

# 5080

ORIGINAL

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton, Director	
State: New York	
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES MAR 8 1934	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. T5080
LOCALITY	
South Shore of Long Island	
Outer Coast between Header Creek	
and Tiana Beach	
1933	
CHIEF OF PARTY	
Roswell C. Bolstad, Jr. H. & G. E.	

U. S. GOVERNMENT PRINTING OFFICE: 1921

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

5080

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. 30

REGISTER NO. 5080

State New York

General locality South Shore of Long Island

Locality Outer Coast between Header Creek and Tiana Beach

Scale 1:10,000 Date of <sup>Photographs</sup> survey Feb. 22, 1933

Date of Compilation Nov. 2, 1933

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 U. S. Army Air Corp.,

Inked by William F. von Buehren Nov. 2, 1933

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

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

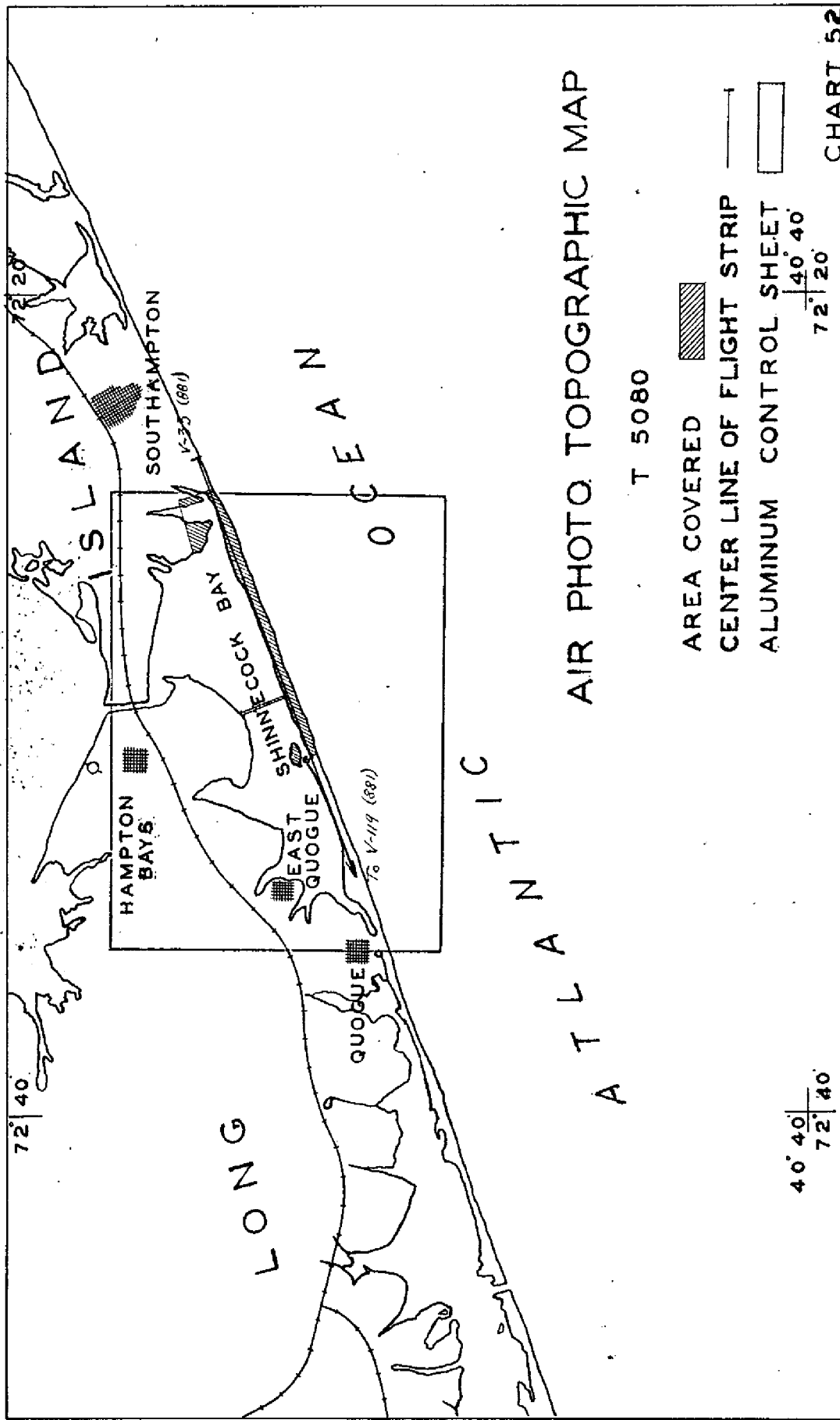
Instructions dated November 15, 1932

Remarks: Actual scale of celluloid sheet is 1:9,479. Final

sheet to be reduced to 1:10,000 scale by photo-lithographic process.

Polyconic Projection by	E. L. Fitch	Sept. 21, 1933
Projection Verified by	R. C. Bolstad	Sept. 21, 1933
	A. K. Spalding	
Control Plotted by	A. K. Spalding	Sept. 22, 1933
Control Verified by	R. C. Bolstad	Sept. 22, 1933
	E. L. Fitch	

Sheet #30

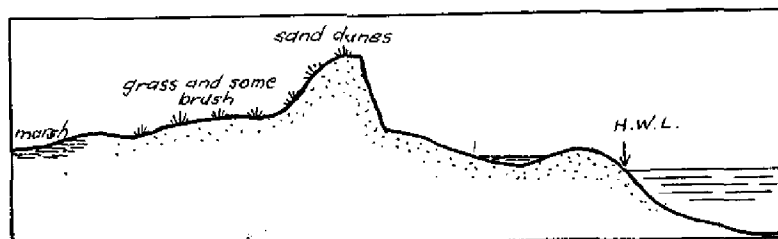


FIELD REPORT  
for  
AIR PHOTO TOPOGRAPHIC SHEET FIELD (NO. 30)

In the absence of a report on this area by the field inspection party the following notes are herewith submitted to act as a guide in the compilation of this sheet. This report is compiled by the aid of notes and sketches made by the field party on the field prints and through a knowledge of this locality obtained by myself while stationed on a Long Island field party under Lieutenant L. C. Wilder operating in the nearby vicinity.

GENERAL DESCRIPTION OF TOPOGRAPHY.

This narrow stretch of land between Shinnecock Bay and the ocean is low and usually marshy on the Bay side while along the Ocean side a series of sand dunes extend along the coast. There are no large trees here and the vegetation consists mostly of marsh grass, some brush, and beach grass on the dunes.



A characteristic of the beach along the south coast of Long Island is the built up sand ridge along the high water line with a slight depression inland just in front of the dunes. This depression is often filled with water from the wash of high waves over the ridge (at H. W.) and in many cases some of the darker colored top soil is blown from the inland area and is retained in this depression. Although the contrast in coloring is not marked it can sometimes be identified on the photographs. It must be noted that the high water line is really at the outer boundary of the ridge and not at the foot of the dunes. Beyond the high water line the beach drops off fast so the stage of tide would have little influence on interpretation of high water line.

Nearby dwellers have stated that a heavy sea may destroy this characteristic feature but after a time the ridge is again built up by wave action.

CONTROL.

Triangulation and topography (1:20,000 scale aluminum control sheet, showing high water line and control signals) executed by the party of Lieutl A. P. Ratti in 1933 forms the entire control for this sheet.

LIST OF NAMES.

No new names were submitted nor labeled on the field photographs by the field inspection party.

MISCELLANEOUS.

Any additional notes and requirements affecting this area are referred to the reports of Lieut. A. P. Ratti covering the topography executed under his charge during 1933.

Submitted by

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

## - NOTES ON COMPILATION -

SHEET NO. 30PHOTOS, NO. V-36 (881-8) TO NO. V-50 (881-8)DATE OF PHOTOGRAPHS Feb. 22, 1933TIME 10:00 A.M.

	BY	DATE
ROUGH RADIAL PLOT	<u>A. H. Spalding</u>	<u>9/1/33</u>
SCALE FACTOR (1.055)	<u>A. H. Spalding</u>	<u>9/2/33</u>
SCALE FACTOR CHECKED	<u>Russell C. Bolstad</u>	<u>9/3/33</u>
PROJECTION	<u>E. L. Fitch</u>	<u>9/21/33</u>
PROJECTION CHECKED	<u>R. C. Bolstad &amp; A. H. Spalding</u>	<u>9/21/33</u>
CONTROL PLOTTED	<u>A. H. Spalding</u>	<u>9/22/33</u>
CONTROL CHECKED	<u>R. C. Bolstad &amp; E. L. Fitch</u>	<u>9/22/33</u>
TOPOGRAPHY TRANSFERRED	<u>A. H. Spalding</u>	<u>9/25/33</u>
TOPOGRAPHY CHECKED	<u>W. H. Burgess</u>	<u>10/4/33</u>
SMOOTH RADIAL LINE PLOT	<u>W. H. Burgess</u>	<u>10/7/33</u>
RADIAL LINE PLOT CHECKED	<u>Russell C. Bolstad</u>	<u>10/7/33</u>
DETAIL INKED	<u>William F. von Buehron</u>	<u>11/2/33</u>

AREA OF DETAIL INKED 2.0 sq. Statute Miles (Land Area)AREA OF DETAIL INKED 3.5 sq. Statute Miles (Shoals in Water Area)LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)  
18.0 Statute MilesLENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)  
4.7 Statute MilesGENERAL LOCATION South Shore of Long IslandLOCATION Between Ponquogue and SouthamptonDATUM North American 1927

	Latitude	<u>40°- 50'- 41.882"</u>	<u>(1291.9 m.)</u>
STATION <u>Ponquogue Light</u>	Longitude	<u>72°- 27'- 59.126"</u>	<u>(1385.0 m.)</u>
<u>1933</u>			

COMPILER'S REPORT  
for  
AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 30

GENERAL INFORMATION.

The only available aids in the compilation of this sheet have been secured from the notes on the field prints, the preceeding report on field inspection, and additional information furnished by Lieut. (j.g.) R. C. Bolstad in questionable areas.

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

There is very little tide in Shinnecock Bay 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 preceeding Field Report.

This sheet was compiled from the photographs taken by the U. S. Army Air Corps' single lens camera, photograph numbers V-36 (881-8) to V-50 (881-8).

CONTROL.

(A) Sources.

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

- (a) Triangulation by A. P. Ratti in 1933.
- (b) 1933 Aluminum Control Sheet, Reg. No. \_\_\_\_\_

The field party's geographic positions were used; these are on the N. A. 1927 Datum. The difference between the unadjusted and the final adjusted positions would be unplotable at the scale of this compilation (1:9,479).

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

MOP	GOB	EKE	ALL
ART	BUM	FAT	CAR
BAR	LID	GEM	BOB
LIC	HAT	HAY	INN
CAT	ABE	LET	ARK
FUN	CAM	MAD	MUD
(no name)	DEW	LAV	LAD
			GAB

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.

*over*

Par. B. Comments

Only one of these stations, "let", is recoverable and is shown on this sheet. The difference in position of 4 meters is not considerable as the aluminum planotable control sheet T4765 is on 1:20 000 scale.

Since there is some question as to the spotting of station "Bum" on the photographs the position as shown on the a.p.c. sheet T4765 must be considered correct unless the verification of the Hydrography shows some indication of error in that position. (H-5323 types of photo problems) <sup>new</sup>

The spotting of stations Abe and Dew are not questioned and the radial plot was well controlled. On a.p.c. sheet T4765 the holes punched for these stations are very large. The points punched for the triangulation stations are too large for accurate <sup>orientation</sup> location of the planotable and the sheet does not indicate careful planotable work. The positions of these stations are considered correct as shown on this sheet, air photo T5082.

The air photo locations of stations Bum, Abe, and Dew will not appear on sheet T5082 but are shown on the celluloid sheet for T5082 filed in Room 2212.

B.G.



(B) Errors.

The following errors were discovered in the positions of some of the aluminum control signals.

① Bum - new position as determined by the radial plot lies 18 meters distant on azimuth 143°- 35' (from north) from the position as given on the aluminum control sheet. There may be a question as to the spotting of this signal on the photographs by the field party, because the signal Gob which is a small shack close by, the spotting of which was verified by stereoscope, checks with the radial plot. This signal is not a prominent object and the spotting of it on the photographs could not be verified by the aid of the stereoscope.

② Abe - new position is 12 meters distant in azimuth 189°- 10' from old position. The spotting of this signal was verified by the aid of the stereoscope.

③ Dew - new position is 9 meters distant in azimuth 187°- 16' from old position. This signal is located on a definite point and the spotting is very unlikely to be in error.

④ Let - new position lies 4 meters distant in azimuth 268°- 28' from old position. This signal is a chimney on a house and the spotting was verified by the aid of the stereoscope.

The control is strong for this sheet and the radial plot gave good intersections. It is felt that all the above listed signals are in error as listed. It is to 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.

*See page opposite.*

(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 in this strip appear to be free of excessive tilt and scale fluctuation and the radial plot required no unusual adjustments.

(C) Remarks On Adjustment.

Considerable trouble was experienced in making the first smooth radial plot because of the errors in position of the four topographic signals as stated on the preceeding page under CONTROL, paragraph (B) Errors. It was soon discovered that these control stations were in error and had to be disregarded in making the smooth plot.

*over*

Review

\* The H.W. line as shown on this sheet is considered correct as of the date of the photographs. The low ridge of island at H.W. line as shown in the sketch on page 1 may have washed out prior to the date of the planotable survey several months after the photographs were taken. It seems probable from the discussion on page 1 that this ridge is frequently washed out and then built up again.

B.G. Jones

(D) 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 ridge of sand dunes running along the outer coast were clearly evident under the stereoscope although the exact boundaries, as shown, may be somewhat in error.

The double full line was used to indicate first order roads and the double broken line used 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.

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.

(E) Information from Other Sources.

The high water line and marsh line was run in by the topographic party on the aluminum control sheets.

(F) Conflicting Names.

There are no names on the sheet conflicting with names shown on the U. S. C. & G. S. Charts of this area. All new names shown were taken from the recent editions of U. S. Geological Survey Maps of that locality.

COMPARISON WITH OTHER SURVEYS.

The junctions with all adjoining sheets are satisfactory.

The high water line as shown on the aluminum control sheet does not agree with the high water line as shown on this air-photo topographic sheet. As explained in the preceeding field report, there is a slight depression inland from the high water line and this may have been interpreted as the high water line by the topographic party. In some localities the high water line (as shown by the field topographic party) passes through the outer edge of sand dunes which can be readily identified on the photos (photo V-38 about 150 meters S. W. of signal Let; photo V-48 about 200 meters S. W. of signal Gob). *\*see opposite page.*

The marsh line however, agrees very well in general except in a few localities where short stretches were probably sketched in by the field topographer.

It was necessary to show the Ponquogue Causeway somewhat wider than it actually is in order that it would not close up and appear as a solid blotch when photographed during the photolithographic process; this also pertains to the high water line at the north end of the causeway. For this reason the above locality shows some deviation from the Aluminum Control Sheet.

### LANDMARKS.

There are no lists of landmarks available within this area which have been recommended either by the field inspection party or the combined operations party under Lieut. A. P. Ratti operating in this vicinity.

With the assistance of Lieut. (j.g.) R. C. Bolstad who is familiar with this locality and by the aid of the stereoscope the objects listed under LANDMARKS (Form enclosed) are submitted. They are grouped according to the following classification:-

- Classification (A) Extremely prominent - can be seen from a long distance - to be shown on both large and small scale charts.
- Classification (B) Prominent - can be readily identified at close range but may lose prominence at a distance (about 3 miles) - to be shown on large scale charts only.
- Classification (C) ~~Landmarks~~ <sup>objects</sup> of minor prominence - these are recoverable objects which can be identified at close range (about 1 to 2 miles) and may be used by the Light House Service - these should not be charted except on exceptionally large scale charts or where the hydrography is to be done on the regular air-photo topographic sheet.

There are also many other objects (such as shacks and houses, etc.) which are located within the accuracy specified in the following chapter, 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 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 bridges 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 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 additional surveys are required.

*W. H. Burwell*

Submitted by W. H. Burwell

Assisted by

*Roswell C. Bolstad*  
Roswell C. Bolstad  
 Jr. E. & G. E.

*William F. von Buehren*  
William F. von Buehren

LIST OF RECOVERABLE TOPOGRAPHIC STATIONS

*objects*  
CLASS (C) LANDMARKS

Description	Position						Method of determination		
	Latitude			Longitude				Datum	
	°	'	D.M. Meters	°	'	D.P. Meters			
(Let) Chim. on S.W. side of house	(C)	40	51	(1314) 537	72	26	(1401.5) 4.0	N.A. 1927	1933 A.P.T.
Center of bridge control No. (C)		40	50	1190.9	72	30	76.8	"	1933 A.P.T.

Note: A. C. S. stands for Aluminum Control Sheet.

Name preceeding description in parenthesis indicates topographic name shown on Aluminum Control Sheet.

For classification (shown in parenthesis after description) see paragraph Landmarks in Descriptive Report for Air-photo Topographic Sheet, Reg. No. T5080.

\* A. P. T. stands for Air-photo Topography. Corrected position by radial plot; see paragraph (B) Errors in preceeding COMPILER'S REPORT.

*In addition to the above list of recoverable topographic stations the following recoverable station is shown on this sheet.*

<u>Desc.</u>	<u>Lat.</u>	<u>Long.</u>	<u>Remarks</u>
<i>Chim. on S.W. side of house</i> Spire	40°-51.5'	72°-25.5'	This is Sta. Law on A.C.S. T4765

## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

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

Chief of Party Roswell C. Bolstad      Compiled by (See enclosed data folder)

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.
- ✓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 inclosed, paragraph, Remarks on Adjustments)
- ✓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 submitted.*
- ✓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, ~~reefs, coral reefs and rocks~~ sand bars and shoal areas, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) *See Par. D. Page 6 of Desc. 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. No changes in such details have been noted on this sheet.
- ✓8. The span, draw and clearance of bridges are shown. (Par. 16c.) Data as shown obtained from U. S. Army Engineers, 1st District, New York City. No other data available.
- ✓9. The data furnished by the Field Inspection is adequate. (See enclosed Field Report)

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.

12 All recoverable topographic stations shown on this sheet were located on A. P. C. sheet T4765 except for station "Center Bridge Control No." which was located by the air photo compilation. No description on Form 524 was submitted for this station which is described briefly on page 8 of this report.

B.G.J.

- ✓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. 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 enclosed Field Report & Remarks below) *No descriptions submitted on Form 524 see opposite page*
- ✓13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) *List of Landmarks submitted by A.P. Ratti, 1933. See also pages 7 and 9 of this report.*
- ✓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. *See remarks opposite page 5 of this report.*
- ✓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. A. P. Ratti'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:

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

Examined and approved:

*R.C. Collett*  
 Chief, Section of Field Records

*W.H. Lawrence*  
 Chief, Division of Charts

*F.B. Borden*  
 Chief, Section of Field Work

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



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REPORT ON REVIEW OF SHEET

Air-photo Topographic Sheet, Reg. No. T5080, has been reviewed together with the Descriptive Report and all requirements are satisfied in accordance with requirements of the U. S. C. & G. S. Topographic Manual and pamphlet NOTES ON THE COMPILATION OF PLANIMETRIC LINE MAPS, 1933.

No additional surveying is recommended.

ADDITIONAL NOTES.

(1) Landmarks.

The list of landmarks for this sheet was not received until after the completion of both the sheet and the Compiler's Report. All the necessary chartable landmarks were submitted by Lieut. A. P. Ratti, August 1, 1933 and includes only four objects:-

- ✓ Shinnecock Coast Guard Flagstaff
- ✓ Ponquogue Red Flashing Light
- ✓ Spire on residence, Bower's Spire
- ✓ Spire


In addition to the above the enclosed list of Class (C) ~~landmarks~~ <sup>objects</sup> is submitted. These should not be charted but have been shown on this sheet (with a small black circle) as they are prominent enough on this scale (about 1:10,000) and may be used to obtain hydrographic "fixes". They were spotted on the photographs by the field inspection party and were also used for supplementary control (since many of them were located on the Aluminum Control Sheet).

(2) Control.

All aluminum control stations used for supplementary control on this sheet have been plotted from the scaled positions obtained directly from the A. C. Sheets.

In regard to the last paragraph under CONTROL, (A) Sources, in the preceeding COMPILER'S REPORT, 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.

  
Roswell C. Bolstad  
Chief of Party, C. & G. S.