

5078

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

Photo  
Topographic } Sheet No. T 5078  
~~Hydrographic~~

LOCALITY

Eastern Long Island

Hicks Island to Montauk

1934

CHIEF OF PARTY

R. C. Bolstad, Jr. H. & G. Engr.

U. S. GOVERNMENT PRINTING OFFICE: 1923

5078

Applied to ch 298 J. M. A. Mar. 25, 1936.  
" " " 1211 J. M. A. Feb. 12, 1937

-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. 28

REGISTER NO. T 5078

State New York

General locality Eastern Long Island

Locality Hicks Island to Montauk

Scale 1:10,000 Date of survey May 5, 1933  
Date of Compilation Sept. 24, 1934

~~1:25,000~~ Air Photo Compilation Party No. 12, New York City

Chief of party Roswell C. Borstad

Surveyed by See following Statistics Sheet.

Inked by J.J. Lanigan

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 1:11,628 and enlarged and  
printed on a scale of 1:10,000 by Photo Lithography.

- STATISTICS -

on

SHEET, FIELD NO. 28, REG. NO. T5078

PHOTOS, NO. M133 (881-14) TO NO. M151 (881-14)

DATE OF PHOTOGRAPHS May 5, 1933 TIME 11:25 A.M.

	BY	DATE
		FROM TO
ROUGH RADIAL PLOT	<i>W.E. Hackett</i> W.E. Hackett	11/23/33
SCALE FACTOR (0.860)	<i>W.E. Hackett</i> W.E. Hackett	11/23/33
SCALE FACTOR CHECKED	<i>J.P. O'Donnell</i> J.P. O'Donnell	11/24/33
PROJECTION	<i>J.J. Lanigan</i> J.J. Lanigan	1/10/34
PROJECTION CHECKED	<i>J.P. O'Donnell</i> J.P. O'Donnell	1/10/34
CONTROL PLOTTED	<i>J.J. Lanigan</i> J.J. Lanigan	4/28/34
CONTROL CHECKED	<i>H.S. Abramson</i> H.S. Abramson	4/29/34
TOPOGRAPHY TRANSFERRED	<i>J.J. Lanigan</i> J.J. Lanigan	5/2/34
TOPOGRAPHY CHECKED	<i>J.P. O'Donnell</i> J.P. O'Donnell	5/3/34
SMOOTH RADIAL LINE PLOT	<i>J.J. Lanigan</i> J.J. Lanigan	5/4/34 - 5/31/34
Radial LINE PLOT CHECKED	<i>R.C. Bolstad</i> R.C. Bolstad	5/31/34
DETAIL INKED	<i>J.J. Lanigan</i> J.J. Lanigan	6/1/34 - 9/24/34 (Less 84 days)
Reviewed BY	<i>R.C. Bolstad</i> R.C. Bolstad	9/24/34

AREA OF DETAIL INKED 8.6 sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 0.7 sq. STATUTE Miles (Shoals in Water Area)

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

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

Length OF ROADS, STREETS, TRAILS, RAILROADS, 72.7 Statute Miles.

GENERAL LOCATION Eastern Long Island

LOCATION Hicks Island to Montauk

DATUM North American 1927

Latitude 41°-00' - 49.864" (1538.2m)

STATION Conklin 2 1931

Longitude 72°-00' - 24.110" (563.4m)

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET, FIELD NO. 28

GENERAL INFORMATION

The AIR PHOT 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 labeled field prints and, in questionable areas, from Lieut.(j.g.) R.C. Bolstad who is 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 the photographs for this area were taken, May 5, 1933 at 11:25 A.M., the tide on the south coast and also the tide in Fort Pond Bay was practically at low water, as determined for the PREDICTED TIDE TABLES of the U.S.C. & G.S.

This sheet was compiled from five lens 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, photographs Nos. M133 (881-14) to M151 (881-14) inclusive.

CONTROL

(A) Sources

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

- (a) Triangulation by Lieut. C.K.Green, 1928, ✓
- (b) Triangulation by Lieut. C.D.Meane, 1932. ✓
- (c) Triangulation by Lieut. A.P.Ratti, 1933. ✓
- (d) Triangulation, 1911. ✓
- (e) Topographic sheet, Reg. No. 4425, by Lieut. C.K.Green in 1928, 1:10,000 scale. ✓
- (f) Topographic sheet, Reg. No. 4767, by Lieut. A.P.Ratti in 1933, 1:20,000 scale. ✓

All control was placed on the North American 1927 Datum before beginning the compilation. The adjustment was approximate, however any final office adjustments should be unplotable at this scale, 1: 11,628. (0.86)

In accordance with the Director's letter of Dec. 26th., 1933 (ref. 26-AHH 1990), no weight was given to the topographic detail of sheet No. 4425. It was used only as a guide to the topographic culture.

Topographic sheet, Reg. No.4767 which was an aluminum control sheet, did not show any shoreline. However the following topographic signals were taken from this sheet and used as supplementary control:-

Mas

Ire

These signals have been shown on the celluloid topographic sheet by a double blue circle (⊙) together

with the name as given on the aluminum control sheet. These signals are both radio towers of a 300 foot height and the new position, as determined by the radial plot, has been shown on this sheet by a small black circle. (See paragraph Errors, following).

In the compilation of this sheet not all of the control stations shown on aluminum control sheet, Reg. No. 4767, were used since the field inspection of the photographs took place before this aluminum control sheet was commenced. The control, however, is adequate for a good radial plot.

The Long Island track traverse was used for supplementary control. The traverse was tied in at intervals as explained in the descriptive report for Air Photo Topographic sheet, Reg. No. T 5077. The plotted position of the traverse had to be adjusted to the radial positions as explained in the paragraph on Discrepancies, item (C).

All aluminum control stations used in the supplementary control of this sheet have been plotted from the positions obtained by scaling directly from the aluminum sheet.

(B) Errors

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

© (Mas) Radio tower- Lat.  $40^{\circ}-59.8'$ , Long.  $72^{\circ}-03.3'$  - new position as determined by the radial plot lies 7 meters distant on azimuth  $85^{\circ}$  (from north) from the position as given on the aluminum control sheet. This signal was spotted by the field inspection party

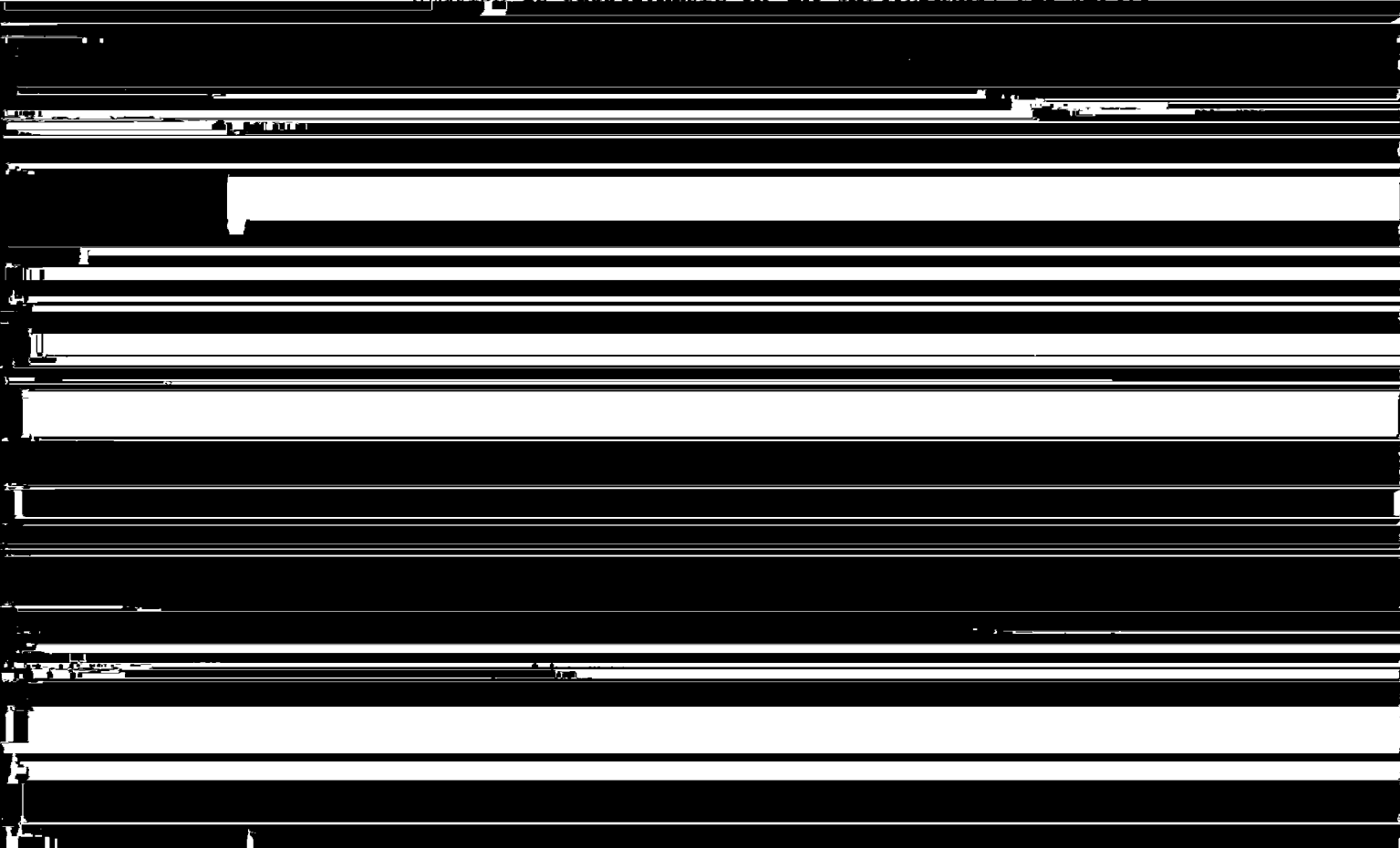
distance is around 475 meters and only one-half the stadia interval could be read.

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

(C) Discrepancies

The Long Island track traverse was found to be in error as stated in paragraph (C) DISCREPANCIES, Air Photo Topographic Sheet Descriptive Report T 5077. This same error of lengthening in distance 15 meters to the eastward appeared on this sheet at the west end until east of Napeague Harbor; the railroad then changes course and the radial plotted position places the road off from the traverse position. The position by traverse has been left on this sheet in blue ink so that the discrepancy will be apparent. The railroad traverse had to be adjusted in short arcs to fit in with the radial plot since it was impossible to fit the radial plot to it and still hold to the triangulation. At Montauk the radial and traverse positions on the railroad agree. Inquiry at the L.I. Engineer's office brought out that the traverse was very old and that the former pluses to cross roads could not positively be associated with the present crossings. The traverse was therefor used only where it agreed with the radial plot.

Triangulation station "Goff 1928" was not used in making the radial plot since the spotting of this station is questionable on the photographs. The photos



ADDITIONAL ITEM (C) INTERPRETATION

The factory buildings near triangulation station Hicks Island Chimney 1911, have not been shown on this sheet because they are indistinct on the photos and will be partly obscured by the triangle. They are in ruins and it is questionable if they will remain standing very long because of their condition.



(B) Adjustments of Plot

The photographs of this strip appear to have tilt and scale variation due to changing altitude of the plane. The radial plot was made and adjusted to fit all the available control only after much difficulty. It appears that the plane's altitude is increasing as it progresses to the westward. It is also noticeable that the "crabbed" photos seem to have more tilt than the others; this may be due to difficulties of the photographer in swinging the camera into the correct position. However, the photos of this type are difficult to accurately fit into the plot correctly and the narrow band of shoreline made it more difficult to secure a good radial plot. It is believed by the radial plotter, however, that a very satisfactory plot has been obtained and with the exceptions as noted previously, the plot holds well to all the available control.

(C) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps (1932) and no difficulties were encountered in interpreting the detail from the photos.

The double full line was used to indicate first order roads, and double broken line for private driveways and roads of lesser importance. An exceedingly poor road, abandoned road and trails were shown as a single dashed line. Fire lines, consisting of plowed furroughs, along highway no. 27 were also shown by a single dashed line. In cases where the field inspection party did not indicate the type of road an examination was made under the stereoscope and a comparison made with the labeled roads.

There are no bridges in the area covered by this sheet.

The two docks shown at Montauk (Lat.  $41^{\circ} 03'$  Long.  $71^{\circ} 57.5'$ ) with the grill work attached, are docks used by the fishermen and have short runways extending from the main dock to their "live boxes" in which are kept fish, crabs and lobsters.

(D) Information from Other Sources

The high water line and detail as shown on topographic Reg. No. 4425 was used as a guide to the radial plot but was not rigidly held to as explained previously. This sheet also assisted in determining the topographic detail and culture in that locality.

(E) Conflicting Names

There are no names on this sheet conflicting with U.S.C. & G.S. Charts of this area and no new names have been added. *See review of book.*

*see page 2, 1/2 of review*

COMPARISON WITH OTHER SURVEYS

The junctions with all adjoining sheets are satisfactory.

It was found in connection with the Long Island track traverse that the azimuth and distance obtained from their data was in error as explained on page 5, paragraph on Discrepancies.

The high water line along the outer coast was obtained from topographic sheet #4767 and agrees well with the photos. There are slight deviations in several places; these may be seen as the blue inked line representing the high water line from topo sheet #4767 has been left on the sheet.

#### LANDMARKS

The list of landmarks for this area has been previously submitted, November 3, 1933, by Lieut. A.P. Ratti. The two radio masts have, however, been found to be in error in making the radial plot (See paragraph on ERRORS, page 4.). The correct position is as follows:- (Mas) West radio tower. Lat.  $40^{\circ}-59'$ - 1547.0 m., Long.  $72^{\circ}-03'$ - 475.4 m.

(Ire) East radio tower. Lat.  $40^{\circ}-59'$ - 1659.0 m., Long.  $72^{\circ}-03'$ - 192.6 m.

In addition to the above list, Lieut. L.C. Wilder submitted, on Nov. 4th., 1933, a recommended list of stations for landmarks. A black stack (55' high) on a laundry building at Montauk was recommended as a class B landmark by him. Since the only chart published by the U.S.C. & G.S. at present is on a 1:80,000 scale, (chart 1211) this classification would not apply to this area. It is believed that on this scale chart the landmark should not be shown; however if a future chart of this area should be published on a scale of 1:40,000 the landmark would be of value and should be charted since it forms a range with the black tank to the north of it. The position as located by the radial plot is as follows:-  $41^{\circ}-02'$ - 871 m., in Lat. and Long.  $71^{\circ}-57'$ - 1021.4 m. Lieut. Wilder also recommends a black water tank (about 75' high) at Montauk as a class AB landmark. This tank has not been mentioned in Lieut. Ratti's lists but is shown on the present edition of chart #1211 and as it is known to be existent it should be retained and charted. The position as determined by the radial plot is as follows:- Lat.  $41^{\circ}-02'$ - 1029 m., Long.  $71^{\circ}-57'$ - 1035 m. Both the tank and the stack above mentioned were picked up by the field inspection party and labeled on the "C" print of photo M133 (881-14).

The small elevated house on the end of dock was also on Lieut. Wilder's list as a class AB landmark. This has been shown under the list of recoverable topographic stations as a class C landmark since it is not prominent enough to be charted on #1211. *See end of page.*

The air-photo inspection party marked the northerly of seven black oil tanks on the "C" print of photo M149 (881-14) as a conspicuous object. It has been placed under the list of recoverable topographic stations as a class C landmark.

There are a few 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 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. *See below*

Submitted by

*J. J. Lanigan*

J. J. Lanigan  
Draftsman

Assisted by:

*Roswell C. Boistad*  
Roswell C. Boistad  
Chief of Party.

*Note the value of 2 to 4 meters*



LIST OF RECOVERABLE TOPOGRAPHIC STATIONS  
CLASS "C" LANDMARKS

(Includes all recoverable objects, sufficiently prominent for use as hydrographic fixes (Class "C" landmarks, see Desc. Report for topo. sheet, reg. no. T 5059 for classification), shown as topographic stations with a small black circle on this sheet and not described on Form 524 by this party.)

<u>Description</u>	<u>Latitude</u> ° ' D.M.	<u>Longitude</u> ° ' D.P.	<u>Height</u>	<u>Method of determination</u>
Center of elevated house on end of dock 41	01- 51.2	72-03-1082.0	45'	A.P.T. 1934.
Northerly of seven black oil tanks	41-01-102.3	72-03-918.0	20'	A.P.T. 1934.

Note: A.P.T. denotes air photo topography.

Heights of objects are estimated by the air photo field inspection party in 1933.

*Note the names for the landmarks, radio towers and c.g. T. Hoff, shown on chart 1211 at lat 40 59.8 long. 72 02.8 are confusing as at present shown on the present chart*

*B.G. Jones*

*Names moved.  
J.M.A. 2/10/37*

## REVIEW OF AIR PHOTO COMPILATION NO. T 5078

Chief of Party: Roswell C. Bolstad

Compiled by: (See Page 2  
preceding)Project: New York Air Photo Compilation Instructions dated: Nov. 15, 1932  
Party No. 12

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n) All existent and non-existent docks, etc. are evident on the photos, have been verified by the inspection party, and no discussion is required.

3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)

See paragraph CONTROL (A), page 3.

4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)

Railroad traverse data not forwarded; considered unnecessary since applicable only to radial plot.

5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.

See preceding report. *and review of the book*

6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)

7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

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



8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

Shoal areas only indicated. Low water line obtainable from 1933 hydrographic sheets of Lieut. A.P.Ratti.

9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)

See reports of control party, Lieut. A.P.Ratti in 1933.

*see review of book*

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)

Previously submitted by 1933 field party under Lieut. A.P.Ratti.

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

There are no bridges on this sheet.

12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)

The Compiler has shown the new name "Lazy Point" which is not shown on present U.S.C. & G.S. charts. On G.S. map and is of *Shows on Chart 298* local usage and has been verified in field.

13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted. *unadjusted positions used*

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

*poor*

15. The drafting is ~~satisfactory~~ and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
2. The degrees and minutes of Latitude and Longitude are correctly marked.

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

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

16. No additional surveying is recommended at this time.

17. Remarks:

Any additional notes and requirements affecting this area are referred to Lieut. A.P.Ratti's Reports covering the topography executed in 1933 under his charge.

This party has no record of any field work being done by Lieut. W.D.Patterson in 1934 while engaged in surveys in this area.

*See memo of work.*

18. Examined and approved;

*Samuel D. Borden*  
Chief of Party

19. Remarks after review in office:

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

Examined and approved:

*E. H. Green*  
Chief, Section of Field Records  
*L. O. Albert*  
Chief, Division of Charts

*B. Borden*  
Chief, Section of Field Work  
*G. H. Wade*  
Chief, Division of Hydrography and Topography.

~~The house referred to on the description submitted for  
Sta. A. Dore was easily identified on the photographs and  
a radial plot was made, and resulted in four perfect intersecting  
cuts that verified the position on the compilation. This position  
also checks the distance of 77 meters to H.W.L. given on the  
description. The planetable position when transferred to the  
compilation is westward 13 meters from the compilation  
position of the station and only 4 meters from H.W.L.~~



## REVIEW OF AIR PHOTO COMPILATION T-5078 (1934)

### Comparison with other Surveys.

1. Plane table control survey T-4767 (1933) scale 1:20,000:

See page 4 of the report <sup>regarding</sup> of relocation of radio towers shown on T-4767.

The photo compilation positions are accepted as correct for reasons given on page 4.

The H.W. line on the compilation agrees closely with that shown on T-4767.

2. Plane table control survey T-6097, (1934), scale 1:20,000, shows only signals located for Hydrography. The following described topographic stations have been transferred to the compilation from T-6079 (1934). Descriptions are filed under T-6097: PAD, IVY, FOG, SPO, and RIN.

Recoverable plane <sup>table</sup> station DOW from T-6097, the northwest corner of the house, is not shown as a topographic station on the compilation and the description has been withdrawn from the files. The house in question is shown on the compilation and the reference distance ~~217~~ of 17 meters to H.W. line given on the card description checks the compilation. However, the geographic position as determined by plane table differs from the compilation by 13 meters. The photo plot checks with the plane table within two or three meters for the location of Station SPO just to the southwest, and is adequately controlled. The compilation position of Station DOW is accepted as correct within five to seven meters. However, a precise check on the location in this office would require remounting photographs, which does not seem to be warranted <sup>in this case.</sup> The topographic station symbol is not shown on the

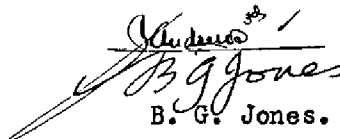
compilation pending a more accurate check of the plots <sup>and determination</sup> of the exact position.

3. Topographic Survey 4425 (1928). Comparison with the 1928 survey shows minor changes in the shore-line and some difference in the delineation of the marsh at the north side of Napeague Harbor. A number of buildings shown on T-4425, on Hicks Island and at Lazy Point, are not shown on this compilation. See note opposite page 6 of the report. T-4425 also shows a described topographic station, RED, lat.  $41^{\circ} 00.8'$ , long.  $72^{\circ} 03.7'$ . This has not been shown on the compilation since it was located on a much distorted Whatmans plane table sheet. It was not recovered by the compilation party. Except for this station and the buildings mentioned above, the compilation is adequate to supersede T-4425, for the area it covers.

4. T-2106 and T-2053 (1892). The compilation is adequate to supersede these two older surveys except for the Form Lines which are not shown on the compilation.

NAMES: See page 6. Two new names, Fresh Pond and Napeague Pond, have been added in this office from the U. S. Geological Survey Map. All other names are from charts 298, 1211 and 52 and agree with the charts, ~~\_\_\_\_\_~~

~~\_\_\_\_\_~~

  
B. G. Jones.

Survey No. T-5078

Date. April 3, 1935

## GEOGRAPHIC NAMES

Chart No. 298, 1211

Diagram No. 1211

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

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

Under investigation. Q

[illegible]