

# 5917

# 5917

1247

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey <u>Planimetric Map</u>	
Field No. ....	Office No. <u>T-5917</u>
LOCALITY	
State <u>Florida</u>	
General locality <u>East Coast</u>	
Locality <u>St. Lucie River - Stuart</u>	
Photos taken: Jan. 9, 1940	
<u>194 2</u>	
CHIEF OF PARTY	
Lieut. Comdr. Kenneth G. Crosby	
LIBRARY & ARCHIVES	
DATE <u>May 27-1947</u>	

B-1870-1 (1)

Applied to chart 1289	8/17/43	G.T.E.	{before review}
Applied to chart 1112	2/10,44	S.R.	{before review}
Applied to chart 1247	3/18/44	G.T.E.	{after review}

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 for-  
warded to the Office.

SHEET

~~XXXX~~ Field No. T-5917

REGISTER NO.

State Florida

General Locality East Coast

Locality St. Lucie River at Stuart

Scale 1:10,000 Date of Photo January 9, 1940  
~~Date of Survey~~

Party: Air Photographic Party No. 1  
~~XXXX~~

Chief of party Lieut. Comdr. Kenneth G. Crosby

Field Inspected by : Lieut. J. D. Thurmond  
~~Surveyed by~~

Inked by Cornelius A. J. Pauw, Sr. Engineering Aid

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

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

Instructions dated April 3, 1940

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

## SHEET NO. T-5917

## SUPPLEMENTARY SURVEYS

	Name	Date	Hours
Control Surveys.....	JEH-WHS-JHSB:	March & April :	9 $\frac{1}{2}$
Planetable Surveys.....	:	:	:
Total			

## FIELD INSPECTION

Preparation of Photographs.....	CH - FH E	: Nov.	: 7
Field Work.....	JDT-FHE-GEV	: Jan.	: 114
Inking Notes.....	:	:	:
Coast Pilot Notes.....	:	:	:
Geographic Name Reports.....	FHE	: May	: 14
Land Marks for Charts.....	:	:	:
Description Cards.....	JDT- FHE-GEV	: Feb. & March	: 54
Recovery Notes .....	:	:	:
Total			189

## MAIN RADIAL PLOT

Scale Plot.....	JEH	: March	: 1
Projection on Base Sheet.....	Wash. Office	:	:
Projection on Survey Sheet.....	:	:	:
Control Plotted.....	KGC	: April	: 13 $\frac{3}{4}$
Control Checked.....	WHS	: April	: 1 $\frac{1}{2}$
Control Trans. to Base Sheet....	KGC	: April	: $\frac{1}{2}$
Transfer Checked.....	WHS	: April	: $\frac{1}{2}$
Control Picked on Photograph....	HGB-JEH	: Feb.	: 11
Control Checked on Photograph...	CAJP	: March	: 7
Hydro & Topo. Stations Picked...	HGB-JEH- CAJP	: Feb. & June	: 16
Radial Points Picked.....	JEH	: March	: 11
Adjacent Centers Picked.....	JEH-HGB-CAJP	: Feb.	: 25 $\frac{1}{2}$
Templates.....	HVR	: Apr.	: 31
Radial Plot.....	KGC-WHS-JEH	: Apr.	: 5
Radial Points Transferred.....	JHSB-MMS-JEH	: Apr.	: 4
Transfer Checked.....	JEH	: Apr.	: 3 $\frac{1}{4}$
H & T Stations Scaled & Checked:	CAJP-JAG	: June & July	: 10
<del>Investigating</del> Radial Points.....	CAJP	: June	: 14
Investigating	Total		142 $\frac{1}{2}$
DETAILING			

Rough Draft.....	CAJP	: May & June	: 185
Smooth Draft.....	:	:	:
Total			185

## COMPILATION

Name overlay.....	CAJP	: June	: 15
Descriptive Report.....	CAJP	: July	: 7
Field Review.....	JAG	: July	: 18
Total			40

Total time spent on Sheet..... 566 hours

DESCRIPTIVE REPORT  
TO ACCOMPANY  
SHEET NO.T-5917

GENERAL

This sheet was compiled from nine-lens photographs taken by the U. S. Coast & Geodetic Survey camera on January 9, 1940. The rough draft was made in accordance with the " Instructions for Drafting Air Photographic Surveys, Project H.T.242, dated April 3, 1940."

The general locality of the area covered is the Florida East Coast, St. Lucie River Inlet at the city of Stuart.

With the exception of the towns of Stuart and Palm City, the entire area is covered by lakes, ponds, marshes, and floodlands. The vegetation is comprised of grass, palmetto, palm, pine, and in the swamp areas gum and bay trees. Fringes of mangrove are common along the shores and extensive mangrove swamps occur at the entrance of the St. Lucie Canal and the mouth of Bessey Creek. *Buildings have been added in red and some in black. These have also been circled*

All buildings visible on the photographs have been shown with the exception of the center portion of Stuart town.

All roads and streets shown by double lines should be 0.6 m.m wide, with the exception of streets shown wider, in which case their actual width appears on this map drawing. All roads shown by a center-line only, should be shown 0.6 m.m. wide on the smooth draft.

CONTROL

The following ten (10) triangulation stations appear within the tracing limits of this sheet.

Reference Station	STUART (Tank)	1930	U.S.C. & G.S.
"	BUSH	1930	"
"	SPIT	1930	"
"	CANAL	1930-1942	"
"	PALM	1930	"
"	PHONE	1930	"
"	MENDEL	1930	"
"	PISGAH	1883	"
"	KRUEGER	1930	"
"	MAN	1930	"
"	PINEY	1930	"

Triangulation Station Swan 1930, appears on this sheet, but falls outside of the detailing limits.

### 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 photograph 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-5918, 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 per cent of the points established by the plot resulted from the intersection at a common point, of three to six radial lines. The remaining 2 per cent 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 0.25m.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, insofar 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 0.25 m.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.

#### NON-FLOATING AIDS

Non-floating aids to navigation appearing on this sheet have been listed on Form 567, which has been made apart of this report. Seven aids were located from sextant fixes and five from radial plot, two of which were checked with sextant fixes. Kennings Lighthouse used in sextant fixes is a cafe building similar in shape to a lighthouse.

#### INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and no unusual difficulties in interpretation were encountered.

#### FIELD INSPECTION

Field inspection was made by Lieut. James D. Thurmond by truck and skiff during the months of January and February, 1942. The field notes were adequate throughout the area covered by this sheet. The legend used by the field inspector has been made part of this report.

## BRIDGES

Type and kind of structures have been indicated and horizontal and vertical clearances noted.

## DETAILING

The celluloid was treated with dry magnesium carbonate prior to inking throughout the drawing.

The scale of the photographs was good, without exception. With the exception of the westernmost portion of the sheet there were ample overlaps, (approximately 70%). This western portion consists of undeveloped glade lands and is of relatively slight importance.

No additional radial points were intersected as there was ample control. However, the compiler did re-intersect 24 doubtful points and made slight corrections wherever such was found to be desirable. Practically all points gave a common intersection from four or more cuts.

The stereoscope was employed to determine the exact positions and shapes of tall buildings and other complicated features such as marine railways, wharves, docks, bridges, etc.

Symbols and labels have been used freely wherever time could be saved without reducing the correctness of interpretation of the map. The legend of symbols is identical with the one used by the field inspector, which is apart of this report.

The entire sheet was detailed in accordance with current instructions for this project.

## JUNCTIONS

This map drawing joins Sheet No. T-5918 on the north, Sheet No. T-5919 on the east, and Sheet No. T-5916 on the south. All junctions are in agreement.

## GEOGRAPHIC NAMES

A special report on the investigation of Geographic Names for the St. Lucie River, Cross State Waterway and Lake Okeechobee was made and submitted by Harold A. Duffy, Sr. Photogrammetric Aid. All geographic names are as shown on the name sheet.

## LAND MARKS

No prominent land marks appear on this sheet.

Respectfully submitted,

*Cornelius A. J. Pauw*  
Cornelius A. J. Pauw,  
Sr. Engineering Aid

Forwarded:

*Kenneth G. Crosby*  
Kenneth G. Crosby  
Chief of Party



LEGEND USED FOR FIELD INSPECTION AND DRAFTING  
PROJECT 242 - 1942

TREES

Pi - Pine  
Cy - Cypress  
Palo - 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)  
MW - Marsh grass in water (dashed blue  
line on offshore limits)  
Sw - Swamp  
Mg - Mangrove  
Hdg - Hedge

STREAMS

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

F.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 - Overpass (state the kind)  
U P - Underpass (state the kind)  
X - Abandoned trail, road, etc.  
R H ab- P.R. abandoned (grade only)

PONDS

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

SHORELINE

H.W.L.- mean high waterline (solid  
red line - fast land)  
L.W.L.- low waterline (dashed red line)  
L.L. - Light line (solid blue line for  
mean high water line on marsh)  
Dk - Dock  
Pr - Pier  
Se W - Seawall  
Bkhd - Bulkhead  
Conc - Concrete  
Wo - 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.

T-5917

Remarks.

Decisions

1		272801-02
2		" North Fork
3		271801-02 South Fork
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		272801-02
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		Railway Guide
23		1941 Off. State Road Map
24	No. 85 on most maps	"
25	No. 140 on 1939 Fla. Transp. Map.	"
26		"
27		272801-03

# GEOGRAPHIC NAMES

Survey No. T-5917

GEOGRAPHIC NAMES										
Survey No. T-5917										
Name on Survey	<div>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</div>									
	A.	B.	C.	D.	E.	F.	G.	H.	K.	
✓ St. Lucie River										1
✓ St. Lucie River <del>North Fork</del>										2
✓ St. Lucie River <del>South Fork</del>										3
✓ Frazier Creek										4
✓ Mullihan Cove										5
✓ Bessey Point										6
✓ Poppelton Creek										7
✓ Danforth Creek										8
✓ Palm City										9
✓ Stuart										10
✓ Kreuger Creek										11
✓ Pisgah Hill										12
✓ Warner Creek										13
✓ Rio St. Lucie Terrace										14
✓ Rib St. Lucie										15
✓ Haney Creek										16
✓ Britt Point										17
✓ Dyer Point										18
✓ Bessey Creek										19
✓ Coconut Point										20
✓ Mile Lake										21
✓ Florida East Coast Ry.										22
✓ U.S. Highway No. 1										23
✓ Florida Highway No. 109										24
✓ Florida Highway No. 40										25
✓ Florida Highway No. 111										26
✓ Van Seggern Creek										27

157

Heck

11/29/42

(month T5<sup>18</sup>)

M 234

(month T5 18)

HECK 11/29/42

4593	Jan 9, 1940	12:02	P.M.	0.8
4594	" "	12:03	P. M.	0.8
4595	" "	12:04	P.M.	0.8
4596	" "	12:06	P. M.	0.7
4580	" "	11:47	A.M.	1.0
4581	" "	11:48	A.M.	1.0
4587	" "	11:55	A.M.	0.9
4588	" "	11:56	A.M.	0.9

St. Lucie Inlet (jetty), Florida  
Reference Station: Mayport, Florida

Scale of 1:10,000 ÷ .9908  
Scale of 1:10,000

STATION

27.0	51	108.0
21.5	51	
19.5	51	
108.0	51	

REFERENCE STATION

Stuart (Tank) 1930, r 1934 (d) Latitude: 27° 11' 45" .041 (1386.3m.)  
1927 N. A. Longitude: 80° 15' 03" .662 (100.8 m.)

158  
20

F/a. East Zone

X = 743,468.15

Y = 1,091,046.08

**UNIVERSITY OF FLORIDA FIELD INSTRUCTIONS AND ABBREVIATIONS  
PROJECT 242 - 1942**

**PLANT**

Pi - Pine  
Cy - Cypress  
Pal - Palmetto  
Palm - Palm  
D.T. - Deciduous trees (broad leaf)  
Cit - Citrus (orchard)  
Mx - Pine, cypress & Dec. trees  
(usually)  
Sc. - Scattered  
T.w. - Thinly wooded  
H.w. - Heavily wooded  
Scr. - Scrub trees;

**VEGETATION**

C - Cultivated  
Gr - Grass  
Gr - All tropical grasses  
M - Marsh (dashed blue line on  
inshore limits)  
M - Marsh grass in water (dashed blue  
line on offshore limits)  
Sw - Swamp  
Mg - Mangrove  
Hdg - Hedge

**SYMBOLS**

Ca - Canal (width)  
Cr - Creek  
D - Ditch (width)  
IS - Intermittent Stream  
FUD - From file drainage unsurveyed  
Brg - Bridge or symbol  
Dr - Divert  
Lav - Levee

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

**ROADS AND TRAILS**

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

**WATER**

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

**WATERLINES**

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 t. red)  
Dk - Dock  
Pr - Pier  
Se - Seawall  
Bhd - Bulkhead  
Cons - Concrete  
Wo - Wooden  
Jet - Jetty  
Dol - Dolphin  
Pile - Pile (give type)  
S - Sand  
Bud - Bud  
Rk - Rock or Rocky  
Sty - Story  
H - Water  
Hlf - Wharf (height)

**BUILDINGS**

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

**UTILITIES**

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

## Division of Photogrammetry

### Review of Planimetric Map T-5917

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 generally adequate. However, the following changes shown in red on the manuscript were necessary during review:

- (1) At Lat.  $27^{\circ}10'+$ , Long.  $80^{\circ}15'+$  piling and dock ruins were added to 5917.
- (2) Change in mouth of creek at Lat.  $27^{\circ}13'+$ , Long.  $80^{\circ}13'+$ .
- (3) Also, additions were made in clearance data for Stuart bridges and cables.

#### U. S. Engineer Stations.

Geographic positions were determined from local grid positions for U.S.E.D. Stations Riv, Baker, and Bridge which previously had not been computed but which had been radially plotted. These were plotted as triangulation stations and in two cases fell exactly on the radial plot positions; the third point fell slightly off the radially plotted point but showed that the plot was very strong.

#### Bridge Clearances

The following is a list of clearances given by the field inspection party for bridges at Stuart and Palm City. These do not agree with the U.S.E. bridge book:

<u>Stuart, Fla.</u>		
Type	Vertical	Horizontal
RR Bridge (Bascule)	6.6 ft. (H.W.)	50 ft.
Hwy Bridge	13.0 ft. (H.W.)	80 ft.
Overhead Cable	80 ft.	

Palm City, Fla.

Type	Vertical	Horizontal
Hwy Bridge (Bascule)	6.2 ft. (H.W.)	60 ft.

Comparison with Previous Surveys.

T-1571	1:20,000	1883	} Graphic control surveys
T-4534b	1:10,000	1930	
T-4534a	1:20,000	1930	

There was no material taken from above topographic sheets and they can be considered as superseded by T-5917.

Comparison with Nautical Charts.

T-5917 has been applied to chart 1289 prior to this review. The changes mentioned in the preceding paragraphs as made during review are shown in red on the manuscript and are of consequence to the chart.

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

J. E. Stenning  
Chief, Nautical Chart Br.  
Div. of Charts

K. T. Adams  
Chief, Div. of Photogrammetry

C. K. Green  
Chief, Div. of Coastal Surveys

## NAUTICAL CHARTS BRANCH

SURVEY NO. 8-5917

## Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.