

5319

Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Topographic } Sheet No. ~~T-5319~~  
~~Hydrographic~~

U. S. COAST & GEODETIC SURVEY

LIBRARY AND ARCHIVES

MAR 7 1940

Acc. No. \_\_\_\_\_

State FLORIDA

LOCALITY

St. JOHNS RIVER

JULINGTON CREEK and Vicinity

Photographs taken:

Five Lens Feb, 1935

Nine Lens Feb. 1939

~~1940~~  
~~1939~~

CHIEF OF PARTY

Riley J. Sipe

U. S. GOVERNMENT PRINTING OFFICE: 1934

5319

Applied to chart comp # 685. October 31, 1940 L.Am

Applied to Chart Comp. 3350 Oct. 26, 1945 H.E.M.

## LEGEND TO BE USED ON FIELD INSPECTION AND ROUGH DRAFTING

### TREES

A = Ash  
Br = Brush  
Cit = Citrus  
Cy = Cypress  
Gum = Gum  
Oak = Oak  
Pal = Palmetto  
Pi = Pine  
Plm = Palm

### ROADS

Rd-1 = 1st class paved  
Rd-1d = 1st class dirt  
Rd-2 = 2nd class  
Tr = Trail

All roads not labeled are  
6 m or less in width.

### VEGETATION

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

FMP = Florida Mapping Project  
USE = U. S. Engineers

### 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

Blf = Bluff (height)  
Brg = Bridge  
Ch = Church  
Cv = Culvert  
FB = Fire break (width)  
Fn (f) = Fence  
H = House  
Ham = Hammock  
Hdg = Hedge  
HWL = High water line  
LWL = Low water line  
OP = Overpass  
PO = Postoffice  
R = Reef  
RR = Railroad  
S = Sand  
Sch = School  
UP = Underpass  
G = Gravel

TIME SHEET

FIELD SHEET No. 11  
Register No. T-5319

Pricking points for Plotting.....	22 hrs.
Radial Plot .....	47 "
Pricking Additional Points For Detail .....	18 "
Field Inspection .....	59 "
Plotting All Control .....	20 "
Detailing Roads, Buildings, Fences, Trails, Etc. ....	196 "
Detailing Symbols .....	
Shoreline .....	47 "
Reports .....	8 "
Field Review of Sheet . . .	17 "
	<u>434 hrs.</u>

TOTAL \_\_\_\_\_

Radial plot was 80% finished before time records were kept.

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. 11

T5319

REGISTER NO. T-5319

State Florida

General locality St. Johns River

Locality Julington Creek and vicinity

Photographs taken:

Scale 1:10,000 Date of survey Feb., 1935 and Feb., 1939

Party

~~Water~~ Air Photographic Party No. 2a

Chief of party Riley J. Sipe

Surveyed by See notes on compilation

Inked by See notes on compilation

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 5 lens camera No. 32-2 and U. S. C. & G. S.

nine lens camera used. Field inspection made by boat 5-27-35

and by truck during December, 1939.

*Reference Station: Julington, 1934*

*Latitude: 30° 07' 46.484" (1431.3 meters)*

*Longitude: 81° 38' 37.942" (1015.6 meters)*

*X coordinate: 296,449.63 Ft.*

*Y coordinate: 2,107,541.80 Ft*

*Supplemented by other surveys to December 1939.*

NOTES ON COMPILATION

FIELD No. 11

REGISTER No. T-5319

Photographs:

Five lens, Flight No. 2, 2-46 to 2-55 inclusive  
" " " No. 3, 3-62 " 3-85 "  
Nine " Photo.Nos. 03189 to 03192 "  
" " Photo " 03238 and 03239

Scale Plot: Hubert A. Paton

" Factor used: 99

Projection by: Washington Office

Control plotted by: Hubert A. Paton

Control Checked by Henry O. Fortin

Smooth Radial plot by: Hubert A. Paton and Henry O. Fortin

Topography transferred by: Riley J. Sipe

Topography checked by Henry O. Fortin

Shoreline inked by Jesse A. Giles

Detail inked by Jesse A. Giles

Overlay sheet by: (rough draft)

Descriptive Report by Jesse A. Giles

Reviewed by Henry O. Fortin

Area of detail inked.....18.28 Square statute miles  
Length of shoreline (over 200 meters).....15.06 Statute miles  
Length of shoreline (under " " )..... 3.68 " "  
Length of shoreline of small lakes .....None

DATE OF SURVEY

Five lens photos (cover entire sheet) taken February 23, 1935.

Nine lens photos (cover entire sheet) taken February 11 and 16, 1939.

Field inspection was made by boat in May 1935.

Most of the field inspection along the shore has been taken from these 5-lens pictures and from graphic control sheets.

Due to clearer pictures and their being closer to scale the 5-lens pictures have been largely used in this compilation.

The field inspection of shoreline is incomplete on the 9-lens pictures and pilings and ruins of piers have been carried forward from the 1935 graphic control sheets. Some buildings have been added from the 9-lens inspection prints and from inspection of office photographs.

## DESCRIPTIVE REPORT

TO ACCOMPANY

MAP DRAWING, Field No.11

REGISTER No. T-5319

## GENERAL.

This rough map drawing was compiled from air photographs taken by the U. S. Army Air Corps using five lens camera and a nine lens camera designed by the U. S. Coast and Geodetic Survey.

Shoal areas appearing on photographs have been left off since Hydrographic party has made a survey of this area. All buildings along the water front that could be clearly defined on the photographs have been shown. In the outlying districts only larger or outstanding buildings and church and schools have been shown.

This map drawing was made, principally, from the five lens photographs because they were found to be more closely to scale than the nine lens photographs, however where differences in topography were encountered the nine lens photographs were used.

Objects such as small piers, ruins, wrecks and areas where old piling are to be found are duly labeled. The line of demarcation between types of vegetation is indicated by a broken line which shall not be drafted on the smooth drawing. Areas of vegetation either too small or too difficult to label for correct interpretation were drafted in detail. Shoreline along marshes and swamps should be shown by light line, all other by a heavy line.

Trails and second class roads of no importance have been left off of this map drawing.

## CONTROL.

A total of twenty-four control stations were plotted on this map drawing; eighteen of which fall within the tracing limits. Eleven are U. S. Coast and Geodetic Survey triangulation stations, of which all were recovered. (No U. S. E. D. stations were used). Six are Florida Mapping Project stations and all were recovered. Two described topographic stations were taken from Graphic Control Sheets DD and EE. Of these both were recovered. Topographic stations Cor, Julia, Coup and Door were used for control but were not inked on this map drawing because they were not recoverable.



### RADIAL PLOT.

A radial plot was made directly on the celluloid from the five lens photographs. All common points that could be unmistakably identified were pricked on the nine lens photographs. As some could not be so identified there were instances where additional points had to be plotted. Topographical differences (on photographs) were similarly treated. Due to poor overlap and a dearth of nine lens photographs some of the points were plotted by the intersection of only two radial lines. Many of the five lens photographs were found to be to scale and almost all important detail was taken from them.

### INTERPRETATION OF PHOTOGRAPHS.

The photographs were found to be clear. No unusual conditions existed.

### FIELD INSPECTION and SUPPLEMENTAL SURVEYS:

Field inspections were accomplished by boat in May, 1935 and by truck during December, 1939. No supplemental survey was found to be necessary in the area.

### GRAPHIC CONTROL SURVEYS:

This map drawing is covered by Graphic Control Sheets DD and EE (both 1:20,000). Tracings were made of shoreline and wharfs and by means of projector were transferred in blue to the back of celluloid. Upon inking in shoreline from the photographs no major disagreements were encountered.

All details on the above named graphic control surveys within the area of this photographic survey are shown on the map drawing except:

1. Magnetic declination.
2. Azimuth of ranges.
3. Temporary stations for control of hydrography.

### HYDROGRAPHIC SURVEYS.

Hydrographic surveys in the area covered by this map drawing were made prior to the delineation of the shoreline from the air photographs. No shoreline has been transferred to the hydrographic smooth sheets covering this area by this party.

### COMPARISON WITH SURVEYS BY OTHER ORGANIZATIONS.

Accurate comparison could not be made due to great difference in scale.

### COMPARISON WITH CHARTS Nos. 682 (1/19/39) and 683 (12/7/38).

Accurate comparison could not be made due to scale difference.

Differences in location of roads and piers can easily be seen by visual comparison.

### COMPARISON WITH EARLY COAST AND GEODETIC SURVEYS.

Comparison with T-1459-a showed that the small portion of shoreline covered by it is in close agreement; no major differences were found.

T-1459-b (1877) being to scale 1:20,000 accurate comparison could not be made.

**LANDMARKS AND AIDS.**

All landmarks and aids to navigation have been mailed to the Washington Office previously.

**PREPARATION FOR INKING.**

The usual procedure was followed. The surface was first cleaned with magnesium carbonate before applying ink. This removes grease, dirt and other foreign matter. This sheet is of a type of celluloid (thick) which appears to be soft and in spite of any surface preparations the ink does not adhere as strongly as to other (thin) types. Even the projection lines were found to be rubbed off in places at the beginning of the inking.


**BRIDGES.**

The vertical and horizontal clearances have been listed on the drawing in accordance with "List of Bridges over the Navigable Waters of the United States, 1935."

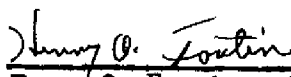
**JUNCTIONS.**

On the north this map drawing joins T-5665 and on the South T-5240. All match lines with other map drawings have been checked with this drawing and corrections made.

Respectfully submitted,

  
Jesse A. Giles, Hand

Forwarded:

  
Henry O. Fortin, Lieut. (j.g.)  
Officer in Charge

T-5319

Remarks.

Decisions

1		/
2	off limits of sheet	301816
3		300816 -
4		"
5		301816
6		"
7		301816
8		301815
9		301816
10		"
11		300816
12		301816
13		300816
14		"
15		301816
16		U.S.G.B.
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

# GEOGRAPHIC NAMES

Survey No. T-5319

Name on Survey	<div>On Chart No. 682 - 1-19-35 No. 415 - 12-7-33 On previous survey No. 4 C Streets 20-4 On U. S. quadrangle Maps From local information On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List U. S. Coast Pilot</div>									
	A	B	C	D	E	F	G	H	K	
										1
<u>Big Lige Branch</u> ✓			X	X						2
<u>Cuckoo</u> ✓	X	X	X	X	X					3
<u>Cunningham Creek</u> ✓	X	X	X	X	X					4
<u>East Mandarin</u> ✓	X	X	X	X	X					5
<u>Flora Branch</u> ✓	X	X	X	X	X					6
<u>Julington Creek</u> ✓	X	X	X	X	X				X	7
<u>Loretto</u> ✓	X	X	X	X	X					8
<u>Mandarin</u> ✓	X	X	X	X	X					9
<u>Mandarin Point</u> ✓	X	X	X	X	X				X	10
<u>Mill Creek</u> ✓			X	X	X					11
<u>Old Bull Bay</u> ✓	X	X	X	X	X					12
<u>Ophir</u> ✓	X	X	X	X	X					13
<u>Switzerland</u> ✓	X		X	X	X					14
<u>Fruit Cove</u> ✓	X		X		X					15
<u>St. Johns River</u>										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved  
by L. Heck on 11/1/40

M 234 VR

Names underlined in red approved

by L. Heck on 11/1/40

## GEOGRAPHIC NAMES.

### CUCKOO.

A small settlement on the east bank of the St. Johns River near triangulation Station "Cuckoo". Recommended for charting purposes

### CUNNINGHAM CREEK.

Small creek just south of Fruit Cove having a common mouth with Mill Creek. Recommended.

### EAST MANDARIN.

Settlement in north central part of map drawing being due north of the mouth of Julington Creek and due east of Mandarin Point. Recommended.

### FRUIT COVE.

Settlement on the east bank of the St. Johns River between Julington Creek and Cunningham Creek. Some of the local residents refer to this place as "Fruit Cove Terrace" but local charts and maps give "Fruit Cove" as does U. S. C. & G. S. Chart No. 682 T-1549-b gives the name "Fruit Cove Landing". Fruit Cove is recommended.

### JULINGTON CREEK.

Large creek south of Mandarin Point on east side of St. Johns River. Recommended.

### LORETTO.

Settlement in the extreme northeastern portion of this map drawing.

Duval County Map lists "Loretta". The former is recommended.

### MANDARIN.

Section along north side of Mandarin Point devoted almost entirely to the raising of citrus fruits and having a Post Office called "Mandarin". Recommended.

### MANDARIN POINT.

Prominent point on east side of the St. Johns River and immediately northwest of Julington Creek. Recommended.

### MILL CREEK.

Small creek flowing into the mouth of Cunningham Creek. Recommended.

### ~~NEW SWITZERLAND POINT.~~

~~Bay at the mouth of the St. Johns River just south of the mouth of Julington Creek.~~

### OLD BULL BAY.

Bay at the mouth of Julington Creek. U. S. C. & G. S. T-1459-b and the G.C. sheets covering this area give "OLD BULL'S BAY" but all other sources give "OLD BULL BAY" and the latter is recommended.

### OPHIR.

Situated on the East bank of the St. Johns River just south of Cunningham creek. Small settlement. Recommended.

### SWITZERLAND.

Settlement on highway northeast of New Switzerland Point having Post office called Switzerland. Recommended.

**BIG LIGE BRANCH.**

A branch due east of the mouth of Cunningham Creek. This name, Big Lige Branch, is recommended for charting purposes. The branch flows north into the swamp which is drained by Cunningham Creek and is about a mile and one half inland from the St. Johns River.

**FLORA BRANCH.**

A branch about one mile east of the Julington Creek bridge, on the south side of the said creek into which it flows. Recommended.

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: Riley J. Sipe

Compiled by: J. A. Giles

Project:

Instructions dated: Mar. 4, 1935

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) Yes.
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) Yes.
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
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 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."

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 57) 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) Previously sent in.
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 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



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. ~~Mr~~  
No additional surveying needed.

17. Remarks:

18. Examined and approved; *Henry O. Fortin.*  
Henry O. Fortin.

Riley J. Sipe.  
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

Chief, Section of Field Records

Chief, Division of Charts

Chief, Section of Field Work

Chief, Division of Hydrography  
and Topography.

## 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 J. P. Dunich

Positions checked by J. P. Dunich

Grid inked on machine by J. P. Dunich

Intersections inked by J. P. Dunich

Points used for plotting grid:

$\phi = 30^{\circ} 09'$   $X = 289,286.93$   
 $\lambda = 81^{\circ} 40'$   $Y = 2,115,009.80$

$\phi = 30^{\circ} 09'$   $X = 305,090.72$   
 $\lambda = 81^{\circ} 37'$   $Y = 2,114,920.89$

$\phi = 30^{\circ} 05'$   $X = 289,145.38$   
 $\lambda = 81^{\circ} 40'$   $Y = 2,090,764.94$

$\phi = 30^{\circ} 06'$   $X = 304,959.79$   
 $\lambda = 81^{\circ} 37'$   $Y = 2,090,676.16$

$\phi = 30^{\circ} 07'$   $X = 294,485.83$   
 $\lambda = 81^{\circ} 39'$   $Y = 2,102,856.96$

$X$  \_\_\_\_\_  
 $Y$  \_\_\_\_\_

$X$  \_\_\_\_\_  
 $Y$  \_\_\_\_\_

$X$  \_\_\_\_\_  
 $Y$  \_\_\_\_\_

Triangulation stations used for checking grid:

- |                                                                                |          |
|--------------------------------------------------------------------------------|----------|
| 1. $\Delta$ Julington, 1934 $X = 296,449.63$ $Y = 2,107,541.80$                | 5. _____ |
| 2. $\Delta$ Ophir, 1934 $X = 297,181.17$ $Y = 2,093,404.76$                    | 6. _____ |
| 3. $\Delta$ Chink, 1934 $X = 287,394.26$ $Y = 2,111,673.96$                    | 7. _____ |
| 4. $\Delta$ MANDARIN Pt beacon No 29, 1934 $X = 285,331.01$ $Y = 2,116,678.83$ | 8. _____ |

DIVISION OF CHARTS

Section of Field Records

REVIEW OF PHOTOGRAPHIC SURVEY T-5319

Graphic Control Surveys.

C.S. 173 (1935) 1:20,000

C.S. 174 (1935) 1:20,000

No form 524 descriptions or descriptive reports have been received covering these sheets.

The shoreline details of compilation T-5319 have been checked against the graphic control sheets through the projector and are in agreement.

Previous Topographic Surveys.

T-1459a and T-1459c 1:20,000 (1876)

T-5319 supersedes these surveys. The shore details of this area have been developed since the date of these surveys and at places the shoreline itself is out about 100 meters on the older survey.

Hydrographic Surveys.

H-6296 1:20,000 (1935)

Shoreline and signals on H-6296 were taken from the 1935 graphic control surveys with the exception noted below and no comparison with T-5319 (1939) is necessary.

In Julington Creek the shoreline was not completely surveyed by the graphic control surveys and is not completely shown on H-6296.

H-6297 1:20,000 (1935)

Signals on H-6297 are from the graphic control surveys. Shoreline was incomplete on the graphic control surveys and has been added to H-6297 in this office from the later air photographic surveys with the exception of the area north of Lat. 30° 04' where the shoreline from T-5319 and T-5665 has not been added. The addition of this shoreline to the hydrographic surveys is not important as the photographic survey has previously been reviewed and applied to the charts. However, the omission has been called to the attention of the Asst. Chief of Field Records Section.

Recoverable Topographic Stations.

Stations Hoot and Ham have been taken off the compilation. No descriptions of these stations were received with the graphic control surveys.

Chart No. 682.

T-5319 has been reduced for application to chart No. 682 prior to this review. No changes have since been made on T-5319 with the exception of the addition of buildings.

The field inspection noted a cable crossing along the bridge over Julington Creek. This is presumably a submerged cable but the field inspection gave no specific description.

General.

T-5319 was compiled as a rough drawing and redrafted in Philadelphia. The descriptive report and map are complete.

Reviewed in office by - F. H. McBeth

Inspected by - B. G. Jones *MBJ*

Examined and approved:

*Thos. B. Adams*

Chief, Section of Field Records.

*J. S. Borden*

Chief, Division of Charts.

*K. T. Adams*

Chief, Section of Topography.

*G. W. Rude*

Chief, Division of Coastal Surveys.