

4801

Diag. Cht. No 1249

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
E. Lester Jones <i>Director</i>	
State: Florida	
G. & G. SURVEY L. & A. AUG 25 1928 Acc. No.	
DESCRIPTIVE REPORT	
<i>Hydrographic</i>	Sheet No. 4801
LOCALITY	
East Coast of Florida, Outer Approaches Entrance to Miami.	
1928	
CHIEF OF PARTY G.C. Mattison. B.H. Rigg.	

4801

GOVERNMENT PRINTING OFFICE

S-111 4V

DEPARTMENT OF COMMERCE
U.S.COAST AND GEODETIC SURVEY
E. LESTER JONES, DIRECTOR.

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET #3

MIAMI, FLA.

S.S. RANGER

G.C.MATTISON,
RAY L. SCHOPPE,
CHIEF OF PARTY

1928

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #3

MIAMI, FLA.

DATE OF INSTRUCTIONS:

Original instructions dated January 3, 1928.

Supplemental instructions dated March 20, 1928.

SURVEY METHODS:

Control for this sheet was furnished by the following
stations:

TRIANGULATION STATIONS:

Cape Florida Lighthouse	Flo
Daily News Tower	News
Miami Beach Water Tower	
Start	

INTERSECTION STATIONS:

Wind-mill	Wind
Miami Court-house	Court
Everglades Hotel Tower	Ever
Green Water Tower	Green
Stack	Stack
Miami Beach City Hall	City
S. Miami Beach Water Tower	
Roney Plaza Hotel Cupalo	Roney
Chimney, Pancoast Hotel	Panc

Intersection Stations (cont)

North Radio Tower	Tow
Black Dome Allison Hotel	Alli
N.Cupalo Lake Shoure Apts.	Lake
S.Dome Deauville Casino	Soto
N. " " "	Note

The following stations were located on the mosaics furnished by the office and transferred to the sheet:

Hotel Gable	Hat
White house, red roof	Red
Yellow house, N.highest gable	Yel
House gable	Sty

Standard Coast Survey practice was followed in making this survey. All positions plotted on the sheet were obtained by three point fixes on the shore objects. Sextants were used to measure the angles which were then plotted with a three armed protractor. All soundings west of $80^{\circ} 05'$ were made with hand lead using bronze center mahogany line. The deeper soundings were obtained by use of stranded wire and sounding machine. The ship was stopped in each instance and the lead was dropped to the bottom.

REFERENCE:

Paragraph 11a of instructions dated January 3, 1928.

A thorough search was made for this 7 foot spot on a day when visibility was excellent. Nothing was seen or was any shoal soundings obtained. The shoalest sounding found in this vicinity was 17 feet. ✓

Paragraph 11b - This spot was thoroughly developed and the least depth obtained was 32 feet. ✓

Paragraph 11c - The least depth obtained on this spot was 26 feet.

REFERENCE, SUPPLEMENTAL INSTRUCTIONS:

The officials of the steamship company were interviewed, as were the harbor master and Master of the EVANGELINE and the approximate position of the grounding located on the sheet.

On a ^{calm} clear day the RANGER spent an entire day sounding over this area. No shoal spot was found other than the depths already shown on the existing chart.

All other work on this sheet was done in conformance with paragraphs 18 and 19 of the instructions dated January 3, 1928.

Shoals lying about one mile east of beach in vicinity of Start is a coral ridge formation.

DISCREPANCIES:

The following shoal spots were located.

A 12 foot spot at 25° 51' - 90 meters ✓
 80° 06' - 840 meters

former work showed 18 feet.

An 11 foot spot at 25° 51' - 1200 meters ✓
 80° 06' - 962 meters

former work showed 15 feet.

★ A 9 foot spot at 25° 52' - 440 meters
 80° 06' - 890 meters

former work showed 18 feet.

*and deleted
see additional notes in
this report.*

A 9 foot spot at 25° 53' - 90 meters /
80° 06' - 870 meters.

*and deleted
see additional note
in this report.*

formerly 11 feet of water.

All of these depths are on a coral ridge and coral formation. The previous survey missed them. Bromides show the area was not developed. This area is so close to the shore it is only a danger for small boats.

Other old hand lead work on this sheet checks well with the new survey. The deeper wire soundings however differ as much as 10 fathoms from the depths shown on chart, but this is not serious as the character of the bottom is very steep and uneven. Then too, these wire soundings are not crossed with old work. The soundings shown in blue on the boat sheet were transferred from the chart.

Respectfully submitted.

Benjamin H. Rigg,
Jr. H. & G. Engineer.

STATISTICS FOR SHEET #5

Date	Vol.	Letter	Pos.	Soundings	Stat. Miles	Boat
Feb. 15	4	a	105	574	12.2	M.D.
Mar. 13	4	c	91	558	14.1	M.D.
Mar. 14	4	d	58	301	5.3	M.D.
Feb. 14	1	A	85	209	25.6	Ranger
Feb. 15	1	B	51	109	6.3	"
Feb. 20	1	C	138	739	29.5	"
Feb. 21	1	D	72	99	34.6	"
Feb. 24	2	E	77	193	26.5	"
Mar. 5	2	F	69	420	14.2	"
Mar. 8	2	G	18	52	2.9	"
Apr. 12	2	H	167	744	22.8	"
Apr. 15	5	J	161	672	22.3	"
Total for Motor dinghy			254	1453	51.6	
Total for RANGER			818	3237	184.7	
Total for all vessels			1072	4670	216.3	

August 31, 1928

Division of Hydrography and Topography:

✓ Division of Charts:

Tide reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4801

Locality: **East coast of Florida**

Chief of Party: **G. C. Mattison, 1928**

Plane of reference is **M. L. V.**

-0.5 ft. on tide staff at **Miami Beach (U. S. Engineers)**

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.

G. C. Mattison
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-DEM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

November 24, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4801

East Coast of Florida - Outer Approaches to Miami

Instructions dated January 3, 1928 (RANGER)

Supplementary instructions, March 20, 1928 (RANGER)

• Chiefs of Party, G. C. Mattison and B. H. Rigg.

Surveyed by G. C. Mattison, B. H. Rigg and R. C. Overton.

Protracted and soundings plotted by C. A. George.

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. A few additional lines crossing the coral ridge would have aided in developing the east and west limits of this ridge.
5. The lines and soundings are sufficient for drawing the usual depth curves.
6. The field plotting, when possible to identify, was found accurate.
7. Junctions with adjoining sheets cannot be reported on as other sheets of this survey are not yet in the office.
8. The shoal soundings referred to on pages 2 and 3 of the specific instructions have been investigated and the least depth recorded and plotted: The 9 foot sounding on position 1 F and referred to on page 4 of the Descriptive Report may be in error as the "formerly 11 feet of water" cannot be verified. This sounding should have been further investigated.

The 9-foot, 11-foot and 12-foot soundings referred to on page 3 of the Descriptive Report might also be in error but are not questioned by the field party and therefore cannot be rejected.

9. The character and scope of the surveying are good and the drafting quite accurate.
10. Reviewed by J. D. Torrey.

Sheet inspected by A. L. Shalowitz. (See additional notes attached.)

Approved:

Chief, Section of Field Records (Charts)



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

DEPARTMENT OF COMMERCE

AND REFER TO NO. 11-DRM

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

November 23, 1928.

Additional Notes on H. 4801

1. For the guidance of the compiler the following recommendations are made:

- a. The soundings along the ridge in longitude $80^{\circ} 06' 1/2'$, between latitudes $25^{\circ} 51'$ and $25^{\circ} 53' 1/4'$ should not be charted for the present as a further examination is contemplated in this area with the fathometer. There appears to be some doubt as to the accuracy of some of the soundings, particularly the two 9-foot soundings in lat. $25^{\circ} 52' 440$ m., and lat. $25^{\circ} 53' 90$ m. The first 9-foot sounding was obtained by the ship (pos. 6-7 F red) between two 15-foot soundings and has the appearance of an error of 1 fathom having been made in reading the lead line, although it is possible that a coral head exists here. Further doubt, however, is cast on the accuracy of this sounding by the fact that several days later the launch ran two closely spaced lines across this spot (73-75 c, blue and 56-58 c, blue) with soundings taken apparently every 20 meters (not all are plotted on sheet) and nothing less than 14 feet was obtained. On the identical spot where the 9 was found by the ship, the launch found 16 feet. While no line was actually run across this spot on the 1919 survey (H. 4075) the line run about 60 meters south of the spot showed no indication of shoaling water.

*omitted
from sheet.
See Remarks
H-4811²
A.L.S. (1-17-30)*

The second 9-foot sounding mentioned above in lat. $25^{\circ} 53' 90$ m., long. $80^{\circ} 06' 1/2'$ was obtained by the ship at the beginning of F day (pos 1 F, red). The sounding was originally questioned by the field party, but later the question mark was erased. A comparison of the soundings taken between positions 1 and 3 F and those taken on the subsequent launch work seems to cast some doubt on the accuracy of the ship work, although a very narrow ridge may exist here. The launch development over the 9-foot spot shows 19 feet at this point on two separate lines run across the 9-foot sounding -- positions 49-50 c (blue) and 41-42 c (blue). The 1919 survey (H. 4075) shows a line running right through the position of the 9-foot spot with 21 feet on it. The statement in the descriptive report of this sheet (H. 4801) that there was formerly 11 feet of water here is manifestly incorrect. No record exists in this office to show that 11 feet was ever shown in this position. The writer of the report evidently obtained his information from

*omitted
from sheet.
See Remarks
H-4811²
A.L.S. (1-17-30)*

the boat sheet where what appears to be an 11-foot sounding is plotted in red near the 9. This sounding was supposedly transferred from H. 4075, but the original smooth sheet fails to disclose any such depth. It is possible that the man that transferred the sounding to the boat sheet mistook a 21 for an 11.

- b. The 10-foot charted sounding (authority H. 4075) in lat. 25° 44' 1110 m., long. 80° 06' can be definitely removed from the charts. There appears to have been a misinterpretation of the sounding records in the original plotting of the sheet. The original reduced sounding was 20+ feet (pos. 21-22 B, red). Then by applying a lead line correction, the sounding was changed to 18.0 feet, but in erasing the 20, the 0 was not too well expunged, with the result that the final reduced sounding had the appearance of 10.0 and was so plotted, when in fact 18 feet should have been shown. The records for the development in this area were examined and the lines failed to disclose any 10-foot sounding as having been obtained in this area. It is therefore reasonably certain that the above theory is correct. The new survey also shows 18 feet on this spot. It is, however, recommended that the 14-foot sounding shown on H. 4075 about 50 meters southeast of the above-mentioned 10 be retained as the present survey shows an indication of its existence. *charted me*
- c. The 31-foot sounding charted in lat. 25° 44' 940 m., long. 80° 05' 670 m. (authority H. 4075, pos. 151-152 G, green) should be retained on the charts. This sounding is marked "rky" in the original sounding records and may be a small coral head. An examination of the surrounding soundings on both the old and the new surveys shows its existence quite probable, and in the absence of a more detailed examination it should not be expunged from the chart.
- d. The 7-foot charted sounding in lat. 25° 42' 1120 m., long. 80° 07' 1280 m. came from H. 407 (surveyed in 1852). The sounding will be found in Vol. 1 of 4 volumes at pos. 13-14 n, surveyed on March 25, 1852. For the purpose of identifying the records, should it be desired to refer again to this sounding, the following information is given: The back of the sounding volume is marked thus:

Section 6 || Key Biscayne, Florida || Original Soundings ||
1852 | Box No.2 || 4 | 1-4 || In four vols. VOL.1 ||
Recorded in Fair Journal No. 8 | Lt. John Rodgers ||

An inspection of the original record shows another sounding of 16 feet obtained just prior to the 7. This 16 is not plotted on the original smooth sheet. It would seem that there

is perhaps some basis for the 7. The 1919 survey (H. 4075 and H. 4076) failed to disclose any depths less than 18 feet close by. It was not removed from the chart at that time, because the development was probably not considered sufficiently detailed. On the present detailed examination 18 feet (coarse sand) was obtained on the exact spot (33 b, blue) and taking all factors into consideration it seems reasonable to assume that the shoal no longer exists and can therefore be removed from the charts.

A. L. Shalowitz

A. L. Shalowitz.

Approved

Frank S. Borden
Chief, Section Tides and Currents

Further development should be made in the vicinity of the 12 foot sdq. in lat. $25^{\circ}42' - 740m$. long. $80^{\circ}08'$. This is shaller than anything at present charted in the immediate vicinity.

A. L. S.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.
4801

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. 3

REGISTER NO. **4801**

State Florida

General locality East Coast

Locality Outer Approaches
Entrance to Miami.

Scale 1 - 20,000 Date of survey Feb. - April, 1928

Vessel Steamer RANGER

Chief of Party G. C. Mattison, - B. H. Rigg.

Surveyed by G.C.M. - B.H.R. - R.C.O.

Protracted by C. A. George.

Soundings penciled by C. A. George

Soundings in ~~feet~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by None dragged.

Inked by S. D. Tarrey.

Verified by S. D. Tarrey.

Instructions dated Jan. 3, - Mar. 20, 1928

Remarks: Soundings reduced, projection made, and sheet

plotted after the Chief of Party was relieved by R.L.Schoppe.

Applied to chart 848 (new compilation) Sept 14, 1938 R.L.V.
Appld to chart 140.4 11-28-60 RKV