

6053

U. S. COAST & GEODETIC SURVEY
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MAY 21 1934

Acc. No.

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. **K**
~~Hydrographic~~

6053

6053

State **Texas**

LOCALITY

Galveston Entrance

(Galveston Bay, Texas)

1933-34

CHIEF OF PARTY

Earl O. Heaton

U. S. GOVERNMENT PRINTING OFFICE: 1934

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TOPOGRAPHIC TITLE SHEET

6053

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

Field No. K

REGISTER NO. 6053

State Texas

General locality Galveston Bay

Locality Galveston Entrance

Scale 1:10,000 Date of survey Oct. 1933 to Jan., 1934

~~Vessel~~ Project: HT-118, Galveston Bay

Chief of party Earl O. Heaton

Surveyed by W. T. White

Inked by W. T. White

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: _____

Since topo work on sheet K was completed,
-buoy #3 has been moved as noted in Notice
to Mariners, dated May 9, 1934.

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "K"
GALVESTON ENTRANCE

Scale: 1:10,000

Project: HT-118, Galveston Bay

Surveyed October 1933 to January 1934

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

W. T. White, Topographer

Instructions Dated Nov. 5, 1932.

General Description of the Coast:

This sheet covers the approach to Galveston Bay, which lies between two converging jetties about 4 miles long and $1\frac{1}{2}$ miles apart at the outer end. The jetties are constructed of red granite riprap. The North Jetty joins the Gulf of Mexico shore on Bolivar Peninsula. This shore is a wide sand and shell beach back of which extends a flat prairie covered with grass and scattered patches of small bushes and salt cedars. The South Jetty joins the northeast end of Galveston Island. This shore is a wide sand and shell beach back of which is a concrete seawall 15 feet high extending southwesterly approximately normal to the jetty. A boulevard drive extending along the seawall is constructed so as to slope upward from its mid-point until it reaches the top of a 29 foot embankment on its westward side. A small lagoon is located in the grassy area between the seawall and the sand beach.

The outer end of the North Jetty is marked by a light on a 47 foot red, square, pyramidal, slatted structure on piles on concrete block, and the outer end of the South Jetty is marked by the Galveston Jetty Lighthouse, - a 91 foot cream colored cylindrical brick tower with black pilasters on a black, square, skeleton structure.

The channel dredged between the jetties is marked with buoys some of which are lighted.

Prominent objects located beyond the limits of this sheet are described in the descriptive report accompanying topographic sheets F, J, & L.

Landmarks:

North Jetty Light

Galveston Jetty Lighthouse (Galveston South Jetty Lt.)

New fish house.

Control:

The control for this work consists of stations located by second and third order triangulation and supplemental stations located by plane-table triangulation and plane-table traverse.

Traverse Closures and Methods of Adjustment:

TRAVERSES	CLOSURE ERROR (meters)	DISTANCE (miles)
Beta to intermediate point located by plane-table traverse from Travis.	5	1.6
Jacinto to East Beach	3	1.0
Intermediate point located by plane-table traverse from San to East Beach.	4	1.2

All traverses were adjusted on the sheet in accordance with paragraph 12, part 1, Topographic Manual.

List of Recoverable Plane-table Positions:

Stucco - chimney of white stucco building (Yacht Club)
Kid - flag pole in yard of white stucco building (Yacht Club)
Club - east peak of roof (or gable) of boathouse (Yacht Club)
Radio Tower - near Galveston South Jetty Lighthouse
Fred - dredging range located south of the North Jetty near station Dredge

Changes of Coast Line:

A comparison of this sheet with U.S.C. & G.S. chart No. 520 shows that there has been a slight erosion of the gulf shore on Galveston Island in the vicinity of the jetty. At a point one mile southwest along the shore from the jetty no erosion is apparent, but from this point northeastward the shore has been affected increasingly by erosion to such an extent that at the jetty it has receded 90 meters. (It is said locally by the U.S. Engineers that the gulf shore in the vicinity of the jetty is emerging; however this is not verified by comparison with chart 520).

The area of land just north of the South Jetty near the jetty junction with Galveston Island has been affected considerably by storms and high tides. A storm in 1932 cut a shallow channel between the jetty and this land, thereby detaching this area from Galveston Island. Also wave action has cut down this area until much of it is submerged at mean high water and only a few scattered mounds are bare more than one foot at mean high water. A series of high tides will somewhat change the position of both the mean high and the mean low water line as shown on this sheet.

Station Symbols:

Recovered triangulation stations are marked with a triangle inscribed in a circle. After the name of these stations two dates are given. The date enclosed in parenthesis is the date of original establishment of the station while the other date is the date of the recent relocation of the station.

The change of datum in 1927 caused a change in the geographic position of these stations. The 1933 date is the date of location which is plotted on the sheet.

Magnetic Meridian:

The magnetic meridian was drawn by using the declinoire while at a number of triangulation stations. In all of these determinations local disturbances such as the presence of magnetic materials deflected the needle from its normal position. These determinations are valueless and have not been inked. A determination at a traverse station is shown on the sheet. This determination was probably not affected by local disturbances, since it is approximately of normal value.

Approved:

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

Respectfully Submitted,

W. T. White
W. T. White, Observer

DIVISION OF CHARTS, FILE NO. 11-2 COAST AND GEODETIC SURVEY
LIBRARY AND ARCHIVES

MAY 22 1934

Acc. No.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Texas

March 24, 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 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, flagstuffs and like objects are not sufficiently permanent to chart.

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6053 (1934)

Galveston Entrance, Galveston Bay, Texas

Surveyed: October, 1933, to January, 1934

Instructions dated: November 5, 1932 (HEATON)

Plane Table Survey

Aluminum Mounted

Chief of Party: E. O. Heaton.

Surveyed by: W. T. White.

1. Condition of Records.

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

- a. No Descriptions of Recoverable Topographic Stations were submitted on Form 524, although they are listed in the D. R. (positions not given).

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-4863 (1934), T-6052 (1934) and T-6054 (1934).

4. Comparison with Prior Surveys.

a. T-282 (1850).

Since the time of this survey, the entire shoreline has been changed by jetty construction and by other improvements.

b. Chart No. 520.

A comparison of the chart with the present survey shows good agreement in general features with the exception that the narrow channel along the south jetty at the north end of Galveston Island did not exist when the chart was compiled.

5. Field Drafting.

The field inking is good.

6. Additional Field Work Recommended.

The survey is complete and no additional field work is required.

7. Superseding Old Surveys.

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

T-282 (1850)

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

Examined and approved:

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

L. O. Colbert
Chief, Division of Charts.

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

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

Applied to Chart No. 520 by J. Fleming, May 18, 1935, G. H. S.

NAUTICAL CHARTS BRANCH

SURVEY NO. T-6053

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.