5909

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Office No. T-5909

LOCALITY

State Florida

General locality Lake Okeechobee

Locality Pelican Bay and Vicinity

Photos taken Jan. 1940 and supplemented by ground surveys to March 1942.

1942

CHIEF OF PARTY

Lt. Comdr. Kenneth G. Crosby

LIBRARY & ARCHIVES

DATE July 21-1947

B-1870-1 (1)

5909

Applied to chart 1289   7/27/43   G.T.E.   (before review)

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. T5909

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. T-5909

REGISTER NO.

State Florida

General Locality Lake Okeechobee

Locality Area between Pahokee & Belle Glade

Scale 1:10,000 Date of photos January 9, 1940

Party Air Photographic Party No. 1

Chief of party Lieut. Comdr. Kenneth G. Crosby

Field Inspected by: Harold A. Duffy, Sr. Photogrammetric Aid

Inked by Eugene L. Maxwell, Jr. Topographic Engineer

Heights in feet above -- to ground to tops of trees

Contour, Approximate contour, Form line interval ...... feet

Instructions dated April 3, 1940

Remarks:

GPO 266853

SHEET NO. T- 5900

SUPPLEMENTARY SURVEYS

	Name	Date	Hours
Control Surveys..................	JBT, HAD, [illegible]	March & April	77
Planetable Surveys..................	[illegible]	[illegible]	77
		Total	156

FIELD INSPECTION

	Name	Date	Hours
Preparation of Photographs......	CH, JEH, FFH	Oct., Nov.	7½
Field Work..........................	HAD, JBT, GHV	Feb., Mar., Apr. 1942	42
Inking Notes..........................	HAD	Feb. "	2
Coast Pilot Notes..			
Geographic Name Rep. &c...........	FFH	May "	7
Land Marks for Charts.............			
Description Cards................... Recovery Notes	HAD	Feb., May 1942	9½
		Total	70½

MAIN RADIAL PLOT

	Name	Date	Hours
Scale Plot..............................	WHS	May, 1942	1
Projection on Base Sheet......... Projection on Survey Sheet........	Wash Offc.		
Control Plotted......................	RHH	June 1942	2
Control Checked......................	LCB	June "	2
Control Trans. to Base Sheet....	RHH	June "	½
Transfer Checked.....................	LCB	June "	½
Control Picked on Photograph....	JTW	May "	6
Control Checked on Photograph...	LCB	May "	4
Hydro & Topo. Stations Picked...	JTW, LCB	May "	2
Radial Points Picked.............	JHH	May "	4
Adjacent Centers Picked..........	RID, WHS	March "	9½
Templates..............................	GLB	May "	14
Radial Plot..............................	X	June "	4
Radial Points Transferred.......	HLM	June "	2
Transfer Checked.....................	RCA	June "	3
H & T Stations Scaled & Checked	HLM, RD	July, Aug. "	3½
Additional Radial Points and radial points investigated	HLM	June, July "	7
		Total	65

DETAILING

	Name	Date	Hours
Rough Draft..........................	HLM	June, July 1942	176
Smooth Draft..........................			
		Total	176

COMPILATION

	Name	Date	Hours
Name overlay	HLM	June, July 1942	8½
Descriptive Report..............	HLM	July "	5
Field Review..........................	RD	Aug. "	10
		Total	23½

Total time spent on Sheet.. 491½ hours

SHEET NO. T- 5909

PHOTOGRAPHS

Number	Date	Time	Stage of Tide
4547	1-9-40	11:07	No Tide
4548	1-9-40	11:08	
4549	1-9-40	11:09	
4550	1-9-40	11:12	
4551	1-9-40	11:13	
4552	1-9-40	11:14	

Tide from predicted tables for: No Tide

CAMERA: U. S. Coast and Geodetic Survey Nine-Lens (focal length 8½ inches)

SCALE

Mean scale of Photographs........................ 1:10,000 + 1.012
Scale of Survey Sheet........................ 1:10,000

STATISTICS

Area (land).................................... 24 Square statute miles
Shoreline (more than 200 m. from opposite shore)... 17 Statute miles
Shoreline (creeks)................................ 23 Statute miles
Roads, streets, trails, and railroads.............. 36 Statute miles

REFERENCE STATION

Station: BEN 1942

Datum: N.A. 1927

Latitude: 26° 44' 55.253" (1700.5 m) ~~26° 44' 55.267 (1700.9 m.)~~

Longitude: 80° 41' 04.755 (131.4 m) ~~80 41 04.731 (130.7 m.)~~

Adjusted

Florida E Zone
X = 602,922.736 Ft
y = 877,909.074 Ft

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. T-5909

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 survey sheet is Lake Okeechobee, in the area intervening the towns of Pahokee and Belle Glade, Florida.

The land area covered by this sheet may be classed as:

(1) The inland area, and
(2) The island area.

The shoreline of the inland area is a gravel covered levee approximately twenty-five feet high. The level inland area is east of the levee and is under cultivation for the most part. Drainage of the cultivated areas is accomplished by systems of drainage ditches and canals.

Remnants of the Old Florida State Levee traverse the inland area of this sheet. This levee has been abandoned and has, in many places, been destroyed, with but one exception (near Lat. 26° 45'; Long. 80° 40'). No remnants of the old levee could be mapped. The site of the levee is indicated on the sheet.

Old natural drainage channels that have been filled and that are now under cultivation are indicated as such.

The shoreline of the island area (Kreamer and Torry Islands) is, for the most part, indefinite. The central portions of the islands are under cultivation and are separated by small levees from the bordering marsh areas. Definite marsh boundaries were indicated with solid light lines. Indefinite marsh boundaries are dashed lines and indicate gradation from marsh to grass in water. Areas of grass in water were outlined with dashed lines.* Areas of scattered grass in water were smooth drafted in an effort to indicate the density and outline of such areas, except for definite accumulations of water hyacinth which were outlined with a dashed line and labeled scattered grass in water.

The new levee (see discussion inland area) raised the level of the Lake about 3 feet, and caused some cultivation on the islands to be abandoned. These areas were disregarded except in cases where they support a growth of grass, and then they were labeled: grass (abandoned cultivation).

* The large areas of 'grass in water' indicated at the south end of Pelican Bay have been changed to 'marsh' during review after examination of the photographs and comparison with Hydrographic Survey 4474, 1925.

Two State Highways: Florida State Highway 143 and 172; and one railroad, Florida East Coast Railroad, are shown on the sheet. Highway #143 and F.E.C. Railroad roughly parallel each other and cross the sheet in a north-south direction in the central portion of the inland area.

No attempt was made to map numerous field trails in cultivated areas because of their transitory nature.

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

CONTROL Note: The 1942 control listed below has since been adjusted and should be shown as △. See GP's in Geodesy JVE - 11/23/43

There are no first or second order triangulation stations on this sheet. Following receipt of the Director's letter (Dated July 20, 1942, Reference No. 28-PFA-1990, Subject: Lake Okeechobee Triangulation), it was decided that the 1942 Lake Okeechobee triangulation was not strong enough to be used as triangulation, but that the stations should be considered as topographic stations. The following stations are shown as topographic stations but were used as control on the main radial plot with good results:

Correct Name is "Caldwell, yellow house, chimney, 1942"

STATION	YEAR	ESTABLISHED BY
Kreamer Island Shoal Light, 1942		
BAR	1942	K. G. Crosby
BEN	1942	K. G. Crosby
CHIMNEY, YELLOW HOUSE CALDWELL, FLA.	1942	K. G. Crosby
KRA	1942	K. G. Crosby
OUT	1942	K. G. Croby
RAM	1942	K. G. Crosby
STACK, STATE FARM	1942	K. G. Crosby
NO. 2, SUGAR MILL	~~1942~~	~~K. G. Crosby~~
BELLE GLADE	~~1942~~	~~K. G. Crosby~~
WHITE	1942	K. G. Crosby

Same Station

all of these stations in GP list as 3rd order △. Shown on Mns as △ Stations. 14 Jan. 45 J.L.P.

Correct name is "Belle Glade State Farm No 2, Sugar Mill, stack, 1942"

MAIN RADIAL PLOT

A continuous radial plot was run on June 17 and 18, 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-5905 to T-5911, inclusive. All photographs in the area were used. It extends south and west along the east and south sides of Lake Okeechobee from Lat. 26° - 57.5', which is just south of Port Mayaca, Fla., to Long. 80° - 59' which is just west of Clewiston, Fla. Photographs 4534 and 4433 are the western limits, 4544 is the southernmost one, while 4561 is the photograph forming the northern limits.

The plot consisted of 34 templates all being for 9-lens photographs and being controlled by triangulation stations as follows: 1 by 9; 2 by 8; 1 by 7; 5 by 6; 2 by 5; 7 by 4; 6 by 3; 6 by 2; 4 by 1. Triangulation existing at the time of the field inspection could not, in a number of instances, be recovered, due to it having been destroyed by cultivation. Therefore, a supplementary scheme of triangulation was established by this Party which proved adequate for rigid control throughout 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 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, beginning on sheet T-5911 and working south and west until it was completed on sheet T-5905. The agreement along the flight lines and the intersections of radial lines to adjacent photographs was excellent. 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-5905 had 4; T-5906 had 4; T-5907 had 0; T-5908 had 8; T-5909 had 12; T-5910 had 6; T-5911 had 10. In addition to these, the radial lines were transferred to the survey sheet where only two "cuts" could be obtained. The draftsman will determine the value of these 2-Cut intersections. 47 such instances occur in the entire plot. All other points were established by the intersections of from 3 to 6 radial lines.

This plot is considered "strong"; 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 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 SHEETS

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
1942 Topographic Stations	3.5 m.m. black circle

INTERPRETATION OF PHOTOGRAPHS

The photographs were clear and accurate interpretation was obtained, with but one unusual condition being encountered. The area mapped as grass in water between Torry Island and the levee, probably was formerly marsh, but with the building up the levee and subsequent raising of the lake level, the marshland was submerged, and should now be considered as grass in water.
Changed to marsh during review, and considered as of date of photographs - to agree with chart 1289, which used the old lake level.

FIELD INSPECTION

Field inspection of the area covered by this sheet was made by Harold A. Duffy, Senior Photogrammetric Aid, during the months of February and March, 1942. The field inspection was done on 1:10,000 scale photographs. Notes were/ sufficient for accurate interpretation of detail, with some exceptions, which areas were discussed with the Chief of Party and the field inspector.

DETAILING

This sheet was detailed in accordance with the current instructions for the project. Before detailing, magnesium carbonate was applied and washed off. The detail on this sheet was taken from photographs 4547, 4548, 4549, 4550, 4551 and 4552. The scale of photograph 4552 was very good and most of detail covered by that photograph was taken from it. On the eastern portion of the sheet (between 80° 30' and 80° 39') the detail had to be taken from wing prints and only two-cut intersections could be obtained. However, the scale of photographs 4548 and 4549 was reasonably good in this area, and it is felt that the detailing has been accomplished within the allowable error.

Kreamer Island appeared only on the wing prints of two photographs (i.e. 4550 and 4551). All radials were located by "two-cut" intersections.

Several additional radial points were added along the southern boundary of the sheet to facilitate a junction with sheet T-5908.

Symbols were used in a few instances where a clearer interpretation could be expressed than could be shown by labels. On western side of Kreamer Island the grass in water and scattered grass in water was smooth drafted.

The stereoscope was used freely for interpreting the detail.

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

NON-FLOATING AIDS

The field season was officially closed before three point fixes could be made on non-floating beacons. They are, therefore, not shown.

JUNCTIONS

This sheet joins sheet T-5908 on the south and sheet T-5910 on the north. The junctions are in agreement.

COMPARISON WITH OTHER SURVEYS

No old topographic maps were available with which comparison could 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 by Harold A. Duffy, Senior Photogrammetric Aid.

LANDMARKS

There are no prominent features worthy of charting as land marks.

A list of landmarks to be deleted are shown on form 567 attached to this report.

Respectfully submitted,

Eugene L. Maxwell

Eugene L. Maxwell
Jr. Topographic Engineer

Forwarded by:

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

FGS - Florida Geodetic Survey
USE - 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.
RR ab- R.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)
RR 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.

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T-5909

	Remarks.	Decisions
1		269806-08 USGB
2	Suggested as title for this sheet	267806-07
3		"
4		"
5		"
6		"
7		"
8		268806-08
9		267806-07
10		268806-08
11		267806-07
12		"
13		Railway Guide
14		1941 Off. Road Map
15		Page 1 of this report
16		267807
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T-5909

Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.	
Lake Okeechobee										1
Pelican Bay										2
Kreamer Island										3
Little Kreamer Island										4
The Pass										5
Torry Island										6
Culvert No. 12										7
Gieger Airport										8
Everglades Migratory Worker's Camp										9
Bacom Point										10
Caldwell Siding										11
Runyon Siding										12
Florida East Coast Ry.										13
Florida Highway No. 143										14
Florida Highway No. 172										15
South Bay										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved by L. Heck on 12/19/42

Division of Photogrammetry

Review of Planimetric Map T-5909

Field Inspection and Detailing.

These were generally adequate. The marsh shoreline on the manuscript has been revised during review. The distinction between marsh visible above mean high-water and low grass in the water is very indefinite. The revision has been made after a study of the adjoining manuscripts, the older surveys, and the photographs. Changes made by the reviewer are shown in red on the manuscript.

Comparison with Previous Surveys.

T-5909 has been compared with and supersedes T-4126, 1:20,000, 1925, and T-4147, 1:20,000, 1927, over the common area.

Comparison with Nautical Charts.

T-5909 was applied to chart 1289 prior to this review. Changes made in the shoreline during review may affect the chart and should be examined when chart 1289 is again corrected. Applied 11-22-45 RHB

Reviewed under the direction of R. M. Berry, January 1944.

Review report prepared by B. G. Jones from reviewer's notes, July 1947.

APPROVED BY:

B.G. Jones 7/47
Technical Assistant to the Chief, Div. of Photogrammetry

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

K.T. Adams
Chief, Div. of Photogrammetry

G. K. Green
Chief, Div. of Coastal Surveys 14C

NAUTICAL CHARTS BRANCH

SURVEY NO. T-5909

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7-27-43	1289	G.H. Everett	Before ~~After~~ Verification and Review
11-22-48	"	[illegible]	~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.