

5689

5689

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Topographic } Hydrographic }	Sheet No. T-5689
State FLORIDA	
LOCALITY	
ST. JOHNS RIVER	
OSTEEN	
AND VICINITY	
1938	
CHIEF OF PARTY	
Hubert A. Paton	

before review

Applied to Chart Comp., 688, April 27, 1940. H.E. MacKenzie

Fully applied chart 688 after review June 20, 1946 D.H. Benson

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. 41

REGISTER NO. T5689

State Florida

General locality St. Johns River

Locality Osteen and VICINITY

Scale 1:10,417 Date of <sup>photographs</sup> survey March 20, 1935

Vessel Field Party A.P. No. 2-A

Chief of party Hubert A. Paton

Surveyed by See page No. 1

Inked by " " "

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated , 19

Remarks: Army Air Corps Five Lens Camera No. 32-2 used.

Field Inspection in 1937 and 1938 July

Reference Station: Osteen, 1935

Latitude:  $28^{\circ} 49' 50.405''$  (1551.8 meters)  
Longitude:  $81^{\circ} 09' 20.202''$  (547.7 meters) (Adjusted)

X coordinate: 450, 175.01 FT.

Y coordinate: 1, 634, 683.74 FT.

Date of Air Photographic Survey T-5689

Five-lens photographs taken March 20, 1935

Nine-lens photographs taken February 16, 1939

Field inspection July 1937 and July 1938

Details on T-5689 are of the date of the nine-lens photographs, February 16, 1939, except for the area above latitude  $28^{\circ} 52'$  which was not covered by the nine-lens photographs and was compiled from the five-lens photographs of March 1935.

## NOTES ON COMPILATION

Sheet No. 41 (Field)

Register No. T-5689

## PHOTOGRAPHS:

Five Lense, Flight No. 30 Nos. 1226-1248, Mar 20, 1935.  
 Flight " 29 " 1186-1198, " " "  
 Flight " 33 " 1090-1098 " 14, 1935.

*Nine Lenses**Nos 3242-3245 July 16 1939*

SCALE PLOT: H. O. Fortin

SCALE FACTOR USED: 0.960

PROJECTION BY: Washington Office.

CONTROL PLOTTED BY: H. O. Fortin

CONTROL CHECKED BY: H. A. Paton

SMOOTH RADIAL PLOT: H. A. Paton

TOPOGRAPHY TRANSFERRED BY: Robert H. Young

TOPOGRAPHY CHECKED BY: H. O. Fortin

DETAIL INKED BY: Robert H. Young and F. R. Gossett

OVERLAY SHEET BY: Robert H. Young

DESCRIPTIVE REPORT BY: Robert H. Young

REVIEWED BY: F. R. Gossett

AREA OF DETAIL INKED: 27.9 Square statute miles.

LENGTH OF SHORELINE (over 200 m.): 0 Statute miles

LENGTH OF SHORELINE (under 200 m.) 26.3 Statute Miles

LENGTH OF SHORELINE OF SMALL LAKES: 23.5 Statute miles

ADDITIONAL NOTES TO ACCOMPANY  
DESCRIPTIVE REPORT  
T-5689

June 15, 1939.

GENERAL INFORMATION

The detail between Lat. 28 - 48 and 28 - 49 and west of Long. 81 - 09 was traced beyond the normal tracing limits of flights #29 and #30. As a result the detail in this section is probably not so accurate as that for the remainder of the sheet. As the nine lens pictures were not the same scale they were only used to check detail that was not clear on the five lens pictures.

GEOGRAPHIC NAMES

✓ MUD LAKE. A lake just west of Lemon Bluff. Source 9.

✓ LE FILS SLOUGH. This slough is just east of Lemon Bluff. Source 9.

✓ TURKEY GULLY. At Allen Pier. This is the mouth of an old Indian Canal as described in descriptive report for Sheet T-5617.

✓ INDIAN MOUND SLOUGH. A slough at the extreme southwest corner of the sheet. Source 9.

(Authorities for above names. Capt. Ed Rice, Box 114, Sanford, Florida; C. C. Howard, Game Warden, Sanford, Florida; Tom Delahanty, Sanford, Florida.)

TIDES

Both the 5 lens and 9 lens pictures were taken when the lake level of Lake Monroe was approximately 2 feet below mean lake level.

COMPARISONS WITH OTHER SURVEYS

In comparing this sheet with Boat Sheet #59, (Mikawe 1939 season) the shore line of which was projected on from this sheet (T-5689) a discrepancy of about 8 meters was found west and north of Traverse Station 38+00, 50+81.6 and East of Station 104+14.10. This is along the river east of Station "Marshall, USE, 1935". When the finished sheet T-5689 was projected onto the boat sheet it was found that the shoreline in the vicinity of Traverse Stations 104+14.10 & 38+00 agreed. Apparently the original shoreline on the boat sheet was in error. However the shoreline just north of Traverse Station 38 00 and northeast of Station 50+81.60 was found to be transferred correctly. The pictures were carefully re-examined and no change could be made in the original shoreline. It is believed that when the smooth sheet is plotted the shoreline will agree.

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC MAP No. 41  
REGISTER No. 5689

August 31, 1938.

GENERAL INFORMATION:

This sheet was compiled from air photographs, taken by the U. S. Army Air Corps, using a five lens camera No. 32-2. The sheet was covered by Flight No. 30 Photographs Nos. 1226-1248 inclusive. In the extreme Southeast corner of the sheet Flights Nos. 29 and 33 were used. Since the two flights were so close together, only No. 29 was mounted and used in the radial plot. The photographs were taken at an approximate elevation of 5000 feet. The scale of flight No. 30 is 0.963 and this sheet is constructed on a scale of 0.960.

The individual pictures were found to be free from excessive tilt or scale difference and the photographs were well spaced; however, the film gave out on Flight No. 33 and the flights did not cover the area along the St. Johns River within the normal tracing limits. There is a large gap in the traced detail in the southwestern part of this sheet between it and adjacent sheets.

Flight No. 30 runs in a northwesterly direction across the sheet and detail was traced for nine inches on both sides of the flight line, except in the southeast corner of the sheet where tracing limit was extended beyond the normal limit to the edge of the sheet in order not to leave a gap in the shoreline of the St. Johns river. Additional radial points were located on sheet No. 42 on flight 29. These were transferred to flight 30 and 33 and used to check the shoreline which fell beyond the normal limits. Good agreement was obtained and this shoreline is considered almost as good as that within the normal tracing limits. No difficulty from a photographic viewpoint was experienced in compiling this sheet.

CONTROL:

A total of 10 triangulation stations was used for control on this sheet. Of the 10, three stations fall outside of the tracing area; Ellis, U. S. E. 1937, Road, U. S. E., 1937 and Stuck, U. S. E., 1937. Coast Survey Triangulation in this territory was established by the party of Lieut. K. G. Crosby in 1935 and the U. S. E. stations were established by the U. S. Engineers in 1934 and adjusted to N. A. 1927 datum by this party.

JUNCTIONS:

On the west this sheet is joined by sheets #T-5687 and #T-5688. On the south this sheet is joined by sheet #T-5690 and on the east by sheet #T-5691. None of these four sheets have been compiled at this time. A discussion of these junctions will be made in the descriptive reports for these sheets.

**LANDMARKS:**

There are no landmarks, lights or beacons for the section of the St. Johns River falling on this sheet.

**GENERAL DESCRIPTION OF TOPOGRAPHY:**

The village of Osteen, Fla. falls in the center of this sheet. A bend in the St. Johns River falls in the Southeastern quarter of the sheet. The river in this territory is about 70 m. wide. A low bluff ranging from four to six feet in height is found along most of the river here. Behind these bluffs grassy flood plain flats are common to this section of the river with small ponds among the flats. The bluff is prominent here along the river due to the narrow width of the river itself. For this reason the bluff symbol is used although the bluff is mostly only 4 to 6 feet high.

Over this sheet will be found numerous lakes, grassy ponds, marsh and swamp spots. Many ditches and canals are shown draining these wet spots and many of the grassy spots were no doubt wet a few years ago. The vegetation in this area is mostly scattered pine, grass, scrub oak and some little broad leaf trees, with cabbage palms along much of the river bank. The stage of the river at the time of the photographs was two feet below mean lake level. The two small islands in the St. Johns River which are shown with short dashed shoreline are piles of dead palms mostly, which have lodged on the bottom and been stacked up by the river. Some of the palms in the pile are still growing.

**FIELD INSPECTION:**

Field inspection by boat was made in July, 1937 and by truck in July, 1938. It was not possible, by boat or truck, to inspect the lakes on this sheet. The shoreline and other detail around the lakes was interpreted directly from the photographs in the office. This is a territory in which a trailer to the truck, carrying a boat, could be used to good advantage.

**ROADS:**

All roads on this sheet are shown according to the latest instructions to Lieut. L. W. Swanson, dated May 13, 1938. The minimum width of 6 mm. is used for all roads on the sheet and the width exaggerates the width of most of the roads. All roads leading to water or houses are shown by a double line, either broken or solid. Many trails obvious on the photographs are not shown on the sheet because they are unimportant wagon tracks, cow paths or field roads.

**SYMBOLS:**

All symbols used on this sheet are according to the latest instructions mentioned above. The old railroad bed is shown with a single dashed line, the dashes being twice as long as those used for trails.

**COMPARISON WITH OTHER SURVEYS:**

The St. Johns River in this territory was surveyed by the U. S. Engineers in 1935 and their shoreline is shown in blue on the back of the compilation. The U. S. Engineers also show many small lakes along the river where our compilation shows flats. After careful field inspection by our party it is believed that our interpretation is correct for this area.



## GEOGRAPHIC NAMES:

The geographic names shown on the overlay were secured from the following sources:

1. U. S. C. & G. S. Chart #458 (1931 reissue)
2. Intracoastal Waterway Project Map. Jacksonville Engr. Dist. U. S. Engineers, 1934.
3. State Road Dept. Volusia County, 1934.
4. State of Florida U. S. Geological Survey, 1932.
5. Florida Dept. Agriculture- Sectional Map of Florida, 1938.
6. Orlando Sectional Aeronautical Chart, June, 1937.
7. Sinclair Road Map of Florida (no date)
8. U. S. C. & G. S. chart No. 509, 1928.
9. Local residents.
10. Official Road Map of Florida, Florida State Road Dept., Tallahassee, 1936.
11. Florida Forest Service, District No. 4, 1934.

- ✓ ST. JOHNS RIVER: 1, 2, 3, 4, 5, 6, 7, 8, 9.
- ✓ OSTEEN: 3, 4, 5, 6, 7, 8, 9, 10, 11; small village with Post Office, school and several stores.
- STATE HIGHWAY (57): 6, 7, 10; paved state highway through Osteen, connecting Sanford and New Smyrna.
- FLORIDA EAST COAST R. R.: 6, 5, 4, 3, 2. Single track branch line connecting Benson Junction and Titusville.
- ✓ KALAMAZOO: 7, 5, 3. Small Railroad station only; east of Osteen.
- ✓ BODEN: 1, 8. A site on the St. Johns River also known as Old Marshall Place.
- ✓ LEMON BLUFF: 1, 8, 9. A bluff near south side of sheet. A seldom used graded sand road connects this point with State Highway #57.
- ALLEN PIER: Pier and group of buildings on south bank of St. Johns
- ✓ ~~river about 0.4 miles from east edge of sheet. Known locally~~ because now owned by Mr. Allen. Name not shown on overlay.
- ✓ GEISE PLACE: Prominent house, grove and small pier on north bank of St. Johns River about one mile from east edge of sheet. Owned by Mrs. Geise. Name not shown on overlay.
- ✓ BIG LAKE: 9. A shallow, grassy lake on west side of sheet.
- ✓ LAKE BETHEL: 9. A large lake on west side of sheet.
- ✓ LAKE DOYLE: 9. An irregular lake east of Big Lake.
- ✓ BUTLER LAKE: 9. A large irregular lake on north side of sheet.
- ✓ LAKE HUTCHINSON: 9. A small lake south of Lake Doyle.
- ✓ LITTLE LAKE: 9. A long lake southeast of Lake Hutchinson.
- ✓ DIXON LAKE: 9. A small lake northeast of Osteen.
- GRASS LAKE: 9. The small lake east of Dixon Lake. This is its geographic name and not merely a descriptive name.
- ✓ HICKMAN LANDING: 1, 8. Name no longer used. Deletion recommended.
- ✓ OSTENS: 1, 8. Name no longer used. Deletion recommended.

Respectfully submitted,

*Robert H. Young*  
Robert H. Young  
Draftsman, U. S. C. & G. S.

## Remarks.

## Decisions

1		U S G B
2		288911
3		"
4		"
5		"
6		288912
7		"
8		288911
9		"
10		"
11		"
12		"
13		"
14	To be deleted per recommendation	"
15	" " "	"
16		"
17		"
18		"
19		288912
20		"
21		
22		
23		
24		
25		
26		
27		
M 234		

# GEOGRAPHIC NAMES

Survey No. **T-5689**

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.
<u>St. Johns River</u> ✓									1
<u>Osteen</u> ✓									2
<u>Kalamazoo</u> ✓									3
<u>Boden</u> ✓									4
<u>Lemon Bluff</u> ✓									5
<u>Big Lake</u> ✓									6
<u>Lake Bethel</u> ✓									7
<u>Lake Doyle</u> ✓									8
<u>Butler Lake</u> ✓									9
<u>Lake Hutchinson</u> ✓									10
<u>Little Lake</u> ✓									11
<u>Dixon Lake</u> ✓									12
<u>Grass Lake</u> ✓									13
<u>Hickman Landing</u>									14
<u>Osteen/ /</u>									15
<u>Mud Lake</u> ✓									16
<u>Le Fils Slough</u> ✓									17
<u>Turkey Gulley</u> ✓									18
<u>Indian Mound Slough</u> ✓									19
<u>Green Lake</u> ✓									20
<u>Florida East Coast R.R.</u>									21
<u>Little Otter Lake</u> ✓									22
									23
									24
									25
									26
									27

James H. Heck  
on 7/17/39

REVIEW OF AIR PHOTO COMPILATION NO. 5689

Chief of Party: Hubert A. Paton.

Compiled by: R.H.Y.  
H.R.G.

Project:

Instructions dated:

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64) Yes.
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)  
Charts should be completely revised.
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)  
None used.
4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)  
U. S. Engineers surveys should not be used.
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.  
No ontemporary surveys at this date. Surveys will be made by Lieut. F. L. Gallen this Spring.
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i). All stations checked satisfactorily where detail permitted spotting accurately. No large or unusual adjustments necessary.
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)  
Determination of H. W. line very difficult on marsh and grassy flats. Slight change in elevation of water makes a great difference in shoreline. This compilation believed to be correct.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41). Two small clumps of drift wood shown as islands with dashed outline.
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)  
None located.
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)  
There are no landmarks in this area.
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)  
No bridges in this area.
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)  
Yes.
13. The geographic datum of the compilation is N. A. 1927 and the reference station is correctly noted. Yes  
The U. S. E. Stations were adjusted to this Datum by the field party.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) adjoining sheets have not been compiled.
15. The drafting is satisfactory and particular attention has been given the following:
  1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report. Yes
  2. The degrees and minutes of Latitude and Longitude are correctly marked. Yes

3. All station points are exactly marked by fine black dots. Yes
4. Closely spaced lines are drawn sharp and clear for printing. Yes
5. Topographic symbols for similar features are of uniform weight. Yes
6. All drawing has been retouched where partially rubbed off. Yes
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground. Yes

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.  
There is a possibility that an additional flight will be made in the south part of this sheet, in which case the remaining area will be traced.
17. Remarks: The mean lake level is 2.13 feet above M. S. L.  
Elevation of stream was 0.0 at time photographs were taken.  
Mean High Water is about 5.2 above M. S. L. but this represents a flood stage and the shoreline at such times is not considered normal.

18. Examined and approved;

Hubert A. Paton  
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

\_\_\_\_\_  
Chief, Section of Field Records

\_\_\_\_\_  
Chief, Section of Field Work

\_\_\_\_\_  
Chief, Division of Charts

\_\_\_\_\_  
Chief, Division of Hydrography  
and Topography.

## PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by J. P. Dunich

Positions checked by J. P. D.

Grid inked on machine by J. P. D.

Intersections inked by J. P. D.

Points used for plotting grid:

$\phi = 28^{\circ} - 52'$   $x = 435,984.40$   
 $\lambda = 81^{\circ} - 12'$   $y = 1,647,7933.81$

$\phi = 28^{\circ} - 52'$   $x = 467,992.23$   
 $\lambda = 81^{\circ} - 06'$   $y = 1,647,753.36$

$\phi = 28^{\circ} - 49'$   $x = 435,953.79$   
 $\lambda = 81^{\circ} - 12'$   $y = 1,629,614.25$

$\phi = 28^{\circ} - 49'$   $x = 467,976.93$   
 $\lambda = 81^{\circ} - 06'$   $y = 1,629,573.84$

$\phi = 28^{\circ} - 50'$   $x = 451,937.02$   
 $\lambda = 81^{\circ} - 09'$   $y = 1,635,650.51$

$x$   
 $y$

$x$   
 $y$

$x$   
 $y$

Triangulation stations used for checking grid:

- $x = 450,175.01$   
 1.  $\Delta$  Osteen 1935  $y = 1,634,683.74$  5. \_\_\_\_\_  
 $x = 437,955.02$   
 2.  $\Delta$  Ellis U.S.E. 1934  $y = 1,631,112.17$  6. \_\_\_\_\_  
 3. \_\_\_\_\_ 7. \_\_\_\_\_  
 4. \_\_\_\_\_ 8. \_\_\_\_\_

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5689

October 23, 1940

Graphic Control Surveys

None.

Previous Topographic Surveys

T-1512 (1:80,000) 1883

T-5689 supersedes the section of T-1512 which it covers.

Comparison with Recent Hydrographic Surveys

H-6433 (1:5,000) 1939

H-6431 (1:5,000) 1939

H-6432 (1:5,000) 1939

T-5689 was compared with the hydrographic surveys when the latter were reviewed and minor shore line discrepancies adjusted.

T-5689 has been corrected to agree with shore line on H-6433 at two places noted in the review of H-6433.

Chart 688 (Compilation in Progress)

T-5689 was applied to chart 688 in January 1940 prior to this review. No changes have been made in T-5689 which affect the chart.

General

T-5689 was submitted as a smooth drawing. The report and compilation are complete and the drafting is satisfactory for reproduction.

Reviewed by F. H. McBeth

Inspected by B. G. Jones, October 23, 1940

Examined and approved:

*Thos Borden*  
Chief, Surveys Section

*J. S. Borden*  
Chief, Division of Charts

*K. T. Adams*  
Chief, Section of Topography

*J. H. Kinde*  
Chief, Division of Coastal  
Surveys