

5175

U. S. COAST & GEODETIC SURVEY
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Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton, Director	
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State: South Carolina	
DESCRIPTIVE REPORT	
Air Photo	Topographic } Hydrographic } Sheet No. Field 23 Reg. No. 5175
LOCALITY	
Charleston & Vicinity	
CHARLESTON HARBOR	
SOUTHERN PART OF DARIEN ISLAND	
DANIEL ISLAND	
1934	
CHIEF OF PARTY	
E. H. Kirsch	

U. S. GOVERNMENT PRINTING OFFICE: 1924

621K

Applied to chart 1234 April 1937 D.M.A.

PHOTOS NO.

DATED

TIME

M-28 - 823A-8 through M-31 - 823A-8 November 9, 1933 1:10 PM 5h 58m Before L. Tide.
 M-147- 823A-8 through M-150- 823A-8 December 21, 1933 1:05 PM 4h 32m Before L. Tide.
 M-50 - 823A-8 through M-54 - 823A-8 November 17, 1933 10:45 AM 2h 54m Before L. Tide

PROJECTION BY

L. C. Ripley
 L. C. Ripley

2-12-34

PROJECTION CHECKED BY

E. H. Kirsch
 E. H. Kirsch

2-12-34

CONTROL PLOTTED BY

M. L. Smith
 M. L. Smith

2-13-34

CONTROL CHECKED BY

E. H. Kirsch
 E. H. Kirsch

CONTROL PLOTTED ON PHOTOS BY

J. F. Richardson
 J. F. Richardson

CONTROL CHECKED ON PHOTOS BY

F. H. McBeth
 F. H. McBeth

TOPOGRAPHY TRANSFERRED BY

T. P. Mitchell
 T. P. Mitchell

2-27-34

TOPOGRAPHY CHECKED BY

E. H. Kirsch
 E. H. Kirsch

SMOOTH RADIAL LINE PLOT BY

M. D. Crook
 M. D. Crook

Transferred from Sheets,
 "B"3-13-34 "E"2-24-34

RADIAL PLOT CHECKED BY

E. H. Kirsch
 E. H. Kirsch

SCALE PLOT BY

J. H. Wulbern
 J. H. Wulbern

DETAIL INKED BY

T. P. Mitchell
 T. P. Mitchell

2-27-34 to 3-28-34

AREA DETAIL INKED: 12.265 Square Statute Miles (Land Area)

AREA DETAIL INKED: - - - - (Shoals in water area)

LENGTH OF SHORE LINE: 10.2 Statute Miles (More than 200m from nearest opposite shore)

LENGTH OF COASTLINE: None

LENGTH OF STREAMS: 57.5 Statute Miles (Rivers and Sloughs 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. 23

REGISTER NO. 5175

State South Carolina

General locality Charleston Harbor & Vicinity

Locality DANIEL ISLAND
Southern part of Darien Island

Scale 1:10,000 Photographs - November 9, 1933
Date of ~~survey~~ November 17, 1933, 19
December 21, 1933

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 T. P. Mitchell

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

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

Instructions dated November 10, 1933, 19

Remarks:

GENERAL INFORMATION

Statistics:

This atlas sheet is one of sixteen compiled for charting and Inland waterway Navigation for Charleston and surrounding coastal sections.

The land area covered by this sheet is 12.2 square statute miles, with 10.2 statute miles of river, shore line more than 200 meters from nearest opposite shore and 57.5 statute miles of river shoreline less than 200 meters wide. The figure 57.5 includes all rivers, streams, canals, and sloughs of the above mentioned size. There is no outside coast shoreline on this sheet.

Report:

The area covered by this sheet consists of marsh, timberland, grass, and cultivated land which are represented by graphic symbols taken from the topographic manual (Special Publication No. 1144). At the extreme Southwest corner of this sheet near triangulation station "Tuxbury Tank", the relief rises to approximately 10 meters above mean sea level. Other than this, the relief is very general. The field inspection report 1933-34 covering all atlas maps in general will be furnished by Lt. B. H. Rigg. *(Submitted with sheet #1 Reg. 5153)*
See General Report filed as T 5153.

Photographs:

Photographs from part of three flights were used in the compilation of this sheet. All photographs were taken by the U. S. Army Air Corps' Single Lens Camera. One flight M-28 - 823A-8 through M-31 - 823A-8 was taken November 9, 1933 at 1:10 P.M. which was 5 hours and 58 minutes Before low tide. One flight M-147 823A-8 through M-150 - 823A-8 was taken December 21, 1933 at 1:05 P.M. 4 hours and 32 minutes before low tide. One flight M-50 - 823A-8 through M-54 - 823A-8 was taken November 17, 1933 at 10:45 A.M. 2 hours and 54 minutes before low tide.

CONTROL

Source:

Triangulation by C. D. Cowie and R. L. Shoppee 1933
Triangulation by R. F. A. Studds, Chief of Party 1928.
Aluminum Control Sheet "C" Reg. No. 6070, by Lt. M. O. Witherbee, Chief of Party 1933-34.
Also Whatman Sheet "D" Reg. No. H-5448, by M. O. Witherbee Chief of Party, 1933. Later used as boatsheet No. 3.

All control has been reduced to North American 1927 datum. Radial points on this sheet between latitude 32° 49' 45" and

* This special symbol used by the compiler has been removed here. The note "all tracks not shown" has replaced this symbol.

Larm

* The low water line as referred to here is ^{approximate} ~~not the~~ low water line. This line was traced from the photographs and shows the shoal areas when the stage of tide was from 5 to 6 hours before low tide.

Larm

32° 51' 00" were transferred from ~~Sheet E~~^{Sheet B}. Those North of 32° 51' 00" are from Sheet "B". Sheet^E and B are large overlay sheets on which the radial plot was executed. The radial points were pricked through to the atlas sheet. *The datum station is adjusted.*

Errors:

No errors were found in the plotting of controls.

Discrepancies:

No control stations established by other organizations were used in the compilation of this sheet.

COMPILATION

Method:

The standard radial line method was used as described in the U. S. C. & G. S. 1933 "Notes on the Compilation of Plainmetric Line Maps from Five lens Aerial Photographs." and the points transferred to the Atlas sheets.

Adjustment of Plot:

Most of the photographs were very clear and free from excessive tilt and scale fluctuation.

The three range beacons near Lat. 32° 51' and Long. 79° 56' were located by the radial plot. The other points shown with black circles were transferred direct from the ~~topo sheets~~^{plane table surveys}.

Interpretation:

All graphic symbols used on this sheet were taken from the topographic manual except in the extreme Southwest corner the double hachure railroads represents two tracks each. In this area part of the detail was omitted (switches, spur tracks). Paved roads and streets are represented by double lines while improved roads are shown by a double dashed line, unimproved roads and trails are shown by a single dashed line. * See opp. page.

The low water line shown by a dotted line was taken from the photographs and is very indefinite and in many cases could not be identified at all, but where sand extended out from the shore the low water line shows up well. * See opp. page.

The circle marked ~~Light~~ Tower in Lat. 32° 50.8', Long. 79° 56.2' was located by topography. It is a wooden tower supporting flood lights used when dredging. It is not an Aero Beacon. The structure is of a temporary nature.

The points of marsh at the junctions of Clouter Creek

and the Cooper River was extended to match the A.C.S. "C". ~~16070~~

All other shore line on this sheet was taken from the photos and agreed very closely with the line run in by topo party on A.C.S. "C". ~~16070~~

The semi-circular double dashed line at the bend in the Cooper River near $32^{\circ} 51'$, $79^{\circ} 56'$ is a plank retaining wall supporting the spoil bank at this point. This point is being filled in by hydraulic dredge for a flying field. The single solid line is the pipe line used during dredging operations. *Pipe line deleted.*

The strip of shore line along the East bank of the Cooper River from $32^{\circ} 51'$ up to the mouth of Clouter Creek is made up of a sandy mud mixture and has been shown by small dots.

The dock shown on the West bank of the Wando River at Mitchell has been rebuilt since the photos were taken and is now smaller than the photos show according to information by Lieut. B. H. Riggs' party after field inspection. The size of the dock shown on this sheet has been made to agree with that shown on aluminum control sheet "C", Reg. No. ~~7-6070~~.

A strip of shore line just North of the above mentioned dock has been made to agree with that shown on A. C. S. "C" ~~16070~~ as field inspection shows a patch of marsh grass to be cut off from the high ground line by water at high tide.

Information from other Sources:

Field Inspection by Lieut. B. H. Rigg, 1933.
Aluminum Control Sheet "C", Reg. No. ~~7-6070~~, Lt. M. O. Witherbee, Chief of Party, 1933.
Hydrographic Sheet Fidd No. 2, Reg. No. , Lt. M. O. Witherbee and Lt. B. H. Rigg, 1934.
Whatman Sheet "D" Reg. No. ~~H-5448~~, later used as boat sheet No. 3.
Field inspection by the Compiler.

Conflicting Names:

There are no conflicting names on this sheet.
No new names. Lamm.

COMPARISON WITH OTHER SURVEYS

Junctions:

Junctions with all adjoining sheets are good:
North - Sheet No. 20, Reg. No. 5172
East - Sheet No. 22, Reg. No. 5174
South * Sheet No. 26, Reg. No. 5178
West - Sheet No. 24, Reg. No. 5176

Landmarks:

A complete list of landmarks for charts has been sub-

mitted with A.C.S. "B" Reg. No. 7-6069, Lt. M. O. Witherbee, Chief of Party 1933. Also Whatman Sheet "D" Reg. No. H-5448, M. O. Witherbee, Chief of Party, 1933. Whatman Sheet "D" was also used as a boat sheet, its field No. is "3" Reg. No. H-5448.

Station PILE 1928 is located on a piling along the West bank of the Wando River approximately 200 meters North of Lat. 32° 50'. This piling does not appear on chart No. 470.

A dolphin shown on this sheet directly South of Station PILE 1928 does not appear on chart No. 470. Both of the above objects have been verified by field inspection.

Recommendation for Further Surveys:

The compilation of this sheet is believed to have a probable error of not more than 3 meters in well defined detail of importance for charting and of not more than 6 meters for other data. To the best of my knowledge this sheet is complete for charting purposes within the required accuracy and no additional surveys are necessary.

See below

Assisted by:

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

Submitted by:

T. P. Mitchell
T. P. Mitchell.

note

The estimated accuracy given above is a little high for work on this scale. A better estimate is an accuracy of location of 3 to 4 meters for interested points and 3 to 8 meters for other detail

B. G. Jones

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. *T-5175*

Title (Par. 56) Southern Part of Darien Island

Chief of Party E. H. Kirsch

Compiled by T. P. Mitchell

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

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. *See before the page. See last page* ✓
- ~~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 A.C.S. Sheets.
See of from the page. T-6070 See last page.
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)
Submitted with A.C.S. Sheets.
14. The geographic datum of the sheet is N.A. 1927 and the reference station is correctly noted. (Par. 34.)
Datum station adjusted.
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.) *No new names.* ✓
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 page:

20. Examined and approved:

E. H. Kirsch

E.H. Kirsch Chief of Party

21. Remarks after review in office: *See next page.*

Reviewed in office by: *Leonard A. McKame*

Examined and approved: ✓ *B. G. Jones*

K. T. Adams

Asst Chief, Section of Field Records

L. O. Collier
Chief, Division of Charts

F. S. Borden
Chief, Section of Field Work

G. H. Mudd
Chief, Division of
Hydrography and Topography.

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REVIEW OF AIR PHOTO COMPILATION T-5175 (1934)

Comparison with Other Surveys:

1. T-6070 (1934) aluminum control survey. The compilation and T-6070 are in agreement. All detail on T-6070 within the area of this compilation is shown on the compilation except for temporary plane table stations and the detail listed below:

(a) Azimuths of ranges as listed here were determined on T-6070 by locating a point on the range. The range lights are shown on the compilation. The value of the azimuths has been scaled from the lines shown on T-6070 by B.G.J. and T.A.Mc. *B.G.J. checked by L.A.M.*

(1) Drum I. Channel Range $118^{\circ} 30'$ from N. This value is shown as $118^{\circ} 43'$ on T-6070 and $118^{\circ} 30'$ on T-6069, but scales $118^{\circ} 30'$. ✓

(2) Navy Yard Channel Range $137^{\circ} 32'$ from N. Given on T-6070 as $137^{\circ} 24'$ but scales $137^{\circ} 32'$.

(3) Cooper River Lower Range $359^{\circ} 50'$ from N., given on sheet as $00^{\circ} 06'$, but scales $359^{\circ} 50'$.

(4) Cooper River Upper Range $98^{\circ} 41'$ from N., given as $137^{\circ} 24'$ on the plane-table sheet but scales $137^{\circ} 32'$.

(b) Descriptions of a number of recoverable topographic stations are written directly on T-6070. These descriptions are not on the compilation but the stations are shown and descriptions are filed on Form 524.

(c) Three channel buoys shown on T-6070 are not shown on the compilation.

2. Comparison with the following plane table surveys covering part of this area shows minor changes in the shore-line: T-2168 (1894); T-3854 (1921); T-4433 (1928). The compilation is more detailed and is adequate to supersede the sections of these surveys which it covers.

Descriptions of recoverable topographic stations shown on this compilation are filed under T-6070.

B.G. Jones

Survey No. 5175

Chart No. 1239

Diagram No. _____

Not Approved by the Division of Geographic Names, Department of Interior.

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

[illegible]