

# 5918

1247

Form 504  
Rev. June 1941  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

*Air Photographic* Sheet T-5918  
*Plane Table* Survey No. \_\_\_\_\_  
*Hydrographic* (Field)

*Date of Photos* 1/9/40

### LOCALITY

*State* Florida

*General locality* East Coast

*Locality* St. Lucie River

1942..

### CHIEF OF PARTY

Lieut. Comdr. Kenneth G. Crosby

8165

applied to Chart 846 before review Oct 16, 1942 KSM.

applied to ch. 1289 8/18/43 GFE

applied to Chart 1112 before review 2/10/44 BR

" " " 1247 after review 3/17/44 GFE

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

Dr. H. L. 1211

see 142  
Haw 13  
Hdt 715

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.

Sheet No. \_\_\_\_\_  
~~Field No.~~ T-5918

REGISTER NO.

State Florida

General Locality East Coast - St. Lucie River

Locality North Fork St. Lucie River

Scale 1:10000 Date of Photos January 9, 19 40

Party Air Photographic Party No. 1

Chief of party Lieut. Comar. K. G. Crosby

Field inspected by: Lieut. J. D. Thurmond

Inked by R. Dossett, Senior Photo Aid

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated April 3, 19 40

Remarks: \_\_\_\_\_

DESCRIPTIVE REPORT  
TO ACCOMPANY  
SHEET NO. T---5918

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 sheet is Florida East Coast, in the vicinity of the St. Lucie River. It includes the North Fork of the St. Lucie River and extends eastward to include the western shoreline of Indian River at the town of Jensen. The shoreline is generally fast with flat ground, vegetated with pine, palmetto and grass.

The upper tributaries of the North Fork, St. Lucie River are vegetated with fringes of mangrove and scattered palm.

The vegetation inshore consists principally of palmetto and grass with scattered pine and occasional patches of swamp. There are numerous ponds, grassy ponds, marshes, and flooded areas throughout the sheet. Large areas that were formerly marshy have been drained by an extensive system of ditches.

There is one large area of citrus cultivation in the vicinity of Howard Creek. There are no other cultivated areas of importance. Along the Eastern boundary of the sheet, from Jensen, Southward, there are large areas of abandoned cultivation that are now vegetated with scattered pine, palm and grass.

All roads shown by a centerline should be drafted 0.6 m.m. wide.

CONTROL

Control on this map drawing consists of the following triangulation stations:

Lucie	1934	J. Bowie, Jr.
End	1930	C. A. Egner
Nest	1930	C. A. Egner

The following triangulation stations fall on this sheet but outside the detailing limits: Swan, 1930; Pisgah, 1883-1934; Mendel, 1930; Spit, 1930; Draw, 1930; and Cemetery, 1906-1934.

The position of the azimuth mark at triangulation Station Lucie, 1934 was compared with the geodetic azimuth given in the list of geographic positions and was found to be in good agreement.

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and no difficulty was experienced in their interpretation.

### MAIN RADIAL PLOT

A continuous radial plot was run on April 22 - 24, 1942 inclusive, for the purpose of locating all photograph centers, all hydrographic stations, topographic stations, bench marks, azimuth marks, and radial points. The plot extended over the area covered by sheets T-5912 to T-5919, inclusive. All photographs in the area were used. It extends along the St. Lucie Canal from Stuart, Florida, South and westward to Lake Okeechobee at Port Mayaca. Photographs 4591, 4583 and 4584 are the northeast limits and photo 4564 forms the westerly limits.

The plot consisted of 37 templates all being for 9 lens photographs and being controlled by triangulation stations as follows: 1 by 0; 12 by 1-2; 9 by 3; 8 by 4-8; 7 by 9-13. These templates were made in accordance with "Notes on Radial Plotting of nine-lens Photographs", dated April 9, 1940.

The control afforded by first and second order triangulation was sufficient on sheets T-5919, T-5917 and T-5912. Triangulation control was very meagre on sheets T-5913, T-5914, T-5915 and T-5916; but it was felt that additional field observations were not necessary.

The usual practice of laying the plot was followed. This consisted of plotting the control on the survey sheets and then transferring it to the base grid sheets by matching grid squares. The agreement between the grid lines on the survey sheet and those on the base grid was excellent and no adjustment was necessary. After laying the plot, the intersections of the radial lines were transferred to the survey sheet by again matching grid squares as previously described;

The plot was laid only once with the exception of those templates on sheets T-5914 and T-5915. The laying of the plot began with the templates on sheets T-5917, T-5918 and T-5919 and proceeded southwest to triangulation station "ALLEN" on sheet T-5916. These templates were rigidly controlled. From that point to sheet T-5912 the templates were laid by holding intersections of radial lines and azimuth, and due to lack of control the templates on sheets T-5914 and T-5915 had to be laid three times before a satisfactory tie-in of control on sheet T-5912.

The agreement along the flight line and the intersections of radial lines to adjacent photographs was excellent, with exceptions as noted in this paragraph. About 98 percent of the points established by the plot resulted from the intersection at a common point, of three to six radial lines. The remaining 2 percent are instances where only two "cuts" could be obtained. These are mostly out on the wings of the photographs and while the value of the intersection will be determined by the draftsman, it is believed that the majority of them will be outside the detailing limits. In six or eight instances the point was selected at the center of gravity where the radial lines did not form a common intersection. In no case were the sides of the triangle of error greater than 0.25 m.m. away from the point selected.

The conditions in the preceding paragraph apply to seven of the eight sheets of this plot. The other sheet (T-5814) was the "weakest" of the

plot, in so far as control is concerned, and a common intersection of radial lines was not obtained in some instances on the northern half of the sheet. There are fourteen of these instances and in each case the "cuts" were transferred to the survey sheet for further investigation by the draftsman. The points on the southern part of the sheet were picked at common intersections and after the draftsman has made further investigation, it is believed the detailing will be accomplished with the desired accuracy.

To summarize - the plot is considered "strong"; no large or unusual adjustments were necessary; and that all points are picked with 0.25m.m. of their true position.

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

**Photographs**

Triangulation and traverse stations.....2.5 mm blue circle  
Hydrographic and topographic stations.....2.5 mm green circle  
Radial points in main plot.....2.5 mm red circle

**Survey Sheet**

Triangulation and Traverse Stations.....3.5 mm high black triangle  
Hydrographic and topographic stations.....2.5 mm black circle  
Radial Points on main plot.....2.5 mm blue circle on back of sheet  
Radial points (additional).....3.5 mm blue circle on back of sheet  
Photograph Centers.....Double blue circle on back of sheet

**FIELD INSPECTION**

The field inspection was made by Lieut. J. D. Thurmond and George E. Varnadoe, principal Engineering Aid, during the months of January and February, 1942.

Field notes were plentiful over the entire area covered by this sheet.

The legend used by the field inspector and by the draftsman is made a part of this report.

**DETAILING**

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

Before detailing the surface of this sheet was rubbed with magnesium carbonate and washed off. No additional cleaning was necessary, and except for occasional touched-up places, no re-inking was required.

The scale of all photographs was found to be reasonably good, however,

there was found to be an unbalanced scale on all of them, in which a good scale appeared on one side while the other was not good.

Only those trails appearing to lead to some definite point have been shown.

All buildings visible under the stereoscope have been shown.

#### JUNCTIONS

This sheet forms a junction on the South with T-5917 and on the East with T-5919, both Junctions are in good agreement.

#### COMPARISON WITH OTHER SURVEYS

A comparison was made with Lithographic Print 4542, in the area North of the entrance to St. Lucie River. The scale of 4542 was somewhat larger, however except for this, they were found to be in good agreement.

No former topographic maps were available for a comparison with the Western part of this map drawing.

#### LANDMARKS

There are no prominent landmarks within the limits of this sheet.


#### GEOGRAPHIC NAMES

The geographic names for this sheet are the subject of a special report entitled "Investigation of Geographic Names, Florida, East Coast, St. Lucie River, Cross State Waterway, and Lake Okeechobee", submitted by Harold A. Duffy, Senior Photogrammetric Aid.

Respectfully submitted

  
RUDOLPH DOSSETT  
Sr. Photogrammetric Aid

Forwarded,

  
Kenneth G. Crosby,  
Chief of Party.

	Remarks	Decisions
1		271801-02
2		272801-03
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16	Apply this name pending decision of USGB	"
17		"
18		"
19		Railway Guide
20		1941 Fla. State Road
21		Map
22		
23		
24		
25		
26		
27		



# GEOGRAPHIC NAMES

Survey No. T-5818

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
Indian River	✓								1
Jensen	✓								2
Britt Creek	✓								3
Howard Creek	✓								4
Mel-Bar Fruit Farm	✓								5
North Fork St. Lucie River	✓								6
Van Seggern Creek	✓								7
Mile Lake	✓								8
Greenridge Point	✓								9
Niggerhead Point	✓								10
Kitching Cove	✓								11
Winters Creek	✓								12
Blakslee Creek	✓								13
Spruce Bluff	✓								14
Mud Cove	✓								15
Ten Mile Creek	✓								16
Long Creek	✓								17
Warner Creek	✓								18
Florida East Coast Ry.	✓								19
U.S. Highway No. 1	✓								20
									21
									22
									23
									24
									25
									26
									27

U.S. GEOLOGICAL SURVEY  
L. Heck 01/24/42

## SHEET NO. T-5918

## SUPPLEMENTARY SURVEYS

	Name	Date	Hours
Control Surveys .....	JEH - WHS	Mar. & Apr.	3
Planetable Surveys.....			
Total			

## FIELD INSPECTION

Preparation of Photographs.....	CH - FHE	Nov.	7
Field Work.....	JDT - FHE-GEV	Jan. 1942	96
Inking Notes.....			
Coast Pilot Notes.....			
Geographic Name Reports.....	FHE	May "	15
Landmarks for Charts.....			
Description Cards.....	JDT-GEV	Jan. "	52
Recovery Notes.....			
Total			170

## MAIN RADIAL PLOT

Scale Plot.....	JEH	Mar. 1942	1
Projection on Base Sheet.....	Washington Office		
Projection on Survey Sheet.....			
Control Plotted.....	KGC	Apr. "	1 $\frac{1}{2}$
Control Checked.....	WHS	Apr. "	1
Control Trans. to Base Sheet....	KGC	Apr. "	$\frac{1}{4}$
Transfer Checked.....	WHS	Apr. "	$\frac{1}{4}$
Control Picked on Photographs....	JEH	Mar. "	4
Control Checked on Photographs..	CAJP	Mar. "	6
Hydro. & Topo. Stations Picked..	JEH	Mar. "	5
Radial Points Picked.....	JEH	Mar.	4
Adjacent Centers Picked.....	JEH-HGB-CAJP	Feb. "	19 $\frac{1}{2}$
Templates.....	HVR	Apr. "	22
Radial Plot.....	KGC-WHS-JEH	Apr. "	5
Radial Points Transferred.....	JHSB-JEH	Apr. "	1 $\frac{3}{4}$
Transfer Checked.....	JEH	Apr. "	2 $\frac{3}{4}$
H & T Stations Scaled & Checked..	RD-JEH	June "	5
Additional Radial Points.....			
Total			78 $\frac{3}{4}$

## DETAILING

Rough Draft.....	RD	May 1942	22
Smooth Draft.....		"	
Total			122

## COMPILATION

Name Overlay.....	RD	June 1942	4
Descriptive Report.....	RD	June 1942	6
Field Review.....	WHS	July 1942	14
Total			24

Total time spent on Sheet..... 397 $\frac{3}{4}$  hours.

4582	1-9-40	11:56	+0.6
4583	"	11:57	+0.6
4589	"	12:03	+0.5
4590	"	12:04	+0.5
4591	"	12:05	+0.5
4592	"	12:06	+0.5
4593	"	12:07	+0.5

Site for predicted: St. Lucie Inlet,  
Ref - Mayport, Florida

Source: U.S. Coast and Geodetic Survey - U.S. (Total length in miles)  
Negatives on file at the Survey Office.

Main scale of Photographs..... 1:10,000 = 0.9996  
Scale of Survey Sheet..... 1:10,000

# STATISTICS

Area (Acres).....	20.8	Statute miles
Shoreline (more than 200 ft. from open water shore).....	9.8	Statute miles
Shoreline (creeks).....	15.4	Statute miles
Roads, streets, trails, and railroads.....	39.9	Statute miles

# REFERENCE STATION

Station: Lucie, 1934  
Datum: N. A. Datum, 1927

Latitude: 27° 16' 22.481" (691.9m)  
Longitude: 80° 19' 03.615" (99.4 m)

Adjusted

F/a.E. Zone

X = 721,648.08  
y = 1,068,937.58

129

**LEGEND USED FOR FIELD INSPECTION AND DRAFTING  
PROJECT 242 - 1942**

**TREES**

P1 - Pine  
Cy - Cypress  
Pal - Palmetto  
Palm - Palm  
D T - Deciduous trees (broad leaf)  
Cit - Citrus (orchard)  
Mix - Pine, Cypress & Dec. trees  
(Density)  
Sct. - Scattered  
t.w. - Thinly wooded  
h.w. - Heavily wooded  
Scr. - Scrub trees;

**VEGETATION**

C - Cultivation  
Gr - Grass  
T Gr - Tall Tropical Grass  
M - Marsh (dashed blue line on  
inshore limits)  
M<sub>W</sub> - Marsh grass in water (dashed blue  
line on offshore limits)  
Sw - Swamp  
Mg - Mangrove  
Hdg - Hedge

**STREAMS**

Ga - Canal (width)  
Cr - Creek  
D - Ditch (width)  
I S - Intermittent Stream  
FDU - Probable drainage unsurveyed  
Brg - Bridge or symbol  
Cv - Culvert  
Lev - Levee

P.G.S. - Florida Geodetic Survey  
U. S. E. - U. S. Engineers  
USBS - U.S. Biological Survey

**ROADS & RAILROADS**

Rd 1 - 1st class road (paved)  
Rd 2 - 2nd class road  
Tr - Trail  
R R - Railroad  
O P - Over pass (state the kind)  
U P - Under pass (state the kind)  
X - Abandoned trail, road, etc.  
R H ab - P.R. abandoned (grade only)

**POUNDS**

P - Pond  
Cy P - Cypress Pond  
I P - Intermittent Pond

**SHOWELINE**

M.H.L. - mean high waterline (solid  
red line - fast land)  
L.H.L. - low waterline (dashed red line)  
L.L. - Light line (solid blue line for  
mean high water line on map)  
Dk - Dock  
Pr - Pier  
Se W - Seawall  
Bkhd - Bulkhead  
Conc - Concrete  
Bo - Wooden  
Jet - Jetty  
Dol - Dolphin  
Pile - Pile (give type)  
S - Sand  
Mud - Mud  
Rk - Rock or Rocky  
Sty - Stony  
W - Water  
Blf - Bluff (height)

**BUILDINGS**

H - House, barn or building  
Ch - Church (give name)  
Ct H - Court House (give name)  
Bo H - Boat House  
P.O. - Post Office (give name)  
R.R.Sta - Railroad station (give name)  
Hos - Hospital (give name)  
Sch - School (give name)

**MISCELLANEOUS**

F - Fence  
FB - Fire Break (maintained)  
FBX - Fire Break (abandoned)  
Cem - Cemetery  
Park - Park (give name)  
F.T. - Fire tower  
T.T. - Transmission tower (tall steel)  
P.L. - Power Line  
Shoal - Approx. limits by long dashed  
line for use by hydrographer.

U.S. TO U.S. FOR F.L. IN SECTION AND MAPPING  
 PROJECT 242 - 1942

PLANT

Pi - Pine  
 Cy - Cypress  
 Pal - Palmetto  
 Palm - Palm  
 D T - Deciduous trees (broad leaf)  
 Cit - Citrus (orchard)  
 Mix - Pine, cypress & dec. trees  
 (J. many)  
 Sc. - scattered  
 t.w. - Thinly wooded  
 h.w. - Heavily wooded  
 Scr. - Scrub trees

VEGETATION

C - Cultivation  
 Gr - Grass  
 T Gr - Tall Tropical Grass  
 M - Marsh (dashed blue line on  
 inshore limits)  
 K - Marsh grass in water (dashed blue  
 line on offshore limits)  
 Sw - Swamp  
 M - Mangrove  
 Hd - Hedge

SPACES

Ca - Canal (width)  
 Cr - Creek  
 D - ditch (width)  
 IS - Intermittent Stream  
 PU - Possible drainage unsurveyed  
 Br - Bridge or symbol  
 Cr - Culvert  
 Lev - Levee

F.G.S. - Florida Geodetic Survey  
 U. S. E. - U. S. Engineers  
 U.S.S. - U.S. Biological Survey

ROADS & RAILROADS

1d 1 - 1st class road (paved)  
 1d 2 - 2nd class road  
 Tr - Trail  
 RR - Railroad  
 OP - Overpass (state the kind)  
 UP - Underpass (state the kind)  
 X - Abandoned trail, road, etc.  
 RR ab - R.R. abandoned (grade only)

WATER

P - Pond  
 Cy P - Cypress Pond  
 I P - Intermittent Pond

SHORELINE

H.L. - mean high waterline (solid  
 red line - fast land)  
 L.L. - low waterline (dashed red line)  
 L.L. - light line (solid blue line for  
 mean high water line on beach)  
 Dk - Dock  
 Pr - Pier  
 Se D - Seawall  
 Mhd - Bulkhead  
 Conc - Concrete  
 W - Wooden  
 Jet - Jetty  
 Dol - Dolphin  
 Pile - Pile (give type)  
 S - Sand  
 Mud - Mud  
 Rk - Rock or Rocky  
 Sty - Stony  
 W - Water  
 Blf - Bluff (height)

BUILDINGS

H - House, barn or building  
 Ch - Church (give name)  
 St H - Court House (give name)  
 Ho H - Post House  
 P.O. - Post Office (give name)  
 R.R. Sta - Railroad station (give name)  
 Hos - Hospital (give name)  
 Sch - School (give name)

UTILITIES

F - Fence  
 FB - Fire Break (maintained)  
 FAK - Fire Break (abandoned)  
 Cen - Cemetery  
 Park - Park (give name)  
 F.T. - Fire tower  
 T.T. - Transmission tower (tall steel)  
 P.L. - Power Line  
 Shool - Approx. limits by long dashed  
 line for use by hydrographer.

Division of Photogrammetry

Review of Planimetric Map T-5918

This map was compiled in the Tampa Photogrammetric Office in 1942, but Washington Office processing was delayed because of war map work of the Bureau. The map was reviewed in 1943, printed in 1945, and registered in 1947.

Field Inspection and Detailing.

These were adequate and only a few minor changes were necessary on the manuscript during review.

Comparison with Previous Topographic Surveys.

T-5918 supersedes the following older surveys:

T-1652	1883	1:20,000
T-4534a	1930	1:20,000
T-4534b	1930	1:10,000
T-4542	1930	1:20,000

Comparison with Nautical Charts.

T-5918 was applied to charts 846 and 1289 prior to this review. However, no changes of consequence to the charts were made during the review.

Reviewed under the direction of D. H. Benson in December 1943.

This report prepared by B. G. Jones from reviewer's notes in May 1947.

APPROVED BY:

B. G. Jones 5/47  
Technical Assistant to the  
Chief, Div. of Photogrammetry

K. T. Adams  
Chief, Div. of Photogrammetry

A. Pittman  
Chief, Nautical Chart Br.  
Division of Charts

C. R. Green  
Chief, Div. of Coastal Surveys 1947