5806

See note on Title Sheet

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic | *~~Hydrographic~~* | *Sheet No.* ~~T-5806~~ T 5806

State Florida

LOCALITY

~~West Coast~~, Apalachee Bay

~~Vicinity of~~ St. Marks River

1940

CHIEF OF PARTY

Kenneth G. Crosby

U. S. GOVERNMENT PRINTING OFFICE 102321

5806

Form 537a
Ed. Nov., 1929

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. T- 5806*

REGISTER NO. T5806

State Florida

General locality West Coast, Florida Apalachee Bay

Locality ~~Vicinity of~~ St. Marks River

Scale 1:5,000 Date of survey February, 1940

~~Vessel~~ Air Photographic Party No. 1

Chief of party Lieut. Kenneth G. Crosby

Field Inspected
~~Surveyed by~~ Lieut. George W. Lovesee

Inked by David R. Shallenberger, Air Photographic Observer

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated April 3, 1940

Remarks:

* REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5806, 1:5,000

The area covered by T-5806 is also covered by T-5781 (1:20,000) of approximately the same date.

T-5781 is to be published. Since there appears to be little need for duplicating the publication of this area on the larger scale, T-5806 will not be redrafted and will not be published.

The file copy of T-5806 is a reproduction of the original rough drawing made for use of the subsequent hydrography or other needs of the Bureau. Persons outside of the Bureau requesting map information in this area should be referred to T-5781.

(OVER)

The regular office review is incorporated in the review of T-5781. T-5781 and the descriptive report for T-5781 contain all of the information to be obtained from the air photographic surveys of this date for charting on scales of 1:20,000 or smaller.

Descriptions of recoverable topographic stations are filed under T-5781.

6-9-41 B. G. Jones

5806 (1)

SHEET NO. T- ~~5816~~ T 5806 ~~5796~~

1

SUPPLEMENTARY SURVEYS

1940

	Name	Date	Hours
Control Surveys (computations)	E.L.J. - R.H.Y.	June 6-10	7
Planetable Surveys			
		Total	7

FIELD INSPECTION

Preparation of Photographs		Jan.	12
Field Work	G.L.A. & G.W.L.	Jan. - Feb.	20
Inking Notes	H.A.D.	July 10	1
Coast Pilot Notes			
Geographic Name Report	G.L.A. & G.L.W.	March	20
Landmarks for Charts			
Description Cards			
Recovery Notes			
		Total	53

MAIN RADIAL PLOT

Scale Plot	K.G.C. - E.L.J.	April 17	10
Projection on Base Sheet	Ruling Machine	April	--
Projection on Survey Sheet	Ruling Machine	April 30	--
Control Plotted	K.G.C. - R.H.Y.	May 7-June 11	6
Control Checked	E.L.J. - D.R.S.	May 8-June 13	3
Control Trans. to Base Sheet	E.L.J.	May 8	1
Transfer Checked	D.R.S.	May 8	1
Control picked on Photographs	Entire personnel Tampa Office	April	50
Control checked on Photographs			
Hydro. & Topo. Stations picked			
Radial points picked			
Adjacent centers picked			
Templates			
Radial Plot	K.G.C. - E.L.J.	May 8-9	6
Radial Points transferred	E.L.J.	May 10	2
Transfer checked	K.G.C.	May 10	1
H & T Stations scaled & ch'k'd			
Additional Radial points	D.R.S.	June 6	9
		Total	89

DRAFTING

Rough Draft	D.R. Shallenberger	June 1-21	87
Smooth Draft			
		Total	87

COMPILATION

Name Overlay	D.R. Shallenberger	June 22	7
Descriptive Report	D.R. Shallenberger	June 24	7
Field Review	K.G. Crosby	June 27-July 16	8
		Total	22

Total Time spent on Sheet..... 258 hours.

5806 (2)

SHEET NO. T- ~~5284~~ 5806 ~~C~~

PHOTOGRAPHS

Number	Date	Time	Stage of Tide
4674		12:23 P.M.	
4675		12:24 P.M.	
4676		12:25 P.M.	
4681	Jan. 15, 1940	12:32 P.M.	0.0 to -0.1 Ft.
4684		12:42 P.M.	
4685		12:43 P.M.	
4686		12:44 P.M.	

Tide from predicted tables for : St. Marks Lighthouse and town of St. Marks

Camera : U.S. Coast and Geodetic Survey Nine-Lens (focal length 8¼ inches.)
Negatives on file at Washington Office.

SCALE

Mean scale of Photographs..... 1:5000 ÷ 0.999
Scale of Survey Sheet..... 1:5000

STATISTICS

Area (land).....	3.80	Square statute miles
Shoreline (more than 200 m. from opposite shore)..	3.25	Statute miles
Shoreline (Creeks).....	34.00	Statute miles
Roads, streets, trails, and railroads.....	1.50	Statute miles
Lakes and Ponds.....	2.50	Statute miles

REFERENCE STATION

Station : LEON 1907

Datum : North American, 1927

Latitude : 30° 07' 43.132" (1328.1 meters)

Longitude: 84° 11' 55.303" (1480.4 meters)

X = 2,095,253.3

Y = 410,567.8

5806 (5)

DESCRIPTIVE REPORT

to accompany

SHEET NO. T-5806

GENERAL

This sheet was prepared in accordance with "Instructions for Drafting Air Photographic Surveys, Project H.T. 242", dated April 3, 1940.

The area covered by this sheet includes a section of the West Coast of Florida in general vicinity of the St. Marks River. The terrain is flat and consists mostly of low marsh land. Small areas of scattered pine and sand occur principally in the northeast section.

CONTROL

The projection for plotting the control on this sheet was made in the Washington Office on the projection ruling machine by D. Kass on April 30, 1940.

The control in the area covered by this sheet consists of eight triangulation stations, which are on the North American 1927 datum and established as follows:

Name of Station	Year	Established by
PORT LEON	1855	S.C. M.
AUX	1907	W.H. B.
PAN	1907	W.H. B.
LEON	1907	W.H. B.
FOUR MILE	1907	W.H. B.
LEON TOWER	1935	G.L. Anderson
IND	1935	C.A. Egner
HUNT	1935	C.A. Egner

There were no apparent errors in the position of the control stations in this area that were indicated by the main radial plot, nor were any discrepancies in the location of the control stations, in excess of the allowable error of plotting, found on the field prints of the field inspection party.

The geographic positions of the beacons and lights shown on this sheet were computed from coordinates furnished by the U.S. Engineers. These computations were submitted to the Washington Office on June 18, 1940 together with a list of all non-floating aids in the St. Marks River. (chart letter 364, 1940)

The geographic positions of these non-floating aids were plotted directly on this Survey Sheet independently from the main radial plot.

They were not used for control as the order of their accuracy is not known. They are shown by a 2.5 mm black circle.

The position of light No. 30 as shown on this sheet was determined by the radial plot method and does not agree with the coordinates submitted by the U.S. Engineers for the position as of March 7, 1940. The position shown for light No. 30 was verified in the field by sextant angles on July 10, 1940 and found to be correct. The sextant angles observed at St. Marks River light No. 30 are as follows:

St. Mark River Light # 25 26° 28'	St. Mark River Light # 28 138° 30'
St. Mark River Light # 28	St. Mark River Light # 35
St. Mark River Light # 32 131° 08'	Tangent at entrance on south side of Big West Bayou 66° 52'

(See ADDENDA at end of DESCRIPTIVE REPORT)

MAIN RADIAL PLOT

A continuous radial plot was run for this sheet, T-5805 and T-5807. The triangulation was plotted on the survey sheets and transferred to the grid sheets by holding to each grid square. Since both the survey sheets and the grid sheets were the same type of celluloid and were prepared on the ruling machine in the Washington Office there was no perceptible adjustment necessary in the transfer.

Celluloid templates were prepared in accordance with Notes on Radial Plotting Nine-Lens Air Photographs, April 9, 1940. The recommendation of making an ink mark on the template to indicate the position of the point on the photograph proved to be a great aid in determining which of the photographs were tilted and which should consequently be laid last on the plot. Short sections of the mask lines were not drawn on the templates as recommended in Notes on Radial Plotting Nine-Lens Air Photographs, April 9, 1940, since sufficient radial points were located in each chamber for orientation purposes and since an attempt was made to pick radial points at least ½ inch away from the mask lines. It is believed that these lines complicate the main radial plot more than their value. The templates were laid on the base grid sheets and securely taped to the plotting table.

The radial points were transferred from the plot by placing the survey sheet over the plot and transferring the points in each grid square. The points located by three or more intersecting radials were picked on the survey sheets and circled in blue (2.5 mm. in diameter) on the back. Where poor intersections occured or where only two cuts could be obtained, the radial lines were transferred to the survey sheet and inked in green on the back of the sheet for investigation with the photographs. Grid intersections were inked on the survey sheet with celluloid ink after the radial points had been transferred and checked.

The templates for photographs 4681 and 4675 were laid first on the plot andpthe templates to the south and east were laid in the order in which they were best controlled. After running the plot to the south

limits of Sheet T-5805 the remaining templates on Sheet T-5806 were laid to the north of photograph 4681 and 4675. On the second running of this section of the plot a satisfactory agreement of radials was obtained.

Since there was about 3/4 mile overlap between sheets T-5806 and T-5807 and since satisfactory intersections of radials were obtained on sheet T-5806 the radial points along the junction of the two sheets were circled on the top template and used to supplement the control on sheet T-5807. The templates on sheet T-5807 were then laid by holding to the radial points along the junction and the control on the sheet. The plot of this sheet was laid several times since there was no control on the northern section of the sheet. Extreme care was taken with this section of the plot. The centers, flight lines and radial lines were all in good agreement.

The hydrographic station, topographic stations and radial points in the areas well controlled by sufficient photographs, are believed to be located by this plot within 0.25 mm of their true position. In the inshore areas, especially near the east and west limits of the tracing area, the radial points may in a few cases be in error by as much as 0.4 mm.

No unusual or large adjustments were necessary in the running of the plot.

Various colored inks were used on the photographs and the survey sheet to designate triangulation stations, topographic and hydrographic stations, and radial points. The following key is furnished for future reference:

Photographs

Triangulation stations.....2.5 mm blue circle.
Hydro. & Topo. stations.....2.5 mm green circle.
Radial points,(main plot).....2.5 mm red circle.
Radial points (additional).....3.5 mm red circle.
Photographs centers.....double red circle.

Survey Sheet

Triangulation stations.....3.5 mm high black triangle.
Hydro. & Topo. stations.....2.5 mm black circle.
Radial points (main plot).....2.5 blue circle on back of sheet.
Radial points (additional).....3.5 mm blue circle on back of sheet.
Radial points (questionable).....3.5 mm green circle on back of sheet.

INTERPRETATION OF PHOTOGRAPHS

These photographs were generally clear and no particular difficulty was experienced. No unusual conditions were found. Several of the photographs were appreciably out of scale and had a considerable amount of tilt.

In the marshy area, as shown on the photographs, numerous irregular

lines resembling streams or drainage will be seen. These are cattle paths and lead in some instances to water and others from one section of higher ground to another. These lines should not be shown on the survey sheet.

Two abandoned roads appear on the west shore of the St. Marks River. One is opposite the dock at Port Leon and the other is approximately ¼ mile north of Salt Pan Creek. They are evidently no longer usable, and not being noted by the field inspection party, were omitted from this sheet.

Several barrow pits filled with water were found in the vicinity of Phillips Lake. These were labeled "water" on the sheet to distinguish them from natural bodies of water which are labeled "ponds".

JUNCTIONS

This sheet has a junction with sheet No. T-5781, which has a scale of 1:20,000 on the east and west sides. It also joins sheet No. T-5805, scale 1:5000 on the south side and sheet No. T-5807, scale 1:5000 on the north side. All junctions were satisfactory.

FIELD INSPECTION

The field inspection of this area was made by Lieutenant George W. Lovesee under the supervision of Lieutenant George L. Anderson during the month of February 1940. Classification of vegetation, roads, etc. have been taken from notes appearing on all the field prints of photographs, 1:5,000 and 1:20,000 of this area in conjunction with a detailed study and comparison by means of the stereoscope with areas of similar appearance.

Notes placed on the field prints by the field inspection party were meagre. Neither of the officers making the inspection had had previous experience in field inspection of Air Photographs.

The Legend used by the field inspection party and by the draftsman are shown on a separate sheet which has been made a part of this report. In several instances, due to misunderstanding, several legends were used for the same type of vegetation. The actual legend used in each particular case has been indicated in parenthesis.

DETAILING

The detailing of this sheet is in accordance with the current instructions for this project. There are no unusual conditions requiring detailed explanation. This drawing was rubbed down with magnesium carbonate, a small section at a time as the inking progressed.

GEOGRAPHIC NAMES

Geographic Names in this area are the subject of a special report submitted in March, 1940 by Lieutenant George L. Anderson.

5806(7)

3

COMPARISONS WITH OTHER SURVEYS

Comparisons were made with a bromide print of Topographic Sheet No. 575 which has a scale of 1:20,000 and with the present chart of this area, No. 181 which has a scale of 1:80,000.

Both of these surveys compared favorably with this map drawing as well as could be determined due to difference in scale. The road on the west shore of the St. Marks River opposite Port Leon should be deleted from the chart as it is abandoned and no longer usable.

Phillips Lake in the northeast part of this sheet is an artificial lake formed by dikes and should be shown on the chart.

LANDMARKS

There is but one prominent landmark in area covered by this sheet, namely, Leon Tower. This is a 90 foot steel tower used as a fire look-out tower by the United States Biological Survey at the St. Marks Migratory Bird Refuge.

AIDS TO NAVIGATION

The geographic positions of the non-floating aids to navigation in the St. Marks River were computed from coordinates furnished by the U.S. Army Engineers as mentioned previously in this report under "CONTROL".

Respectfully submitted,

David R. Shallenberger

David R. Shallenberger,
Air Photographic Observer,
U.S. C. & G. Survey.

Forwarded,

Kenneth G. Crosby

Kenneth G. Crosby,
Lieut. C & G Survey,
Chief of Party.

5806(8)

LEGEND USED ON FIELD INSPECTION AND ROUGH DRAFTING

SHEET NO. T-5806

TREES

A	- Ash
Br	- Brush
Cit	- Citrus
Cy	- Cypress
Gum	- Gum
Oak	- Oak
Pal	- Palmetto (Field Inspection)
Palo	- Palmetto (Rough Drafting)
Pi	- Pine
Plm	- Palm
Mix	- Mixed deciduous, pine & cypress

ROADS

Rd-1	- 1st class paved
Rd-2	- 2nd class road
Rd-1d	- 1st class dirt road (G.L.A.)&(G.W.L.)
Rd-2d	- 2nd class dirt road (G.W.L.)
Tr	- Trail
U.T.	- Used Trail
U.R.D.	- Used Road (G.L.A.)

VEGETATION

C	- Cultivated
DT	- Deciduous trees
Fl	- Flooded area
Gr	- Grass
TGr	- Tropical grass
HW	- Heavily wooded
M	- Marsh
Mg	- Mangrove
Sw	- Swamp
Sct	- Scattered

PONDS

P	- Pond
CyP	- Cypress Pond
GP	- Grassy Pond
IP	- Intermittent Pond
PiP	- Pine Pond

STREAMS

Ca	- Canal (width)
Cr	- Creek
D	- Ditch
IS	- Intermittent Stream
PDU	- Probable drainage uncertain
Str	- Stream

MISC.

Bl	- Bluff (height)(G.L.A.& G.W.L)
Blf	- Bluff (Rough drafting)
Bldg	- Building
Brg	- Bridge
Ch	- Church
CtH	- Court House
C.H.	- Court House (G.L.A.)
Cv	- Culvert
FB	- Fire Break (width)
f	- fence
H	- House
Is	- Island (Field Inspection)
I.	- Island (Rough Drafting)
HWL	- High Water Line
LWL	- Low Water Line
L.L.	- light line around marsh
OP	- Overpass
PO	- Post Office
RR	- Railroad (name)
S	- Sand
Sch	- School
UP	- Underpass
W	- Water
Mud	- Mud

FGS	- Florida Geodetic Survey
FMP	- Florida Mapping Project
USE	- U.S. Engineers
USBS	- U.S. Biological Survey

5806(9)

LEGEND USED ON FIELD INSPECTION AND ROUGH DRAFTING

SHEET NO. T - 5806

TREES

A	- Ash
Br	- Brush
Cit	- Citrus
Cy	- Cypress
Gum	- Gum
Oak	- Oak
Pal	- Palmetto (Field Inspection)
Palo	- Palmetto (Rough Drafting)
Pi	- Pine
Plm	- Palm
Mix	- Mixed deciduous, pine & cypress

ROADS

Rd-1	- 1st class paved
Rd-2	- 2nd class road
Rd-1d	- 1st class dirt road (G.L.A.)&(G.W.L.)
Rd-2d	- 2nd class dirt road (G.W.L.)
Tr	- Trail
U.T.	- Used Trail
U.R.D.	- Used Road (G.L.A.)

VEGETATION

C	- Cultivated
DT	- Deciduous trees
Fl	- Flooded area
Gr	- Grass
TGr	- Tropical grass
HW	- Heavily wooded
M	- Marsh
Mg	- Mangrove
Sw	- Swamp
Sct	- Scattered

PONDS

P	- Pond
CyP	- Cypress Pond
GP	- Grassy Pond
IP	- Intermittent Pond
PiP	- Pine Pond

STREAMS

Ca	- Canal (width)
Cr	- Creek
D	- Ditch
IS	- Intermittent Stream
PDU	- Probable drainage unsurveyed
Str	- Stream

MISC.

Bl	- Bluff (height)(G.L.A.& G.W.L.)
Blf	- Bluff (Rough drafting)
Bldg	- Building
Brg	- Bridge
Ch	- Church
CtH	- Court House
C.H.	- Court House (G.L.A.)
Cv	- Culvert
FB	- Fire Break (width)
f	- fence
H	- House
Is	- Island (Field Inspection)
Io	- Island (Rough Drafting)
HWL	- High Water Line
LWL	- Low Water Line
L.L.	- light line around marsh
OP	- Overpass
PO	- Post Office
RR	- Railroad (name)
S	- Sand
Sch	- School
UP	- Underpass
W	- Water
Mud	- Mud

FGS	- Florida Geodetic Survey
FMP	- Florida Mapping Project
USE	- U.S. Engineers
USBS	- U.S. Biological Survey

5806 (10)

NOTES ON AIR PHOTO COMPILATION NO. T- 5806

Chief of Party: Kenneth G. Crosby Compiled by: D. R. Shallenberger

Project: H.P. - 542 Instructions dated: April 3, 1940

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 66)

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)

Yes

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)

None

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)

None

5. Difference 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.

Yes

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 65 c, h, i)

Yes

7. High water line or marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

Yes, see No. 17

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 low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

Yes

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 37)

Yes

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)

Yes

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)

None in area

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 the source of information and a specific statement when adviseable. 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)

Yes, see also Report "Geographic Names" by George L. Anderson forwarded to Office March, 1940.

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

Yes

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. Yes

2. The degrees and minutes of Latitude and Longitude are correctly marked.

Yes

5806(12) L

3. All station points are exactly marked by fine black dots.

Yes

4. Closely spaced lines are drawn sharp and clear for printing.

Yes

5. Topographic symbols for similar features are of uniform weight.

Yes, legend used on rough draft.

6. All drawing has been retouched where partially rubbed off.

Yes

7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

Yes

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

No topographic survey required.

17. Remarks:

The light line around marsh defines the outer limit of vegetation visible above mean high water. The mean high water line is shown only on fast land and is represented by a solid, heavy line.

18. Examined and approved;

Kenneth G. Crosby
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

Robert White
Chief, Section of Field Records

F. S. Borden
Chief, Division of Charts

F. S. Borden
K. T. Adams
Chief
Chief, Section of Field Work Topographic Section

K T Gladden
Chief, Division of Hydrography