## 2593

Diag. Cht. No. 1262

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT Type of Survey Field No., LOCALITY Locality ..... 19402 CHIEF OF PARTY

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U. S. C. & G. SUKVEY. AUG 23 1902 Ago. No. Cladu

Creasury Department, U. S. COAST AND GEODETIC SURVEY.

OH. Tithina

Superintendent.

State: Florido

DESCRIPTIVE REPORT.

LOCALITY:

P. a. Welker, Assista

WRITE ME AT: Care, Wallace & Gale, 430 East Pratt Street, Baltimore, Md.
TELEGRHPH ME AT:

TREASURY DEPARTMENT.

U.S.COAST and GEODETIC SURVEY, STR. "BACHE",

Apalachicola Bay, Florida.

May 19th., 1902.

Mr. O. H. Tittmann,

Superintendent of the U.S.C.& G.Survey,

Washington, D. C.

Sir:-

In obedience to instructions and Memoranda for Descriptive Report, 1887, I beg leave to submit the following report on Hydrographic Sheet No.

The work consists of an hydrographic resurvey of West Pass, entrance to Apalachicola Bay, Florida, on a scale of 1:20000, and was executed by the party under my charge during the time from April 25th. to May 19th, 1902.

Apalachicola Bay is a shallow body of water with numerous oyster reefs and shoals and is navigated only by oystermen, fishermen, tug boats and small craft drawing less than seven feet of water. There are two entrances to the bay, one through East Pass and St.George's Sound and the other West Pass, 18 feet draft can be taken through the former and 14 through the latter, but both passes require local knowledge for taking in these drafts on account of the frequent shifting of the channels and the buoys marking the same. The approach to the town of Apalachicola is through

a narrow dredged channel about 7 feet deep. The deeper draft vessels entering West Pass usually lie at the lower anchorage behind St.George Island about north by east from the light house.

The principal water trade of this region is lumber, oysters and fish. Railroad communication is made through a steamer running, daily between Apalachicola and Carrabelle. Apalachicola is a town of about 3000 inhabitants and has considerable trade.

There are no life saving stations in the vicinity.

There is a regular pilots association at Apalachicola but it is their duty to be on watch only at East Pass, although they are also obliged to be at West Pass in case a call comes from that locality. Vessels intending to enter this pass usually send word regarding their expected arrival. On account of the frequent change in the channel no master should attempt to take a vessel drawing over 10 feet through this pass without a pilot. A short dredged cut was made over the bar and this cut is supposed to be marked by a red and a black buoy, but at the present writing they are not in their correct position. Two range beacons have been built upon the sand spit at the southeastern point of St. Vincent's Island, which marks the direction only as far as the out is con-The best course for entering the channel at the present cerned. time is to keep the red and white range beacons on line which will leave red buoy No.2 on the port hand about 100 yards. When this buoy is abeam, change course, heading directly for black buoy No.1, this is necessary to avoid a point of a shoal making out to the southard and eastard of black buoy No.1, which has but 6 feet of

water on it. The point of this shoal is about 150 metres south east of buoy No.1. From black buoy No.1, head directly for black buoy No.3 and then change course, heading directly for the new white beacon near red buoy No.4 in the lower anchorage. (This buoy is marked No.2 on the chart) The least water found in following these directions is 14 feet and this is near red buoy No.2. After crossing the bar, 16 feet of water can be carried to red buoy No.4. There is a frequent shifting of the shoals upon each side of the pass and until some means has been provided to prevent this, no permanent marks or directions for entering can be laid down.

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The topographical features of this region have also changed greatly since the last survey, and it was necessary to re-run all of the shore line from about three miles northwest of the pass to about two miles east of St.George Light House. The point at the northwestern shore of the entrance had made out to sea about one half mile and a large lagoon had formed between the old and the new shore line. Sand Pass was entirely closed at an ordinary high tide. While in some places the shore line had made out to sea in other places it had been cut away.

The currents at times are very strong being influenced by the winds and freshets. At black buoy No.1 the current is stronger than at any other point in the entrance or bay and frequently has velocity of at least 3 knots per hour. The flood current sets to the northward across the south breakers and also to the N E. through the channel. Only at ebb tide is

the current very strong, at flood it is generally very weak. The ebb current runs out through the pass and divides, part going to the southard over the breakers and part following the deeper water to the bar, the latter is the stronger current.

The traffic through West Pass is very small. The Steamer ALPHA makes a round trip every 10 days between Carrabelle, Apalachicola, St.Andrew's Bay and Mobile.

The rise and fall of tide is small, the average range being about 2 feet.

Fresh water can only be obtained from the rivers.

There is no marine hospital nearer than Mobile.

The nearest post office, express and telegraph offices are at Apalachicola.

Freight and mail are carried to Apalachicola by steamer from Carrabelle and Columbus, Georgia, there being no direct railroad connection.

The appearance of the land approaching from seaward is low and wooded. The beaches are hard and shelving, stranded vessels would not last.

The prevailing winds during the spring and summer are S E. and S W., during the winter variable with frequent northers. The hurricane season is July and August.

Supplies and shipchandlery can be obtained at Apalachicola.

There is no coal to be had except by special order from Columbus, Georgia.

NOV SUPPLIES

REPORT on HYDROGRAPHIC SHEET No. 2593.

Apalachicola Bay, West Pass, Fla. Assistant Welker, 1902 Copy to Copy to Wilken Nov. 5, 1903

The area is well covered by the system of lines adopted; but fails by reason of manner of execution. Though rise and fall of tides is comparatively small (1.26 ft.), the tidal current through West Pass "frequently has velocity of at least Cross-section lines in Entrance were three knots per hour". sometimes run when current was so strong that launch had to be put off 4-1/2 points to make good the course. Between positions 86 and 101 red C, lines steered 4-1/2 points off course gave depths 4 ft. too deep in 3-1/4 fathoms, and when run 4 pts, off were 3 ft. too deep in 3 fathoms. 89, red F, was steered 4-1/2 points off course in order to Lack of notes makes it impossible to state to make good. what extent these conditions affect the results. About 3 % of lines rejected on account of bad crossings, which means that An extreme case involves line about 6 % were in question. 13-14, red C, 8d and 97c; 13c is 3 ft. deeper than 8d and 14c is 3 ft. shoaler than 97c, a difference between 8d and 97c of 6 ft. in 3-1/2 fathoms of water. The work on bar should have been plotted on scale of 1-10,000. Some important positions were located by angles upon objects giving poor determination. Names of signals were not inked and were difficult to decipher. Some delay in plotting sheet resulted from inaccurate protracting and erroneous marking of sounding lines.

7-10-03.

r.T.W. (Signed).

The superstruction of the beacon shown upon the present chart has been removed, only the piles remaining. a new one has been built about 1 mile to the southard of the old location.

Very respectfully,

P. a. Welker\_

Assistant, U.S.C.& G.Survey,

Commanding.