

4935

Diag. Chy. No. 1001-2

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director

C. & G. SURVEY

L. & A.

DEC 10 1929

Acc. No.

State: FLORIDA

DESCRIPTIVE REPORT

Topographic } Sheet No. 1 4935
Hydrographic } Field No. 1

LOCALITY

North of Cape Canaveral
EAST COAST OF FLORIDA

OFF MOSQUITO LAGOON

19 29

CHIEF OF PARTY

G. C. HATTISON, U. S. C. & G. S.

U. S. GOVERNMENT PRINTING OFFICE: 1928

4935

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET NO.
(Field No. 1)

AUTHORITY: Instructions from the Director dated December 3, 1928

LIMITS: Sheet #1 extends from the junction with sheet # 4804 to a line bearing about 65 degrees true from a point three miles north of Chester Shoals Coast Guard Station, to a line about 16 miles offshore bearing approximately 150 degrees true.

METHODS: Positions were fixed by sextant angles on shore objects to the limit of visibility. Shore signals were located by triangulation and topography. Hydrographic signal buoys were planted in a line parallel to the coast at about three mile intervals. These buoys were located by simultaneous sextant cuts taken with the ship anchored. The cuts were plotted on an aluminum sheet and positions scaled off. Later while working on the buoys it was found that use of combinations cut in on different days would not check, also that a difference in shore and buoy positions was found. In the first case an adjustment in position of the buoy was made for scope, this was finally rejected. No adjustment was made for the difference due to cuts on various days. Positions inshore of the five fathom curve to a development of the one fathom curve were taken on shore signals using the motor sailer. In the buoy hydrography the ship continued offshore using sextant angles on the buoys for positions. The entire sheet was sounded out using hand lead, soundings being taken at intervals in accordance with the Hydrographic Manual.

DISCREPANCIES: Lat $29^{\circ} - 05'$, Long $80^{\circ} - 32.5'$; difference of five feet between 31E to 32E and 54S to 55S. Speed on 'E' day being very irregular at the time and the heavy swell running accounts for the difference.

Lat $29^{\circ} - 02'$, Long $80^{\circ} - 29'$; difference of ten feet between 80F to 81F, 86S to 87S and 92S to 93S. A change in buoy fix has apparently shifted F day inshore.

Lat $28^{\circ} - 59.5'$, Long $80^{\circ} - 31.5'$; difference of eight feet between 1U to 2U and 30P to 31P. Probably due to inaccurate soundings in choppy sea on U day.

Lat $28^{\circ} - 48'$, Long $80^{\circ} - 31'$; difference of four feet between 41S' to 42S' and 139J' to 144J'. Due to a shift in position on changing from buoy to shore fix and the use of different sets of buoys.

DISCREPANCIES: Lat $28^{\circ} - 44'$, Long $80^{\circ} - 29'$; difference of three to four feet between 18M' to 20M', 29M' to 32M' and 104S' to 106S'. Soundings on M' day were taken with a swell running while S' day was calm. This difference can be accounted for as being error in estimating lead line reading in the swell.

Lat $28^{\circ} - 57'$ to $58'$, Long $80^{\circ} - 38'$ to $39'$. A bad jump in the position of the line is noted between 11W and 15W upon changing from buoy to shore fix and back to the buoys. The buoys on this sheet in all cases have a tendency to shift the position of the lines to the north. Soundings check on both fixes although it is not feasible to plot the soundings between the positions where the change occurs.

Respectfully submitted,

Max G. Ricketts
Max G. Ricketts,
Deck Officer.

Forwarded:

G. C. Mattison

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

STATISTICS

FIELD SHEET # 1.

Day	Date	Volume	Mileage	Soundings	Positions	Boat
A	1-10-29	1	48.2	450	105	Ship
B	1-11-29	1	48.5	619	131	Ship
C	1-12-29	1	21.1	235	48	Ship
D	1-13-29	1 & 2	49.7	507	122	Ship
E	1-15-29	2	47.5	555	108	Ship
F	1-16-29	2	47.8	527	107	Ship
G	1-17-29	2	19.1	177	44	Ship
H	1-18-29	2 & 3	21.7	233	49	Ship
J	1-25-29	3	24.3	249	55	Ship
K	1-26-29	3	58.9	613	136	Ship
L	1-27-29	3	25.7	291	72	Ship
M	1-28-29	3	6.3	75	18	Ship
N	1- 30 -29	3 & 4	55.8	568	132	Ship
P	1-31-29	4	57.1	591	119	Ship
Q	2-12-29	4	17.7	183	39	Ship
R	2-16-29	4	6.2	64	18	Ship
S	2-17-29	5	42.5	435	111	Ship
T	2-18-29	5	6.4	66	16	Ship
U	2-28-29	5	35.4	384	99	Ship
V	3-1-29	5	32.0	350	88	Ship
W	3-2-29	5	57.0	602	132	Ship
X	3-3-29	6	62.1	475	162	Ship
Y	3-4-29	6	57.4	613	145	Ship
Z	3-5-29	6	3.0	30	10	Ship
A.	3-6-29	6	24.0	244	54	Ship

Sheet # 2.

STATISTICS

FIELD SHEET #1. (Cont.)

Day	Date	Volume	Mileage	Soundings	Positions	Boat
B'	3-7-29	7	78.0	577	163	Ship
C'	3-8-29	7	59.8	631	150	Ship
D'	3-20-29	8	33.1	381	82	Ship
E'	3-21-29	8	26.4	316	78	Ship
F'	3-22-29	8	33.1	381	82	Ship
G'	3-23-29	8	4.5	52	11	Ship
H'	3-24-29	8	56.0	553	160	Ship
J'	3-25-29	8 & 9	70.9	615	167	Ship
K'	3-26-29	9	42.3	436	99	Ship
L'	3-27-29	9	61.9	647	161	Ship
M'	4-13-29	9	10.5	126	32	Ship
N'	4-14-29	10	59.0	511	113	Ship
P'	4-15-29	10	18.6	199	48	Ship
Q'	4-16-29	10	59.2	719	153	Ship
R'	4-17-29	10 & 11	32.2	681	98	Ship
S'	4-18-29	11	48.5	698	109	Ship
T'	4-19-29	11	11.9	145	38	Ship
U'	4-27-29	11	59.7	978	177	Ship
V'	4-28-29	12	58.3	745	188	Ship
W'	4-29-29	12	23.1	304	64	Ship
X'	4-30-29	12	14.9	214	43	Ship
Y'	5-1-29	12	5.0	105	22	Ship
			1714.2	18,808	4289	

STATISTICS

FIELD SHEET # 1.

LAUNCH STATISTICS

Day	Date	Volume	Mileage	Soundings	Positions	Boat
a	3-21-29	L.S.1	13.0	352	77	Launch
b	3-25-29	1	22.3	592	104	Launch
c	4-19-29	1	12.1	373	61	Launch
d	4-27-29	1 & 2	9.3	393	88	Launch
e	4-29-29	2	17.0	649	134	Launch
f	4-30-29	2	14.6	564	118	Launch
			88.3	2923	582	
			<u>1714.7</u>	<u>18808</u>		
			1899.0	21731		

Total Area, 388 square statute miles

TIDAL NOTE
to accompany
SHEET NO.
(Field No.1)

The primary tide station at Daytona Beach, Florida, was used for reducers throughout the work on this sheet.

LOCATION: Lat. 29 -14', Long. 81 - 00'

HIGHEST TIDE OBSERVED: - 15.6 feet

LOWEST TIDE OBSERVED : - 8.1 feet

PLANE OF REFERENCE ON TIDE STAFF :- 1.0 feet

PLANE OF REFERENCE ON TAPE GAUGE :- 9.4 feet

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 4935

Locality: East Coast Florida (off Mosquito Lagoon)

Chief of Party: G. C. Mattison, in 1929
Plane of reference is mean low water, reading
2.1 ft. on tide staff at Daytona Beach, Florida.

~~XXXXXXXXXXXX~~

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 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.

Chief, Division of Tides and Currents.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4935

East Coast of Florida, North of Cape Canaveral

Surveyed in 1929

Instructions dated December 3, 1928 (LYDONIA)

Chief of Party, G. C. Mattison, E. W. Eickelberg

Surveyed by F. E. Okeson, E. B. Roberts, H. A. Paton, E. R. McCarthy

Protracted by E. A. Deily, W. F. Malnate, E. R. M., H. A. P.

Soundings plotted by M. G. Ricketts

Verified and inked by J. D. Torrey

1. The records conform to the requirements of the Hydrographic Manual.
2. The plan and extent of development conform generally to the specific instructions. There are a number of places, however, where additional development is considered as desirable. These will be mentioned under "Additional work."
3. The sounding line crossings are adequate.
4. The usual depth curves could be completely drawn.
5. The field plotting was completed to the extent prescribed in the instructions. In two cases it was noted that jumps in line resulted when different combinations of buoys were used or when changing from shore to buoy control. As the jumps were in a north and south direction in comparatively even bottom, no adjustment was attempted.
6. The junction with H. 4604 on the north and west is satisfactory.

The junctions with H. 4946 on the south and with H. 4932 on the east have been considered in the reviews of those sheets.

7. Additional work

While no dangerous indications have been left undeveloped, there are a number of indications of banks outside the 10 fathom curve that should have further work. No attempt will be made to enumerate here these various places. Before future work is outlined for this locality an examination should be made of the sheet to determine where further work is necessary.

8. Reviewed by A. L. Shalowitz, October, 1930.

Approved:


Chief, Section of Field Records (Charts)


Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

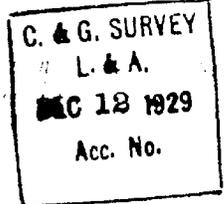
HYDROGRAPHIC TITLE SHEET

REG. NO. 4935

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. 1.

REGISTER NO. 4935



State Florida

General locality ~~East Coast~~ North of Cape Canaveral

Locality Off Mosquito Lagoon

Scale 1:40,000 Date of survey 1/10 to 5/1, 19 29

Vessel LYDONIA & Ship's Motor Sailer

Chief of Party G. C. Mattison (E. W. Rickelberg, temporary)

Surveyed by F. E. Oleson, E. B. Roberts, H. A. Paton, E. R. McCarthy

Protracted by E. A. Dolly, W. F. Malnate, E. R. McCarthy, M. G. Ricketts

Soundings penciled by M. G. Ricketts

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. T.

Instructions dated December 3rd, 19 28

Remarks: _____

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DPM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

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Protracted by E. A. Dilly, W. F. Malnate, E. R. M., H. A. P.

Soundings plotted by M. G. Ricketts

Verified and inked by J. D. Torrey

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