

4862

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Rev. Dec. 1933

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~

Sheet No. **E 4862**

State **Texas**

### LOCALITY

**Galveston Bay**

**(East Bay)**

**1933**

### CHIEF OF PARTY

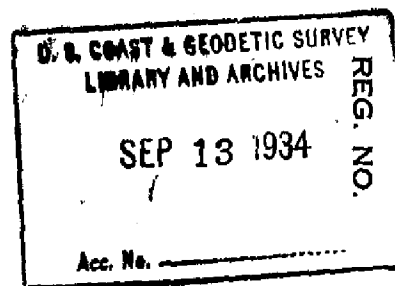
**Earl O. Heaton**

U. S. GOVERNMENT PRINTING OFFICE: 1934

20004

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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.

4862

Field No. B

REGISTER NO. 4862

State Texas

General locality Galveston Bay

Locality East Bay

Scale 1:20,000 Date of survey Apr. 16 to June 5, 1935

~~VESSEL~~ Project: MT-118

Chief of party E. O. Henton

Surveyed by J. W. Somers

Inked by J. W. Somers

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

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated Nov. 5, 19 32

Remarks: \_\_\_\_\_

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET E  
EAST BAY AND BOLIVAR PENINSULA

Scale: 1:10,000

Project: HT-118; Galveston Bay

Surveyed April 16 to June 5, 1933

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

J. W. Somers, Topographer

Instructions Dated Nov. 5, 1932

General Description of the Coast:

The shore of East Bay is marsh and low prairie land, with the exception of a low sand and shell ridge, which begins about  $1\frac{1}{2}$  miles east of Moody's ranch house and extends eastward to Robinson Bayou. This ridge is sparsely covered with mesquite bushes and a heavy growth of salt grass. The vegetation on the East Bay shore is salt grass, mesquite, and salt cedars. The Gulf shore has a sand and shell beach which extends inshore about 100 meters to sand dunes. The average height of these dunes is about 5 feet, except from Caplen to Patton where they are about 10 feet high. On Bolivar Peninsula the vegetation is salt grass, salt cedars, and mesquite, and along the highway truck farming. The only substantial stand of timber in this section is at Elm Grove, located 1 mile NW of Flake station, on the G.C. & S.F.R.R.

The Intracoastal waterway enters East Bay at a point 450 meters south of the mouth of East Bay Bayou on a bearing of S.  $32\frac{1}{2}^{\circ}$  W., crosses a small cove of East Bay for a distance of 1000 meters and then cuts across the marsh for a distance of  $1\frac{1}{2}$  miles to a point north of Gilchrist R. Station. It again enters East Bay on a bearing of S.  $67\frac{1}{3}^{\circ}$  W., and continues for about  $1\frac{1}{2}$  miles to a point where the marsh is again entered and through which the waterway extends to the west edge of sheet E. The cuts through the bay are marked by small beacons of a temporary nature consisting of 2" x 2" and 2" x 4" stakes with a cross slat at the top.

Landmarks:

Hildebrants house at Oyster Bayou

Two story pink house owned by J. Cook Wilson at Caplen, Texas

Small house  $1\frac{1}{2}$  miles SE of East Bay Bn. #3.

Character of Control Used:

The control for this sheet consists of six second order triangulation stations, seven third order triangulation stations, and plane-table stadia traverse. Two dates are shown on this sheet at station Parr's Grove, which was recovered. The date of original establishment is shown in addition to the date of the last occupation. This was done because the datum was changed in 1927 and the last date is the one which represents the plotted position.

Closing Errors of Traverses and Methods of Adjustment:

	Closure error (meters)	Distance (miles)
Station Moody to station Cattle	16	3.7
Station Cattle to station Robinson Bayou	6	2.7
Station Robinson Bayou to Station Shell	15	4.0

	Closure Error (meters)	Distance (miles)
Station Shell to station Brant	10	3.7
Station Brant to station Gilchrist	12	3.5
Station Gilchrist to station Belt	6	2.0
Station Belt to station Slipper	8	3.7
Station Slipper to station Cox	6	2.5
Station Cox to station Way	5	1.2
Station Cox to station Pete	10	3.2
Station Pete to station Elm	4	2.3
Station Elm to station Club	10	1.2
Station Club to station Parr's Grove	8	2.5
Station Gilchrist to station Pill	7	2.3
Station Gilchrist to station Caplen	7	2.7
Station Caplen to station Patton	12	6.5
Station Patton to station Parr's Grove	8	4.7

All traverse lines were adjusted in accordance with instructions in the Topographic Manual, paragraph 12, part I.

Failure to Join with Former Work (Chart 1282):

At Marsh Pt. Chart #1282 shows south shore of East Bay 30 meters south of position given on sheet E. At the southernmost point of Yates Bayou and a small marsh bayou, the position as shown on chart #1282 is 120 meters west and 80 meters south of the position as given on sheet E. At the mouth of a bayou  $\frac{1}{2}$  mile west of Elm Grove Pt., the position as shown on chart #1282 is 180 meters west of the position given on sheet E. No difference in Latitude noted. The position of East Bay Bn. #3 as shown on chart #1282 is 280 meters west and 80 meters south of the 1933 triangulation position as given on sheet E. The north shore of East Bay as shown on chart 1282 at latitude  $29^{\circ} 33'$  and longitude  $94^{\circ} 38'$  is 120 meters south of the position as shown on sheet E. A point in Robinson Bayou as shown on chart #1282 is 100 meters west and 80 meters south of the position as given on sheet E.

There is evidence of some erosion in this area, but the greater part of the above differences are probably due to difference in the datum used for chart #1282 and sheet E.

List of Plane-table Positions:

S. end of concrete water trough, 2.2 miles E. of Moody's ranch house.  
 3" pipe, fence between Moody's and Canada's ranch.  
 8" post,  $1\frac{1}{4}$  miles E. of mouth of Robinson Bayou.  
 2" pipe, on Frozen Pt.  
 Sta. Hill, Hildebrants house.  
 Sta. Sta., E. gable Gilchrist R. R. Station.  
 Sta. Gin, peak of roof of J. C. Wilson house, Caplen.  
 Sta. Win, windmill  
 Sta. Don, windmill.  
 Sta. La, flagpole.  
 Sta. Pip, windmill.  
 Sta. Turn, S.E. corner house,  $2\frac{1}{4}$  miles SW of Patton R.R. Station.  
 E pile of wrecked dock.  
 Sta. Ken, windmill.  
 Sta. El, windmill.  
 Sta. Boyt, windmill.  
 Sta. Fish, NW corner of house,  $1\frac{1}{4}$  miles SE of Bn. 3 East Bay Pass.

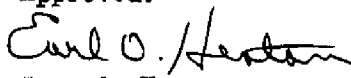
Changes in Shore Line:

The north shore of East Bay and the Gulf shore are receding at a fairly rapid rate. In searching for old marks along these shores this was plainly evident in cases where the marks had been washed away. Local information also confirmed the fact that recession is taking place. The south shore of East Bay does not show any change.

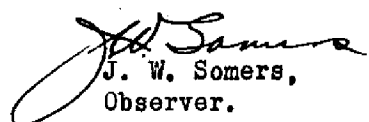
Character of Marshes:

The north shore of East Bay, 1 mile east of station Cattle to point 1 mile north of station Shell is covered from 1 to 4 inches by high summer tides. The average width of the flooded section is about 200 meters. Another such flooded section begins 1 mile east of triangulation station Shell and extends eastward about 1 mile. The triangular shaped island formed by the eastern reaches of East Bay, the Intra-coastal Canal and East Bay Bayou is also covered at high tides about 1 to 2 inches. The south shore of East Bay from the Rollover end of the canal westward to 1 mile south of Yates Bayou is covered about 2 inches as far inland as 1 mile. The same condition exists on Elm Grove point. The remaining sections of marsh land are covered only by storm tides.

Approved:

  
Earl O. Heaton,  
Chief of Party, C. & G.S.

Respectfully submitted,

  
J. W. Somers,  
Observer.

SEP 13 1984

**Act. No.**

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

**Topography Sheet E**

## LANDMARKS FOR CHARTS

## Aids to Navigation

74862

Corpus Christi, Texas

August 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:

Earl O. Heaton

*Chief of Party.*

[illegible]

\* A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, 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.

Chief of Party to his descriptive report.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaves and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1934 25379

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

T 4862

## LANDMARKS FOR CHARTS

Corpus Christi, Texas

June 8 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. Heston

Chief of Party.

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

**T**

Date. September 26, 1934

TEXAS

Survey No. E 4862

Chart No. 1282 & 1280

Diagram No. 1282 & 1280

\*, Approved by the Division of Geographic Names, Department of Interior.

~~C~~, Not Approved by the Division of Geographic Names, Department of Interior.

R. Referred to the Division of Geographic Names, Department of Interior.

[illegible]



Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4862 (1933)

East Bay, Galveston Bay, Texas

Surveyed: April - June, 1933

Instructions dated: November 5, 1932 (HEATON)

Plane Table Survey

Cloth Mounted

Chief of Party: E. O. Heaton.

Surveyed by: J. W. Somers.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual.

2. Compliance with Instructions for the Project.

The survey complies with instructions in every respect.

3. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-4861 (1933) and with T-4863 (1933).

4. Comparison with Prior Surveys.

a. T-329 (1851).

This survey is in good agreement with the present survey, particularly in the general delineation of detail. Minor discrepancies in geographic location are very probably due to lack of sufficient control for the old survey.

b. T-1636 (1886) and T-1637 (1881).

These surveys are in good agreement with the present survey.

5. Field Drafting.

The field inking is good.

6. Additional Field Work Recommended.

The shoreline detail is complete and no additional field work is required.

7. Superseding Old Surveys.

Insofar as the topography included on the present survey is concerned, it supersedes the following surveys for charting purposes:

T- 329 (1851) in part.

T-1636 (1886) " "

T-1637 (1881) " "

8. Magnetic Meridian.

There are four magnetic meridians shown on the sheet which vary from  $11^{\circ}08'$  at Triangulation Station Gilchrist to  $7^{\circ}58'$ . The other two are  $8^{\circ}33'$  and  $8^{\circ}24'$ . It is probable that the meridian at Triangulation Station Gilchrist was affected by local disturbance.

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

Examined and approved:

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

*K.T. Adams*  
Acting Chief, Division of Charts.

*James S. Borden*  
Chief, Section of Field Work.

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

*Applied to chart 1280 Sept. 13, 1937 J. H. S.*