

4075

4075

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Florida*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. **4075**

LOCALITY:

*East coast of Fla.
Biscayne Bay and
vicinity, Miami*

191 *9*

CHIEF OF PARTY:

Leyboldt and Wheson

77990 - 7
77981 - 9

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4075

State Florida

General locality East Coast of Florida

Locality Biscayne Bay and Vicinity, Miami, Fla.

Chief of party Harry Leypoldt

Surveyed by Harry Leypoldt and F.E. Okeson

Date of survey January, February, March, 1919

Scale 1/20,000

Soundings in Feet

Plane of reference Mean Low Water
F.M. Albert L.M. Mower, W.M. Scaife

Protracted by H. Leypoldt . Soundings in pencil by Harry Leypoldt, L.W. Burdette

Inked by PLJ Verified by PLJ

Records accompanying sheet (check those forwarded):

Des. report, 2 Tide books, 3 Marigrams, 3 Boat sheets,
16 Sounding books, 0 Wire-drag books, 0 Photographs.

Data from other sources affecting sheet 2 Level Books, 2 Log Books, 1 Cracker
and 1 Gray Duck, for the entire job.

1 Volume of "Location of Pilings, Beacons, etc.," for the entire job.
3 months of hourly tide readings from Automatic Tide Gage at Miami City Pier.

Remarks: 16 is the total number of sounding books forwarded, - there
being two sounding launches, Gray Duck with 7 and Cracker with 9.

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET (1) 4075

Shore Party at Miami, Fla., under Capt. Harry Leypoldt, Jr. H. & G. Engr.

The area of this sheet is the northern part of Bay Biscayne, as far south as the signal "Lit" at Elliott's Beach, and out-side as far as $80^{\circ}-05'$. The shore lines are composed of a very dense Mangrove Swamp in most places; except on the out-side of the islands shown, there the shore lines are sand beaches, which is to be expected.

The northern part of the bay, above the cause-way, is very shoal, and needed very little development. A channel runs up this bay, and this is shown in dotted on the northern Topographic Sheet, made by Mr. Wilbur, Aid. The northern extremity of this work in this channel is Position 61 Y (Red). There also is a small channel running eastward to Signal "Do". The bottom in this region is very black mud, and, due also to a lack of proper channel guides, with a boat drawing over two (2) feet one will go aground quite easily.

The unsurveyed area on the eastern side of the bay was very shoal, and the bottom seemed to have a gradual rise toward the land. A line was run up Indian Creek from the north-eastern end of the canal to Position 13 Z (Red), about one-half mile north of signal "Tank", but owing to a lack of information, this line could not be plotted.

The Government Cut is the main approach from the City of Miami to the sea, and is kept in order by the U.S. Engineers. Dredging is being done at present and hence the finished chart of this cut can be obtained from them. Norris Cut, just south of the Government Cut, is used very little, except by the local fishermen. Bear Cut, just south of Norris Cut, is of more service, but it practically necessitated local knowledge to get thru this cut as the channel is not clearly defined. Consequently this cut is not used very often except at high tides, and then by nothing except local fish-boats and small yachts.

The unsurveyed area out-side of Key Biscayne is covered on the Hydrographic Sheet. The unsurveyed area between $80^{\circ}-09'$ and $80^{\circ}-10'$, and north of $25^{\circ}-44'$, consists mainly of a mud flat, to the shore line, covered with grass and this area is partly dry at low water. The unsurveyed area around and near Signal "Jug", on Key Biscayne, is local water over mud flats, covered with grass and partly dry at low water. The unsurveyed area between Signals "A" and "B" (White beacons north of $25^{\circ}-45'$) is also partly dry at low water. Attached to this sheet, to double the scale of this sheet, is a sub-sketch of Miami River. Two lines were run in this river, one up and one down the river, both times we kept as near as possible to the center of the river. Where these two lines coincided, the deeper soundings were plotted. This inconsistency was due to the lack of proper signals and to our inability to stay exactly in the middle of the river.

The shore line of Miami and of Miami Beach is shown in detail on the Topographic Sheet by Mr. Bernstein.

Respectfully submitted,

J. W. Burdette, U. S. N.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
STATISTICS SHEET No. 1

| Date, 1919 | Letter | Positions | Soundings | Statute Miles | Launch (Red letter) |
|------------|------------|-------------|---------------|---------------|------------------------|
| Jan. 14 | A | 9 | 60 | | Cracker |
| Jan. 18 | B | 39 | 261 | 7.5 | Cracker |
| Jan. 20 | C | 111 | 764 | 16.75 | Cracker |
| Jan. 21 | D | 62 | 438 | 13. | Cracker |
| Jan. 22 | E | 87 | 586 | 16. | Cracker |
| Jan. 24 | F | 110 | 851 | 21.5 | Cracker |
| Jan. 25 | G | 36 | 240 | 6.75 | Cracker |
| Jan. 27 | H | 100 | 810 | 22. | Cracker |
| Feb. 1 | J | 49 | 168 | 4. | Cracker |
| Feb. 8 | K | 35 | 342 | 4. | Cracker |
| Feb. 15 | L | 96 | 906 | 17. | Cracker |
| Feb. 20 | M | 149 | 1580 | 27. | Cracker |
| Feb. 21 | N | 123 | 1180 | 23. | Cracker |
| Feb. 28 | P | 41 | 450 | 5. | Cracker |
| Mar. 1 | Q | 110 | 1030 | 18.25 | Cracker |
| Mar. 4 | R | 188 | 750 | 12.5 | Cracker |
| Mar. 5 | S | 144 | 1210 | 21.5 | Cracker |
| Mar. 6 | T | 92 | 800 | 14. | Cracker |
| Mar. 7 | U | 122 | 1025 | 17. | Cracker |
| Mar. 8 | V | 47 | 275 | 5. | Cracker |
| Mar. 12 | W | 10 | 96 | 1.5 | Cracker |
| Mar. 17 | X | 135 | 1242 | 23.5 | Cracker |
| Mar. 18 | Y | 72 | 552 | 8.0 | Cracker |
| Mar. 19 | Z | 86 | 600 | | Cracker |
| Mar. 20 | A' | 159 | 750 | 23.75 | Cracker |
| Mar. 21 | B' | 97 | 460 | 17.00 | Cracker |
| | <u>26.</u> | <u>2279</u> | <u>17,426</u> | | |

125
STATISTICS SHEET NO.1

| Date, 1919 | Letter | Positions | Soundings | Stat. Miles | Launch (Green Letter) |
|------------|--------|-----------|----------------|-------------|--------------------------|
| Jan. 13 | A | 47 | 499 | 9 | Gray Duck |
| Jan. 14 | B | 126 | 1239 | 31 | Gray Duck |
| Jan. 15 | C | 127 | 1466 | 35 | Gray Duck |
| Jan. 16 | D | 132 | 1544 | 33.5 | Gray Duck |
| Jan. 18 | E | 58 | 786 | 18 | Gray Duck |
| Jan. 25 | F | 43 | 357 | 10.5 | Gray Duck |
| Jan. 27 | G | 180 | 809 | 24 | Gray Duck |
| Jan. 28 | H | 21 | 52 | 1.5 | Gray Duck |
| Jan. 29 | J | 142 | 825 | 20 | Gray Duck |
| Feb. 5 | K | 54 | 551 | 15 | Gray Duck |
| Feb. 6 | L | 69 | 505 | 16 | Gray Duck |
| Feb. 7 | M | 30 | 209 | 9 | Gray Duck |
| Feb. 8 | N | 80 | 867 | 20.5 | Gray Duck |
| Feb. 12 | P | 4 | 14 | 1 | Gray Duck |
| Feb. 15 | Q | 66 | 333 | 16.5 | Gray Duck |
| Feb. 17 | R | 161 | 647 | 28 | Gray Duck |
| Feb. 18 | S | 58 | 228 | 6 | Gray Duck |
| Feb. 19 | T | 80 | 340 | 12 | Gray Duck |
| Feb. 24 | U | 182 | 804 | 33 | Gray Duck |
| Feb. 25 | V | 71 | 628 | 16 | Gray Duck |
| Feb. 26 | W | 59 | 268 | 11 | Gray Duck |
| Feb. 27 | X | 103 | 614 | 20 | Gray Duck |

$$\begin{array}{r} 17426 \\ \hline 30005 \end{array}$$

$$\begin{array}{r} 3805 \\ \hline \end{array}$$

HYDROGRAPHIC SIGNALS
SHEET 1 (Northern sheet)

Miami, Fla. and Vicinity

| Name | Description | | | | |
|-------|--|-------|-------|--------|--------|
| "A" | White Bn. No. | 25-45 | 80-10 | 891.1 | 1628.7 |
| "B" | White Bn. No. | 25-45 | 80-10 | 1785.9 | 1311.0 |
| Ban | Signal | | | | |
| Band | Banner | | | | |
| Ber | Banner | | | | |
| Bird | Banner | 25-50 | 80-10 | 804.3 | 232.8 |
| Blak | Black Bn. No. | 25-42 | 80-11 | 376.6 | 1114.4 |
| Bun | Buena Vista Water Tank | 25-48 | 80-11 | 921.9 | 1077.8 |
| "C" | White Bn. | 25-46 | 80-09 | 804.0 | 832.0 |
| Cape | Cape Florida Lt. | 25-39 | 80-09 | 1812.6 | 625.0 |
| Chim | Chimney, White House | 25-48 | 80-07 | 1369.0 | 597.0 |
| Cor | Banner | | | | |
| Creek | Banner | 25-51 | 80-08 | 765.9 | 807.2 |
| Deer | Flgstaff, Deering's Boathouse | 25-44 | 80-12 | 838.5 | 1102.1 |
| Dive | Diving platform, Smith's Casino | 25-46 | 80-07 | 122.0 | 1638.0 |
| Do | Banner, end of spoil bank | | | | |
| Draw | Drawbridge center | 25-47 | 80-10 | 711.1 | 1388.1 |
| Duck | Banner | 25-52 | 80-08 | 851.1 | 857.0 |
| End | White range mark | | | | |
| Gas | Center of gas tank at Miami | 25-47 | 80-11 | 858.0 | 1192.0 |
| Grey | Grey observation tower | 25-47 | 80-07 | 1152.0 | 1144.0 |
| Guard | Flgstaff, on observation tower, (Coast Guard Station) | 25-51 | 80-07 | 715.0 | 330.0 |
| Guf | Private channel stake | | | | |
| House | | | | | |
| Ice | Ice mfg. co. smokestack | 25-46 | 80-11 | 1481.9 | 1108.0 |
| Imp | White tower of windmill | 25-47 | 80-07 | 1542.0 | 1027.0 |
| Jug | Banner | | | | |
| Jun | None Bn. | 25-50 | 80-09 | 211.4 | 336.4 |
| Lad | Banner | | | | |
| Ley | Banner | | | | |
| Look | Lookout tower | | | | |
| Lot | Tripod | 25-41 | 80-14 | 777.3 | 1639.7 |
| Mack | Pole, M ^c Allister | 25-46 | 80-11 | 848.6 | 494.6 |
| Mag | Banner | | | | |
| Man | Banner | 25-53 | 80-09 | 479.4 | 276.2 |
| Mat | Small white summer house | 25-43 | 80-14 | 60.0 | 1218.0 |
| None | Banner | 25-53 | 80-08 | 752.9 | 517.2 |
| New | Banner | | | | |

| Name | Description | | | | |
|----------|-------------------------------|-------|-------|--------|--------|
| No | Private channel stake | | | | |
| N.W.Wire | N.West Radio Tower | 25-47 | 80-07 | 1723.5 | 1226.8 |
| Obs | Banner | | | | |
| Oke | Banner | | | | |
| Palm | Royal Palm Hotel Flgstff. | 25-46 | 80-11 | 535.8 | 586.3 |
| Pine | Banner | | | | |
| Pier | Flag, end of pier | 25-47 | 80-07 | 800.0 | 1096.0 |
| Po | Tree | 25-43 | 80-09 | 1096.0 | 938.0 |
| Point | Banner | 25-52 | 80-09 | 436.3 | 1581.4 |
| Pow | Chimney of Power House | 25-46 | 80-11 | 420.0 | 1298.0 |
| Ran | Rear range, government cut | 25-45 | 80-08 | 1233.0 | 263.0 |
| Rat | Banner | | | | |
| Reg | Banner | | | | |
| Ring | Deering's Flagpole | 25-44 | 80-12 | 1180.0 | 976.0 |
| Roof | Roof of small house | 25- | 80- | | |
| Sign | Signboard | 25-53 | 80-07 | 884.0 | 580.0 |
| Slat | Private Bn. | 25-50 | 80-09 | 29.0 | 448.0 |
| Shak | Shed | 25-54 | 80-07 | 700.0 | 548.0 |
| Shed | Small house | 25-41 | 80-10 | 256.0 | 1167.0 |
| Stand | Standpipe | 25-46 | 80-11 | 442.0 | 1295.0 |
| Stay | | | | | |
| Tank | White water tank | 25-49 | 80-07 | 102.8 | 902.4 |
| Tin | Banner | | | | |
| Tow | Water Tower | 25-47 | 80-08 | 1063.4 | 447.0 |
| Tre | | | | | |
| Wall | End of wall | 25-48 | 80-07 | 670.0 | 685.0 |
| Wat | S. Water Tower | 25-46 | 80-08 | 1615.2 | 398.2 |
| Wire | Radio Tower | 25-47 | 80-07 | 1700.1 | 1163.2 |
| Wharf | Small wharf | 25-40 | 80-10 | 1590.0 | 440.0 |
| White | White Bn. | 25-42 | 80-13 | 688.0 | 982.2 |
| Yel | N.W. Corner Mattheson's House | 25-41 | 80-10 | 280.0 | 1130.0 |
| 2 | Bn. | | | | |
| 10 | Bn. | | | | |

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ADDRESS THE SUPERINTENDENT
U. S. COAST AND GEODETIC SURVEY

(COPY).

AND REFER TO NO. 41-ACC

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

July 25, 1919.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
16 volumes of Sounding records for

HYDROGRAPHIC SHEET 4075

Biscayne Bay and vicinity, Miami, Fla.
Harry Leyoldt in 1919.

Plane of reference is
Mean low water, reading

- 1.7 ft. on tide staff at Municipal Dock, Miami.
- 1.5 ft. on tide staff at Cape Florida.
- 0.5 ft. on tide staff at Government Cut.

(Signed) G. T. Rude.
Chief, Section of Tides
and Currents.

Hyd. Sheet. No. 4075

Within the limits of the work the ground is well covered and the shoal developement is considered sufficient.

On the whole the crossings are good.

There are a few weak spots in the work, caused by weak fixes. Several poor crossings in Bear Creek and the entrance to Bear Creek are apparently due to this. In these cases the usual rule of rejecting the deeper and showing the shoaler line was followed.

The seven foot spot, shown on Hyd. 407, about a mile south east of the entrance of Bear Creek and on the edge of the eighteen foot curve, should have been further investigated.

The sheet was carefully and accurately protracted by the field party, but the soundings were plotted in pencil in a very careless manner. The time intervals as recorded in the sounding records were disregarded, making it necessary to respace and plot the soundings as well as verify and ink them, thus adding to the time spent on the sheet in the office.

Comparison with the old surveys, show that the work inside agrees closely while the soundings outside agree as well as may be expected. A few soundings were added ~~to~~ to the sheet from Hyd 407 and Hyd 1329.

R. L. Johnston

SECTION OF FIELD RECORDS

Report on HYDROGRAPHIC SHEET No. 4075 Surveyed in 1919.
Chief of Party H. Leypoldt: Surveyed by H. Leypoldt and F. E. Olesen.
Protracted by H. L. and F. M. Albert Soundings plotted by Field party.
Verified and inked by R. L. Johnston.

1. Do the records conform to the requirements of the General Instructions? Yes.
2. Does the plan and character of development fulfill the requirements of the General Instructions? Yes.
3. Does the plan and extent of development satisfy the specific instructions? Yes.
4. Are the sounding line crossing adequate? Yes, except in a few cases.
5. Can the usual depth curves be completely drawn? Not in all cases.
6. Was field plotting completed to the extent prescribed in General Instructions? Yes.
7. Did office draftsmen have to do over any part of drafting done by field party? The soundings were plotted by four members of the field party without any regard to the recorded time intervals, hence, the entire sheet (16 Vols.) had to be replotted by the office draftsman.
8. Are the junctions with adjacent sheets satisfactory? Yes.
9. Is further surveying required to fully develop important areas within the limits of the sheet? The 7 foot spot $1\frac{1}{2}$ miles south-east of Bears Cut should be developed. There are indications of menaces to navigation throughout the entire length of this Survey outside of the 30 foot curve.
10. Remarks: The development is not sufficient to show the location of channels and available depths in Bears Cut and Norris Cut.
11. Rating of the work ((a) Character and scope of the surveying: Good.
((b) Field drafting (quality) Protracting, Excellent. Plotting of soundings, worthless.
(Excellent, good, fair, poor.)
12. Revised by E. P. Ellis - - - - - Date August 18, 1920.
13. Copies of this report to be sent to H. & T. Division.

Note - Further wire drag work required. Retain shoal soundings from previous surveys. A. L. Giacominni, P. O. Pollock.

Applied to drawing of Chart 547 May 4 1942 #7A
Added a few endgo to Ch. 140 (Inset #11) ag 210-19-59
Appl to Ch 140-4 11-28-60 RKD