4763
4764
4765

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Form 504
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, *Director*

State: New York

DESCRIPTIVE REPORT

Topographic | *Sheet No.* G, H & I

4763
4764
4765

LOCALITY

Shinnecock and Moriches Bays

1933

CHIEF OF PARTY

A. P. Ratti, Lieut., U.S.C. & G.S.

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEETS

- G - H - I -

SHINNECOCK and MORICHES BAYS, NEW YORK.

Project No. HT-133 - A. P. Ratti, Chief of Party, 1933.

Authority -- Director's instructions dated Feb. 25,1933.

Extent -- These sheets comprise a survey of the ocean shore line and inland bays from Southampton, N.Y. to Center Moriches, N.Y. including the new inlet to Moriches Bay.

Survey Methods -- The entire territory was surveyed by the standard Coast Survey plane table methods. This survey was controlled by triangulation stations established and located by A. P. Ratti in 1933. Since aerial photographs were taken of this territory special attention was given to the location of signals for hydrography so their position could in general be readily spotted on the photographs to furnish control in compiling these photographs.

No traversing with the plane table was necessary since it was possible to cut in signals from across the bay and so locate each one accurately with three or more cuts.

Description -- The entire ocean coast line is outlined with a range of grass covered dunes varying in height from about 10 to 30 feet. At several places, notably near the towns of Southampton, Quogue and Westhampton Beach a great many residences are on top or just behind these dunes. A paved highway parallels the ocean shore line in back of these dunes from Moriches Coast Guard Station to Southampton. The narrow strip of land between this highway and the inland bays is mostly a grass covered marsh which in most places is covered by a few inches of water only at extremely high tides. With a very few exceptions the edge of this marsh is well defined. All of this marsh land is cut up by a great many drainage ditches as an aid to mosquito control.

The new inlet west of Moriches Coast Guard Station is constantly shifting and the sandy shore line both on the ocean and bay sides is subject to constant change. The entire ocean shore line is also naturally subject to continual change by wave action during storms.

The inside or northerly shore of Shinnecock Bay from West Pond to Shinnecock Canal shows a range of grassy hills of from 60 to 120 feet above sea level. Also just west of Cormorant Point the shore line is a tree covered bluff. Practically all the rest of the shore line of both Shinnecock and Moriches Bays is low, often marshy, and in some places wooded.

Remarks -- Comparison of sheets with Chart 578 show many minor changes but no prominent differences.

Statistics--

Topographic Sheet	Area Surveyed in Square Statute Miles	Length of Shoreline Surveyed in Statute Miles
G	12	27
H	8	27
I	25	57

Respectfully submitted.

Daniel D. Ling
Surveyor.

Approved

A. P. Rath
Chief of Party.

REVIEW OF TOPOGRAPHIC SURVEY No. 4763

Title (Par. 56) Long Island, Central Part of Moriches Bay, New York

Chief of Party A. P. Ratti Surveyed by D. S. Ling Inked by D. S. Ling

Ship HT-133 No. 5. Instructions dated Feb 25, 1933 Surveyed in Apr. June 1933

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
No elevations determined

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) None shown.

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted.

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

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.) ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

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.

R-317

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. ~~The~~ No descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) *Several recoverable stations are listed in Desc Rep. H5322*

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓

17. The magnetic meridian was shown and declination was checked. ✓ (Par. 17, 52.)

18. The geographic datum of the sheet is *North American 1927* and the reference station is correctly noted. (Par. 34.) ✓

19. Junctions with contemporary surveys are adequate. ✓ *Shoreline and signals for hydrography only. General topography to be taken from aero-topo sheets.*

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓

22. No additional surveying is recommended. ✓

23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~

24. Remarks:

Reviewed in office by *R. J. Christman, Jan. 23, 1934.*

Examined and approved:

L. O. Colbert
Chief, Section of Field Records

H. S. Borden
Chief, Section of Field Work

E. A. Pagnebarr
Chief, Division of Charts

G. Rude
Chief, Division of Hyd. and Top.

R-317

REVIEW OF TOPOGRAPHIC SURVEY No. 4764

Title (Par. 56) Long Island, Quogue to Speonk Point, New York

Chief of Party A.P. Ratti Surveyed by D.S. Ling Inked by D.S. Ling

Ship #T133-No5 Instructions dated Feb 25, 1933 Surveyed in Apr. June 1933

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
No elevations determined

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) None shown

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted

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

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.) ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

10. The span, draw and clearance of bridges are shown. (Par. 16c.) ✓
They were left in pencil on the sheet.

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

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.

R-317

Notes on bridges sheet T4764

Quantuck Cr. ⊙ Oar.
Center drawbridge now fixed
60' Total span
34' under draw east of center
7.5 Clearance

Near West Hampton ⊙ Mud
Center drawbridge, now fixed
57' Total span
32' under draw east of center
7' Clearance

⊙ War
Fixed concrete span
54' Total span
24' channel span
9.5 Clearance

⊙ Bog
Center pier drawbridge
97' Total span
31' clear each side of pier
6.9 min. clearance

△ Wham
57' Concrete approach north
50' Bascule span
300' Concrete approach south
10.6 min clearance
14.5 clearance at center of span

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. ~~The~~ No descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) Several recoverable stations are listed in Desc. Rep. H5322

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

18. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate. Shoreline and signals for hydrography only are shown.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) Notes relative to span and clearance of bridges were left in pencil on sheet as sole record not being mentioned in the Descriptive Report.

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~

24. Remarks: Signals mul, War and Sox are not in agreement with air photo sheet and have been discarded on this sheet.

Reviewed in office by R. J. Christman, Jan. 23, 1934

Examined and approved:

L. O. Colbert
Chief, Section of Field Records

F. Borden
Chief, Section of Field Work

E. W. Pagenhart
Chief, Division of Charts

F. Rude
Chief, Division of Hyd. and Top.

R-317

REVIEW OF TOPOGRAPHIC SURVEY No. 4765

Title (Par. 56) Long Island Shinnecock Bay, New York

Chief of Party A.P. Ratti Surveyed by D.S. Ling Inked by D.S. Ling

Ship HT-133 No. 5 Instructions dated Feb. 25, 1933 Surveyed in Apr.-June 1933

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓

2. The character and scope of the survey satisfy the instructions. ✓

3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓

4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
No elevations determined

5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) None shown

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted

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

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.) ✓

9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓

10. The span, draw and clearance of bridges are shown. (Par. 16c.)
Notes in pencil on the topo sheet.

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

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.

R-317

Notes on bridges sheet T 4765

Near ⊙ Big

Fixed truss span
56' span
18'.5 min. clearance

Pongquogue Point ⊙ Nig

766' Timber trestle approach north
50' Steel bascule span
291' Timber trestle approach south
10.'5 Min. clearance
13'.5 Clearance at center of span

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)

14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~

15. No The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) Recoverable stations listed in Desc. Rep of Hyd. sheets.

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

18. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)

19. Junctions with contemporary surveys are adequate. Shoreline and signal for hydrography only are shown. See Aero-topo sheets for inland details.

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) Notes on bridge span, clearance etc should have been inked.

22. No additional surveying is recommended.

23. The Chief of Party inspected and approved the sheet and the descriptive report. ~~after review by~~

24. Remarks:

Reviewed in office by R. J. Christman Jan. 23, 1934

Examined and approved:

L. O. Colbert
Chief, Section of Field Records

F. S. Borden
Chief, Section of Field Work

[illegible]
Chief, Division of Charts

[illegible]
Chief, Division of Hyd. and Top.

R-317

Supplementary Report on

T. 4765 and T. 4764.

Chief of Party - A. P. Ratti.
Surveyed by - D. S. Ling.
Date - April - June 1933.
Scale - 1:20,000.

The following report is based on a comparison of plane table control sheets T. 4764-5 with air compilation sheets T. 5080 and T. 5082.

The projections of T. 4764-5 were out in places as much as 3 meters - probably due to not drawing the lines through the measured points, these points in cases being as much as 5 meters in diameter.

In comparing the plane table control and the air photo compilation sheets several signals did not agree.

⊙ Cut did not check by 11 meters. A close examination of the plane table sheet shows the intersection of cuts outside the position as used on the sheet. The position hole is about 3 to 4 meters in diameter.

⊙ Bum is evidently in error about 18 meters as indicated by the descriptive report of T. 5080 paragraph B as this position was checked by the hydrographic party which party took sextant cuts to 3 triangulation stations to locate same. The hole for this signal is about 10 meters in diameter.

⊙ Dew and ⊙ Abe are in error 9 and 12 meters respectively according to the radial plot. This may be caused by the fact that the holes for these signals on the planetable control sheet are about 8 meters in diameter.

⊙ Pan - The cuts seem to intersect outside the actual hole of the signal. Here again the hole is very large.

⊙ Art - The hole is very large and off to the side of the center of the circle.

△ Header - The hole is very large as is also the case on ⊙ Let, ⊙ Fat, ⊙ Cam ⊙ Map and several others. It is felt that the size of these holes might lead to an error in orientation and consequently in the locations of other signals or other topographic features.

For practically the entire length of the sheet T. 4765 the high water line on the plane table control sheet does not agree with that of the air photo compilation. In places it does not agree by as much as 40 meters. In places the hydrography would indicate that the high water line as shown on the plane table control sheet to be correct whereas in other places the air photo compilation sheet may be correct.

Supplementary Report on T. 4765 and T. 4764.

On the attached blueprint the plane table control high water line has been shown in red and the inside line of soundings in yellow.

It is felt that more care should be taken in pricking the holes on the plane table control sheet and also in pricking the intersection of any cuts. Where signals are located by intersection the cuts should be left on the sheet to better enable the reviewer to decide which position of a signal should be adopted.

The photographs were taken and the plane table topography was executed prior to the storm on August 23-24, 1933 but the hydrography was done August 31-September 28, 1933.

Submitted by - Charles R. Bush, Jr.

SO-DRM

February 26, 1934.

To: Lieut. A. P. Ratti,
U. S. Coast and Geodetic Survey.

Through: Commanding Officer,
U. S. Coast and Geodetic Survey,
Ship HYDROGRAPHER,
P. O. Box 702,
Port Arthur, Texas.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Criticism of topographic surveys of Long Island.

It is desired to call your attention to several points of criticism made in reviewing the topographic surveys executed under your direction on Long Island by Mr. D. S. Ling. These refer to T. 4763, 4, 5, 6, 7 and 8.

1. The scale, 1:20,000, used on sheets T. 4764, 5, 6 and 7, was too small for the purpose intended.

2. No descriptions of recoverable stations were accomplished on Form 524 for any of these sheets. On several sheets which included bridges, pencil notes were made relative to span and clearance. The statement covering these features should have been included in the descriptive report.

3. From an examination of the projections it is found that the lines were out as much as three meters, probably due to carelessness in drawing them through the measured points.

4. These sheets were in the main intended as control sheets for the compilation of aerial photographs. In the case of several of the sheets the compiler reported that considerable difficulty was found in the first plot, due to errors in the location of topographic signals. It was found that signals were in error on the control sheet from 8 to 23 meters. A typical case is that of signal "Bum" which was indicated as 18 meters in error on the photo compilation sheet. This position was checked by the hydrographic party,

which party took sextant cuts to three triangulation stations to locate it. The errors were not due to errors in traverse, because adjacent signals were found satisfactory.

5. An examination of the sheet shows that the centers of many signals were pricked with holes 8 or 10 meters in diameter; also that the points pricked for the centers of some signals were not at the intersections of cuts to them. Considering the diameter of the holes in several of the triangulation stations it is not understood how any accuracy could be obtained in orientation.

6. The surveys show an amount of carelessness which should not be tolerated in the use of the aluminum backed topographic sheets.

(Signed) J. H. HAWLEY.
Acting Director.

Form 537a
Ed. Nov., 1929

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REG. NO. 4763

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. G 4763

REGISTER NO.

State New York

General locality Long Island

Locality Central Part of Moriches Bay

Scale 1-10,000 Date of survey April to June, 1933

Vessel Project HT-133

Chief of party A. P. Ratti

Surveyed by D. S. Ling

Inked by D. S. Ling

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

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

Instructions dated February 25, 1933

Remarks: Aerial photographic survey of this territory has been made

Form 537a
Ed. Nov., 1929

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U. S. COAST AND GEODETIC SURVEY

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REG. NO. 4764

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. H 4764

REGISTER NO.

State New York

General locality Long Island

Locality Quogue to Speonk Point Bay & Quogue Canal

Scale 1-20,000 & 1-10,000 Date of survey April to June, 1933

Vessel Project HT-133

Chief of party A. P. Ratti

Surveyed by D. S. Ling

Inked by D. S. Ling

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

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

Instructions dated February 25, 1933

Remarks: Aerial photographic survey of this territory has been made

Form 537a
Ed. Nov., 1929

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U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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REG. NO. 4765

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. I 4765

REGISTER NO.

State New York

General locality Long Island County

Locality Shinnecock Bay

Scale 1-20,000 Date of survey April to June, 1933

Vessel Project HT-133

Chief of party A. P. Ratti

Surveyed by D. S. Ling

Inked by D. S. Ling

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

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

Instructions dated February 25, 1933

Remarks: Aerial photographic survey of this territory has been made