

5915

1247

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

DESCRIPTIVE REPORT

Air Photographic Sheet
Plane Table Survey No. T-5915
Hydrographic (Field)

LOCALITY

State Florida

General locality Lake Okeechobee

Locality St. Lucie Canal near Lake
Okeechobee

Photos taken
Jan. 9, 1940 1942

CHIEF OF PARTY

Lieut. Comdr. Kenneth G. Crosby

5915

appended ch 1289

8/14/42

AttE before
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 forwarded to the Office.

~~REG. NO.~~ T-5915
Field No. _____

REGISTER NO.

State FLORIDA

General Locality Lake Okeechobee

Locality St. Lucie Canal near Lake Okeechobee

Scale 1:10,000 Date of ~~XXXXX~~ Photos January 9, 1940
Party _____

~~XXXXX~~ Air Photographic Party No 1

Chief of party Kenneth G. Crosby

Field inspected by, Lieut. J. D. Thurmond & G. E. Varnados
~~XXXXXX~~ Prin. Photo. Aid.
Surveyed by _____

Inked by Robert D. Eis, Eng'r Aid

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated April 3, 1940, 19____

Remarks: _____

SUPPLEMENTARY SURVEYS

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

FIELD INSPECTION

Preparation of Photographs.....	CH FHE	NOV.	4 $\frac{1}{2}$
Field Work.....	JDT GEV	JAN 1942	20
Inking Notes.....			
Coast Pilot Notes.....			
Geographic Name Reports.....	FHE	MAY	6
Land Marks for Charts.....			
Description Cards.....	JDT GEV	JAN	6
Recovery Notes			
	Total		36 $\frac{1}{2}$

MAIN RADIAL PLOT

Scale Plot.....	JEH	MARCH 1942	1
Projection on Base Sheet.....	Wash. Office		
Projection on Survey Sheet.....			
Control Plotted.....	KGC	APRIL	$\frac{1}{4}$
Control Checked.....	WHS	APRIL	$\frac{1}{4}$
Control Trans. to Base Sheet.....	KGC	APRIL	$\frac{1}{4}$
Transfer Checked.....	WHS	APRIL	$\frac{1}{4}$
Control Picked on Photograph.....	JEH	MARCH	2 $\frac{3}{4}$
Control Checked on Photograph.....	XENCAJP	MARCH	6 $\frac{1}{2}$
Hydro & Topo. Stations Picked...	---		
Radial Points Picked.....	CAJP WHS	MARCH-APRIL	9
Adjacent Centers Picked.....	JEH	FEB	3 $\frac{1}{4}$
Templates.....	CAJP	APRIL	4
Radial Plot.....	KGC-WHS-JEH	APRIL	6
Radial Points Transferred.....	WHS-JEH	APRIL	1 $\frac{1}{2}$
Transfer Checked.....	JEH	APRIL	1 $\frac{1}{2}$
H & T Stations Scaled & Checked:	RDE-RD	JUNE	4
Additional Radial Points.....	RDE	MAY	3 $\frac{1}{2}$
	Total		41

DETAILING

Rough Draft.....	RDE	May	11 $\frac{1}{2}$
Smooth Draft.....			
	Total		11 $\frac{1}{2}$

COMPILATION

Name overlay.....	RDE	MAY	2
Descriptive Report.....	RDE	JUNE	7
Field Review.....	WHS	JULY	10
	Total		19
Total time spent on Sheet.....			211 $\frac{1}{2}$ hours

4573	1/9/40	11:32	(No tide water)
4574	"	11:33	"
4575	"	11:35	"
4576	"	11:36	"

Scale of Survey Sheet 1: 10,000 + .99
1: 10,000

STATISTICS

Area (Land)	13.05	1
Charlotte (from base 100)	0	1
Charlotte (from base 100)	8.6	1
Charlotte (from base 100)	13.2	1

REFERENCE SECTION

Allen
1934
N.A. 1927

Latitude: 27° 03' 33.396" (±027m)
Longitude: 80° 18' 18.424" (±027m)

✓ 1027.9m Adj.
507.7m

129
11

Fla. E Zone

X = 726,155.98 ft
Y = 991,300.39 ft

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET - T-5915

GENERAL

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

The general locality of the area covered by this survey sheet is Florida East Coast, in the immediate vicinity of the Saint Lucie - Lake Okeechobee Canal

The terrain along the northern bank of the canal consists of a sand and marl spoilbank 10 to 12 feet high extending inshore about 250 meters. Beyond the spoil bank the terrain is flat sandy land with numerous ponds and marshes. The vegetation consists principally of pine, palm, palmetto, grass and brush.

The southern bank of the canal is 10 to 12 feet high covered with grass, vines and brush. The area adjacent to the southern bank is covered with vegetation consisting of pine, palmetto, grass and brush. In the vicinity of triangulation station Allen, there are extensive cultivated areas, many of which are now being used as cattle pastures. The terrain of the southwestern portion of the sheet consists of numerous ponds and marshes. The vegetation consists of pine, palmetto, grass and brush.

CONTROL

The following triangulation station was used for control on this sheet.

NAME OF STATION	YEAR	ESTABLISHED BY
ALLEN	1934	J. Bowie, Jr.

Allen azimuth mark was moved and reset by the road construction company and the azimuth position could not be checked as the new position is not on record at this office. However, the geographic position has been scaled and is being submitted on Form 524 in conjunction with this sheet.

Traverse stations established by the U. S. Engineers along the St. Lucie Canal could not be used for control as geographic positions could not be obtained. They were recovered by the field party and their locations determined by the main radial plot. The geographic position for each has been scaled and is being submitted on Form 524.

MAIN RADIAL PLOT

A continuous radial plot was run on April 22 - 24, 1942 inclusive, for the purpose of locating all photograph enters, 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 4561, 4583 and 4584 are the northeast limits and photograph 4564 forms the westerly limits.

*Rechecked by
Goodley 5/47
JMG*

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; 3 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 layed 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-5915. These templates were rigidly controlled. From that point to sheet T-5912 the templates were layed by holding intersections of radial line and azimuth, and due to lack of control the templates on sheets T-5914 and T-5915 had to be layed 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 0.25 m.m. away from the point selected.

The conditions in the preceeding 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 plot2.5 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 plot2.5 mm blue circle on back of sheet
 Radial points (additional)3.5 mm blue circle on back of sheet
 Photograph CentersDouble blue circle on back of sheet

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and accurate ~~and~~ interpretation was obtained with no unusual conditions being found.

FIELD INSPECTION

Field inspection was made during February, 1942 by Lieut. J. D. Thurmond and George E. Varnadoe, Principal Photogrammetric Aid. Field notes were sufficient for accurate interpretation of vegetation and over-all detailing of the sheet.

DETAILING

This sheet was detailed in accordance with the current instructions for the project.

The scale of photograph 4573 and photograph 4576 was good. The scale of photograph 4574 and 4575 was fair.

Due to the highway construction since the photographs were made, the centerline of Florida Highway 109 in the vicinity of triangulation station Allen, 1934, now lies nearer the triangulation station than is shown on the photographs. In detailing, the centerline of Florida Highway 109 was shown according to the field inspection.

All field roads and minor ditches are not shown. However, the more important field roads are delineated. Before detailing, the surface of this sheet was rubbed down with magnesium carbonate and then washed off. No additional cleaning or re-inking has been necessary.

Symbols have been used in a few areas to clarify local conditions.

The stereoscope has been used freely for picking corners of buildings, interpreting detail and determining the limits of vegetation.

The legend used by the field inspection party and by the draftsman is made apart of this report.

JUNCTIONS

This sheet joins sheet T-5916 on the East and sheet T-5914 on the west. The junctions are in agreement.

COMPARISON WITH OTHER SURVEYS

Reference is made to a letter from the Washington Office dated May 10, 1941 (28 PFA-1990), advising that this paragraph may be dispensed with. Surveys by other agencies of this area are of such scales that accurate comparisons could not be made.

GEOGRAPHIC NAMES

The geographic names for this area are the subject of a special report entitled "Investigation of Geographic Names. Florida East Coast, St. Lucie River, Cross State Waterway and Lake Okeechobee," May 30, 1942, submitted to the Washington Office by Harold A. Duffy, Senior Photogrammetric Aid.

LANDMARKS

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

Respectfully submitted

Robert D. Eis

Robert D. Eis,
Photogrammetric Aid

Forwarded

Kenneth G. Crosby
Kenneth G. Crosby,
Chief of Party

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

TREES

Pl - 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)
 M - 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 + Fenced woods
 R R - Railroad
 O P - Overpass (state the kind)
 U P - Underpass (state the kind)
 X - abandoned trail, road, etc.
 R H ab - F.R. abandoned (grade only)

PONDS

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

SHORELINE

M.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
 Rkhd - Bulkhead
 Conc - Concrete
 Ho - Wooden
 Jet - Jetty
 Dol - Dolphin
 Pile - Pile (give type)
 S - Sand
 Mud - Mud
 Rk - Rock or Rocky
 Sty - Stony
 W - Water
 Blf - Bluff (height)
 FL - Flooded land

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)
 Cen - 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.

GEOGRAPHIC NAMES

Survey No. T-5915

GEOGRAPHIC NAMES										
Survey No. T-5915										
Name on Survey	<div>On Chart No.</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div>									
	A,	B,	C,	D	E	F	G	H	K	
<u>St. Lucie Canal</u>										1
<u>Spillway Cane Slough</u>										2
<u>Florida Highway No. 109</u>										3
<u>Spillway T</u>										4
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M 234

Remarks

Decisions

1		271801-02
2		270803-05
3	No. 85 on most maps.	1941 Off. State Road Map
4		270803-05
5	With respect to title for this sheet, this section	
6	of St. Lucie Canal is nearer St. Lucie River than	
	to Lake Okeechobee.	
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Division of Photogrammetry

Review of Planimetric Map T-5915

This map was compiled in the Tampa Office and submitted to Washington in September 1942, but the Washington Office processing was delayed by war map work of the Bureau. The map was reviewed and drafted in 1943, printed in 1946, and registered in 1947.

Field Inspection and Detailing.

These were complete and only a few minor corrections were necessary during the review.

Main Radial Plot.

The radial plot across T-5915 was relatively weak, but the accuracy of position of details is probably within 1 millimeter of correct geographic position.

Comparison with Nautical Charts.

T-5915 was applied to chart 1289 prior to this review. No changes of consequence to the chart were made during the review.

Reviewed under the direction of D. H. Benson.

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

APPROVED:

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

K. T. Adams
Chief, Div. of Photogrammetry

L. E. Stitt
Chief, Nautical Chart Br.
Division of Charts

C. K. Green
Chief, Div. of Coastal
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