### DESCRIPTIVE REPORT

**Type of Survey**  
Topographic  
  
**Field No.** Ph-154  
**Office No.** T-10303  
  
**LOCALITY**  
**State** South Carolina  
**General locality** St. Helena Island  
**Locality** Otter Islands  

**CHIEF OF PARTY**  
J. E. Waugh, Photogrammetric Party No. 1  
William F. Deane, Balt. District Officer  

**LIBRARY & ARCHIVES**  
**DATE** Sept. 1963
DESCRIPTIVE REPORT - DATA RECORD

T-10303

Project No. (II): Ph-154

Quad Name (IV):

Field Office (II): Burton, S. C.

Chief of Party: J. E. Waugh

Photogrammetric Office (III): Baltimore, Md.

Officer-In-Charge: W. F. Deane

Instructions dated (II) (III): 16 August 1955 (Field and Office) 19 October 1953 (Project Ph-81) Par. 4

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (II): 1.000

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): Mean sea level except as follows:

Elevations shown as 2 refer to mean high water
Elevations shown as 5 refer to sounding datum
I.e., mean low water or mean lower low water

Reference Station (III): ASH, 1914

Lat.: 32° 29' 19.51" (601.0m) Long.: 80° 25' 00.170" (4.1m)

Adjusted

Plane Coordinates (IV):

State: S. C. Zone: South

Y =

X =

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.
Areas contoured by various personnel
(Show name within area)
(II) (III)
DESCRIPTIVE REPORT - DATA RECORD

W. M. Reynolds  
Field Inspection by (II):  B. F. Lampton, Jr.  
I. Y. Fitzgerald  
M. C. Moody  
    Date: Jan.-Feb. 1954
    Date: Feb. 1954
    Date: July 1955
    Date: Aug. 1955

Planetary contouring by (II):  M. C. Moody  
J. S. Winter  
    Date: Aug. 1955
    Date: July 1955

Completion Surveys by (II):  G. E. Varnadoe  
    Date: 1960

Mean High Water Location (III) (State date and method of location): 1955 photographs - Field inspection and office interpretation.

Projection and Grids ruled by (IV):  A. Riley  
    Date: 8/19/55

Projection and Grids checked by (IV):  A. Riley  
    Date: 8/19/55

Control plotted by (III):  B. F. Lampton  
    Date: 10/31/55

Control checked by (III):  E. L. Williams  
    Date: 10/31/55

Radial Plot  
Instrument compilation by (III):  B. Frank Lampton  
    Date: 12/15/55

Stereoscopic Instrument compilation (III):  Planimetry  
    Date:  
    Contours

Manuscript delineated by (III):  J. Councill  
    Date: 6/17/58

Photogrammetric Office Review by (III):  R. Glaser  
    Date: 6/20/58

Elevations on Manuscript checked by (II) (III):  R. Glaser  
    Date: 6/20/58
Camera (kind or source) (III): 9 lens (C&GS)

PHOTOGRAPHS (III)

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<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
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<td>35988 and 35989</td>
<td>3/17/52</td>
<td>0952</td>
<td>1:10,000</td>
<td>4.2 above MLW</td>
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<tr>
<td>49266 and 49267</td>
<td>3/23/55</td>
<td>1355</td>
<td></td>
<td>-0.7 below MLW</td>
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<tr>
<td>49313</td>
<td>3/23/55</td>
<td>1430</td>
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<td>-0.5 below MLW</td>
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<td>52229 and 52230</td>
<td>11/21/55</td>
<td>1022</td>
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<td>4.8 above MLW</td>
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Refer to Field Edit Report for nos. of Field Edit photos

Tide (III)

From predicted Tide Tables

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<tr>
<th>Reference Station</th>
<th>Subordinate Station</th>
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<tr>
<td>Savannah River Entrance</td>
<td>Combahee Bank</td>
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</table>

<table>
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<tr>
<th>Ratio of</th>
<th>Mean</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
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<td>Range</td>
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<td>8.1</td>
</tr>
<tr>
<td></td>
<td>6.2</td>
<td>7.3</td>
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</table>

Date: June 1963

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 4
Shoreline (More than 200 meters to opposite shore) (III): 8 mi.
Shoreline (Less than 200 meters to opposite shore) (III): 10 mi.
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 5
Number of BMs searched for (II): 0
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

Number of Third-Order Stations established: 2
Number of Recoverable Topographic Stations established: 4
Summary to Accompany Descriptive Reports
T-10303 and T-10304

These topographic maps are a part of Project 154. The remainder of the project is comprised of 25 planimetric maps. T-10303 and T-10304 were completed - field edited-in 1960 - in conjunction with the completion of PH-81 maps (topographic) to the north. The PH-81 maps will be reduced, edited, and published by the Geological Survey as standard topographic maps.

The subject maps (T-10303 and T-10304) will not be published - recent Geological Survey Quadrangles cover the area.

Items to be registered under T-10303 and T-10304 will include Descriptive Reports and Cronar positives of the manuscripts.
FIELD INSPECTION REPORT
Project 6154
Map T-10303

Please refer to the Field Inspection Report for Map T-10315 for all data pertaining to this map.

10 OCT 1955

Joseph K. Wilson
Joseph K. Wilson
Cartographer

Approved & Forwarded: 10 OCT 1955

J.E. Waugh
J. E. Waugh
CDR, C & GS
Chief of Party
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR ( \phi )-COORDINATE</th>
<th>LONGITUDE OR ( \lambda )-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<tbody>
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<td>ASH, 1914</td>
<td>G-1669 p. 63</td>
<td>NA 1927</td>
<td>32 29' 19.511</td>
<td>80 25 00.170</td>
<td>601.0 (1247.2)</td>
<td>4.4 (1562.0)</td>
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<td>COMBAHEE BANK LIGHT, 1955</td>
<td>Field Comp.</td>
<td></td>
<td>32 28 03.111</td>
<td>80 26 04.407</td>
<td>95.8 (1752.4)</td>
<td>115.1 (1451.8)</td>
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<tr>
<td>FELICAN BANK DAYBN &quot;A&quot;, 1955</td>
<td>&quot;</td>
<td>&quot;</td>
<td>32 26 56.609</td>
<td>80 26 05.227</td>
<td>1743.7 (104.5)</td>
<td>136.5 (139.7)</td>
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<td></td>
</tr>
</tbody>
</table>
The Photogrammetric Plot Report is a part of Descriptive Report, T-11125.

31. **DELINEATION**

This manuscript was delineated by graphic methods.

The Nov. 1955 photographs were office interpreted and used to correct the earlier field inspection where such changes were deemed necessary.

32. **CONTROL**

Identification, density and placement of horizontal control is considered to be adequate.

33. **SUPPLEMENTAL DATA**

For names, an annotated USGS Quadrangle, Edisto Island, S. C., was used.

34. **CONTOURS AND DRAINAGE**

Contours: The field contours were adequate except along the beach where the 5-foot contour had to be moved to agree with the changes in the MHWL - as shown on 1955 photographs.

35. **SHORELINE AND ALONGSHORE DETAILS**

The south shoreline of Otter Islands changed with each succeeding group of photographs. The high and low water lines now on the manuscript were delineated from the latest photographs available (Nov. 1955).

36. **OFFSHORE DETAILS**

The extensive offshore shallows were determined from the most recent available low-water pictures (March 1955).

37. **LANDMARKS AND AIDS**

There are no landmarks.

There is herewith submitted Form 567 for two aids to navigation.
38. CONTROL FOR FUTURE SURVEYS

Form 524 for four recoverable topographic stations have been previously submitted. They are: TRAY, 1954; ACHE, 1954; LITE, 1954; and ISLE, 1954.

Item 49 was not used because these forms have already been furnished to the hydrographic party.

39. JUNCTIONS

T-10303 joins T-11123 (Ph-81) to the north. T-1030h to the east, all water junction with T-10310 to the south and T-10302 to the west.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 through 45

Not applicable.

46. COMPARISON WITH EXISTING MAPS


C&GS T-5169, South Edisto River, scale 1:10,000; from photographs of 1933.

47. COMPARISON WITH NAUTICAL CHART

This manuscript has been compared with chart No. 793, scale 1:140,000, published September 1937, corrected to June 16, 1956.

Items to be applied to nautical chart immediately: None.
Items to be carried forward: None.

Respectfully submitted
June 17, 1958

Judson Council

Approved and forwarded

William F. Deane
CDR C&GS
Baltimore District Officer

Judson Y. Councill
Carto. Photo. Aid
PHOTOGRAMMETRIC OFFICE REVIEW

T-10303


CONTROL STATIONS
5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations x 8. Bench marks x

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES
27. Roads x 28. Buildings x 29. Railroads x 30. Other cultural features x

BOUNDARIES
31. Boundary lines ✓ 32. Public land lines x

MISCELLANEOUS

Reviewer

Joseph Steinberg

Supervisor, Review Section of Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler

Supervisor

43. Remarks:
FIELD EDIT REPORT
PROJECT PH-81
QUADS. T-11123 & T-10303

51. Methods. All roads were ridden out to check their classification and to visually inspect the planimetry and contours, except on that part of Fenwick Island south of Fenwick Cut, where the roads were walked out. Some road 7's that have been abandoned and have become impassable through disuse were deleted. Roads that have been constructed since the field inspection have been classified on the 1959 photographs and are referenced on the field edit sheets.

Additional acreage has been added to the Bear Island Game Management Area south of Crooked Creek. The section of the new boundary line appearing on photograph 595-9064 was taken from an aerial photograph (approx. 1:4800 scale) which is on file at the Game Management Headquarters on Bear Island. A small scale map, as furnished to hunters, showing this area is a part of the data for T-11123 and is labeled Field Edit Sheet No. 5.

Features that are new since the field inspection, principally dikes and ditches, appear on the 1959 photography. These have been classified and cross referenced on the field edit sheets. New buildings and others that were not mapped have been circled on the 1959 photographs where they are discernible. Those that have been built since photography or are obscured by trees have been blocked in and circled. All buildings are class 1 unless otherwise classified.

The Intracoastal Waterway and other inland waters, where questions arose, were inspected by boat and changes noted on the photographs, in many areas. Note old boat wreckage on shoal approximately one mile Northwest of Fenwick Cut, on photograph 595-9061.

Aids to navigation that are known to have been moved or rebuilt since the field inspection were located by direct identification on the photographs where clearly discernible and by sextant fixes for others. Azimuths of the ranges were determined by occupying the front range and measuring the angle from a triangulation station to the rear range with a sextant held directly over the front range.
All aids are charted except Daybeacon 5 at Lat. 32° 32.0
Long. 80° 23.6' (approx.) and a Marker (large single pile) at Lat.
32° 31.5 Long 80° 22.5' (approx.).

Forms 567 are being submitted for all aids located since 1
June 1960 when forms 567 for aids prior to this date were submitted
with Quad. T-11122. These forms are being submitted to the Photogram-
metric Office only and are to be forwarded to their proper designations
when accurate positions are determined.

The M.H.W.L along the sound side of Otter Island in T-10303
was inspected and located by walking the shoreline. Inspection by boat
was impractical because of the vast area offshore which was bare or
very shallow when the area was inspected.

Field edit information is shown on the following: Five field
edit sheets for T-11123 and one field edit sheet for T-10303. One
ratio print each of photographs Nos. 595-9048, 9050, 9052, 9054, 9059,
9061, 9063, 9082, 9084 and 9086.

Violet ink was used for all additions and corrections and green
ink was used for all deletions on all photographs and sheets.

52. Adequacy of The Compilation. Due to the long lapse of time
since the field inspection many changes have occurred and new features
built. The M.H.W.L along the sound side of Otter Island should be cor-
rected from the inspection of 5 Aug. 1960, on photograph 595-9054 and
the 5 foot contour should be corrected as discussed in letter to Chief,
Photogrammetry Division dated 11 June 1960 and reply No. 762/AH dated
21 June 1960. When these and other corrections and additions are ap-
plied from the field edit data the compilation will be adequate and com-
plete.

53. Map Accuracy. No horizontal accuracy tests were made. Con-
tours were tested in two separate areas in T-11123. A total of 33
points on the contours were tested all of which were in error less
that one half contour interval. See form 187 (Summary and abstract
of vertical accuracy test) attached. Contours along the Sound side
of Otter Island in T-10303 were visually inspected while walking the
area. Except for the 5 foot contour, which has shifted with the M.H.W.L
in places, the contours are good as to shape and size.
54. Recommendations. None offered.

55. Examination of the proof copy. No one was requested to examine a proof copy of the map as no one contacted was believed to be qualified.

Respectfully submitted,
16 August 1960

George E. Varndoe
Supervisory Cartographer.
61. General Statement

Differences exist between T-10303 and a 1956 Geological Survey Quadrangle (St. Helena Sound, S. C., scale 1:24,000). The differences are discussed under item 63 of this report.

T-10303 will not be published by the Geological Survey (refer to the "Summary" for this report).

62. Comparison with Registered Topographic Surveys

5169 1:10,000 1933

T-10303 supersedes the prior survey for nautical charting purposes.

63. Comparison with Maps of Other Agencies

St. Helena Sound, S. C. 1956 1:24,000

Differences exist. They are, for the most part, differences to be expected due to the elapsed time between the surveys and scale difference.

There are differences in apparent shoreline resulting from a difference in selection of details to represent this feature. In addition, there are some differences in contours.

64. Comparison with Hydrographic Surveys

Inapplicable.

65. Comparison with Nautical Charts

793 revised 12/4/61 1:40,000 scale

Differences exist. However, there are no items to be applied immediately.

66. Adequacy of Results and Future Surveys

This map complies with the National Map Accuracy Standards and meets Bureau requirements.
Geographic Names.

Ashpoo River
Beaufort County
Colleton County
Combahee Bank
Fish Creek
Hutchinson Island
Jefford Creek
Otter Creek
Otter Islands
Pelican Bank
Pine Island
Pine Island Creek
St. Helena Sound
South Carolina

Names approved 9-10-58
L. Heck
**U.S. DEPARTMENT OF COMMERCE**  
**COAST AND GEODETIC SURVEY**

**NONFLOATING AIDS OR LANDMARKS FOR CHARTS**

_Burton, South Carolina_  
19 Sept. 1955

I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by _Joseph K. Wilson_

<table>
<thead>
<tr>
<th>State</th>
<th>SOUTH CAROLINA</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Charting Name</th>
<th>Description</th>
<th>Signal Name</th>
<th>Latitude °</th>
<th>Longitude °</th>
<th>Datum</th>
<th>Method of Location and Survey No.</th>
<th>Date of Location</th>
<th>Chart Affected</th>
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<tbody>
<tr>
<td>LT.</td>
<td>COMBAH EE BANK LIGHT, 1955</td>
<td></td>
<td>32°28'</td>
<td>85.4°80'</td>
<td>115°1'26&quot;</td>
<td>T-19303</td>
<td>1955</td>
<td>793, 1239</td>
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<tr>
<td>DAYB</td>
<td>PELICAN BANK DAYBEACON &quot;A1&quot;, 1955</td>
<td></td>
<td>32°26'</td>
<td>173°13.7°80'</td>
<td>136.5°</td>
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<td>793, 1239, 1240</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* Tabulate seconds and meters
**INSTRUCTIONS**

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

<table>
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<tr>
<th>CHART</th>
<th>DATE</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
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<td>7-6-69</td>
<td>J H Edna</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
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