

5021

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. T-5021.
~~Hydrographic~~

LOCALITY

Hudson River.

Piermont to North Nyack.

1933.

CHIEF OF PARTY

M. H. Reese.

U. S. GOVERNMENT PRINTING OFFICE: 1921

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For Field Inspection Report of this sheet
see Desc. Report for T5024.

Descriptive Report to Accompany
Air-photo Topographic Sheet T-5021.

General Information:

- a. Date of Instructions- November 15, 1932.
- b. Sheet data-
 - Projection by E. L. F. Feb. 28, 1933.
 - Projection Checked by M. H. R. Feb. 28, 1933.
 - Control plotted by E. M. N. Feb. 28, 1933.
 - Control checked by N. R. M. March 1, 1933.
 - Radial line plot by E. M. N. March 3-18, 1933.
 - Drafting of photographs by E. M. N. March 20-Apr. 20, 1933.
- c. Statistics-
 - Area of sheet; 2.4 sq. statute miles.
 - Miles of Shoreline: 5.2 statute miles.
- d. Reports affecting sheet-
 - Topography of the shoreline by C. A. Egner, 1932.
 - The information shown on this sheet is confined entirely to the interpretation of the detail from the photographs. The field inspection party did not make any notes on the photographs. This made it necessary to show the detail only as interpreted from viewing it under the stereoscope.
- e. Numbers, time, and date, of photographic flights-
 - 15 - 351 - 378, 11:30 A. M., Sept. 4, 1930.
 - 15 - 222 - 233, 11:00 A. M., Sept. 4, 1930.

Control:

- a. Sources-
 - 1. Triangulation by C. A. Egner, 1930 and 1932. The computations have not been adjusted to the N. A. Datum 1927.
 - 2. Aluminum Sheet Control by C. A. Egner, 1932.

Compilation:

- a. Method used-
 - The radial line method as applied to single lens photographs was used throughout the sheet.
- b. Adjustment of plot-
 - Considerable difficulty was experienced in making the radial line plot. This difficulty was largely due to the conditions of the photographs. The line of flight was broken and irregular.

Compilation: (continued),

b. Adjustment of plot- (continued),

Due to the irregular flying a number of the pictures had excessive tilt. It was necessary to disregard some of these pictures in making the radial plot. The flight 15 - 222 - 233 had less than 50 percent overlap. The amount of overlap averaged about 35 percent. With this shortage of overlap only two cuts were obtained for each point, therefore the data traced from this flight is subject to considerable error. The detail west of longitude $73^{\circ}55'30''$ is questionable due to shortage of overlap in the pictures.

c. Information from other sources-

The shoreline was traced from Aluminum Field Sheet No. A. In some instances it was necessary to change the shoreline to agree with the pictures, where it was apparently in error as shown on the planetable sheet, or had changed since the pictures were taken. Due to the omission of the field party to make notes on the photographs as to the changes that had taken place since the photographs were taken, the information shown on the sheet corresponds to the condition of the shoreline in 1930.

d. Comparison with other Surveys-

1. Satisfactory junctions were obtained with Sheets T-4588 and T-5023.

2. Discrepancies between planetable Sheet Field No.A.

In several instances there seems to be considerable discrepancy between the two sheets which may be due to changes that have taken place since 1930. In the vicinity of Lat. $41^{\circ}03.4'$, Long. $73^{\circ}55.1'$, the detail is 6 meters in error in the north direction. The location of topographic points Bus and East appear to be correct, but the detail between them does not agree with the photo compilation. There apparently has been some changes in the docks and buildings just north of Bus. The detail is shown as it appears in the pictures. In the vicinity of Lat. $41^{\circ}04.5'$, Long. $73^{\circ}55.2'$, the shoreline is in error from Topo Station Boat to Topo Station Turn, and from Topo Station Turn to Station Wharf. The error is about 6 meters to the westward and azimuths do not agree. The road that runs near the shore south of Lat. $41^{\circ}04.5'$ disagrees with the photo compilation in a number of places, the maximum error being about 10 meters in azimuth. The remainder of the sheet agrees very good except minor changes in azimuth and shapes of small wharfs.

Landmarks

Landmarks for this sheet were submitted by the field party of 1932.

M. H. Reese

M. H. Reese,
Lieut.(j.g.), C. & G. Survey.

* The wood is considered as ^{to be} ~~apparently~~ correctly shown on this sheet which has the advantage of having been traced from well controlled photographs in this particular area.

REVIEW OF TOPOGRAPHIC SURVEY No. 5021

Title (Par. 56)

Chief of Party *M. H. Keare**Compiled*
~~Surveyed~~ by*E. M. N.*Inked by *E. M. N.**New York Compilation Party*
~~Ship~~Instructions dated *Nov. 15, 1932* *photographs taken Sept. 4, 1930*
~~Surveyed in~~

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, ~~15~~, 16.)
2. The character and scope of the survey satisfy the instructions.
3. The control and ~~closures of traverses~~ *adjustment of the radial plot* were adequate. (Par. 12, 29.)
See Par. 6, page 2 of the desc. report. and remarks on reverse side this page.
4. ~~The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished.~~ (Par. 18, 19, 20, 21, 22, 23.)
5. ~~The delineation of -contours-formlines- is satisfactory.~~ (Par. 49, 50.)
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.) *Several rocks near the shore line as shown on T 4699, 1932, are not visible on the photographs and are not shown on this sheet.*
10. The span, draw and clearance of bridges are shown. (Par. 16c.) *None*
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.

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See remarks on reverse side this page.

1. Comparison with other surveys: see par. 1., page 2, of the
dise. report. In the absence of adequate field infection
notes this wheat must be considered as of Sept 4, 1930
the date on which the photographs were taken.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 62.)
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.) *none submitted. See remarks at bottom of this page.*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Submitted by Party of C.A. Egner, 1932*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *none shown*
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.
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: *Recoverable topographic stations shown on this sheet are described in the descriptive report for T 4699 and on form 524 filed under number T 4699.*
Reviewed in office by *B.G. Jones*

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L.O. Lobat
Chief, Division of Charts

B.D. Dorden
Chief, Section of Field Work

G. Hude
Chief, Division of Hyd. and Top.

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REG. NO.

T-5021.

Acc. No. _____

AIR PHOTO

TOPOGRAPHIC TITLE SHEET

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. _____

REGISTER NO. T-5021.

State New York.

General locality Hudson River

Locality Piermont to North Nyack.

Date of photographs- Sept. 4, 1930.

Scale 1:5,000 Date of ~~survey~~ ^{compilation} April 20, 1933.

~~Notes~~ Photographs taken by the Aerotopograph Corp. of America.

Reviewed and recommended for approval

Chief of ~~party~~ ^{Compilation} M. H. Reese, May 20, 1933.

Photographs plotted by E. M. Noon, March 18, 1933.

Inked by E. M. Noon, April 20, 1933.

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated November 15, 1932., 19____

Remarks: Compilation of aerial photographs Nos. 15- 351 - 378,

and 15- 222 - 233. Reduced to scale and printed by photo litho-
graphic process.

Polyconic projection by E. L. Fitch Feb. 28, 1933.

Projection verified by M. H. Reese Feb. 28, 1933.

Control plotted by E. M. Noon Feb. 28, 1933.

Control verified by R. McLeod March 1, 1933.

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