

5478

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

Topographic } Sheet No. T-5478
~~Hydrographic~~ }

State Florida

LOCALITY

Santa Rosa Sound,

~~Henry's~~

~~Lower Pritchard Long Point~~

~~WILLIAMS CREEK SWALE AND EASTWARD~~

~~to~~

~~Longitude 86° 07' 00"~~

1934

CHIEF OF PARTY

M. H. Reese

U. S. GOVERNMENT PRINTING OFFICE: 1934

5478

Applied to Chart 871 - July 11, 1946 - M. M. R. ¹⁰² 9.9.

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 for-
warded to the Office.

T5478

Field No. 7

REGISTER NO. T-5478

State..... Florida

General locality..... Santa Rosa Sound
~~WILLIAMS CREEK SOUND AND EASTWARD~~
Locality..... ~~Lower Pritchard Long Point to Longitude 86° 57' 30"~~

Scale..... 1:10,000 Date of ~~survey~~ photographs June 26 & July 11, 1934.

Vessel Air Photo Compilation Party No. 24, Pensacola, Fla.

Chief of party..... M. H. Reese.

Surveyed by..... See data sheet in the descriptive report.

Inked by..... S. S. Gill.

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

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

Instructions dated..... June 7, 1934.

Remarks: Compiled on scale of 1:10,869 and enlarged and

printed on scale of 1:10,000 by Photo Lithography. Scale

factor .92

- STATISTICS -

on

Big River 2 - 1910-1934

SHEET, FIELD NO. 7, REG. NO. T-5478

30°23'51.741" - 1593.3

C-~~49~~⁵¹

C-54

86°53'22.306" - 595.4

PHOTOS, NO. 39

TO NO. 49

~~57~~

(unadjusted)

7/11/34

9 A.M.

DATE OF PHOTOGRAPHS 6/26/34

6/26/34

TIME 8 A.M.

8 A.M.

BY

DATE

FROM

TO

ROUGH RADIAL PLOT

E. P. Hernandez Jr.
E. P. Hernandez Jr.

9/25/34

SCALE FACTOR (0.92)

E. P. Hernandez Jr.
E. P. Hernandez Jr.

9/27/34

SCALE FACTOR CHECKED

M. H. Reese
M. H. Reese

9/27/34

PROJECTION

E. P. Hernandez Jr.
E. P. Hernandez Jr.

9/27/34

PROJECTION CHECKED BY

H. C. Smith
H. C. Smith

9/27/34

CONTROL PLOTTED

H. C. Smith
H. C. Smith

10/1/34

CONTROL CHECKED

S. S. Gill
S. S. GILL

10/2/34

TOPOGRAPHY TRANSFERRED

TOPOGRAPHY CHECKED

SMOOTH RADIAL LINE PLOT

S. S. Gill
S. S. Gill

10/2-3/34

RADIAL LINE PLOT CHECKED

H. C. Smith
H. C. Smith

10/8/34

DETAIL INKED

S. S. Gill
S. S. Gill

10/8-22/34

PRELIMINARY REVIEW OF SHEET

E. P. Hernandez Jr.
E. P. Hernandez Jr.

11/19/34

TOTAL AREA OF SHEET 47.6 sq. Statute Miles

AREA OF DETAIL INKED 15.97 sq. Statute Miles

(Land Area)

AREA OF DETAIL INKED

sq. Statute Miles

(Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)

23.5 Statute Miles

LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)

Statute Miles

GENERAL LOCATION Santa Rosa Sound

LOCATION Lower Pritchard Long Point to Longitude 86°57'30"

DATUM North American 1927 (Unadjusted)

Latitude 30°23'51.741" (1593.3 m.)

STATION BIG RIVER 2 - 1910-1934

(Unadjusted)

Longitude 86°53'22.306" (595.4 m.)

86-52-53.266 (1475.8 m.)

COMPILER'S REPORT

FOR

PHOTO TOPOGRAPHIC SHEET NO. T-5478

FIELD NO. 7

I. GENERAL INFORMATION:

Instructions dated June 7, 1934.

The information used in the compilation of this sheet was obtained from the notes and sketches on the field photographs and from members of the field inspection party.

The land area of this sheet consists mostly of sand ridges, which are covered with pines, scrub oaks, magnolias, and some palmetto. There are also many sloughs that are dry, but become inundated after rains and drain the low areas. These low areas are covered by grass and pine trees. There is also a small amount of marsh in the very low spots. Santa Rosa Island is a sand covered island that also appears on this sheet. There are sand dunes along the northern shore of the island, which are covered with brush and grass. There are also a few small shallow ponds surrounded by marsh.

The tide in this area is approximately 1.2 feet. The difference between high and low water is small except on the sand spits, which are found along the northern shore of the island, in which case the low waterline is shown by broken lines. The high water line, as determined by the field inspection party, was used in tracing the shoreline for this sheet. Light beacons and U.S. Geological Transit Traverse stations are shown on this sheet by 2.5 mm. circles.

This sheet was compiled from photographs taken by the Aero Service Corporation, five lens camera No. H.U.I. 33. Photographs numbers 39 to 57 approximately parallel with latitude 30°24' and C-49 to C-54 approximately parallel with Latitude 30°23'.

*changed
to Sheet
Line*

II. CONTROL:

(A) Sources.

The following sources of control were used in the compilation of this sheet:

- (a) Triangulation by F. L. Peacock, 1930.
- (b) Triangulation by G. L. Anderson, 1934.
- (c) Transit traverse by G. B. Grunwell, 1933,
(Geological Survey).
- (d) Triangulation by G. H. R. - *Publication No. 16.*

The geographic positions as established by F. L. Peacock, 1930, and ~~G. B. Grummitt, 1935~~, were corrected to the North American 1927 Datum. Using first order triangulation station Cove-3 1930, as this was the only station appearing on this sheet common to the two schemes, a conversion factor was obtained whereby the geographic positions of these stations on the North American Datum were corrected to the North American 1927 Datum.

The correction was found to be -9.7 meters in forward latitude, + 9.7 meters in back latitude, + 14.7 meters in forward longitude, and -14.7 meters in back longitude. This correction was applied to all triangulation stations covered by this sheet, except station Williams 1934 which was already located on the North American 1927 Datum.

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

Due to the difference in scale of the single lens photos and the five lens photos, Santa Rosa Island was drawn in from the single lens photos. The detail was traced from the single lens photos on a separate sheet and ~~reduced to the scale of the sheet traced from the five lens photos. The detail was traced in blue from the five lens photos on the celluloid as a check on the single lens photos. The two tracings were compared and found to check. The detail was then traced from the reduced photostat on this sheet.~~

→ The two celluloids combined in one sheet
(B) Errors. when printed. p. 6d.

The control used in the compilation of this sheet was found adequate for the radial line plot and no errors were found in the compilation of this sheet.

(C) Discrepancies.

No discrepancies in the geographic positions of the control stations were found.

III. COMPILATION:

(A) Method.

The usual five lens photograph radial line method of plotting and the single lens photograph radial line method were used in the compilation of this sheet.

(B) Adjustment of plot.

The following prints were mounted over water and there is no way of checking the accuracy of the mounting: 39A to 57A, exclusive of 40A, 44A, 56A, which have little detail to check the mounting, and 42E, 46E, 48E, 50E, 52E and 54E. The photographs of this area are free from excessive tilt and scale fluctuations. The "D" and "E" prints of this flight were not very clear and tying in stations was difficult.

(C) Interpretation.

Only the graphic symbols as approved by the Board of Surveys and Maps (1932) were used in the compilation of this sheet, except for the symbol ($\{$) that was used to denote brush. The single broken line was used to denote the sand trails. The double broken line was used to designate a dirt graded road. The double full line was used to denote paved highways, the width of which is slightly exaggerated.

(D) Information from other sources.

There was no information taken from any sources other than those mentioned herein.

(E) Conflicting names.

There are no conflicting names on the different charts of this area.

(F) New names.

The name "Williams Creek", obtained from notes of the field party, is a local name given to a small creek in this area. The Lighthouse Department uses it in naming two beacons in Santa Rosa Sound, and the field inspection party found it to be in use by the local residents. For these reasons the name is recommended for adoption.

IV. COMPARISON WITH OTHER SURVEYS:

The junctions of this sheet with sheets to the North (T-5480), to the East (T-5479), and to the West (T-5476) are satisfactory.

V. LANDMARKS:

The list of landmarks is submitted by the hydrographic party.

VI. RECOMMENDATIONS FOR FURTHER SURVEYS:

To the best of my knowledge, this sheet is complete in all detail of importance for charting purposes, and no additional survey is required.

S. S. Gill
Submitted by: S. S. Gill,
Draftsman.

M. H. Reese
Approved by: M. H. Reese,
Chief of Party.

This compilation is considered correct within 0.3 to 0.5 m.m. for intersected points and 0.3 to 0.8 m.m. for other detail.
F.S.E.

Diagram No. _____

Under investigation. Q

(M-136)

MEMORANDUM TO ACCOMPANY SHEET NO. 7.

The U. S. Geological Survey ran a transit traverse along Florida Highways Nos. 53 and 10 during the latter part of 1935. This traverse was tied in to several triangulation stations along the northern shore of Santa Rosa Sound, and the checks were accurate enough for photo control. The traverse stations were reduced to the 1927 North American Datum and were used for control in making the radial line plot.

The following recoverable topographic stations are submitted on form 524:

USGS TT 46 G.
USGS TT 68 G.
USGS TT 69 G.
WILLIAMS CREEK SHOAL 3 (Light Bn. 2)
WILLIAMS CREEK SHOAL 4 (Light Bn. 4)


M. H. Reese.

MEMORANDUM TO ACCOMPANY SHEET NO. T-5478

At triangulation stations CAMP, BIG RIVER-2, and BLUFF-2, the shore line has been rodged in by Lieut. Rittenburg's party. This shore line does not check with that as drawn on the celluloid from the air photos. This difference is probably due to the two parties not interpreting the high-water line the same, as this is a sand beach. The high-water line is drawn from the notes and sketches of the field party, and at these stations measurements were taken to the high-water line and traced accordingly.

At triangulation station PEAK-3, the shore line has been checked and found to be as the photos show it. Also, at station COVE-3 there is a difference in shore line. This area was drawn from the single-lens pictures which are very much to scale and checked from the five-lens photographs. The shore line is correct as traced on the celluloid from the air photos.

The areas in question are small sandy beaches, and the small differences between the two surveys are due to misinterpretation of the mean high-water line by the photo field inspection party and the topographic party.


M. H. Reese,
Chief of Party, C. & G. S.


MEMORANDUM TO ACCOMPANY SHEET NO. T-5478.

The shore line and other topographic features in the vicinity of the shore line on this compilation have been checked against the G.C.S. sheet of Lieut. Rittenburg's, and also against the smooth hydrographic sheet executed under his direction. There were practically no discrepancies between the two surveys, and those that existed have been verified and corrected on the compilation. The locations of the various beacons shown on this sheet were scaled from the aluminum topographic sheet.

This compilation was compiled originally from triangulation data obtained from field computations of the first order arc of this section. When the first order arc was adjusted, it was discovered that there existed considerable discrepancies between the adjusted positions and the field positions. Therefore, it was necessary to change the projection on the compilation. The amount and the manner in which this projection was changed are given below:

STATION	N.A. 1927 FINAL POSITION (UNADJUSTED)		CORR'N	N.A. 1927 FIELD
John 3	30 23 00.352 86 51 27.493	10.8 734.0	-3.7 -6.4	14.5 740.4
Big River 2	30 23 51.741 86 53 22.306	1593.3 595.4	-3.2 -6.7	1596.5 602.1
Cove 3 (Adjusted)	30 22 49.482 86 52 55.024	1523.7 1469.1	-3.3 -6.5	1527.0 1475.6
Camp	30 23 45.006 86 55 06.752	1385.9 180.3	-2.6 -6.9	1388.7 187.2
Peak 3	30 22 26.003 86 55 17.208	800.7 459.5	-2.8 -6.5	803.5 466.0
Bluff 2	30 24 01.964 86 51 32.173	60.5 858.8	-3.6 -6.7	64.1 865.5
Williams (Adjusted)	30 24 06.719 86 54 36.612	206.9 977.3	-3.3 -6.3	210.2 983.6

(Average Correction: Lat. -3.3; Long. -6.6)


M. H. Reese,
Chief of Party, C. & G. S.

REVIEW OF AIR PHOTO COMPILATION T-5478

Comparison with Contemporary Graphic Control Surveys.

T-6249a (1934) 1:10,000; T-6249b (1934) 1:10,000.

A few small changes have been made in the compilation shoreline to make it agree with the above graphic control surveys which are approximately 5 months later than the photos. All detail shown on the above graphic control surveys has been shown on the compilation except temporary topographic signals and magnetic meridians.

Comparison with Contemporary Hydrographic Surveys.

H-5033 (1930) 1:20,000; H-5705 (1935) 1:10,000.

The shoreline of H-5033 surveyed in 1930 varies slightly from the compilation which was compiled in 1934. This is probably due to the 4 year interval between the time of the survey of H-5033 and the compilation.

The compilation at lat. $30^{\circ} 23.7'$, long. $86^{\circ} 53.5'$ did show sand bars which have been removed because H-5705 shows a well sounded out spoil bank which does not bare at low water. The hydrographic survey was made approximately 6 months later than the date of the photos. At lat. $30^{\circ} 23.9'$, long. $86^{\circ} 53.0'$ H-5705 shows piling. These can not be seen on the photos and have not been shown on the compilation.

Comparison with Former Surveys.

T-4241 (1927) 1:20,000.

The compilation shows only minor time changes from the above survey. The compilation is complete and adequate to supersede the portions of the above survey which it covers.

Comparison with Chart 1265.

The compilation is much more complete in detail otherwise there are outstanding differences.

L. C. Lande

REVIEW OF AIR PHOTO COMPILATION NO. T-5478

Chief of Party: M. H. Reese

Compiled by: S. S. Gill

Project: Florida Compilation

Instructions dated: June 7, 1934

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)
All necessary information for bringing the charts up to date is shown on this compilation.

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)
There were no changes in the positions of any of the above.

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)
There were no ground surveys by plane table, sextant or theodolite to supplement the photographic plot.

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)

No blueprints or maps from other sources were used for this chart. *Transmitted as supplement to this compilation*

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.

There were no contemporary plane table or hydrographic surveys made before this compilation was forwarded to the office. *see memo.*

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)

The above was mentioned in the descriptive report.

7. ✓ High water line on marshy and ^{sandy} ~~marshy~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

The high water line was drawn from notes and sketches on the field photographs.

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." M-57

8. ✓ The representation of low water lines, ^{sand bars} ~~reefs, coral reefs, and rocks~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

The low water line was not shown on this sheet due to the small difference in high tide and low tide. The legend pertaining to the sand bars is satisfactory.

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)

~~There were no recoverable objects on this sheet.~~ *Complied with. see memo.*

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)

The landmarks are submitted ~~on Form 567~~ by hydro party.

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)

The bridges shown on this sheet are of no importance to navigation.

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)
- The geographic names are shown on overlay tracing and the new names are mentioned in the report and the above complied with.

13. ✓ The geographic datum of the compilation is N.A. 1927 Un- ^{and the} reference station is correctly noted. ^{adjusted}

14. ✓ Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

The junctions with sheets to the West ^{North & East} ~~is~~ ^{are} satisfactory.

15. ✓ The drafting is satisfactory and particular attention has been given the following: "Yes."

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)

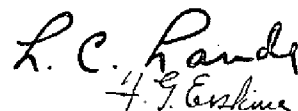
16. No additional surveying is recommended at this time.

17. Remarks:

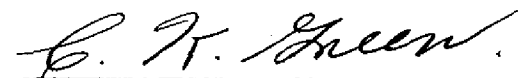

18. Examined and approved;


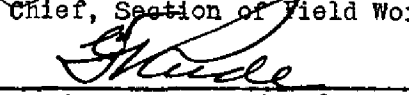

M. H. Reese
Chief of Party

19. Remarks after review in office:

Reviewed in office by: 
L. C. Hardy
F. G. Eskine

Examined and approved:


Chief, Section of Field Records

Chief, Division of Charts


Chief, Section of Field Work

Chief, Division of Hydrography
and Topography.