

5184

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Air
Photo

Topographic
~~Hydrographic~~

Field 32

Sheet No. Reg. 5184

5184

State SOUTH CAROLINA

LOCALITY

CHARLESTON HARBOR AND VICINITY

FOLLY ISLAND AND VICINITY

1934

CHIEF OF PARTY

E. H. KIRSCH

U. S. GOVERNMENT PRINTING OFFICE: 1934

5184

Applied to Chart 792 October 9 1936. H. MacSwain.
" " " 1239 Apr. 1937. J. M. A.

SHEET NO. 32
REG. NO. 5184

PHOTOS NO. DATE TIME
M-135 - 823B-8 to M-140 - 823B-8, December 21, 1933 12:55 PM - 1h 21m after high of 5.3
M-64 - 823B-8 to M-67 - 823B-8, November 17, 1933 11:15 AM - 2h 9m before a low of -0.3

PROJECTION BY

L. C. Ripley
L. C. Ripley

2-14-34

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

2-14-34

CONTROL PLOTTED BY

M. L. Smith
M. L. SMITH

2-16-34

CONTROL CHECKED BY

E. S. Ethridge
E. S. Ethridge

2-17-34

CONTROL PLOTTED ON PHOTOS BY

F. H. McBeth
F. H. McBeth

CONTROL CHECKED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

TOPOGRAPHY TRANSFERRED BY

H. W. Langley
H. W. Langley

3-22-34

TOPOGRAPHY CHECKED BY

E. H. Kirsch
E. H. Kirsch

SMOOTH RADIAL LINE PLOT BY

E. S. Ethridge
E. S. Ethridge

3-13-34

RADIAL PLOT CHECKED BY

J. H. Wulbern
J. H. Wulbern

3-13-34

SCALE PLOT BY

J. H. Wulbern
J. H. Wulbern

DETAIL INKED BY

H. W. Langley
H. W. Langley

3-13-34 to 4-2-34

AREA COVERED BY SHEET: 11.2 Square Statute Miles.

LENGTH OF SHORELINE: (More than 200 meters from nearest opposite shore) 4.7 St. Mi.

LENGTH OF STREAMS: (Rivers and sloughs less than 200m wide) 32.4 St. Mi.

LENGTH OF COASTLINE: 4.3 Statute Miles.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5184

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. 32

REGISTER NO. 5184

5184

State South Carolina

General locality Charleston harbor - in Atlas sheet layout of Charleston and vicinity.

Locality Folly Island and Vicinity

Scale 1:10,000 Date of survey - November 17, 1933
Compilation - 3-13-34 to 4-2-34

Vessel Air Photo Compilation Party No. 21, Charleston, S. C.

Chief of party E. H. Kirsch

Surveyed by See data sheet in the descriptive report.

Inked by H. W. Langley

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

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

Instructions dated November 10, 1933, 19

Remarks: Radial points on this sheet were transferred from overlay sheet "G" radial plotted by E. S. Ethridge - 3-13-34; and sheet "H" - radial plotted by J. H. Wulbern - 3-16-34.

GENERAL INFORMATION

No general report covering this sheet is available. The only aids used in the compilation of this sheet were secured from the field inspection reports, and additional information furnished by Lt. B. H. Rigg in questionable areas.

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 as follows: M-135 - 823B-8 to M-140 - 823B-8 and M-64 - 823B-8 to M-67 - 823B-8.

CONTROL

Sources:

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

- (a) Triangulation by G. D. Cowie & R. L. Shoppe 1933, M. O. Witherbee 1933 and 1934.
- (b) 1934 Topographic Sheet (0) on Whatman paper by Lt. M. O. Witherbee's Party. (7-4856)
- (c) Computed - Theodolite three point fix by Lt. E. H. Kirsch in 1934.

The geographic positions of the field party were used; these were on the North American 1927 datum.

(Computed three)	<u>Folly Dock:</u>	79° 55' 19.068" 496.85 (1066.58)
(point fix))	32° 40' 03.354" 103.31 (1744.89)

This has been shown on the topographic celluloid sheet by a double blue circle together with the name Dock in black.

Errors:

The following error was found on topographic sheet (0):

	New Position	Old Position
Folly Dock	79° 55' 496.8 (1066.6)	79° 55' 486.8 (1076.6)
	32° 40' 103.3 (1744.9)	32° 40' 104.9 (1743.3)

The new position is the N.W. corner of the dock and located with a three point fix with a theodolite and its geographic position computed. The old position is on the N.E. corner of the dock and was located by topography on Whatman sheet 0. It is five meters from the N.W. corner of the dock to the N.E. corner of the dock, which leaves an error of about 5 meters in the topographic position of the

N.E. corner of the dock.

Discrepancies:

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

COMPILATION

Method:

The usual radial line method of plotting as described in the U.S.C. & G.S. "Notes on the Compilation of Planimetric Line Maps from 5 lens Aerial Photographs" 1933 - edition.

Adjustment of Plot:

No unusual adjustment was required in the radial plot. The photographs were free of excessive tilt and scale fluctuation.

Remarks on Adjustment:

In the making of the smooth radial plot, it was noticed that "KAROW" could not be accurately spotted on the photos and would not line up with "WINDMILL FOLLY BRIDGE"; hence KAROW was disregarded in making the plot, and a corner of a dock was used instead. This dock is approximately 165 meters S.W. of KAROW -

79° 57' 514.6 (1048.8)

32° 39' 657.5 (1190.75)

was located by planetable from KAROW. The radial point used in the N.E. corner of the dock. This dock does not come within the limits of this sheet but appears on sheet No. 33, Reg. No. 5185. ~~7-2-7-3~~

Interpretation:

The graphic symbols as approved by the Board of Surveys and Maps (1932) were the only symbols used. No difficulty was experienced in the interpretation of the photographic detail.

The sand-dunes as shown on the coastline were clearly evident on the photographs, but the exact boundaries could not be clearly seen; Hence, it will be noticed that the dune area has been shown as scattered dunes, the exact size and shape not shown.

The photos covering the Eastern half of the sheet were taken 2 hours 9 minutes before a low of - 0.3; hence, the low water line in the streams and sloughs could clearly be seen; yet, there may be a departure from actual conditions.

The sanded area between the low and high water lines of the streams and sloughs represents a sandy mud.

The open area extending 600 meters west of Station

Names No report of B.H. Rigg listing these names has been received in this office. However, the names listed on the opposite page have been accepted pending Mr. Benson's decision as they are probably in local use. In addition to the names listed on the opposite page one other new name, Rat Island, is shown on this compilation. The source of this name has not been reported.

B.G. Jones

CREEK is left blank due to the fact that it is impossible to interpret from the high water photos any streams that may and probably do run through this area at a low tide. Lat 32°42' Long 79°56.2'

The irregular high water line West of the pavilion is caused by a series of bulkheads, which, according to Whatman topographic sheet "O" Reg. No. 7-4856, are all good. Lat. 32°39.3' Long. 79°56.5'

The structure just East of "Folly Dock" is a runway for taking boats out of the water. Lat. 32°-39.2', Long. 79°56.5'

Trouble was experienced in seeing the houses on Folly Beach due to the thickly wooded areas. All the houses that were clearly seen were drawn.

In putting in the low water line along the beach, the low waterline as shown on Photo No. M-66 - 823B-8, which was taken 2 hours 9 minutes before a low of -0.3, was drawn in as far as the limit of the photo, which includes approximately the Eastern half of the sheet. the remainder of the coast low water line was taken from photo No. M-137 - 823B-8, which was taken 1 hour 21 minutes after a high of 5.3. Since the low water line was invisible, it was approximated. The conclusion was that, by comparison with M-66 - 823B-8, the low water line was approximately along the outside breaker line; ie, where the breakers start forming, which can be seen from the photos.

The beach high water line could not be seen on the photos, hence it was taken from topo sheet "O" Reg. No. 74856.

Information from other Sources:

The beach high water line and the dune line were run in by the topographic party on the Whatman Topographic sheet by Lt. M. O. Witherbee's party 1934.

Conflicting Names:

There are no names on the sheet conflicting with names shown on the U.S.C. & G. S. Charts of this area.

The following names have been submitted by Lieut. B. H. Rigg and are fully described in his report:

Periauger Creek	The Sister Creek	Secessionville Creek
Block Island Creek	Rat Island Creek	Sol Island
Goat Island	Oak Island Creek	Rat Island ?

COMPARISON WITH OTHER SURVEYS

Satisfactory junctions were made with sheet No. 5185 on the West, Sheet 5183 on the East, and with Sheet No. 5181 on the North.

The high water and dune line on the topographic sheet agrees with that on the photos.

The bridges and main roads leading to Folly Beach as shown on the topographic sheet agrees with the air photo topographic sheet.

The boat basin as shown at "Windmill Folly Bridge" on this sheet does not agree in shape with that on the Whatman Sheet. It is clearly seen from the photos that the inside of the basin is rounded. Hence it is felt that the whatman sheet is in error.

The H.W. line just South of "Secession" agrees with both sheets.

The stream lines as shown on the whatman sheet do not agree with this air photo topo sheet. It appears as if these shore lines were roughly sketched in and are in error on the Whatman sheet from 5 to 15 meters.

The location of the pavilion at Folly Beach on the Whatman sheet does not agree with that on the Air Photo topo sheet.

A radial point was plotted on the N.W. corner of the pavilion. The positions is as follows;

Position from Air Photo Sheet	-	Position From Topographic Sheet "0"
79° 56' 567.5 (996.5)		79° 56' 577 (986.5)
32° 39' 502 (1346)		32° 39' 501 (1347)

This radial point was located by only two cuts which intersected at an angle of 34°. Only two cuts could be taken; however, the pictures were well fixed, and it is felt that the air photo position is reliable. The photo plot position is accepted. The pavilion is rather considerably drawn on T4856 and the difference is not large.

Landmarks:

B. G. Jones

The landmarks for charts and marked topographic stations included in this area have been submitted with Whatman Topographic Sheet "0" Lt. M. O. Witherbee, 1934.

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of 3 meters in well defined detail of importance for charting and of 6 meters for other data.

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.

Remarks:

The bridge near triangulation station SIDE is a wooden

type with a span of 30 feet and a vertical clearance of 14'-0" at mean high water.

Folly bridge at triangulation station WINDMILL FOLLY BRIDGE is a wooden fixed type with a span of 30 feet and a vertical clearance of 14' 6" at mean high water.

The small bridge between the above two is of unimportance for navigation.

Assisted by:

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

Submitted by:

H. W. Langley
H. W. Langley

Title (Par. 56) Folly Island and Vicinity

Chief of Party E. H. Kirsch

Compiled by H. W. Langley

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.) ✓
*For Secessionville Creek Bridge U.S. Engineers give clearance at HW = 15 ft.
For Folly River Bridge U.S. Engineers give clearance at HW = 15 ft. Larm.*
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. Sheets
Plotted by Benson
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. 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.) ✓
Name list submitted for approval. Lam.
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:

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. McGinnis
B.G. Jones

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L.O. Colburn
Chief, Division of Charts

J.S. Borden
Chief, Section of Field Work

G. Hude
Chief, Division of
Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION T-5184 (1934)

Topographic Stations: Descriptions of recoverable Topographic Stations Shown on this compilation, filed under T-4856 (plane table), are as follows:

Tank, Flat top, wood (d)

Pavillion, Seaward Hip of roof (d)

Comparison with Other Surveys: A comparison was made with the following surveys: H-5468 (1934) shows soundings in the mud flats north of Folly River and in Perianger Creek between longitude 79°56' and 79°57'. These places have been changed to agree with the low water line as shown on the hydrographic sheet (H-5468).

T-964 (1864). This survey shows considerable change and erosion of Folly Island.

T-1604 (a) (1876). This survey is incomplete and covers only a small portion. Full comparison cannot be made.

T-2488 (1900) shows coastline only. Covers only a portion of Folly Island Coast.

T-3843. (1921) 1:20,000 scale. This is the most recent survey of this area covering Folly Island. The only noticeable changes may be seen in bulkheads and building developments on Folly Island Beach.

This compilation is detailed and complete so that it may supersede the older topographic surveys of this area.

L. W. McGann
L. W. McGann.

B. G. Jones

Applied to compilation of chart #491. May 3, 1935 J.H.S.

Date. Nov 12, 1934GEOGRAPHIC NAMES
S.C.Survey No. T5184Chart No. 1289

Names approved Jan. 22, 1935.

Diagram No. 1239

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

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

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Periauger Creek	* change to <u>Long Island Creek</u>		Periauger	
	Black Island Creek *	OK 6/3/39 see GNS 792	Black Island Creek	T-964, 1864 T-1604a, 1876	
	Goat Island			<u>Goat Island</u>	
	Rat Island			<u>Rat Island</u>	
	Rat Island Creek			<u>Rat Island Creek</u>	
	The Sister Creek	Sister Creek recommended as more usable changed to <u>Periauger Creek</u> *			deleted
	Oak Island Creek			<u>Oak Island Creek</u>	
	Secessionville Creek	change location*		<u>Secessionville Creek</u>	
	Sat Island				
None of these names appear on U.S. Engrs. Progressive Military Map, and only one as indicated on any survey sheet.					
* None of these names appear on either the G.S. quadrangles or the Charts.					
Continued on P. 2.					

Survey No. T-5184

Chart No. 1239

Diagram No. 1239

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

[illegible]