

5549

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

DESCRIPTIVE REPORT

Air
Photo

Topographic } Field 77
Hydrographic } Sheet No. Reg. 5549

State South Carolina

LOCALITY

~~Isle of Palms~~

~~INLET CREEK to LONG CREEK~~

~~INTERCOASTAL WATERWAY~~

ISLE OF PALMS.
BREACH INLET.

1934-5

CHIEF OF PARTY

E. H. Kirsch

U. S. GOVERNMENT PRINTING OFFICE: 1934

5549

Sheet No. 77
Reg. No. 5549

PHOTOS
32 - 41
537 - 550

DATE
August 2, 1934
August 13, 1934

TIME
8:40 A.M.
2:35 P.M.

Sc. Fact: $\frac{14,000}{10,526}$

PROJECTION BY

L. C. Ripley
L. C. Ripley

PROJECTION CHECKED BY

E. H. Kirsch
E. H. Kirsch

CONTROL PLOTTED BY

Trans.
M. D. Crook

CONTROL CHECKED BY

E. J. Anderson
E. J. Anderson

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson
J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

W. W. King
W. W. King

RADIAL PLOT CHECKED BY

E. J. Anderson
E. J. Anderson

SMOOTH RADIAL PLOT BY

Trans.
M. D. Crook

SCALE PLOT BY

T. P. Mitchell
T. P. Mitchell

TOPOGRAPHY TRANSFERRED BY

E. J. Anderson
E. J. Anderson

TOPOGRAPHY CHECKED BY

Trans.
R. G. Hickson

DETAIL INKED BY

E. J. Anderson
E. J. Anderson

AREA OF DETAIL INKED: 19.5 Square statute miles.

LENGTH OF COASTLINE: 5.18 Statute miles.

LENGTH OF SHORELINE: None

LENGTH OF STREAMS: 48 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. 77

REGISTER NO. 5549

State South Carolina

General locality Isle of Palms *Isle of Palms*
~~INTRACONSTAL WATERWAY~~
Breach Inlet.

Locality Inlet Creek to Long Creek ~~Isle of Palms~~

Scale 1/10,000 Photographs - Aug. 2 and 13, 1934
~~1/10,000~~ Date of ~~survey~~ Compilation - , 19

Vessel Air Photo Compilation Party No. 21

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: None

GENERAL REPORT

This sheet covers the coastal region including the Isle of Palms and Northerly end of Sullivan's Island and extends inland to include the small tributaries near the source of the Wando River. The area between the Isle of Palms and the mainland consists of marsh with occasional small inlands and shallow bays. In these bays are numerous oyster banks and mud flats which are exposed at low tide. Spoil banks from dredging line the Intracoastal waterway and in some cases have cut off small streams. Along Goat Island, lanes for the spoil pipes were cleared of trees and the spoil pumped across the high ground into the edge of Gray's Bay.

The high mainland is made up of small fields under cultivation and grass areas separated by areas of woodland. One large plantation of special interest is Boone Hall Plantation shown in the Northwest corner of this sheet. Extensive orchards of pecan trees are under cultivation here at the present time.

The Sea Level Route U. S. Highway No. 701 is a concrete paved road while the other roads shown as double full line roads are good motor roads.

Photographs:

All photographs were made by the Aero Service Corp., with a U. S. Army Type 5-lens Camera.

This sheet was compiled from portions of two flights of pictures. Photo numbers 437 to 550 from the flight 499 to 556 flown in a south westerly direction along the Intra-Coastal Waterway. Photo numbers 32 to 41 from the flight 32 to 72 flown in a North easterly direction along U. S. Highway No. 701.

The list of photos, time and date are given at the beginning of this report.

The Intra-Coastal Waterway and surrounding detail was taken from the straight photos and almost entirely from B prints, the D and E wings giving good ties for the azimuth of the canal.

The Sea Level Routh Highway was put in from straight photos from the 32 to 72 flight which also were very good.

The overlap of the two flights came approximately along the mainland border and detail all along this strip had to be taken from portions of the photos well out on the wing prints.

CONTROL

Sources:

Triangulation in 1857. by C. O. Boutelle, chief of party.
 Triangulation by Roberts 1924, Meaney 1932, Rigg 1934
 and three traverse stations established and computed by the South

Carolina State (P.W.A.) Survey 1934 was the only control used in making the radial plot. Stations established by Meaney and 1927 datum, office adjusted, while the others are on 1927 datum but unadjusted. Graphic Control Sheets "AA" Reg. No. *T-6289 a*, "BB" Reg. No. *T-6289 b* by Lt. B. H. Rigg 1934-35 were used as control for checking portions of the shoreline and Inland waterway, the location of the Isle of Palms Pavilion and Boardwalk, the Oyster factory, large dock back of the Isle of Palms, and the Beach Inlet Bridge. Also the high and low water lines along the Isle of Palms Beach and Beach Inlet were taken from G.C.S. "AA" Reg. No. *T-6289 a*.

*Datum correction { Lat - 3.8 meters approximate
NA to N.A. 1927 - Long + 5.5 meters approximate*

Errors:

No errors were found in the plotting of control stations. A few radial points were found to be off and were corrected and supplemented by range points established from radial points surrounding the point in question.

Discrepancies:

There were no discrepancies that could not be corrected by slight adjustments.

COMPILATION

Method:

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

Adjustment of plot:

No unusual adjustment was necessary in the smooth radial plot. During the compiling a few points were obviously off and were supplemented by range points as mentioned under Errors.

The traverse stations furnished by the P.W.A. did not always fit into the plot but sufficient other control was available for these misfits to be disregarded. *This statement does not indicate whether these discrepancies are due to errors in spotting the stations on the photos, or to errors in the traverse positions. Bgg.*

Interpretation:

The standard graphic symbols as given in the Topographic Manual were used with two exceptions. In Hamlin Sound and Gray's Bay are numerous oyster beds that appeared as dark patches resembling marsh grass on the photos. These were outlined with solid lines, similar to grass islands before field inspection determined their identity. It was thought feasible to leave them as shown and omit marsh lines on these small patches. Also the extensive area of sandy mud banks that bare at low tide were shown by slight sanding instead of the regular mud symbols.

Christ Church, a restored pre-revolutionary structure marked on chart No. 1239 is still standing on its original site, but has not been shown because the triangulation ^{station} HAMLIN on the celluloid sheet covers its true position. The name has been marked on the overlay sheet.

These islands were changed to a dotted symbol and labelled "oyster beds".

D.W.M.

Not all small houses and trails have been shown, as they were regarded as unimportant.

As mentioned elsewhere in this report the strip of ground and marsh that comes along the overlap of the two flights of photos was not clear and compiling was difficult. It is felt, however, that detail has been traced with sufficient accuracy and delineation for the purposes of this chart.

Information from other Sources:

G.C.S. Nos. "AA" and "BB" Reg. Nos. *T-6289a* , *T-6289b*, by B. H. Rigg were used as mentioned under control. Other than those two sheets information compiled on this sheet was taken from the pictures together with field inspection by the compiler and Lieut. E. B. Brown who did the hydrography.

Conflicting Names:

There are no conflicting names on this sheet, *except as shown on the Geographic Name List at back of this report.*

Comparison with other Surveys: *and the charts*

Comparisons were made with G. C. Sheets "AA" Reg. No. *T-6289a* and "BB" Reg. No. *T-6289b* , as mentioned above and slight discrepancies satisfactorily adjusted.

A tower marked on chart 1239 near the present triangulation station Light at Beach Inlet has been removed and should be removed from future charts.

Between Lat. $32^{\circ} 46'$ and $32^{\circ} 47'$ crossing Long. $79^{\circ} 50'$ the section of Intracoastal waterway has been compiled from this later flight of pictures. Topo sheets taken in the field and plotted on G.C.S. "AA" Reg. No. *T-6289a* , agree very well with the compiled shoreline falling either "dead on" or touching. This section of canal should be shown on Photo Compilation Sheet No. 5177 but at the time that sheet was compiled, the canal was dredged only a short distance in from the Cove Inlet. This shoreline has been transferred from Photo Compilation sheet No. *5549* to G.C.S. "AA" Reg. No. *T-6289a* , and may be transferred from that sheet to the original photo compilation sheet No. 5177 at the Washington Office. *accomplished by*

Comparisons have been made with G.C.S. "AA" Reg. No. *T-6289a* at all points where topo sheet have been plotted from the field and the sheets have been in agreement with the compiled shoreline within the allowable error.

The Isle of Palms pavilion and board walk were traced from G.C.S. "AA" Reg. No. *T-6289a* , also the high water line along Beach Inlet and fronting the Isle of Palms was taken from the same topo sheet and agreed very closely with the compilers estimate of the high water line from the Photos.

At triangulation station Iron Stack, the oyster cannery

No list of landmarks has been furnished with the reports of the graphic control surveys T-6289a and T-6289b. but a list has been submitted separately covering the area of this project.

Lamm
6/11/35.

building and dock were traced from G.C.S. "AA" Reg. No. T-6289a, as the photos were indistinct at this point.

The shoreline on this sheet was projected down on G.C.S. "AA" Reg. No. T-6289a, and traced between shots where the roughly sketched, field-drawn shoreline was not in agreement with that compiled from the photographs. These adjustments were small and infrequent.

Junctions with other Sheets:

Satisfactory junctions were made with Photo Compilation sheets No. 5177 and 5174 on the West, No. 5548 on the North and No. 5394 on the East. The junctions with sheets on the West were nearly perfect without adjustment. This is extraordinary considering the fact that the sheet was compiled from entirely different pictures and radial plots. *BBY indicates what can be done with sufficient control and careful plotting.*

Landmarks: (See opp. page.)

A list of landmarks and marked topographic stations in this area will be furnished by Lt. B. H. Rigg on G.C. Sheets "AA" Reg. No. T-6289a "BB" Reg. No. T-6289a.

RECOMMENDATION 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 not more than 0.6 mm in detail of lesser importance.

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

Assisted by:

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

Submitted by:

E. J. Anderson
E. J. Anderson.

Survey No. T-5549

Date. June 11, 1935 GEOGRAPHIC NAMES

Chart No. 1239

Diagram No. 1239

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>Goat Island</u>	do			
	<u>Little Goat Island</u>	do			
	<u>Hamlin Sound</u>	do			
	<u>Isle of Palms</u>	do			
	<u>Inlet Creek</u>	do			
	<u>Breach Inlet</u>	do			
	<u>Swinton Creek</u>	do			
	<u>Hamlin Creek</u>	do			
	<u>Grays Bay</u>	<u>Gray Bay</u>			
	<u>Eagle Island</u>	do			
	<u>Dewees Creek</u>	do			
	<u>Long Creek</u>	do			
	<u>Seven Reaches</u>	do	G. B. Decision etc.		
	<u>Sullivan's Island</u>	Sullivan Island			
	<u>Moultrieville</u>	do			
	<u>Rifle Range Road</u>	_____			
	<u>Conch Creek</u>	do			
	<u>Boone Hall Plantation</u>				
	<u>Atlantic Ocean</u>				
	<u>Intracoastal Waterway</u>				
	<u>U.S. HIGHWAY #701</u>				

Names approved Dec. 6 1935
O. Egan

REVIEW OF AIR PHOTO COMPILATION NO. T-5549

1:10,000 Scale

Comparison with Graphic Control Surveys:

(a) T-6289a (1935) 1:10,000 Scale.

T-6289a covers an area between Hamlin Creek and Couch Creek including Isle of Palms. There is good agreement between T-6289a and the compilation over the common area. All detail shown on T-6289a is also shown on the compilation for the common area with the exception of non-recoverable plane table positions and the magnetic declination. The descriptive report T-6289a gives a general description of the area which is not included in the report T-5549. *The Breach Inlet Range Beacons were transferred to the compilation from T-6289a. by L.A.M. Oct 10, 1935. checked by J. Andrews. Oct 10, 1935. dau.*

(b) T-6289b (1935) 1:10,000 Scale.

T-6289b covers an area in the vicinity of Dewees Creek, Goat Island and the upper end of the Isle of Palms. There are unimportant differences in the extent of symbols between T-6289b and this compilation in the areas along Dewees Creek. All detail shown on T-6289a is also shown on the compilation with the exception of non-recoverable plane table surveys and the magnetic declination. There are no differences of shoreline between T-6289b and the compilation. The descriptive report T-6289b gives a description of the area which is not included in this descriptive report T-5549. *See note below.

Comparison with Previous Topographic Surveys:

(a) T-262 (1849).

T-262 covers the coast from Breach Inlet to Drum Island in Charleston Harbor. The portion of T-262 which is common to the compilation has undergone large changes of coastline and culture since 1849. This portion of T-262 is superseded by the compilation.

(b) T-471 (1854).

T-471 covers a part of Goat Island and a part of the Isle of Palms. The area of T-471 common with the compilation is superseded by reason of the numerous large changes of coastline and culture since 1854.

* For a general description and purpose of the U.S. stations see the descriptive report for T-6295b on page 3 under "Permanent Hydrographic Stations".

T 6289a, 1934 graphic control sheet,
shows two undescrbed topographic notations,
09uc and 0Rag which correspond with
the positions of the two beacons as
shown on chart 1239.

Bgg. 8/16/35

These beacons are shown with 5n on A 5810 ARE.

(c) T-1400b (1875).

T-1400b covers an area from Sewee Bay to Breach Inlet, from the coast to approximately a mile back from the inshore edge of marsh. There are no large outstanding changes over the common area. T-1400b shows a hachure along the high ground line of the high ground area of Goat Island, Eagle Island and the Isle of Palms. The hachures and the high ground line are not shown on the compilation. T-1400b is superseded except for hachures and high ground line for the common area.

(d) T-3842 (1921).

T-3842 covers the coast of Sullivan's Island, Isle of Palms, Dewes Island, and Capers Island. The trolley line of the Charleston and Isle of Palms Railroad has been abandoned. Triangulation station Gay 1921, a watertank and a landmark on chart 1239 are gone. (See chart letter 427, 1934). Triangulation station Naval observing tower, a landmark on chart 1239 are also gone. (This is the tower mentioned in the report on page 3). There are no large changes in the position of the high waterline since the time of T-3842. The country has undergone extensive developments with the construction of new roads, cottages, stores and a large dance pavillion. (See Descriptive Report T-6289a). T-3842 is superseded by this compilation over the common area.

Comparison with the Charts:

Chart No. 1239.

Landmarks on this chart to be deleted are mentioned above under comparison with T-3842 above. The Breach Inlet range beacons are listed in the Local Light and Buoy List for 1935. * Their position was not determined by the field party working in this area and they do not show on the photographs. A light, 1924, on Sullivan's Island is described as a disc set in a concrete post in the ground. This station is not a landmark.

Other changes to be made to this chart as a result of this survey are discussed above under Comparison with other Surveys.

* Topographic stations O Que and O Rag were later found to be the positions of the Breach Inlet range beacons. They are now shown on this compilation.
Rem. Oct 10, 1935.

Leonard A. McGann
Leonard A. McGann,

June 18, 1935.

Approved
K.T. Adams

REVIEW OF AIR PHOTO COMPILATION NO. 5549

Chief of Party: E. H. Kirsch

Compiled by: E.J. Anderson

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 applica-
tion to the charts. (Par. 28)~~ *None*
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 ade-
✓ quate for chart compilation. (Par. 16a, 43, and 44)

*The high water line along Breach Inlet and the Isle of
Palms was taken from graphic control survey T-6289 a*

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 Compila-
tion of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, ~~reefs, coral reefs and~~
~~reefs~~, 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)
*8 described stations were transferred from graphic
control surveys.*
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)
*No new landmarks have been furnished with graphic control
survey reports T-6289a, T-6289b. but a list has been
furnished on Form 567 covering a larger area.*
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 naviga-
tion is given in the descriptive report. (Par. 16c)
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)
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 Longi-
tude 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. Kirsh.

Chief of Party

19. Remarks after review in office:

Reviewed in office by: Leonard G. Mulsanne June 18, 1935
V. B. J. Jones

Examined and approved:

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

T. B. Dorden
Chief, Section of Field Work
G. Wade
Chief, Division of Hydrography
and Topography.

Applied to chart 491 Sept. 12, 1935 G.H.S.

Applied to chart 837 Oct 9, 1935 H.H.C.

" " " 1239 Apr. 1937 J.M.W.

" " " 1238 Oct. 18, 1937. G.H.S.