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

DESCRIPTIVE REPORT

Topographic } Sheet No. T-5520
~~Hydrographic~~

State Florida

LOCALITY

St. Andrew Bay

Vicinity of New Entrance Channel

193 5

CHIEF OF PARTY

M. H. Reese

U. S. GOVERNMENT PRINTING OFFICE: 1934

0
2
10
10

applied to Chr 1263 - Feb 1938 - J.S.B.

applied to chart 489 Feb 13, 1943 g.H.S.

" " " 868 Aug, 1946 W.A.B.

" " " 869 Sept 1946 g.H.S.

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. 47

REGISTER NO. T-5520

dia 184

State Florida

General locality St. Andrew Bay

Locality ~~St. Andrew Bay~~ *vicinity of New Entrance Channel*

Scale 1:10,000 Date of ~~survey~~ *photos* 9/13, 19 34

~~1933~~ Air Photo Compilation Party No. 24, Pensacola, Fla.

Chief of party M. H. Reese

Surveyed by See data sheet in descriptive report.

Inked by A. A. Voss

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

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

Instructions dated June 7, 19 34

Remarks: Compiled and printed on scale of 1:10,000.

Scale factor 1.00.

- STATISTICS -

on

SHEET, FIELD NO. 47, REG. NO. T-5520

PHOTOS, NO. C-86 TO NO. C-90 *d/30 642-845-200 p. 4*

DATE OF PHOTOGRAPHS Sept. 13, 1934 TIME 9:30 a.m.

	BY	DATE FROM TO
ROUGH RADIAL PLOT	---	---
SCALE FACTOR <u>(1.00)</u>	---	---
SCALE FACTOR CHECKED	---	---
PROJECTION	<i>E. P. Hernandez Jr.</i> E. P. Hernandez Jr.	3/19/35
PROJECTION CHECKED	H. C. Smith	3/19/35
CONTROL PLOTTED	R. S. French	3/20 - 22 /35
CONTROL CHECKED	A. A. Voss	3/23 - 25 /35
TOPOGRAPHY TRANSFERRED		
TOPOGRAPHY CHECKED		
SMOOTH RADIAL LINE PLOT	A. A. Voss	4/1-4/35
RADIAL LINE PLOT CHECKED	<i>M. H. Reese</i> M. H. Reese	4/4/35
DETAIL INKED	A. A. Voss	4-4-10 & 5-8-9/35
PRELIMINARY REVIEW OF SHEET	<i>E. L. Fitch</i> E. L. Fitch	5/20/35

TOTAL AREA OF SHEET 12.88 sq. Statute Miles
 AREA OF DETAIL INKED 7.98 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)
23.1 Statute Miles
 LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)
2.7 Statute Miles

GENERAL LOCATION St. Andrew Bay

LOCATION ~~Lat. 30°09'~~ ~~Long. 85°45.2'~~ to ~~Lat. 30°06'~~ ~~Long. 85°40'~~ *Vicinity of New Entrance Channel*

DATUM North American 1927

Latitude 30°07'00.116" (*3.5* ~~28.6~~ m.)

STATION LAGUNA 2 - 1910-1935
 (Unadjusted)✓

Longitude 85°42'33.521" (897.4 m.)

COMPILER'S REPORT

FOR

PHOTO TOPOGRAPHIC SHEET NO. T-5520

I. GENERAL INFORMATION:

Instructions dated June 7, 1934.

Information used in the compilation of this sheet was obtained from notes and sketches on the field photographs, and from members of the field inspection party, also from topography executed by Lieut. Wm. D. Patterson in 1934 and 1935.

The land area of this sheet consists of sand ridges and dunes covered with scattered pines, scrub oak and palmetto on the western two thirds of the peninsula and island, while the eastern third consists mostly of flat sand beach. The mainland area shown consists of sandy area covered with pines, scrub oak, palmetto, brush, grass and some palms along the shore south and east of Station DAVIS 1934. There is a small amount of marsh area covered with grass, several small lakes and shallow ponds, also a limited amount of low area that is swamp.

The tide in this area is approximately 1.5 ft. The high water line, as determined by the field inspection party, was used in tracing the shore line of this sheet, except on either side of the St. Andrew Bay New Entrance Channel which was shown as indicated on topographic sheet "H" of Lieut. Wm. D. Patterson's survey. Light beacons and U.S. Engineer stations are shown on this sheet by 2.5 mm. circles.

This sheet was compiled from single lens photographs Nos. C-86 to C-90, taken by the Aero Service Corporation, September 13, 1934, except as noted below in this report.

II. CONTROL:

(A) Sources.

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

- (a) Triangulation by Lieut. Wm. D. Patterson, 1934-35.
- (b) " " " G. L. Anderson, 1934-35.

The geographic positions of these stations were computed from the North American 1927 Datum (adjusted-values).

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

(B) Errors.

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.

III. COMPILATION:

(A) Method.

The usual single lens photograph radial line method was used in the compilation.

(B) Adjustment of plot.

The photographs of this area are free of excessive tilt and scale fluctuations. The prints were not clear at their extremities, and tying in stations in these areas was difficult and in several cases doubtful.

(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 the symbol ({) used to denote brush.

The single broken line was used to denote sand trails. The double broken line was used to denote a dirt graded road.

(D) Information from other sources.

No information was taken from any sources other than those mentioned herein. *See Memo.*

(E) Conflicting names.

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

(F) New names.

The name "St. Andrew Bay New Entrance Channel" was obtained from the U. S. Army Engineers who stated that it was the name given this project by them. The field inspection party reported that this name is being used locally.

IV. COMPARISON WITH OTHER SURVEYS:

The junctions of this sheet with sheets to the North (T-5519), to the East (T-5517) and to the West (T-5521 and T-5523) are satisfactory.

A comparison with previous surveys shows that the shore line of the mainland has not changed materially and that the general shape of the peninsula is the same, except that the recent cutting of the St. Andrew Bay New Entrance Channel has made an island of the eastern portion of the peninsula. The dredging operations connected with the opening of the channel have caused the shore line to change considerably in that vicinity. Due to this recent change and to the fact that the rodded position of the shore line as shown by Lieut. Wm. D. Patterson is of a later date than the taking of the photographs and, therefore, considered a truer representation of conditions in the vicinity of St. Andrew Bay New Entrance Channel, this rodded shore line was transferred from the topographic sheet to this sheet, disregarding the photographs, within an area from 1.5 miles south-east of the channel to 1.0 mile north-west of the channel. The locations of beacons pertaining to New Entrance Channel were obtained from the topo sheet mentioned above.

In the vicinity of Alligator Point there is a discrepancy of 2 to 5 meters in shore line between this compilation and the topo sheet, probably caused by misinterpretation of the high water line.

There is a 10-meter discrepancy on the north shore of Grand Lagoon east of Longitude $85^{\circ}44'$.

There is a difference of 5 meters in the shore line of the small bay north of station SOWELL 1934 between the photo determination and the rodded shore line.

West of the bridge crossing Grand Lagoon the maximum difference is 15 meters, while eastward of said bridge for 500 meters the maximum difference is 10 meters.

The shore line from the northern limits of the sheet and from Station DAVIS 1934 easterly to the eastern limits of this sheet was transferred from a tracing of that area made from five-lens photographs, Nos. 842 to 845, inclusive. This was done because the shore line on the single lens photos was very

indistinct, being on the extremities of the photos.

The shore line of the island east of Longitude $85^{\circ}42.5'$ was traced in from the single-lens photographs.

The dock shown on the northwesterly side of St. Andrew Bay New Entrance Channel did not appear on the photographs but was rodded in by the topographic party and is, therefore, shown as rodded in. However, Station CREST (U.S.E.) as shown has since washed away. Station NORTH POINT (U.S.E.) is a wooden stake and not of a permanent nature.

The bridge shown crossing Grand Lagoon is a fixed timber pile bent structure. At this point Grand Lagoon is not navigable.

V. LANDMARKS:

The list of landmarks was submitted by the hydrographic party. *True submitted*

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.

E. A. Hernandez
for
Submitted by: A. A. Voss,
Draftsman.

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

*This compilation is believed to have a probable error of
0.3 to 0.5 m.m. for intersected points and 0.3 to 0.8 for other detail
G. S. E.*

MEMORANDUM TO ACCOMPANY SHEET NO. T-5520

Recent information obtained from the United States Engineers of this district, located in Mobile, Alabama, gives the following changes in beacons at the New Entrance Channel to St. Andrew Bay:

Beacons Nos. 3 and 6 have been replaced
by gas buoys of the same numbers;
also Beacons 5 and 8 have been removed.

This information was used and the celluloid sheet changed accordingly.



M. H. Reese,

Chief of Party, C. & G. S.

Survey No. T-5520

Chart No. 184

K' Applied to 867 *4.0* 5-27-45

74-131

REVIEW OF AIR PHOTO COMPILATION T 5520
Scale 1:10,000

Comparison with Graphic Control Surveys

(a) T 6302 (1935), scale 1:10,000

The only detail on T 6302 included on T 5520 is a short stretch of shoreline at Davis Point. The rodded points of shoreline shown on T 6302 at Davis Point agree well with the shoreline shown on T 5520.

A fish net rack is shown on T 6302 off Davis Point but is not shown on T 5520 because of the inability to pick up from the photographs and also because of its temporary nature.

The low water line shown on T 6302 off Davis Point disagrees with H 5783 and has not been added to T 5520.

All detail shown on T 6302 within the limits of T 5520 is shown on T 5520 except the low water line off Davis Pt., the magnetic declination, several temporary signals and one buoy.

(b) T 6303 (1935), scale 1:10,000

Almost all the detail shown on T 6303 is included on T 5520.

A comparison of the shoreline of T 6303 with that of T 5520 is discussed in the descriptive report, T 5520, page 4.

Descriptive report, T 5520, page 6 states that Beacons Nos. 3 and 6 have been replaced by gas buoys and Beacons Nos. 5 and 8 have been removed, and therefore are not shown on T 5520.

Low water lines have been transferred to T 5520 from T 6303 in the following localities: (1) Northeast of Alligator Pt; (2) Northwest of Alligator Pt.; (3) west bank of New Entrance Channel. The low water line in Grand Lagoon midway between the bridge and New Entrance Channel was not transferred as it conflicts with H 5783.

The pile at lat. $30^{\circ} 08.2'$, long. $85^{\circ} 42.5'$ has been added to T 5520 from T 6303.

The channel span of the wooden fixed bridge over Grand Lagoon was transferred from T 6303. The vertical clearance of 8.5 feet is from H 5783.

All detail shown on T 6303 (within the limits of the compilation) is shown on T 5520 except the magnetic declination, numerous temporary signals, several channel buoys, and as mentioned above.

Comparison with Previous Topographic Surveys

(a) T 477 (1855), scale 1:20,000

T 477 covers the entire area included in T 5520.

Since 1855 the eastern half of the peninsula has receded considerably; the farther east along the peninsula, the greater the recession. Little West Pass as shown on T 477 has closed up and the peninsula in this vicinity has receded about 300 meters. The shoreline of St. Andrew Bay, however, has remained about the same.

The principal change since 1855 in this area (except the receding of the eastern part of the peninsula) is the dredging of the new entrance channel.

T 5520 is adequate to supersede T 477 within the limits of the compilation.

(b) T 1146 (1870), scale 1:20,000

Most of the shoreline of T 1146 within the limits of the compilation is shown in pencil and has evidently been taken from T 477.

A comparison with T 1146 is the same as with T 477.

T 5520 is adequate to supersede T 1146 within the limits of the compilation.

(c) T 4541 (1930), scale 1:10,000

T 4541 includes the eastern half of T 5520.

The Gulf shoreline has receded from 20 to 50 meters between long. $85^{\circ} 41.5'$ and long. $85^{\circ} 42.9'$. The shorelines around the Bay have not changed.

Piling is shown on T 4541 at each of the following localities: $30^{\circ} 07.1'$, $85^{\circ} 41.1'$; $30^{\circ} 06.9'$, $85^{\circ} 40.9'$; and $30^{\circ} 05.8'$, $85^{\circ} 41.3'$. This piling can not be picked up from the photographs. It has been added to T 5520 from T 4541.

A small pier at $30^{\circ} 06.2'$, $85^{\circ} 40.2'$ shown on T 4541 was not shown on T 5520. It has been added from the photographs.

Another small pier shown on T 4541 at $30^{\circ} 05.6'$, $85^{\circ} 41.1'$ has evidently been washed away and is not shown on T 5520.

T 5520 is adequate to supersede T 4541 within the limits of the compilation.

Comparison with Contemporary Hydrographic Surveys

(a) H 5783 (1935), scale 1:10,000

H 5783 includes the western two-thirds of T 5520.

There are no conflicts with the hydrography.

Two iron poles at 30° 07.1', 85° 42.1' were transferred to T 5520 from H 5783.

(b) H 5782 (1935), scale 1:10,000

H 5782 includes within the limits of the compilation only a small area off Davis Point.

There are no conflicts with the hydrography.

Comparison with Charts

(a) Chart No. 184, scale 1:80,000

Corrections to the chart as a result of this survey are discussed on page 4 of the descriptive report and under "Comparison with Previous Topographic Surveys."

This survey shows all bluffs in this area of value for charting.

Aids to Navigation

Three piles marking the channel in St. Andrew Bay are shown on T 5520 and three lights - two at the entrance to the channel and one at Port Shoal.

No landmarks within the limits of T 5520 have been recommended.

Aug. 15, 1935.

T. GOSHEN

Frank G. Eshen

REVIEW OF AIR PHOTO COMPILATION NO. T-5520

Chief of Party: M. H. Reese

Compiled by: A. A. Voss

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)

Yes.

- 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)

Ground surveys by plane table have been used to supplement the photographic plot, as discussed in the descriptive report.

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 blue prints or maps from other sources were 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.

Differences between this compilation and contemporary plane table survey have been 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)

The above was discussed in report.

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

High water line was drawn from notes and sketches on field photographs except as discussed in descriptive report.

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 ^{high} low water lines, ~~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 between high and low tide.

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)

Submitted by hydrographic party.

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)

Submitted by hydrographic party. *Time submitted*

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 bridge shown on this sheet is 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 new names are mentioned in the report.

13. The geographic datum of the compilation is N. A. 1927 and the reference station is correctly noted. (Unadjusted)

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

Yes.

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:

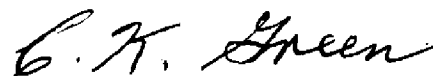

18. Examined and approved;




M. H. Reese,
Chief of Party

19. Remarks after review in office:

Reviewed in office by: 

Examined and approved:


Chief, Section of Field Records

Chief, Division of Charts


Chief, Section of Field Work

Chief, Division of Hydrography
and Topography.