

5181

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

5 1934

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: South Carolina

DESCRIPTIVE REPORT

Air
Photo

Topographic
Hydrographic

Sheet No.

Field No. 29

Reg. No. 5181

LOCALITY

CHARLESTON HARBOR AND VICINITY

JAMES ISLAND

1934

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1921

5181

E.H.K.

Applied to Chart 792 October 9, 1936. H. E. Mac Ewen.

" " 470 Dec. 1936 J. M. A. (Shoreline previously applied)

" " 1239 Apr. 1937 J. M. A.

PHOTOS NO.
M-60 - 823A-8 to M-64 - 823B-8
M139 - 823B-8 to M145 - 823A-8

DATE
November 17, 1933
December 21, 1933

TIME
11:10 A.M.
1:00 P.M.

PROJECTION BY

L. C. Ripley
L. C. Ripley

2-13-34

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

2-13-34

TRIANGULATION PLOTTED BY

M. L. Smith
M. L. Smith

2-14-34

TRIANGULATION CHECKED BY

E. H. Kirsch
E. H. Kirsch

TRIANGULATION PLOTTED ON PHOTOS BY

F. H. McBeth
F. H. McBeth

TRIANGULATION CHECKED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

SCALE PLOT BY

J. H. Wulbern
J. H. Wulbern

RADIAL PLOT BY

M. D. Crook
M. D. Crook

L. C. Lande
L. C. Lande

E. S. Ethridge
E. S. Ethridge

J. H. Wulbern
J. H. Wulbern

DETAIL INKED BY

R. G. Hickson
R. G. Hickson

4-23-34

AREA OF DETAIL INKED: 11 Square Statute Miles. (Land Area)

AREA OF DETAIL INKED: 1 square statute mile (Shoals in water).

LENGTH OF SHORELINE: 12 statute miles (More than 200 meters from opposite shore)

LENGTH OF COASTLINE: None

LENGTH OF STREAMS: 41 statute miles (Rivers and sloughs less than 200 meters wide)

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. 29

REGISTER NO. 5181

State South Carolina

General locality Charleston Harbor and Vicinity

Locality James Island

Scale 1:10,000 Photographs - November 17, 1933
Date of ~~release~~ December 21, 1938
Compilation - April 23, 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 R. G. Hickson

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval 0 - -feet

Instructions dated November 10, 1933, 19

Remarks: _____

ПРЕ

GENERAL INFORMATION

Statistics:

The land area covered by this sheet is 11 square statute miles. There are 12 statute miles of shore line as measured along rivers, the width of which is over 200 meters as measured from the nearest opposite shore. This includes the shoreline of that part of the Charleston harbor which is covered by this sheet. There are 41 statute miles of streams which are less than 200 meters in width as measured from the nearest opposite shore.

General Report:

This sheet is one of sixteen Atlas sheets covering Charleston, S. C., harbor and vicinity. A general field inspection report was made of this entire area by Lt. B. H. Rigg, Chief of Party 1933 - 1934. The high ground area covered by this sheet is mostly cultivated fields with a few small wooded areas.

For Lt Rigg's Report see Descriptive Report T-5153.

Photo Numbers:

The following photos taken by the U. S. Army Air Corps' single lens camera were used in inking the detail of this sheet.

No. M-69 - 823A-8 through M-64 - 823B-8, these photos were taken along Long. $79^{\circ} 54'$ between Lat. $32^{\circ} 42'$ and Lat. $32^{\circ} 46'$ on November 17, 1933 at 11:10 A.M. On this date there was a high tide of 6.4 at 7:10 A.M. and a low tide of -.3 at 1:39 P.M.

Also photos No. M-139 - 823B-8 through No. M-145 - 823A-8 taken along Long. $79^{\circ} 56'$ and between Lat. $32^{\circ} 42'$ and $32^{\circ} 46'$ on December 21, 1933 at 1:00 P.M. On this date there was a high tide of 5.3 at 11:19 A.M. and a low tide of -.5 at 5:37 P.M.

CONTROL

Sources:

Triangulation by G. D. Cowie and R. L. Shoppe, 1933; L. P. Raynor, 1924; Lt. M. O. Witherbee, 1933 - 34. Station Tank, James Island was located by R. F. A. Studds, 1928. Aluminum control sheet "B" Reg. No. T-6067, and Whatman topographic sheet "O" Reg. No. T-4856, both by M. O. Witherbee, Chief of Party. 1934.

The control has been reduced to 1927 N. A. datum. (*field computations*)

Errors:

No errors were found in the control by the photo plot.

Names The names mentioned in the
opposite fly leaf are the only new names
known. No mention of these names is
contained in the Gold Inspection report
of Riggs, but they were probably obtained
by one of the Gold Party parties from
local observation and it is recommended
that they be accepted.

B. G. Jones.

COMPILATION

Method:

Due to the small area covered by this Atlas sheet the plot was made by the radial line method on overlay sheets covering a much greater area and then transferred to the smaller sheet. The radial plot for this Atlas sheet was taken from overlay sheets "E", "F", "G", and "H", as it covers the area where these four sheets join.

Adjustments of plot:

Some difficulty was experienced in making a satisfactory junction between the four overlay sheets "E", "F", "G", and "H" where their radial plots coincided on this Atlas sheet. Therefore, after transferring the points, the photos were run under this sheet and the necessary adjustments made. All photos were free of excessive tilt and fluctuation in scale.

Interpretation:

The usual graphic symbols were used on this sheet. Photos No. M-60 - 823A-8 to M-64 - 823B-8 covering the eastern half of the sheet were taken about two hours and a half before a low tide of -.3 and the low water line was definite in most cases. Photos No. M-139 - 823B-8 to M-145 - 823A-8 covering the western half of the sheet, were taken about an hour and forty minutes after a hightide of 5.3 and as the low water line was not visible no attempt to show it on the sheet was made. The dotted symbol between the high and low water lines indicates sandy mud. The low water line of the harbor between station Quarantine Water Tank and station Mill was not visible on the photos and, though there is a fairly broad sand beach at low water, no attempt was made to show it.

Double broken lines indicate dirt roads in fair condition and single broken lines indicate trails or roads in poor condition.

Information from other Sources:

Information was obtained from field inspection by the compiler and from Lt. B. H. Riggs' field inspection party. No. 1 beacon, No. 3 beacon, and another beacon in the part of the harbor covered by this sheet were located from aluminum control sheet "B" Reg. No. T-6069.

The following names were obtained by Lieut. B. H. Riggs' field party and are fully described in his report: Seaside Creek, Heron Island, and Ft. Johnson Creek. *(No mention of these names in Lt Riggs' Report filed under Desc. Report T-5153.) L.A.M.*

On chart 1239 Kushiwa Creek is spelled Kusniwa Creek which is incorrect. Chart No. 470 is taken as correct. *For spelling of this name.*

Junction:

Junctions with the following sheets were satisfactory:
Sheet No. 26, Reg. No. 5178 on the North

* This beacon has been replaced in the position as shown on the compilation. See Chart Letter 468 (June 1934).

Bqj

Sheet No. 28, Reg. No. 5180 on the East.
 Sheet No. 32, Reg. No. 5184 on the South
 Sheet No. 30, Reg. No. 5182 on the West.

Discrepancies with Previous Surveys:

* Previous surveys show a No. 5, Beacon approximately 400 meters West of No. 3 Beacon but there is no beacon there now. ✓

The shore line around station Morris that is inked in on Whatman topographic sheet "O" Reg. No. T-4856, does not coincide with the shore line on this sheet. As the photos of this area are distinct and the radial plot of this sheet are good it is believed that the topographic sheet is in error. *This agreement is fair, what might be expected in a low marshy area. L.M. ✓ B.G.J.*

The row of piling shown on chart 470 just West of the mouth of Kushiwa Creek could not be identified on the photos and it was assumed that the piling were gone. This has been verified from field inspection by Lieut. B. H. Rigg. ✓

Since this sheet was compiled the small dock at Quarantine Station has been removed and taken off this sheet.
has been

The shore line shown on Topo Sheet "B" Reg. No. T-6069, crossing Long. 79° 55' above Lat. 32° 45' does not agree too well with that compiled from the photos, but the high water line as shown on this sheet is thought to be more nearly correct due to the difficulty of tracing such an irregular line by ^{plane-table} ~~topo~~ work. (See Review.)

Landmarks:

A list of landmarks and marked topographic stations has been submitted with Aluminum Control Sheet "B" Reg. No. T-6069, and Whatman Topographic Sheet "O" Reg. No. T-4856, M. O. Witherbee, Chief of Party.

Recommendation for Further Surveys:

The compilation of this sheet is believed to have a probable error of not more than 3 meters in position of well defined detail of importance for charting and of not more than 6 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:

R. G. Hickson
 R. G. Hickson.

The value of 3 to 6 meters seems a little high for work on this creek. A better estimate is an accuracy of location of 3 to 5 meters for interested points and 3 to 5 meters for other detail.

B.G. Jones.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T-5181.

Title (Par. 56) S. C. Charleston Harbor, James Island

Chief of Party E. H. Kirsch

Compiled by R. G. Hickson

Project F.P.-13-S.C. 1933 - 35

Air Photo Compilation Party No. 21. 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.)~~
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.) Submitted with control sheets.
 T-6069 } Plotted one in office
 T-4856 }
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) Submitted with control sheets
14. The geographic datum of the sheet is N.A. 1927 and the reference station is correctly noted. (Par. 34.) as being unadjusted. ✓
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 pages.

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. Williams ✓ *B. G. Jones*

Examined and approved:

K. T. Adams
 Asst Chief, Section of Field Records
 Division of Charts
L. O. Solbert
 Chief, Division of Charts

F. S. Borden
 Chief, Section of Field Work
Thurde
 Chief, Division of
 Hydrography and Topography.

REVIEW OF AIR PHOTO COMPILATION NO. T-5181 (1934)

Interpretation:

The broken line as shown marking Channels on the tidal flats are only approximate. These lines were traced from the photographs showing the tide about half up.

Comparison with other Surveys:

(1.) Air Photo Control Sheet No. T-6069 (1933), shows a section of H.W. line together with the approximate edge of marsh growth at Station WELT U.S.E., (1933). lat. $32^{\circ}45'$ ling. $79^{\circ}55'$ (approx). This irregular marsh area extends from Fort Johnson Quarantine Station to James Island Creek and was further examined on the photographs in the Washington office. The high water line as shown on T-6069 is the line along the inner edge of marsh where the marsh meets the small sandy bluff, ~~which is shown here~~. The high water line on the compilation is the outer edge of the marsh as is believed to be the correct representation of this area. No interpretation of this shore line has been given on the field photographs. (See Descriptive Report under "Descerepancies ")

2. Air Photo Control Sheet No. T-4856 (1934). See page 3 Descriptive Report under "Descerepancies" for a discussion.

3. Topographic Survey No. T-3854 (1921). The breakwater as shown on this survey at the mouth of Kushiwa Creek lat. $32^{\circ}45'.1$; long. $79^{\circ}55'.5$ has been changed and built up. The interpretation of the compilation is satisfactory here. The H.W. line between Fort Johnson Quarantine Station and Kushiwa Creek is very regular and holds to the sand line at the inside edge of the marsh, whereas the outer edge of the marsh is taken as H.W. line on the compilation. This compilation is complete and satisfactorily detailed to supersede the older topographic survey T-3854 of this area

REVIEW OF AIR PHOTO COMPILATION NO. T-5181 (1934)

Errors

The grid system as shown has been corrected in this office.
The compilers position was approximately 220 meters to the East in same latitude.

Topographic Stations.

The list of topographic stations given below are described on Form 524;

Descriptions filed under T-4856 --- WINDMILL (d)
Air Photo Control --- SILO (d)
--- OUT (d)

Descriptions filed under T-6069 --- WIM (d)
Air Photo Control James I. Creek Beacon NO. 1 (d)
" " " " " 3 (d)
" " " " " 5 (d)
Spindle, Ripley " (d)

Lam.
B. G. Jones

Applied to compilation of chart 491

June 7, 1935
J.H.S.

GEOGRAPHIC NAMES

Survey No. T-5181

Date. April 22, 1935

Chart No. _____

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>DILL CREEK</u>	same (chart 470)			
	<u>PLUM ISLAND</u>	" "			
	<u>JAMES ISLAND CREEK</u>	" "			
	<u>MILL CREEK</u>	" "			
	<u>JAMES ISLAND</u> ✓	" "			
	<u>OCEAN VIEW</u> ✓	<u>Ocean view</u>			
	<u>THREE TREES</u>	same (chart 470)			
	<u>PARROT POINT</u> ✓	" "			
	<u>LIGHTHOUSE CREEK</u>	same (chart 1239)	change to	<u>Schooner Creek</u> *	
	<u>SEASIDE</u> ✓	" "			
	<u>SEASIDE CREEK</u> ✓				
	<u>SECESSIONVILLE</u> ✓	same (chart 1239)			
	<u>HERON ISLAND</u>				
	<u>FORT JOHNSON CREEK</u> ✓				
	<u>MORRIS ISLAND</u> ✓	same (chart 1239)			
	<u>Kushiwah Creek</u>	same (chart 470)			
	<u>Fort Johnson</u>	" " "			
				<u>Lighthouse Creek</u> *	
				<u>Seccessionville Creek</u> *	
				<u>Niggerhead Creek</u> *	
		names approved 9/10/35			
		K.T. Adams			
	* Names reported by District Engineer.				