

5381

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

DESCRIPTIVE REPORT

Field 62

Air  
Photo

Topographic  
Hydrographic

Sheet No. 5381

State South Carolina

LOCALITY

WINYAH BAY

~~GEORGETOWN LIGHTHOUSE~~

CAT ISLAND

1934 & 5

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

5381

Applied to chart 836 Feb. 5, 1936 A.H.C.  
applied to new chart 787 April 19, 1937 J.G.H.  
Applied to chart 1238 Oct. 4, 1937 J.H.S.

PHOTOS NO.  
634 - 644  
703 - 715  
484 - 496

DATE  
August 17, 1934  
August 25, 1934  
August 12, 1934

TIME  
9:35 A.M.  
5:00 P.M.  
7:50 A.M.

PROJECTION BY

Scale F.  $\frac{10,000}{10,526}$

P. W. Hund  
P. W. Hund

11-22-34

PROJECTION CHECKED BY

L. C. Ripley  
L. C. Ripley

11-23-34

CONTROL PLOTTED BY

M. L. Smith  
M. L. Smith

11-24-34

CONTROL CHECKED BY

H. W. Langley  
H. W. Langley

11-26-34

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson  
J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

H. W. Langley  
H. W. Langley

RADIAL PLOT BY

H. W. Langley  
H. W. Langley

12-10-34

RADIAL PLOT CHECKED BY

M. L. Smith  
M. L. Smith

12-11-34

TOPOGRAPHY TRANSFERRED BY

M. L. Smith  
M. L. SMITH

TOPOGRAPHY CHECKED BY

W. W. Johnson  
W. W. Johnson

SCALE PLOT BY

T. P. Mitchell  
T. P. Mitchell

DETAIL INKED BY

M. L. Smith  
M. L. Smith

2-8-35

AREA OF DETAIL INKED: 21.2 Sq. Statute Miles.

LENGTH OF COASTLINE: 3.6 Statute Miles.

LENGTH OF SHORELINE: 10.4 St. Miles (more than 200m wide)

LENGTH OF STREAMS: 25.5 St. 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. 62

REGISTER NO. 5381

**5381**

State South Carolina

General locality Winyah Bay

Locality Cat Island  
~~Georgetown Light House and vicinity~~

Scale 1:10,000 Photographs: Aug. 12, 1934  
~~1:10,526~~ Date of ~~survey~~ Aug. 25, 1934, 19  
Aug. 17, 1934.

Vessel Air Photo. Compilation - Feb. 8, 1935 Party No. 21.

Chief of party E. H. Kirsch,

Surveyed by See data sheet in descriptive report.

Inked by M. L. Smith

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 INFORMATION

This sheet covers the southern part of North Island, the entrance to Winyah Bay, and the area west of the bay, slightly beyond the Estherville Minim Creek Canal. It embraces large areas of marshland, part of which was at one time rice fields. The western portion of the sheet is mostly wooded, densely in places and in other portions having the appearance of having been cut over and being at present covered by brush and grass.

### Photo Numbers:

This sheet was compiled from five lens aerial photographs taken by the Aero Service Corporation of Philadelphia.

The flight covering North Island, 674 - 684 was taken on August 17, 1934, at 9:35 A.M. 3 hours 25 minutes before high tide. The flight immediately west of this, photographs 703 - 715, was taken on August 25, 1934, at 5:00 P.M. 2 hours and 23 minutes after low tide. The western flight, covering the Estherville-Minim Creek canal photographs, 484-496 was taken on August 12, 1934, at 7:50 A.M., 1 hour 43 minutes before high tide. The tidal difference, based on Charleston, were obtained from Lt. B. E. Rigg's party, from observations made in that territory.

## CONTROL

### Sources:

Triangulation by E. B. Roberts 1924, and E. G. Crosby, 1934:

U.S.C. "A" Reg. No. 7-6248 b, "B" Reg. No. 7-6248 a, "C" Reg. No. 7-6247 b, Lt. Herman Odessey, 1935. The control established Crosby has been adjusted to N. A. 1927 datum. All other control used in this compilation is unadjusted to N. A. 1927 datum.

### Errors:

Triangulation stations USE and ESTHER were apparently field inspected wrong, as they could not be used at all in making the plot. Both stations are shown on the compilation, although they were entirely disregarded in making the plot.

## COMPILATION

### Method:

The radial line method of plotting as described in the U.S.C. & G.S. Notes on the compilation of Planimetric line maps from five lens aerial photographs was used.

roads in general use are shown  
by double lines, but dashed depending  
on condition of surface, and trails  
by single dashed lines

Bgg



### Adjustment of Plot:

The photographs were clear and comparatively free from tilt and scale fluctuations, and no unusual adjustments of the plot were necessary.

### Interpretation:

Only the usual graphic symbols as approved by the Board of Surveys and Maps were used.

~~Good motor roads have been shown by full double dashed lines, and trails by single dashed lines.~~ *See opposite page*

High ground lines were shown where there was a definite line on the photographs, but where the marsh gradually changed into low grassland dotted with bushes, no attempt was made to show a definite dividing line. Also in cases of high trees overhanging or shadowing the dividing line, no high ground line was shown.

The wooded area on Cat Island was shown as nearly as possible the way it appeared on the photographs by varying the density of the tree, bush, and grass symbols. Quite a large part of the wooded area seems to have been cut over, leaving areas covered by bushes, grass, and a few tall trees.

It was impossible to determine the high water line on the southern end of North Island. The entire shoreline south of Georgetown Light was taken from G.C.S. "A" Reg. No. *T-6248 a*, Lt. H. Odessey, 1935

### Information from other sources:

Additional information was furnished by the field inspection party, and by G.C.S. "A" Reg. No. *T-6248 b*, "B" Reg. No. *T-6248 a*, "C" Reg. No. *T-6247 b*, Lt. H. Odessey, 1935. Lt. Odessey reports that Winyah Bay North Jetty, the entire length of which was not shown on photographs or available graphic control sheet, is submerged from the sand beach of North Island to its end. It bares at about 1/4 tide. A sheet is being made at present by Lt. Odessey showing all of both jetties. *This sheet, T-6245, shows only the south jetty which is not in the area of this compilation.*

### Conflicting Names:

No conflicting names were reported by the field parties.

### COMPARISON WITH OTHER SURVEYS

#### Junctions:

Satisfactory junctions were made with the following sheets:

North - Reg. Nos. 5378 and 5379  
East - ~~Nene~~ (Atlantic Ocean)  
South - Reg. Nos. 5384 and 5385  
West - Reg. No. 5380

\* This road has been changed in the Washington office  
to a double dash symbol to represent it.

Lam.  
5/15/35.



Landmarks:

Landmarks and marked topographic stations are submitted with G.C.S. "A" Reg. No. *T-6248 b*, "B" Reg. No. *T-6248 a*, and "C" Reg. No. *T-6247 b*, Lt. H. Odessey 1935.

Remarks:

The bridge <sup>13</sup> over Mosquito Creek east of Long. <sup>14</sup>  $79^{\circ} 15'$  and south of Lat.  $33^{\circ} 14'$  is marked as a draw bridge on existing charts, but the field inspection party reports that it is only a plain wooden bridge, not a draw, and that a new bridge is now under construction just north of the present structure. The boathouse showing on the photographs northeast of the bridge is reported by the field inspection party to be no longer there.

The Estherville - Minim Creek Canal is soon to be dredged and widened. It ~~has~~ <sup>is</sup> shown on this sheet as it appeared at the time the photographs were made, as no topo sheets of this canal will be made until after the proposed work on it is completed.

The canal just east of Mosquito Creek Canal shows clearly to be filled with water to the dam just north of the junction of Lagoon Creek and Mosquito Creek Canal, but north of this point, it appeared to be only partly dredged, and although the banks showed clearly on the photographs, the canal seemed to be filled with mud and clumps of marsh grass. The road on the east bank of this canal is the type that should be shown by double dashed lines, but lack of space necessitated its being shown by a single dashed line. It runs along the side of an earth dyke, which was not shown for the same reason, but has been labeled as such. All described Topo stations have been shown with black circles.

Beacons and Lights: -

<sup>Lat  $33^{\circ} 15.2'$  Long.  $79^{\circ} 14.1'$</sup>   
<sup>Light</sup>  
 Beacon No. 1 has been moved to the southeast about 670 meters, on an approximate azimuth of  $108^{\circ}$ .

Black Beacon, (Triangulation station BEAC), <sup>(lighted)</sup> failed to check with its triangulation position by about 50 meters on an azimuth of approximately  $150^{\circ}$  on the photographs. It was radial plotted on the sheet from the photographs. However, this beacon has been moved again, and its present position, shown by a black circle, was scaled from G.C.S. "B" Reg. No. *T-6248 a*, Lt. H. Odessey, 1935. This position is about 315 meters from the old triangulation position on an azimuth of approximately  $115^{\circ}$ .

<sup>Light</sup>  
*This is shown on the compilation as South Island Light (d) the name given in the light list.*

Information from the Lighthouse Depot, Charleston, S. C., verified the fact that these beacons had been moved.

The road leading up to both sides of the E.M. Canal between Lat.  $33^{\circ} 13'$  and  $33^{\circ} 14'$  appeared on the photographs as a good motor road, and was shown as such. There is no ferry or bridge at this point. The road is evidently kept in good condition due to its leading to settlements on each side of the canal. There was at one time a ferry here, but it has been discontinued. There is a submerged cable ferry on the road near the northern end of the canal.



RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not more than 0.3 mm in positions of well defined detail of importance for charting and of not more than 0.6 mm 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, except as mentioned above.

Assisted by:

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

Submitted by:

*M. L. Smith*  
M. L. Smith.

Survey No. T-5381

Date. May 7, 1935.

## GEOGRAPHIC NAMES

Chart No. 1237, 428, 1238

Diagram No. 1237, 1238

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

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

Under investigation. Q

[illegible]



REVIEW OF AIR PHOTO COMPILATION NO. T-5381

Scale 1:10,000

Graphic Control Surveys.

(a) T-6247b (1935)(1:10,000):

There are no discrepancies between T-6247b and this compilation. The following recoverable station was transferred by L.A.M., checked by D.H.B., May 7, 1935, from T-6247b to this compilation:

Winyah Bay Cottage, W. Gable (d).

*Winyah Bay Cottage, W Gable(d)* ✓

(b) T-6248a (1935)(1:10,000).

There are no discrepancies between T-6248a and this compilation.

(c) T-6248b (1935)(1:10,000).

There are no discrepancies between T-6248b and this compilation.

(d) T-6245 (1935) 1/10,000 scale. No discrepancies within the area of the compilation.

(e) All detail on T-6247b, T-6248a, T-6248b is shown on this compilation with the exception of buoys, non-recoverable plane table positions, and the magnetic declination, and off shore section of North Island Jetty.

Comparison with Previous Topographic Surveys.

(a) T-834 (1858)(1:20,000):

T-834 covers Winyah Bay and its entrance. The coast of North Island at the point has been built up about 1000 meters in a southern direction since the time T-834 was made. This is the most outstanding change in this area. T-834 is superseded by this compilation over the common area.

(b) T-1276 (1872)(1:20,000):

T-1276 covers Winyah Bay and North Island and the adjacent topography inshore from Winyah Bay. The marsh island in the bay in latitude 33° 15' is now joined to the mainland. The point of North Island has not changed noticeably since the time of T-834. T-1276 is superseded by this compilation for the common area.

(c) T-4164 (1925)(1:20,000):

T-4164 covers Winyah Bay entrance and the Santee River delta area. There are prominent changes of high water line at Winyah Bay entrance. The piles shown on T-4164 in position 33° 12.7'/79° 10.95' are not shown on this compilation. They are not shown on present edition of the chart of this area. They have not been recovered by the field party doing the work on T-6248a and do not show on the photographs.



The row of piles in position  $33^{\circ} 14.1'/79^{\circ} 12.2'$  are gone except one which is shown on T-6248a and this compilation. The piles at the Georgetown Lighthouse are gone and are not shown on this compilation. T-4164 is superseded by this compilation over the common area.

Comparison with the Charts.

Charts No. 428, 1237, 1238:

Changes to be made to these charts as a result of this compilation are discussed above under the comparison with the graphic control and old topographic surveys.

Comparison with New Hydrographic Surveys.

H-5815 (1935)(1:10,000):

The sand bars, and rocks awash, piles, etc. in Winyah Bay shown on H-5815 are not shown on this compilation for they cannot be seen on the photographs. <sup>and were not located by the graphic control survey.</sup> The low water lines on H-5815 and this compilation are in good agreement.

General.

The road on South Island running through the dense growth of trees east of Mosquito Creek is incomplete on the compilation. This section of road can be shown only after a field survey as it is impossible to even approximately represent it in its true position on the compilation.

The projection of this compilation was tested roughly by checking diagonals. It is satisfactory.

*Leonard A. McGann*  
Leonard A. McGann  
July 3, 1935.

## REVIEW OF AIR PHOTO COMPILATION NO. 5381

Chief of Party: E. H. Kirsch

Compiled by: M. L. Smith

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)
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 transmitted.*
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)  
*High water line at Winyah Bay Entrance on North Island transferred from T-6248 as explained in report.*

*Same.*

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)  
✓
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)  
✓  
*Descriptions of stations filed under survey No T-62476, T-6248a, and T-6248b. 85 stations.  
Also see file under T-5381*
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)  
✓  
*Landmark list furnished with T-6248a and T-6248b.*
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 over navigable waters <sup>fall</sup> 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)  
✓  
*No U.S.G.S. Quadrangles or U.S.E. military maps of this area are available for geographic name comparison.*
13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted.  
✓
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. Kersch  
Chief of Party

19. Remarks after review in office:

~~See following page~~

Reviewed in office by: Leonard A. Tuckman July 3, 1935.  
✓B.G. Jones

Examined and approved:

C. F. Green  
Chief, Section of Field Records  
L. Q. Pollett  
Chief, Division of Charts

J. B. Borden  
Chief, Section of Field Work  
G. W. Wade  
Chief, Division of Hydrography  
and Topography.