

4822

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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

R. S. Patton *Director*

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
APR 18 1934

State: Texas

Acc. No. _____

DESCRIPTIVE REPORT

Topographic } Sheet No. B 4822
~~XXXXXXXXXX~~

LOCALITY

Galveston Bay.

Trinity Bay

1933.

CHIEF OF PARTY

Earl O. Heaton.

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "B"
TRINITY BAY
SCALE : 1:20,000

Project: HT-118, Galveston Bay
Surveyed January to February, 1933
E. O. Heaton, H. & G. Engineer, Chief of Party
W. C. Russell, Aid, Topographer
Instructions Dated Nov. 5, 1932

General Description of Coast:

The area from Double Bayou north to within a mile south of Round Pt. is prairie with scattered groups of oak trees along the shore. The bluff is gradually rising from Double Bayou to Anahuac. From Round Pt. to Anahuac the bluff, along the shore, is covered in general, with oak and pine trees.

On the west shore of Trinity Bay from topographic station Duke at Cedar Pt. to topographic station Rob, about one mile beyond triangulation station Barrow, there is prairie land with area of oak trees and brush along the bluff. About 1/8 mile north of topographic station Hunt the bluff ends and marsh land begins and continues to the end of the sheet. From topographic station Duke west to Mesquite Knoll the shore line consists mostly of sand and shell beach back to prairie and marsh land. There are bluffs on both shores of Trinity Bay except between Mesquite Knoll and topographic station Chum and from topographic station Hunt to the end of the sheet.

Landmarks:

There are several prominent land marks in this locality. A list is given on form #567 attached to this sheet.

Character of Control:

Sheet "B" is controlled by two first order stations, Beazley 1931 and Scherer 1931, by five second order stations, Mesquite Knoll, Cedar Pt., Lawrence Cove, Anahuac Steeple, and Black Pt., six third order stations, (intersection stations), Fisher Reef, Barrow, Marsh, Trinity River Beacon B, Trinity River Beacon A, and Double Bayou Beacon #4. Intermediate control between stations was established by stadia traverse.

Closing Errors of Traverse and Methods of Adjustment:

Traverses	Closure Error (meters)	Distance (stat. miles)
Mesquite Knoll to Der	6	2.0
Cedar Pt. to Der	14	2.8
Beazley to Cedar Pt.	4	1.8
Beazley to Barrow	11	3.4
Barrow to Marsh	6	2.0
Marsh to Lawrence Cove	2	2.0
Scherer to Anahuac	12	3.5
Scherer to Black Pt.	2	2.5
Black Pt. to Double Bayou #4	10	2.4

In all cases the error of traverse ran short of the true distance.

The control points around Bulkhead Cove were transferred from adjusted traverse on Sheet A (Turtle Bay). All traverse lines were ad-

justed as prescribed in Topographic Manual #144.

Failure to Agree with Former Work - Chart #1282:

From inspections with chart #1282 and topographic Sheet B there is an indication of erosion on both shore lines. This condition was affirmed both by observation on the ground and information received from property owners along the bay shore. In trying to locate triangulation station Fisher U.S.E. on the west shore and Double Bayou U.S.E. on the east shore of Trinity Bay, it was found at station Fisher that the bluff had eroded and the monument was in the Bay and at station Double Bayou the monument was found on the edge of the bluff, while the description of this station in 1911 states it was "34 meters back from the edge of bluff".

There is question as to the exact amount of erosion carried on since the topographic survey on chart #1282 was made. By taking points along Double Bayou (which apparently has not changed its course) and comparing the same points with the chart, there is a difference in latitude and longitude which undoubtedly indicated that the old datum was considerably in error due to insufficient control on the previous topographic survey.

The bayou as shown on chart #1282, about 0.4 of a mile north of Double Bayou has changed its course and has dried up in places leaving now only a narrow creek emptying into the bay about two to three meters wide and on the average about two feet deep. The two depressions as shown on the chart on the west shore of Trinity Bay are now narrow creeks. In both cases the depth of creeks are about 2 feet deep and about two meters wide at the mouths. There is no indication of a building up of shore line in Trinity Bay.

There is no marsh land as shown on chart #1282 from Double Bayou to Round Pt. and therefore it should be omitted from the chart.

List of Recoverable Plane Table Positions:

Chum - centerline of red brick fireplace chimney on large two story white house - Cedar Pt.
Joe - windmill and tank on same tower about 50 ft. high.
Mal - water tank about 5 ft. in diameter and 40 ft. high.
Wat - water tank about 5 ft. in diameter and 30 ft. high.
Silo - wood silo about 8 ft. in diameter and 16 ft. high.
Gal - water tank about 5 ft. in diameter and 30 ft. high.
Wind - water tank about 6 ft. in diameter and 25 ft. high.
Hunt - hunter's cabin about 3 meters long and 2 meters wide.
Ann - wooden water tank about 6 ft. in diameter and 25 feet high.
Round - N.W. corner large two story white house.
Dock - end of dock about 5 ft. wide and 76 meters long.

New Names: *"Trinity Bay" should be in large lettering on the survey and Galveston Bay smaller lettering as in title*
The body of water contained in the area shown on Topographic Sheet B is known locally as Trinity Bay and is noted as such, in the Coast Pilot but does not appear on the chart. *HB.*

The name of Bulkhead Cove is of local origin but well established. *OK/HB.*

Character of Marshes:

Black gumbo, composed of sand, clay and vegetable matter covered with marsh grass.

The marsh area around Bulkhead Cove and between station Clay and

Lawrence Cove is covered at extreme high tide. The marsh around Mesquite Knoll and between stations Roß and Clay is covered by water only in rainy seasons.

Connections with Adjacent Surveys:

A connection was made with topographic sheets A and D by tying into common points. A tie in was made at Mesquite Knoll with the topographic survey of 1930 by overlapping the two surveys. No discrepancy was found in the connection.

Approved:

Earl O. Heaton
Earl O. Heaton,
H. & G. Engineer, C. & G. S.

Respectfully submitted,

William C. Russell
William C. Russell,
Aide, C. & G. S.

Topo sheet "B"

DIVISION OF CHARTS, FILE NO.

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVE

APR 16 1934

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Acc. No.

Corpus Christi, Texas

April 9

1934

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.

4822

Earl O. Heaton

Chief of Party.

[illegible]

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4822

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. B

REGISTER NO. 4822

State Texas

General locality Galveston Bay

Locality Trinity Bay

Scale 1 : 20,000 Date of survey Jan. - Feb., 1933

Vessel Project HT-118

Chief of party. Earl O. Heaton

Surveyed by William C. Russell

Inked by William C. Russell and W. K. Doolittle

Heights in feet above m.h.w. to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval_____feet

Instructions dated Nov. 5, 1932

Remarks: _____

LANDMARKS FOR CHARTS 7 4822

Corpus Christi, Texas

April 9

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The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

Earl O. Heaton

Chief of Party.

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

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

DEPARTMENT OF COMMERCE

AND REFER TO NO. 80-SLS

U. S. COAST AND GEODETIC SURVEY

WASHINGTON,

November 12, 1934.

To: Lieut. Earl O. Heaton,
U. S. Coast and Geodetic Survey,
229 Nixon Building,
Corpus Christi, Texas.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Topographic Signal BAR.

Information is desired as to the character of topographic signal BAR, latitude $29^{\circ}45'9''$, longitude $94^{\circ}47'6''$, shown on your smooth hydrographic sheet No. 21 (Register No. 5399) and on T-4821 (1933).

The topographic sheet shows this signal on the edge of an island which is shown faintly in pencil, whereas the boat sheet shows the identical island in ink. No topographic feature is shown on the smooth sheet at this signal, which is 150 meters seaward of the inked high-water line.

Photostats of the vicinity, from both your topographic and smooth sheets, are enclosed.

Please advise this office as to whether the penciled island should be retained as a high-water feature.

R. S. Patton

Enclosures.

Director.

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POST-OFFICE ADDRESS: 230 Nixon Bldg.; Corpus Christi, Texas

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

November 15, 1934

To: The Director,
Coast & Geodetic Survey,
Washington, D. C.

From: Earl O. Heaton, Lieut., C. & G. S.

Subject: Topographic Signal Bar.
(Ref. 60-SLS)

Topographic signal Bar was a temporary signal built on a very low grassy section of marsh land which had become detached from the mainland.

The portion of marsh indicated in pencil, as an island on the topographic sheet, did actually exist when the plane table survey was made and it bared only a few inches at mean high water. It was entirely covered by all high storm tides.

In this locality the strong southerly winds are causing rapid erosion of the entire shoreline and it is doubtful if this small island will exist until the new chart is published.

The marsh along the main shoreline had a distinct vertical edge but the small area in question did not have this characteristic. The area in question was also considerably lower than the marsh on the mainland.

In my opinion this small area should be shown on the topographic sheet by the mud symbol with grass tufting in accordance with par. 43 of the topographic manual.

Earl O. Heaton
Earl O. Heaton,
Lieut., C. & G. S.

app. by ...
Sept 11. 1934
W. H. Murray

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4822 (1933)

Trinity Bay, Galveston Bay, Texas

Surveyed: January - February, 1933

Instructions dated: November 5, 1932 (E. O. Heaton)

Plane Table Survey

Cloth Mounted

Chief of Party - E. O. Heaton.

Surveyed by - W. C. Russell.

Inked by - W. C. Russell and W. K. Doolittle.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

- a. Descriptions of Recoverable Topographic Stations, although listed in the Descriptive Report (positions not given), were not submitted on Form 524.
- b. A marsh island in lat. $29^{\circ}45.9'$, long. $94^{\circ}47.6'$, which covers at high tides, was not inked in the field. Later information has been received from the field party and this island is now correctly shown.

2. Compliance with Instructions for the Project.

The survey complies with the instructions in every respect.

3. Junction with Contemporary Surveys.

Satisfactory junctions were made with T-4613 (1930), T-4821 (1933), and T-4861 (1933).

4. Comparison with Prior Surveys.

a. T-330 (1851).

A comparison of this survey with the present survey shows a good agreement in general. The delta at the mouth of Trinity River has built out considerably. The east shore of Galveston Bay is not marsh land as shown on the chart. This survey agrees with the present survey in this respect.

b. T-331 (1851).

This survey is in good agreement with the present survey.

5. Field Drafting.

The field inking is good.

6. Additional Field Work Recommended.

No additional field work is required.

7. Superseding Old Surveys.

Insofar as the topography actually covered on the present survey is concerned, it supersedes the following surveys for charting purposes.

T-330 (1851) in part.

T-331 (1851) " "

8. Note to Compiler.

Attention is called to the non-existence of marsh land now charted (par. 4a, this Review).

9. Reviewed by - A. F. Jankowski, October, 1934.

Examined and approved:

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

F. B. Borden
Chief, Section of Field Work.

L. O. Lobat
Chief, Division of Charts.

G. W. W. W.
Chief, Division of H. & T.