

5280

U. S. COAST & GEODETIC SURVEY
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Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton *Director*

State: New Jersey

DESCRIPTIVE REPORT

Topographic

~~*Hydrographic*~~

Sheet No. T 5280

LOCALITY

South River.

South River to Old Bridge.

Vicinity of Raritan River

19342

CHIEF OF PARTY

Roswell C. Bolstad, Jr. H. & G. E.

U. S. GOVERNMENT PRINTING OFFICE: 1928

5280

Applied to new compilation drawing of chart 375
July 30, 1936 - J.F.V.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 66

REGISTER NO. T 5280

State New Jersey

General locality South River.

Locality ~~South River to Old Bridge.~~ Vicinity of Raritan River

Scale 1:10,000 Date of survey (See following sheet) 9

~~783331~~ New York Air Photo Compilation Party No. 12.

Chief of party *Roswell C. Bolstad, Jr.* E. & G. E.

Surveyed by (See following Statistics Sheet.)

Inked by W. Barasch

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 15, 1932

Remarks: Compiled on a scale of 1:10,000 and printed by
photo lithography.

...

- STATISTICS -

on

SHEET, FIELD NO. 66, REG. NO. T 5280.

SINGLE LENS PHOTOS NO'S. 66-37-60 & 61, DATE May 30, 1932
66-39-79 - 83 incl.
66-39-75 - 78 incl.
66-39-46 & 47 DATE June 8, 1932

	BY	DATE FROM TO
SCALE FACTOR = 1.00		
PROJECTION	<u>A.K. Spalding</u> A.K. Spalding	<u>6/11/34 - 6/12/34</u>
PROJECTION CHECKED	<u>W.D. Ayers</u> W.D. Ayers	<u>6/12/34</u>
CONTROL PLOTTED	<u>J.J. Lanigan</u> J.J. Lanigan	<u>6/18/34</u>
CONTROL CHECKED	<u>J.G. Albert</u> J.G. Albert	<u>6/19/34</u>
NO TOPOGRAPHY TRANSFERRED		
SMOOTH RADIAL LINE PLOT	<u>W. Barasch</u> W. Barasch	<u>9/15/34 - 9/19/34</u>
RADIAL LINE PLOT CHECKED	<u>R.C. Bolstad</u> R.C. Bolstad	<u>9/20/34</u>
DETAIL INKED	<u>W. Barasch</u> W. Barasch	<u>9/21/34 - 10/18/34</u>
REVIEWED	<u>R.C. Bolstad</u> R.C. Bolstad	<u>12/12/34 - 12/14/34</u>
AREA OF DETAIL INKED <u>10.7</u> sq. Statute Miles (Land Area)		
AREA OF DETAIL INKED <u>0.0</u> sq. Statute Miles (Shoals in Water Area)		
LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore) <u>0.0</u> Statute Miles.		
LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide) <u>16.8</u> Statute Miles.		
LENGTH OF STREETS? ROADS? TRAILS? RAILROADS etc. <u>110.3</u> Statute Miles.		
GENERAL LOCATION <u>South River</u>		
LOCATION <u>South River to Old Bridge.</u>		
DATUM <u>North American 1927</u>		
Latitude <u>46° 25' 06.646"</u> <u>205.0 m.</u>		
STATION <u>Old Bridge 1934</u> Longitude <u>74° 21' 31.981"</u> <u>754.0 m.</u>		

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET, FIELD NO. 66

GENERAL INFORMATION

The AIR PHOTO FIELD INSPECTION REPORT for the Raritan River district, New Jersey, attached to Descriptive report T 5103, furnished the necessary field data for the compilation of this sheet. Additional information was obtained by a special inspection trip made in the field by the detailer.

The STATISTICS SHEET (page 2) lists all data in connection with the compilation of this sheet.

The single lens photographs used in this compilation were taken by the Aero Service Corporation, 1612 Chancellor St., Philadelphia, Pa. with a camera equipped with an 8 inch Orthomessar lens, and enlargements made (1:10,000 scale) from the original negatives which are on an approximate scale of 1:21,800. No time of day at which these photos were taken is available.

CONTROL

(A) Sources

The following sources of control were used in the compilation of this sheet:

- (a) Triangulation by Lt.R.W.Woodworth, 1932.
- (b) Triangulation by Lt.E.R.McCarthy, 1934.

The field computations of both of these parties were on a North American datum and were the only positions available.

An approximate adjustment was made to convert these positions to a N.A. 1927 datum as follows: Lat. subtract 11.4 meters, Long. add 3.0 meters. It is believed that any datum errors will be small and unplotable at the scale of this compilation.

No other control was used on this sheet. *← summary*

ERRORS

No errors were discovered in the control stations in compiling this sheet.

DISCREPANCIES

Since no control other than triangulation was used on this sheet, no other discrepancies were found.

COMPILATION

(A) Method

The usual radial line method of plotting was used in the compilation of this sheet.

ADDITIONAL NOTE - INTERPRETATION.

The concrete highway (Route S-28) shown on this sheet does not appear on the photographs at the south end. A special field inspection was made and the highway drawn in on the photographs to represent the present condition. Adequate measurements were made to produce an accurate sketch.

See P. 10 Triangulation station "PT. 5 - U.S.E. 1928" has not been shown on this sheet because to do so would obscure the detail in the locality of the drawbridge.

In Lat $40^{\circ} 24.8'$, Long. $74^{\circ} 21.5'$ the dashed line shown bordering the marsh area has been shown as such to represent the outer limits of the marshland which tapers off into the water area. Where no border line is shown the limits are not distinct. Where there is a distinct vertical edge to the marsh the fine full line is used in accordance with the regulations of the Topographic Manual.

*The Topographic survey of 1934 does not
cover this area*

(B) Adjustments of Plot

The photographs of this area appear to have very little scale fluctuation due to variation in the altitude of the plane, and no unusual adjustments were necessary.

(C) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps (1932) and no great difficulty was experienced in interpreting the photographic detail.

The double full line was used to indicate first order roads and the double broken line for private driveways and roads of lesser importance. An exceedingly poor road or trail was shown by a single dashed line. In most cases, unless labeled on the field prints, the classification was determined by a stereoscopic comparison with labeled roads.

There are a number of abandoned railroad tracks in the vicinity of Lat. 40° 26' and Long. 74° 20'; these have been shown as broken lines with short cross lines.

Several pipe lines have been shown on this sheet, by a heavy single dashed line with appropriate label. Only the surface lines have been shown; where the line is no longer visible on the photos it has been assumed that it continues to run under ground.

(D) Information from Other Sources.

No other information from other sources was used in the compilation of this sheet.

(E) Conflicting Names

There are no names shown on this sheet conflicting with those shown on the present U.S.C. & G.S. Charts of this area.

COMPARISON WITH OTHER SURVEYS

The junctions with other sheets are satisfactory.
The list of landmarks

LANDMARKS

The list of landmarks for this area has been previously submitted, February 10th, 1932, by Lieut. R.W. Woodworth.

Additional landmarks in this area are referred to the reports of Lieut. E.R. McCarthy who conducted field operations in this area in 1934.

BRIDGES

The only bridge of importance to navigation on this sheet is the R.R. draw bridge near triangulation station "Rail 1934".

It has been discussed in the Coast Pilot. Lieut. McCarthy may have made measurements on this bridge as he conducted a hydrographic survey of this river in 1934. No additional measurements were taken by the field inspection party.

Clearance of 6 ft. given by party of Lt. E. R. McCarthy. Engineers List of Bridges gives 4.1 ft. This lower value has been shown on the compilation.

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not over two (2) meters in well defined detail of importance for charting, and of not over four (4) meters for other detail. It is understood that the widths of roads and similar detail may be slightly expanded in order to keep the detail clear and to keep it from photographing as a solid area during the photo-lithographic process.

To the best of my knowledge this sheet is complete in all detail of importance for charting purposes, within the accuracy stated above, and no further surveys are required.

Submitted by

W. Barasch

W. Barasch

Draftsman.

REVIEW OF AIR PHOTO COMPILATION T-5280.

Comparison with Previous Graphic Control Surveys.

(a) T-6221b (1934) 1:10,000.

The graphic control survey was made about the same time as the compilation, but a complete comparison was not made by the field party. The comparison in this office has included the transfer of a number of topographic stations to the compilation. Both surveys were well controlled and the detail as shown on the compilation is in agreement with T-6221b.

Triangulation station PT.-5-U.S.E. (1928) was plotted on the compilation in this office. The station was omitted by the field party, giving reason as making detail too intricate. See opposite page 4 of the Descriptive Report.

Triangulation station StK. (O.B.Tile Co.) 1934, was plotted on the compilation in this office, as the geographic position was not available in the field office.

The triangulation and topographic stations plotted and transferred to this compilation by W. E. Hackett and checked by V. R. Sobieralski.

All detail on T-6221b within the area covered by this compilation is now shown on the compilation, except the magnetic declination. H.W. clearance 4.6 ft. of highway bridge over South River @ Old Bridge added to compilation from T-6221b. Clearance of R.R. bridge alongside not given. R.H.B. 12/16/35

Comparison with Previous Topographic Surveys.

The previous topographic surveys of this area are too old to make a good comparison with the compilation. The compilation is complete and adequate to supersede that part of the following topographic surveys which it covers:

T - 11	1836
T - 122	1840
T - 1354b	1873

Comparison with New Hydrographic Surveys.

There are no recent hydrographic surveys in this area. *yet in the office*

Comparison with Charts.

Chart No. 375.

in this area
All landmarks appearing on the chart appear on the compilation.

Landmarks recommended by the recent graphic control survey and by this compilation within this area are shown on the compilation.

General.

The projection has been checked and found satisfactory.

A better description of the accuracy as stated on page 5 of the Descriptive Report is 3 to 5 meters for intersected points and 3 to 8 meters for other detail.

The drafting is fair and the compilation is adequately controlled and carefully made.

Respectfully submitted,

W. E. Hackett

3-29-35.

Inspected by

B. G. Jones
B. G. Jones.

8-29-35

GEOGRAPHIC NAMES

Survey No. F-5280

Chart No. 375

Diagram No. _____

*, Approved by the Division of Geographic Names, Department of Interior.

Ø, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

[illegible]

REVIEW OF AIR PHOTO COMPILATION NO. T 5280

Chief of Party: Roswell C. Bolstad

Compiled by: (See page 2)

Project: New York Air Photo Compilation Instructions dated: Nov. 15, 1932
Party No. 12

- ✓1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)
- ✓2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)
- ✓3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)
- ✓4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)
- ✓5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
- ✓6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)
- ✓7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

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. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
See reports of Lieut. E.R. McCarthy, 1934.
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
See chapter on LANDMARKS.
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)
See chapter on BRIDGES.
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
13. The geographic datum of the compilation is North American and the reference station is correctly noted. 1927
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 2. The degrees and minutes of Latitude and Longitude are correctly marked.

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- ✓3. All station points are exactly marked by fine black dots.
- ✓4. Closely spaced lines are drawn sharp and clear for printing.
- ✓5. Topographic symbols for similar features are of uniform weight.
- ✓6. All drawing has been retouched where partially rubbed off.
- ✓7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

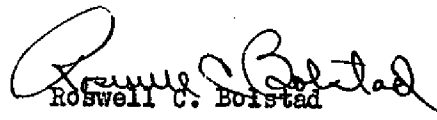
(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

Any additional notes and requirements affecting this area are referred to the reports of Lieut. E.R. McCarthy who conducted a combined-operations party in this area in 1934.

18. Examined and approved;




 Roswell C. Boistad
 Chief of Party


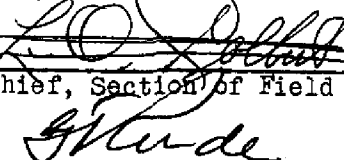
19. Remarks after review in office:

See preceding pages 1 to 2 for detailed report on office verification.

Reviewed in office by: Hackett ✓ B.G. Jones

Examined and approved:


 Chief, Section of Field Records

 Chief, Division of Charts


 Chief, Section of Field Work

 Chief, Division of Hydrography and Topography.