

5898

ON Discharge 804

5898

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

DESCRIPTIVE REPORT

Air Photographic Sheet
Plane Table ~~Survey~~ No. T-5898
Hydrographic (Field)

LOCALITY

State Florida
General locality East Coast
Locality Bet. Lakeport & Okeechobee

Big Sawgrass Marsh
Photos: Jan. 9, 1940
1942

CHIEF OF PARTY

Lieut. Comdr. Kenneth G. Crosby

applied to Ch. 1289 7/14/43 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-5898

State Florida

General Locality Florida East Coast, Lake Okeechobee Big Sawgrass Marsh

Locality between Lakeport and Okeechobee

Scale 1:10,000 Date of ~~Survey~~ ^{Photos} January 9, 19 ⁰48

Party ~~xxxxx~~ Air Photographic Party No. 1

Chief of party Lieut. Comdr. Kenneth G. Crosby

Field Inspected by Lt. J. D. Thurmond, H & G Engineer

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

Inked by Harold A. Duffy, Sr. Photogrammetric 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:

SHEET No. T— 5898

SUPPLEMENTARY SURVEYS

	Name	Date	Hours
Control surveys.....			
Planetable Surveys.....			

Total

FIELD INSPECTION

~~SUPPLEMENTARY SURVEYS~~

Preparation of Photographs.....	JEH, CH, JEV	Oct., Nov., Dec.	5
Field Work.....	GEV	April	14
Inking Notes.....	GEV	April	3
Coast Pilot Notes.....			
Geographic Name Reports.....	FHE	May	5
Land Marks for Charts.....			
Description Cards & Recovery Notes.....	GEV	May	1

Total 28

MAIN RADIAL PLOT

Scale Plot.....	ALK	May	1
Projection on Base Sheet.....) Washington Office		
Projection on Survey Sheet.....			
Control Plotted.....	JEH	Aug.	$\frac{1}{4}$
Control Checked.....	JEH, BOB, EMB	Aug.	1
Control Trans. to Base Sheet.....	JEH	Aug.	$\frac{1}{8}$
Transfer Checked.....			
Control Picked on Photograph.....	HGB	May	$\frac{1}{4}$
Control Checked on Photograph.....	ALK	May	$\frac{1}{4}$
Hydro & Topo. Stations Picked.....	ALK, GEV	May	$\frac{3}{8}$
Radial Points Picked.....	LCB	May	$3\frac{3}{8}$
Adjacent Centers Picked.....	RDE	May	3
Templates.....	BOB	May	7
Radial Plot.....	JEH, FHE	Aug.	$\frac{5}{8}$
Radial Points Transferred.....	JEH	Aug.	1
Transfer Checked.....	RDE, JEH	Aug.	$\frac{3}{4}$
H & T Stations Scaled & Checked.....	HAD, RD	Aug., Sept.	$\frac{3}{4}$
Additional Radial Points.....			
Investigation of Radial Points.....	HAD	Aug.	$8\frac{1}{8}$

Total 29

DETAILING

Rough Draft.....	HAD	Aug.	61
Smooth Draft.....			

Total 61

COMPILATION

Name overlay.....	HAD	Aug.	$5\frac{1}{8}$
Descriptive Report.....	HAD	Aug.	$5\frac{1}{8}$
Field Review.....	RD	Sept.	$7\frac{3}{4}$

$18\frac{1}{4}$

Total time spent on Sheet..... 136 $\frac{3}{4}$ hours

SHEET No. T-5898

PHOTOGRAPHS

Number	Date	Time	Stage of Tide
4617	1-9-40	12:30 P.M.	No Tide
4618	"	12:31 "	
4619	"	12:33 "	
4625	"	2:05 "	

Tide from predicted tables for: No Tide

CAMERA: U. S. Coast and Geodetic Survey Nine Lens (focal length 8¼ inches)

SCALE

Mean scale of Photographs----- 10,000 + 1.008
 Scale of Survey Sheet----- 1:10,000

STATISTICS

Area (land)----- 30.78 Square statute miles
 Shoreline (more than 200 m. from opposite shore)----- 15.0 Statute miles
 Shoreline (creeks) ----- 14.72 Statute miles
 Roads, streets, trails, and railroads----- 11.73 Statute miles

REFERENCE STATION

Station: KISS 1924, 1935 Latitude: 27° 07' 58.873 (1812 m.)
 Datum: N.A. 1927 Longitude: 80 53 02.780 (76.5 m.)

Adjusted

Fla. E. Zone

check JON

*x = 537,693.71
 y = 1,017,499.43*

D DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. T-5898

GENERAL

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

The area covered by this sheet is in the locality of Florida, East Coast and Lake Okeechobee, in the immediate vicinity of the northwest shore of Lake Okeechobee between Indian Prairie Canal and Kissimmee River.

Approximately one-third of this sheet along its northwestern limits is glade land. This area is very flat and in some small areas is very wet most of the year. These smaller areas were outlined and labeled "Marsh (very wet)".

There are numerous grassy ponds in this area with very little natural drainage or canals and therefore contain water throughout the year. The rest of this sheet extends into Lake Okeechobee and nearly all of this area contains a heavy growth of grass in water which thins out to tufts of grass in water farther out in the Lake.

The vegetation in this section comprises of different types of grass; scattered scrub, deciduous trees, a few scattered palm trees and patches of brush. There is very little cultivation in this area and most of the land is used as pasture.

CONTROL

The only control station falling within the detail limits of this sheet is "KISS", a U. S. C. & G. S. triangulation station established in 1924 by L. D. Graham.

Kiss Azimuth 1934 was checked with the three arm steel protractor and found to be in good agreement with the 1934 observed azimuth.

Elderberry 1934 falls outside the detail limits but its azimuth mark, "Elderberry Azimuth 1934" falls within the detail limits of this sheet. This station was checked with the three arm steel protractor and found to be in good agreement with the 1934 observed azimuth.

MAIN RADIAL PLOT

A continuous radial plot was run on August 6 and 7, 1942, 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-5893 - T-5899 inclusive. All photographs in the area were used. It extends along the west side of the Lake from a point just north of Moore Haven, Florida, to a point slightly south of Okeechobee, Florida. Photographs forming the southern limits are 4636, 4641 and 4646. The most northern one is 4614.

There were 24 templates used, all being for 9-lens photographs and being controlled by triangulation stations as follows: 1 template by 4; 1 by 3; 5 by 2; 13 by 1; 4 by 0. The existing triangulation was sparse but proved adequate for controlling the plot.

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 good and only a small adjustment was necessary. After laying the plot the intersections of radial lines were transferred to the survey sheet by again matching grid squares as previously described.

Overlapping points were transferred from a previous plot which covered sheets T-5890, T-5891, T-5892 and T-5904 to sheets T-5893 and T-5894. By holding these points the laying of templates proceeded north and northeast until a junction was made with existing points on a previous plot covering sheets T-5900 - T-5903 inclusive. The agreement along the flight lines and the intersections of radial lines to adjacent photographs was good. In some instances where a good intersection was not formed by the radial lines the "cuts" were transferred to the survey sheet for further investigation by the draftsman. They are as follows: Sheet T-5893 had 7; T-5894 had 0; T-5895 had 1; T-5896 had 5; T-5897 had 3; T-5898 had 14; T-5899 had 6. In addition to these a number of two-cut intersections were transferred to the survey sheets. About 10 percent of all points were 2-cut intersections, being caused by the single flight line covering most of the plot. All other points were established by the intersections of from 3 to 6 radial lines.

This is a very good plot and considered strong enough for accurate detailing of the survey sheets. No large or unusual adjustments were necessary; and all points are picked within 0.25 m.m. of their true position.

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 & traverse stations.....	2.5 m.m. blue circle
Hydrographic & topographic stations.....	2.5 m.m. green circle
Radial Points in the main plot.....	2.5 m.m. red circle
Additional radial points.....	3.5 m.m. red circle
Photograph centers.1.....	Double white circle

Survey Sheets

Triangulation & Traverse stations.....	3.5 m.m. high black triangle
Hydrographic & topographic stations.....	2.5 m.m. black circle
Radial Points on main plot.....	2.5 m.m. blue circle on back
Additional radial points.....	3.5 m.m. blue circle on back
Photograph centers.....	Double blue circle on back

DETAILING

Sheet T-5898 was detailed in accordance with the current instructions for the project.

All photographs were in good scale. A few radial points were added to those of the main radial plot so that more accurate detailing could be accomplished since the detailing limits extended very near to the photograph limits in the southeast corner of the sheet. The detailing in this area was

controlled almost wholly by two cut intersections. This area consists of a heavy growth of grass in water and the two intersections were adequate to control the approximate outline as shown on the sheet. The hydrographic party should confirm this outline in their field operations.

The picking of the original radial points were checked and a few were moved slightly to give satisfactory control over all of the sheet. In general the photographs were well controlled except in the southeast corner of the sheet where the detailing limits extend very near the photograph limits.

Labels were used freely by the draftsman, except in small areas where smooth drafting was necessary to give a better interpretation of vegetation.

The stereoscope was frequently used to interpret detail and limits of vegetation.

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

Roads shown by centerline should be shown 0.6 m.m. wide.

FIELD INSPECTION

Field inspection was made during April 1942 by Lt. J. D. Thurmond, H & G Engineer, and George E. Varnadoe, Principal Photogrammetric Aid. Field notes were adequate for detailing.

JUNCTIONS

This sheet forms a junction on the north with Sheet T-5899 and on the south with Sheets T-5896 and T-5897. All junctions are in good agreement.

COMPARISON WITH OTHER SURVEYS

A comparison was made with a photostat copy of Topographic Sheet No. T-4130, surveyed in 1924-25 on scale 1:20,000. Due to changes created by road building, the hurricane of 1928 and because of the scale of the above mentioned survey, a favorable comparison 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", submitted to the Washington office by Harold A. Duffy, Senior Photogrammetric Aid.

LANDMARKS

There are no landmarks in this area of sufficient importance to be charted.

Respectfully submitted,
Harold A. Duffy
Harold A. Duffy,
Senior Photogrammetric Aid

Forwarded by:

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

PLANT

- P1 - Pine
- CP - Cypress
- P10 - Palmetto
- P12 - Palm
- P15 - Deciduous trees (broad leaf)
- C11 - Citrus (orange)
- P13 - Live oaks & Dec. trees (density)
- P14 - Scattered
- P16 - Thinly wooded
- P17 - Heavily wooded
- P18 - Scrub trees

VEGETATION

- G - Cultivation
- Gr - Grass
- P10 - Tall tropical grass
- K - Marsh (dashed blue line on interior limits)
- M - Marsh (grass in water (dashed blue line on offshore limits))
- Dr - Swamp
- Mg - Mangrove
- Wg - Water

ROADS

- 10 - Road (width)
- 11 - Street
- 12 - Alley (width)
- 13 - Intermittent Stream
- 14 - Possible drainage unobstructed
- 15 - Bridge or symbol
- 16 - Divert
- 17 - Levee
- 105 - Florida Geologic Survey
- 106 - U. S. Engineers
- 107 - U. S. Biological Survey

RAILROADS

- 101 - 1st class road (paved)
- 102 - 2nd class road
- 103 - Trail
- 104 - Railroad
- 105 - Overpass (state the type)
- 106 - Interpass (state the type)
- 107 - Abandoned trail, (state the type)
- X - 1st abandoned (state the type)
- 108 - 2nd abandoned (state the type)

WATER

- W - Pond
- CP W - Cypress Pond
- IF - Intermittent Pond

WATERLINES

- W1 - Mean high waterline (solid red line - fast land)
- W2 - 100' waterline (dashed red line)
- W3 - Light line (solid blue line for mean high water line on marsh)
- Dr - Dock
- P1 - Pier
- Je - Jetty
- 10 - Seawall
- 11 - Bulkhead
- 12 - Concrete
- 13 - Wooden
- 14 - Jetty
- 15 - Pile
- 16 - Pile (give type)
- 17 - Sand
- 18 - Mud
- 19 - Bank or sticky
- 20 - Embankment
- 21 - Water
- 22 - Sluff (height)

BUILDINGS

- 1 - House, barn or building
- 2 - Garage (give name)
- 3 - Post office (give name)
- 4 - Boat house
- 5 - Post office (give name)
- 6 - Railroad station (give name)
- 7 - Hospital (give name)
- 8 - School (give name)

STRUCTURES

- 1 - Fence
- 2 - Fire Break (maintained)
- 3 - Fire Break (abandoned)
- 4 - Cemetery
- 5 - Park (give name)
- 6 - Fire Tower
- 7 - Transmission tower (tall steel)
- 8 - Power Line
- 9 - Abandoned limits by long dashed line for use by hydrographer

U.S. GEOLOGICAL SURVEY
 PROJECT 842 - 1942

PLANT

- Pl - Pine
- Cy - Cypress
- Pala - Palmetto
- Kala - Kalm
- P.P. - Punctate tree (small leaf)
- Cit - Citrus (grove)
- Mix - Misc. species - Dec. trees
(Density)
- Scat. - Scattered
- Thin - Thinly spaced
- Heavy - Heavily wooded
- Scrub - 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)
- S - Swamp
- Bg - Mangrove
- Wd - Hedge

ROADS

- 10 - Canal (width)
- 12 - Creek
- 14 - Ditch (width)
- 18 - Intermittent stream
- 20 - Possible drainage unsurveyed
- 22 - Bridge or symbol
- 24 - Culvert
- 26 - Ledge

- 300 - Florida Geologic Survey
- 301 - U. S. Engineers
- 302 - U. S. Hydrographic Survey

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)

WATER

- W - Pond
- Cy P - Cypress Pond
- I.P. - Intermittent Pond

WATERLINES

- H. line - Mean high waterline (solid red
line - that land)
- L. line - Low waterline (dashed red line)
- L.L. - Light line (solid blue line for
mean high water line on marsh)

- Doak - Doak
- Pier - Pier
- Bev. - Bevel
- Skid - Skid
- Conc. - Concrete
- Wood - Wood
- Jetty - Jetty
- Dolphin - Dolphin
- Pile - Pile (give type)
- Sand - Sand
- Mud - Mud
- Rock - Rock or rocky
- Stony - Stony
- Water - Water
- Muff - Muff (height)

BUILDINGS

- H - House, barn or building
- Ch - Church (give name)
- Ct H - Court House (give name)
- Co H - Court house
- Post - Post office (give name)
- RR Sta. - Railroad station (give name)
- Hos - Hospital (give name)
- Sch - School (give name)

UTILITIES

- W - Well
- Fl - Fire Break (maintained)
- Fl - Fire Break (abandoned)
- Can - Canyons
- Park - Park (give name)
- W.T. - Water Tower
- T.T. - Transmission tower (tall steel)
- P.L. - Power Line
- Special - Abandoned, limits by long dashed
line for use by hydrographer

T-5898

Remarks

Decisions

	Remarks	Decisions
1		269806-08 USGB
2		270809-10
3		1946 Off Road Map.
4		270809
5		
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GEOGRAPHIC NAMES

Survey No. T-5898

Name on Survey											
	A	B	C	D	E	F	G	H	K		
Lake Okeechobee											1
Big Sawgrass Marsh											2
Florida Highway No. 29											3
Indian Prairie Canal											4
											5
											6
											7
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											27

Plants underlined in red app. 1942
by Lotbeck on 12/28/42

Division of Photogrammetry

Review of Planimetric Map T-5898

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 1944, drafted in 1945, printed in 1945, and registered in 1947.

Field Inspection and Detailing.

The shoreline of Lake Okeechobee in this area is extremely difficult to interpret. The inland swamp changes at the shoreline to grass and water, which extends far out into the lake. The appearance of this vegetation on aerial photographs probably changes with the seasons and with variations in the lake level.

As received from the Tampa Office, the vegetation outside of the selected shoreline was shown in three categories: marsh, dense grass in water, and scattered grass in water. The delineation did not seem too consistent with the photographs and was extensively revised during review. The revision is shown in red on the manuscript and includes the addition of marsh *islands* ~~areas~~ in the southern part of the sheet.

Comparison with Previous Surveys.

T-5898 supersedes T-4130, 1:20,000, 1924, over the common area.

The construction of a highway and several drainage canals near the lake shore have changed the details of the shoreline since the last survey. T-5898 also attempts to show details of the grass and vegetation in the water outside of the selected shoreline. These details were omitted on T-4130.

Comparison with Nautical Charts

T-5898 was applied to chart 1289 prior to this review. The changes made in the shoreline and marsh islands during review affect the chart. These changes are shown in red on the map manuscript.

Reviewed under the direction of D. H. Benson.

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

APPROVED BY:

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

H. E. Rittenberg
Chief, Nautical Chart Br.
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

G. T. Green
Chief, Div. of Coastal
Surveys

