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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New York

DESCRIPTIVE REPORT

Photo
Topographic
~~Hydrographic~~

Sheet No. - T5084

5349
and
5350

LOCALITY

South Shore of Long Island

~~South Haven to Patchogue~~
Carmans River - T5349

Howell Pt. to Swan Creek - T5350

1934

CHIEF OF PARTY

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

U. S. GOVERNMENT PRINTING OFFICE: 1931

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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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. 4

REGISTER NO. T5054 T 5349 5349
T 5360 5350

State New York

General locality South Shore of Long Island

Locality ~~Carman's River to Swan Creek~~
~~South Haven to Patchogue~~

Scale 1:10,000 Photographs
Date of survey May 15, 1933
Date of Compilation March 17, 1934

Vessel Air-photo Compilation Party, No. 12

Reviewed and recommended for approval

Chief of party Roswell C. Bolstad, Jr. H. & G. E. Bolstad

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

Inked by H. Tubis and S. E. Sperry, Jr.

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 1:11,274. Enlarged

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

Locality: T 5349 Carman's River

T 5350 Howell Pt. to Swan Creek

- NOTES ON COMPILATION -

SHEET NO. 4

PHOTOS, NO. M273 (881-14) TO NO. M293 (881-14)

DATE OF PHOTOGRAPHS May 15, 1933 TIME 11:10 A.M.

	BY	DATE	
ROUGH RADIAL PLOT	<i>J.R. Reynolds</i> J.R. Reynolds	9/4 - 9/6/33	
SCALE FACTOR (0.887)	<i>P.A. Kelly</i> P.A. Kelly	9/7/33	
SCALE FACTOR CHECKED	<i>T.M. Price</i> T.M. Price	9/7/33	
PROJECTION	<i>S.E. Sperry, Jr.</i> S.E. Sperry, Jr.	9/8/33	
PROJECTION CHECKED	<i>T.M. Price</i> T.M. Price	9/8/33	
CONTROL PLOTTED	<i>J.J. Langman</i> J.J. Langman	9/11/33	
CONTROL CHECKED	<i>J.R. Reynolds</i> J.R. Reynolds	9/11/33	
TOPOGRAPHY TRANSFERRED	<i>J.P. O'Donnell</i> J.P. O'Donnell	10/14/33	
TOPOGRAPHY CHECKED	<i>J.P. O'Donnell</i> J.P. O'Donnell	10/17/33	
SMOOTH RADIAL LINE PLOT	<i>J.R. Reynolds</i> J.R. Reynolds	9/11-9/14/33	
RADIAL LINE PLOT CHECKED	<i>J.G. Albert</i> J.G. Albert	9/15/33	
DETAIL INKED	<i>H. Tubis & S.E. Sperry, Jr.</i> H. Tubis & S.E. Sperry, Jr.	10/20 - 11/24/33 2/15 - 3/17/34	H.T. S.E.S.

AREA OF DETAIL INKED 27.3 sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 10.0 sq. Statute Miles (Shoals in Water Area)

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

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

GENERAL LOCATION South Shore of Long Island

LOCATION South Haven to Patchogue

DATUM North American 1927

Latitude 40°- 45'- 36.050" (1112.0 m.)

STATION Bel (Bellport Ch. & Spire 1874-1914) Longitude 72°- 56'- 11.507" (270.0 m.)

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 4

5349

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GENERAL INFORMATION.

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

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

At the time the photographs of this strip were taken (May 15, 1933 at 11:10 A.M.) the tide, at Bellport, was nearly at low water according to predicted tide tables.

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 M273 (881-14) to M293 (881-14) inclusive.

CONTROL.

(A) Sources.

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

- (a) Triangulation by Lieut. Comdr. R. P. Eyman in 1933, unadjusted.
- (b) 1933 Aluminum Control Sheet (Lieut. Comdr. R.P. Eyman's Field Sheet "E")
Reg. No. 6007
- (c) 1933 Aluminum Control Sheet (Lieut. Comdr. R.P. Eyman's Field Sheet "F")
Reg. No. 6014

All control is on the North American 1927 Datum. Triangulation and topography (1:20,000 scale aluminum control sheets, showing high water line and control signals) executed by the party of Lieut. Comdr. R.P. Eyman in 1933, forms the basis of control for this area.

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

Go	Rose	Lon
Raw	Sag	Jal
Dol	Dark	Ring
Tel	Dub	Dry
Gin	Air	Tar

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

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

All aluminum control stations used for supplementary control on this sheet have been plotted from the positions obtained from Lieut. Comdr. R.P. Eyman's Descriptive Reports, Field Letters "E" and "F", 1933.

In the compilation of this sheet all of the topographic stations shown on the aluminum control sheet were not used since it was found that, by picking a few well defined points distributed over the sheet, accurate results could be obtained as well as if a large number of points had been chosen for supplementary control.

The Long Island Railroad shown on this sheet was not used for supplementary control nor plotted from any railroad data available but traced directly from the photographs and served only as an aid to orientation and to maintaining the azimuth of the photographs.

(B) Errors. See review at back of this report.

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

- ① Air - Lat. 40°- 44.9', Long. 72°- 59.7' - new position as determined by the radial plot lies 20 meters distant on azimuth 81°- 00' (from north) from the position as given on the aluminum control sheet. This signal is the gable of an airplane hanger and could be easily seen and verified under the stereoscope.
- X ② Gin - Lat. 40°- 44.8', Long. 72°- 59.4' - new position as determined by the radial plot lies 9 meters distant on azimuth 115° (from north) from the position as given on the aluminum control sheet. This signal is a flag pole which was located on the field prints by measured distances from definite points so it is believed to be correctly spotted on the photographs.
- ③ Go - Lat. 40°- 44.7', Long. 72°- 58.2' - new position as determined by the radial plot lies 22 meters distant on azimuth 303° (from north) from the position as given on the aluminum control sheet. This signal is a white banner which was definitely located by a sketch on photo number M290 (881-14) "A" print and is believed to be correctly spotted. The control, triangulation, in the vicinity of this signal is strong.

- ⑥ Dub - Lat. $40^{\circ}-44.4'$, Long. $72^{\circ}-57.2'$ - new position as determined by the radial plot lies 19 meters distant on azimuth 285° (from north) from the position as given on the aluminum control sheet. This signal is a red banner on the S.E. corner of west jetty. The position is fairly well defined but was not checked under the stereoscope. The control in this area is strong.
- ✓ ⑥ Tel - Lat. $40^{\circ}-44.8'$, Long. $72^{\circ}-56.6'$ - new position as determined by the radial plot lies 10 meters distant on azimuth 90° (from north) from the position as given on the aluminum control sheet. This signal is a red flag on a telephone pole. Its position was determined by measured distances from distinct points shown on field photo M286 (881-14) "A" print, so the spotting is believed to be correct.
- X ⑥ Ring - Lat. $40^{\circ}-44.8'$, Long. $72^{\circ}-56.3'$ - new position as determined by the radial plot lies 21 meters distant on azimuth 206° (from north) from the position as given on the aluminum control sheet. This signal is a red flag on a dock and is definitely located by measured distances shown on photo M284 (876-14) "A" print, so it is believed to be spotted correctly. The control in this area is strong.
- X ⑥ Dark - Lat. $40^{\circ}-45.5'$, Long. $72^{\circ}-55.6'$ - new position as determined by the radial plot lies 30 meters distant on azimuth 107° (from north) from the position as given on the aluminum control sheet. This signal is a white flag on a boat house, west gable. The house shows up clearly on the photographs so that it is believed that the signal is correctly spotted.
- ✓ ⑥ Lon - Lat. $40^{\circ}-45.4'$, Long. $72^{\circ}-54.3'$ - new position as determined by the radial plot lies 9 meters distant on azimuth 57° (from north) from the position as given on the aluminum control sheet. This signal is a red banner and was pricked on the field prints from measurements by the field inspection party therefore it is believed to be correctly spotted.
- ✓ ⑥ Raw - Lat. $40^{\circ}-46.0'$, Long. $72^{\circ}-53.6'$ - new position as determined by the radial plot lies 17 meters distant on azimuth 270° (from north) from the position as given on the aluminum control sheet. This signal is a red and white banner which was located on the field prints from measured distances by the field inspection party and is believed to be correctly spotted.
- X ⑥ Jal - Lat. $40^{\circ}-46.4'$, Long. $72^{\circ}-53.8'$ - new position as determined by the radial plot lies 6 meters distant on azimuth 180° (from north) from the position as given on the aluminum control sheet. This signal is the center of a summer house and can be clearly seen on the photographs. Its position appears to be correctly spotted on the photographs.

X^o Dol - Lat. 40°- 46.7', Long. 72°- 53.6'- new position as determined by the radial plot lies 17 meters distant on azimuth 180° (from north) from the position as given on the aluminum control sheet. This signal is a white banner on a red pole located near dock which is prominent on the photographs. There appears to be no question as to the spotting in this case.

X^o Tar - Lat. 40°- 46.7', Long. 72°- 53.5'- new position as determined by the radial plot lies 12 meters distant on azimuth 180° (from north) from the position as given on the aluminum control sheet. This signal is a stack on the west end of a house. The control in this area is good and the signal is believed to be correctly spotted.

The control, on this sheet, is strong and it is felt that all the above listed signals are in error on the aluminum control sheet 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 1:11,274.

See also the review at back of this report.

(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 of this strip appear to have considerable tilt and in addition a scale fluctuation due to a variation in the altitude of the airplane, making it necessary for the detailer to do considerable proportioning between radial points because of the difference between the scale of the photographs and the average scale to which the projection was made.

There are several triangulation stations on this sheet and it was possible to obtain good control through the use of these stations.

Photo numbers 276, 285, 286, 287, 288 and 289 showed the greatest amount of scale fluctuation. However, 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. There is one exception to this statement in the way in which the greenhouses south east of triangulation station Chimney (Hiscox) 1933 were represented. Instead of the usual cross-sectioning being used as for buildings a series of

small rectangles joined together were used signifying the ^{pieces} of glass in the roof of a greenhouse.

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.

There are no bridges of any importance to navigation on this sheet.

There are no shoal areas occurring on this sheet.

(D) Information from Other Sources.

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

(E) Conflicting Names.

With the exception of the village of Hagerman there are no names on the sheet conflicting with names shown on the U. S. C. & G. S. Charts of this area. Hagerman is shown on U. S. C. & G. S. Chart 52 as Hegerman but is spelled Hagerman on roads maps and the U. S. Geological Maps of that area so it is shown on this sheet as Hagerman.

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 obtained from the photographs agrees well with that as shown on the aluminum control sheets except in a few localities where there are slight variations.

On Carmans River, lat. 40° - $46.7'$, approx., there is a little variation in the shore line with that shown on the aluminum control sheet but topo station Dol, at this point, was found to be in error by the radial plot so it is believed that this is an explanation of the variation.

In the vicinity of topo stations Jal, Ring and Tel there are slight variations but since all of these stations were found to be in error by the radial plot it is probable that this explains the variations.

The variation at the south east corner of the sheet south of triangulation station Eat 1933 and also at long. 72° - $57.6'$ is probably due to sketching by the topographer since there are no topo stations in these immediate vicinities.

All docks, piers, breakwaters and similar objects shown on the aluminum control sheets have been shown on this sheet whether they occur on the photographs or not since the aluminum control sheet is of later date than the photographs.

See also. The review at back of This report.

LANDMARKS.

The list of landmarks for this area, including those to be expunged, has been previously submitted (November 9, 1933) by Lieut. Comdr. R.P. Eyman.

There are a number of landmarks shown on U. S. C. & G. S. Chart 578 which have not been mentioned on either Lieut. Comdr. R.P. Eyman's expunged list or his new list. They are as follows:

Removed from alt. No name
✓ Windmill
✓ Windmill, East Patchogue
Not used on Ch. 578 { Red Tower
Not prominent { Double Chimney
Not used on Ch. 578 - Tower

An object, without a name, approximate position, lat. 40°- 46.3', long. 72°- 54.0', is shown on Chart 578. There is no indication of a tank, tower, flag pole or similar object on the photographs so it is believed that this landmarks is one that should be expunged or is possibly a mistake when the chart was printed. It has not been shown on this compilation sheet.

Windmill which is now listed in Lieut. Comdr. R.P. Eyman's 1933 triangulation as Windmill (Red tank) 1914, is shown on Chart 578 and must have some degree of prominence since it was used as a triangulation station therefore it is believed that it should be retained as a landmark. It is shown on this sheet.

Windmill, East Patchogue, is shown on Chart 578 and the same conditions hold as for Windmill above (Lieut. Comdr. R.P. Eyman's 1933 triangulation). It is shown on this sheet.

Red Tower and Double Chimney, approximate position, lat. 40°- 44.5', long. 72°- 57.0', are shown on Chart 578 as landmarks. Neither of these stations are mentioned on lists submitted by Lieut. Comdr. R.P. Eyman (to be expunged or retained) and no notes regarding these stations were made by the field inspection party. Both of the stations occur on the wing prints of the photographs and are not clearly enough defined to be picked up. Therefore they have not been shown on this compilation sheet.

Tower, approximate position, lat. 40°- 45.2', long. 72°- 56.1', is not mentioned in lists submitted by Lieut. Comdr. R.P. Eyman but is shown on Chart 578. No trace of any object, suitable for a landmark, could be found under the stereoscope therefore it is believed that this landmark should be expunged. It has not been shown on this compilation sheet.

(Bel), White Church Spire Bellport, Lieut. Comdr. R.P. Eyman's 1933 triangulation, is shown on Chart 578 as Ch. Sp.. This landmark was not submitted by Lieut. Comdr. R.P. Eyman but is mentioned in his Descriptive Report for Field Sheet "F" as being an object of fair prominence and therefore should be retained as a landmark.

Topo station Air, south end of gable of airplane hanger, is a prominent object and so situated that it would be of value to navigation and seaplanes therefore it is recommended as a Class (A) landmark. For classification see Descriptive Report for Air Photo Topographic Sheet Reg. No. T5051, LANDMARKS under COMPILER'S REPORT. The geographic position of Air is as follows:

✓ AIR Latitude 40° 44' (76) Longitude 72° 59' (377) 1031

Topo station Yat, flag pole B. B. Yacht Club, is fairly prominent and so situated that it would be of value to navigation therefore it is recommended as a Class (C) landmark. *object. **
For classification see Descriptive Report mentioned in paragraph above. The geographic position of Yat is as follows:

✓ YAT Latitude 40° 45' 227 Longitude 72° 56' 14

(1624) (1393)

For the recoverable topographic stations for this sheet see Lieut. Comdr. R.P. Eyman's Descriptive Reports, Field Letters "E" and "F" in which there are a number of objects with their plane table positions which may be used as recoverable topographic stations.

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

RECOMMENDATIONS FOR FURTHER SURVEYS.

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

H. Tubis

Draftsman

S. E. Sperry, Jr.

S. E. Sperry, Jr.

Draftsman

Assisted by

A. H. Spalding

A. K. Spalding

Accountant

* Means objects of minor prominence,
useful for hydrographic fixes.

Bg j

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T5054

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

5349
5350

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

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

- ✓1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.) Paragraph 8 not applicable to this party.
- ✓2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
- ✓3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.) (see COMPILER'S REPORT enclosed, paragraph, Adjustments of Plot under COMPILATION (B)).
- ✓4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.) *None*
- ✓5. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
- ✓6. The representation of low water lines, ~~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); COMPARISON WITH OTHER SURVEYS and LANDMARKS have been made on this sheet.
- ✓8. ~~The representation of bridges and docks is satisfactory.~~ (Par. 16c.) There are no bridges of importance to navigation on this sheet.
- ✓9. The data furnished by the Field Inspection is adequate.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

19. Additional Note

On page 4 of the COMPILER'S REPORT, paragraph 4, the Compiler evidently meant that all the aluminum control signals were not used for the control of this compilation sheet because they were not all spotted on the photos by the field inspection party and only some of those not spotted could be identified by the aid of the stereoscope.

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. *None submitted*
The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) (see Remarks below) (See also report of Control Party, Lieut. Comdr. R.P. Eyman, 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. Comdr. R.P. Eyman)
14. The geographic datum of the sheet is North American 1927 *unadjusted* and the reference station is correctly noted. (Par. 34.) (see paragraph CONTROL in COMPILER'S REPORT)
15. Junctions with contemporary surveys are adequate.
16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.) *See also the review at back of this report*
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. Comdr. R.P. Eyman's Reports covering the topography executed in 1933 under his charge. (see opposite page) *See Review at back of this report.*
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: *K.T. Adams*
Chief, Section of Field Records
L.O. Lobnitz
Chief, Division of Charts

J.S. Borden
Chief, Section of Field Work
G. H. Hulse
Chief, Division of Hydrography and Topography.

Review of Air Photo Compilations T 5349 and T 5350 (1934)

Comparison with contemporary surveys: The area of these compilations is covered in part by plane table surveys T 6007 and T 6014, scale 1:20,000, 1933, and by hydrographic surveys 5367a and 5367b, 1933. The plane table surveys were executed in May to August, 1933, soon after the photographs for this compilation were taken.

Differences in location of topographic stations and of H. W. line between the compilation and the plane table surveys are listed on pages 4 to 7 of the preceding descriptive report. The differences are numerous and in some cases fairly large.

The compilation, scale 1:10,000, is a larger scale, more detailed survey than the plane table surveys. Examination of the photographs and the plot in this office shows that there was sufficient control for a good plot. Some of the photographs were tilted and some are not clear prints but these conditions should not account for large errors. The accuracy of location given on page 9 of the descriptive report is considered high. A more likely value is an accuracy of location of about 5 meters for intersected points and 5 to 10 meters for other detail. The spotting of the objects on the photographs has been inspected in making this review. All the topographic stations mentioned on pages 4 to 6 of the preceding descriptive report can be seen on the photographs or were referenced by ground measurements.

Plane table survey T 6007 was surveyed by A. M. Webber, who, it is understood, had had previous experience on Coast Surveys. Plane table survey 6014 was surveyed by W. H. Lea, who, it is understood, from Lieutenant Partington and Lieutenant Witherbee had had no previous plane table experience. The control for both plane table surveys was adequate and according to the reports, the traverse closures were negligible. However, on T 6014 the large holes pricked for the control points indicate careless plane table work. This is true to a much less extent on T 6007. Examination of the sheets indicates that errors of 8 to 10 meters can be expected for many of the located points, particularly on T 6014.

The differences in location, mentioned on pages 4 to 7 of the preceding descriptive report, are taken up in the following paragraphs with particular attention to their effect on the hydrographic surveys.

In considering these differences in location the compilation has generally been given the most weight because it is on a larger scale and was compiled with knowledge of the differences and with ample time for the compiler to study those differences carefully before accepting his own location. The compilation has not been corrected unless error in the plot could be definitely established. Many of the topographic stations listed on pages 4 to 6 of the descriptive report are temporary stations only and will not appear on the printed compilation. Their position by the photo plot is shown on the celluloid sheet.

Carmans River and Carmans River east to Beaver Dam Creek: Topo stations Raw, Jol, Dol and Tar in Carmans River are located by the compilation 6 to 17 meters from the plane table positions on T 6014. Only two of these stations, Jol and Tar, are permanent and will be shown on the printed compilation.

The differences vary considerably and are in different directions so that

they do not indicate a swing in azimuth or loss in distance on the photo plot. The compilation is accepted as correct. The differences will not affect the soundings to any considerable extent and it is not necessary to replot these stations and the soundings on H 5367 a. The largest difference in shoreline location is 30 meters at Lat. $40^{\circ}-46.7'$. This will not affect the soundings seriously.

Lat. $40^{\circ}-45.5'$, Long. $72^{\circ}-55.6'$ - Station Dark, flag on west gable of Boat House - is located 30 meters east of the position on plane table survey T 6014. This object can be seen on the photographs and the plot can be readily checked to show the photo location to be correct within 5 to 8 meters. The compilation agrees closely with the plane table location of detail on both sides of this station. It is possible, but doubtful, that the house was destroyed and rebuilt between May and August, 1933. The compilation is accepted as correct. The effect of this difference on the soundings has been checked by plotting a number of the fixes using the compilation position of the station. The bottom is regular in this area and the small displacements affected are not important.

Long. $72^{\circ}-56'$, Lat. $40^{\circ}-45.8'$ - Station Ring, the end of a wharf, is located by the compilation 21 meters S. by W. of the plane table position on T 6014. This object shows clearly on the photos and the plot has been checked in the same manner as for station Dark in the preceding paragraph. The compilation is accepted as correct. The compilation position places the end of the wharf down~~put~~ on a line of two foot soundings. The effect on the soundings of using the compilation position has been checked by plotting a number of positions on H 5367 and no important changes were found.

Long. $72^{\circ}-57'$ to $73^{\circ}-00'$ along the H. W. line - compilation shows differences in location of 19 to 22 meters for stations Dub, Go and Air. These stations were located on plane table survey T 6007. Station Air, south end of an airplane hanger, shows clearly on the photos and the plot is well controlled. The photo plot position is considered correct within five meters. In the case of stations Dub and Go, the compilation agrees with the plane table survey in location of other detail around these stations so the difference is not to any large extent due to error in the plot. The photographs are somewhat blurred here and the difference may in part be due to spotting but this should not amount to more than a few meters. Not over 5 to 8 meters of the amount of these differences is accountable to errors in the compilation and the positions on the compilation have not been changed. Only station Air will show as a topographic station on the printed compilation. The effect of these differences in location on the hydrography has been investigated and are not important except in case of station Air. This station controls soundings on F day and using the compilation position places some of the N and S lines 30 to 40 meters east of the plotted positions. However, the bottom is so regular that these displacements are not important except in case of the location of the Beacon at Lat. $40^{\circ}-43.4'$, Long. $73^{\circ}-00'$. The location for this Beacon found in going through the records is position 54 F day (green) which states the Beacon to be 20 meters on the port Beam. Replotting on the compilation position of station Air would place the Beacon about 38 meters east of its present position on H 5367 a. Also position 48 V day (red), not using station Air for the fix, states that the Bn. is on range with A Lite. This range when plotted from Pos. 48 V does not check the position of the Bn. as shown on H 5367a at present but checks very closely the

position obtained when replotting the Bn. on the photo location of station Air as mentioned above. However, the location of the Beacon on the new edition of chart 578 shows it about 250 meters S.E. of the position given on H 5367a so that the position on the hydrographic sheet is of no value except as a matter of record.

The two jetties at the end of Howell Creek on the compilation were not traced accurately by the compiler and did not agree with the description given for station Dub on page 4 of the report. This has been corrected in reviewing the sheet. The change amounted to about 10 meters.

The shoreline of the creeks along the north shore of Great South Bay can now be transferred to H 5367a and the soundings up those creeks plotted. Otherwise, it does not seem necessary to make any changes on H 5367a since that sheet has already been verified and inked. In applying the surveys of this area to the charts the topography should be taken from the compilation rather than from the plane table surveys T 6007 and T 6014 as has already been done in the case of chart 578.

It is recommended that a copy of this report be attached to H 5367 a.

The compilation has been compared with the new chart 578 but not with the ~~other~~ ^{older} topographic surveys in this area.

Names. Names are in agreement with the largest scale chart No. 578. The name Beaver Dam Creek shown by the compiler has been changed to Fireplace Creek to agree with chart 578.

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