5196

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Form 504
Rev. Dec. 1933

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

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ } *Sheet No.* T-5196 (23)

State FLORIDA

LOCALITY

ST. JOHNS RIVER

SAN MATEO

Photographs taken Feb & Mar 1935

1938

CHIEF OF PARTY

Hubert A. Peton

U. S. GOVERNMENT PRINTING OFFICE: 1934

Applied to chart compilation 687 Nov. 24, 1939. H.E. MacEwen

Applied to chart compilation 686 January 1940. L.A. McLaun

Notes on Compilation

Sheet No. 23 (Field)

Register No. T-5196

Photographs: Five Lens Flight No. 12, Nos. 244-258, Feb. 28, 1935
" " " " 13, Nos. 320-333, Feb. 28, 1935
" " " " 21, Nos. 826-835, Mar. 13, 1935

Scale Plot by: T. M. Price and H. A. Paton

Scale Factor used: 1.00

Projection by: Washington Office.

Control Plotted by: H. A. P.

Control Checked by: T. M. P.

Smooth Radial Plot: T. M. P.

Topography Transferred by: W. H. Burwell.

Shoreline Inked by: D. B. Gaines and W. H. B.

Other Detail Inked by: R. H. Young.

Overlay Sheet by: R. H. Y.

Area of Detail Inked	16.1 sq. statute miles
Length of Shoreline (over 200 meters)	8.5 statute miles
Length of Shoreline (under 200 meter)	23.2 statute miles
Length of Shoreline of Small Lakes	2.3 statute miles

Ref. Sta. Edgewater 1935 Lat. 29°-35'-43.720" (1346.1 M)
Long. 81°-36'-29.180" (785.2 M)
adjusted

x = 306,730.6
y = 1,913,250.3

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. 23 T5196

REGISTER NO. T-5196

State FLORIDA

General locality ST. JOHNS RIVER

Locality SAN MATEO

Scale 1:10,000 Date of ~~survey~~ photographs Feb. 28 & March 13 19 38

Vessel AIR PHOTOGRAPHIC PARTY NO. 2-A

Chief of party Hubert A. Paton

Surveyed by See Sheet No. 2

Inked by Robert H. Young

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated March 4, 1935, 19

Remarks: U. S. Army Air Corps Camera No. 32-2 used.

Field Inspection November 1935 and July, 1938.

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC MAP NO. 23

REGISTER NO. T-5196

July 20, 1938.

GENERAL INFORMATION:

This sheet was compiled from air photographs, taken by the U. S. Army Air Corps, using a five lens camera No. 32-2. The sheet was covered by parts of three flights; No. 13, photographs Nos. 329-333 inclusive; No. 12, photographs Nos. 244-258 inclusive ; and No. 21, photographs Nos. 826-835 inclusive. The photographs were taken at an approximate elevation of 5000 feet. The scale of Flight No. 12 and 13 was 1:10,010, and for Flight No. 21, 1:10,060. This sheet was constructed on a scale of 1:10,000.

The individual pictures were found to be free from excessive tilt or scale differences, and the flights were well located and the photographs were well spaced. Flight No. 21 begins on this sheet at the southeast and follows Dunns Creek in a northwesterly direction to the end of the flight at the junction of Cross Creek and Dunns Creek. Flight No. 12 crosses near the center of this sheet in a north and south direction. Part of Flight No. 13 was used in compiling the western part of this sheet. The flight runs in a northeasterly direction just to the west of this sheet, with the center of Photograph No. 333 falling in the extreme northwest corner. No difficulty from a photographic viewpoint was experienced in compiling this sheet.

CONTROL:

A total of ten triangulation stations were used for control on this sheet. Station Middle falls just to the west of this sheet, and , although not shown on the sheet, was used in the plot. Station BT 8, Florida Geodetic Survey Traverse Station, was located after the radial plot has been completed but it checked very nicely with the adjacent radial points. Station BT 7, and triangulation stations West Transmission Tower and East Transmission Tower, are to the north of the tracing limits of this sheet and are not shown,,but they were used in running the plot. Triangulation in this territory was established by Lieut. H. S. Warwick in 1933 and by Lieut. K. G. Crosby in 1935. The stations were plotted on the sheet from field values but these checked very closely with the adjusted values.

Additional control was obtained from the Graphic Control Sheet. Three stations were taken from Sheet NN, six from Sheet OO and seven from Sheet PP.

JUNCTIONS:

On the north this sheet is joined by Sheet No. T-5202 which has not been compiled at this writing. On the west the sheet is joined by T-5195, on the south by T-5152 and T-5197. These three sheets have been compiled and a satisfactory junction was made. Since this sheet was compiled under a latter set of instructions than the other three, certain detail, such as unimportant trails have been omitted, and the type of roads shown by different characteristics. Otherwise the junctions are in good agreement. The junction with Sheet No. 5202 will discussed in the report of that sheet.

LANDMARKS:

The following landmarks have been reported previously by this party:

1.	House, yellow, S. W. Gable, ⊙ GAB --	G. C. Sheet 00 T6390
2.	House, gray, S. W. Corner	" " "
3.	Edgewater Grove Light No. 55, ⊙ BEA	" " "
4.	Crescent Lake Light No. 78	" " PP T6391a
5.	San Mateo Light No. 76	Triangulation

One landmark, House, S. Gable, tin roof, ⊙ HAM, should be deleted from the charts, since the house has been torn down. This is reported herein on Form No. 567

GENERAL DESCRIPTION OF TOPOGRAPHY:

This sheet covers the territory around the village of San Mateo, the St. Johns River from San Mateo to Polly Island, and Dunns Creek from the St. Johns River to Monroe Landing. The junction of two important Florida Highways is shown at San Mateo; namely, State Highway No. 3 (U.S.#17) south to Deland, Sanford and Orlando and north to Palatka and Jacksonville, and State Highway No. 28 which leads south east to Bunnell the junction with Highway No. 1 (U.S.) and northeast to Stark and Lake City.

Most of the shoreline in this area carries the swamp symbol. Long Swamp extends easterly across the sheet from the St. Johns River. Most of the high ground has been cut over and is now grown up with scrub pine, brush and grass. With the exception of a little lumbering and fishing there is little industry in this area south of San Mateo. In and around San Mateo the land is covered with orange and grapefruit orchards.

The river in this section has a tide of about one foot. The stage of the river at the time of the photographs is not known exactly but it was apparently near the normal stage.

FIELD INSPECTION:

Field inspection by boat and truck was made in November 1935. Additional inspection by truck was done in July 1938. This area was well covered by truch with little difficulty.

The topographic details on T 5196 are of the date of the photographs except for the telephone lines observed on the west page, and ~~aids~~ to navigation which were located by the graphic control surveys. BM

ROADS:

All roads on this sheet are shown according to the latest instruction to Lieut. L. W. Swanson, dated May 13, 1938. The minimum width of 6 mm is used for all roads on the sheet, which exaggerates the width of most of the roads except the State Highways. All roads that lead to the water are shown by double lines, either solid or broken. Many trails obvious on the photographs are not shown on the sheet, because they were unimportant wagon tracks, cowpaths or field roads.

SYMBOLS:

Symbols used on this sheet are according to the latest instructions, mentioned above. The old railroad bed is shown by a single dash line with the dashes twice as long as those used for trails. Unsurveyed streams are shown with a single dashed line, the dashes being one and one-half times the length of those used for trails.

TELEPHONE TOLL LINE:

Since the photographs were taken, a telephone line has been constructed by the Southern Bell Telephone and Telegraph Co., and this line falls in the eastern and central part of the sheet. Layout sheets of the entire line were secured from the company, which were on a scale of 1 inch equals 200 feet. The turning points on this line were located by field inspection where accessable. The point where this line crosses Highway No. 28 was picked on the field prints as well as the turning point to the southwest. A third point was picked between these two and it checked the line. The turning point just south of parallel 29°35' was picked directly. The length of the line from Dunns Creek to the turning point north of Monroe Landing was taken from the blueprints, using pole to pole distances. The next turning point to the north was taken from the blue prints using the angle given and the distances. A line connecting this point with the point just south of 29°35' checked accurately with the blueprints. The width of the right-of-way for the line is 100 feet and is a very prominent landmark from the air.

TRACING LIMITS.

All the area shown falls within the normal tracing limits of the photographs with the exception of a narrow stretch parallel to Highway No. 28 south of San Mateo. There is little detail of importance in this area, except the highway, and it was traced to fill out the sheet to the highway. Although most of Highway No. 28 is outside the tracing limits, it is believed to be very accurately located. Station Grassy on the south locates one end of the road and at the north end it falls within the normal tracing limits. After leaving San Mateo, this road is straight for seven miles.

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COMPARISON WITH OTHER SURVEYS:

On U. S. C. & G. S. Chart No. 508, two small islands are shown northeast of Rat Island. At this time there is only one island at this location. On this same chart and also on the U. S. Engineers map of surveys in 1926, Polly Island is not shown and only the ends of Polly Creek are indicated. It is evident that the previous surveys did not carry their investigation very far from the banks of the river. Buzzard Island appears as a long flat island. The island is really more rectangular in shape with a heavy swamp on the southeast side.

There are some discrepancies between the shoreline shown on T6391A this sheet and that shown on the G. C. Sheets. On Sheet PP, the shoreline varies by 7 or 8 meters at the point on the St. Johns River just opposite Rat Island and also in Dunns Creek near Cross Creek. At all of the places the photographs were quite clear and the plot strong and it is believed the locations shown is the correct one. On Sheet OO T6390 there are some slight differences particularly along the south shore of the River, where the two line vary as much as 5 or 6 meters for very short distances. In general the shoreline in this area changes very little from year to year due to the heavy growth along the shore.

MISCELLANEOUS:

In the village of San Mateo, no houses or buildings are shown except public buildings such as schools, churches, post office, railroad depot and Women's Club. Most of the City streets are sand but they are laid out in a systematic order and for this reason the buildings have not been shown,- this being in accordance with office instructions.

Piles, fish stakes, etc. shown on this sheet were transferred from G. C. Sheets NN, OO, and PP.
T6390 T6391A

On this sheet will be found several "bays",- areas in the dense deciduous swamps where the trees do not grow as tall as in the surrounding areas. Such bays are covered with a dense growth of bay trees, from which it derives its name. They generally do not exceed twenty feet in height, have a white bark and are always found in swampy areas. A combination of bush and swamp symbols were used to show this type of area.

The clearance of the bridge crossing Dunns Creek was obtained * from G. C. Sheet No. PP T6391A There is a discrepancy between the clearance shown on this sheet and the clearances as given by other sources. "List of Bridges Over Navigable Waters of U. S. "gives the horizontal clearance as 59 feet left and 57 feet right and the vertical clearance as 7.4 feet at M.L.W. The Intracoastal Waterway Chart issued by the U. S. Engineers Department gives the horizontal clearance of the bridge as 60.5 feet and the vertical clearance as 12.0 feet at M.L.W. The G. C. Sheet gives the horizontal clearance as 60.3 feet and the vertical clearance as 10.8 feet at M.L.W.-

* Values taken from 1935 bridge book { Vertical Cl. 6.5' m. H.W. Horizntl Cl. 60 ft.
was used for bridge over Dunns Creek.

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Clearance of the power line and telephone line crossing Dunns Creek was measured by the field inspection parties. The power line crosses near the bridge and clears the water by 74 feet. The telephone line crosses at Monroe Landing and has a 70 foot clearance. The distance between the power line and the highway alongside has been exaggerated slightly in order that it would print more clearly. The power line is actually 11 meters from the center line of the paved highway and 7 meters from the centerline of the dirt road leading off of Route No. 17

In Dunns Creek south of Horse Landing, there is a row of piles used for making up log rafts. These could not be picked on the photographs and there were no G. C. Sheets in the area from which they could be transferred. Their position was obtained by measuring the distance from the shoreline, which was about 8 meters, and indicating the ends of the row on the field prints.

GEOGRAPHIC NAMES:

The geographic names shown on the overlay were secured from the following sources:

1. U. S. Geological Survey, State of Florida.
2. Florida State Road Department Map.
3. Sinclair Road Map of Florida.
4. Section Aeronautical Chart "Orlando".
5. U. S. Geological Survey, Palatka Quadrangle.
6. Sectional Map of Florida.
7. Bureau of Soils Map.
8. Putnam County Board of Commissioners Map, 1914.
9. Map of Properties of Lake Crescent Farm Co.
10. Reliable Local Residents.
11. Precinct Map, Putnam Co.
12. Graphic Control Sheets NN, OO, and PP.
13. U. S. C. & G. S. Chart No. 508.
14. U. S. Engineers Map, 1912.
15. U. S. Engineers Map, 1926.
16. U. S. Engineers Route 13B, Topographic Map, 1933.
17. Intracoastal Waterway Map, U. S. Engineers.
18. U. S. Geological Survey, Ocala Division Map.

BUZZARD ISLAND. Sources - 5, 7, 8, 11, 13, and 16. A small island in the St. Johns River one mile north of Dunns Creek. Source No. 15 lists this as Buzzards Island but all the other sources agree on the former spelling.

BROWNS LANDING. Sources - all in agreement. A small boat landing on the north shore of the St. Johns River about $\frac{1}{2}$ mile west of Dunns Creek. The name is always shown with the possessive "s".

CROSS CREEK. Sources 8, 10, and 12. A small Creek connecting the St. Johns River with Dunns Creek. The St. Johns River has cut into the bends of Cross Creek so that it is now in two parts. The longer and southern part is sometimes called Big Cross Creek to distinguish it from the shorter part to the north. Both of these portions are generally clogged solid with hyacinth, but in July, 1938 the bigger one was found to be clear.

Dunns Creek. A winding creek connecting Lake Crescent with the St. Johns River. All sources in agreement. The possessive "s" is always used.

EDGEWATER. A small community of 3 or 4 houses on the south bank of the St. Johns River, one mile south of San Mateo. All sources in agreement on the name.

F.E.C. RY. A spur track leading from the main line of the Florida East Coast Railroad at East Palatka to San Mateo. Only a short section of this spur falls on the northern part of this sheet. The spur is not in use at the present time but the rails are still in place.

HIGHWAY NUMBERS. All highway numbers shown on this sheet were secured from sources 2, 3, and 9. All in agreement.

HORSE LANDING. A landing on the north shore of Dunns Creek, two miles south east from the mouth of the Creek. There is a small fishing settlement made up of shacks and houseboats at this landing. It was shown as Sutherland Still on sources 5, 7, 18, from the owner of a turpentine still that used to be there. The still has now been removed and the former name is now in use. On source 15 the name Horse Shoe appears but this is believed to be a mistake. Sources Nos. 10, 13, and 14 all agree on the name Horse Landing. On source No. 8, this name appears on the next bend in the creek to the southeast but this is certainly a mistake.

LONG SWAMP. Sources 5, 7, and 10. A swamp beginning on the south side of the St. Johns River opposite Buzzard Island and extending in a southeasterly direction over the entire sheet.

MONROE LANDING. Sources - 8, 10, and the blue prints of the telephone line. A small boat landing on the north shore of the Dunns Creek, about three miles from the St. Johns River. There are no docks or houses there, and the shore is swampy, but a road leads down almost to the waters edge.

MURPHYS CREEK. The creek that empties into Dunns Creek about $\frac{1}{2}$ mile from the St. Johns River. Sources - 8, 10, and 12. Sources 5, 7, 13, and 15 show this as Murphy Creek but the possessive "S" is added by all the local inhabitants. Source No. 14 shows this to be "Cross or Murphy Creek" and source No. 11 gives it as "Murphys Cross Creek". The term Cross Creek now applies only to the section north of Dunns Creek. It is possible that at one time it applied to both sections but that must have been a long time ago for no one uses the term now.

MURPHYS ISLAND. Sources 7, 8, 10, 11, 12. Sources 15, 16, and 18, 5, 13 show this as Murphy Island but the possessive "s" is always added now.

POLLY ISLAND. Sources 10 and 12. An island just north of Murphys Island.

POLLY CREEK. Sources 10 and 12. The creek between Polly Island and Murphys Island.

RAT ISLAND. Sources 10 and 12. A small island formed by the St. Johns River, Dunns Creek and Cross Creek.

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SAN MATEO. A large village near the north edge of this sheet. All sources in agreement.

SAN MATEO DOCK. Sources 8, 10, and 11. An old dock on the St. Johns River at San Mateo. Not is use by river steamers now.

SAN MATEO - SATSUMA ROAD. This is the old highway running east and west on the sheet. It is in good condition north of Dunns Creek and is used quite frequently by lumbermen and local residents. Sources 8 and 10.

ST. JOHNS RIVER. All sources in agreement.

Respectfully Submitted,

Robert H. Young

Robert H. Young,
Draftsman, C. & G. S.

T5196

	Remarks	Decisions
1		
2		
3		
4		
5		
6		
7		
8		
9	There is a USGB. decision (6th Report, p. 538) for Murphy Island Post Lights* in vicinity of this island.	
10	Not Murphys Creek	
11		
12		
13	Horse Landing changed to Sutherlands Still* on 4/21/38 by B. G. N. (there is another Horse Landing* on St.	
14	Johns River, chart 508)	
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T 5196

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
St. Johns River										1
San Mateo										2
San Mateo Dock										3
San Mateo Satsuma Road										4
Buzzard Island										5
Rat Island										6
Polly Creek										7
Polly Island										8
Murphy Island										9
Murphy Creek										10
Monroe Landing										11
Long Swamp										12
Sutherlands Still *										13
Edgewater										14
Dunns Creek										15
Cross Creek										16
Browns Landing										17
										18
*signifies USGB. decision										19
										20
Names underlined in red approved										21
by L. Heck on 10/28/38										22
										23
										24
										25
										26
										27

M 234

Form 567
Rev. March 193[illegible]

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

5196

LANDMARKS FOR CHARTS

~~TO BE CHARTERED~~ / TO BE DELETED } STRIKE OUT ONE

~~Paletka, Florida~~ ~~July 18, 1938~~ 193

I recommend that the following objects which have (~~recently~~) been inspected from seaward to determine their value as landmarks, be ~~charted on~~ (*deleted from*) the charts indicated.

The positions given have been checked after listing.

Hubert A. Paton
Hubert A. Paton *Chief of Party.*

GENERAL LOCALITY Browns Landing, St. Johns R.

NAME AND DESCRIPTION	POSITION					METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM						
	° ′	D. M. METERS	° ′	D. P. METERS							
HOUSE, south gable, tin roof (○ Hum) (3)	29 35	1471	81 58	518	N. A. 1927	Topo	July, 1935				508

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE

REVIEW OF AIR PHOTO COMPILATION NO. 5196

Chief of Party: Hubert A. Paton — Compiled by: R. H. Y.

Project: H. T. 168 — Instructions dated: 3/4/35

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) Piles, fishtraps, etc., transferred from G. C. Sheets NN,OO, and PP.

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) Telephone line blue prints transmitted with this sheet. Contains some data for checking up the position of the line as shown on the sheet. Has no other value.

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. Yes,- some slight discrepancies but it is believed this compilation is more accurate and it is recommended that it be accepted.

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) No large nor unusual adjustments necessary.

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

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-87

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) Tidal range only one foot. No low water line shown.

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) Reported previously.

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) Reported previously. The house at Browns Landing has been removed.

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) Yes.

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) Yes

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

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) Yes - see descriptive report.

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

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

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.

17. Remarks: The shoreline in swampy rregions was shown by the tree symbols on this sheet. Later instructions have changed this method to the use of a light line but it was not expediant to make the change on this sheet. Therefore the note in the title block should be blanked off when the sheet is photographed.

18. Examined and approved;

Hubert A. Paton

Hubert A. Paton
Chief of Party

19. Remarks after review in office:

Reviewed in office by: L. C. Landy
9/30/38

Section of Field Records

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5196

Scale 1:10,000

Photographs taken Feb. and March 1935 Compiled Apr. to July 1938
Refer to pages 1 to 7 of descriptive report for additional data.

Chief of Party, Hubert A. Paton
Radial plot by T. M. Price, Jr.
Inked in field by D. B. Gaines, R. H. Young, W. H. Burwell

Contemporary Graphic Control Surveys

T-6390 (1935), 1:5,000
T-6391a (1935), 1:5,000

The graphic control surveys were made for the purpose of locating hydrographic signals and offshore detail such as pilings and aids. The differences between the rodded shoreline and the air photographic survey are discussed on page 4 of the descriptive report.

All detail on the above graphic control surveys and covered by this air photographic survey is shown on the air photographic survey except the following:

1. The magnetic meridian.
2. Temporary topographic signals.

Contemporary Hydrographic Surveys

H-6194 (1937), 1:5,000 -- Covers Dunns Creek.

There were no graphic control surveys covering H-6194. The shoreline for H-6194 was taken directly from the photographs as the air photographic survey had not been started at the time. H-6194 has been registered as a reconnaissance survey and will not be smooth plotted. (See review of H-6194.) All shoreline in the area of H-6194 should be charted from the contemporary air photographic surveys.

The hydrographic sheet covering the section of the St. Johns River shown on this topographic map is not in the office at this time.

Previous Topographic Surveys

T-2027 (1875), 1:80,000 - Reconnaissance survey.

No detailed comparison was made with T-2027. T-5196 is complete and adequate to supersede the portion of T-2027 which it covers.

Comparison with Chart 508

Refer to page 2 of the descriptive report for a discussion of landmarks.

Refer to page 4 of the descriptive report for a detailed discussion of differences between chart 508 and T-5196.

Magnetic Declination

Graphic control survey T-6390 shows a magnetic declination of 0° 44' East at Lat. 29° 36', Long. 81° 36' and T-6391a shows a magnetic declination of 0° 33' East at Lat. 29° 36', Long. 81° 38'. The declinatoire has been calibrated and these are the corrected declinations.

Remarks

All cypress shoreline was redrafted in the office from an open tree symbol to a light line in accordance with Field Memorandum No. 1, 1938. The shoreline as drafted by the field party was in accordance with previous instructions.

The drafting on T-5196 is good and the report and compilation of details complete. No additional topographic surveys are needed for charting within the area of T-5196.

Reviewed in the office by L. C. Lande, October 8, 1938.

Inspected by B. G. Jones.

Examined and approved:

Thos. B. Reed
Chief, Section of Field Records

Fred. L. Peacock
Chief, Section of Field Work

K. T. Adams
Chief, Division of Charts

G. Lande
Chief, Division of Hydrography and Topography

M-350

T-5196

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 S. KASS.

Points used for plotting grid:

x 300,000 y 1,905,000	x 315,000 y 1,915,000
x 330,000 y 1,905,000	x y
x 300,000 y 1,925000	x y
x 330,000 y 1,925,000	x y

Triangulation stations used for checking grid:

1. GRASSY, 1935
2. DUNN'S CR. W. TRANS. TOWER
3. EDGEWATER 1935
4. _____
5. _____
6. _____
7. _____
8. _____

5196

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East. Station Edgewater 1935

ϕ 29° 35′ 43.″720 ✓ λ (Central meridian) 81 36 29.180 ✓

$\Delta\phi$ (Excess of ϕ over even 10′ expressed as minutes and decimal) 5′.728667 ✓ $\Delta\lambda$ (Central meridian − λ) $\Delta\lambda$ (in sec.) 2189.″180

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 91 ✓	Cor. for second dif.	+ 4 ✓
H	88.2~~7163~~ 87163	V	1.057146
a	− .74	Tabular difference of y for 1″ of ϕ	
b	+ 9.60	y (for minutes of ϕ)	
	~~276.5~~	y (for seconds of ϕ)	
H ($\Delta\lambda''$)	193,~~123.2~~	Tabular y	1,912,743.8 ✓
ab	− 71	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	506.6
x'	193,~~116.1~~ ~~269.4~~		
	500,000.00	c	− .1
x	306,730.6	y	1,913,250.3
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\,(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$x' = H\Delta\lambda + ab$

$x = x' + 500{,}000$

$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\,(\Delta\lambda'')^3$

U. S. GOVERNMENT PRINTING OFFICE 11—12148

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION
(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station Grassy, 1935

λ (Central meridian) ____

ϕ 29° 33′ 52.″929 λ 81 32 40.145

$\Delta\phi$ (Excess of ϕ over even 10′ expressed as minutes and decimal) 3′.88215 $\Delta\lambda$ (Central meridian − λ) ____

$\Delta\lambda$ (in sec.) 1960.″145

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 89	Cor. for second dif.	+ 4
H	88.313954	V	1,056467
a	− .74	Tabular difference of y for 1″ of ϕ	
b	+ 9.03	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
H ($\Delta\lambda''$)	173,108.2	Tabular y	1,901,553.0
ab	− 6.7	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	405.9
x'	173,101.5		
	500,000.00	c	− .1
x	326,898.5	y	1,901,958.8
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\,(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab \qquad y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500{,}000 \qquad \Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\,(\Delta\lambda'')^3$$

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station Dunns Cr. W. Transmitting Tower

λ (Central meridian) ____

φ 29° 34′ 37.325 λ 81 37 36.790

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 4′.622083 Δλ (Central meridian − λ) ____

Δλ (in sec.) 2256".790

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
		Cor. for second dif.	+ 4
Cor. for second dif.	+ 92	V	1.056739
H	88.303221		
		Tabular difference of y for 1″ of ϕ	
a	− .74		
b	+ 9.73	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
$H\ (\Delta\lambda'')$	199,281.8	Tabular y	1,906,037.4
ab	− 7.2	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	538.2
x'	199,274.6		
	500,000.00	c	− .1
x	300,725.4	y	1,906,575.5
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\ (\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	"
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab \qquad y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500{,}000 \qquad \Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\ (\Delta\lambda'')^3$$

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station

x 300,000
y 1,905,000

λ (Central meridian) ° ′ ″

φ 29° 34′ 21.″69

λ 81 37 44.91

[1380.31]
407.77

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 4′.3615 [583.24 m]

Δλ (Central meridian − λ)

Δλ (in sec.) 2264.″91

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 91	Cor. for second dif.	+ 4
H	88.307001	V	1.056643
		Tabular difference of y for 1″ of ϕ	
a	− .74		
b	+ 9.74	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
H ($\Delta\lambda''$)	200,007.2	Tabular y	1,904,458.1
ab	− 7.2	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	542.0
x'	200,000		
	500,000.00	c	− .1
x	300	y	1,905,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\,(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$x' = H\Delta\lambda + ab$

$x = x' + 500{,}000$

$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\,(\Delta\lambda'')^3$

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station

x 330,000
y 1,905,000

λ (Central meridian) ° ′ ″

φ 29° 34′ 23.18″ λ 81 32 05.18

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 4′.3861667 Δλ (Central meridian − λ)

Δλ (in sec.) 1925″.18

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 91	Cor. for second dif.	+ 4
H	88.306643	V	1.056652
		Tabular difference of y for 1″ of φ	
a	− .74		
b	+ 8.94	y (for minutes of φ)	
		y (for seconds of φ)	
H ($\Delta\lambda''$)	170,006.6	Tabular y	1,904,608.5
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	391.6
x'	170,000		
	500,000.00	c	− .1
x	330	y	1,905,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab \qquad y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500{,}000 \qquad \Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$$

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station x 300,000 y 1,925,000

λ (Central meridian) ____

φ 29° 37′ 39.″68 λ 81 37 46.14

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 7.′661333 Δλ (Central meridian − λ) ____

Δλ (in sec.) 2266.″14

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
		Cor. for second dif.	+ 3
Cor. for second dif.	+ 65	V	1.057856
H	88.259093		
		Tabular difference of y for 1″ of ϕ	
a	− .74		
b	+ 9.74	y (for minutes of ϕ)	
		y (for seconds of ϕ)	
$H\ (\Delta\lambda'')$	200,007.2	Tabular y	1,924,456.8
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	543.3
x'	200,000		
	500,000.00	c	− .1
x	300	y	1,925,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\ (\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab \qquad y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500{,}000 \qquad \Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\ (\Delta\lambda'')^3$$

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PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station

x 330,000
y 1,925,000

λ (Central meridian) ° ′ ″

φ 29 ° 37 41.21

λ 81 32 06.23

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 7.686833

Δλ (Central meridian − λ)

Δλ (in sec.) 1926.23

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 65	Cor. for second dif.	+ 3
H	88.258723	V	1.057866
		Tabular difference of y for 1″ of φ	
a	− .74		
b	+ 8.94	y (for minutes of φ)	
		y (for seconds of φ)	
H ($\Delta\lambda''$)	170,006.6	Tabular y	1,924,611.3
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	388.8
x'	170,000		
	500,000.00	c	− .1
x	330	y	1,925,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$x' = H\Delta\lambda + ab$

$x = x' + 500{,}000$

$y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$

$\Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F(\Delta\lambda'')^3$

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
FORM NO. 744 a
June 1938

PLANE COORDINATES ON TRANSVERSE MERCATOR PROJECTION

(CALCULATING MACHINE COMPUTATION)

State Fla. Zone East Station

x 315,000
y 1,915,000

λ (Central meridian) 81 34 55.61

φ 29° 36′ 01.46

Δφ (Excess of φ over even 10′ expressed as minutes and decimal) 6.024166

Δλ (Central meridian − λ)

Δλ (in sec.) 2095.61

		$\left(\frac{\Delta\lambda''}{100}\right)^2$	
Tabular H (even 10′)		Tabular V (even 10′)	
Interpolated H (fraction of 10′)	−	Interpolated V (fraction of 10′)	+
Cor. for second dif.	+ 90	Cor. for second dif.	+ 4
H	88.282874	V	1.057255
		Tabular difference of y for 1″ of φ	
a	− .74		
b	+ 9.39	y (for minutes of φ)	
		y (for seconds of φ)	
H ($\Delta\lambda''$)	185,006.9	Tabular y	1,914.5358
ab	−	$V\left(\frac{\Delta\lambda''}{100}\right)^2$	464.3
x'	185,000		
	500,000.00	c	− .1
x	315	y	1,915,000
$\frac{(\text{Tabular } y) + y}{2}$		$\Delta\lambda'' \sin\frac{\phi+\phi'}{2}$	
		$F\,(\Delta\lambda)^3$	
$\frac{\phi+\phi'}{2}$ (Interpolated from projection table)		$\Delta a''$	″
$\sin\frac{\phi+\phi'}{2}$		Δa	° ′ ″

$$x' = H\Delta\lambda + ab \qquad y = \text{Tabular } y + V\left(\frac{\Delta\lambda''}{100}\right)^2 + c$$

$$x = x' + 500{,}000 \qquad \Delta a'' = \Delta\lambda'' \sin\frac{\phi+\phi'}{2} + F\,(\Delta\lambda'')^3$$

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