

6664

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ORIGINAL

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ }
Hydrographic } Sheet No. 1003

U. S. COAST & GEODETIC SURVEY

LIBRARY AND ARCHIVE

SEP 4 1941

Acc. No.

State Florida

LOCALITY

Indian River

Addison Pt. to ^{Courtenay}
Courtenay

~~103~~ 1941

CHIEF OF PARTY

F. L. Gallen

68

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1003

REGISTER NO. **H6664**

State Florida

General locality Indian River

Locality Addison Point to Courtney
~~Courtney, Florida~~

Scale 1:10,000 Date of survey March, 1941

Vessel Launches MITCHELL & OGDEN

Chief of Party F. L. Gallen

Surveyed by John C. Ellerbe

Protracted by M. A. Gardner

Soundings penciled by M. A. Gardner

Soundings in ~~000000~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by G.F. Jordan

Verified by G.F. Jordan

Instructions dated Oct. 16, 1939

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet Field No. 1003

H-6664 (1941)

INSTRUCTIONS

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

CONTROL

The control for this survey was furnished by triangulation and planetable surveys by the party of F. L. Gallen.

EXTENT

This sheet covers a section of the Indian River from Lat. 28° 31.5', southward to Lat. 28° 26.6'.

SURVEY METHODS

Standard survey methods, using 3 point fixes, were used to control the lines on this sheet. Sounding was done with a leadline.

Additional development lines were run along the axis of the main ship channel, which is marked by buoys and day beacons, along the axis of the dredged entrance channel from the main channel to Courtnay, also marked with day beacons and pointers, and along the axes of the spoil banks, which run along parallel to the channels.

* For
spelling
see geog.
name list
T-6825(1941)
approved.

One line of soundings was run up the small creek about one mile north of Courtnay. This line was controlled by estimated distances and bearings to flags planted along the banks.

Depth curves were drawn on the boat sheet at 1 foot intervals, except in the area of the spoil banks, where the overlapping of the curves would obliterate the soundings.

CHANNELS

The main channel of the Intracoastal Waterway, which runs the length of the sheet, has a controlling depth of 7 feet and a maximum depth of 12 feet. All floating aids to navigation along its length were located by checked 3 point fixes.

The dredged channel from the main channel into Courtnay, marked by day beacons, has a controlling depth of 8 feet and a maximum depth of 10 feet. It is very narrow in places.

DANGERS

The outstanding danger on this sheet is the spoil bank, which runs along an almost continuous line parallel to the main ship channel and about 300 meters to the westward. The depths on this bank range from 7 feet to 2 feet. None of it is bare.

The western end of the spoil bank* which runs parallel to and south of Courtney Channel, may conceivably constitute a danger to navigation, though, if the aids are heeded, the main channel is very easy to follow. *shell bank covered 1 ft M.L.W.*

DISCREPANCIES

There are no known discrepancies on this sheet.

JUNCTIONS

Not Reg.
To the northward a satisfactory junction was made with hydrographic sheet field No. 1002. The southern limit of this sheet was the southern limit of the season's work. *[H-664 (1940)]*

COMPARISON WITH PREVIOUS SURVEYS

There were no previous surveys available for comparison. *H-1293 (1876)*

HARBORS

There are no harbors on this sheet.

Turning basin and wharf at Courtney on T-6825 (1941)

GEOGRAPHIC NAMES

All geographic names on this sheet have been incorporated into a special report for this entire area. *Filed with DR of T-6821 a+b Combined T-6822 a+b 1941*

Form M-234 included in this report. See also list of names approved for T-6825 (1941)

RECOVERABLE HYDROGRAPHIC STATIONS

No features or signals were located by hydrographic methods.

Except buoys as noted on page 1 this report.

Submitted by,

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

Approved by,

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

Smooth sheet inspected and approved
I. E. Rittenburg

H6664

STATISTICS

Date	Day	Statute Miles	Soundings	Positions
March 18	a	17.3	932	133
19	b	28.4	1147	187
20	c	27.4	1036	162
21	d	27.9	1253	174
24	e	27.1	1247	182
25	f	26.4	1108	176
26	g	19.5	893	127
27	h	29.1	1306	189
28	j	25.7	1138	179
29	k	10.5	502	74
31	l	29.0	1213	189
April 1	m	32.1	1282	189
2	n	<u>12.9</u>	<u>667</u>	<u>104</u>
		313.3	13724	2065

Lac
HAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 18, 1941

~~Division of Hydrography and Topography~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
8 volumes of sounding records for


HYDROGRAPHIC SHEET 6664

Locality Addison Point to Courtney^{enay} Indian River, Florida.

Chief of Party: F. L. Gallen in 1941
Plane of reference is mean low water reading
2.6 ft. on tide staff at Titusville
4.6 ft. below B. M. "Titus"
3.2 ft. on tide staff at Cocoa
6.2 ft. below B.M. "Cocoa R. P. 1"

There is no periodic tide in this portion of Indian River. The plane of reference for soundings approximates that used by the U. S. Engineer Department.

Condition of records satisfactory except as noted below:


Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES
Survey No. **H6664**

Name on Survey	Source of Name										No.
	A	B	C	D	E	F	G	H	K		
<u>Addison Point</u>											1
<u>Courthéy</u> <u>Courtenay</u>											2
<u>Indian River</u>											3
											4
<u>Titusville</u>											5
<u>Cocoa</u>											6
											7
<u>Jones Pt.</u>											8
<u>Pine I.</u>											9
											10
											11
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											27

Names underlined in red approved
by L. Heck on 10/17/41

Remarks

Decisions

	Remarks	Decisions
1		285807
2		284807
3	For title.	
4		
5	Location of tide staff	
6	" " " "	
7		
8		284807
9		284807
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Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6664**

Records accompanying survey:

Boat sheets .one.; sounding vols. (8).; wire drag vols.;
bomb vols.; graphic recorder rolls;
special reports, etc.
.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	2065.	
Number of positions checked	...17.	
Number of positions revised	...7.	
Number of soundings recorded	13724.	
Number of soundings revised (refers to depth only)	...19.	
Number of soundings erroneously spaced	..232.	
Number of signals erroneously plotted or transferred	...0.	
Topographic details	Time ...2½.	
Junctions	Time ...0.	
Verification of soundings from graphic record	Time ...0.	
Verification by <i>G. F. Jordan</i>	Total time ..63½.	Date <i>Oct. 7, 1941</i>
Review by <i>Harold F. Stegman</i>	Time ...18½.	Date <i>Oct. 14, 1941</i>

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H **H6664**

Verified and Inked by *G. F. Jordan*

Date *Oct. 7, 1941*

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓ *None*
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. *T 6824 (b) (1941)*
T 6825 (1941) ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. *Geog. names not yet on sheet.* ✓
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet, *line by line.* ✓
12. The spacing of soundings as recorded in the records was closely followed. *Not at all - see statistical report. Corrected by verifier. 232 sds revised in position.* ✓
13. The bottom characteristics were shown on outstanding shoals. *No characteristics were plotted. Plotted & inked by verifier.* ✓
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
16. All junctions were transferred. *North junctional sheet not registered* None ✓
17. The notation "JOINS H" was added for all contemporary adjoining or overlapping sheets now registered. ✓
None
18. The depth curves have been drawn to include the significant depths. ✓
19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
No hydrographic signals.
20. Heights of rocks were checked against range of tide. *None* ✓
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. *None* ✓
22. Unnecessary pencil notes have been removed. ✓
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. *The following not described on T6825 - PILE, OUT, MID, TIP*
(Pile ✓) (Temporary flag) Per boatsheet
24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
25. Degree and minutes values and symbols have been checked. ✓
26. Source of shoreline and signals (When not given in report).
T6824(b) (1941), T6825 (1941) ✓
27. Depth curves were satisfactory except as follows: ✓

28. Sounding line crossings were satisfactory except as follows: ↙ ↘

29. Junctions with contemporary surveys were satisfactory except as follows: *None* ↙ ↘

30. Condition of sounding records was satisfactory except as follows: ↙ ↘

31. The protracting was satisfactory except as follows: ↙ ↘

32. The field plotting of soundings was satisfactory except as follows:
See #12.

33. Notes to reviewer:

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY REGISTER NO. 6664 (1941)
FIELD NO. 1003

Florida; Indian River; Addison Point to Courtenay.
Surveyed in March 1941, Scale 1:10,000.
Instructions dated October 16, 1939 (MIKAWA).

Soundings:

Hand Lead

Control:

Sextant Fixes on Shore Signals.

Chief of Party - F. L. Gallen
Surveyed by - John C. Ellerbe
Protracted by - M. A. Gardner
Soundings plotted by - M. A. Gardner
Verified and inked by - G. F. Jordan
Reviewed by - Harold F. Stegman, Oct. 14, 1941.
Inspected by - H. R. Edmonston

1. Shoreline and Signals

Shoreline and topographic signals originate with planetable surveys T-6824b (1941) and T-6825 (1941).

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory

4. Junctions with Contemporary Surveys

A. The adjoining survey on the north (Field No. 1002) has not yet been registered. The junction will be considered in the review of that survey.

B. The area southward of H-6664 (1941) is included in the present project (HT-243) but was not surveyed during the 1940-41 season.

5. Comparison with Prior Surveys

H-1293 (1876); scale 1:20,000.

This survey covers the entire area of the present survey. Except in the areas of dredged channels and spoil banks the two surveys are in excellent agreement with differences of 1 to 2 feet in a few spots. In Lat. $28^{\circ} 26.8'$, Long. $80^{\circ} 45.1'$ several 6 foot soundings fall in depths of 7 and 8 feet on the present survey. They have not been carried forward. The present survey supersedes this survey.

6. Comparison with Chart 844 (Latest Print dated 5/27/41.)

A. Hydrography

Charted hydrography originates with H-1293 (1876) and with U. S. E. blueprints 24,976-8 (1932). These blueprints are in substantial agreement with the present survey except that the charted 2 foot shoals in the spoil area west of the Intracoastal Waterway have deepened 1 to 2 feet in spots. The charted spoil areas southward of the Courtenay channel originate with U. S. E. Blueprint 34110 of 1940. The present survey shows a shell bank covered 1 foot at MLW in Lat. $28^{\circ} 27.06'$, Long. $80^{\circ} 44.74'$, just inside of the 6 foot curve. This shoal extends about 50 meters westward of the charted spoil area and the latter should be revised to include it. The present survey supersedes the hydrography shown on these blueprints.

B. Controlling Depths

1. The controlling depth in the Intracoastal Waterway is charted as 8 feet, April 1941, whereas the present survey shows 7 feet at the entrance to Courtenay Channel. The U. S. E. Monthly Bulletin of October 4, 1941 which is subsequent to the present survey states that the controlling depth in this vicinity is 6.7 feet.

2. The 6 foot sounding shown on the present survey in Lat. $28^{\circ} 26.65'$, Long. $80^{\circ} 44.78'$ is near the center of the charted waterway channel but there is deeper water on the west side.

3. The Courtenay Channel, in Lat. $28^{\circ} 27.3'$ has a charted controlling depth of 8 feet, April 1940, from U. S. E. Blueprint 34110. This information is in agreement with and superseded by the present survey.

C. Aids to Navigation

With the following exceptions the charted aids to navigation are in agreement with those of the present survey:

1. Black day beacons 11, 13 and 15, marking the turning basin at Courtenay are not yet charted. Their positions are given on T-6825 (1941) and on Chart Letter 541 (1941).

2. Black Can Buoys C-121 and C-131 were not shown on the present survey. The descriptive report, page 1, states that all floating aids were located, and therefore it is evident the buoys had been lost or removed prior to the present survey date. These buoys are listed in the Intracoastal Waterway Light List, June 1, 1941.

7. Condition of Survey

a. The records and descriptive report are satisfactory.

b. The field plotting was satisfactory except that no bottom characteristics were shown and that 232 soundings were erroneously spaced.

8. Compliance with Project Instructions.

Satisfactory.

9. Additional Field Work Recommended.


This survey is satisfactory and no additional field work is required.


10. Superseded Surveys.

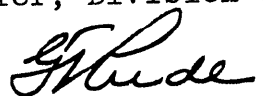
H-1293 (1876) In Part.

Examined and Approved:


Chief, Surveys Section


Chief, Section of Hydrography


Chief, Division of Charts


Chief, Division of
Coastal Surveys.

Applied to chart 844. March 16, 1942 L.A. M.
Applied to chart 1245 March 16, 1942. L.A. M.