

# 5075

ORIGINAL

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

APR 15 1935

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

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. Patton, Director	
State: <u>New York</u>	
DESCRIPTIVE REPORT	
Photo Topographic <del>Hydrographic</del>	Sheet No. T5075
LOCALITY	
<u>Eastern Long Island</u>	
<u>Southampton to Bridgehampton</u>	
1934	
CHIEF OF PARTY	
<u>R. C. Bolstad, Jr. H. &amp; G. Eng.</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1924

5075

Applied to Correction 1214 Jan 4, 1936 H. MacEwen  
" " " 1212 Apr. 1936 J. M. A.  
of [unclear] [unclear]

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. 25

REGISTER NO. T 5075

State New York

General locality South Shore - Eastern Long Island

Locality South Shore, Southampton to Bridgehampton

Scale 1:10,000 Date of survey May 5, 1933

Date of Compilation July 15, 1934  
Vessel Air Photo Compilation Party No. 12, New York City

Chief of party Roswell C. Bolstad

Surveyed by See data sheet in the Descriptive Report

Inked by C. R. Weaver

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 scale of 1:11,561 and enlarged and printed on scale of 1:10,000 by Photo Lithography.

- NOTES ON COMPILATION -

SHEET NO. 25

PHOTOS, NO. M187 (881-14) TO NO. M205 (881-14)

DATE OF PHOTOGRAPHS May 5, 1933 TIME 11:42 A.M.

	BY	DATE
		From To
ROUGH RADIAL PLOT	<u>W.E. Hackett</u>	<u>11/20 - 11/20/33</u>
SCALE FACTOR (0.865)	<u>W.E. Hackett</u>	<u>11/20 - 11/20/33</u>
SCALE FACTOR CHECKED	<u>J.P. O'Donnell</u>	<u>11/21 - 11/21/33</u>
PROJECTION	<u>W.H. Burwell</u>	<u>11/21 - 11/21/33</u>
PROJECTION CHECKED	<u>J.P. O'Donnell</u>	<u>11/21 - 11/21/33</u>
CONTROL PLOTTED	<u>W.H. Burwell</u> <u>W.H. Burwell</u>	<u>11/23 - 11/23/33</u>
	<u>J.P. Jones</u> <u>J.P. Jones</u>	<u>12/28 - 12/28/33</u>
CONTROL CHECKED	<u>J.P. O'Donnell</u>	<u>11/23 - 11/23/33</u>
	<u>G. Crowther</u>	<u>12/28 - 11/28/33</u>
TOPOGRAPHY TRANSFERRED	<u>W.H. Burwell</u>	<u>11/23 - 11/23/33</u>
TOPOGRAPHY CHECKED	<u>J.P. O'Donnell</u>	<u>11/23 - 11/23/33</u>
SMOOTH RADIAL LINE PLOT	<u>J.P. Jones</u>	<u>12/28/33-1/11/34</u>
RADIAL LINE PLOT CHECKED	<u>J.P. O'Donnell</u>	<u>3/5/34 - 3/7/34</u>
DETAIL INKED	<u>C.R. Weaver</u>	<u>3/9 - 5/22/34</u>
	<u>C.R. Weaver</u>	<u>7/11 - 7/15/34</u>
PRELIMINARY REVIEW	<u>J.P. O'Donnell</u>	<u>7/16 - 7/20/34</u>
AREA OF DETAIL INKED <u>17.5</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>17.2</u> Statute Miles		
LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)		
<u>28.4</u> Statute Miles		
LENGTH OF ROADS, STREETS, TRAILS, RAILROADS <u>106.6</u> Statute Miles		
GENERAL LOCATION <u>Eastern Long Island</u>		
LOCATION <u>South Shore, Southampton to Bridgehampton</u>		
DATUM <u>North American 1927</u>		
	Latitude	<u>40° - 52' - 55.062" (1698.45 m.)</u>
STATION <u>Par 1933</u>	Longitude	<u>72° - 21' - 19.097" (447.12 m.)</u>

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 25

GENERAL INFORMATION

The AIR PHOTO FIELD INSPECTION REPORT, 1933, of Lieut. L. C. Wilder for Eastern Long Island, N. Y. furnished the necessary field data for the compilation of this sheet. Additional information was obtained from the field prints and, in questionable areas, from Lieut. (j.g.) R.C. Bolstad and H.L. Hawkins, Draftsman on this party, both of whom are familiar with the topography of this area.

The accompanying STATISTICS Sheet details all data in connection with the compilation of this sheet.

At the time these photographs were taken, May 5, 1933 at 11:42 A.M., the tide, at Southampton, from the U.S.C. & G.S. predicted tide tables, was practically at low water.

This sheet was compiled from photographs taken by 2nd Lieut. James F. Olive, Jr. of the U. S. Army Air Corps with their five lens camera, model T-3A, No. 31-78, photograph numbers M187 (881-14) to M205 (881-14), inclusive.

CONTROL

(A) Sources

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

- (a) Triangulation by Lieut. C.D. Meaney in 1932.
- (b) Triangulation by Lieut. A.P. Ratti, in 1933, field positions unadjusted.
- (c) 1933 Aluminum Control Sheet (Lieut. A.P. Ratti). Reg. No. 4766

All control is on the North American 1927 Datum. The difference between the unadjusted and the final adjusted positions would be unplotable at the scale of this compilation (1:11,561).

Triangulation and topography (1:20,000 scale aluminum control sheet, showing high water line and control signals) executed by the party of Lieut. A.P. Ratti 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:

Windmill (near Mill Cr.)	Windmill (near Hayground Cove)
Red	Cat
Ran	Black Stack
Spire Red House	Spire Brick Tower
Dog	Pig

Note. The photo locations as shown on this compilation are accepted as correct for the stations mentioned on the opposite page and on page 7 as in error on the planotable survey T4766. These stations were either identified on the photographs by field inspection or could be seen under the stereoscope. The compilation is well controlled and is on a scale of 1:10 000 whereas the planotable work was done on 1:20 000. The compilation shows several cuts to the stations listed on the opposite page whereas only two are visible on the planotable sheet. The planotable positions were used on Hydrographic sheet #5325 (1933) but the differences in location are not large enough to make any important difference in the hydrographic fixes, the work being on 1:20 000 scale. 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 ink. 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.

In the compilation of this sheet all of the topographic stations shown on the aluminum control sheet were not used as control since the field inspection took place before the aluminum control sheet had been finished by the field party and the field party had not established all of the control in this area. However, many natural objects used as control on the aluminum control sheets could be definitely spotted in the office with the aid of the stereoscope and these were used as supplementary control.

The Long Island Railroad track traverse data was also used as supplementary control on this sheet. The traverse required slight adjustment as stated under (C) Discrepancies, in this report.

#### (B) Errors

In making the radial plot for this sheet the following relocations of spotted aluminum control signals resulted: (See also page 7 for additional note on errors)

- ① Spire, Brick House - Lat.  $40^{\circ} - 54.3'$ , Long.  $72^{\circ} - 19.4'$  - new position as determined by the radial plot lies 14.8 meters distant on azimuth  $88^{\circ}$  (from north) from the position as given on the list of landmarks submitted by Lieut. A.P. Ratti on Nov. 3, 1933. This spire on a red brick house was picked on the photographs under the stereoscope and is believed to be in error as stated. See "List of Recoverable Topographic Stations" for the correct position of this signal.
- ② Spire, Red Brick Water Tower - Lat.  $40^{\circ} - 54.3'$ , Long.  $72^{\circ} - 19.3'$  - new position as determined by the radial plot lies 7 meters distant on azimuth  $93^{\circ}$  (from north) from the position as given on the list of landmarks submitted by Lieut. A.P. Ratti on Nov. 3, 1933. This signal was picked on the photographs under the stereoscope and is believed to be in error as stated. See "List of Recoverable Topographic Stations" for the correct position of this signal.

The control on this sheet is, in general, strong and the radial plot gave good intersections so it is believed that the stations mentioned above are in error as stated. 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 1:11,561.

*See opposite page.*

(C) Discrepancies

It was found that slight adjustment was necessary in using the Long Island Railroad track traverse data since it did not agree exactly with the radial plot. The true azimuth is about  $70^{\circ} 54'$  to the left (counter-clockwise) of the azimuth determined by them. The distances to cross roads, etc., in the traverse required slight adjustment in some places but in general they checked out correctly with the radial plot. It appears that the railroad traverse azimuth may have been based on a poor magnetic azimuth determined some years ago.

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 of this area appear to have a great deal of tilt and some scale fluctuation due to variation in altitude of the airplane, making it necessary for the detailer to do a considerable amount of proportioning between radial points.

However, adjustments were carefully made, and by holding to all the available control for this sheet, excessive adjustment, to the extent of causing any appreciable error, was not necessary.

(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 detail in the vicinity of the railroad stations, on this sheet, regarding the tracks, was obtained from the Long Island Railroad track data.

At Lat.  $40^{\circ} 55'$ , Long.  $72^{\circ} 22'$  there are several swamp areas shown on this sheet and intermingled with them brush and tree symbols since there is very little grass in these areas.

The only bridge shown on this sheet is over Sams Cr. at Long.  $72^{\circ} 18.8'$  and no data regarding this bridge was available except through Mr. H.L. Hawkins, Draftsman on this party, who is familiar with this area. He states that this bridge is a hand operated swing bridge and very seldom, if ever, opened.

At Lat.  $40^{\circ} 53.5'$ , Long.  $72^{\circ} 19.8'$  there is an inlet to Mecox Bay, shown closed on this sheet. Each spring this inlet is opened to lower the water level in Mecox Bay.



Note The new names submitted  
by the compiler are accepted pending  
Mr. Rocons decision. ~~on~~

Bgg

Note

This inlet closes of itself within a few weeks and is not opened again until the following spring.

(D) Information from Other Sources

The high water line was run in by the topographic party on the aluminum control sheet. See paragraph, COMPARISON WITH OTHER SURVEYS following.

The Long Island Railroad track traverse data was used for control as noted under CONTROL (A) Sources, page 4 and (C) Discrepancies, page 5.

The detail around the railroad stations, points of switch, sidings, etc. was taken from the track traverse data as the photographs did not show these details clearly.

(E) Conflicting Names

The name Town Pond appearing on U.S.C. & G.S. Chart 1214 is incorrect. The name should be Agawam Lake which is known to be correct by Mr. H.L. Hawkins, Draftsman on this party, and a native of this locality. Agawam Lake is the name appearing on the U. S. Geological Map of this area, and has been shown on this sheet.

Old Town Pond is not shown on U.S.C. & G.S. Chart 1214 but is shown on the U. S. Geological and it is known to Mr. Hawkins that this is correct.

All other new names appearing on this sheet were taken from the U. S. Geological Map of this area and checked by Mr. Hawkins.

*See opposite page.*

COMPARISON WITH OTHER SURVEYS

The junctions with all adjoining sheets are satisfactory.

The high water line obtained from the aluminum control sheet agrees fairly well with that as taken from the photographs except at the western end of the sheet and in a few places where it appears that the high water line was sketched in by the topographic party as it falls too far out on the beach. At the western end of the sheet the high water line was checked up by the use of single lens photographs of that area which were used on the adjoining sheet, Reg. No. T5080; in this case the high water line falls farther out on the beach than the aluminum control sheet and the five lens photographs indicate. The high water line, as taken from the single lens photographs, was used on this sheet, however, since it fell well out on the wing prints of the five lens photographs where there was some distortion, western end of the sheet only.

It was found in connection with the Long Island Railroad track traverse data that the azimuth obtained from their data was in error as explained under CONTROL (C), Discrepancies, page 5.

LANDMARKS

The list of landmarks for this area, including those to be expunged, has been previously submitted, November 3, 1933, by Lieut. A.P. Ratti.

In addition, Lieut. L.C. Wilder's submitted list of November 4, 1933 makes mention of several objects identified by the air photo field inspection party. Since they have not been included in Lieut. A.P. Ratti's list their prominence from the water is evidently such as to warrant their classification as Class "C" ~~landmarks~~ <sup>objects</sup>, or recoverable topographic stations of minor prominence. They have therefore, been included in the list following.

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.

ADDITIONAL NOTE ON ERRORS

(see page 4)

This paragraph is a supplemental note to paragraph (B) Errors, page 4, of this report. (see page 8 for correct position of this signal)

- ⑥ Dad - Lat.  $40^{\circ}-53.4'$ , Long.  $72^{\circ}-19.9'$  - new position as determined by the radial plot lies 12 meters distant on azimuth  $180^{\circ}$  (from north) from the position as given on aluminum control sheet. This signal is a flagpole at the Watermill Beach Club and was spotted by the field inspection party so it is believed to be correctly picked on the photographs. No description of this signal was available, however, and it could not be picked up under the stereoscope as the flagpole could not be clearly seen on the sandy beach.

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 avoid the closing up of the lines and 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

*C. R. Weaver*  
C. R. Weaver  
Draftsman

Assisted by

*J. P. O'Donnell*  
J. P. O'Donnell  
Surveyor

*A. K. Spalding*  
A. K. Spalding  
Surveyor

\* The value of 2 to 4 meters given above is high for work on this scale. A better estimate is an accuracy of location of about 3 to 6 meters for intersected points and 5 to 10 meters for other detail.

*B. G. Jones*

LIST OF RECOVERABLE TOPOGRAPHIC STATIONS

CLASS (C) LANDMARKS

(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.)

<u>Description</u>	<u>Latitude</u>		<u>Longitude</u>		<u>Height</u>	<u>Method of Determination</u>		
	o	'	D.M. Meters	o			'	D.P. Meters
Brick Stack	40	54	(1469.6) 381.2	72	23	(751.0) 653.4	65'	1934 A.P.T.
Brick Chimney	40	53	(809.5) 1041.3	72	23	(287.5) 1117.1	55'	1934 A.P.T.
(Red) Church Cupola	40	52.1		72	23.6			A.C.S. Reg. No. 4766
Watermill flag staff	40	54.6		72	21.3		90'	1933 Triang.
(Who) Windmill with tank	40	54.2		72	21.2			A.C.S. Reg. No. 4766
(Windmill) Wood windmill with tank	40	54.6		72	20.2			A.C.S. Reg. No. 4766
*** (Dad) Flagpole, Watermill Beach Club	40	53.	(1071) 780	72	19.	(122) 1283		1934 A.P.T.
* Spire - red brick house	40	54	(1232.5) 618.3	72	19	(896.1) 508.2		1934 A.P.T.
** Spire - red brick water tower	40	54	(1231.8) 619.0	72	19	(1049.0) 355.3		1934 A.P.T.

Note: A.C.S. denotes aluminum control sheet.  
A.P.T. denotes air photo topography.  
Name in parenthesis is name as given on  
aluminum control sheet Reg. No. 4766.  
\* New positions by air photo topography.  
Station in error (see paragraph (B) Errors,  
page 4 of this report).  
\*\* New position by air photo topography (see  
paragraph (B) Errors, page 4 of this report).  
A Class "B" landmark to be charted in ac-  
cordance with list submitted by Lieut. A.P.  
Ratti, Nov. 3, 1933.  
\*\*\* New position by air photo topography.  
Station in error (see ADDITIONAL NOTE page 7  
of this report)



## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T 5075

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

Chief of Party Roswell C. Bolstad      Compiled by See page 2, Des. Report

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 Descriptive Report, COMPILATION (B) Adjustments of Plot, page 5.
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, reefs, ~~coral reefs and rocks~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) *low water lines shown are approximate only*
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.
8. ~~The spans, draws and clearances of bridges are shown.~~ (Par. 16c.)  
See COMPILER'S REPORT, COMPILATION (C) Interpretation, page 5.
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.

Note In checking the junctions with T 5026  
at the east edge of this compilation  
the roads and detail in the vicinity  
of  $\Delta$  Bridgehampton Matherick church  
steeple were found in error up to  
30 meters. This was due to an  
inexperienced compiler holding the  
photo position of the top of the  
steeple under the control point  
when tracing the roads. The blunders  
would not have been made by  
anyone having an elementary knowledge  
of photographs. The error has been corrected.  
The incident illustrates the type of  
elementary error which is likely to  
be made by untrained draftsmen.

B.G. Jones



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 report of Control Party, Lieut. A.P. Ratti, 1933. *none submitted*
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. A.P. Ratti)
14. The geographic datum of the sheet is North American 1927 *unadjusted* and the reference station is correctly noted. (Par. 34.) (See paragraph CONTROL, Descriptive Report pages 2 and 3.)
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 *fair* 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. *J.P. O'Donnell*  
Preliminary Review by J.P. O'Donnell
20. Examined and approved: *Roswell C. Bolstad*  
Roswell C. Bolstad  
Chief of Party
21. Remarks after review in office: *see opposite page.*

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

Examined and approved:

*A. J. Green*  
Chief, Section of Field Records

*L.O. Polubut*  
Chief, Division of Charts

*F. Borden*  
Chief, Section of Field Work

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



Diagram No. 1214

Under investigation. Q

(M-136)



Survey No. T-5075

Chart No. \_\_\_\_\_

Diagram No. \_\_\_\_\_

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

Under investigation. Q

See page 6 of Descriptive Report

[illegible]