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U. S. COAST & GEODETIC SURVEY
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Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton., Director

State: Florida

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 5049
~~Hydrographic~~ }

LOCALITY

West Coast

Chokoliska Bay and Vicinity

Project No. 48

1930

CHIEF OF PARTY

B. H. Rigg

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 5049

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. ~~T4471~~ 9

REGISTER NO. ~~T4471~~ 5049

State Florida

General locality West Coast

Locality Chokoloskee Bay and Vicinity
Everglades, Collier County.

Scale 1:20,000 Date of survey Jan- March, 19 30

Vessel chartered houseboat "MYJO"

Chief of Party Benjamin H. Rigg

Surveyed by Benjamin H. Rigg

Protracted by Fred Natella

Soundings penciled by G. E. Morris

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by _____

Verified by _____

Instructions dated Dec 6, 19 29

Remarks: Photo compilation sheet, s. furnished by Washington
Office. 1 boat sheet, 1 smooth sheet.

Original plotted on T-4431

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
50492

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. _____

REGISTER NO. 50492

State Florida _____

General locality West Coast _____

Locality Barron River and Approach and Vicinity of Chokoloskee

Scale: 1:10,000 Date of survey Jan-Mar, 1923

Vessel Myjo _____

Chief of Party B.H.Rigg _____

Surveyed by B.H.R. _____

Protracted by L.S.Straw _____

Soundings penciled by L.S.S. _____

Soundings in ~~fathoms~~ feet

Plane of reference _____

Subdivision of wire dragged areas by _____

Inked by L.S.S. _____

Verified by L.S.S. _____

Instructions dated Dec. 6, 1929

Remarks: Enlargements from H-5049

(1)

Descriptive Report
to Accompany
Hydrographic Sheet # ~~4431~~ 5049
Project #48

Instructions dated December 6, 1929.

LIMITS:

This sheet extends from Lat. $24^{\circ} 44'$ to Lat. $25^{\circ} 27'$ and from Long. $81^{\circ} 16.5'$ to $81^{\circ} 30'$ and includes Rabbit Key Pass, Chokoloskee Pass, Sand Fly Pass, Indian Key Pass, Russel Pass, Lopez River, Turners River, Barrons River, Ferguson River, Dredged Cut across Chokoloskee Bay, Chokoloskee Bay, Lane Cove, West Pass Bay, Gate Bay, Sheephead Pass, Lane Gate Pass, and Hell Gate Pass.

SURVEY METHODS:

Control for this survey was based on the topography taken from an aerial survey of the coast. Points selected for signals were identified on the aerial photographs and their location transferred to the boat sheet furnished the party. This boat sheet was a print of the finished aerial survey. A further check was obtained by taking sextant cuts at the signal to numerous well defined tangents, plotting these cuts on a piece of tracing paper and transferring to the boat sheet. Work was started in Chokoloskee Bay. Care had to be taken in locating signals so that all control was based on either the northeast or southwest side of the bay, because the photographs of the west side were much better. The southwest side of Chokoloskee Bay was used. Signal DIK on Dicks Point

was first located using the photographs. A plane table was set up and the channel markers located from this point by running a traverse. Tangents to points were used to orient on. With the channel markers and DIK located various other points selected for signals were checked by sextant cuts, and by inspection of the photographs. No topography was done in Everglades, as the boat sheet furnished this party showed the present layout of the town. A map furnished by the local engineer gives the final improvements which are being started at the time of this writing. Transmitted to the office (letter 261-1930).

The launch used for hydrography is shown in the photographs included in this report. All soundings were taken with a 14' pole, extreme care being taken to keep from jamming pole down in the mud. In the rivers and passes positions were taken by means of a magnetic bearing, and a distance measured to a prominent topographic feature. The range finder was used for all measurements of distance. In running the bays where the area was large enough to warrant it, three point fixes were used. A banner of white cloth fastened to bush on ^aprominent A point served as a signal. In the wide rivers three lines were run, one in the center and one on each side at a definite distance from the banks. Narrow creeks and passes have only one line following the deepest water. The information and knowledge of the guide was used in running the passes and channels. The path followed by the sounding launch was sketched in by the Hydrographer, as were bars and banks, using estimated distances, bearings to points and sextant cuts.

(3)



HYDROGRAPHIC LAUNCH



PELORUS



USING RANGEFINDER



NEW TANK-DUPONT

The beacons in Indian Key Pass were located by sextant fixes to well defined tangents. Whenever possible check angles were taken. The check angles showed slight discrepancies in some cases due to irregularity of the tangents used. Errors were proportioned and the positions were plotted on the boat sheet in the field.

The oyster bars lying at the Chokoloskee Bay entrance to Sand Fly Pass were located by plane table as were the ones around Chokoloskee Island.

Tide reducers for this sheet were obtained from a portable automatic gauge maintained at Indian Key and a standard gauge at Everglades. Reducers for Chokoloskee Bay and the bays stretching northwest were taken from the Everglades gauge. The reducers for the passes were proportioned according to the distance of the point where the sounding was taken from Indian Key.

At the suggestion of the Director an additional determination was made of the tidal phenomena in this locality. The standard gauge at Everglades, one at the inner end of Indian Key Pass in Chokoloskee Bay and one at Indian Key were run concurrently. The Everglades gauge and the gauge at the inner end of Indian Key Pass, recorded the same rise and fall at the same times. For this reason it was assumed, that Chokoloskee Bay and the connecting inland bays and rivers experienced the same tides as Everglades. For areas in the passes, proportional curves were drawn, for each mile.

DISCREPANCIES:

Depths from the present chart of this area were plotted on

the boat sheet and were found to check with the new work.

Lat. 25 49.6

Long. 81 22.6 Line 17d-18d 4' and line 9m-10m $2\frac{1}{2}$ '. On M day

March 10, the tides in Everglades reached -0.8 feet and the wind was south, blowing the water out of the bay and causing an abnormal condition in the bay. I would consider that the tides on M day at the time this line was run were 1' below normal.

Lat. 25. 46.9

Long. 81 24.4 Line 29k-30k 4' and line 56j-57j 8'.

Lat. 25 46.8

Long. 81 24.5 Line 13k-14k $7\frac{1}{2}$ ' and line 55j-56j 3'. In the

two cases just named the area is full of holes, and a slight error in position caused by the control used would account for the difference in depth, the shoal soundings should be plotted.

Lat. 25 46.9

Long. 81 24.8 Line 3k-4k 6' and line 68h-69h 9'. From a study

of this area, it appears that the 9' sounding is in error. Plot 6'.

Lat. 25 47.3

Long. 81 23.7 Line 64h-65h 7' and line 58h-59h $\frac{1}{2}$ '. This shoal

is a long narrow oyster bar, it was missed on the line 64-65h. A study of the aerial photograph of this area will show this bar faintly outlined.

DANGERS:

A wreck near Rabbit Key in Lat. $25^{\circ} 45.10'$ Long. $81^{\circ} 23.43'$ shown on the present chart. The location was checked by sextant angles to tangents on the boat sheet. The wreck is the engine of an old clam dredge. Exposes six inches at low tide.

CHANNELS:

Indian Key Pass. The most important channel on this sheet is Indian Key Pass. Work was carried out to connect with hydrography run previously by Mr. Eymann. The limiting depth of the channel is six feet through the dredged cut across Chokoloskee Bay. This dredged cut is fifty feet wide; considerable difficulty has been experienced by the tide washing sand into the cut. Dredges operated by the Collier interests dredged out a shoal spot near Dicks Point in February, 1930.

Channel markers consisting of black poles 6" to 8" in diameter 12 feet high with white arms mark the turns; channel must be carefully navigated as spill banks covered at high water line the sides of the channels in many of the small bays. These banks have been indicated on the boat sheet. The first three channel markers coming from seaward have black numbers painted on the white boards, they are 7, 5 and 3. These are the only markers numbered.

The dredged cut extends on into Barrons River. The river has been dredged as far as Dupont. A thorough examination was made of the docks at Everglades and the soundings together with a sketch showing their location is recorded in a sounding record. Pictures of the waterfront are included in this report.

The dredged cut shown just north of Everglades is to supplement the old curve of the river. Plans of the development call for a bridge to be built from Everglades across to the island, thus blocking the old curve of the river and making the dredged cut the main channel. Yachts will then be able to dock as far as the bridge. There



EVERGLADES WATERFRONT



MAIN DOCK



NEW BULKHEAD AT BARRONS RIVER



BOAT YARD

are no immediate plans for this bridge. The southeast point of entrance to Barrons River will be dredged away and rounded. Pilings for the bulkhead are shown in a photograph. The final topography is shown on the map furnished by the local engineer.

All mangrove and bush on the land south of Everglades City has been removed and the land filled in by dredging. The dredge is taking the sand from the area marked dredged on the boat sheet. Final plans are for an eight foot basin along this water front with a hotel and golf course on the filled-in area. The dredged area is now too small to survey.

Rabbit Key Pass has a limiting depth of 1-1/2 foot at mean low water. The Pass extends from the west side of Rabbit Key by the east side of Turtle Key, then in a northeast direction for one and one-half miles to a point where the channel branches, one branch going to Chokoloskee Island and one branch running into Lopez River. The limiting depth of the pass is at the inside end. The Chokoloskee branch has one and one-half feet and the Lopez River branch two feet. This pass is never used by local men at low water. Delineation of the channel has been shown by the sketched in sounding line on the boat sheet. The line as run is based on the knowledge of a local guide.

Chokoloskee Pass carried five feet into the fish house on Chokoloskee Island. The channel was surveyed by a sounding line run in the deepest water. In the wider areas cross lines from point to point were run to show the existing shoals and to define the width of the channel.

The area between Chokoloskee Island and the edge of the 10,000 islands has been dredged out by a private expense and poorly marked by stakes. The channel is only good as far as Chokoloskee Island. To Everglades and to Lopez River oyster bars with one and one half feet at low water are the deepest water. What is known locally as a channel winds through them, but at low water the guide boat used by the party could scarcely be forced through. A few badly rotted brush poles mark the channel around the south end of the island.

Sandfly
Sand Fly Pass.

Can be entered from Chokoloskee Pass or from the east side of an un-named island in Lat. 25 47.8' Long. 81 26.0'. The best water is found close to the east end of the island, then follows a crooked course between bars and island into Chokoloskee Bay. Once in the main pass the channel is deep and easy to follow. The entrance to Chokoloskee Bay is a narrow channel five meters wide, between a large bar on the east and the mangrove islands on the west. This area has three feet limiting depth, but crossing Chokoloskee Bay to the center where there is a pass between spill banks to the dredged cut, two and one half feet limits the depth that can be carried. San Fly Pass is used principally by local guide boats of 2-1/2 to 3 feet draft. The MY JO came through on two different occasions at high water when bad weather necessitated getting inside in a hurry.

Russell Pass.

Extends from Indian Key Pass to Chokoloskee Bay by a circuitous route, can only be used at half tide. At low water the inshore end

of the pass has only one foot in several places. The pass is used by fishermen. Another pass known as Russel Pass runs from Russell Bay to West Pass Bay. ^{one mt.} Two feet is the limiting depth of the pass in Lat. 25 50.38' Long. 81 26.76'. One line was run in each of these passes to show the best depth. ^{2 mt.}

Lopez River is one of the links of the inland route to Lostmans River; here the difficulty is getting into the river at low water. From Chokoloskee Island into the river the best water is 2 feet. The channel is winding and narrow in places and at the upper end of the river a bar with 1-1/2 feet on it again makes high water necessary for a yacht of any size.

Turners River.

Has many oyster bars at the mouth. An attempt was made to define a channel into the river at low water but we were unsuccessful. The local guide assures us there is no channel and our investigation proved this. Deep holes and irregular soundings makes the entrance look rather uncertain, but two feet at low water is the maximum that can be carried in the river by a person familiar with all the bars. Once in the river, guide boats can go to the end of the center branch shown on the sheet carrying 2-1/2 feet. This branch extends to the trail but needs the brush cleaned out.

The north branch ends in a muddy bay with a general depth of 2-1/2 feet, the east branch has three feet up to the first bay. From this point on through Cross Bay only one and one-half foot can be carried at low water. No channels could be found through these bays.

Ferguson River. *charted name*

Called by some guides, Lane River, has a complicated series of oyster bars at the mouth. Making entrance at low water, even with a guide is extremely difficult. One and one half feet may be carried into the river. When the mouth is passed it is simply a matter of following the ebb tide bends to keep in the channel. The river develops into a meander lined on both sides with deep mangrove brush. The upper end terminates in a series of bays, the last and biggest one has a depth of 2-1/2 to 3 feet and is known as Ferguson Bay.

Chokoloskee Bay.

This bay is about one mile wide and five miles long. Has a general depth of 2-1/2 feet, numerous snags and soft mossy bottom. The south shore line along the fringe of the 10,000 islands has large areas of oyster bars and sand bars extending out one third of the width of the bay. The east and north side shoals slightly making the best water approximately in the center of the bay. There is no definite channel from Everglades to Chokoloskee; the route used by the guides starts at a point about mid-way of the dredged cut and runs directly for the center of Chokoloskee Island. One quarter of a mile from the island there is a channel between Oyster bars marked by several small poles. This channel, as has been said before, has a depth of one and one-half feet at low water and is very difficult to find. The markers are too few in number and too indefinite for a stranger to follow.

To the north the best water follows in along the edge of the oyster reefs on the south side of the bay behind Sheephead Point, through Sheephead Pass, 10 meters wide with a two knot current, passing along the

south side of the bay, passing north of Grouper Point through the center of West Pass Bay through a narrow pass (Lane Gate Pass) into Gate Bay and from there through a narrow pass (Hell Gate Pass) into Fakahatchee Bay. The limiting depth of the route is three feet.

ANCHORAGE:

Rabbit Key anchorage has a depth of five feet. On entering pass between the wreck and Rabbit Key, from northeast and southeast the anchorage is protected by islands. A sand bar cuts any sea from the west. This anchorage is often used by yachts bound up and down the coast.

Yachts use the outer end of Chokoloskee Pass for an anchorage many times. This is also true of Indian Key Pass. Here they anchor in the area between Indian Key and marker #5.

GEOGRAPHIC NAMES:

The names found on the sheet have been checked by asking local guides and found to be correct. One island name has been added, TURTLE KEY, in Lat. $25^{\circ} 46'$ Long. $81^{\circ} 28'$.

✓ Nigger Head Pass lying between ^{sandfly} ~~Sand Fly~~ Pass and Chokoloskee Pass. This is unimportant and very shoal. ✓ Lane Cove, Sheephead Pass, ✓ Grouper Point, ✓ West Pass Bay, ✓ Lane Gate Pass, Gate Bay and ✓ Hell Gate Pass, were added to the inside route through Chokoloskee Bay.

The first bay west of the head of Lopez River is called ✓ Cross Bay. The other bays in the area have no names as far as I could find.

Authorities: Jack Daniels, Guide, Everglades
F. J. Nebiker, Engineer

Benjamin H. Riggs,
Chief of Party.

(13)

Statistics for Sheet #T4431 5049

| Date | Vol. | Letter | Miles | Soundings | Positions. |
|---------|------|--------|---------------|-------------|-------------|
| Jan. 6 | 1 | a | 8.9 | 517 | 47 |
| 7 | 1 | b | 13.2 | 958 | 74 |
| 9 | 1 | c | 14.1 | 727 | 74 |
| | 2 | c | 7.1 | 394 | 39 |
| 10 | 2 | d | 19.6 | 1040 | 112 |
| 13 | 2 | e | 22.9 | 685 | 80 |
| 13 | 3 | e | 2.6 | 80 | 12 |
| 14 | 3 | f | 16.4 | 650 | 89 |
| 18 | 3 | g | 9.6 | 531 | 45 |
| 20 | 3 | h | 11.9 | 562 | 57 |
| 20 | 4 | h | 3.5 | 134 | 11 |
| 21 | 4 | j | 21.6 | 863 | 86 |
| 22 | 4 | k | 15.6 | 460 | 64 |
| Feb. 17 | 4 | l | 0.12 | 18 | 5 |
| Mar. 10 | 4 | m | 5.8 | 277 | 36 |
| 10 | 5 | m | 11.1 | 355 | 43 |
| 11 | 5 | n | 13.4 | 614 | 61 |
| 13 | 5 | p | 28.3 | 1164 | 134 |
| 14 | 6 | r | 6.3 | 503 | 138 |
| | | | <u>231.02</u> | <u>9523</u> | <u>1207</u> |

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

H-5049

LANDMARKS FOR CHARTS

Everglades, Fla.

April 14, 1930

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Benjamin H. Rigg
Benjamin H. Rigg
Chief of Party.

| DESCRIPTION | POSITION | | | | | METHOD OF DETERMINATION | CHARTS AFFECTED | |
|---|----------|----|--------------|-----------|----|-------------------------|---|-------|
| | Latitude | | | Longitude | | | | Datum |
| | ° | ' | D. M. meters | ° | ' | | | |
| Silver Water Tank Conical top with white Elec. light on peak. | 25 | 51 | 1737 | 81 | 23 | 235 | Scaled off of large scale city map and checked by sextant cuts. | |
| This light is visible as far south as Pavilion Key. | | | | | | | | |
| Tank is 140 feet high. | | | | | | | | |
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A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance. The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaves and like objects are not sufficiently permanent to chart.

3
Field Records

Section of Field Records

January 26, 1931.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5049

Locality Florida, West Coast (Chokoloskee Bay)

Chief of Party: B. H. Rigg,
Plane of reference is mean low water, reading
2.0 ft. on tide staff at Indian Key
6.5 ft. below B. M. 1.

0.9 ft. on tide staff at Everglades
4.3 ft. below B. M. 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.

P. C. W.

Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. *5049*

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

| | |
|---|-------------|
| Number of positions on sheet | <i>1207</i> |
| Number of positions checked <i>and replotted on H-5049a.</i> | <i>780</i> |
| Number of positions revised | <i>6</i> |
| Number of soundings recorded | <i>9523</i> |
| Number of soundings revised | <i>41</i> |
| Number of signals erroneously plotted or transferred | <i>1</i> |

Date: *April 23 - 1931*

Cartographer: *L. S. Straw*

SECTION OF FIELD RECORDS

1.
Surveyed Jan. - Mar. 1930.

Report on Sheet No. H-5049 —

Chief of Party Benjamin H. Rigg.

Surveyed by Benjamin H. Rigg.

Retracked by Fred Matella.

Soundings plotted by L. C. Morris.

Verified and inked by L. S. Stray.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the development fulfill the requirements of the General Instructions.
3. The sounding line crossings are adequate for this survey.
4. The 3 ft., 6 ft. and 12 ft. curves can be completely drawn insofar as the extent of the sounding lines and smooth bottom will permit.
5. The field plotting was completed to the extent prescribed in the General Instructions.
6. Two important areas were enlarged to a 1:10,000 scale otherwise no part of the field drafting was done over by the office.
7. The junctions with adjacent sheets are satisfactory.
8. No further surveying is required to fully develop important areas within the limits of this sheet.

9. Remarks.

In order to show more clearly the Hydrography in the Suwannee River at the town of Everglades, the dredged channel across Chokoloskee Bay and extending a short distance into Indian Pass, this area was enlarged from 1:20,000 to 1:10,000 scale. In a like manner the vicinity of Chokoloskee Island was enlarged. The channel on the west side of Chokoloskee Island is the better for navigation.

The enlargements of the above mentioned vicinities appear on a separate Hydrographic Sheet. No. 5049a.

The signal **TOM** (Long. $81^{\circ}20'$ Lat. $25^{\circ}48'$) was found to be 19 m. in error on both the Coast Sheet and Smooth Sheet. The correct location of this signal was obtained by the careful adjustment of cuts taken from the records. The displacement of signal **TOM**

was not discovered until the sounding lines from Pos. 37m at My Island to Pos. 70m west of Chokoloskee Island were inked in. A thorough investigation of the positions affected by the signal TOM shows that only ^{107m} Pos. 66, 47, 48 50 & 51 (MN) are in error, none of them are more than 40m off true position.

Since the bottom was uniform, sounding line crossings good, and the depth curves are unaffected by the displacement of the ~~few~~ positions referred to above, it is believed that additional time used in changing the sounding lines is not warranted.

The line 1m to 13m has been rejected, due to the abnormal tide condition. See Descriptive Report page 5. Pos. 13m to 36m and 37m to 79m have been accepted because of the good agreement of lines run other days, also because it is thought that the water in this ^{smaller} area was not affected by the wind blowing the water out of the Bay as referred to in the Descriptive Report Page 5.

Respectfully Submitted

April 23, 1931 -

L. S. Straw

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5049
Chokoloskæ Bay and Vicinity - Florida
Instructions dated - December 6, 1929
Sounding pole and hand lead soundings
Chief of Party - B. H. Rigg
Surveyed by - B. H. Rigg
Protracted by - Fred Natella
Soundings plotted by - G. E. Morris
Verified and inked by - L. S. Straw.

1. The records conform to all requirements.
2. The plan and extent of the development fulfills the requirements of the special instructions.
3. The sounding line crossings are adequate. Some difference in depth at crossings will be noticed in Chokoloskæ Bay and in the entrance to Chokoloskæ Pass. In Chokoloskæ Bay there is no difference greater than one foot (1') which is probably due either to the method of controlling sounding lines or to slight variations in the tides caused by unfavorable wind conditions. The error is not of sufficient importance to cause any rejections.

The noticeable discrepancies in the entrance to Chokoloskæ Pass are all considered in detail in the Descriptive Report under "Discrepancies". The field party's recommendations were followed after investigation.

4. There is sufficient information to indicate the general trend of the usual depth curves. The development is not complete enough however to draw them with accuracy of a high degree. Depth curves were omitted in most channels where only one line of soundings was run.
- 5a. The junction with H. 5056 (Lopez River) is generally satisfactory. The development is adequate for the purpose of charting. Soundings on this sheet are slightly deeper than on H. 5056. Two feet (2) is the controlling depth of the channel at the junction.
- b. The junction with H. 5065 (Hell Gate Pass) is not entirely satisfactory. A gap of 75m exists between the extreme limits of these two sheets. It is improbable that the channel is closed at this point since it is the only passage between Fakahatchee Bay and Gate Bay; but in order to place the matter beyond doubt the line of soundings 88F to 89F should have been carried north sufficiently to close the gap that exists at the present time.
6. Comparison with chart No. 1254 shows good agreement except in the following instances:
 - a. The 15 foot sounding on the chart in Indian Key Pass (Lat. 25°49.2' Long. 81°26.95') falls within the 12 foot curve. Reference to H. 2011, from which sheet this sounding was taken shows it in a different position and in better agreement with the soundings on this survey.

Report H. 5049.

b. The 7 foot sounding north of Pelican Key (Lat. 25°47.8 Long. 81°25.55') falls inside the 3 foot curve as shown on this sheet. The location of this sounding on H. 2011 from which it was taken, is nearer the 6 foot curve. It is recommended that this sounding be omitted, from the chart and H. 5049 be used for the new chart.

c. Chart 1254 shows a 5 foot sounding in Lat. 25°48.0' Long. 81°24.9' inside the 3 foot curve as drawn on this sheet and directly on the plotted location of a $1\frac{1}{2}$ foot sounding. It is recommended that the $1\frac{1}{2}$ foot sounding replace the 5 foot sounding on the chart.

d. The 6 foot sounding southeast of Jewel Key (Lat. 25°46.8' Long. 81°24.7') falls directly on the plotted location of a 4 foot sounding developed on this survey.

e. A fully developed three foot shoal makes out to the charted location of a 5 foot sounding (Lat. 25°47.0' Long. 81°24.6'). This sounding should be replaced by the 3' on chart 1254.

f. The development on this sheet disproves the existence of the seven foot sounding in Lat. 25°47.25' Long. 81°24.46'. This sheet shows 4 feet on this spot.

g. This survey indicates deeper water on each of the three one foot (1') soundings east of Jewel Key. Lat. 25°46.7' Long. 81°24.35' in Lat. 25°46.9' Long. 81°24.3' in Lat. 25°47' Long. 81°24.23'. They should be replaced by soundings from this sheet.

h. Chart soundings 11' 13' and 10' at the entrance to Chokoloskæ Pass are considerably deeper than corresponding depths on this survey. The 11 foot sounding falls on a 7'. The 13 foot on an 8' and the ten foot sounding in Lat. 25°47.5' Long. 81°23.5' falls inside the 3 foot curve. These soundings should be discarded since the development on this sheet is complete and disproves the chart soundings.

i. The 12 foot sounding located 900 meters northeast of Turtle Key indicates a shift in the channel falling as it does on the 6 foot curve. It is recommended that this sounding be replaced by the information contained on this sheet.

7. H. 1773 shown on the diagram as overlapping this sheet at Lat. 25°47.7' Long. 81°26.0' does not join with this survey.

8a. Examination of H. 1774, surveyed in 1887, and a comparison of overlap shows several minor changes in corresponding depths. There is an indication of a slight shift in the direction of the channel north of Turtle Key and a building out of the shoal west of the Key to a point 1000 meters off shore. H. 1774 shows $4\frac{1}{2}$ feet of water on this shoal.

b. There is also an indication of change in Chokoloskæ Pass in the vicinity of Jewel Key.

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- c. In other respects the agreement between H. 1774 and this survey is good. Since this is considered changeable area due to the nature of the terrain and subject to severe annual climatic disturbances, it is recommended that this difference be disregarded. In the areas mentioned this survey is more completely developed than the older one. The control on this survey in the vicinity of Jewel Key in the outer Chokoloskee Pass and also in the vicinity of Turtle and Rabbit Keys is adequate to insure the usual Coast Survey standard of accuracy for the plotting of Hydrography, a fact that does not exist with respect to other portions of the sheet. In view of these facts this most recent survey should be given precedence over H. 1774 wherever overlap occurs.
9. Comparison with H. 2011 surveyed in 1890 shows good agreement except for some slight differences of depth in the entrance to Chokoloskee Pass. These are however of no cartographic significance and are probably the result of natural change wrought by wind, sea and seasonal storms. There is no indication of important changes in the main channels or on bars and shoals except as noted below.
 - a. On this sheet a shoal makes out from the large key at Lat. $25^{\circ}48'.0'$ Long. $81^{\circ}24.75'$. There is no indication of this spur on H. 2011 which shows 6 feet of water, where this survey indicates 3 feet. This is at one of the two approaches to the narrow channel, referred to as Sandfly Pass in the Descriptive Report, leading into Chokoloskee Bay. It is unimportant and seldom used except by small local guide boats (see Descriptive Report Page 9 "Channels").
 - b. The overlap of 2011 with this sheet in the entrance to Indian Key Pass disagrees somewhat. Soundings on H. 2011 are slightly shoaler (1 to 3 feet). The main characteristics of the channel are undisturbed by this difference, however.
 10. Comparison with H. 4646 surveyed in 1927 is in good agreement except in Indian Key Pass where these two sheets overlap. In Lat. $25^{\circ}49.15'$ Long. $81^{\circ}27.3'$ this sheet shows a pronounced indentation of the edge of the channel while H. 4646 shows the channel side at this point as straight. It is recommended that the more recent work be accepted. The difference in depth at this spot is 4 feet - 9 feet on H. 4646 plots on 13 feet on this sheet.
 11. Since there has been no previous survey work in Chokoloskee Bay or the small bays, passes and rivers in its vicinity, this survey will have to be relied on for all chart material.
 12. Barnes River on Chart 1254 appears on this survey and on H. 5056 as Lopez River.
 13. While this survey follows faithfully all the requirements of the special instructions the development is complete only in the main channels and parts of Chokoloskee Bay. The information is sufficient for present chart needs but since many areas are underdeveloped or untouched and the con-

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trol somewhat short of the usual coast survey standards further surveying may be needed in the future to properly develop many areas within the limits of this sheet.

14. Remarks:

The cartographer in considering this sheet should refer also to the review of sheet H. 5056 which is a complete analysis of the survey methods employed by the field party in making the series of sheets for this locality, of which this sheet is one.

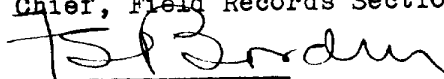
15. Reviewed by H. E. MacEwen, July 17, 1931.

16. Conclusion - By the Chief of Field Records Section.

"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 purpose of boats using these channels. For such a 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."

A. M. Sobieralski,
Chief, Field Records Section.

Approved: A. M. Sobieralski (Signed)
Chief, Field Records Section.


J. S. Jordan
Chief, Field Work Section.

Inspected: E. P. Ellis.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5049a
Indian Key Pass, ~~Barron~~ Barron River and Chokoloske~~e~~
Pass, Florida.

Instructions dated - December 6, 1929

Sounding pole soundings.

Chief of Party - B. H. Rigg

Surveyed by - B. H. Rigg.

Protracted by - L. S. Straw

Soundings penciled - L. S. Straw

Verified and inked by - L. S. Straw.

1. This sheet is made up of enlargements on a scale of 1:10,000 of two congested areas on H. 5049.
2. The enlargement of Barron River and the dredged channel across Chokoloske Bay are completely developed. All other channels including the section of Chokoloske Pass were not surveyed so thoroughly. Single lines were run through channels carrying the most water and extra lines run only where the channel broadens.
3. No previous work has been accomplished in these passes and rivers.
4. The records covering this work conform with all requirements.
5. The development is insufficient for completely drawing all the depth curves except in Barron River. The general trend of the channels can be delineated with the material supplied however and can be considered adequate for present chart needs.
6. This work was done entirely in the office.
7. For a general report on the work done in this locality refer to review of the original sheet H. 5049.
8. Remarks:

The cartographer in considering this sheet should refer also to the review of sheet H. 5056 which is a complete analysis of the survey methods employed by the field party in making this series of surveys.

9. Reviewed by - H. E. MacEwen - July 17, 1931.
10. Conclusion - By the Chief of Field Records Section.

"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 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 purpose of boats using these channels. For such a substitute for a complete chart and for charting on the 1 to

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80,000 charts, the survey is adequate; but for the preparation of large scale charts the survey can hardly be considered adequate."

A. M. Sobieralski,
Chief, Field Records Section.

Approved:

(Signed) A.M. Sobieralski

Inspected: E. P. Ellis

J. S. Borden
Chief, Field Work Section.

Chart 1254 (INSET)

App'd 12-5-62 HR

Chart 642-5C

Fully app'd after
verification + review.
A Sunday 7-15-67