

5166

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	
Topographic <del>Hydrographic</del>	Field No. 14, Sheet No. Reg. No. 5166
State <u>South Carolina</u>	
LOCALITY	
<u>S. W. CHARLESTON HARBOR</u>	
<u>WADMALOW SOUND</u>	
1934	
CHIEF OF PARTY	
<u>E. H. Kirsch</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1934

5166

Applied to Chart 793 March 18, 1936 - H. E. M. E. E. E.  
" " " 1239 April 1937 - J. M. A.

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. 14

REGISTER NO. 5166

State South Carolina

General locality S.W. Charleston Harbor

Locality Wadmalow Sound

Scale 1:10,000 Photographs - November 9, 1933  
Date of ~~survey~~ 19

Compilation - March 9, 1934.  
Vessel Air Photo Compilation Party No. 21, Charleston, S. C.

Chief of party E. H. Kirsch

Surveyed by See data sheet in descriptive report.

Inked by E. J. Anderson

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

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

Instructions dated November 10, 1933., 19

Remarks: -----

PHOTOS NO.  
M74 - 807J-8 through M-83 - 807N-8

TIME  
11:35 A.M.

DATED  
November 9, 1933.

PROJECTION BY

L. C. Ripley  
L. C. Ripley

1-5-34

PROJECTION CHECKED BY

E. H. Kirsch  
E. H. Kirsch

1-5-34

CONTROL PLOTTED BY

T. P. Mitchell  
T. P. Mitchell

1-15-34

CONTROL CHECKED BY

M. R. Donaldson  
M. R. Donaldson

1-16-34

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson  
J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

F. H. McBeth  
F. H. McBeth

TOPOGRAPHY TRANSFERRED BY

F. H. McBeth  
F. H. McBeth

TOPOGRAPHY CHECKED BY

E. J. Anderson  
E. J. Anderson

SMOOTH RADIAL PLOT BY

L. C. Lande  
L. C. Lande

1-24-34

RADIAL PLOT CHECKED BY

E. H. Kirsch  
E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern  
J. H. Wulbern

12-27-33

DETAIL INKED BY

E. J. Anderson  
E. J. Anderson

3-9-34

AREA DETAIL INKED: 23 Square statute miles.

LENGTH OF SHORELINE: 30 Statute miles (more than 200 meters from opposite shore)

LENGTH OF STREAMS: 18 statute miles (Rivers and sloughs less than 200 meters wide)

LENGTH OF COASTLINE: None.

## GENERAL INFORMATION

### Statistics:

The total area covered by this sheet is 23 square statute miles. The length of shoreline of streams over 200 meters wide from shore to shore is 30 statute miles. The length of streams and sloughs less than 200 meters in width is 18 statute miles.

No coastal shoreline appears on this sheet.

### Report:

The area covered by this sheet consists of marsh, timber, and cultivated land which are indicated by the usual symbols. The general description of the related sheets of this series also applies to this sheet. The terrain of this sheet is of low coastal plane type with practically no relief. The field inspection report 1933-34 covering this series of sheets will be furnished by Lt. B. H. Rigg, Chief of Party, with sheet No. 1, Reg. No. 5153.

### Photographs:

The flight covering this sheet includes photographs M-74 - 807J-8 through M-83 - 807N-8 taken with a standard U. S. Army Air Corps Single Lens Camera at 11:35 A.M. on November 9, 1933, which time was 48 minutes before high tide on that date.

## CONTROL

### Sources:

Triangulation by G. D. Cowie and R. L. Shoppe, 1933. Aluminum topographic control sheet "L" Reg. No. T6059, "K" Reg. No. T6058, by Lt. B. H. Rigg, Chief of Party, 1933-34. All control has been reduced to North American 1927 datum.

### Errors:

All triangulation stations spotted on this sheet were checked against the aluminum topo sheets and no errors were found in plotting, all stations agreeing closer than 3 meters.

### Discrepancies:

Station N. CHIMNEY GERATY HOUSE was first plotted on this sheet but field inspection showed it to be torn down. Therefore the triangle has been removed from this sheet.

On photo 74, station 100 W. GABLE SHED TOOGOODOO RIVER was not recoverable and was not used for control.

On photo 77, 46 BEACON NO. 9, and 47B BEACON NO. 12

were not recoverable and were not used for control.

On photo 78, 44 BEACON NO. 8 was not recoverable and was not used for control.

On photo 79, 45 BEACON NO. 10, QUIGLEY WINDMILL, and 46 BEACON NO. 9 were not recoverable and were not used for control.

On photo 80, 44 BEACON NO. 8 and 38 LIGHT NO. 4 were not recoverable and were not used for control.

On photo 81, 38 LIGHT NO. 2 was not recoverable and was not used for control.

All other stations listed as control were used on all photos on which they appeared.

#### LIST OF CONTROL STATIONS

White Point	Martin
Togo	Whaley
Bluff	44 Beacon No. 8
100 W Gable Shed Toogoodoo R.	Deadman's
49 Beacon No. 13	Yonges Island Tank
48 Beacon No. 14	Davis
49 Beacon No. 1	Geraty
47 Beacon No. 12	42 Light No. 6
Quigley	39 Light No. 1
Quigley Windmill	38 Light No. 4
45 Beacon No. 10	New Cut
46 Beacon	37 Light No. 2
Fram	Smoak

Additional hydrographic stations located on photographs in the field by Lt. B. H. Riggs' party were radial plotted on this sheet along McLeod Creek. These are not recoverable and were COMPILATION not appear on printed compilation but remain on the celluloid as a matter of record.

#### Method:

The standard radial line method was used for compiling detail on this sheet as described in the U. S. C. & G. S. 1933 Notes on the Compilation of Planimetric Line Maps from 5-Lens Aerial Photographs.

#### Adjustment of Plot:

No difficulty was encountered in transferring detail to this sheet. Abundant control and an excellent radial plot made only slight adjustments necessary. Most of the pictures were nearly to scale and had little tilt.

\*. This junction has been changed <sup>slightly</sup> on T-5166 to agree  
precisely with the detail as shown on T-5187.

Lam  
Bgg

### Interpretation:

The graphic symbols used on this sheet are taken from the topographic manual.

Taken near high tide, the photos make the limits of some small marshy areas indistinct and in these cases no boundary line has been shown, allowing the ends of the marsh lines to indicate boundaries. Areas of mud covered at high water lying within marshy areas have been indicated in the same manner.

Docks appearing on the aluminum topo sheets and this sheet agreed perfectly but slight discrepancies in high water line occurred. In all cases the compiler has endeavored to follow the outside of the grass line as protruding above high water.

A strip of marshy shoreline has been omitted in the extreme south corner of this sheet. Photos from two adjoining flights do not overlap sufficiently to allow an accurate radial plot being made. The patch of marsh shown should not be considered as being more than approximately correctly shown. Field sheet No. 3 Reg. No. 5155 shows this strip of marsh correctly. *This has been redrawn in the office to agree with T6155 - Lat. 32° 37.8' Long. 86° 15' 46"*

Not all minor trails and buildings have been shown.

### Information from other sources:

Field inspection by Lt. B. H. Rigg, 1933.

Aluminum control sheet "L" Reg. No. T6059, "K" Reg. No. T6058, By Lt. B. H. Rigg, Chief of Party, 1933-34.

### Conflicting Names:

There are no conflicting names on this sheet. *Martin Pt. has been changed to Martins Point after conferring with Mr. Bacon.*  
COMPARISON WITH OTHER SURVEYS *No other new names are shown.*

*B.G. J.*

### Junctions:

Satisfactory junctions have been made with the following sheets:

Sheet No. 13, Reg. No. 5165 on the Northeast.  
                   15,                   5167                   Southwest. \* *See opp. page.*  
 Sheet No. 2, & 3, Reg. Nos. 5154 & 5155 on the Southeast.  
                   6, & 7,                   5158 & 5159 on the Northwest.

### Discrepancies:

A short railroad spur shown on chart 1239 near Clement was not recoverable on the pictures and has not been shown on this sheet.



Since this sheet was compiled a severe storm has destroyed a number of docks. The dock at Bluff Point, the dock at Monges Island just North of Beacon No. 8, the dock near triangulation station Geraty are down and have been removed from this sheet.

Landmarks:

A complete list of landmarks for charts and marked topographic stations has been submitted with aluminum control sheets "L" Reg. No. ~~16059~~ 59, and "K" Reg. No. ~~16058~~ 58, by Lt. B. H. Rigg, Chief of Party, 1933-34.

RECOMMENDATIONS FOR FURTHER SURVEYS:

The compilation of this sheet is believed to be accurate, thorough, and complete, and no further surveying is recommended.

All compilation of detail on 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 6 meters for detail of lesser importance.

Assisted by:

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

Submitted by:

*E. J. Anderson*  
E. J. Anderson.

## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T-5166

Title (Par. 56) S.W. Charleston Harbor

Chief of Party E. H. Kirsch

Compiled by E. J. Anderson

Project HT-162

Instructions dated November 10, 1933

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. (T-6058; T-6059) *Plotted by Benson in office. Same.*
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.
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 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. Mulsam*  
*B. G. Jones*

Examined and approved: *E. H. Green*  
Chief, Section of Field Records  
*L. O. Solbut*  
Chief, Division of Charts

*T. S. Borden*  
Chief, Section of Field Work  
*G. Wade*  
Chief, Division of  
Hydrography and Topography.

## REVIEW OF AIR PHOTO COMPILATION T.(5166)(1934)

Under article headed Interpretation P.3, Descriptive Report-

All marsh areas along the main channel were further examined. Wherever possible all lines which had been left open around marsh islands were closed, after an office inspection of the photographs. On these islands and localities where the marsh lines are shown without the H.W. line it is impossible to determine a definite line.

The shoreline just east of Station West Gable Shed, Toogoodoo River Lat.  $32^{\circ}39.7'$  Long.  $80^{\circ}17'$  has been revised slightly after careful examination of the photographs.

### Topographic Stations.

A number of temporary stations located for control by hydrographic surveys are shown on the celluloid sheet in black circles without names. These will remain on the celluloid copy for record but will not appear on the printed copies of the compilation.

Descriptions on Form 524 of recoverable topographic stations shown on this compilation are filed as follows:-

Filed under T-6058	U.S.E. 32 (d)
(Air Photo Control Sheet)	U.S.E. 33 (d)
	U.S.E. 34 (d)

Filed under T-6059	No. (d)
(Air Photo Control Sheet)	Call (d)
	Dime (d)
	Spur (d)

### Comparison with other Surveys

In addition to the surveys mentioned above, comparison was also made with T-679 (1857) and H-1639 (1885). There has been considerable change. These older surveys show a continuous line around all marshland and marsh islands. However this land is not definite in character and the high water line is not shown on this compilation

REVIEW OF AIR PHOTO COMPILATION T.(5166) (1934)

-2-

in some places, as mentioned on Page 3 of the Descriptive Report. This survey (T-5166) is complete and detailed sufficiently to supersede the older topographic surveys of this area.

*Leonard A. McGann*  
Leonard A. McGann.

*✓ B. G. Jones.*

Diagram No. 1239-2

Under investigation. Q

(M-136)

List showing the discrepancies between the gradatio and the Engineers  
Corp's Plain Co-ordinate Position.

Sheet No 14; Reg. No 5166

Origin  $\Delta^1$  32-46-1476.6 (371.7)  
80-06 871.9 (689.8)

Stations	Geographic Positions		Engineers Co-ordinates	G.P. from Origin $\Delta^1$		Correct to	Corrected to		
	Meters		Lat.	Dep.	Through Engineers Co-ordinates	Engineers Co-ordinates	Engineers Co-ordinates		
					Lat	Long	According to		
							Sign		
							Datum		
U.S.E.D.	32	41	1811.2(371.1)	29243.218	28837.02 <sup>N</sup>	1801.0	2844	+ 10.1	89234 <sup>S</sup>
XXXII (Topo A.C.S.)	80	12	264.9(298.4)	8913.3	8789.5			- 20.0	8769.5 <sup>W</sup>
U.S.E.D.	32	41	1095.1(253.2)	31,345.77 <sup>S</sup>	31,659.41	1157.3	1144.7	- 37.8	9516.4 <sup>S</sup>
XXXIV (Topo A.C.S.)	80	12	1123.2(439.0)	9554.2	9649.8			- 21.5	9628.3 <sup>W</sup>
U.S.E.D.	32	38	105.4(1742.8)	52995.16 <sup>S</sup>	51,841.96 <sup>W</sup>	97.0	1033.3	+ 8.4	16161.3 <sup>S</sup>
XXXIX $\Delta$ Cowie, 1927 unadjusted field reduced to N.A. 1927	80	16	1043.7(520.3)	16152.9	15801.4			+ 10.4	15811.8 <sup>W</sup>
U.S.E.D.	32	42	1257.3(691.0)	29325.85 <sup>S</sup>	31,329.98 <sup>N</sup>	Note: These Co-ordinates were furnished			
XXXIII (Topo A.C.S.)	80	11	1550.0(12.6)	8938.5m	9549.4m	by the Engineers, but they are incorrect.			