( 116.3)	North brick stack. ✓
Whim	1786.9 ( 64.0)	1178.2 ( 219.5)	N. R.
Stag	1673.2 ( 177.7)	73-58 ( 223.3	N. R.
Buck	1638.2 ( 212.7)	436.0	N. R.
Poke	41-13 36.3 (1814.7)	73-57 1266.0 ( 131.7)	Chimney on house near beach. <i>West side</i>
Tank	187.0 (1661.0)	1254.8 ( 142.9)	Black gas tank.



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NAME	LATITUDE		LONGITUDE		DESCRIPTION
	"		"		
West side	o	' meters	o	' meters	
Kiln	41-13	353.5 (1497.5)	73-57	1321.8 ( 75.9)	Brick chimney.
Wave		446.7 (1404.3)		1191.5 ( 206.2)	N. R.
Dark		465.0 (1386.0)		1251.1 ( 146.6)	Gable, brown house.
Bill		551.8 (1299.2)		1275.9 ( 121.8)	Chimney, gas station.
Hoot		632.7 (1218.3)		1243.0 ( 154.7)	Center of three windows.
Dot		707.2 (1143.8)		1216.8 ( 180.9)	Yellow gable.
Cow		889.7 ( 961.3)		1332.8 ( 64.9)	Brick stack. ◊
Stem		89.7 (1761.3)	73-58	597.7 ( 800.0)	N. R.
Heat		103.7		713.4 ( 684.3)	Brick stack. W
Sid		138.3 (1712.7)		157.4 (1240.3)	N. R.
Bush		310.0 (1541.0)		435.6 ( 962.1)	N. R.
Fred		402.5		504.9 ( 892.8)	N. R.
Jail		570.3		700.3 ( 697.4)	N. R.
Song		756.7 (1094.3)		315.7 (1082.0)	N. R.
Creek		819.7 (1031.3)		568.2 ( 829.5)	N. R.
Wash		1071.5 ( 779.5)		628.6	N. R.
Ham		1067.6 ( 783.4)		420.8 ( 976.7)	Brick stack. ✓
Pile		1161.7 ( 689.3)		517.5 ( 880.2)	N. R.

## REVIEW OF TOPOGRAPHIC SURVEY No. 4702

Title (Par. 56) *Broton to Grassy Pt. Hudson River, New York*

Chief of Party *C.A. Egner* Surveyed by *J. C. Bull* Inked by *J. C. Bull*

Ship *Natoma* Instructions dated *May 25, 1932* Surveyed in *July Oct. 1932*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)  
*No elevations determined*
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)  
*None shown*
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.)  
*None submitted*
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

*The bridge near Grassy Pt. is not described.*

10. ~~The span, draw and clearance of bridges are shown.~~ (Par. 16c.)
11. ~~Locations and elevations of summits are given.~~ (Par. 19, 51.)
12. ~~The tree line was shown on mountains.~~ (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
15. ~~The~~ descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) *Listed in Desc. Rep.*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Filed as letter 86/1933*
17. The magnetic meridian was shown and declination was checked. ✓ (Par. 17, 52.)
18. The geographic datum of the sheet is *North American* and the reference station is correctly noted. ✓ (Par. 34.)
19. Junctions with contemporary surveys are adequate. ✓  
*Detail at Topo. sig. bap were omitted on this sheet.*
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~
24. Remarks: *Water signals are marked and described on the Hyd. chart*

Reviewed in office by

*R. J. Christman, Jan. 5, 1934*

Examined and approved:

*K. T. Adams*

Chief, Section of Field Records

*R. O. [Signature]*  
Chief, Division of Charts*J. S. Borden*

Chief, Section of Field Work

*G. L. [Signature]*  
Chief, Division of Hyd. and Top.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

T-4702

## LANDMARKS FOR CHARTS

Norfolk, Virginia.

December 8 1932

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

C. A. Egner, H. & C. Engineer

Chief of Party.

[illegible]

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES	REG. NO. 4702
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The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D

REGISTER NO. **4702**

State New York

General locality Hudson River

Croton on Hudson

Locality ~~XXXXXXXXXX~~ to Grassy Point

Scale 1/10:00 Date of survey July - Oct., 19 32

Vessel M. V. NATOMA

Chief of party C. A. Egner

Surveyed by John C. Bull

Inked by John C. Bull

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated May 25, 19 32

Remarks: \_\_\_\_\_

APPLIED TO ALUMINUM-MOUNTED DRAWING OF THE RECONSTRUCTION  
OF CHART No. 282

F. M. Albert

Oct. 1934