

6825

ORIGINAL

Form 504  
Rev. April 1935

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

*Topographic*

~~*Hydrographic*~~

Sheet No. I

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

JUN 11 1941

Acc. No. ....

State Florida

### LOCALITY

Indian River

Courtney and vicinity

-102- 1941

CHIEF OF PARTY

F. L. Gallen

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. I

REGISTER NO. **T6825**

State Florida

General locality Indian River

Locality Courtney, Florida and vicinity

Scale 1:10,000 Date of survey Feb. March, 19 41

Vessel Launches MITCHELL & OGDEN

Chief of party F. L. Gallen

Surveyed by J. C. Ellerbe

Inked by J. C. Ellerbe

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

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

Instructions dated \_\_\_\_\_ Oct. 16, 19 39

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



## DESCRIPTIVE REPORT

To Accompany Topographic Sheet No. I

Indian River, Florida

### INSTRUCTIONS

The work on this sheet was accomplished in accordance with Director's instructions for Project HT-243, dated Oct. 16, 1939.

### EXTENT

This sheet covers both shores of the Indian River from Lat.  $28^{\circ} 30'$  southward to Lat.  $28^{\circ} 27'$ .<sup>\*</sup> The work covers the shoreline and water area only, and is a revision survey of previous air photo surveys. T-4532 (1928)

*\* Southern limits are  $28^{\circ} 26.2'$  on west shoreline and  $28^{\circ} 26.7'$  on east shoreline of Indian River.*

### CONTROL

The control used for this survey was triangulation executed by the party of F. L. Gallen in 1940.

### GENERAL DESCRIPTION

On the eastern shore (Merritt Island) of the river, the shoreline is generally marshy along the highwater line and breaks into higher land from forty to several hundred meters inshore. A large slough,  $\phi 28^{\circ} 29'$  with one foot of water, lies about in the center of the eastern shore and extends northward for approximately one mile. On the southern end of the same side lies the landing of Courtney, where a small wharf has recently been constructed and a channel dredged westward to the main channel of the Inland Waterway. To the southward of this channel, which is marked by day beacons, lies a chain of sand and shell spoil banks, the dredgings from the channel. These are gradually washing away and in the course of time will probably disappear. At present they are very definite and can be seen for ten miles<sup>\*</sup> in either direction when the sun shines on them.

*\* Since the elevations are only a few feet above the waterline visibility from watercraft would be limited to about 5 or 6 miles or less.*

The western shoreline is a narrow sand beach, which breaks into a low bluff line. The tree line extends to the water's edge except on several flat points on the northern end, where a narrow strip of marsh extends offshore from five to twenty meters. The terrain inshore of the bluff is flat and is in a large part under cultivation.

### SURVEY METHODS

After all signals had been located by three or more cuts from triangulation stations, the planetable was set up at these known points and the shoreline rodded in. No traverses were run.

### COMPARISON WITH PREVIOUS SURVEYS

This sheet was originally intended as a graphic control sheet for locating hydrographic signals but since excessive discrepancies

*Max. 60 meters  
at  $\phi 28^{\circ} 29'$   
vicinity  $\lambda 80^{\circ} 46.5'$*



were noted in the shoreline it was considered necessary to relocate all shoreline data at the same time the signals were being located. No details back of the high water line were resurveyed. The original shoreline is shown on the sheet in black and the new location in blue. It will be noted that in places there was practically no change, while in others the difference amounted to as much as 60 meters. The new location of the entire shoreline should be used henceforth.

From  
T-4532 (1928)  
Aerophotographic  
Survey. This  
shoreline has  
been deleted  
and the  
present location  
inked in black.

#### JUNCTIONS

Satisfactory junction on the northern end of this sheet was affected with sheet field letter H, <sup>T-6824b</sup> 1941. The southern end of the sheet is the southern limit of the season's work, therefore no junction was made.

#### GEOGRAPHIC NAMES

See special report on geographic names, F. L. Gallen, Season 1941.

Filed with  
combined  
D.R. of  
T-6821a+b  
T-6822a+b

#### LANDMARKS

Form 567, covering landmarks for the area of this sheet is submitted as a separate report.\* These landmarks are all aids to navigation with the exception of one building on the west shore at the southern end of the sheet. There are no natural objects sufficiently outstanding to warrant charting.

\*  
Chart letter  
342 (1941)

#### PLANETABLE POSITIONS

Recoverable planetable positions have been described on Form 524 and will be submitted separately.

In files of  
Aerophoto unit,  
Survey's section.

#### MAGNETICS

Declinatoire observations were obtained at four stations as indicated on the sheet.

#### STATISTICS

Statute miles of shoreline 16.6

Submitted by,

Approved,

*I. E. Rittenburg*  
I. E. Rittenburg  
H. & G. Engineer  
Chief of Party

*John C. Ellerbe*  
John C. Ellerbe  
Jr. H. & G. Engr.



## Remarks

## Decisions

1		284807
2		"
3		"
4		271801-802
5		284807
6		284806
7		284807
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## GEOGRAPHIC NAMES

Survey No. **TF825**

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.	
Courtenay ✓										1
Delespine ✓										2
Frontenac ✓										3
Indian River										4
Jones Point ✓										5
Merritt Island										6
Pine Island ✓										7
Sharpes ✓										8
Williams Point ✓										9
										10
										11
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										27

Names enclosed in red approved

by L. Heck on 8/18/41



# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

~~XXXXX~~

No. T 6825

received June 11, 1941  
registered July 1, 1941  
verified  
reviewed  
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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RETURN TO

82	T. B. Reed
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*V JOR*



*B. B. C.*

UNITED STATES  
DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
FIELD STATION  
TENTH FLOOR, CUSTOMHOUSE  
BOSTON, MASS.

NOV 28 PM 2:34

November 27, 1941.

To: The Director  
U. S. Coast and Geodetic Survey  
Washington, D. C.

From: The Inspector  
Boston Field Station

Subject: Review of Topographic Survey Sheet T-6825 (1941)

Receipt is acknowledged of your letter dated November 25, 1941, transmitting the review of Topographic Sheet Register No. T-6825 (1941), Indian River, Florida, vicinity of Courtenay.

With reference to Paragraph 4a, prior to the time the survey was made, correspondence was had with the Office and permission obtained to ink the old shoreline in black so that it would not be obliterated while doing the field work. It was agreed that the black waterproof ink should be used and the present shoreline inked in blue.

*F. L. Gallen*

F. L. Gallen,  
Inspector.

*Capt. Adams wrote personal letter regarding color of shoreline but did not suggest blue for the new topography. HME.*



DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY

REGISTER NO. T-6825 (1941)

FIELD NO. I

Florida - Indian River, Courtenay and Vicinity

Surveyed in March 1941, Scale 1:10,000

Instructions dated October 16, 1939 (MIKAWA)

Plane Table Survey

Aluminum Mounted

Chief of Party - F. L. Gallen

Surveyed by - J. C. Ellerbe

Inked by - J. C. Ellerbe

Reviewed by - H. F. Stegman

Inspected by - H. R. Edmonston, October 17, 1941

1. Junctions with Contemporary Surveys

- a. The junction on the north with T-6824b (1941) is satisfactory.
- b. The adjoining survey on the south was not completed during the 1941 season.

2. Comparison with Prior Surveys

a. T-1435 (1876); scale 1:20,000

This early survey covers the entire area of the present survey. The maximum differences are on the west bank, northward of lat.  $28^{\circ}28'$ , where the present survey shoreline is as much as 75 meters west of that on T-1435. This difference is believed to be due to the inaccuracy of the old survey rather than recession of shoreline.

On the eastern shore differences of 10 to 25 meters were noted. Much of this shoreline is low and marshy and the differences are apparently due to natural changes and difference of interpretation. The present survey supersedes this survey.

b. T-4532 (1928); scale 1:20,000

This air photographic survey covers the entire area of the present survey. Southward of lat.

28°28' the shorelines agree within 10 to 20 meters. To the northward the differences are greater with a maximum of about 60 meters in lat. 28°29.5', long. 80°46.5'. The descriptive report of T-4532 states that it was controlled in part by the topography of T-1435 and that certain scale adjustments were necessary. It is evident that the shoreline differences are due largely to the lack of adequate ground control on T-4532. For this reason and because of its later date the present survey supersedes the shoreline of this air photographic survey.

3. Comparison with Chart 844 (Latest print dated May 1, 1941)

a. Topography

Topography on the chart originates with the air photographic survey T-4532 (1928) considered in paragraph 2b.

b. Aids to Navigation

The aids to navigation were considered in the review of H-6664 (1941).

c. Magnetic Meridians

The magnetic meridians were observed at four points. The values obtained agree closely with the charted value of 0°45' E.

4. Condition of Survey

a. The inking of topographic details was satisfactory except as to color of shoreline. As received from the field the present survey shoreline was in blue and that of T-4532 (1928) inked in black. In the office the T-4532 shoreline was removed to avoid confusion, and the T-6825 shoreline was inked in black to permit photographic reproduction.

b. The descriptive report is clear and satisfactorily covers all matters of importance.

5. Compliance with Instructions for the Project

Satisfactory.

6. Additional Field Work Recommended

This survey is satisfactory and no additional field work is required. When topography on this project is




resumed, southward of T-6825 (1941), the shoreline of the 1928 air photographic surveys should be left in pencil on the survey sheets. Shoreline revision can then be shown in black without causing confusion. If it is desired to ink the 1928 survey shoreline an overlay tracing should be used.


It is desirable that a list of signals in water areas such as piles, dolphins, temporary staker, etc., with appropriate notes as to their character and permanency, be included in the descriptive report (Paragraph 2(b) Field Memorandum No. 5, 1935)


7. Superseded Surveys


T-1435 (1876) in part.  
T-4532 (1928) in part.

Examined and Approved:

  
Chief, Surveys Section

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of Coastal  
Surveys