

5378

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 19 1935

Acc. No.

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

DEC 9 1935

Acc. No.

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

DESCRIPTIVE REPORT

Field 59

Air
Photo

Topographic
~~Hydrographic~~

Sheet No. 5378

State South Carolina

LOCALITY

VICINITY OF GEORGETOWN
GEORGETOWN & VICINITY

WINYAH BAY

193 4-5

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

00
7
3
10

Applied to chart 836 February 5, 1936 Wallace A. Bruden
applied to new chart 787 May 4, 1937 J. S. L.

PHOTOS NO
142 - 144
327 - 339
455 - 465
496 - 498
714 - 723
739 - 748

DATE
August 4, 1934
August 5, 1934
August 5, 1934
August 12, 1934
August 25, 1934
August 26, 1934

TIME
7:45 A.M.
8:05 A.M.
10:05 A.M.
7:50 A.M.
5:00 P.M.
2:35 P.M.

PROJECTION BY $\frac{10,000}{10,526}$

L. C. Ripley 10-27-34
L. C. Ripley

PROJECTION CHECKED BY

E. H. Kirsch 10-27-34
E. H. Kirsch

CONTROL PLOTTED BY

M. L. Smith 10-31-34
M. L. Smith

CONTROL CHECKED BY

E. S. Ethridge 11-2-34
E. S. Ethridge

CONTROL PLOTTED ON PHOTOS BY

E. J. Anderson
E. J. Anderson

CONTROL CHECKED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

SMOOTH RADIAL PLOT BY

E. J. Anderson 11-24-34
E. J. Anderson

RADIAL PLOT CHECKED BY

Discharged
M. R. Donaldson

SCALE PLOT BY

T. P. Mitchell
T. P. Mitchell

TOPOGRAPHY TRANSFERRED BY

P. W. Hund 3-13-35
P. W. Hund

TOPOGRAPHY CHECKED BY

Discharged 3-15-35
M. R. Donaldson

DETAIL INKED BY

Discharged 1-23-35
M. R. Donaldson

AREA OF DETAIL INKED: 15.1 Square Statute miles

LENGTH OF COASTLINE: None

LENGTH OF SHORELINE: 27.25 Statute miles (more than 200m wide)

LENGTH OF STREAMS: 12.36 Statute miles (less than 200m 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. 59

REGISTER NO. 5378

State South Carolina

General locality *Vicinity of Georgetown.*
~~Georgetown and Vicinity~~

Locality Winyah Bay

Scale *1:10,000* Photographs *8-4-34; 8-5-34; 8-12-34;*
~~1:10,526~~ *8-25-34; 8-26-34*

Date of survey , 19
Compilation-1-23-35

Vessel Air Photo Compilation party No. 21.

Chief of party E. H. Kirsch

Surveyed by *See data sheet in descriptive report*

Inked by M. R. Donaldson

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

Contour, Approximate contour, Form line interval *feet*

Instructions dated November 10, 1933, 19

Remarks: None.

GENERAL DESCRIPTION OF TOPOGRAPHY

Winyah Bay is the next harbor of importance, North of Charleston, on the South Carolina Coast.

The area covered by this sheet was among the earliest portions of the coast to be settled after the colony was established at Charleston in 1670.

The major land portion of this sheet from Frazier's Point east and north was originally one of the first grants of land made by the Lords Proprietors of Carolina, being taken by Sir George Carteret, himself one of the Proprietors, and was called "HOBCEW BARONY"; embracing more than 12,000 acres. The word Hobcaw is probably the Indian name for this peninsular.

The compiler has a slight familiarity with this area as it was formerly the property of his grandfather.

A description of this area will be typical of the other portions of the sheet and also of adjoining sheets.

The land, as all along this coast, is uniformly low and flat, and as Winyah Bay is predominately a fresh water area due to the numerous rivers emptying into it the land is bordered by great swampy areas covered by fresh water marsh, or Bullrush, grass.

These areas, many marked "abandoned rice fields" are reverting to their primitive condition which formerly consisted, in many cases, of cypress swamps.

These swamps were used for rice planting for over a century, being made possible by building on the river side, dikes or levees, thus shutting out the tides, after which many canals were made having dikes on each side. The trees were all removed and fields formed, having numerous ditches. The canals were flooded or drained through floodgates connecting them with the river; the fields likewise, through floodgates connecting them with the canals; the rise or fall of the river by tidal influence being the motive power. This tidal method of irrigation was developed in this area. The earlier method of rice planting was the use of inland swamps only, fed by ponds or "Reserves."

These old dikes are gradually disintegrating and growing over with trees and bushes.

The land is covered by dense forests consisting ^{chiefly} of pine, also oak, gum and hickory being present, the oak predominating near the shores. In the wooded areas are a few low swampy places but these could not be accurately interpreted from the photo due to the dense forest. In the compilation an attempt was made to show the trees more dense where such was shown by the photos, which no doubt indicate these areas of low ground.

The road marked "Kings Highway" is known locally as such, being built by the British before the revolution and long served as the coastal stage coach route from Charleston to points north. A ferry then connected it from Frazier's Point to the west shore.

GENERAL REPORT

The general report is given under "General Description of Topography".

Photographs:

All photographs were made by the Aero Service Corp. with the five lens camera.

The sheet was compiled from portions of 6 flights, the list of photos, time and date being given at beginning of this report.

The photos in general were very good and clear. Some few showed a certain amount of tilt and others were not very close to scale. Whenever possible detail was traced only from the best photos nearest to the area in question, and checked with other photos.

CONTROL

Sources:

Triangulation for this area by K. G. Crosby 1934, and the following graphic control sheets by Lt. Herman Odessey 1935. "B" Reg. No. *T-6248 a*, "C" Reg. No. *T-6247 (b)*, "D" Reg. No. *T-6247 a*, "E" Reg. No. *T-6246*, were the only control used, except two stations, G-7 and G-8 which were established and computed by the South Carolina State (P.W.A.) traverse 1934. G-7 was not spotted on the photos, however.

The control established by K. G. Crosby 1934 has been adjusted to N. A. 1927 datum. That established by Lt. H. Odessey, 1935 and South Carolina Station was *field adjusted* to N. A. 1927 datum.

Errors:

No errors of importance were discovered in the radial plot, though several points were questioned and replotted.

Discrepancies:

No discrepancies were noted in control, except that some stations were incorrectly spotted on some photos. Stations ESTHER U.S.E. and ESTHER were incorrectly spotted and were of no use as control.

COMPILATION

Method:

The standard radial line method was used in making the plot.

Adjustment of Plot:

No difficulty was experienced in compiling the shoreline. Some difficulty was experienced in compiling "Marsh Islands", and a great deal of difficulty was had in compiling roads in the heavily wooded areas East and North of Baruch's Dock. The buildings at Hobcaw were especially difficult. Roads through the wooded areas had to be pieced together from many photos, getting different slants on them from several directions due to the heavy woods. Trails through the woods were very faint and in some cases had to be broken off abruptly.

The low water line and shoal areas were compiled from photos 455 through 465. Although taken at 1 hour and 34 minutes before low tide, they show the ~~soal~~^{shoal} areas of exposed mud to a greater extent than any other flight. These shoal areas are shown bounded by a row of heavy dots. Such mud areas are indicated solely from their appearance on the photos and therefore may be expected to vary from actual conditions, especially in the region around Marsh Islands and Mud Bay.

The high water line was inked in at the outer edge of the marsh and the extreme high water line shown lightly, as the junction of the fast ground with the marsh, wherever such could be distinguished on the photographs. This shows the area which is flooded periodically by spring tides.

On the Marsh Islands and on the long island along the west channel, the photos show a narrow whitish streak here and there in the marsh. This is a partly bare area of sandy mud, dead marsh and other debris, and was indicated on the compilation by a few sand dots.

Interpretation:

The usual graphic symbols were used as given in the topographic manual and only in a few cases was difficulty experienced in interpreting detail.

The abandoned dikes or levees around old rice fields were shown by the levee symbol wherever they could be distinguished on the photos. The rice fields between station MAW and BARUCH'S DOCK FLAGPOLE were among the last to be abandoned, rice being grown there up to 30 years ago and on the photos the canals showed up very clearly, as well as a portion of the old dikes. Dikes showing clearly and free of trees or bushes were shown by the symbol, but others showing grown over with trees and bushes were indicated solely by the tree and bush symbol. Along the shore ~~of from~~ "Maw" north, are clumps of cypress trees growing in the water.

The rice field area N. and NE of Station HARVEST has been abandoned for perhaps 70 years and the former canals and dikes do not show in the photos very distinctly except an old canal to the west, and most of this is probably dry. A dike marked "new dike" is of recent origin, rebuilt by the present owner, by dredge, which also formed the apparent canal alongside it. This probably was made to protect this area from tidal action.

North of these fields, an area in the woods marked OLD RESERVE is a swampy region, formerly a pond, used in olden times to impound water for irrigating these fields.

Conflicting Names:

Comparison with chart 428 shows no conflict of names with those as given on the overlay sheet. FRAZIER POINT is locally called FRAZIER'S POINT and is indicated as such. HOBCEW, KINGS HIGHWAY, CLAMBANK ROAD, are all locally known names. HORSE ISLAND, BIG MARSH ISLAND, and, MIDDLE GROUND are local names furnished by Mr. Ralph Ford of Georgetown, S.C.

Comparison with ~~other~~ ^{the charts.} Surveys:

Comparison with chart 428 shows ~~a few~~ ^{shoreline} changes in MARSH ISLANDS.

Roads shown on ricefield dikes near ESTERVILLE and MINIM CREEK CANAL, no longer exist.

Marsh areas in the woods and numerous trails through the woods, as shown by chart, can not be seen on photographs.

On the long island along West Channel, the chart shows in addition to the training wall or jetty at each end of the island, a bulkhead or revetment along the center of the island. The latter cannot be seen on the photos and is no doubt entirely covered by the building up of the island in recent years. A portion of this revetment was located by topo.

Junctions:

Good junctions were made on all sides with the following sheets:

North - 5255 and 5256	- - -	East - 5379
South - 5380 and 5381	- - -	West - 5377

Landmarks:

A list of landmarks and marked topographic stations in this area will be furnished by Lt. Odessey on Graphic Control sheets: Reg. No. "B" T-6248 a, "C" Reg. No. T-6247 b, "D" Reg. No. T-6247 a, "E" Reg. No. T-6246, 1934-5.

Remarks:

Lt. ~~Bn.~~ "4A" - located by topo - ^{plane table} T-6247 a
 Bn. 1 and 3, below (4A) are day markers, (from topo). T-6247 a
 Triangulation station "Training Wall Oil House" destroyed.
 Lt. ~~Bn.~~ "2", opposite Rabbit Island, rebuilt and relocated by topo.
 as Lt. ~~Bn.~~ "2" (Red) North of old position.
 Triangulation station Bn. 15, ^{moved,} relocated by topo ^{and described.} (north of old pos.)
 Triangulation station Bn. 13, ^{moved,} relocated by topo ^{and described.} (North of old pos.)
 Lt. ~~Bn.~~ "2" (Red) located on Ester Canal by topo.

Marked topo stations are shown on this compilation with a black circle.

RECOMMENDATIONS FOR FURTHER SURVEYS

This compilation is believed to have a probable error of not more than 0.3 mm in well defined detail of importance for charting, and of about 0.6 mm for other detail.

To the best of my knowledge this sheet is complete in all detail of importance for charting and no further surveys are required.

Assisted by:

E. H. Kirsch

E. H. Kirsch,
Chief of Party.

Submitted by:

Discharged.

M. R. Donaldson

Survey No. 7-5378

GEOGRAPHIC NAMES

Date. May 2, 1935.Chart No. 1237, 428Diagram No. 1237

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>Winyah Bay</u>	do ch 428			✓
	<u>Rabbit Island</u>	do ch. 428			✓
	<u>Hare Island</u>	do ch. 428			✓
	<u>Froziers Point</u>	<u>Frazier Point</u>		Frazier Point on "Georgetown" Quad.	✓
	<u>Mud Bay</u>	do ch. 428			✓
	<u>Waccamaw Neck</u>	do ch. 428.			✓
	<u>Big Marsh Island</u>	<u>Marsh Islands</u> ✓			✓
	<u>Marsh Islands</u>				✓
	<u>Hobcaw</u>	<u>U.S.G.S. QUAD.</u>	✓		✓
	<u>Middle Ground</u>	<u>Coast Pilot</u>		✓ Insufficient Authority	✓
	<u>Horse Island</u>	_____	✓		✓
	<u>Clambank Road</u>	_____	✓		✓
	<u>Kings Highway</u>	_____	✓		✓
	<u>Estherville and Minn</u>	do Ch. 428.			✓
	<u>Creek Canal</u>				✓
	<u>Sampit Pt.</u>	do ch 428.			✓
	<u>Sampit R.</u>			on sheet L.H. (1/24/42)	
		Names approved Dec. 6 1935			
		C. E. Egan			

REVIEW OF AIR PHOTO COMPILATION NO. T-5378

Comparison with Other Surveys:

T-6248a (1934). This is a graphic control survey on a 1:10,000 scale. Three recoverable topographic stations have been transferred from T-6248a to the compilation on May 7, 1935. Transfers were made by L. A. M.; checked by D. H. B. Descriptions are filed under survey No. T-6248a. For the common area between T-6248a and the compilation there is good agreement and detail shown on T-6248a in this same area is also shown on the compilation except for non-recoverable plane table positions.

T-6247b (1934). This is a graphic control survey on 1:10,000 scale. With the exception of Station "TOE (d)" all other recoverable topographic stations were transferred in the field. This station was transferred in the Washington Office by L. A. M.; checked by D. H. B. May 2, 1935. Descriptions are filed under survey No. T-6247b. Non-recoverable plane table positions and the magnetic declination on T-6247b are not shown on the compilation. All other detail on T-6247b over the common area is shown on this compilation. There is good agreement between T-6247b and this compilation.

T-6247a (1934). This is a graphic control survey on 1:10,000 scale. The transfer of 8 recoverable topographic stations had been made in the field. The descriptions are filed under survey No. T-6247a. All detail shown on T-6247a over the common area is also shown on this compilation with the exception of non-recoverable plane table positions and the magnetic declination. There is good agreement in the common area of T-6247a and the compilation.

T-834 (1858). This is a topographic survey on 1:20,000 scale executed 77 years ago. It covers Winyah Bay from the City of Georgetown to the outer coast. The topography is carried only a short distance inshore from the high water line. The Middle Ground together with the jetties on it did not exist at the time of ~~this survey~~ ^{T-834}. T-834 is superseded for the area in common with the compilation.

T-1276 (1872). This is a topographic survey on 1:20,000 scale made 63 years ago. It covers Winyah Bay and North Island in their entirety and the adjacent topography for many miles from the high water line of the bay. The delineation of the shoreline of Winyah Bay is similar to that of T-834. The Middle Ground and adjoining jetties ^{were} ~~are~~ not in existence at the time of T-1276. T-1276 is superseded for the area in common with the compilation.

T-4165 (1925). This is a topographic survey on 1:20,000 scale. An insert on T-4165 shows the islands which have joined to form the Middle Ground of the present day. This insert is superseded in its entirety by the compilation.

Comparison with the Charts:

Chart No. 428. It is recommended that the row of piles in latitude $33^{\circ}17.9'$ longitude $79^{\circ}16.8'$ be deleted from this chart. They have not been recovered by the field party making the survey of T-6247b and cannot be identified on the photographs. Their source is very old, viz. (B. P. No. 16796, 1917 by U.S. Engineers). Other changes to be made on this chart as a result of this compilation are discussed in the "Comparison with Other Surveys".

General:

The projection of this compilation was tested by checking the length of two long diagonals. They were in error 1 part in 4150, approximately.

They have not been recovered by the hydrographic party doing the work of H 5816, which covers this area

*RAM
7/10/35*

Leonard A. McGann
Leonard A. McGann
May 3, 1935.

V.B.G. Jones

Comparison with H-5815, H-5816, H-5821. (1935)

There were large and numerous conflicts or discrepancies between the low water lines of these hydrographic surveys and this compilation. There is now good agreement between H-5815, H-5816, and H-5821 and this compilation. The photographs were not taken at Low Water and the low water lines had to be traced too far offshore by the field draftsman. These lines have been moved back to agree with the Hydrographic surveys listed above.

Leonard A. McGann
July 10, 1935.

V.B.G. Jones

REVIEW OF AIR PHOTO COMPILATION NO. 5378

Chief of Party: E. H. Kirsch

Compiled by: M.R. Donaldson

Project: HT 162

Instructions dated: Nov. 10, 1933

- ✓ 1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)
- ✓ 2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)
All changes in lights and beacons are taken care of.
- ✓ 3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
- ✓ 4. ~~Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts.~~ (Par. 28)
None trans.
- ✓ 5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
- ✓ 6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i)
- ✓ 7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. 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) *17.*
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
These described station cards are filed under No T-6247 a T-6247 b, and T-6246. There are 15 described stations.
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
Landmarks for charts furnished with reports for graphic control survey T-6246, T-6247 and T-6248.
11. ~~All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)~~
No bridges on this compilation.
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
U.S. Engineers' Georgetown Quadrangle referred to for geographic name comparison.
13. The geographic datum of the compilation is *N.A. 1927 datum* and the reference station is correctly noted. *Datum sta. is adjusted.*
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 2. The degrees and minutes of Latitude and Longitude are correctly marked.

- ✓ 3. All station points are exactly marked by fine black dots.
- ✓ 4. Closely spaced lines are drawn sharp and clear for printing.
- ✓ 5. Topographic symbols for similar features are of uniform weight.
- ✓ 6. All drawing has been retouched where partially rubbed off.
- ✓ 7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

✓ 16. No additional surveying is recommended at this time.

✓ 17. Remarks:

✓ 18. Examined and approved;

E. H. Kusch
Chief of Party

19. Remarks after review in office:

~~The following paragraph~~

Reviewed in office by: Lemard A. McKame ✓ B. G. Jones
May 3, 1935.

Examined and approved:

C. K. Green
Chief, Section of Field Records

L. O. Lobnitz
Chief, Division of Charts

F. B. Jordan
Chief, Section of Field Work

G. W. Hude
Chief, Division of Hydrography
and Topography.

GEOGRAPHIC NAMES

Date. May 2, 1935.

Survey No. 7-5378

Chart No. 1237, 428

Diagram No. 237

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>Winyah Bay</u>	do ch 428			
	<u>Rabbit Island</u>	do ch. 428			
	<u>Hare Island</u>	do ch. 428			
	<u>Froziers Point</u>	<u>Frazier Point</u>		Frazier Point on "Georgetown"	Quad.
	<u>Mud Bay</u>	do ch. 428			
	<u>Wuccamuw Neck</u>	do ch. 428.			
	<u>Big Marsh Island</u>	<u>Marsh Islands</u> ✓			
	<u>Marsh Islands</u>				
	<u>Hobcaw.</u>	<u>U.S.G.S. QUAD.</u>			
	<u>Middle Grand.</u>	Lower Grand.		Insufficient Authority	
	<u>Horse Island</u>	_____			
	<u>Clam Bank Road</u>	_____			
	<u>Kings Highway</u>	_____			
	<u>Estherville and Minnie</u>	do Ch. 428.			
	<u>Creek Canal.</u>				
	<u>Sampit Pt.</u>	do ch 428.			
	<u>Sampit R.</u>			on sheet L-11 (1/24/42)	
		Names approved Dec. 6 1935			
		C. E. Guen			