

5781

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. T- 5781

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

AUG 1 1940

Acc. No.

State FLORIDA

LOCALITY

St. Marks River and Vicinity
~~Vicinity of Mouth of St. Marks River~~

~~West Coast, Florida~~

Gulf Coast - Apalachee Bay

Photographs taken Dec. 3, 1939
Jan 15, 1940

1940

CHIEF OF PARTY

Kenneth G. Crosby

U. S. GOVERNMENT PRINTING OFFICE 104221

T-5781

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-5781

REGISTER NO. **T5782**

State Florida

General locality West Coast Gulf Coast, Apalachee Bay

Locality Vicinity of Mouth of St. Marks River & Vicinity
photographs

Scale 1:20,000 Date of survey December 3, 1939

Party

Vessel Air Photographic Party No. 1

Chief of party Kenneth G. Crosby

Field inspected

Surveyed by George W. Lovesee

Inked by James H. S. Billmyer

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated April 3, 1940

Remarks: Compiled on scale of 1:20 000

and 1:5000 see page of the desc. report.

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DESCRIPTIVE REPORT

to accompany

SHEET NO. T- 5781

GENERAL

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

The general locality of the area covered by this survey sheet is Florida, West Coast, in the immediate vicinity of ~~the mouth of~~ the St. Marks River.

The terrain along the shore is mostly marshy. The higher ground back of the coast consists mostly of pine and grass land with scattered palms, and swamps and marshes.

All of the inlets on this sheet are marshy unless otherwise noted.

A considerable portion of this sheet had to be detailed by using symbols as a large part of the vegetation was not uniform in type and density.

The dike at the spillway on the East River was not shown as on the photographs, as field notes showed that the open channel was being filled and the river was being diverted to flow over the concrete spillway only.

Although the base of the flag pole at the U.S. Biological Survey Headquarters was not pricked on the field prints, it was shown to the compiler by one of the field inspectors as a small concrete circle which shows clearly on the photos. The flagpole is from 50 to 60 feet high.

Approximate M.L.W. is shown by dotted lines. Shoal limits are shown by short dash lines.

All roads should be shown 0.6 mm. wide, as none of the roads on this sheet are wider than 12 meters.

Fire breaks were omitted on this drawing.

The area covering the St. Marks River and adjacent land, shown by the 1:5,000 sheets T-5805, T-5806, and T-5807 was omitted on this sheet. This portion of the sheet will be reduced from the 1:5,000 survey and drafted by the Washington Office on T-5781. *These details added to T-5781 during the office review. See data record preceeding this page*

CONTROL

43

The following 18 triangulation stations fall within the tracing limits of the sheet:

Name of Station	Year	Established by
AUX	1907	W.H.B.
BUZZ	1935	C.A. Egner
CHANNEL BN.	1935	G.L. Anderson
FORT ST. MARKS ASTRONOMIC STATION	1907	W.H.B.
FOUR MILE	1907	W.H.B.
FRONT RANGE	1935	G.L. Anderson
HUNT	1935	C.A. Egner
IND	1935	C.A. Egner
LEON	1907	W.H.B.
LEON TOWER	1935	G.L. Anderson
LIGHTHOUSE	1933	H.C. Warwick
MOUND TOWER <i>not used</i>	1935	G.L. Anderson
PAN	1907	W.H.B.
PORT LEON	1855	S.C. McCorkle
SHIELDS	1935	C.A. Egner
SPRA	1935	C.A. Egner
ST. MARKS LIGHTHOUSE	1933	H.C. Warwick
WAK	1935	C.A. Egner

Fifteen of these stations fall within the area covered by the three 1:5,000 sheets *on which the St Marks River was compiled. See Data Record at front.*

Station MOUND TOWER 1935 was not used for control as it was not picked on the photographs.

No stations established by other organizations were used for control.

MAIN RADIAL PLOT (1:20000 section) *(See Data Record at front of This report.)*

A continuous radial plot was run for this sheet, T-5780, T-5882 and for the western half of T-5783.

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 should be laid last on the plot. Short sections of the mask lines were drawn on the templates in blue ink. These lines were not transferred to the survey sheet for orientation purposes since more radial points were located in each chamber of the main radial plot than were recommended in Notes on Radial Plotting Nine-Lens Air Photographs. The templates were laid on the base grid sheets and securely taped to the plotting table.

#4

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 sheet and circled in blue (2.5 mm in diameter) on the back. Where poor intersections occurred 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.

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.
Photograph 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 mm 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.

This sheet and T-5780 were especially well controlled by the 34 triangulation stations falling on these sheets. Ten additional triangulation stations falling off sheet T-5780, but adjacent to its south and west limits, were plotted and used in the radial plot to strengthen the junction with sheet T-5512. Nearly all of the photographs on these two sheets were fixed by triangulation. Photographs number 3779 and 3783 were slightly tilted, while photograph No. 3772 was found to be badly tilted. The tilted photographs were laid last on the radial plot.

Sheets T-5782 and the western half of sheet T-5783 were not as well controlled as the first section of the plot. The plot was run to photograph 3763 where it was fixed by 3 well spaced triangulation stations. Two intermediate photographs, 3786 and 3788, were also fixed by 3 triangulation stations. The triangulation station GREY MARES, 1859 was plotted on the survey sheet and used in controlling the plot since the field inspection party recovered this station within about 2 feet. The templates fixed by 3 control stations were laid first on the plot and the remaining templates were adjusted until the best agreement of radials was obtained.

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No difficulties were encountered in the laying of this radial plot, nor were any large or unusual adjustments made.

MAIN RADIAL PLOT (1:5000 scale section) (See data record at the front of the report). The radial plot of the 1:5000 photographs covering the St. Marks River was made as one unit of three sheets in exactly the same manner as the 1:20000 scale plot described on the preceding pages.

The templates for photographs 4681 and 4675 were laid first on the plot and the 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 of the control on the sheet.

The plot on ~~this~~ sheet T-5807 was laid several times since there was no control in this section of the plot. The centers, flight lines and radial lines were all in good agreement.

The hydrographic stations, 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 be in a few cases in error by as much as 0.4 mm.

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

By Jones

6

~~No difficulties were encountered in the laying of this plot, nor were any large or unusual adjustments made.~~

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and no unusual conditions were found.

FIELD INSPECTION

The field inspection was made by Lieut. George W. Lovesee by truck and skiff during the month of January, 1940.

The legend used by the field inspection party and that used by the draftsman have been consolidated and made a part of this report. The actual abbreviation used in each particular case has been indicated in parenthesis on the consolidated sheet.

Field notes are plentiful on everything but vegetation where they were very meager.

DETAILING

A small section of the celluloid was rubbed with dry magnesium carbonate immediately prior to inking. This was employed throughout the entire inking.

The scale of the photographs was good with the exception of photograph 3768 which was tilted and could not be used.

The detailing of this sheet has been done in accordance with the current instructions for the project.

In areas lacking field notes, the vegetation has been detailed by comparing other areas of similar appearance by means of the stereoscope, and from general experience in interpreting vegetation gained on the preceding project. It is believed the interpretation is accurate and areas in doubt were verified by one of the members of the field party who has a good knowledge of the area.

JUNCTIONS

This sheet joins T-5780 on the west and T-5782 on the east. All shoreline and other junctions agree remarkably well.

~~As the area detailed on T-5781 is split by the 1:5,000 sheets T-5805, T-5806, and T-5807, this sheet connects with the three 1:5,000 sheets on their east and west borders.~~

~~These borders were pantographed down to 1:20,000 and traced in blue on T-5781. These six junctions agree unusually well, considering the great difference in scales.~~

COMPARISON WITH OTHER SURVEYS

Comparison was made with bromide prints of Topographic Sheets

575 (1856), 819 (1859-60), and 820 (1859-60). The shoreline does not agree very well between the two surveys, but the general formation is the same. As practically all of the shoreline is marshy, considerable changes are possible in the course of 80 years.

Due to large scale differences, accurate comparisons with other maps and charts of this area were not practicable.

GEOGRAPHIC NAMES

The geographic names in this area were submitted to the Washington Office in March, 1940 by Lieut. George L. Anderson in a special report for Geographic Names for that section of this project field inspected under his supervision.

LANDMARKS

~~The most prominent landmark in this area is St. Marks Lighthouse which is already charted. It is recommended that the fire lookout tower at the St. Marks Migratory Bird Refuge be charted for a landmark. This is located by triangulation and is shown as MOUND TOWER 1935.~~

*statement
in complete*

See Review at back.

Respectfully submitted,

James H.S. Billmyer
James H.S. Billmyer,
Draftsman.

Forwarded,

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

LEGEND USED ON FIELD INSPECTION AND ROUGH DRAFTING

SHEET NO. T- 5781

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

G - Cultivated
DT - Deciduous trees
Fl - Flooded area
Gr - Grass
TGr - Tropical grass
HW - Heavily wooded
M - Marsh
Mg - Mangrove
Sw - Swamp
Sc - 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)
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
Mnd - Mnd

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

LEGEND USED ON FIELD INSPECTION AND ROUGH DRAFTING

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REVIEW OF AIR PHOTO COMPILATION NO. T-5781

Chief of Party: Kenneth G. Crosby

Compiled by: James H.S. Billmyer

Project: H.T. - 242

Instructions dated: Apr. 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 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)

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 66 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 also 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 624 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 15, 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. 18c)

Not important to navigation, all small fixed highway bridges.

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 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)

Yes, see also report "Geographic Names" by G.L. Anderson Forwarded to Office in 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

SUPPLEMENTARY SURVEYS

Name	1940 Date	hours
Control Surveys.....		
Planetable Surveys.....		
Total		0

FIELD INSPECTION

Preparation of Photographs.....	Tampa office personnel		12
Field Work.....	G.L.A.-G.W.L..	Jan - Feb.	70
Inking Notes.....	H.A.D.	Apr.	4
Coast Pilot Notes.....			
Geographic Name Report.....			
Landmarks for Charts.....	G.L.A.-G.W.L.	March	30
Description Cards.....			
Recovery Notes.....			
Total			116

MAIN RADIAL PLOT

Scale Plot.....	K.G.C.-E.L.J.	April 17	29
Projection on Base Sheet.....	J.P. Dunich		
Projection on Survey Sheet.....	Ruling Machine	April	
Control Plotted.....	E.L.J.	May 1	
Control Checked.....	K.B.C.	May 1	
Control Trans. to Base Sheet.....	H.L.J.	May 2	
Transfer Checked.....	K.G.C.	May 2	227
Control picked on Photographs..			
Control checked on Photographs..	Entire Tampa		
Hydro. & Topo. Stations picked..	Office Personnel	April	
Radial points picked.....			
Adjacent centers picked.....			
Templates.....			
Radial Plot.....	K.G.C.-E.L.J.	May 1-6	
Radial Points transferred.....	E.L.J.	May 4	
Transfer checked.....	K.G.C.	May 4	
H & F Stations scaled & checked.....	E.R.O.-E.L.J.	June 4; July 7	4
Additional Radial points.....	J.H.S.B.	June 18	4
Total			264

DETAILING

Rough Draft.....	J.H.S. Billmyer	June 18-July 9	121
Smooth Draft.....			
Total			121

COMPILATION

Name Overlay.....	J.H.S. Billmyer	July 6	6
Descriptive Report.....	J.H.S. Billmyer	July 3-9	8
Field Review.....	K.G. Crosby	July 16	9
Total			23

Total Time spent on Sheet..... 524 hours.
75 days

PHOTOGRAPHS

Number	Date	Time	Stage of Tide
3768	Dec. 3, 1939	12:58 P.M.	-0.1 Ft.
3769		1:00 P.M.	
3770		1:01 P.M.	
3784		1:38 P.M.	
3785		1:39 P.M.	

Tide from predicted tables for: St. Marks Lighthouse

Camera: U.S. Coast and Geodetic Survey Nine-Lens (focal length $8\frac{1}{2}$ inches.)
Negatives on file at Washington Office.

SCALE

Mean scale of Photographs..... 1:20,000 \div 0.999
Scale of Survey Sheet..... 1:20,000

STATISTICS

Area (land).....	38.0	Square statute miles
Shoreline (more than 200 m. from opposite shore).....	20.6	Statute miles
Shoreline (Creeks).....	89.2	Statute miles
Roads, streets, trails, and railroads.....	20.6	Statute miles
Shoreline (Lakes and Ponds)	25.0	Statute miles

REFERENCE STATION

Station: MOUND TOWER, 1935

Latitude: $30^{\circ} 05' 16.124''$ (496.5 meters)

Datum: North American, 1927

Longitude: $84^{\circ} 09' 46.414''$ (1242.9 meters)

Florida Plane Coordinates (Section 1) $X = 2,106,615.6$
 $Y = 395,748.2$

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 also used for 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 surveys required

17. Remarks:

18. Examined and approved:

Anneth G. Crosby
Anneth G. Crosby
 Chief of Party

DIVISION OF CHARTS
Section of Field Records

REVIEW OF T-5781

Refer to the data record at the front of the descriptive report regarding the compilation of T-5781, and the disposition of the 1:5,000 scale surveys made for control of the future hydrography.

There are no contemporary topographic or hydrographic surveys in this area. The last surveys by this Bureau were made in 1935.

Previous Planetable Surveys

T-575 (1:20,000) 1856.
T- 5781 supersedes the section of T-575 which it covers.
T-6350 (1:5,000) 1935.
T-6351 (1:5,000) 1935.

The 1935 surveys were compared directly with the original 1:5,000 scale celluloid compilations of the St. Marks River section of T-5781. The 1935 surveys covered only the shoreline and hydrographic control from the entrance of the river to Lat. $30^{\circ} 08'$. Differences in location of shoreline are generally small and not significant. In a few cases where the differences amount to from two to three millimeters they are largely due to interpretation. In these cases the shoreline on T-5781 is covered by adequate field inspection and is correct. The shoreline is much more detailed on T-5781 than on the planetable surveys. Topographic stations on the 1935 surveys which were definitely recovered and located on T-5781 agree in position within 0 to 0.3 mm. with the exception of station MUD, U.S.E. for which there is a difference in position of .1 mm. The position on T-5781 was computed from the U.S.E. coordinates and plotted by G.P.'s. The computation has been checked in this office and the position is accepted as correct in preference to that shown on the planetable survey.

Chart 181

T-5781 has not been applied to the chart at the date of this review, September 24, 1940. The land mark list (3 sheets form 567) submitted with this report has been turned over to the Nautical Chart Section.

Fixed aids to navigation in the St. Marks River were reported in Chart Letter 364, 1940 and are shown on T-5781.

The low water and shoal lines on this sheet were traced from photographs taken at mean low water. However, these lines are subject to correction by the Hydrography. Because of the flat bottom in this area and the possible effect of wind conditions on the tide, the low water line as seen on the photographs may vary considerably from that determined by soundings reduced to exact low water.

The shoal line and low water lines will not be shown on the published maps with the exception of certain oyster bars which seem quite definite on the photos.

The shoal lines and low water lines will be transferred to the hydrographic boat sheet.

Radial Plot

The 1:20,000 scale radial plot for T-5781 was checked in this office and is satisfactory. See the review of T-5780 for details.

The 1:5,000 scale radial plot covering the St. Marks River area was also checked in the office. The check plot was made in exactly the same manner as the field plot. Agreement was very close, 0.0 to 0.5 mm. on all points, except for the area from St. Marks to the top edge of the sheet. In this section the plots differed on the 1:5,000 scale sheets by from 0.5 mm. at St. Marks to 1.5 mm. at the north edge of the sheet. This section of the plot was extended beyond ground control so that there was no check available on ground control. The differences are apparently due mostly to small errors in the identification of the ground control due to inadequate field inspection. In a number of cases the field inspection gave no scale measurements for the reference distances at the control stations leaving some uncertainty as to the identification of the control. A better stereoscope was available in the office for transfer of photo centers, and a few of the base line azimuths were changed slightly from the positions laid down by the field plot.

Without a ground check there is no way to determine specifically which plot is correct. The office plot was accepted solely because it tied in better with points from the 1:20,000 plot in this area. The north section of T-5781 above St. Marks was corrected accordingly.

General

The Descriptive Report and compilation of map details are complete and satisfactory.

Reviewed in the office by L. C. Lande.

Inspected by B. G. Jones, September 24, 1940.



Chief, Surveys Section



Chief, Division of Charts



Chief, Section of Topography



Chief, Division of Coastal
Surveys

Remarks.

Decisions

1		300841
2		301842
3		300841
4		301841
5		300841
6		"
7		"
8		301841
9		300841
10	Submitted to U.S.G.B.	301842
11		300841
12		300842
13		300841
14		301842
15		"
16		"
17		300841
18		"
19		"
20		301841
21		300841
22	Submitted to U.S.G.B.	301841
23		301842
24		"
25		300842
26		301842
27		

GEOGRAPHIC NAMES

Survey No.

T-5781---No. 1

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A.	B.	C.	D.	E.	F.	G.	H.	K.	
St. Marks River ✓									1
Wakulla River ✓									2
East River ✓									3
Phillips Lake ✓									4
Mounds Pond ✓									5
Spectacle Pond ✓									6
Stony Bayou ✓									7
Denham Bayou ✓									8
Oliver Bayou ✓									9
Big West Bayou ✓									10
Little West Bayou ✓									11
Register Bayou ✓									12
Minnie Bayou ✓									13
Graves Creek ✓									14
Middle Creek ✓									15
Daves Creek ✓									16
Deep Creek ✓									17
Sand Creek ✓									18
Cedar Creek ✓									19
Little Denham Creek ✓									20
Boggy Creek ✓									21
Four Mile Creek ✓									22
Shine Creek ✓									23
Salt Pan Creek ✓									24
Johns Creek ✓									25
Port Leon Creek ✓									26
									27

Remarks.

Decisions

1		U.S.G.B.
2		300842
3		300841
4		300841
5		300842
6		"
7		"
8		"
9		300841
10		
11		301842 U.S.G.B.
12		301841
13		
14		300841
15		"
16	One word	301842
17		300841
18	Submitted to U.S.G.B.	301842
19		"
20		300842
21		301842
22		300842
23		300841
24		
25	Railway Guide	
26	Texaco Road Map, 1941	
27	Texaco Road Map, 1941	

GEOGRAPHIC NAMES

Survey No.

T-5781---No. 2

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A,	B,	C,	D	E	F	G	H	K	
<u>Apalachee Bay</u>	✓								1
<u>Goose Creek Bay</u>	✓								2
<u>Big Cove</u>	✓								3
<u>Indian Pass</u>	✓								4
<u>Big Pass</u>	✓								5
<u>Little Pass</u>	✓								6
<u>Johns Cove</u>	✓								7
<u>Kitchen Cove</u>	✓								8
<u>Sand Cove</u>	✓								9
									10
<u>St. Marks</u>	✓								11
<u>Port Leon</u>	✓								12
									13
<u>Palmetto Island</u>	✓								14
<u>Pelican Point</u>	✓								15
<u>Four Mile Point</u>	✓								16
<u>Sprague Point</u>	✓								17
<u>Allround Point</u>	✓								18
<u>Indian Point</u>	✓								19
<u>Sprague Island</u>	✓								20
<u>Gibbs Island</u>	✓								21
<u>Johns Island</u>	✓								22
<u>Glass Island</u>	✓								23
									24
<u>Seaboard Air Line Railway</u>	✓								25
<u>St. Marks Migratory Bird Refuge</u>	✓								26
<u>State Highway No. 10</u>	✓								27

Railroad. (1953)

Remarks

Decisions

1		
2		
3		300841
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		300842
12		300841
13		
14	04.6'/11.2' near breakwater	300841
15		
16		
17		
18		
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26		
27		

GEOGRAPHIC NAMES

Survey No. .

T-5781---No. 3

Name on Survey

	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.
Following listed if it is desired to place them on this sheet:									1
									2
<u>East Bank</u>									3
<u>West Bank</u>									4
<u>Long Bar</u>									5
<u>Spray Bar</u>									6
<u>Sprague Point Bar</u>									7
<u>Folly Bar</u>									8
<u>Rock Bar</u>									9
<u>Corn Bottom Bar</u>									10
<u>Grass Island Bar</u>									11
<u>Jones Bar</u>									12
									13
<u>Spanish Hole</u>									14
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Names underlined in red approved
by L. Heck on 8/13/41

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by S. Kass

Positions checked by S. Kass

Grid inked on machine by S. Kass

Intersections inked by _____

Points used for plotting grid:

F/O. (No.)

$\theta = 30^{\circ}12'34.62''$	$x = 2,090,000$	$\theta = 30^{\circ}02'39.79''$	$x = 2,120,000$
$\lambda = 84^{\circ}12'54.29''$	$y = 440,000$	$\lambda = 84^{\circ}07'14.66''$	$y = 380,000$

$\theta = 30^{\circ}12'33.75''$	$x = 2,120,000$	x
$\lambda = 84^{\circ}07'12.39''$	$y = 440,000$	y

$\theta = 30^{\circ}07'37.38''$	$x = 2,100,000$	x
$\lambda = 84^{\circ}11'01.27''$	$y = 410,000$	y

$\theta = 30^{\circ}02'40.66''$	$x = 2,090,000$	x
$\lambda = 84^{\circ}12'55.99''$	$y = 380,000$	y

Triangulation stations used for checking grid: (none)

Reference Station

1. St. Marks Lighthouse	$\theta = 30^{\circ}04'25.052''$	5. $x = 2,131,289.93'$
1433	$\lambda = 84^{\circ}10'47.087''$	$y = 390,522.74'$
2. _____		6. _____
3. Mound Tower, 1935	$\theta = 30^{\circ}05'16.124''$	7. $x = 2,106,615.6'$
	$\lambda = 84^{\circ}09'46.414''$	$y = 395,748.2'$
4. _____		8. _____

DATA RECORD T-5781 (1:20,000)

(Prepared in Washington Office 9/24/40)

Nine lens photographs as follows:

<u>Number</u>	<u>Scale</u>	<u>Date</u>	<u>Time</u>	<u>Tide From Predicted Tables</u>
3768 to 3770	1:20,000	12-3-39	1:00 P.M.	-0.1 ft.
3784 to 3785	1:20,000	12-3-39	1:38 P.M.	
4671 to 4690	1:5,000	1-15-40	12:20 to 12:45	0.0 to -0.1 ft.

Field Inspection: January - February 1940

Details on T-5781 are of the date of the photographs except for triangulation and topographic stations. Topographic stations were identified on the photographs by the field inspection and located by the radial plot.

Datum Station: St. Marks Lighthouse 1933, NA. 1927 Datum
 Latitude 30° 04' 25.052" (771.4m)
 Longitude 84° 10' 47.087" (1261.1m) (Adjusted)
 Florida system of plane coordinates, (N zone) Section 1
 X coordinate = 2,101,299.93 ft.
 Y coordinate = 390,574.74 ft.

As submitted from the field, the St. Marks River and a narrow area along either side of the river were not shown on T-5781 having been compiled on the larger scale surveys T-5805 to T-5807 (1:5,000). While the 1:5,000 scale surveys are needed for the subsequent hydrography, there appears to be little need for publishing maps on that scale. Therefore, the details on T-5805, T-5806 and T-5807 will be shown on T-5781 (1:20,000) and the 1:5,000 scale surveys will not be published.

Pertinent facts from the descriptive reports T-5805, T-5806 and T-5807 have been entered in the descriptive report T-5781 to make the latter report complete for the area covered.

ADDITIONAL INFORMATION ON CONTROL

The geographic positions of beacons and lights and all U. S. engineer stations shown on T-5781 were converted to G.P.'s from coordinates furnished by the U. S. engineers and plotted on the sheet. Computations of G. P.'s for lights and beacons were submitted to the Washington office June 18, 1940, together with a list of the aids, and engineer blue prints showing the coordinate values. (Chart letter 364, 1940 and B.P. Nos. 34111 to 34114.)

The triangulation of the U. S. Army Engineers has been tied to that established by the Coast and Geodetic Survey at stations IND, SPRA, and ST. MARKS lighthouse.

The engineer positions were not used to control the photographic plot, as the accuracy of their location is not known. They are shown as topographic stations on T-5781.

Note: (Added in office September 24, 1940). Station MUD, U.S.E. was shown on T-5781 by a triangle, but has been changed to a circle in this office, as no position is on file in Geodesy and the station was apparently computed and plotted from the Engineer coordinates.

From the preceding paragraphs on this page it appears that the engineers stations including the lights and beacons were plotted on T-5781 without connections to C. and G. S. triangulation, except at the stations listed under the first par. above, and except for a connection to Beacon 30 as made by the radial plot. In this case there would be no check on the accuracy of the engineer positions north of Lat. $30^{\circ} 06.8'$. Actually the engineer blue prints listed above give coordinates for C. and G. S. station Buzz in the vicinity of St. Marks. This position has been converted to G.P.'s in this office and checks the C. and G. S. positions within less than 1 meter.

A number of beacons show clearly on the photographs, but they were not tied in with the radial plot apparently because some of them had been moved since the photographs were taken.

Fort Marks astronomic Station 1907 is a Latitude Station only as listed in Special Publication 110. This description does not state how the position plotted on T-5781 was obtained. The G.P. has been computed from Engineer Coordinates in this office and checks to position plotted by the field party. The station symbol has been changed from a triangle to a circle.