

5902

5902

ON Diag. Ch. 804

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

## DESCRIPTIVE REPORT

Air Photographic  
Plane Table  
Hydrographic

Sheet  
Survey No. T-5902  
(Field)

### LOCALITY

State Florida

General locality Lake Okeechobee

Locality Northeast shore of Lake

Okeechobee Lettuce Creek

Photos taken  
Jan-9, 1940

194 2

### CHIEF OF PARTY

Lieut. Comdr. Kenneth G. Crosby

applied to chart 1289 July 13, 1943 GHE.

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. ....

REGISTER NO. T-5902

State Florida

General Locality Lake Okeechobee

Locality Northeast shore of Lake Okeechobee

Photos

Scale: 1:10,000 Date of ~~survey~~ January 9, 19 40

Party

~~water~~ Air Photographic Party No. 1

Chief of party Lieut. Comdr. Kenneth G. Crosby

Field Inspected by:

~~Surveyed by~~ George E. Varnadoe, Principal Photogrammetric Aid

Inked by Milton M. Slavney, Sr. Engineering Draftsman

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

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

Instructions dated April 3, 19 40

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

# SHEET No. T— 5902

## SUPPLEMENTARY SURVEYS

	Name	Date	Hours
Control surveys.....	GEV	May	1
Planetable Surveys.....			
Total			1

## SUPPLEMENTARY SURVEYS

Preparation of Photographs.....	GEV, JEH, CH	Oct. Nov. Dec.	5 $\frac{1}{4}$
Field Work.....	GEV FHE	Feb. Mar. 1942	37 $\frac{1}{2}$
Inking Notes.....			
Coast Pilot Notes.....			
Geographic Name Reports.....			
Land Marks for Charts.....			
Description Cards & Recovery Notes.....	GEV	March	6
Total			48 $\frac{3}{4}$

## MAIN RADIAL PLOT

Scale Plot.....	WHS	May	1
Projection on Base Sheet.....	Washington Office		
Projection on Survey Sheet.....			
Control Plotted.....	RD	June	$\frac{1}{4}$
Control Checked.....	ALK	June	$\frac{1}{4}$
Control Trans. to Base Sheet.....	RD, , ,	June	$\frac{1}{4}$
Transfer Checked.....	ALK	June	$\frac{1}{4}$
Control Picked on Photograph.....	WHS, HGB, JTW	May	5
Control Checked on Photograph.....	JTW, LCB	May	4
Hydro & Topo. Stations Picked.....	H.G.E, JTW	May	11 $\frac{1}{2}$
Radial Points Picked.....	LCB	May	3 $\frac{3}{4}$
Adjacent Centers Picked.....	RDE, HVR	April	4
Templates.....	CHW	May	4
Radial Plot.....	X	June	25
Radial Points Transferred.....	RDE	June	1 $\frac{1}{2}$
Transfer Checked.....	RD	June	5
H & T Stations Scaled & Checked.....	MMS, BOB	July Aug.	3
Additional Radial Points.....	MMS	June	8
Investigation of Radial Points.....	MMS	June	6
Total			83

## DETAILING

Rough Draft.....	MMS	June	95 $\frac{1}{2}$
Smooth Draft.....			
Total			95 $\frac{1}{2}$

## COMPILATION

Name overlay.....	MMS	July	4
Descriptive Report.....	MMS	July	8
Field Review.....	RDE	Sept.	19

Total time spent on Sheet..... 31 259 $\frac{1}{4}$  hours  
 X=Several of Office Personnel

# SHEET No. T— 5902

## PHOTOGRAPHS

Number	Date	Time	Stage of Tide
4602	1-9-40	12:02	No tide
4603	"	12:04	
4606	"	12:11	
Details on this map are of the date of the photographs.			

Tide from predicted tables for: **No tide on Lake Okeechobee**

CAMERA: U. S. Coast and Geodetic Survey Nine Lens (focal length  $8\frac{1}{4}$  inches)

## SCALE

Mean scale of Photographs..... 1:9930  
 Scale of Survey Sheet..... 1:10,000

## STATISTICS

Area (land)..... 15 Square statute miles  
 Shoreline (more than 200 m. from opposite shore)..... 4.4 Statute miles  
 Shoreline (creeks)..... 2.0 Statute miles  
 Roads, streets, trails, and railroads..... 23.9 Statute miles

## REFERENCE STATION

Station: UTE 1924 *vr*

Latitude:  $27^{\circ} 08' 11.626''$  (357.8 m.) ✓

Datum: N.A. 1927 ✓

Longitude:  $80^{\circ} 41' 20.432''$  (562.8 m.) ✓

*1 E 11*  
*Adjusted*  
*130*

*F/a. E. Zone*  
*X = 601,144.37*  
*1,018,894.94*

*check JON*  
*12-29-92*

DESCRIPTIVE REPORT  
TO ACCOMPANY  
SHEET NO. T-5902

GENERAL

This sheet was compiled from nine-lens aerial photographs 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 survey sheet is Florida, Lake Okeechobee, on the northeast shore of Lake Okeechobee.

The shoreline area is generally grassy with brush patches. The character of the shoreline and its location is further discussed under sub-head INTERPRETATION OF PHOTOGRAPHS. The inshore area is generally Palmetto and grass covered with scattered pine. Marshes and intermittent ponds are scattered through the sheet area.

Areas of vegetation with varying density and identity were shown with symbols. Labels were used in areas of uniform make up.

All roads on this survey sheet are to be shown 0.6 m.m. wide.

CONTROL

Control of this sheet consisted of the following U. S. Coast and Geodetic Survey triangulation stations:

NAME OF STATION	YEAR	ESTABLISHED BY
PIER	1924	E. B. Roberts
UTE	1924	E. B. Roberts

The positions of these two stations were computed for the North American 1927 Datum.

MAIN RADIAL PLOT

A continuous radial plot was run on June 14-16 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-5900 to T-5903 inclusive. All photographs in the area were used. It extends north and west along Lake Okeechobee from Lat.  $27^{\circ} - 01'$ , which is just north of Port Mayaca to Okeechobee, Florida. Photographs 4563 and 4598 are southeast limits and photographs 4612 and 4615 are the northwest limits.

The plot consisted of 18 templates all being for nine-lens photographs and being controlled by triangulation stations as follows: 2 by 4; 2 by 3; 7 by 2; 2 by 1; 5 by 0. 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-5900, T-5902 and T-5903. There was no triangulation

control on sheet T-5901, and the field season was closed before additional observation could be made by this Party.

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 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 laying of the plot began on sheet T-5900 and proceeded to triangulation station Ute, 1924, on sheet T-5902. Sheet T-5900 was adequately controlled by triangulation. Sheet T-5901 did not have any triangulation on it and the plot was laid by holding intersections of radial lines and azimuth. Due to lack of control this part of the plot had to be relaid several times before a satisfactory tie-in could be made at triangulation station Ute, 1924. The remainder of the plot - sheets T-5902 and T-5903 - was laid by starting with the templates for photographs 4563 and 4598 and working north to triangulation station Ute, 1924. Photographs 4563 and 4598 were used in the previous plot which covered sheets T-5912 to T-5919 inclusive. Therefore, the radial points already on them were used to tie these plots together. In proceeding with the laying of the templates on sheets T-5903, it was found that the location of the field marker for triangulation station Sand, 1924, was doubtful as the recovery card for this station says that it apparently has been moved. The location of the point as picked on the photographs failed to form an intersection at the plotted position of station Sand, 1924, on the base grid, but by holding intersections of radial lines and azimuth and other triangulation control in the area the plot is satisfactory for accurate detailing of the area covered by sheet T-5903.

The agreement along the flight line and the intersection of radial lines was good on sheet T-5900. In 12 instances where the radial lines failed to form good intersections the "cuts" were put on the survey sheet for further investigation by the draftsman. In 15 instances where only 2 cuts could be obtained they were also put on the survey sheet for the draftsman to determine their accuracy.

Agreement along the flight line was only fair on sheets T-5901 and T-5902. About 50 percent of the cuts failed to form "tight" or good intersections and were penciled on the survey sheet to be investigated by the draftsman. It is thought that by recutting these points the intersections will be closed. The compiler will include a supplement on main radial plot for these two sheets.

Agreement along the flight lines and the agreement of the intersection of radial lines was good on sheet T-5903. There were 15 instances where only 2 cuts could be obtained and these cuts were penciled on the survey sheet so that the draftsman could determine their strength. In four instances a satisfactory intersection was not formed by the radial lines and the cuts were penciled on the Survey Sheet for further investigation by draftsman.

All points established by intersection of radial lines were picked where

from 3 to 6 lines formed the intersection and it is believed that all picked points are within 0.25 m.m. of their true position.

This plot cannot be called "strong". However, the sheets on both ends are rigidly controlled by triangulation. This allows an accurate tie-in of sheet T-5903 with the previous plot and insures a good tie between sheet T-5900 of this plot and T-5899 of the next plot on the west side of Lake Okeechobee.

Various colored inks were used on the photographs and survey sheets to designate control, topographic stations and radial points.

The following key is furnished for reference:

#### PHOTOGRAPHS

Triangulation and Traverse Stations-----2.5 m.m. blue circle  
Hydrographic and Topographic Stations-----2.5 m.m. green circle  
Radial Points in the Main Plot-----2.5 m.m. red circle  
Radial Points (Additional)-----3.5 m.m. red circle  
Photograph Centers-----Double White circle

#### SURVEY SHEET

Triangulation and Traverse Stations-----3.5 m.m. high black triangle  
Hydrographic and Topographic Stations-----2.5 m.m. black circle  
Radial Points on Main Plot-----2.5 m.m. blue circle on back  
Radial Points (Additional)-----3.5 m.m. blue circle on back  
Photograph Centers-----Double blue circle on back

Survey sheet T-5902 came off the radial plot for this area with 72 radial points picked, 59 of which gave triangles of error ranging from 25 sq. m.m. to 500 sq. m. m. The compiler then, under orders of the Chief of Party to straighten out the sheet, checked the plotted positions of the two triangulation stations on the sheet, and on the photographs, moving them in 2 instances. Then a completely new set of radial points was picked on the various photographs. A radial plot was then run on the sheet, that is without the use of individual templates. By shifting the photograph centers, maintaining agreement with triangulation, and dovetailing into sheet T-5903, a satisfactory plot was achieved at the second try. The only reservation to this is the apparent difficulty in using one cell of photographs 4602 and 4603. It seems obvious that this one cell has been the victim of some sort of maladjustment in the conversion printer.

*See memorandum in Desc. Rept. T-5901*

#### INTERPRETATION OF PHOTOGRAPHS

Field notes were adequate but some changes have been made in interpretation. The field inspectors location of H.W.L. has been accepted as a recoverable H.W.L. Areas labeled marsh and lying outside of H.W.L. have been designated as grass in water. Cognizance has been taken that the water level of Lake Okeechobee is controlled and therefore varies with the desires of the agency controlling the irrigation locks.

#### FIELD INSPECTION

The field inspection was made by George E. Varnadoe, Principal



Photogrammetric Aid, in February 1942 by truck and skiff. The legend for field inspection and detailing is made a part of this report.

#### DETAILING

The acetate was prepared for inking by rubbing with dry magnesium carbonate and then washing with water. No additional cleaning was necessary while detailing and the ink has adhered so well that no reinking has been necessary.

All ditches as detailed on this sheet should show on the finished print.

#### JUNCTIONS

This sheet joins T-5901 on the West and T-5903 on the South. Both junctions are in good agreement.

#### COMPARISON WITH OTHER SURVEYS

A comparison was made with photostat of Section of Topographic Sheet No. T-4124, surveyed in 1924-25 on scale 1:20,000. Due to changes created by road building, levee construction, the hurricane of 1928, and the scale of the above mentioned survey, a favorable comparison could not be made.

#### GEOGRAPHIC NAMES

The investigation of geographic names is incorporated in the special report entitled "Investigation of Geographic Names, Florida East Coast, St. Lucie River, Cross State Waterway and Lake Okeechobee", submitted to the Washington Office by Harold A. Duffy, Senior Photogrammetric Aid.

#### LANDMARKS

There are no prominent landmarks within the area covered by this sheet.

Respectfully submitted,

*Milton M. Slavney*

Milton M. Slavney  
Senior Engineering Draftsman

Forwarded by:

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



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

**TREES**

Pl - Pine  
Cy - Cypress  
Pal - Palmetto  
Palm - Palm  
D.T. - Deciduous trees (broad leaf)  
Cit - Citrus (orchard)  
Mlx - Pine, cypress & Dec. trees  
(Density)  
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)  
Mw - Marsh grass in water (dashed blue  
line on offshore limits)  
Sw - Swamp  
Mg - Mangrove  
Edg - Hedge

**SIGNALS**

Ca - Canal (width)  
Cr - Creek  
D - Ditch (width)  
I S - Intermittent Stream  
PEU - Probable Drainage unsurveyed  
Brg - Bridge or symbol  
CV - Culvert  
Lw - Levee

FGS - Florida Geodetic Survey  
UES - U. S. Engineers  
UES - U. S. Biological Survey

**ROADS & RAILROADS**

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

**POND**

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

**SHORELINE**

H.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 marsh)

Dk - Dock  
Pr - Pier  
Se W - Seawall  
Bhd - Bulkhead  
Cmc - Concrete  
Wo - Wooden  
Jt - Jetty  
Dol - Dolphin  
Pile - Pile (give type)  
S - Sand  
Mud - Mud  
Rk - Rock or Rocky  
Sty - Steep  
W - Water  
Ht - 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)  
RR Sta. - Railroad station (give name)  
Hos - Hospital (give name)  
Sch - School (give name)

**MISCELLANEOUS**

F - Fence  
FB - Fire Break (maintained)  
FBA - Fire Break (abandoned)  
Cem - Cemetery  
Park - Park (give name)  
F.T. - Fire Tower  
T.T. - Transmission tower (tall steel)  
P.L. - Power Line  
Shed - Shed  
L.H.L. - Light line (solid blue line for  
mean high water line on marsh)

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

**TREES**

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 P T - Deciduous trees (broad leaf)  
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       line on offshore limits)  
 Sw - Swamp  
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 Edg - Edge

**STRUCTURES**

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 Cr - Creek  
 D - Ditch (width)  
 I S - Intermittent Stream  
 PRU - Probable drainage unsurveyed  
 BRG - Bridge or symbol  
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 Lev - Levee

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 Cem - 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.

T-5902

	Remarks	Decisions
1		269806-08 USGB
2		271806--07
3		"
4		Railway Guide
5		"
6		1941 Fla. State Off.
7		Road Map
8		"
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# GEOGRAPHIC NAMES

Survey No. T-5902

GEOGRAPHIC NAMES										
Survey No. T-5902										
Name on Survey										
	A.	B.	C.	D.	E.	F.	G.	H.	K.	
Lake Okeechobee										1
Lettuce Creek										2
Canoe Creek										3
Florida East Coast Ry.										4
Seaboard Air Line Ry.										5
Florida Highway No. 85										6
Florida Highway No. 194										7
										8
										9
										10
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										12
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										26
										27

1. info

by L. Heck

11/29/42

M 234.

1. ins.  
 by L. Heck  
 1429/42

## Division of Photogrammetry

### Review of Planimetric Map T-5902

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 in 1943, drafted in 1944, printed in 1946, and registered in 1947.

#### Main Radial Plot.

The main radial plot in this general area is discussed in the descriptive report and was not entirely satisfactory. An attempt to relay this radial plot was made in the Washington Office, but it was decided to accept the plot as originally made in the Tampa Office. The Washington Office check of the radial plot is discussed in the review report for T-5901.

The accuracy of position of details on the map is accepted as adequate for charting. Well-defined details are within  $1\frac{1}{2}$  millimeter of correct geographic position.

#### Field Inspection and Detailing.

Adequate.

#### Comparison with Previous Surveys

T-5902 supersedes those parts of T-4124, 1:20,000, 1924, and T-4125, 1:20,000, 1924, which it covers.

#### Comparison with Nautical Charts.

T-5902 was applied to chart 1289 prior to this review. Changes made on the manuscript during review do not affect the chart.

Reviewed under the direction of D. H. Benson.

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

APPROVED BY:

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

[Signature]  
Chief, Nautical Chart Br.  
Division of Charts

K. T. Adams  
Chief, Div. of Photogrammetry

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



## NAUTICAL CHARTS BRANCH

SURVEY NO. T-5902

### 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.