4795

Form 504
Ed. June, 1928

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

State: LOUISIANA

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ } *Sheet No.* D 4795

LOCALITY

Gulf Coast of Louisiana

Little Constance Bayou to Hog Bayou

193 3

CHIEF OF PARTY

W. E. Parker

U. S. GOVERNMENT PRINTING OFFICE: 1931

4795

Applied to drawings of Charts 1007 & 1116
Oct. 15/34 C.H.D.

LOCALITY AND LIMITS

The topography of this sheet extends eastward along the Gulf Coast of Louisiana from a junction with Topographic Sheet "A" at triangulation station FRONT to a junction with Topographic Sheet "E" at triangulation station CON. The work was performed at a 1:20,000 scale and takes in about 16 statute miles of shoreline. Detailed topographic features were located inshore from the beach only to the limits of the range of rod readings from a traverse along the beach.

CONTROL, METHODS AND CLOSURES

Three triangulation stations established by the party of E. R. McCarthy in 1932-3 are located on the sheet, all of them along the coast line. Inshore from the coast the land is a featureless grassy marsh over which it was impossible to locate points by intersection. Therefor it was necessary to depend entirely on traverse to control the topography along the beach. Between triangulation stations FRONT and DUCK and between DUCK and MUD traverse distances were obtained by stadia, making setups of the plane table at intervals of about 500 meters. The closure of the section between triangulation stations Front and Duck was 33 meters. As this was in the allowable limits for traverse closures the closure was made by a simple traverse adjustment. The first time the section between triangulation stations DUCK and MUD was run the closure exceeded the allowable limits and the traverse had to be rerun. On the second running the closure was 17 meters. This was corrected by a simple traverse adjustment.

The topography on this sheet was executed during the month of August at a time when heat waves and refraction were at their worst. After having to rerun one section it was decided that time could be saved and accuracy increased if dependence on rod readings for traverse distances could be avoided. In the section between MUD and CON the traverse distances were obtained by measurement with a 100 meter wire the length of which was checked twice daily. By this means the number of setups was almost cut in half and the accuracy was increased as shown by a closure of 5 meters on this section. On this section setups were made at intervals of about 1000 meters and the high water line and other details rodded in in both directions from each setup. Rod reading on the high water line and marsh line were taken at intervals of about 100 to 150 meters when the lines were even and oftener when necessary due to irregularities in the lines.

LANDMARKS AND GENERAL DESCRIPTION OF THE AREA.

There are no landmarks along the coast in this area. The nearest things to landmarks are the mouths of the bayous and small bushes along some of the bayous. These are not distinguishable more than about one half mile off shore at which distance the water is so shoal that they would be of interest to nothing but small boats.

The topographic features are very similar along the entire length of the sheet. The water line is separated from the inshore marsh by a strip of sand and fine shell about 50 meters wide. It is very evident that this sand has been washed in from some distance offshore because the strip between high and low water contains some fine sand but is mostly mud and there is a narrow strip of mud between high water and the sand indicating that the sand had been washed over the mud during storms. Inshore from the sand strip the land is marshy for miles.

COMPARISON WITH OLD SURVEY

In comparing the present survey with the bromide (Register No. 1689) of the work performed in 1886 it was found that the shore line had receded to a very marked degree since the old survey. The present position of the high water line varies from that of the old survey by an average distance of nearly 500 meters. At no place is the recession less than 300 meters and in places it exceeds 600 meters.

It is well proven that this is a true recession and not errors in topography by noting the comparison of the bayous near the shore. The detail of the forks, curves and bends in the bayous are very similar in the two surveys. The mouths of the two bayous Little Joseph Harbor and Little Constance have changed by about a mile due to the recession of the shore line. The mouths of these streams are now at points that were formerly on curves of the bayou three or four hundred meters inshore. Due to this shifting of the stream outlets a lagoon like portion of the former stream has been left with neither inlet or outlet. The small pond near ⊙Tri was probably overlooked in the old survey as it was probably too far inshore at that time to be visible from the beach.

It is further proven that this shore line is receding by the fact that some of the triangulation stations and reference marks established less than a year ago have already been destroyed. Others that were probably twenty five or thirty meters inshore when established are now approximately on the high water line. Several of the stations established along the coast early this year will probably be lost within another year. Inasmuch as the shore line has been receding at an average rate of about 10 meters per year for the last fifty years and the sand strip along the beach is only about 40 meters wide, any effort to establish permanent stations on the sand strip is apparently a loss of time and money.

LIST OF PLANE TABLE POSITIONS

On this sheet there were very few natural objects for hydrographic signals and nearly all such stations were marked by banners or small dressed tripods. One fence post was used and two old stumps. All other signals were erected. A large can buoy that has washed ashore was not used for a hydrographic signal but is shown on this sheet. It may show in air photographs. Six topographic stations on this sheet were marked with standard marks and described on standard form 524. These stations are Boy, Cat, Zip, Ink, Arc and Toy. Twelve other stations were

flagged for temporary hydrographic use. They are: Able, Post, Pod, Out, Pet, Tri, Stu, Gin, Bat, Run, Big and Ant. The tall hydrographic signals near the three triangulation stations were also located by topography. It is believed that the topographic marks established along the beach will be destroyed within the next three or four years.

ADDITIONAL WORK

No additional work is recommended on this sheet.

Respectfully submitted,

Charles A. Schanck,
Jr. H. & G. Engineer.

APPROVED

W. E. Parker, Captain,
Coast and Geodetic Survey,
Chief of Party.

Statistics for Topographic Sheet "D"

Statute miles of shoreline. . .13.75

Statute miles of Bayous. . . . 2.7

Form 537a
11-5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. [illegible]

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D

REGISTER NO. 4,5..

State Louisiana

General locality Gulf Coast

Locality Little Constance Bayou to Hog Bayou

Scale 1:20,000 Date of survey August 1933, ~~xxx~~

Vessel HYDROGRAPHER

Chief of Party W.E. Parker

Surveyed by Charles A. Schanck

Inked by D. H. Bassett

Heights in feet above MW to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval feet

Instructions dated December 17, 1932, ~~xxx~~

Remarks:

GPO

REVIEW OF TOPOGRAPHIC SURVEY No. 4795

Title (Par. 56) Little Constance Bayou to Hog Bayou, La.

Chief of Party W.E. Parker Surveyed by C.A. Schanck Inked by D.H. Bassett

Ship Hydrographer Instructions dated Dec. 14, 32 Dec. 17, 32 Surveyed in 1933

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.)

2. The character and scope of the survey satisfy the instructions.

3. The control and closures of traverses were adequate. (Par. 12, 29.)

4. ~~The amount of vertical control that the Manual specifies for contours formlines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~

5. ~~The delineation of contours formlines is satisfactory. (Par.~~ 49, 50.)

6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) None submitted

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)

8. The representation of low water lines, ~~reefs, coral reefs and rocks~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)

9. ~~Rocks and other~~ important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

10. The span, draw and clearance of bridges are shown. (Par. 16c.) None

11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~

12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓

14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control. ✓

15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of IMs and DPs, 68.) 6 cards submitted

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) Descriptive report states there are none

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓

18. The geographic datum of the sheet is N.A.(1927) adjusted and the reference station is correctly noted. (Par. 34.) ✓

19. Junctions with contemporary surveys are adequate. A comparison with T.1689 (1886) verifies the statement in the descriptive report that the shoreline has receded throughout the length of the survey from 300 to 600 meters. ✓

20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) Names were shown on the sheet but not discussed in the descriptive report

21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓

22. No additional surveying is recommended. ✓

23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~ There is no record that the chief of party inspected and approved the sheet. ✓

24. Remarks: Air photo surveys have been made of this area by the Geological Survey. They are based on good control and may be used to supplement this survey.

Reviewed in office by E. P. Ellis, Feb. 27, 1936

Examined and approved:

C. K. Green — Chief, Section of Field Records

Fred. L. Peacock — Chief, Section of Field Work

L. O. Colbert — Chief, Division of Charts

G. Rude — Chief, Division of Hyd. and Top.

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