

4821

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Form 504
Ed. June, 1928

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

State: **Texas**

U. S. COAST & GEODETIC SURVEY
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DESCRIPTIVE REPORT

Topographic ~~Photographic~~ Sheet No. **▲ 4821**

LOCALITY

Galveston Bay

Turtle Bay.

1933.

CHIEF OF PARTY

Earl O. Heaton.

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"
TURTLE BAY & TRINITY RIVER DELTA

Scale: 1:10,000

Project: HT-118, Galveston Bay

Surveyed January to March 1933

E. O. Heaton, H. & G. Engineer, Chief of Party.

J. W. Somers, Topographer

Instructions Dated Nov. 5, 1932

General Description of Coast:

The coast from Anahuac, Texas, west to Cross Bayou is low, flat marsh land covered with marsh grass and sea-cane. A few willow trees have grown up along the shores of the Trinity River and its tributaries. The Trinity River is navigable by boats of a draft of five feet or less. The passage from Galveston Bay is made through the Trinity River Channel. The channel is well marked by three lighted beacons; however extreme caution is advised due to a number of submerged logs and other similar obstacles. During periods of high water a Log Boom extends across the mouth of the Trinity River about one hundred meters North of the head of Brown's Pass. The down stream end of this Log Boom is marked by a flag and a red lantern. Middle Pass, Main Pass, and Jack's Pass are not navigable, except by skiff.

The Turtle Bay Channel will accomodate boats of a draft of three feet or less. This channel is reached via Browns Pass to Irrigation canal, thence North 250 m., thence Southeast 450 m. to Turtle Bay channel, thence Northeast through the channel, 1750 m. to a 4" x 4" post surmounted by cross arms. This marker is on the west side of the channel. Thence North to Turtle Bayou. The entrance to Turtle Bayou is 100 m. East of a small shell island just off the left bank of the Bayou.

Landmarks:

The Chambers County Court House is the only prominent landmark in this locality. A three story gray brick building with a two story Light Tower. A light on this tower tended by the building custodian is visible 15 miles in clear weather.

Character of Control:

Sheet "A" is controlled by four Second Order Triangulation Stations; Anahuac Steeple, Pine Mound, and Lawrence Cove. Two Second Order Triangulation Stations (intersection); Turtle, and Jack. Three Third Order Triangulation Stations (intersection); Beacon "C", River (not marked) and Trinity. Intermediate control; Stadia Traverse.

Dates on Triangulation Stations:

Two dates are shown on this sheet at triangulation stations which have been recovered. The date of original establishment is shown and the last date of occupation. This was done because the datum was changed in 1927 and the last date is the one which represents the plotted positions.

Closing Errors of Traverses and Methods of Adjustment:

Error of closure, traverse; Turtle to Pine, 9 m. ($2\frac{1}{2}$ mi.); Pine to Mound, 7 m. (3 mi.); Mound to Beacon "C", 10 m. (4 mi.); Beacon "C" to River, 5 m. (2 mi.); River to Trinity, 6 m. (2 mi.); Sta. Trinity to topographic signal Hog, 3 m. ($1\frac{1}{2}$ mi.); River to Jack, 2 m. ($1\frac{3}{4}$ mi.); Jack to Lawrence Cove (U.S.E.D.), 10 m. ($3\frac{1}{2}$ mi.); topographic signal #3 to Jack, 8 m. (2 mi.).

An error was introduced into the line Mound to Beacon "C". The erroneous section was retraversed, all points affected were corrected. This procedure was also followed to correct an error in Lighthouse Pass. All traverse lines were adjusted as prescribed in the Topographic Manual, U. S. C. & G. S.

Failure to Agree with Former Work - Chart #1282:

A discrepancy of about 90 m. mostly West and North was found to exist between this work and Chart #1282. Thirty points on the chart were compared to similar points on Sheet "A". This discrepancy is not consistent throughout and seems to indicate a lack of control in the original work.

New Names:

The following names of passes and bayous, of local origin and acceptance, do not appear on the original chart: Kings Pass, Lighthouse Pass, Turtle Bay Pass, Smiths Bayou, Hog Bayou, and Little Hog Bayou, Peterson's Lake, Jack's Pass, Triangle Pass, and Little Triangle Pass, Bulkhead Cove, Cross Bayou. Blind Bayou does not appear on the chart. *The above names are approved as local names. Do not use apostrophe in charting. H.B.*

List of Recoverable Plane Table Positions:

1. OIL - east end of dike Anahuac, Texas.
2. BLACK 2 - stack of Lone Star Pumping Co., Anahuac, Texas.
3. BAR - banner in 24" cypress tree in Turtle Bay.
4. RED - red brick chimney.
5. STA. 10 - 2 piles N end of log boom mouth of Trinity River.
6. LONE - lone tree left bank of bayou.
7. TANK - water tank Dunns Lodge, Cross Bayou.

Changes of Coast Line:

The East shore of Turtle Bay shows a gradual erosion, due to the wave action. There was nothing to definitely indicate the exact amount of this erosion over any period of time. The ^{West} shore of Turtle Bay is filling ⁱⁿ very slowly. The Trinity River Delta is building out into Galveston Bay. The Bay shore from Jack's Pass West to Cross Bayou shows a gradual recession.

Character of Marshes and the Extent Covered by High Water:

Black Gumbo, composed of sand clay, decayed vegetable and animal matter. This section is covered with marsh grass and sea-cane. About 40% covered at high water.

Approved:

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

Respectfully Submitted,

J. W. Somers
J. W. Somers, Observer.

U. S. COAST & GEODETIC SURVEY
DIVISION OF CHARTS FILE NO. 100-100000

APR 16 1934

Acc. No. _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Texas

February 20, 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.

~~Earl O. Hoston~~

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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. A

REGISTER NO.

State Texas

General locality Galveston Bay

Locality Turtle Bay

Scale 1 : 10,000 Date of survey Jan. 5 - Feb. 20, 19³³

Vessel

Chief of party Earl O. Heaton

Surveyed by J. W. Somers

Inked by J. W. Somers & C. W. O'Melveny

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:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

T-4821

LANDMARKS FOR CHARTS

Corpus Christi, Texas

February 20, 1934

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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.

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY T-4821 (1933)

Turtle Bay, Galveston Bay, Texas

Surveyed Jan. - Feb., 1933

Instructions dated Nov. 5, 1932

Chief of Party - Earl O. Heaton.

Surveyed by - J. W. Somers.

Inked by - J. W. Somers & C. W. O'Melveny.

1. Condition of Records.

The records are complete except that Descriptions of Recoverable Topographic Stations Form 524 were not made.

2. Compliance with Instructions for the Project.

The work complies with instructions except that it should have extended about 1/2 mile farther north to include Wallinsville on the Trinity River, to embrace the area on Chart No. 1282.

3. Junctions.

Satisfactory junctions were made with Survey T-4822 (1933).

4. Comparison with Prior Surveys.

T-330 (1851). Comparison with the new survey showed a good agreement in general characteristics, except where the dike had been constructed across the mouth of Turtle Bay. No detailed comparison of shoreline was attempted because of absence of a recent geographic datum on the old survey. However, attention is called to comparisons with Chart No. 1282 as noted in the Descriptive Report. See Paragraph No. 8.

5. Field Drafting.

The field inking of the survey is satisfactory.

6. Additional Field Work Recommended.

Outside of furnishing Form 524 no additional work is necessary.

7. Superseding Old Surveys.

Within the area covered, this survey will supersede the following for charting purposes:

T-330 (1851) in part.

8. Changes in Shoreline.

The Descriptive Report mentions erosion of the East shore of Turtle Bay and filling in of the west shore. Also it states that the north shore of Galveston Bay from Jacks Pass to Cross Bayou is gradually receding.

In the case of Turtle Bay, the discrepancies are more likely due to difference in datums, since the distance between shores is about the same.

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

C. K. Green.

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

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

L. O. Lobnitz.
Chief, Division of Charts.

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