

2553

Diag. Chart No. 1258

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SHA
2553
1901-2

U. S. COAST AND GEODETIC SURVEY.

O. H. Tittmann, Superintendent.

State: *Florida*

U. S. C. & G. SURVEY.
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DESCRIPTIVE REPORT.

Hydrographic Sheet No. 2553

LOCALITY:

*Withlacoochee River
Gulf of Mexico
Fla.*

1901-1902

CHIEF OF PARTY:

H. L. Merriam, Asst.

2553

*See H.
2556
2557*

To accompany Hyd. Sheet No 2553.

Title:

Treasury Department

U.S. Coast and Geodetic Survey

O. H. Pittmann, Supt.

Approaches to Withlacoochee River

Showing Anchorage Ground

Florida

Surveyed by Party of H. L. Marindin, Asst.

Dec. 6-1901 to Jan. 18-1902

Scale $\frac{1}{20,000}$

Statute Miles

Nautical Miles

Statistics

Date 1901	Letter	Books	No Solgs.	No Angles	No Miles Naut.	Remarks
Dec 6	a	1	821	122	15.7	Tug Boat used for Solg.
7	b	1	830	184	20.0	
8	c	1	400	70	9.9	
10	d	1	289	48	5.1	
11	e	2	783	162	18.3	
12	f	2	257	46	5.7	
14	g	2	31	6	0.4	
28	h	2	530	138	15.0	
31	i	2	445	96	12.1	
1902 Jan 1	k	3	327	76	8.4	
2	l	3	1121	236	30.0	
3	m	3	793	156	17.3	
6	n	4	916	176	21.0	
7	o	4	599	140	15.7	
17	p	5	995	166	20.7	Gasoline Lahr at Louise
18	q	5	1273	226	23.9	
Total			10404	2048	239.2	

NOTES: Observers. H. L. Marindin Assistant
 O. W. Ferguson "
 Recorder. Tom Taylor
 Leadman. H. C. Price
 Tide Keepers. S. E. Prevatt at Chambers Island.
 E. A. McLeod " Cedar Keys

The soundings are expressed in feet - and show
 the depth at Mean Low Water

The 6-foot curve is shown thus

12 " " " "
 18 " " " "
 24 " " " "

Tides and Bench-Marks:

To obtain the height of Plane of Mean Low Water at
 Chambers Island, simultaneous observations were made
 with Cedar Keys Gauge, from Dec 2 to Dec 31-1901
 resulting in a M. L. W. reading of 1.84 feet on Chambers
 Island tide Staff.

B.M. at Chambers Island. Top of iron pipe
 marking the center of Pt "Hunt" near the
 cottage occupied by Mr Hunt and family. The
 pipe is 3 in diam. and projects about 1
 foot above the ground.

B.M. above zero of Staff	=	11.68 ft
" " M. L. W.	=	9.84 "
M. L. W. on Staff	=	1.84 "

NOTE: Soundings in red replotted from original
 records of Hyd. Sheet 1771.

Objective of Survey represented on Sheet.

The object of the survey was to discover and examine an anchorage ground for large ocean going steamships off the mouth of the Withlacoochee River in Florida.

Under the authority of Congress, the Port Inglis Terminal Company and Dunnellon Phosphate Company of Florida undertook at their own expense the systematic improvement of the channel of the Withlacoochee River near its mouth with a view of securing a sufficient depth of water to enable the Company or any other party to ship the produce from their Phosphate Mines out of the river to ships anchored in a prospective anchorage ground off the mouth in lieu of shipping this produce ~~by~~ rail across the peninsula of Florida to the ports on the Eastern side Atlantic sea board.

For nearly two years these companies have been engaged in dredging the channel, so that at the time of this survey it is claimed that a clear depth of 8 feet at mean low tide with a width of 95 feet, has been secured to the outer line of oyster reefs; between this point, and the deeper water of the prospective anchorage, it was hoped that the survey would discover a clear channel of same depth over the flats.

The mean rise and fall of tides at the mouth of the river (Tide Staff at Chambers Island) is 2.56 feet.

The part of the river improved by dredging lies between the "Fork" above Chambers Island and the outer line of oyster reefs mentioned above, over a distance of about 4100 metres.

A line of soundings was run along the center line of the improved channel, from the outer oyster

reef to a point below the small wharf at Chambers Island. This line is shown on the sheet. The center line of channel is marked by a system of range piles, two forward and two for back range, so that one can readily keep the vessel in the center of the channel.

The crooked course of this channel is due to the fact that the tug *Equinox* utilized the best depth with the parts of the bottom where the material was more easily removed without recourse to blasting. The bottom of the river as also that found as far as the prospective anchorage ground is a Coral rock, here and there covered with a thin layer of sand and in some parts mud, and blasting with dynamite was necessary in a number of places.

The soundings were taken from a tug boat chartered for the purpose, and were determined in position by sextant angles taken on three signals.

The great distance of the prospective anchorage off shore, from 8 to 13 miles, made it necessary to adopt a system of Water Signals, with the inner signals to be determined from shore stations and the outer signals to be located from the inner line, if these could not be seen from the high scaffolds on the shore stations. The water signals were wooden tripods 4"x6" legs 30 feet long and 16 to 18 feet spread at bottom surmounted by center pole bearing cages of slats or cloth targets of different forms and colors or both combined. The rocky nature of the bottom made it necessary to depend on ballasting to hold them in position and about 900 lb. of iron was used at each signal, notwithstanding this heavy ballast some of the most exposed tripods were repeatedly upset and others destroyed during

the more violent storms.

Some difficulty was experienced and considerable time was spent in recovering a base for the determination of the water signals. The last triangulation was made in 1856: finally two points were found one on Cormorant Rock and another on Beech Rock, from which a triangulation was carried southward to the mouth of the Wilkicooshe Scaffold, 45 feet high and surmounted by a center pole 20 feet in height near beach at Beech Rock, Sand (at mouth of river) or at Half moon Bar, from these points the water signals were observed by measuring horizontal angles. On a very clear day the pole of the farthest water signal could be seen from the top of the scaffold at "Sand".

Tidal observations. The plane of reference of mean low tide was established from simultaneous observations made on staff gauges at Cedar Keys and at Chamber's Island. For results and figures and description of bench marks see "Tide Records" of survey.

The red buoy indicated on sheet was placed there by US Steamer "Wangou" Lt. H. Dept. on or about January 24 - 1902.

Mean rise and fall of tides at Chamber's Island
= 2.56 feet.

Henry L. Macindin
Assistant