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Form 504

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: *Alabama*

11-5613

DESCRIPTIVE REPORT.

*Hyd.* Sheet No. *4024*

LOCALITY:

*Mobile Bay*

*Ala.*

1918

CHIEF OF PARTY:

*F.B.T. SIEMMS*

Descriptive Report to accompany

Hydro. Sheet No. 4024

LIMITS:

Includes the hydrography of upper part of Mobile Bay north of Latitude 30°-23'. No endeavor was made to obtain soundings in the narrow dredged channel, however the dumping grounds to the Westward of the channel were developed.

TIDAL OBSERVATIONS:

Were made at Great Point Clear during the entire progress of the work, and at Pinto Island opposite Mobile, during the greater part of the period of the hydrography. Little differences in the simultaneous tides of the two stations caused by wind, was found to take place. Tides were also observed at Alabama Port on the west shore of Mobile Bay, while hydrography was in progress near that locality.

CONTROL:

The greater number of U.S. Engineer triangulation stations in Mobile Bay were recovered and these stations and the channel beacons and other signals determined by triangulation furnished an excellent control for the survey.

SNAGS and other OBSTRUCTIONS:

During high tides, brought about by strong southerly winds, the bay becomes filled with a great number of floating tree snags, dangerous to navigation, which during low tide again ground on the shoal parts of the bay, or some are probably carried out to sea.

Areas located by sextant and shown on the boat sheet in the Northern part of the bay, as being infested with under water pilings, are extremely dangerous for small craft. It is understood that these pilings were placed in the rivers and the entrance to Mobile river during the Civil War, in defence of Mobile.

There are also a number of submerged pilings of old wharves, just south of Ragged Point, the area is roughly outlined on the boat sheet.

The topographic sheet also shows remains of numerous old wharves along both shores of Mobile Bay.

The water is extremely muddy making it impossible to see submerged obstructions.

SURVEY METHODS.

All soundings were obtained with the handlead. The steamer HYDROGRAPHER was used for the greater part of the offshore hydrography. The ACACIA (launch) in charge of Mate Franz E. Okeson, was used for the greater part of the inshore hydrography. Launch 51, executed the work at the head of the bay.

The bottom of the larger part of the Bay is composed of a very soft material, making it difficult to obtain an exact sounding, this apparently accounts for the discrepancies in the crossing of sounding lines on the East side of the Bay. It is believed that the soundings obtained in this soft bottom depend upon the force with which the lead strikes the bottom. On the ship this force is much less than on a launch where the lead must be thrown forward from a lower sounding platform, Also on the ship the descent of the lead can be checked to some extent. The bottom is of such a nature, that in building a signal in 11 feet of water in Bon Se Cours Bay, it was possible to sink a 4"x4", 13 feet in the mud, by simply oscillating it back and forth from the deck of the ship.

Care was taken to obtain outer limits of shoals extending from shore by running several lines parallel to the trend of the shore or at right angles to the direction of the shoal.

#### RESULTS OF THE SURVEY:

Small lumpy shoals between Great Point Clear Beacon and the main channel in Mobile Bay were found. Generally there are no marked changes in depth but apparently a general uniform shoaling in the Bay has taken place.

The Spoil Banks on the west side of the main ship channel were found to be quite shoal in places. The shoal spots opposite beacons Nos 23 and 26, shown on the chart, could not be found, and being of soft material have probably washed away. The U. S. Engineers continue to dump the dredging material of the channel to the westward of it.

There is rather a sharp turn for large vessels in passing from the main dredged channel into Mobile River, and vice versa.

#### PINTO PASS :

There is a narrow channel of about 6 feet, north of Pinto Island, and is used extensively by small craft.

#### LOCAL COMMUNICATIONS:

Regular trips by steamer and launch are made between Mobile city and points on the East shore of Mobile Bay. A Quartermaster steamer makes regular trips between Mobile and Fort Morgan. A launch also runs between Fort Morgan and Fort Gains.

#### ANCHORAGE:

Anchorage in Mobile River can be had opposite the City and railroad docks, opposite the main section of the city.

#### DOCK FACILITIES:

There is a municipal dock at the foot of \_\_\_\_\_ Street, and arrangements for dock room can probably also be made with the L&N Railroad or the M&O Railroad if there docks are available.

Water (City) can be had at several points along the water front

Facilities for coaling vessels are at hand but the coal is of poor quality.

Respectfully submitted

*J. Williams*  
Chief of Party

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

Draftsmans Report--Hydrographic Sheet 4024.

1. Development.

The area is evenly but not closely developed. The curves could, in most cases, be drawn with accuracy thruout their length.

The dumping ground just W of the ship channel was well developed. A 7 foot lump was found between Beacons 26 and 28.

2. Crossings.

The work of the Launch Acacia is cosistently deeper than that of the ship where the two cross. The probable reason for the difference in depth is given in the Descriptive Report.

3. Changes.

No remarkable changes from the old work were found. The entire bay has shoaled a few feet, causing the 12 foot curve to move from near the head of the bay to a point only a few miles from the entrance.

Respectfully submitted,

*EK Ellis.*

Draftsman.

ADDRESS  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON, D. C.

REFER TO NO. 5-EMK

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

February 19, 1919.

LIBRARY

Place with descriptive report  
of hydrographic sheet No. 4024

Drawing Section. *A*

Division of Hydrography and Topography ✓ *HCG*

Division of Charts:

Tidal reductions have been approved in  
20 volumes of soundings for

HYDROGRAPHIC SHEET 4024

Mobile Bay, Alabama,  
F.B.T. Siems and Harry Leypoldt in 1918.

Plane of reference is  
Mean low water, reading

2.6 ft. on staff at Great Point Clear.  
3.4 ft. on staff at Fort Morgan.  
3.3 ft. on staff at Pinto Island.

*L. P. Shidy*

Acting Chief, Section of  
Tides and Currents.

*See Final Div. letter of March 30, 1922*