

4930

Diag. Cht. No. 1248

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

C. & G. SURVEY
L. & A.
NOV 20 1929
Acc. No.

State: Florida

DESCRIPTIVE REPORT

~~Tidal~~
Hydrographic

Sheet No. 5 - 1928
1929

4930

LOCALITY

East Coast of Florida
Hillsboro Inlet to Vicinity of
~~Fort Lauderdale to Hillsboro~~
New River Inlet
~~Light House~~

1928-29

CHIEF OF PARTY

R. L. Schoppe - Charles S haw

4930

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

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET # 5
MIAMI BEACH TO FORT LAUDERDALE, FLA.

S.S. RANGER

R. L. SCHOPPE,
CHIEF OF PARTY.

1928.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #5

East Coast of Florida.

The work on this sheet was done in accordance with orders dated January 3, 1928. The sheet covers the area between Lat. $26^{\circ} 04' 30''$ and Lat. $26^{\circ} 12' 00''$ and from the beach, eastward about three miles to the general location of the one hundred fathom curve. This sheet was not finished in 1928. Additional work is to be done in developing certain areas as follows:

Launch work north of Lat. $26^{\circ} 10.5'$

Ship work: cross lines on ten fathom ridge north

of Lat $26^{\circ} 08' 0''$.

Launch work- Additional development in Long. $80^{\circ} 05.5'$ in vicinity of Lat. $26^{\circ} 08' 0''$.

Launch work-Entrance to Bay Mable (Lat. $26^{\circ} 05.6''$) to determine limit of construction work in progress.

The smooth sheet shows no shore line except for a small section about two and one half miles long. This extends south from New River Entrance, past the construction project at what was formerly Lake Mable, and includes the entrance to the un-named lagoon which forms a part of the Inland Waterway. (See Topographic Sheet # covering this area). The remainder of the shoreline is to be taken from airplane photographs, supplemented by shore line references taken on the beach traverse.

On account of the lack of satisfactory hydrographic launch it was necessary for the ship to sound over as much area as possible. On this sheet the usual procedure was for the RANGER to run as close inshore as the reefs would permit. Later the motor boat

would fill in the area between the ship work and the beach.

In accordance with Instructions, the inshore lines were run parallel to the beach. For this work a smooth day was picked out and the motor boat was run along the beach and about twenty meters from it. Since this appeared to fulfill the conditions of the instructions in paragraph 14, it was believed to be not necessary to use a pulling boat. Additional work is to be done on this sheet, and it will be possible to run additional lines if desired. All soundings from the launch were made with a hand lead.

On ship hydrography hand line soundings were made between four fathoms and about twenty fathoms. In depths greater than twenty fathoms the bottom dropped off rapidly and the fifty fathom curve is found to be about one half mile outside of the twenty fathom curve. Nearly all soundings over twenty fathoms were made with wire, taking vertical casts and using a thirty pound lead and the electric sounding machine.

Except for a few locations on the line closest inshore, all positions are located by the usual sextant fix.

SIGNALS:

Most of the signals were located by a beach traverse. A few were cut in from this traverse by triangulation. The remainder (In the area covered by the sub plan) were located by a plane table traverse. The narrow sand beach backed by a continuous fringe of tall trees, made it necessary to locate all signals close to the waters edge. For this reason it was not advisable to place the signals close

enough to furnish a complete set of sextant fixes on the lines closest inshore.

A few places will be noted where the crossings are not in exact agreement. These places occur on coral ridges and the fact that soundings do not check, is not evidence of incorrect reading of the lead line or incorrect locations of the positions. Before this area is finally completed, it will be necessary to use a wire drag sweep over the ridges. With this in mind, attention is called to three spots in Long $90^{\circ} 05.5'$ and near Lat $26^{\circ} 08'$. Depths of 17, 18 and 15 feet respectively are noted. About two hundred yards further inshore is found depths of 12 and 11 feet. For this reason the three suspicious looking soundings are believed to be unimportant. It is entirely possible that they exist as shown on the smooth sheet. ✓

DANGERS:

About 1.4 miles east of the beach is noted a coral ridge, parallel to the shore line and on which the least depth found is 45 feet. Until a wire drag is passed over this ridge, it is not considered safe for deep draft vessels to pass over it. In this connection it should be added that the Gulf Stream in itself is a danger. Deep draft vessels when south bound, hug the beach as close as possible, in order to avoid the strength of the Gulf Stream. In easterly weather the edge of the Stream is found well inside of the twenty fathom curve. At other times it is not noticed until in the vicinity of the fifty fathom curve. This uncertainty in the location of the edge of the Stream causes all south bound traffic to run close to the reefs, and the mariner is never

sure just how much current he is encountering.

A second ridge lays about 0.5 mile offshore and runs parallel to the beach. Depths of 8 to 10 feet are found on this ridge. It can be avoided by moderate draft vessels by keeping 1.0 mile from the shoreline and vessels should not approach closer than this. On this reef, in Lat. $26^{\circ} 10.6'$ (See Instructions, paragraph 21) are located close together two rocky islets, about 15 meters diameter, and ^{bare} have about four feet at high water. There is about 10 feet of water close up to them. A short distance away they appear like two small fishing boats.

CHANNELS:

The sub plan gives a good idea of the channel into New River Inlet. A least depth of six feet is found just west of the inside end of the jetties. Any vessel able to pass in through the inlet has a clear approach from seaward except for the six foot shoal that extends 0.3 mile eastward from the outside end of the south jetty.

The channel into Bay Mable (Lat. $26^{\circ} 05.6'$) can not be described because of extensive dredging operations in progress when this field work was done.

In Lat $26^{\circ} 04.7'$ there is an inlet of varying depths. It was formerly used by motor boats passing along the Inside Passage. When this field work was done, it was practically bare at low water, but it is subject to change after every storm.

There are no anchorages on this sheet.

Previous surveys, as shown on chart #1248, seem to agree very closely with this sheet. The agreement is so close that a detailed comparison is not necessary. When the development at Bay Mable is complete, an important change will be noted at that place.

Geographic names remain practically as charted.

Lake Mable has been connected with the sea by a dredged channel and the name of the new port development at that point was called the Port of Bay Mable. This name is not known to be permanent and should not be used without additional information. The name Lake Mable should be removed from the chart.

*Respectfully submitted
Ray E. Schoppe
Chief of Party*

STATISTICS SHEET #5

EAST COAST FLORIDA, 1928.

Date	Letter	Vol.	Miles	Sdgs.	Pos.	Boat used
4-18-28		1	14.5	407	109	RANGER
4-25-28		1	29.3	526	142	"
4-26-28		1	26.0	507	142	"
4-27-28		1	8.9	22	22	"
5- 3-28		2	17.2	208	68	"
5- 8-28		2	23.8	300	110	"
5- 9-28		2	14.4	220	78	"
5- 2-28		3	3.2	188	15	Motor dinghy
Letter not used						
	"	"	"			
5- 8-28		4	32.0	1395	175	" "
5- 9-28		5	18.4	992	104	" "
4-25-28		6	14.1	1021	120	" "
4-26-28		6	15.6	1034	161	" "
5- 2-28		4	8.5	448	78	" "
Total by RANGER			134.1	2190	671	
Total by M.D.			91.8	5078	653	
Total both boats			225.9	7268	1324	

AREA:

SQUARE STATUTE MILES 33.0

DESCRIPTIVE REPORT

to accompany

Sheet No. ⁵ 4, 1928 4930
1929

Florida

INSTRUCTIONS:

This work was performed under authority of instructions dated January 3, 1928 and December 27, 1928.

SURVEY METHODS:

The work on this sheet was only partially finished in 1928 and the sheet was returned to the field from the office for completion. Paragraph #17, Instructions dated December 27, 1928.

At the southern end of the sheet many of the hydrographic signals were recovered and rebuilt. But as work progressed north, the storm damage of the previous winter had washed away all traces of signals.

A topographic traverse was run from \odot Yet to \odot Pam and from \odot Pam to \triangle Light locating new hydrographic signals for the 1929 work. These new signals are shown on the sheet by red circles. The 1928 boat sheet was used as a topo sheet in running the traverse. These new signals on the smooth sheet were transferred from the boat sheet.

The letters in the sounding records denoting days on which work was done on this sheet were marked A', B', a', b' - to distinguish the work from the 1928 season.

Inshore work was surveyed by the 22 foot motor dinghy. Mr. Overton being in charge. The RANGER was used from work from about the 6 fathom curve to the offshore limits. Hand lead was used to a depth of 10 fathoms and from 10 fathoms to the 100 fathom curve the fathometer was used. A report of the fathometer work was written by Mr. Gibson and is attached to this report.

DISCREPANCIES:

A depth of 43' at Lat. $26^{\circ} - 13.1$, Long. $80^{\circ} - 04.1$. Three soundings in this locality, 43', 44' and 46' prove definitely that there is no question as to the shoal existing, but additional lines should have been run to determine if the shoalest depth was found. This is the only spot that is questionable. It was marked for further development and was overlooked. Depths of 45 feet are quite common on this

outer shoal. Quite likely further development would show a foot or two less on this particular spot. I would feel that 43 feet for this spot would be a safe depth for charting for the irregularity of the bottom and the plainly marked shoal running parallel to the shore should be enough warning for any vessel to lay ~~the~~ course outside.

At Lat. $26^{\circ} - 13.3$, Long. $80^{\circ} - 04.5$ lines are spaced too far apart. This was caused by a mistake in the field that was not discovered until the sheet was smooth plotted. In plotting the line in the field the wrong center object was used. Angles were taken on \odot Near and fixes were plotted on \odot Hat shifting the lines too far to the north. The line on the boat sheet looked correct.

Between 75B' and 76B' a sounding of 75 feet falls on a 64 on 78B'. This is fathometer work and differences are due to irregularity of bottom.

Lat. $26^{\circ} - 14.1$, Long. $80^{\circ} - 04.2$, a 54 foot spot, fathometer 66 feet and hand lead 54 feet, the hand lead sounding was plotted. This spot is close to several 50 and 52 foot soundings and is all right. Soundings were taken on top of a steep ridge and difference is due to not taking both at same instant.

At Lat. $26^{\circ} - 14$, Long. $80^{\circ} - 04.116B'$ has 65 feet on position. Line 106B' - 107B' has 51 feet on same spot. From the nature of the shoal at this point a slight discrepancy in time on the line 106B' 107B' would cause this difference as the ridge is very steep. The shoalest sounding should be used.

At Lat. $26^{\circ} - 13.1$, Long. $80^{\circ} - 04.9$ a 24 foot sounding falls on a 30 foot sounding, the next sounding is 29 feet. This sounding is not checked in sounding record, but it probably is a lump or coral head. 24 feet is plotted as correct.

At Lat. $26^{\circ} - 14.1$, Long. $80^{\circ} - 04.1$ a 54 foot hand lead sounding on the line 107 - 108B' falls on a 67 foot spot on the line 120 - 121C'. The 54 foot hand lead sounding was questioned by Mr. Witherbee who had a fathometer sounding of 66 feet at the same time. It would seem that the 54 foot sounding is incorrect although Hanson, the leadsman at this time, is a reliable man and said he was positive of the sounding. This 54 foot spot should be charted unless disproved by further work. As there is 50 feet about 140 meters outside of it, 54 is not the limiting depth in this area.

At Lat. $26^{\circ} - 14.7$, Long. $80^{\circ} - 04.2$ position 9A' - 10A' fathometer sounding 75 feet falls on 69 feet, line 30F' - 31F' also is fathometer sounding. Incorrect dial reading take shoalest sounding.

At Lat. $26^{\circ} - 11.7$, Long. $80^{\circ} - 04.3$ 61 feet falls close to 44 feet. Both soundings are correct but taken a short distance apart. The 44' should be charted. This ridge is full of lumps and is quite steep and depths are very apt to vary. The 44 foot sounding was taken in 1928 and is a hand lead. The 61 foot sounding, taken this year, was a fathometer sounding.

At Lat. $26^{\circ} - 13.7$, Long. $80^{\circ} - 04.1$ an 87 foot fathometer sounding plots inside a 69 foot fathometer sounding. I think the 69 foot sounding plots further out than where it really is. The angles at 85F' (the fix that has 87 feet on it) seem correct and the signals were quite easy to see so I don't think there could be a mistake there. Both angles would need to be much smaller and both would have to be wrong to plot the 85 further out. As the ridge is very irregular in depth anyway, the 69 should be plotted where it is now and the 87 considered as a deep sounding.

DANGERS:

The wreck shown on Chart No. 1248 was located and a least depth of 14 feet found. The wreck lies at approximately Lat. $26^{\circ} - 12.3$, Long. $80^{\circ} - 05.1$. The wreck was located by using a small boat and anchoring directly over it. Mr. Overton, in charge, said he saw something that looked like an old boiler. The least depth was found by feeling around with the lead. Location is shown on the smooth sheet.

Two rocks awash at Lat. $26^{\circ} - 02.4$, Long. $80^{\circ} - 05.3$ located in 1928.

The stretch of beach surveyed on this sheet has two ridges, paralleling the shore, extending the length of the sheet one about 1/2 mile offshore and another about one mile off. Between the two reefs there is deep water. The inshore reef or ridge has depths varying from 8 feet to 35 feet and is very uneven and lumpy. The coral formation of the bottom makes surveying very difficult with a hand lead as at times depths varying as much as 10 to 12 feet are found within a boat length. It is believed that sufficient work has been done to insure an accurate chart of the area. The thing that makes this area so difficult is that ships going south run as close to the shore as possible to avoid the effect of the gulf stream. Slight mistakes in position mean large differences in depth due to this ridge.

The least depth found on the outer reef on this sheet is 42 feet, Lat. 26° - 04.8, Long. 80° - 05.2. It would seem a good plan to place a line of buoys down the coast from Palm Beach to Miami locating this outer ridge. We encountered strong north and south currents in running our lines offshore. The gulf stream flows strong within about 2 miles of Hillsboro light.

The following spots were discovered during the course of the work:

A 19 foot spot between 4A' and 5A' checks a 20 foot spot on 114e. This spot is 60 meters from the 30 fathom curve.

At Lat. 26° - 01^{14'}, Long. 80° - 04.6 a 33 foot spot along side 46 and 44 feet. This is checked by a fathometer sounding of 37 feet.

CHANNELS:

Entrance channels on the sub plan were discussed in the 1928 report of this sheet.

ANCHORAGES:

There are no anchorages on this sheet.

COMPARISON WITH PREVIOUS SURVEYS:

Depth shown on chart	Approx. Lat.	Approx. Long.	Least depth found in 1929 survey.
9 feet	26 14.5	80 04.9	8 feet
42 "	26 14.1	80 04.5	33 " ✓
51 "	26 14.1	80 04.1	50 " ✓
37 "	26 13.8	80 04.5	43 " ✓ <i>33 feet</i>
5 "	26 13.1	80 05.1	6 " ✓
49 "	26 13.1	80 04.2	43 " ✓
10 "	26 12.5	80 05.2	9 " ✓
37 "	26 12.3	80 04.8	39 " <i>not sure</i>
7 "	26 12.1	80 04.3	8 " ✓
58 "	26 12.2	80 04.2	54 " ✓
16 "	26 11.7	80 05.5	15 " ✓
16 "	26 11.4	80 05.5	13 " ✓

Depth shown on chart	Approx. Lat.	Approx. Long.	Least depth found in 1929 survey.
<i>Chart 499</i> 25 feet	26 11.2	80 04.3	52 feet
<i>Coral Ridge</i> 34	26 10.8	80 05.1	30 ✓
11	26 10.9	80 05.3	7 ✓
17	26 10.7	80 05.6	13 ✓

This completes the area surveyed on this sheet this year.

GEOGRAPHIC NAMES:

There are no new names to be added to this sheet.

STATISTICS:

List of new stations located by plane table, original location on boat sheet.

Tim
Sal
Pete
Joe
John
Girl
Boy

STATISTICS

Field Sheet No. ⁵₄

Florida 1928 - 1929

- 1929 -

Date	Volume	Day	Soundings	Positions	Miles (S)	Remarks
April 23	1	A'	H55 F73	35	5.8	Ship
" 24	1	B'	H201 F245	132	22.2	
" 26	1	C'	H216 F284	131	22.4	
May 22	1 & 2	D'	H341 F325	152	25.5	
" 23	2	E'	H342 F302	182	30.6	
" 24	2 & 3	F'	<u>H18 F383</u>	<u>129</u>	<u>30.6</u>	
TOTALS -			H1173 F1612	761	137.1	
April 23	1	a'	314	44	8.7	Launch (handlead)
" 24	1	b'	341	66	11.3	
May 22	1	c'	569	163	21.5	
" 23	1 & 2	d'	845	192	31.9	
" 24	2	e'	<u>643</u>	<u>145</u>	<u>19.7</u>	
TOTALS-			<u>2712</u> 1173 5497	610	93.1 137.1 230.2	

Area sounded in square statute miles - 43

5

Sheet 4, 1928 - 1929 was done by R. L. Schoppe, Chief of Party. The 1929 work was plotted after Captain Schoppe was detached. Mr. Rigg, Executive Officer during all this time, has inspected and approved the sheet and written the descriptive report.

The records have been reduced and the fathometer data checked and compiled in finished form since Captain Schoppe was detached.

The Chief of Party has endeavored to have this sheet and records go in in completed finished form.

Supervision of the smooth sheet was assigned to Mr. Rigg as the ranking officer present during all the work on the sheet.

Norfolk, Virginia,
November 14, 1929

Charles Shaw
Charles Shaw,
Chief of Party.

Duplicate BHR.
 (DIVISION OF CHARTS, FILE NO. 677)

DEPARTMENT OF COMMERCE
 U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Norfolk, Va.

November 13, 1929, 19

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.

Charles Shaw

Charles Shaw Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED	
	Latitude		Longitude					Datum
	°	'	D. M. meters	°	'			
<u>Large Silver W.T. at City</u>								
<u>of Pompano</u>	26	14	27.8	80	07	465.1	<i>Triangulation</i> Cuts 1248	
<u>Cupola Bathing Casino</u>								
<u>Fort Lauderdale</u>	26	06	1812.5	80	06	514.5	<i>Triangulation</i> Cuts 1248	

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, flagstaffs and like objects are not sufficiently permanent to chart.

Section of Field Records.

20m

November 25, 1929.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 4930

Locality: Florida East Coast (South of Hillsboro Light)

Chief of Party: R. L. Schoppe in 1929
Plane of reference is mean low water, reading
1.3 ft. on tide staff at Port Everglades
~~Starbuck Bay~~
2.6 ft. on tide staff at Palm Beach

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.

Paul C. Whitcomb

Chief, Division of Tides and Currents.

ECM

(FOR FILES OF FIELD RECORDS SECTION)

December 8, 1929

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 4930

Locality: East Coast Florida (Vicinity of Ft. Lauderdale)

Chief of Party: R. L. Schoppe in 1928
Plane of reference is mean low water, reading
1.9 ft. on tide staff at Port Everglades (Bay Mabel)
ft. below B. M.

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.

H. J. Hammer
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 March 17, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4930

Hillsboro Inlet to Vicinity of New River Inlet, Florida

Surveyed in 1928-29

Instructions dated January 3 and December 27, 1928 (RANGER)

Chief of Party, R. L. Schoppe.

Surveyed by R. L. S.

Protracted and soundings plotted by M. E. Wennermark.

Verified and inked by J. C. MacNab.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions with the following exceptions:

(a) At Lat. $26^{\circ} 13'.3$, Long. $80^{\circ} 04'.5$ lines are spaced too far apart. (See second paragraph under title "Discrepancies", Shaw's report in descriptive report.) The spacing of lines along here is in excess of the spacing specified by the specific instructions. (See paragraph 14, Jan. 3rd.)

(b) A number of places on the sheet need additional development in order to comply with paragraph 19, Jan. 3rd, and paragraph 23, December 27, of the specific instructions.

(c) Reported Shoal. The Master of the Dutch Steamer BOOMBERG reported grounding approximately in Lat. $26^{\circ} 12'$ and Long. $80^{\circ} 04'.8$ (source, letter 240 dated May 8, 1928 and Notice to Mariners No. 20 of 1928). This shoal was not investigated. (Paragraph 23, specific instructions, Dec. 28.) *(Falls in deep water & is improbable ans.)*

4. The sounding line crossings are adequate although many crossings show considerable difference in depth. The Chief of Party says in his report that these differences are not due to incorrect reading of lead line or incorrect positions but are due to uneven bottom and coral growths.

5. The usual depth curves can be drawn with the exception of the 120 ft. curve between Lat. 26° 05' 30" and 26° 12' where a great number of no-bottom soundings were taken, making a definite location of the curve impossible.
6. The field plotting was completed to the extent prescribed in the General Instructions.
7. The office draftsman did not have to do over any part of the drafting done by the field party.
8. The junction with H. 4811 is satisfactory.
9. Rating of the Work: (a) Character and scope of surveying, good.
(b) Field drafting, excellent.
10. Cartographic Problems:

The cartographic problems raised by this survey should be disposed of by the compiler in accordance with the following recommendations:

(a) The charted rocks in Lat. 26° 10'.5, Long. 80° 05'.3. These two rocks were thoroughly investigated by the field party and found to be "about 15 meters in diameter and bare about 4 ft. at high water. There is about 10 ft. of water close up to them." (Descriptive Report) Their location was accurately determined by three-point fixes, a more accurate location than now on the chart. The original data for the chart location was investigated. The new plotting should be used for charting.

(b) H. 1553 and H. 1554 (surveyed in 1883). Owing to the peculiar character of the bottom, the presence of narrow ridges and coral heads, it is recommended that where this sheet overlaps the new work, the new work should be used exclusively in those areas where the bottom formation is devoid of relief. But where the new survey shows ridges or indications thereof, or where the development is incomplete, the shoaler soundings from the old survey should be used wherever the differences are greater than 1 foot.

A comparison of the more important shoal soundings on these sheets shows such a remarkable agreement with the soundings on the new survey, that notwithstanding their dates, they should be used to supplement the new work wherever necessary, in accordance with the rules laid down in the above paragraph.

(c) Dredging. Extensive dredging had not been completed in the approaches to the entrance to Lake Mable at Lat. 26° 05'.5.

(d) Shoreline. The shoreline not shown on this sheet will occur on aerial topographic sheets of this area not yet completed.

(e) Shaw's Report. Special attention is called to Shaw's report in this descriptive report, the paragraphs entitled "Discrepancies," and "Dangers" wherein is a rather clear and full discussion of the shoals and reefs on this sheet.

11. Additional Work.

It is realized that in a character of bottom such as exists on this sheet, it is almost futile to expect a lead line survey to pick up all ridges and shoals or to find the least depth on such features. The amount of time that can be expended on such work is almost limitless, therefore no attempt will be made in this report to ~~un~~enumerate all the places where there are indications of ridges or where the development on such ridges seems incomplete. Comment will be confined, in the main, to those areas that fall within the lanes normally used by the larger vessels plying this coast. Inshore of these areas only the more important places will be considered.

(a) It is recommended that the outer ridge between the 60 ft. curves be swept by a drag to a depth sufficient to insure safe navigation to vessels operating in this locality. The hydrographic development is fairly complete and nothing would probably be gained by further lead line work. The fact that there have been several reports of vessels striking in the vicinity of this ridge makes a wire drag examination imperative.

(1) The vicinity of the 43 ft. and 44 ft. soundings, Lat. 26° 13'.1 and Long. 80° 04'.2 is not well developed and further lead line development might disclose lesser depths in this area.

(b) The area between the 30 ft. curve and the 12 ft. curve is very lumpy and there are indications of very narrow ridges existing along here. It is recommended that this area be also wire dragged to an adequate depth. If this is found impracticable then the following spots should at least be further examined with the hand lead:

(1) The ridge in Lat. 26° 10'.2, Long. 80° 05'.3, least depths 16 and 17 ft.

(2) The 15 ft. sounding, Lat. 26° 08'.4, Long. 80° 05'.4.

(3) Attention is called to Shaw's report in this descriptive report, particularly the paragraphs under the headings Discrepancies and Dangers.

12. Remarks (1928-1929 work)

(a) It will be seen from the descriptive report that the work on this sheet was done during two seasons. About one-half of the close inshore work and all of the work above Lat. 26° 12' was done in 1929. The rest of the work on the sheet was done during 1928.

13. Attention is called to the development of Lake Mable. Schoppe's report herein contained has a paragraph regarding the proper name to be charted for this new port. Mr. Bacon was consulted and said that in view of the formative state of this project no name should occur on the smooth sheet until the final name is developed.

14. Reviewed by J. C. MacNab, March 14, 1930.

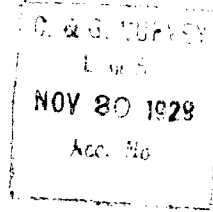
Approved:

A. M. Sobieralski
Chief, Section of Field Records (Charts)

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

*a few soundings
Applied to chart 546
11/11-35 g.H.S.*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY



HYDROGRAPHIC TITLE SHEET

REG. NO.
4930

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. ~~4 - 1928~~
1929

REGISTER NO. 4930

State Florida

General locality East Coast of Florida

Locality Hillsboro Inlet to Vicinity of New River Inlet
~~Fort Lauderdale to Hillsboro Inlet, Fla.~~

Scale 1:20,000 Date of survey April 18 - May 9, 1928
April 23 - May 24, 1929

Vessel RANGER

Chief of Party R. L. Schoppe

Surveyed by R. L. Schoppe

Protracted by M. E. Wennermark

Soundings penciled by M. E. Wennermark

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated January 3, 1928 and December 27, 1928

Remarks: This sheet was partially completed in 1928 and was returned to field in 1929. This report covers the additional work completed in 1929

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

AND REFER TO NO. 11-1111

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON March 17, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4930

Hillsboro Inlet to Vicinity of New River Inlet, Florida

Surveyed in 1928-29

Instructions dated January 3 and December 27, 1928 (RANGER)

Chief of Party, R. L. Schoppe.

Surveyed by R. L. S.

Protracted and soundings plotted by M. E. Wennermark.

Verified and inked by J. C. MacNab.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions with the following exceptions:
 - (a) At Lat. $26^{\circ} 13'.3$, Long. $80^{\circ} 04'.5$ lines are spaced too far apart. (See second paragraph under title "Discrepancies", Shaw's report in descriptive report.) The spacing of lines along here is in excess of the spacing specified by the specific instructions. (See paragraph 14, Jan. 3rd.)
 - (b) A number of places on the sheet need additional development in order to comply with paragraph 19, Jan. 3rd, and paragraph 23, December 27, of the specific instructions.
 - (c) Reported Shoal. The Master of the Dutch Steamer BOOMBERG reported grounding approximately in Lat. $26^{\circ} 12'$ and Long. $80^{\circ} 04'.8$ (source, letter 240 dated May 8, 1928 and Notice to Mariners No. 20 of 1928). This shoal was not investigated. (Paragraph 23, specific instructions, Dec. 28.)
4. The sounding line crossings are adequate although many crossings show considerable difference in depth. The Chief of Party says in his report that these differences are not due to incorrect reading of lead line or incorrect positions but are due to uneven bottom and coral growths.

5. The usual depth curves can be drawn with the exception of the 120 ft. curve between Lat. $26^{\circ} 05' 30''$ and $26^{\circ} 12'$ where a great number of no-bottom soundings were taken, making a definite location of the curve impossible.
6. The field plotting was completed to the extent prescribed in the General Instructions.
7. The office draftsman did not have to do over any part of the drafting done by the field party.
8. The junction with H. 4811 is satisfactory.
9. Rating of the work: (a) Character and scope of surveying, good.
(b) Field drafting, excellent.
10. Cartographic Problems:

The cartographic problems raised by this survey should be disposed of by the compiler in accordance with the following recommendations:

(a) The charted rocks in Lat. $26^{\circ} 10'.5$, Long. $80^{\circ} 05'.3$. These two rocks were thoroughly investigated by the field party and found to be "about 15 meters in diameter and bare about 4 ft. at high water. There is about 10 ft. of water close up to them." (Descriptive Report) Their location was accurately determined by three-point fixes, a more accurate location than now on the chart. The original data for the chart location was investigated. The new plotting should be used for charting.

(b) H. 1553 and H. 1554 (surveyed in 1883). Owing to the peculiar character of the bottom, the presence of narrow ridges and coral heads, it is recommended that where this sheet overlaps the new work, the new work should be used exclusively in those areas where the bottom formation is devoid of relief. But where the new survey shows ridges or indications thereof, or where the development is incomplete, the shoaler soundings from the old survey should be used wherever the differences are greater than 1 foot.

A comparison of the more important shoal soundings on these sheets shows such a remarkable agreement with the soundings on the new survey, that notwithstanding their dates, they should be used to supplement the new work wherever necessary, in accordance with the rules laid down in the above paragraph.

(c) Dredging. Extensive dredging had not been completed in the approaches to the entrance to Lake Mable at Lat. $26^{\circ} 05'.5$.

(d) Shoreline. The shoreline not shown on this sheet will occur on aerial topographic sheets of this area not yet completed.

(e) Shaw's Report. Special attention is called to Shaw's report in this descriptive report, the paragraphs entitled "Discrepancies." and "Dangers" wherein is a rather clear and full discussion of the shoals and reefs on this sheet.

11. Additional Work.

It is realized that in a character of bottom such as exists on this sheet, it is almost futile to expect a lead line survey to pick up all ridges and shoals or to find the least depth on such features. The amount of time that can be expended on such work is almost limitless, therefore no attempt will be made in this report to unenumerate all the places where there are indications of ridges or where the development on such ridges seems incomplete. Comment will be confined, in the main, to those areas that fall within the lanes normally used by the larger vessels plying this coast. Inshore of these areas only the more important places will be considered.

(a) It is recommended that the outer ridge between the 60 ft. curves be swept by a drag to a depth sufficient to insure safe navigation to vessels operating in this locality. The hydrographic development is fairly complete and nothing would probably be gained by further lead line work. The fact that there have been several reports of vessels striking in the vicinity of this ridge makes a wire drag examination imperative.

(1) The vicinity of the 43 ft. and 44 ft. soundings, Lat. 26° 13'.1 and Long. 80° 04'.2 is not well developed and further lead line development might disclose lesser depths in this area.

(b) The area between the 30 ft. curve and the 12 ft. curve is very lumpy and there are indications of very narrow ridges existing along here. It is recommended that this area be also wire dragged to an adequate depth. If this is found impracticable then the following spots should at least be further examined with the hand lead:

(1) The ridge in Lat. 26° 10'.2, Long. 80° 05'.3, least depths 16 and 17 ft.

(2) The 15 ft. sounding, Lat. 26° 08'.4, Long. 80° 05'.4.

(3) Attention is called to Shaw's report in this descriptive report, particularly the paragraphs under the headings Discrepancies and Dangers.

12. Remarks (1928-1929 work)

(a) It will be seen from the descriptive report that the work on this sheet was done during two seasons. About one-half of the close inshore work and all of the work above Lat. 26° 12' was done in 1929. The rest of the work on the sheet was done during 1928.

13. Attention is called to the development of Lake Mable. Schoppe's report herein contained has a paragraph regarding the proper name to be charted for this new port. Mr. Bacon was consulted and said that in view of the formative state of this project no name should occur on the smooth sheet until the final name is developed.

14. Reviewed by J. C. MacNab, March 14, 1930.

Approved:

Chief, Section of Field Records (Charts)

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