

5065

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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON

U. S. COAST & GEODETIC SURVEY
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State: FLORIDA

Acc. No.

DESCRIPTIVE REPORT

Topographic } Sheet No. 5065
Hydrographic }

LOCALITY

WEST COAST

TAHKAHATCHEE BAY TO GOON ISL

BLACK WATER RIVER

1930

CHIEF OF PARTY

BENJAMIN H. RIGG

5065

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5065

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. ~~T-4430~~

REGISTER NO. 5065

State FLORIDA

General locality WEST COAST

Fahkahatchee Bay to Black Water River.

Locality FAHKAHATCHEE PASS TO COON KEY

Scale 1: 20,000 Date of survey Jan. & Apr. 1930
April, 1930

Vessel Chartered Houseboat "MYJO"

Chief of Party Benjamin H. Rigg

Surveyed by Benjamin H. Rigg & F. E. Okeson

Protracted by Fred Natelia

Soundings penciled by G. E. Morris

Soundings in ~~fathoms~~ XXXXXX feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated December 6, 1929

Remarks: Boat sheet and smooth sheet furnished to party
by the Office. (T-4430)

Descriptive Report
to accompany
Hydrographic Sheet ~~4430~~ 5065

Instructions dated
December 6, 1929.

LIMITS:

This sheet extends from Lat $25^{\circ} 50'$ to Lat $25^{\circ} 59'$ and from Long $81^{\circ} 28'$ to Long $81^{\circ} 38'$. It includes Fahkahatchee Pass, Fahka Union Pass, Dismal Key Pass, Fahkahatchee Bay, Fahka Union Bay, Santina Bay, Pumpkin Bay, Blackwater River and several unnamed bays.

SURVEY METHODS:

All control on this sheet is based on the aerial topography shown on the boat sheet. Prominent tangents and points picked out were located by comparison with the photographs. Fahkahatchee Pass was surveyed with three channel lines supplemented with cross lines. It has been found, that this method of development is bad unless the lines are all controlled by three point fixes. This pass has a swift current and numerous bars in mid-channel. An error in judgment of the exact points at the ends of the cross lines, unequal speed of the sounding launch when passing over the bars, or a set due to current would all cause bad agreement of the soundings. For these reasons in using this type of control again I would never attempt this method of development. Better to run lines parallel to the channel. The soundings in the channel have been adjusted by the Chief of Party, taking into consideration the foregoing. The person checking the soundings must consider the channel lines as showing the true deliniation of the channel, and the cross lines must be fitted to them.

Other methods used on this sheet are the same as described in reports of other sheets in this project, Reports, B. H. Rigg, Project #48, sheets T4431, and seasons report 1930.

TIDES:

Fahkahatchee Bay and pass were surveyed during the early part of the season while the gauge was running at Indian Key. For this work reducers were obtained from Everglades and Indian Key. Everglades reducers were used for Fahkahatchee Bay, Indian Key reducers for the outside and for a distance of approximately one mile up the pass, with proportioned curves for the area lying between. Near the end of the season work was resumed on this sheet and reducers were obtained for this northern half of the sheet from an automatic gauge at Coon Key and a staff at Pumpkin Bay.

CHANNELS:

FAHKAHATCHEE PASS

The limiting depth of this pass is 5' in to the fish house shown at the entrance to the bay. Care must be taken in navigating the pass as there are numerous large bars in the middle. From local information and observation during the time the party worked in this area it would seem that the pass is very little used. The bars shown on the sheet were sketched in by the hydrographer while the work was being done.

There are two passes leading from the gulf to Dismal Key. The one to the west carries 5' while the other has a two foot shoal at the inner end. Passing around the north side of Dismal Key, an inside route leads to Fahkahatchee Bay. This route leads through Santana Bay, across

the mouth of Wood River and thence through Fahka Union Bay. There are several 2' spots in this route. Practically all of these bays are shoals, with a deep pass through. By using the knowledge of the local guide, we were able to run one line through showing the best water. This single line is no indication of the general depth of the bay. Additional cross lines could not be run because the general depth is too shoal for the sounding launch. A system of lines similar to the ones used in the sheets to the south would necessitate the use of a pulling boat. Time did not permit this. As the unsurveyed area cannot be classed as to the exact depth, it would seem best to simply chart a selection of the soundings on the lines run.

Fahkahatchee, Fahka Union, and Woods River are all navigable using boats of the guide boat class. Time did not permit a survey.

Pumpkin Bay is shoal, a general depth of $1\frac{1}{2}$ to 2'.

LOCATION OF COON KEY BEACON:

It was found that a new lighted beacon had been built at Coon Key. The remains of the old beacon, consisting of four pilings, was found 75 meters from the new beacon. These pilings are exposed $\frac{1}{2}$ ' at low tide. The position obtained by sextant angles to tangents is considered, close enough for charting purposes, but this location should be checked by triangulation as soon as the opportunity presents itself. As a check, a bearing was taken and a distance measured with the rangefinder between the old and new positions. The angles taken will be found on page 1 of sounding record #2 for this sheet.

NEW NAMES:

The following ^{local} ~~new~~ place names were added to this sheet:

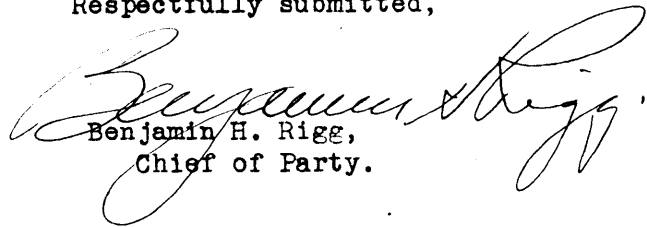
- ✓ Fahka Union River ✓
- ✓ Fahka Union Bay ✓
- ✓ Little Wood River ✓
- ✓ Santana Bay ✓
- ✓ Fish Hawk Creek ✓
- ✓ Buttonwood Key
- ✓ Buttonwood Bay ✓
- ✓ Whitney River ✓
- Royal Palm Hammock Bay
- ✓ Hog Key ✓
- ✓ Four Brothers Island

Authorities:

F. J. Nebiker~~s~~, Engineer for the Collier interests at
Everglades.

Jack Daniels, guide, Everglades.

Respectfully submitted,


Benjamin H. Rigg,
Chief of Party.

STATISTICS

HYDROGRAPHIC SHEET ~~T-4430~~ 5065

Date	Vol.	Letter	Miles	Soundings	Positions
Jan 1	1	a	4.3	193	28
15	1	b	8.3	473	59
17	1	c	15.3	526	55
Apr 23	1	d	20.4	719	60
23	2	d	17.3	698	55
24	2	e	<u>17.6</u>	<u>601</u>	<u>63</u>
			83.2	3210	320

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February 25, 1931

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5065

Locality **Fahkahatchee Bay and Coon Key, West Coast of Fla.**

Chief of Party: **B. H. Rigg in 1930**
Plane of reference is **mean low water reading**
2.0 ft. on tide staff at **Indian Key**
7.5 ft. below B. M. 2

0.9 ft on tide staff at Everglades
4.3 ft below BM 1

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.

2.2 ft. on tide staff at Coon Key
4.9 ft below BM 1 (1930)
3.5 ft on tide staff Pumpkin Bay
--No BMs established at Pumpkin Bay

Allowance made for time and range of
tide at place of sounding.

Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5065

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

Number of positions on sheet	320.
Number of positions checked	122.
Number of positions revised	14.
Number of soundings recorded	3210.
Number of soundings revised	58.
Number of signals erroneously plotted or transferred

Date: March 9, 1931.....

Cartographer: Harold W. Murray.....

Section of Field Records
Report on Sheet No. 5065
Fahkahatchee Bay to Black Water River

Chief of Party — B. H. Pigg
Date surveyed — Jan. & April, 1930
Surveyed by — B. H. Pigg
Plotted by — F. Nettle
Soundings plotted by — C. E. Morris
Verified & Inked by — Harold W. Murray

1. The records conform to the requirements of the Hydrographic Manual save that no Leadman was recorded at the beginning of "a", "b" and "c" day.
2. The plan, character and extent of development satisfy the general & specific instructions.
3. The sounding line crossings are adequate and agreement is good. Attention, however, is called to the crossing of 15e to 20e with the work of "b" day opposite Joney Point, Lat. $25^{\circ}51'$. The difference is thought to be in the tide corrections. It is peculiar of this locality that at a given instant, tidal factors change considerable as the water

progresses in here.

4. The usual depth curves can be completely drawn. The 3-ft. curve is added by special recommendation.
5. The field plotting was satisfactory.
6. This sheet joins on the East with H-5049, now in process of verification in the office. The junction on West is with H-5072 which as yet has not been verified. The junction on the South is with H-1773 (1887) and H-2012 (1890). No comparison was made because of the difference in years.
7. Signals Pal, Tig, Pad (island) and D.S. (point) were not transferred to the smooth sheet.
8. Attention of the reviewer is called to a note on page 13, Vol. 7, concerning a bar extending to point Lu lu, lat. $25^{\circ}51'$ & long $81^{\circ}31'30''$.
9. Several notes appear on this sheet in pencil. They are to be inspected by the reviewer and accepted or rejected accordingly. This likewise applies to the addition of 11 new names listed in the descriptive report.
10. The majority of the positions on this sheet

were determined by bearing and offset distance with a range finder. Practically all of these positions were inspected and checked tho not recorded in the sounding records nor on the statistic sheet.

12. The field party modified many of the shoals found in this locality. These changes were transferred to the smooth sheet, by the verifier, from the spot sheet.

Respectfully submitted

Mar. 9, 1931
Harold W. Murray

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5065
Fakahatchee Bay to Black Water River,
West Coast of Florida.
Surveyed in 1930.
Hand lead and pole soundings
Instructions dated Dec. 6, 1929. (Lieut.
B. H. Rigg).

Chief of Party - B. H. Rigg.
Surveyed by - B. H. Rigg.
Protracted by - F. Natella.
Soundings plotted by - G. E. Morris.
Verified and inked by - H. W. Murray.

1. The records conform to the requirements.
2. The survey carries out the intent of the instructions except that there are a number of places where more lines would have been desirable. The report states that time did not permit the running of these.
3. The crossings are generally satisfactory with the exception of some lines east of Gomez Pt., which cross poorly. The discrepancy is on the line from pos. 15e to 20e which crosses the work of b day. These days are referred to different tide gauges and in this locality tides are known to change rather quickly, which may account for the differences, as the lines on b day cross other lines run on b day very well. On a large part of the work there are no cross lines.
4. In a few places the information is sufficient for drawing the usual depth curves fairly completely. On most of the work where only one or two lines were run the curves can only be partially indicated.
5. The two contemporary sheets H. 5049 and H. 5072 which join this sheet on the east and west are not completed at this time and the junctions will be reported in the reviews of those sheets.

H. 1773, surveyed in 1887, joins this sheet on its southern limits but does not overlap the work.

H. 2012, surveyed in 1890, overlaps this work on its southern limits, and as far as it goes the work is generally closer and more complete than the new survey. While there are indications that changes have occurred in some places, it is believed that the work on H. 2012 may be used in the areas which are not covered by this survey, H. 5065. For example the lines on the new work, west of Gomez Pt., do not show the best water, which is shown on H. 2012 as being close to the west side of Panther Key.

H. 5065.

6. Topographic Changes - A few changes in the topographic features, which were noted by the hydrographic party are shown in black on the hydrographic sheet and have been marked in red on a copy of the original topographic sheet which will be filed as a standard. The compiler should refer again to the standard sheet.

7. Hydrographic Notes - Notes furnished by the hydrographic party, which add to the general knowledge of the locality but have no charting value, have been added to the sheet as they may be useful to those obtaining photographic copies of the original survey.

8. The usual amount of field plotting was well done by the field party.

9. Character and scope of surveying - As the instructions authorized a departure from standard methods of control, the topography from aerial photographs was used as far as practicable for control of a network of narrow, crooked channels navigable only by small boats. While the work lacks the accuracy of the usual hydrographic survey, in view of the unimportance of the locality, this survey is considered adequate for the purpose intended. However it has been decided to classify the work as reconnaissance, for want of a better allocating term. This will not be stated on the sheet but some note to this effect may be added to any photographic copies sent out of the office.

The channel from Round Key to Fakahatchee is fairly well developed. In other channels the development is more or less incomplete and there are a number of places on this sheet where more lines would have been desirable. However the report states that time would not permit running these lines.

(See review of H. 5056 for more complete analysis of methods).

10. No additional work is recommended.

11. Reviewed by R. L. Johnston - April 2, 1931.

Conclusion - The survey and charting of narrow crooked channels used by small boats is a difficult problem, because a complete survey requires more time and expense than the importance of the area warrants and charting on a scale large enough to show the details is objectionable not only because of the work involved in preparing the large number of charts required but also from the standpoint of the user. In this area the preparation of copies of these hydrographic sheets showing the topography and a selection of soundings would probably answer the needs of boats using these channels. For such a

H. 5065.

substitute for a complete chart and for charting on the 1:80,000 charts, the survey is adequate, but for the preparation of large scale charts the survey can hardly be considered adequate.

Inspected: E. P. Ellis.

Approved: A. M. Sobieralski,
Chief, Section of Field Records.

642-5C A Sunday 7-15-67 Fully appd after
verification + review.