

# 5338

ORIGINAL

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton Director	
U. S. COAST & GEODETIC SURVEY	
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AUG 1 1935	
State: New York	
Acc. No.	
DESCRIPTIVE REPORT	
Photo Topographic <del>Hydrographic</del>	Sheet No. T 5338
LOCALITY	
Eastern Long Island	
Sag Harbor	
1934	
CHIEF OF PARTY	
R. C. Bolstad, Jr. H. & G. Eng.	

Applied to Chart 298 J.M.A. Mar. 19, 1936  
" " " 1212 J.M.A. Apr. 1936

-1-  
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. 17 E

REGISTER NO. T 5338

5338

State New York

General locality Eastern Long Island

Locality Sag Harbor

Scale 1:10,000 Photographs May 5 Apr. 21  
Date of survey Sept. 19 1933

Date of Compilation May 14, 1934

~~Wassuck~~ Air Photo Compilation Party No. 12, New York City

Chief of party Roswell C. Bolstad

Surveyed by See data sheet enclosed in Descriptive Report for this sheet.

Inked by H. L. Hawkins

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 1:11,001 and enlarged and  
printed on scale of 1:10,000 by Photo Lithography.

- NOTES ON COMPILATION -

SHEET NO. 17 E

PHOTOS, NO. M22 (881-14) TO NO. M31 (881-14) TIME 10:37 A.M.

PHOTOS, NO. M355 (880L-8) TO NO. M360 (880L-8) TIME 9:57 A.M.

DATE OF PHOTOGRAPHS M22-M31, April 21, 1933

DATE OF PHOTOGRAPHS M355-M360, Sept. 19, 1933

	BY	DATE From To
ROUGH RADIAL PLOT	<u>W.F. von Buehren</u>	<u>10/10 - 10/10/33</u>
SCALE FACTOR (0.909)	<u>W.F. von Buehren</u>	<u>10/10 - 10/10/33</u>
SCALE FACTOR CHECKED	<u>S.E. Sperry, Jr.</u>	<u>10/11 - 10/11/33</u>
PROJECTION	<u>W.H. Burwell</u>	<u>11/11 - 11/11/33</u>
PROJECTION CHECKED	<u>W.P. O'Donnell</u>	<u>11/11 - 11/11/33</u>
CONTROL PLOTTED	<u>W.H. Burwell</u>	<u>11/18 - 11/18/33</u>
CONTROL CHECKED	<u>W.F. von Buehren</u>	<u>11/22 - 11/22/33</u>
TOPOGRAPHY TRANSFERRED	<u>M.S. Abramson</u>	<u>1/6 - 1/6/34</u>
TOPOGRAPHY CHECKED	<u>J.G. Albert</u>	<u>1/8 - 1/9/34</u>
SMOOTH RADIAL LINE PLOT	<u>G. Crowther</u>	<u>4/16 - 4/16/34</u>
RADIAL LINE PLOT CHECKED	<u>J.G. Albert</u>	<u>4/17 - 4/19/34</u>
DETAIL INKED	<u>H.L. Hawkins</u>	<u>4/20 - 5/14/34</u>
PRELIMINARY REVIEW	<u>J.G. Albert</u>	<u>6/6 - 6/12/34</u>
AREA OF DETAIL INKED <u>11.03</u> sq. Statute Miles		<u>(Land Area)</u>
AREA OF DETAIL INKED <u>0.2</u> sq. Statute Miles		<u>(Shoals in Water Area)</u>
LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)		<u>14.0 Statute Miles</u>
LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)		<u>16.0 Statute Miles</u>
LENGTH OF ROADS, STREETS, TRAILS, RAILROADS <u>105.0</u> Statute Miles		
GENERAL LOCATION <u>Eastern Long Island</u>		
LOCATION <u>Sag Harbor</u>		
DATUM <u>North American 1927</u>		
	Latitude <u>40°- 59'- 50.50"</u>	<u>(1557.9 m.)</u>
STATION <u>Sag Harbor Pres.</u>	Longitude <u>72°- 17'- 39.39"</u>	<u>(920.6 m.)</u>
<u>Ch. (1882-1933)</u>		

COMPILER'S REPORT

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 17E

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 who is familiar with the topography of this area.

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

Two sets of photographs were used in this compilation. At the time the photographs, M22-M31 (881-14) (five lens), used in the compilation of this sheet, were taken, April 21, 1933 at 10:37 A.M., the tide at Sag Harbor, from predicted tide tables of the U.S. Coast and Geodetic Survey, was about 1 foot below high water. At the time the single lens photographs, M355-M360 (880L-8), also used in this compilation, were taken, Sept. 19, 1933 at 9:57 A.M., the tide at Sag Harbor, from predicted tide tables, was at high water.

This sheet, T5338, and sheet T5067 were originally compiled as one sheet, Field No. 17, and cut in half after the detailing had been finished in order to make the sheets come within the limits of size.

This sheet was compiled from the five lens photographs, mentioned above, 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 and from the single lens photographs, mentioned above, taken by Captain Willis R. Taylor of the U.S. Army Air Corps.

CONTROL.

(A) Sources.

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

- (a) Triangulation by Lieut. L.C. Wilder, in 1933, field positions unadjusted.
- (b) Triangulation by Lieut. C.D. Meaney, in 1932.
- (c) 1933 Aluminum Control Sheet (Lieut. L.C. Wilder's Field Sheet "B") Reg. No. T-6020
- (d) 1933 Aluminum Control Sheet (Lieut. L.C. Wilder's Field Sheet "C") Reg. No. T-6019
- (e) 1933 Aluminum Control Sheet (Lieut. L.C. Wilder's Field Sheet "D") Reg. No. T-6017
- (f) 1933 Aluminum Control Sheet (Lieut. L.C. Wilder's Field Sheet "G") Reg. No. T-6018

} Not used on  
this sheet  
(See T-5067)

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 (1:11,001).

Triangulation and topography (1:20,000 and 1:10,000

scale aluminum control sheets, showing control signals and some high water line) executed by the parties of Lieut. L.C. Wilder and Lieut. C.D. Meaney in 1933 and 1932, respectively, form 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:-

Don ✓	Tel ✓	Cen ✓
North Gable No. ✓	Til ✓	Doc ✓
End Pier ✓	Ink ✓	Wag ✓
Flagpole	Gab ✓	Nan

distant on azimuth  $180^{\circ}$  (from north) from the position as given on the aluminum control sheet. This signal is the corner of a dock but, since the photographs are somewhat indistinct and there are indications of two docks about 100 feet apart, it is possible that the wrong dock was picked by the field inspection party. During the winter, 1933-1934, it is known that there were no docks there at all. It is, however, believed to be in error. *See Review*

Q Hap - Lat.  $41^{\circ}-00.6'$ , Long.  $72^{\circ}-14.9'$  - new position as determined by the radial plot lies 14 meters distant on azimuth  $220^{\circ}$  (from north) from the position as given on the aluminum control sheet. This signal is the west gable of a house and could be easily seen on the photographs so it is believed to be in error as stated.

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 sheets were executed on a scale of 1:20,000 and 1:10,000 whereas this sheet is on a scale of 1:11,001.

#### (C) Discrepancies

The tangent bearing given in the railroad track traverse data, mentioned under CONTROL (A), Sources, page 4 of this report, should be corrected in a westerly direction to agree with the radial plot. The corrective angle is  $7^{\circ}-58'$ . It is believed that the railroad traverse azimuth may have been based on a poor magnetic azimuth determined years ago. The true azimuth is about  $7^{\circ}-58'$  to the left (counter-clockwise) of the azimuth determined by the Long Island Railroad.

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 strip appear to have only a small amount of tilt and scale fluctuation due to a variation in the altitude of the airplane, making it necessary for the detailer to do a small amount of proportioning between radial points. This statement applies to the five lens photographs.

However, a sufficient number of radial points were taken so that the detail could be inked without excessive adjustment and should be well within the

allowable limits for error.

The single lens photographs, M360-M365 (880L-8), are somewhat larger in scale than the photos for the remainder of the sheet. This area is on the north end of North Haven and there is very little detail in that area. Radial points were taken quite close together and adjustments carefully made so that the detail should be within the allowable limits.

(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.

A double full line was used to indicate first order roads, (a double broken line) for private driveways and roads of lesser importance, passable unpaved roads, etc. and a single broken line to indicate trails, paths and exceedingly poor roads. In most cases, unless labeled on the field prints, the classification had to be determined by the appearance under the stereoscope.

*These were expanded far beyond their relative importance with adjacent first order roads.*

*BSG*

The detail in the vicinity of the railroad stations and trackage was obtained from the Long Island Railroad track traverse data.

There is a bridge, shown on this sheet, from Sag Harbor over the entrance to Sag Harbor Cove to North Haven. This is a manually operated swing bridge with a clear width from abutments to center pier of 35 feet and a clear height above high water of seven feet. The Coast Pilot gives a clear height above high water of seven and one half feet, but in data obtained from the U.S. Army Engineers, the clearance was given as seven feet and therefore, the lesser clearance was shown on this sheet. The field party of Lieut. L.C. Wilder measured the clearance and it appears accurately on his Hydrographic Sheet No. 4. H-5381

*Highway Drawbridge  
Swing Type  
Opening 39 feet.  
Length of Draw  
Span 103 feet.  
Clearance  $9\frac{1}{4}$  feet  
at M.L.W. when  
closed. Minimum  
clearance  $6\frac{1}{4}$  feet  
under braces  
13 feet apart*

There are two shoal areas on this sheet. One occurs north of triangulation station Sand Spit Light 1933 and is a sand bar. The other occurs at Lat.  $41^{\circ}-00.7'$ , Long.  $72^{\circ}-17.3'$  and is a sand bar with numerous rocks and boulders strewn on it which are awash at some stages of the tide. The crosses shown on the sheet do not denote individual rocks but merely indicate that the area is rocky. Reference should be made to Lieut. L.C. Wilder's Hydrographic Sheet No. 4 for more accurate data on this feature. (H-5381)

*See Review*

Two circular white spots appearing on photos M28 and M27 (881-14), "B" print, between the Race Track and Round Pond are not shown on this sheet. They were interpreted as tanks but stereoscopic study by Lieut. R.C. Bolstad showed that they did not stand up enough in relief to definitely establish them as tanks. Note is made of them to show that they have been recognized in the compilation of this sheet.

*Nothing of importance discerned on photo*

The marshes at Lat.  $41^{\circ}-00'$ , Long.  $72^{\circ}-17'$  and at Lat.  $41^{\circ}-00'$ , Long.  $72^{\circ}-16'$  are ditched for marshing.



Triangulation station Haven was not identified on the photographs since it is very indistinct and was not spotted by the field inspection party. The station is a rock (falling on the outer quarter of the wing print) and no definite measurements could be made from other objects.

(D) Information from Other Sources.

The docks at Sag Harbor were located by the topographic party of Lieut. L.C. Wilder on the aluminum control sheet.

The Long Island Railroad track traverse data was used as supplementary control as stated under CONTROL, (A) Sources and (C) Discrepancies.

Descriptions were obtained from the Long Island Railroad track traverse data for the topography in the vicinity of the railroad station as the photographs did not show this clearly.

(E) Conflicting Names.

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

The name "Upper Sag Harbor Cove"- Lat.  $40^{\circ}-59.7'$ , Long.  $72^{\circ}-18.5'$ - is not shown on either the U.S.C. & G.S. Charts or the U.S. Geological Survey Maps but has been verified locally and is shown on this sheet.

The names "Lily Pond", "Long Pond" and "Round Pond" were obtained from the U.S. Geological Survey Maps and are known locally as such.

The name "Otter Pond", in the village of Sag Harbor, is not shown on either the U.S.C. & G.S. Charts or the U.S. Geological Survey Maps but is commonly used to designate that body of water so it has been shown on this sheet.

COMPARISON WITH OTHER SURVEYS.

The junctions with all adjoining sheets are satisfactory.

The shore line (high water) at Sag Harbor was run in by Lieut. L.C. Wilder in that area and agrees well with the photographs.

The Long Island Railroad track traverse data was in error only in azimuth as explained under CONTROL, (C) Discrepancies, page 5 of this report.

LANDMARKS.

The list of landmarks for this area, including those to be expunged, has been previously submitted, November 4, 1933, by Lieut. L.C. Wilder.

Topo station, "Belfry Cupola on Church", has been given on the "List of Recoverable Topographic Stations" as a Class C landmark since it shows a fair degree of prominence under the stereoscope and may be used to obtain hydrographic "fixes".

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 avoid the closing up of the lines and photographing as a solid area in the photolithographic process. *See review at back*

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

*H. L. Hawkins*

H. L. Hawkins

Draftsman

Assisted by

*J. G. Albert*

J. G. Albert

Draftsman

*A. K. Spalding*

A. K. Spalding

Surveyor

LIST OF RECOVERABLE TOPOGRAPHIC STATIONS

CLASS (C) LANDMARKS

(Includes all recoverable objects, sufficiently prominent for use as hydrographic fixes, shown as topographic stations, marked 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>
	<u>°</u>	<u>'</u>	<u>D.M. Meters</u>	<u>°</u>	<u>'</u>	<u>D.P. Meters</u>		
Belfry Cupola on Church	40	59	(207.3) 1643.5	72	17	(343.3) 1059.3		A.P.T. 1934

Note: A.P.T. denotes air photo topography  
For classification of Class (C) landmarks  
see Descriptive Report for Air Photo  
Topographic Sheet Reg. No. T5065.

## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T 5338

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

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

Project 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, COMPILATION, (B) Adjustments of Plot)
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.)
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.)
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) and LANDMARKS have been made on this sheet. *See memo at back*
8. The span, draw and clearance of bridges are shown. (Par. 16c.)
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. 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, also reports of control party, Lieut. L.C. Wilder, 1933)
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. L.C. Wilder)
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, page 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 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. L.C. Wilder's Reports covering the topography executed in 1933 under his charge.

20. Examined and approved: *J. G. Albert*  
Preliminary Review By- *J. G. Albert*.  
*Roswell C. Bolstad* Draftsman.  
Chief of Party

21. Remarks after review in office: *see following pages*

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

Examined and approved:

*B. G. Green*  
Chief, Section of Field Records

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

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

*G. H. Hilde*  
Chief, Division of  
Hydrography and Topography.

Note regarding sta "Don" as discussed on the opposite page. This small dock does not show on the photographs taken April 21, 1933. Plane table control survey T-6018 ~~shows~~ made Sept 1933 shows only the topographic station "Don" described as the end of a dock but does not show the dock nor is the dock shown on # 5381, 1933. Since this report on page 5 states that this dock did not exist in the winter of 1934 (subsequent to ~~the~~ T6018) it is not shown on the compilation.

B.G. Jones

## REVIEW OF PHOTO COMPILATION T-5338 (1934)

### Comparison with other Surveys

The following landmarks on Chart 298 are not shown on the compilation or mentioned in the report. (Refer to list of landmarks submitted by Lt. L. C. Wilder, November 4, 1933).

Chapel	Lat. 41°-00.8'	Long. 72°-18.8'
Daleys Cupola	41°-00.5'	72°-18.4'
Lamonts Ho. Cupola	41°-00.3'	72°-18.9'

T-6017(1933) 1:20,000 and T-6018 (1933) 1:10,000 show the positions of supplementary control used in the compilation as outlined on page 4 of the report. There were no described stations submitted with these two planetable sheets. The docks at Sag Harbor were transferred from T-6018 by the compiler.

T-1571 (1884) 1:10,000 covers the area of the compilation and the topographic detail is in substantial agreement.

No rocks are shown on the compilation except for triangulation station "Haven" mentioned on page 7.

There are several rocks shown on the old planetable survey T-1571 that do not appear on the compilation or on the latest hydrographic survey H-5381 as follows: Lat. 41°-00.4', Long. 72°-18.7'; two at Lat. 41°-00.0' Long. 72°-18.9' and one at Lat. 41°-00.8', Long. 72°-17.9'. At the latter position no rock is shown on H-5381 but a submerged rock is located 90 meters south and 35 meters east of this position. None of the three rocks listed above show on the photographs. The compilation is adequate to supersede T1571 except for location of these rocks which are close inshore.

On page 4 mention is made of error in location of Station "Don". Comparison with T-6018 (1933) 1:10,000 shows this station has been located by the alidade with three perfect intersecting cuts and described "End of Dock", there is no evidence to question its accuracy. The photos do not show a dock in this area. The point plotted by the compiler was evidently plotted from field inspection notes which are not complete on the field photographs. The position of this <sup>Station</sup> ~~small dock~~ is accepted as shown on the planetable survey. ~~and the compilation has been corrected accordingly.~~ *See opposite page.*

Station "Hap" mentioned on page 4 is also located on T-6018 but no cuts show through the point. This station while used for control does not fall within the limits of the printed compilation. The point located by the photo plot is well located but the house cannot be clearly seen on the photos. The difference may be due to faulty spotting and for this reason the planetable position is accepted as correct.

The projection of this compilation was checked and is satisfactory except for two meridians 72°-15' and 72°-16° being drawn through the wrong points. The distance from 72°-15 to 72°-17' is short 8 meters. Because of triangulation control being plotted from these meridians they were not altered.

A better estimate of accuracy than that given on page 8 is 3 to 8 meters for intersecting points and 3 to 12 meters for other detail. Where mentioned

on page 8 that the widths of secondary roads were slightly expanded, actually these roads appearing on the photos as a fine line have been expanded beyond their relative importance. This has been called to the attention of the compilation party.

The names "LONG BEACH", "BARCELONA PT.", "BARCELONA NECK" and "BRUSH NECK" were added in the office from the G. S. sheets.

About one half day has been spent retouching the weaker lines on this compilation.

*B.G. Jones*



Survey No. T5338

Chart No. 298-1212

Under investigation. Q

7M-13