

5024

U. S. COAST & GEODETIC SURVEY  
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JAN 22 1934

Acc. No. \_\_\_\_\_

Form 504  
Ed. June, 1928  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

State: New York.

## DESCRIPTIVE REPORT

Air-photo  
Topographic  
~~Hydrographic~~

Sheet No. T-5024.

### LOCALITY

Hudson River.

North Park to Haverstraw.

1933.

### CHIEF OF PARTY

M. H. Reese.

U. S. GOVERNMENT PRINTING OFFICE: 1933

5024

Descriptive Report to Accompany  
Air-Photo Topographic Sheet T-5024.

General Information:

- a. Date of Instructions- November 15, 1932.
- b. Sheet data-
  - Projection by E.L.F. April 22, 1933
  - Projection checked by E.M.N. April 22, 1933
  - Control plotted by E.M.N. April 24, 1933
  - Control checked by J. R. April 24, 1933
  - Radial line plot by E.M.N. Apr. 26-May 6, 1933
  - Drafting of photographs by E.M.N.&S.E.S May 8-June 6, 1933.
- c. Statistics-
  - Area of sheet: 4.0 square statute miles.
  - Miles of shoreline: 6.2 statute miles.
- d. Reports affecting sheet-
  - Aluminum mounted topographic sheet by C. A. Egner, 1932. The field party did not make any notes on the field photographs. The detail shown on the sheet is as interpreted from the photographs.
- e. Numbers, time, and date, of flights-
  - 15-408 - 15-458, 11:40 A.M., September 4, 1930.
  - 15-439 - 15-454, 11:50 A.M., September 4, 1930.

Control:

- a. Sources-
  - 1. Triangulation by C. A. Egner, 1932. Computations have been adjusted to the N. A. datum, 1927.  
*NOT*
  - 2. Aluminum sheet control by C. A. Egner, 1932.
- b. Errors-
  - The field party pricked stations High Tor 1932 and West 1932 on the photographs. The points pricked by the field party were incorrect and could not be used in the plot.

Compilation:

- a. Method-
  - The radial line plot as applied to single lens photographs was used throughout the sheet.
- b. Adjustment of plot-
  - It was necessary to make three trial plots before the two flights could be fitted together. This difficulty was due to the questionable plotting of the control on the photographs and to the absence of control in the western limits of the sheet. The overlap on both flights averaged about 55 to 60 percent and due to this overlap a satisfactory plot was obtained.

Compilation: (continued)

c. Interpretation-

A special symbol was used for the palisades. The line shown on the sheet is the highest part of the palisades and does not represent the places that have very steep slopes.

d. Information from other sources-

The shoreline on this sheet was traced from the aluminum mounted field sheet by C. A. Egner, 1932.

Comparison with other surveys:

a. Junction with adjoining sheets-

A satisfactory junction was obtained with sheet T-5023.

The shoreline from the field sheets fitted in very well with the shoreline obtained from the photographs with the following exceptions. In Lat.  $41^{\circ}11.2'$ , Long.  $73^{\circ}57.3'$  there is an error of from 10 to 20 meters in the shoreline. This maybe due to misinterpretation from the photographs. There is also a discrepancy in Lat.  $38^{\circ}11.6'$ , Long.  $73^{\circ}57.6'$  of about 10 to 15 meters which may be due to the same cause. The field party failed to make any notes on the photographs as to changes or conditions since the pictures were taken in 1930. The information shown is as interpretation from the photographs.

Landmarks:

Landmarks were submitted by the field party of 1932.



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

The Field Inspection Report by C A Egner 1932  
for this area is attached to this descriptive  
report. B.G.G.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

T-5024

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-5024

State New York

General locality Hudson River

Locality North Park to Haverstraw.

Scale 1:5,000 Date of Photographs September 4, 1930.  
Date of Compilation June 6, 1933.

Vessel Photographs by Aerotopograph Corp. of America

Reviewed and recommended for approval  
Chief of party Compilation M. H. Reese June 24, 1933.

Photographs plotted by  
Surveyed by E. M. Noon May 6, 1933.

Inked by E. M. Noon and S. E. Sperry, Jr., June 6, 1933.

Heights in feet above ..... to ground to tops of trees

Contour, Approximate contour, Form line interval ..... feet

Instructions dated November 15 ..... 1932.

Remarks: Compilation of aerial photographs Nos. 15-408 - 15-458,  
15-439 - 15-454. Scale 1:5,000, printed by photo-lithographic  
process.

Polyconic projection by	E. L. F.	Apr. 22, 1933
Projection verified by	E. M. N.	Apr. 22, 1933.
Control plotted by	E. M. N.	Apr. 24, 1933.
Control verified by	J. R.	Apr. 24, 1933.

## REVIEW OF TOPOGRAPHIC SURVEY No.

Title (Par. 56)

Chief of Party *M. H. Reese* <sup>compiled</sup> *E. M. Noon* <sup>and</sup> *S. E. Sperry* <sup>Inked by</sup> *E. M. N. and S. E. S.*Ship Instructions dated Nov. 15, 1932 <sup>photographs taken Sept. 4, 1930</sup> ~~Surveyed in~~

- ✓1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 16, 16.)
- ✓2. The character and scope of the survey satisfy the instructions.
3. The control and ~~closures of traverses were adequate.~~ <sup>adjustment of the radial plot were adequate.</sup> (Par. 12, 29.)  
*see remarks by reviewer on reverse side of 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 furnished.*
7. ~~High water line on marshy and mangrove coast is clear and adequate for chart compilation.~~ (Par. 46a, 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.) ~~No comparison of this sheet with the old survey has been made. The area is completely covered by this sheet and by T 4701 and T 4702 of 1932. See Review of T 4701 and T 4702.~~
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ~~No comparison of this sheet with the old survey has been made. The area is completely covered by this sheet and by T 4701 and T 4702 of 1932. See Review of T 4701 and T 4702.~~
- ✓10. The span, draw and clearance of bridges are shown. (Par. 16c.) *None shown*
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.

remarks by Reviewer-

1. There was ample control along the wharves but very little control in the western part of this sheet. For that reason the plot of the western section, though carefully adjusted, is considered weak and not of the accuracy of the section along the wharves and below the palisades. The detail lack of the palisades is considered of sufficient accuracy for charting some land marks and objects to be used for offshore fixes were not located by the plot in that area. It is not considered of sufficient strength to furnish control for future air photo surveys.

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.)  
*No general description of the area was made. No lists of positions nor descriptions of recoverable objects were submitted. Descriptions of recoverable objects in this area were submitted with Desc. Reports for sheets T4701 and T4702.*
- ✓ 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 were described*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Furnished by party of C.A. Egner in 1932*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *Shown on T4701 and T4702*
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.) *Not discussed in the desc. report. See note on back of this sheet, H.B.*
- ✓ 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: *See remarks by reviewer on reverse side this page.*

Reviewed in office by *B.G. Jones*

Examined and approved:

*K.T. Adams*  
Chief, Section of Field Records  
*L.O. Dolbut*  
Chief, Division of Charts

*J.S. Bond*  
Chief, Section of Field Work  
*G.H. Wade*  
Chief, Division of Hyd. and Top.

Remarks by reviewer -

2. Comparison with T4701 and T4702

Refer to report by C.A. Egner, on field inspection of photographs, attached to the descriptive report for this sheet; also descriptive reports for sheets T4701 and T4702; and par. a, page 2 of the descriptive ~~as~~ report for this sheet:

Since no field inspection was made of the photographs on this sheet the date of this survey must be considered as of Sept. 4, 1930, the date on which the photographs were taken.

Where this survey differs along the shoreline with T4701 and T4702 of 1932 the latter sheets, being of a later date, should be accepted as correct. This sheet can be used to supplement sheets - T4701 and T4702 in the area back of the shoreline as the reports for those sheets state that it was not attempted to make a complete survey of the area back from the shoreline.

Name of Camp at lat.  $41^{\circ}10'35''$  N, long  $73^{\circ}56'25''$  W, will be supplied later (see Top 4701)  
Name of Park will be supplied after investigation of names on Top 4701. H. Bacon, Sept. 11, 1934



REPORT OF

AERIAL PHOTOGRAPHS

OF 1930, PROJECT NO. 108

MOTOR VESSEL NATOMA

C. A. EGNER, COLLANDING,

1 9 3 2.

R E P O R T  
O F  
A E R I A L P H O T O G R A P H S O F 1 9 3 0  
P R O J E C T N O. 1 0 8

----- 0 -----

EXTENT:

Aerial photography of 1930 along both sides of the Hudson River extended as far North as Haverstraw on the West side and to include Croton Point Park on the East side. The part, therefore, included in Project No. 108 are those covering the lower ten miles of this season's work.

This photography was done with a single lens camera at an elevation such that the prints are approximately true to a scale of 1/10,000. They were flown in two strips on each side, the outer strip covering the shoreline, the inner overlapping the outer and extending inland a short distance. The overlap on successive exposures is approximately 60%.

On the East side of the river a small gap occurs in the shoreline strip at North Ossining, although most of this area is covered by the inner strip.

The prints are excellent for field spotting purposes. One serious deficiency in their value in mapping the river from the photos is that they do not extend inland far enough on the East side of the river. When charting the river, the east ridge line should be included. In general, the photos fall a small distance short of this ridge and therefore several of the most prominent objects which show plainly on the river cannot be spotted on the prints. Particularly is this true of the prominent cupolas of the Maryknoll Seminary and Convent, of Briarcliff Manor and large steel tank.

COMPARISON  
WITH 1932 SURVEY:

An interval of two years between the time of the photography and the 1932 survey has allowed some developments along the river to present a few discrepancies <sup>which</sup> ~~to~~ show on the topo sheets. These have been noted by the topographer and in all such cases the topography should be accepted. Obviously, however, in minor details the photography will often give a more accurate plan, or shape, of a building or intricate area than could be gotten by the topographer. Therein lies the value of the photography. Likewise, the topographer has not attempted to survey the streets and roads back from the beach.

SPOTTING OF  
PROMINENT OBJECTS:

Practically all triangulation stations have been spotted on the photos, or at least on a representative one of a series which overlap each other. It has been difficult at times due to indefiniteness of the prints, shading, etc., and particularly tilt, to spot the exact point which represents the triangulation station. By this is meant, that often in the case of a church steeple for instance, the church can be readily spotted but perhaps not the exact point of the steeple. In such cases measurements and sketches which accompany the descriptions of stations (triangulation records) will provide the office with sufficient data to tie the point down exactly, or the projection of that point on the ground level.

Much the same system has been followed in regard to points determined by the topographer. These points are circled in green with a proper notation and description on the back of the print.

It is believed that no difficulty will be experienced in tying down the shoreline from the multitude of determined points. As to the interior, as much cannot be said, for the reason that definable points do not occur with any regularity. Some areas have many suitable objects, other very few. Quite a great deal of the West shore interior is very abrupt with few points showing on the river.

AREA BEYOND THE  
1930 PHOTOGRAPHS:

With the idea that the photography will some day be extended up the river beyond the 1930 limits, the survey was carried out using somewhat the same general idea of photo-spotting. Prominent objects which would later be useful in such work were located by triangulation and

and topography. These points were described and sketched and appear on the Description of Station form in the case of the triangulation stations; sufficient ground topography was done also to tie down road intersections, railroads, etc.

MAPS OF  
PARKWAYS:

The Westchester County Park Commission has kindly provided blue-prints of their Parkways which reach the river as far North as their jurisdiction extends.

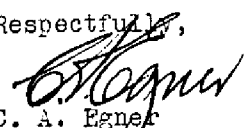
These prints are forwarded with the aerial photos, as it is felt they may prove useful in charting those definite areas.

OTHER AVAILABLE  
PHOTOGRAPHS:

Four additional photos also accompany the "official" ones. These were a present from the Airmap Corporation, 36 Flatbush Ave., Brooklyn. The President of this corporation, Mr. C. F. Keale, states that his firm has complete photographs of Westchester County.

While the quality, usefulness, and age of these photos may be subject to question, the ones forwarded are at least clear and distinct. It is believed, therefore, that prints of these photos covering the East side of the river from Croton to Peekskill and far enough inland to reach the ridge might prove of great benefit in charting that area at this time. They might be obtained at nominal cost.

Respectfully,

  
C. A. Egner  
H. & G. A.  
Chief of Party

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U. S. COAST AND GEODETIC SURVEY

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General locality Hudson River

Locality North Park to Haverstraw

Date of Photographs September 4, 1930.  
Date of ~~Survey~~ <sup>Compilation</sup> June 6, 1933.

Scale 1:5,000

~~Reviewed~~ Photographs by Aerotopograph Corp. of America

Reviewed and recommended for approval M. H. Reese  
Chief of ~~party~~ <sup>Compilation</sup> June 24, 1933.

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~~Surveyed by~~

Inked by E. M. Noon and S. E. Sperry, Jr. June 6, 1933.

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

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Remarks: Compilation of aerial photographs Nos. 15-408 - 15-458,

15-439 - 15-454. Scale 1:5,000, printed by photo lithographic process.

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