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U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New York

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. T5084

LOCALITY

South Shore of Long Island

Outer Coast between Reeves Island

and Ridge Island

1934

CHIEF OF PARTY

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

U. S. GOVERNMENT PRINTING OFFICE: 1923

5084

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. 33

REGISTER NO. T5084

State New York

General locality South Shore of Long Island

Locality Outer Coast between Reeves Island and Ridge Island

Scale 1:10,000 Photographs Feb. 22, 1934
Date of ~~survey~~ Feb. 10, 1934

~~Vessel~~ Air-photo Compilation Party No. 12

Reviewed and recommended for approval Roswell C. Bolstad
Chief of party Roswell C. Bolstad, Jr. H. & G. E.

Surveyed by (See data sheet enclosed in Descriptive Report for this sheet)

Inked by J. B. Moreland and A. K. Spalding

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

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

Instructions dated November 15, 1932

Remarks: Actual scale of celluloid sheet is 1:9,479. Compilation of single lens aerial photographs Nos. V-86 - V103 (881-8). Final sheet to be reduced to 1:10,000 scale and printed by photo-lithographic process.

- NOTES ON COMPILATION -

SHEET NO. 33

PHOTOS, NO. V-86 (881-8) TO NO. V-103 (881-8)

DATE OF PHOTOGRAPHS Feb. 22, 1933 TIME 11:25 A.M.

	BY	DATE
ROUGH RADIAL PLOT	<u>A.K. Spalding</u>	<u>9/16/33</u>
SCALE FACTOR (1.055)	<u>A.K. Spalding</u>	<u>9/17/33</u>
SCALE FACTOR CHECKED	<u>J.C. Harmon</u>	<u>9/17/33</u>
PROJECTION	<u>J.P. O'Donnell</u>	<u>9/30/33</u>
PROJECTION CHECKED	<u>R.C. Bolstad</u>	<u>9/30/33</u>
CONTROL PLOTTED	<u>J.P. Jones</u>	<u>10/2 & 3/33</u>
CONTROL CHECKED	<u>J.C. Harmon</u>	<u>10/3/33</u>
TOPOGRAPHY TRANSFERRED	<u>J.P. Jones</u>	<u>10/7/33</u>
TOPOGRAPHY CHECKED	<u>J.P. O'Donnell</u>	<u>10/7/33</u>
SMOOTH RADIAL LINE PLOT	<u>J.P. Jones</u>	<u>10/10/33</u>
RADIAL LINE PLOT CHECKED	<u>J.P. O'Donnell</u>	<u>10/10/33</u>
DETAIL INKED	<u>A.K. Spalding & J.B. Moreland</u>	<u>11/14 - 11/17/33 A.K.S.</u> <u>1/12 - 2/10/33 J.B.M.</u>

AREA OF DETAIL INKED 2.9 sq. Statute Miles. (Land Area)

AREA OF DETAIL INKED 3.6 sq. Statute Miles. (Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)
25.0 Statute Miles

LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)
4.3 Statute Miles

GENERAL LOCATION South Shore of Long Island

LOCATION Outer Coast between Reeves Island and Ridge Island

DATUM North American 1927

Latitude 40° - 44' - 21.824" (673.2 m.)

STATION Top 1933 Longitude 72° - 50' - 31.378" (736.3 m.)

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 33GENERAL INFORMATION.

No Field Report for the section of Long Island covered by this sheet was available. The necessary field data for the compilation of this sheet was obtained from the Descriptive Report of Lieut. Comdr. R. P. Eyman for Field Sheet "F" and from the notes of the field inspection party.

The accompanying NOTES ON COMPILATION details all data in connection with the compilation of this sheet.

There is very little tide in Shinnecock Bay (about $\frac{1}{2}$ foot range at Bellport, from predicted tide tables) and its affect was neglected. Along the outer coast the tide was about 2 feet below mean high water (from predicted tide tables) at the time these photographs were taken but the interpretation of the high water line from the photographs was not affected by this as explained in the field report inclosed in the Descriptive Report for Air-photo Topographic Sheet Reg. No. T5080.

This sheet was compiled from photographs taken by Captain Willis R. Taylor of the U. S. Army Air Corps with their single lens camera, photograph numbers V-86 (881-8) to V-103 (881-8), inclusive.

CONTROL.(A) Sources.

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

- (a) Triangulation by Lieut. Comdr. R. P. Eyman in 1933, unadjusted.
- (b) 1933 Aluminum Control Sheet (Lieut. Comdr. R. P. Eyman's Field Sheet "F")
Reg. No. 6014

The field party's geographic positions, unadjusted, were used; these are on the North American 1927 Datum.

Triangulation and topography (1:20,000 scale aluminum control sheet, showing high water line and control signals) executed by the party of Lieut. Comdr. R.P. Eyman, in 1933, forms the basis of control for this area.

In addition to the triangulation and high water line obtained from the aluminum control sheet, the following topographic signals (shown on the aluminum control sheet) were spotted on the photos and were used in controlling this sheet:-

Ox	Hot	Ney
Flap	Lib or Lit	Wet
Blue & White	(White banner)	Ann
Banner	White Banner	C.G. Watch Clock Sta.
Gray	Lack	Low (E. Gable Hotel)

REVIEW

The stations-referred to on the opposite page are shown on planetable sheet 6014 (scale 1:20000).

○ Flap - This flagpole will not appear on the photo sheet. The difference is not large and may be accounted for by the two holes pricked at the position on T 6014.

○ No name - This is^oPop on T 6014. Since the spotting of the point on the photographs is questioned the air photo position is not reliable. The station will not appear on the photo sheet.

○ Lib or Lit - The difference of 6 meters is not large on 1:20000 scale planetable sheet. The photo sheet is well controlled, is plotted on 1:10,000 scale, and agrees with other planetable detail in this vicinity. The photo sheet location of the signal and bulk-head are considered correct.

○ No name - This is station "Mit" on T 6014. Since the spotting of the point on the photographs is questioned the air photo location is not reliable. This station will not appear on the photo sheet.

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B. G. Jones.

They have been shown on the celluloid topographic sheet by a double blue circle (⊙) together with the name (as shown on the aluminum control sheets) in blue. As the blue will not photograph during the photo-lithographic process no record of these topographic control signals (banners and flags) will appear on the finished sheet.

If it is the desire of the Chart Section to have these shown, they may be indicated in red ink with the usual circle and topographic name; this may best be done by draftsmen in the Washington Office as they will have all the data at hand.

All aluminum control stations used for supplementary control on this sheet have been plotted from the positions obtained from Lieut. Comdr. R. P. Eyman's Descriptive Report, Field Letter "F". T6014

Several topo stations which were shown on the aluminum control sheets could not be used as supplementary control since the points were not spotted on the photographs by the field inspection party.

(B) Errors.

In making the radial plot for this sheet the following relocations of spotted aluminum control sheet signals resulted:

✓ ⊙ Flap - Lat. $40^{\circ}-43.4'$, Long. $72^{\circ}-53.7'$ - new position as determined by the radial plot lies 6 meters distant on azimuth $345^{\circ}-00'$ (from north) from the position as given on the aluminum control sheet. This signal is a flagpole very near triangulation station Tank (Old Inlet) and its position was checked by use of measurements given on the field prints and also by figuring the distance between the flagpole and the triangulation station by the use of the coordinates of the two stations. It is believed to be in error as shown. T6014

✓ ⊙ No name - Lat. $40^{\circ}-43.6'$, Long. $72^{\circ}-52.8'$ - new position as determined by the radial plot lies 12 meters distant on azimuth $295^{\circ}-00'$ (from north) from the position as given on the aluminum control sheet. This signal is a black and white banner located on a sandy shore and it is possible that it has been spotted incorrectly on the photographs, since the spotting could not be verified. T6014

✓ ⊙ Lib or Lit - Lat. $40^{\circ}-44.3'$, Long. $72^{\circ}-52.1'$ - new position as determined by the radial plot lies 6 meters distant on azimuth $230^{\circ}-00'$ (from north) from the position as given on the aluminum control sheet. This signal is a white banner at the end of an old bulkhead in bridge ruins. The signal and topography in this vicinity are consistently in error to the eastward according to the photographs so it is believed that this signal is in error as shown. T6014

✓ ⊙ No name - Lat. $40^{\circ}-44.6'$, Long. $72^{\circ}-51.7'$ - new position as determined by the radial plot lies 6 meters distant on azimuth $265^{\circ}-00'$ (from north) from the position as given on the aluminum control sheet. This signal is a white banner located on a marshy shore and may possibly have been spotted T6014

See also opposite page

REVIEW

The shoreline as shown on this sheet (scale 1:10,000) agrees very well with the 1933 planetable survey (scale 1:20,000) except in Patter, Squash Creek. The entire shoreline of this creek and the entrance between triangulation stations "Nap 1933" and "Mas, 1933" is shown on the air photo sheet about 20 meters East of the position given on the planetable control sheet T 6014.

Both the photo sheet and the planetable sheet were well controlled in this area. Patter, Squash Creek was evidently surveyed on the planetable by stadia traverse. The Descriptive Report T 6014 does not list any traverse closures or give the actual traverse lines. The difference appears likely to be due to a planetable traverse error on the traverse around Patter, Squash Creek between triangulation stations "Mas" and "Nap". It is not likely that an error of this size in the photo plot would occur so close to triangulation station "Mas". *One photo graph spans the distance from Δ Mas to Δ Nap*

The shoreline as shown on this sheet is considered correct and should be used in preference to the smaller scale survey of this creek on T 6014.

This section of shoreline as shown on the photo sheet has been compared roughly with hydrographic sheet H 5322 and agrees very well with the soundings shown on that sheet. However, a more detailed comparison with attention to the control of the soundings should be made with H 5322.

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B. G. Jones.

4

incorrectly by the field inspection party as the spotting could not be verified but is believed to be in error as stated.

The control, on this sheet, is strong and the radial plot gave good intersections. It should be noted that the aluminum control sheet was executed on a scale of 1:20,000 whereas this sheet is on a scale of 1:9,479.

(C) Discrepancies.

No other control stations established by other organizations were used in this compilation.

COMPILATION.

(A) Method.

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

(B) Adjustments of Plot.

The photographs used in the compilation of this sheet appear to be free of excessive tilt and scale fluctuation and the radial plot required no unusual adjustments.

(C) Interpretation.

Only 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 as a single dashed line. In most cases (unless labeled on the field inspection prints) the classification had to be determined by the appearance under the stereoscope.

The Coast Guard telephone line shown on this sheet was spotted by the field inspection party at about eight points on the sheet. The line has been drawn as a straight line between these spotted positions as it was not possible to identify it under the stereoscope; its location may therefore, be slightly in error between the spotted positions.

The ridge of sand dunes along the south shore of Fire Island is clearly evident under the stereoscope and has been shown on this sheet and labeled.

All boundaries of shoal water areas (shown by single broken line) on this sheet were so indicated because of appearance on the photographs and they may be expected to have departure from actual conditions.

(D) Information from Other Sources.

The high water line and marsh line were run in

by the topographic party on the aluminum control sheet.

(E) Conflicting Names.

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

The name "Narrow Bay" was shown on this sheet since it was listed under "New Names" in the Descriptive Report of Lieut. Comdr. R. P. Eyman for Field Sheet "F". The name was obtained from local sources by him.

COMPARISON WITH OTHER SURVEYS.

The junctions with all adjoining sheets are satisfactory.

The dock shown on the inner coast near Pelican Island, the two docks near triangulation station Mas and the three docks shown near the East Bay Hotel do not appear on the photographs but are shown on the topographic sheet and have therefore been shown on this sheet. It is believed that possibly these are temporary docks which are erected for summer use only.

The high water line on the aluminum control sheet agrees well with that obtained from the photographs for this sheet with the exception of that along the outer coast. Here it was found that there was a difference of about 25 meters in the location of the high water line along the outer coast as located by the field inspection party and by the topographic party. It is felt that this is due, for the most part, to a difference in the interpretation of the high water line by the two parties since the beach is wide and gently sloping in this area. However, the topographic party's location of the high water line was used as their work was performed about four months later than the date on which the photographs were taken.

Between Long. 72°-49' and Long. 72°-52' along the shore of Narrow Bay a wide band of marshy area has been shown on the aluminum control sheet. After careful examination of the photographs under the stereoscope and with the aid of the notes of the field inspection party on the field prints it was found that this area, although it is low ground, has a considerable amount of brush and grass in the marshy area. This feature has been shown by mixing the symbol for brush in with the symbol for marsh.

Since there were no shoal areas shown on the aluminum control sheet, they were shown on this sheet as stated under COMPILATION (C) Interpretation. Where a marked contrast between deep and shoal water was not apparent on the photographs, the appearance of shoal to deep water is due to the gradual increase in depth of the water. This sheet shows only the shoal areas apparent on the photographs.

LANDMARKS.

The list of landmarks on Form 567 for this area was submitted by Lieut. Comdr. R. P. Eyman on November 9, 1933. Lieut. Comdr. R. P. Eyman did not submit the landmarks to be retained on this sheet and no information is available regarding these landmarks in this party.

The following landmarks shown on U. S. C. & G. S. Charts are not listed on Lieut. Comdr. R. P. Eyman's expunge list, consequently it is believed that they should be retained.

Smith Pt. C. G. Flagstaff	Chart No. 578
Tank	Chart Nos. 578, 1214 & 52
Forge River C. G. Tower	Chart No. 578

These landmarks have apparently been listed, according to Lieut. Comdr. R. P. Eyman's 1933 triangulation, as follows:

- ✓ Smith Pt. C. G. Signal Tower
- ✓ Tank, Old Inlet
- ✓ Forge River C. G. Signal Tower

It should be noted that the position of topo station Ann, as given in Lieut. Comdr. R. P. Eyman's Descriptive Report for Field Sheet "F", appears to have its forward and back distance in longitude reversed.


There are also many other objects (such as Houses, ends of docks, etc.) which are located within the accuracy specified under the following heading, RECOMMENDATIONS FOR FURTHER SURVEYS, and may be used to obtain hydrographic "fixes". Care should be taken in using the houses to use the center as the size shown on this sheet may be expanded somewhat.

RECOMMENDATIONS FOR FURTHER SURVEYS.

The compilation of this sheet is believed to have a probable error of not over 2 meters in well defined detail of importance for charting and of 4 meters for other data. It is understood that the widths of roads and similar objects may be slightly expanded in order to keep the detail clear and to keep it from photographing as a solid area in the photolithographic 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 additional surveys are required.

Submitted by


J. B. Moreland
Draftsman


A. K. Spalding
Accountant

Assisted by


A. K. Spalding
Accountant

LIST OF RECOVERABLE TOPOGRAPHIC STATIONS

(Includes all recoverable objects, sufficiently prominent for use as hydrographic fixes, shown as topographic stations with small black circle on this sheet and not described on Form 524 by this party.)

Description	Approx. Latitude		Approx. Longitude		Height	Method of Determination
	O	'	O	'		
Cupola Smith Point House	40	43.9	72	52.3		P. T.
Smith Pt. C.G. Watch Tower	40	43.9	72	52.3		Triang. 1933
Forge River C.G. Watch Tower	40	44.9	72	48.6		Triang. 1933
(Hot) W. Chy: on Hotel	40	44.3	72	52.1	20 ft.	A.C.S., Reg. No. _____
C.G. Watch Clock Station	40	45.4	72	46.9	5 ft.	A.C.S., Reg. No. _____
Tank (E. Bay Hotel)	40	45.5	72	46.4		Triang. 1933
(Low) E. Gable of Hotel	40	45.5	72	46.4	20 ft.	A.C.S., Reg. No. _____

Note: A.C.S. denotes aluminum control sheet.
P.T. denotes photo topographic sheet.
Name preceding the description in parenthesis is the topographic station name as given on the aluminum control sheet.

7.

The northerly of the two Islands shown on this sheet at Smith Point is not shown on the Aluminum Control Sheet of this area but is clearly evident on the photographs so it has been shown.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T5084

Title (Par. 56) (see enclosed Title Sheet)

Chief of Party Roswell C. Bolstad Compiled by (see enclosed data sheet)

Project New York Air-photo Compilation Instructions dated Nov. 15, 1932
Party No. 12

- ✓1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.) Paragraph 8 not applicable to this party. (see paragraph CONTROL in COMPILER'S REPORT)
- ✓2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
- ✓3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.) (see COMPILER'S REPORT enclosed, paragraph, Adjustments of Plot under COMPILATION (B)).
- ✓4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.) *none*
- ✓5. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
- ✓6. The representation of low water lines, ^{and shoal areas} ~~reefs, coral reefs and rocks,~~ and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) *see page 4 disc. report*
- ✓7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. Only such changes as noted in the enclosed COMPILER'S REPORT, CONTROL (B); COMPILATION (C) and (E); COMPARISON WITH OTHER SURVEYS and LANDMARKS have been made on this sheet. (See opposite page)
- ✓8. ~~The open, clear and unobstructed bridges are shown.~~ (Par. 16c.)
There are no bridges on this sheet.
- ✓9. The data furnished by the Field Inspection is adequate.

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.

- ✓10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)
- ✓11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
- ✓12. ^{No} The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) (see Remarks below) (See also reports of control party, Lieut. Comdr. R. P. Eyman, 1933)
(Triangulation and Topography)
- ✓13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) (Previously submitted by 1933 Field Party under Lieut. Comdr. R.P. Eyman)
- ✓14. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)
(see paragraph CONTROL in COMPILER'S REPORT)
- ✓15. Junctions with contemporary surveys are adequate.
- ✓16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.)
- ✓17. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)

18. No additional surveying is recommended.

19. Remarks: Any additional notes and requirements affecting this area are referred to Lieut. Comdr. R. P. Eyman's Reports covering the topography executed in 1933 under his charge.

20. Examined and approved:

Roswell C. Bolstad
Roswell C. Bolstad
Chief of Party

21. Remarks after review in office: *see review reports of sheets pages 4 and 5*

Reviewed in office by: *B. G. Jones*

Examined and approved:

K. T. Adams
Chief, Section of Field Records

L. O. Solbert
Chief, Division of Charts

J. B. Borden
Chief, Section of Field Work

G. H. Hude
Chief, Division of
Hydrography and Topography.