

5177

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Air
Photo

Topographic
*Hydrographic

Field 25

Sheet No. Reg. 5177 5177

U. S. COAST & GEODETIC SURVEY
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JUL 17 1934

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State SOUTH CAROLINA

LOCALITY

CHARLESTON HARBOR AND VICINITY

MT. PLEASANT AND VICINITY

1934

CHIEF OF PARTY

E. H. KIRSCH

U. S. GOVERNMENT PRINTING OFFICE: 1933

5177

E.H.K.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5177

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 25

REGISTER NO. 5177 5177

State South Carolina

General locality Charleston Harbor and Vicinity

Locality Mt. Pleasant & Vicinity

Scale 1:10,000 Date of survey Photographs - November 17, 1933 19

Vessel Air Photo Compilation Party No. 21, Charleston, S. C. Compilation - April 6, 1934.

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report.

Inked by P. W. Hund

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

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

Instructions dated November 10, 1933, 19

Remarks: _____

GENERAL INFORMATION

The only aids used in the compilation of this sheet were: Notes from field inspection reports, information given by Lt. B. H. Rigg in questionable areas and the compilers field inspection.

The accompanying "Notes on Compilation" gives all data in connection with the compilation of this sheet.

This sheet was compiled from photographs taken by the U. S. Army Air Corps' single lens camera, photograph numbers M-68 823A-8 to M-74 - 823A-8 taken at 11:20 A.M. November 17, 1933, 2 hours and 19 minutes before low tide and M-86 - 823A-8 to M-92 - 823A-8 taken at 12:15 P.M. one hour and 24 minutes before low tide.

CONTROL

Sources:

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

Triangulation: C. D. Cowie and R. L. Shoppe - 1933
L. P. Raynor 1924
M. O. Witherbee - 1933

1933 Aluminum Control Sheet "A" Reg. No. ^{T 6080.}

The field partys' geographic positions were used; these are on the N. A. 1927 datum.

In addition to the triangulation the following topographic signals were spotted on the photos and were used in controlling this sheet:

Ala	Beacon No. 3
Murn	Beacon No. 4
Joe	Range W.H. Disc
Ted	Range W. H. Diamond
Lue	

They have been shown on the celluloid topographic sheet with a black circle (o)

Errors:

There were no errors discovered in the position of the aluminum control sheet topographic signals.

Discrepancies:

No control stations established by other organizations were used in this compilation.

COMPILATION

Method:

The usual radial line method of plotting was used in the compilation of this sheet.

Adjustment of Plot:

The photographs used in this compilation were clear, free from excessive tilt, and scale fluctuation; consequently the radial plot required no unusual adjustment.

Remarks:

No difficulty was found in making the slight adjustments necessary in some photographs due to their being slightly out of scale.

Shem Creek Bridge shown on this sheet is of the fixed type, having a roadway 27' wide with a 3' sidewalk on the Northwest side. The horizontal clearance is 32' and the vertical clearance was 18.9' at 12 noon April 23, 1934 three hours and 13 minutes before a high tide of 4.1' *M.H.W. Clearance computed from Tide Tables as 16 ft. ~~7.1~~*
U.S. Engineers Bridge List. gives H.W. clearance = 14 ft. B.G.S.

Mt. Pleasant Front Range Beacon and Shem Creek Beacon were radial plotted, and the other topographic signals were taken from the Aluminum Control Sheet.

Interpretation:

The usual graphic symbol as approved by the Board of Surveys and Maps 1932 were used and no great difficulty was experienced in interpreting the photographic detail.

The shore area Southwest of Mt. Pleasant included between the high and low water line is shown lightly dotted since it is an area of sandy mud with some widely scattered oyster beds.

The low water line as shown has been so indicated because of the appearance on the photographs and it is expected that there may be some departure from actual existing conditions.

The highways are indicated as follows: Paved - double full line; Unpaved, but graded-double dashed line; Lanes, poor roads and trails - a single dashed line.

U. S. Highway No. 701 running from Mt. Pleasant Northeastward to Georgetown, has joining it a series of roads shown with a double dashed line. These are portions of the old highway and, while at present are in some cases still used, will no doubt soon be abandoned.

The detail in the town of Mt. Pleasant has been omitted, since it would not show any detail of importance for charting purposes.

Since these photographs were taken the U. S. Army Engineers are dredging a channel starting at the Cove through to Georgetown. Lt. M. O. Witherbees' party has made a topographic survey of this area and shown the new channel as far as it is now completed (4-20-34) on aluminum control sheet A Reg. No. 6080. The celluloid sheet was made to conform with the channel as shown on aluminum control sheet "A" Reg. No. 6080, since this area is different now than the photographs showed. The dredge is now working approximately 300 meters above Lt. Beacon No. 2 (4-20-34).

A portion of the shore line, at Lat. 32° 46', Long 79° 51' 127 meters long does not agree with the photographs, since a spoil bank has been formed by the dredging which has been done after the photographs were taken. This section was taken from the aluminum control sheet "A" Reg. No. 76080.

Information from other Sources:

Besides the photographs information was obtained from the following:

Field inspection by: Lt. B. H. Rigg
Aluminum Control Sheet "A" Reg. No. 76080, M. O. Witherbe, 1933
Hydrographic Sheet No. 1, by: Lt. M. O. Witherbee and
Lt. B. H. Rigg, 1934.

Field inspection by the compiler.

Conflicting Names

There are no names on this sheet conflicting with names shown on the U.S.C. & G.S. Charts of this area. July 2 new names are shown, Rifle Range Road and Mathis Ferry Road. These have been accepted pending Mr. Bacon's decision. The names do not show on the 45. quadrangles and are not mentioned in this report.

COMPARISON WITH OTHER SURVEYS These names were probably determined by the Field inspection and it is recommended that they be accepted.

Satisfactory junctions were made with the following sheets: BG Jones

- North - Sheet No. 22, Reg. No. 5174
- East - None.
- South - Sheet No. 28, Reg. No. 5180
- West - Sheet No. 26, Reg. No. 5178

The ferry dock near the mouth of Shem Creek is shown with solid lines on present chart 470 January 9, 1934, but this has burned since that chart was made and consequently is now shown as ruins with just a few piles showing.

The following beacons have been shown on this sheet;

- ~~Lighted~~ Light Beacon No. 4. ✓
- ~~Lighted~~ Light Beacon No. 3. ✓
- Light Lt. Beacon No. 2. ✓ (changed number of this light - Light 138 now.)
- Shem Creek Beacon. Light ✓

~~these added from plans to BG chart~~

D. Jones
July 10, 1935

Front Range, ^{Bn} Cove Channel. ✓
Rear Range, ^{Bn} Cove Channel. ✓
Beacon at mouth of new Channel. ✓

Front Range, ^{Lt} Mt. Pleasant. ✓
Beacon W. H. Disc. } Apparently Apply to
Beacon W. H. Diamond } them Creek Range
Lights. B.G.F.

The following have been omitted since they no longer exist.

Beacon No. 2A, ✓
Beacon at mouth of Creek. ✓
Beacon No. 9. ✓

Beacon No. 7, ✓
Beacon No. 8. ✓

The following have been moved:

Lt. ~~Beacon~~ No. 2, *The number of this light has been changed to "138" same 7/10/55.* Beacon. *Apparently refers to the Day Bn at mouth of the new channel.*

The present chart 470 shows a dock directly west of the ferry dock, ruined by fire. The photos do not show any dock in that area and this has been verified by field inspection.

Landmarks:

The list of landmarks for this area was submitted by Lt. M. O. Witherbee with aluminum control sheet "A" Reg. No. 6040 .

RECOMMENDATION FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not more than 2 meters in well defined detail of importance for charting, and of 4 meters for other data, with the exception mentioned under CONTROL paragraph Errors. *see below*

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.

Assisted by:

E. H. Kirsch
E. H. Kirsch,
Chief of Party.

Submitted by:

P. W. Hund
P. W. Hund.

The value of 2 to 4 meters given above is probably a little high. A better estimate for work on this scale is an accuracy of location of 2 to 4 meters for intersected points and 2 to 8 meters for other detail. B.G. Jones

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56) Mt. Pleasant & Vicinity.

Chief of Party E. H. Kirsch

Compiled by P. W. Hund

Project Air Photo Compilation Party No. Instructions dated November 10, 1933
No. 21, Charleston, S. C.

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.) ✓
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.) ✓
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.) No information taken from outside sources.
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. ✓
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.) Submitted with A.C.S. Sheets.
See following pages for filing list of descriptions.
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)
Submitted with A.C.S. Sheets.
14. The geographic datum of the sheet is N. A. 1927 and the reference station is correctly noted. (Par. 34.)
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: *See following opposite page.*
20. Examined and approved: E.H. Kirsch
E.H. Kirsch, Chief of Party
21. Remarks after review in office:

Reviewed in office by:

Leonard A. Neumann ✓ *B.G. Jones*

Examined and approved:

E.H. Green
Chief, Section of Field Records*L.O. Solbert*
Chief, Division of Charts*F.S. Jordan*
Chief, Section of Field Work*G.H. Hilde*
Chief, Division of
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION T-5177

Comparison with Other Surveys:

This area is covered in part by Photo Control Survey T-6080. All information of a permanent nature has been transferred from the control survey or is duplicated on this compilation. There is a difference in delineation of H. W. line between Shem Creek and longitude $79^{\circ} 52'$. T-6080 shows sections of a bulkhead here which might be interpreted as H. W. line. The photo compilation shows H. W. line at about the edge of the grass and also shows the line of the bulkhead. This agrees with the last previous survey T-3854, 1921 and the interpretation given on the compilation is accepted as correct.

This compilation is adequate to supersede the last previous survey T-3854, 1921 for the area covered. T-3854 shows the bulkhead mentioned in the paragraph above as continuous whereas this compilation shows a break or opening at longitude $79^{\circ} 52.3'$. This is not mentioned in the report but the compilation is accepted pending examination of the photographs when they are received at this office.

Ranges:

The following azimuths of ranges are copied from T-6080 on which they were determined:

Shem Creek Range $2^{\circ} 53'$
Core Inlet Channel Range $73^{\circ} 54'$ ✓

Recoverable Stations:

Descriptions of recoverable topographic stations shown on this compilation are filed under Sheet No. T-6080.

Leonard A. Williams
B. J. Jones

applied to drawing of chart #470
April 3, 1935 G.H.S.

applied to compilation of New Chart #491
April 4, 1935 G.H.S.

applied to chart 1237 Apr. 1937 Z.M.A.