

# 4804

Diag Cht. Nos. 160-1244-10012

Form 504					
DEPARTMENT OF COMMERCE					
U. S. COAST AND GEODETIC SURVEY					
E. Lester Jones, Director					
<table border="1"><tr><td>C. &amp; G. SURVEY</td></tr><tr><td>L &amp; A</td></tr><tr><td>AUG 27 1928</td></tr><tr><td>Acc. No.</td></tr></table>		C. & G. SURVEY	L & A	AUG 27 1928	Acc. No.
C. & G. SURVEY					
L & A					
AUG 27 1928					
Acc. No.					
State: Florida					
DESCRIPTIVE REPORT					
<i>Topographic</i> <i>Hydrographic</i>	Sheet No. 2 4804				
LOCALITY					
East Coast of Florida, off					
Mosquito Inlet.					
1928					
CHIEF OF PARTY					
K. T. Adams, G. C. Mattison.					

GOVERNMENT PRINTING OFFICE

# 4804

Memorandum to accompany sheet No. 2.

The records and sheet have been examined and approved by me.

Practically all of the field work on this sheet was done by the party under the supervision of K. T. Adams, only the last two ship days being done after transfer of command.

The plotting of the smooth sheet was done under my supervision.

  
G. C. Mattison,  
H. & G. Engr., C. & G. S.  
Chief of Party.

DESCRIPTIVE REPORT

TO ACCOMPANY  
SHEET, FIELD NO. 2

EAST COAST OF FLORIDA  
OFF MOSQUITO INLET

(a) DATE OF INSTRUCTIONS:-

The work on this sheet was done in accordance with Director's Instructions dated November 17, 1927.

(b) SURVEY METHODS: - All the soundings on this sheet were taken with the hand lead. The innermost line was parallel to the shore using the whale boat. From  $\Delta$  Alden to  $\Delta$  Guard the line was run at low water with the whale boat and about 50 meters from shore. From  $\Delta$  Guard to  $\Delta$  Last the line was run at high water with the motor sailer. These lines parallel to the shore were extended out to about 7 fathoms. All soundings were taken under way except on the outer line the motor sailer was stopt and a vertical cast taken at each position. Joining this work, lines normal to the shore were run by the Str. Lydonia to the limit of visibility of shore objects. Buoys were then planted, located by sextant angles, plotted on an aluminum sheet, and the work extended to the limit of visibility of these objects.

(c) DISCREPANCIES:-

The innermost lines do not seem to agree at the point where they meet. This may be due to the presence of an off shore bar north of  $\Delta$  Guard which at low water was exposed. It was noticed by parties landing at  $\Delta$  Guard, that the shore rose abruptly with comparatively deep water close in. To the south of  $\Delta$  Guard there may not have been any bar. This may account for the apparent discrepance at this point, and it is recommended that all soundings be accepted as shown.

(d) DANGERS: -

The only dangers to vessels drawing 30 feet or less were found close in shore. Off shore the following rises were developed.

1. Lat.  $28^{\circ} 57'$  Long.  $80^{\circ} 46'.6$  Least depth 34 feet, Position 2 T. ✓
2. Lat.  $28^{\circ} 58'$  Long.  $80^{\circ} 39'.3$  least depth 49 feet, position 85 U. ✓
3. Lat.  $28^{\circ} 59'$  Long.  $80^{\circ} 40'.8$  least depth 43 feet, Position 78 H'. ✓
4. Lat.  $29^{\circ} 00'.7$  Long.  $80^{\circ} 42'.6$  least depth 46 feet, position 60 P. ✓

5. Lat.  $29^{\circ} 06'$  Long.  $80^{\circ} 47'.5$ , least depth 46 feet, position 84R. ✓  
No development in addition to that shown in record was necessary on these rises.

(e) CHANNELS: -  
None.

(f) ANCHORAGES: -  
There was no difficulty in anchoring any where on this sheet.

(g) COMPARISON WITH PREVIOUS SURVEYS:-  
One line on the north boundary of the sheet was rerun to insure an over lap and the soundings agree quite well. The only discrepancy between this sheet and the soundings shown on Chart 1111 is at Lat.  $29^{\circ} 08'$  long.  $80^{\circ} 32'$  where the charted depth is 72 feet and this sheet shows about 88 feet in that locality. In the case of Chart 161, the old soundings are in almost every case from 1 to 6 feet less than those shown on this sheet. However our close development produced a depth on the rises less than was obtained before.

(h) GEOGRAPHIC NAMES:-  
No new names are recommended.

(i) STATISTICS: -  
(see other list )

(j) CHARACTER OF BOTTOM: -  
The bottom specimens were in most cases brown or grey sand mixed with shells or gravel. In a few scattering spots, blue mud was found. The bottom is quite regular, gradually deepening from seven fathoms one half mile from shore to ten and eleven fathoms until the rises mentioned in paragraph (d) occur. The rises are in general long smooth ridges with their longitudinal axes running approximately north and south. From ten miles off shore the depth gradually increased to fifteen fathoms, the limit of visibility of the floating signals.

Respectfully submitted,

*Hubert A. Paton*

Hubert A. Paton,  
Jr. H. & G. Engineer,  
U. S. C. & G. SURVEY

First endorsement,  
Forwarded,

*G. C. Mattison*  
G. C. Mattison, H. & G. Engr.,  
Chief of Party.

T I D A L   D A T A

For Sheet, Field No. 2

Location of Tide Guage	Daytona, Florida.
Mean Low Water on Guage	2.3 feet
Highest tide observed	
Lowest tide observed	

N. B. - Hourly heights for days on which soundings were taken were sent to party from Washington Office. This did not give the high and low waters on other days.

STATISTICS FOR SHEET, FIELD NO. 2

Vol.	Date	Letter	Statute Miles	Soundings	Positions	Angles	Boat
1	1928 Jan. 10	A	46.0	435	91	173	LYDONIA
1	" 11	B	32.7	495	65	126	"
1	" 19	C	10.2	91	18	36	"
1	" 20	D	58.7	431	117	227	"
1	" 21	E	5.9	49	12	23	"
2	" 22	F	49.7	444	103	101	"
2	" 23	G	55.2	523	113	222	"
2	" 25	H	58.3	542	124	244	"
2	" 26	J	11.5	101	22	44	"
3	" 26	J	53.3	358	106	198	"
3	Feb. 9	K	65.6	548	116	227	"
3	" 11	L	10.7	90	19	38	"
3	" 12	M	30.9	268	56	110	"
3	" 14	N	16.5	149	39	77	"
4	" 14	N	36.1	216	64	126	"
4	" 15	P	62.0	509	114	228	"
4	" 16	Q	51.9	466	108	213	"
4	" 17	R	47.8	471	179	91	"
5	" 26	S	66.3	818	150	290	"
5	" 27	T	13.6	205	44	82	"
5	" 28	U	48.1	520	104	203	"
5	" 29	V	19.4	172	38	72	"
5	March 8	W	12.6	131	28	56	"
6	" 8	W	15.6	224	43	84	"

TOTALS CARRIED FORWARD

STATISTICS (continued)

Vol.	Date	Letter	Statute Miles	Soundings	Positions	Angles	Boat
6	Mar. 9	X	7.0	61	13	26	LYDONIA
6	" 10	Y	5.5	60	12	21	"
6	" 11	Z	16.3	169	33	61	"
6	" 13	A'	49.6	417	88	167	"
6	" 14	B'	54.2	468	109	202	"
7	" 15	C'	23.1	207	47	89	"
7	" 25	D'	27.4	252	58	104	"
7	" 26	E'	54.5	468	102	197	"
7	" 27	F'	9.5	85	20	34	"
7	" 28	G'	22.4	204	49	95	"
7	April 18	H'	39.0	386	92	191	"
8	" 24	J'	2.4	64	19	39	"
9	Feb 29	a	29.7	798	82	153	Launch
9	March 9	b	9.0	293	20	38	Whale boat
9	" 10	c	19.2	384	55	108	Launch
9	" 11	d	24.8	769	85	170	"
10	" 11	d	4.5	107	18	36	"
10	" 12	e	15.9	376	59	118	"

TOTALS - 1,292.6 13,824 2,834 5,140

Area in square statute miles - 380.



78A

Copy for Section of Field Records files.

September 19, 1928.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
volumes of sounding records for

10

HYDROGRAPHIC SHEET

4894

Locality:

**EAST COAST OF FLORIDA.**

Chief of Party:

Plane of reference i **L.T. Adams and G.C. Mattison, 1928.**

ft. on tide staff **M.L.W**

**2.5**

**Daytona Beach.**

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

*Paul P. Whitney*  
 Chief, Division of Tides and Currents.

Section of Field Records.

Report on Hydrographic Sheet 4804.

East Coast of Florida-Mosquito Inlet.

Instructions dated November 17, 1927 (Lydonia)

Chief of Party N. J. Adams and G. C. Mattison.

Surveyed by Party of Steamer Lydonia.

Protracted and soundings plotted by H. M. Paton.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate and the soundings at the crossings generally agree closely but in some cases quite a difference appears.
5. The information is sufficient for drawing the depth curves.
6. The usual field plotting was done by the field party and excepting a few positions and an occasional error in plotting soundings this portion of the work was accurate.
7. The junction with adjoining not ready for report.
8. All shoalings on the sheet are well developed and there are no indications of ad-

ditional dangers.

9. The character and scope of the surveying is excellent and no additional surveying appears necessary.

10. The are numerous positions with but one angle.

11. Reviewed by J. D. Torrey.

Sheet Inspected by A. F. Shaluf (See notes attached)

DEPARTMENT OF COMMERCE

AND REFER TO No. 11-DRM

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

March 28, 1929.

SECTION OF FIELD RECORDS

Additional Notes On H. 4804

1. The area covered by the limits of this survey consists in a large measure of an irregular and undulating bottom interspersed by numerous indications of banks. While the impracticability of developing all indications in an area of this character is fully realized, it is believed that the interest of safe navigation makes it necessary that some of these indications be more thoroughly developed. The following remarks are intended to cover only what is considered the more important requirements and where the slopes are greatest, but is not intended to enumerate all the places where further development might be desirable. This can well be seen by a physical inspection of the sheet.
  - a. Additional development in the vicinity of the 46 and 48 foot soundings in approx. lat.  $29^{\circ} 06'$  1300 m., long.  $80^{\circ} 47'$  700 m.
  - b. A further development of the indicated bank in vicinity of lat.  $29^{\circ} 08'$ , long.  $80^{\circ} 42'$ . (See 61 foot soundings 1140 meters north of lat.  $29^{\circ} 07'$ .) *Revised H 4804*
  - c. The 57 foot sounding in lat.  $29^{\circ} 06'$  500 m., long.  $80^{\circ} 44'$  100 m. may have less water. *Revised H 4804/66*
  - d. When work is extended to the south additional lines should be run in the vicinity of the ~~53~~ 63 foot sounding in lat.  $29^{\circ} 05'$ , long.  $80^{\circ} 38'$ . *\*Sounding incorrect. Should be 68.*
  - e. A further development of the 57 foot shoal in lat.  $28^{\circ} 58' 1/2'$ , long.  $80^{\circ} 45'$ .
  - f. The 10 fathom bank in long.  $80^{\circ} 41'$ , lat.  $29^{\circ} 03'$  shows indications of extending considerably further to the northwestward.
  - g. A further examination is necessary in the vicinity of the 28 and 29 foot soundings in lat.  $28^{\circ} 54' 1/2'$ , long.  $80^{\circ} 48'$  and it is also recommended that an additional line be extended from here to the southern limit of the sheet to better define the 30 foot curve.

A. L. Shalowitz.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

4804

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. 2

REGISTER NO. 4804

State FLORIDA

General locality EAST COAST OF FLORIDA

Locality OFF MOSQUITO INLET Force De Leon Inlet

January 10, 1928 to

Scale 1:40,000 Date of survey April 24, 1928, 19

Vessel LYDONIA

Chief of Party K. T. Adams and G. C. Mattison

E.W. Eickelberg, R.L. Anderson

F.E. Okeson, E.R. MacCarthy

Surveyed by K. T. Adams, G. C. Mattison, H. A. Paton

Harold J. Oliver, Max G. Ricketts, Roswell C. Bolstad,

Protracted by Hubert A. Paton

Soundings penciled by Hubert A. Paton

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by J. D. Torrey

Verified by J. D. Torrey

Instructions dated November 17, 1928, 19

Remarks: List of data forwarded with sheet: 10 sounding records,  
2 Boat sheets, 1 smooth sheet, 1 Vol. Special Record Cuts to locate  
hydrographic signals.

*filed in Cabinet*