

5170

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: So. Carolina

DESCRIPTIVE REPORT

Air  
Photo

Topographic

~~Hydrographic~~

Field No. 18

Sheet No. Reg. No. 5170

5170

LOCALITY

Charleston Harbor - Wando River

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 2550

5170

E.H.K.

Applied to chart 681 J.M.A. Apr. 1937

" " " 1239 J.M.A. " "

J O B S H E E T

TO

ACCOMPANY SHEET NO. 5170

PROJECTION BY	<u>L. C. Ripley</u> L. C. Ripley	Feb. 3, 1934
PROJECTION CHECKED BY	<u>J. H. Wulbern</u> J. H. Wulbern	Feb. 5, 1934
TRIANGULATION PLOTTED BY	<u>E. S. Etheridge</u> E. S. Etheridge	Feb. 6, 1934
TRIANGULATION CHECKED BY	<u>M. L. Smith</u> M. L. Smith	Feb. 6, 1934
TRIANGULATION PLOTTED ON PHOTOS BY	<u>J. F. Richardson</u> J. F. Richardson	
TRIANGULATION CHECKED ON PHOTOS BY	<u>F. H. McBeth</u> F. H. McBeth	
SCALE PLOT BY	<u>J. H. Wulbern</u> J. H. Wulbern	
RADIAL PLOT BY	<u>J. H. Wulbern</u> J. H. Wulbern	Feb. 8, 1934
DETAIL BY	<u>F. H. McBeth</u> F. H. McBeth	Started: Feb. 10, 1934 Finished: Feb. 16, 1934

PHOTOS, NO. M97 (823-A-8) to NO. (M102-A-8)

DATE OF PHOTOGRAPHS November 17, 1933 TIME 12:25 P.M.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5170

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. 18

REGISTER NO. 5170 5170

State South Carolina

General locality Charleston Harbor

Locality Wando River

PHOTOGRAPHS 12:25 PM

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

Pictures M97 - 823 A-8 to

Vessel Air Photo Party No. 21. M102 - 823 A-8

Chief of party E. H. Kirsch

Surveyed by U. S. Army Air Corp.

Inked by F. H. McBeth

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

Contour, Approximate contour, Form line interval - - feet

Instructions dated November 10, 1933

Remarks: Atlas Layout over Charleston Harbor

## GENERAL INFORMATION

### Statistics:

This sheet covers a total area of 3.9 square statute miles. The length of shoreline more than 200 meters from the opposite shore is 6 statute miles. The length of stream lines of less than 200 meters is 5.4 statute miles.

### Reports:

This area was surveyed by R. F. A. Studds in 1928 and he submitted reports at that time including the area shown on this sheet.

### Photo Numbers:

The flight covering this area includes photo No. M99-823A-8 to M102 - 823A-8. The pictures were taken on November 17, 1933 at 12:25 PM, an hour and fifteen minutes before low tide.

## CONTROL

### Sources:

This sheet is controlled by triangulation established by R.F.A.Studds in 1928. There are no aluminum control sheets in this project which cover the area. All of Mr. Studds triangulation has been reduced to 1927 N. A. Datum.

### Errors:

No plottable errors were found in the control .

## COMPILATION

### Method:

The standard radial line method was used as described in the U.S.E. & G.S. 1933 notes on the compilation of planimetric line maps from five lens aerial photographs.

### Adjustments of Plot:

The radial plot was made on a full sized celluloid sheet using two overlapping flights. M86 - 823A to M102 - 823A and M68 823A to M85 - 823A; All single lens pictures which had been enlarged so that the average scale of the pictures was 1:10,000. The radial plotted points were then transferred to atlas sheet No. 5171 by laying one projection over the other and pricking the points through. No adjustment was necessary on the radial plot.

### Interpretation:

Difficulty was encountered in determining the high water line in a few places. These marshy places were visited by the compiler and it is believed that the correct high water line is shown. The low water line was traced from the photos, enclosing the lighter areas along the high water line. The position of this line is subject to error as no soundings were taken to prove its location.

\* This detail as shown on Chart No 681 was taken from H-4905, (1928), a hydrographic survey which also includes the shoreline. This is the only survey, either hydrographic or topographic, of this area. This survey (H-4905), in addition to the piles which are not shown on the compilation, also shows 3 small piers which have not been discussed in this report. Locations as follows:-

Lat  $32^{\circ} 55.8$ ; Long  $79^{\circ} 48.75$

Lat  $32^{\circ} 55.55$ ; Long  $79^{\circ} 49.4$

Lat  $32^{\circ} 55.4$ ; Long  $79^{\circ} 49.75$

Since the photographs of this area are not available, no statement can be made concerning the deletion of these piers on the Chart (No 681).

L. A. Kei

✓ B. G. J.

Note The piers probably have been removed as the compiler would very likely have traced them had they shown on the photos. However, old pilings around these piers may exist and not show on the photographs.

B. G. Jones

### Information from other Sources

The only information used was the photographs, the control survey referred to, and field inspection.

### Names

All names were taken from Chart Nos 1239<sup>and 681.</sup> There are no conflicting names. *One new name "Gregory Ferry Road" has been submitted for approval and will be retained pending Mr. Bacon's decision.*

### COMPARISON WITH OTHER SURVEYS

#### Junction:

This sheet joins sheet No. 5171 on the west. A correct junction was made. There are no important changes affecting charts.

#### Landmarks

There will be no aluminum control sheet covering this area. A study of photographs under the stereoscope does not show any prominent objects to recommend as landmarks. Reference is made to Mr. R.F.A. Studds list of landmarks submitted with his 1928 sheets. The dock and buildings of the Tuxbury Lumber Company have been carefully located.

#### Recommendations for Further Surveys:

The compilation of this sheet is believed to have a probable error of not more than 3 meters in well defined detail of importance for charting and of not more than six meters for other data.

*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:

*F. H. McBeth*  
F. H. McBeth

*The value of 3 to 6 meters may be a little high for work on this scale, and is better stated as follows: the accuracy of location is estimated to be within 3 to 5 meters for interested points, and 3 to 8 meters for other detail.*

*B. A. Jones*

### Information from other Sources

The only information used was the photographs, the control survey referred to, and field inspection.

### Names

All names were taken from Chart Nos 1239<sup>and 681.</sup> There are no conflicting names. *One new name "Gregory Ferry Road" has been submitted for approval and will be retained pending Mr. Bacon's decision.*

### COMPARISON WITH OTHER SURVEYS

### Junction:

This sheet joins sheet No. 5171 on the west. A correct junction was made. There are no important changes affecting charts.

### Landmarks:

Off the railroad dock running parallel with the North bank of the Wando River and lying as shown on the older chart<sup>(No. 681)</sup>, there are pilings. This detail is not visible on the photographs covering this flight, but from inspection made March 5, 1934, they are known to exist. They should be placed on the new chart as indicated on the previous one. *\* See opp page.*

### Recommendations for Further Surveys:

The compilation of this sheet is believed to have a probable error of not more than 3 meters in well defined detail of importance for charting and of not more than six meters for other data.

*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:

*F. H. McBeth*  
F. H. McBeth

*The value of 3 to 6 meters may be a little high for work on this scale, and is better stated as follows: the accuracy of location is estimated to be within 3 to 5 meters for interested points, and 3 to 8 meters for other detail.*

*B. A. Jones*



Title (Par. 56) S. C., Charleston Harbor, Atlas Layout, Wando River

Chief of Party E. H. Kirsch

Compiled by F. H. McBeth  
See Job Sheet

Project F.P. 13 - S.C. 1933 to 35. Instructions dated Nov. 10, 1933  
Air Photo Party No. 21

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 does not apply.
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". Yes.
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.) All topography from photographs.
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.) Low water line was traced from photographs and is subject to error.
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. No changes noted.
- ~~8. The span, draw and clearance of bridges are shown. (Par. 16c.)~~  
No bridges.
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.) No control sheet over this area. ✓
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) None furnished. ✓
14. The geographic datum of the sheet is North American, 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: This is <sup>the only</sup> ~~an original~~ topographic survey of this area by this Bureau. Shoreline is covered in part by H-4905. (1923).

20. Examined and approved:

E. H. Kirsch  
Chief of Party

21. Remarks after review in office:

Reviewed in office by: Leonard A. Kulsam ✓ B. G. Jones

Examined and approved:

K. T. Adams  
Chief, Section of Field Records

L. O. Robert  
Chief, Division of Charts

B. L. Loden  
Chief, Section of Field Work

W. H. Wade  
Chief, Division of  
Hydrography and Topography.

Survey No. T-5170

Chart No. 681, 1239

Names approved Jan. 22, 1935. *Helmut M. Strong* Diagram No. 1239

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

~~✓~~, Not Approved by the Division of Geographic Names, Department of Interior.

R<sub>1</sub> Referred to the Division of Geographic Names, Department of Interior.

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