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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 } Sheet No. R
~~Hydrographic~~

State Texas

LOCALITY

Corpus Christi Bay

~~City of~~ Corpus Christi

& Vicinity

1934

CHIEF OF PARTY

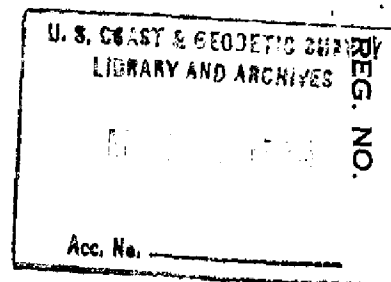
Earl O. Heaton

U. S. GOVERNMENT PRINTING OFFICE: 1934

6230

Graphic Control

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.

Field No. R

REGISTER NO. 6230

State Texas

General locality Corpus Christi Bay

Locality ~~City of~~ Corpus Christi & Vicinity

Scale 1:10,000 Date of survey March 1934 & August 1934

~~1:50,000~~ PROJECT: HT-118

Chief of party Earl O. Heaton

Surveyed by J. W. Somers & 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, Supp. Nov. 16, 1935, 19

Remarks:

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET R
CITY OF CORPUS CHRISTI, TEXAS
Surveyed March 1934 & August 1934
E. O. Heaton, H. & G. Engineer, Chief of Party
J. W. Somers & W. T. White, Topographers
Instructions dated Nov. 5, 1932 & Supp. Nov. 16, 1933

General Description of the Coast:

This sheet covers the bayshore of Corpus Christi Bay and Nueces Bay in the vicinity of the City of Corpus Christi.

On a clear day, mariners proceeding toward Corpus Christi through the ship channel from Aransas Pass, sight the Corpus Christi skyline immediately on entering Corpus Christi Bay. The west shore of the bay is sharply marked by the thirteen story Plaza Hotel and the nearby twelve story Nixon office building, which are located on the bluff. These objects are easily recognizable anywhere in Corpus Christi Bay. Proceeding up the channel the mariner will observe almost directly ahead the aluminum colored Aransas Compress Co. elevated tank and the black Port elevated tank. These objects are situated on low ground at the south side of the turning basin. On nearing the city the mariner will observe a 32 ft. bluff extending from the south along the bayshore and into the city. In the central part of the city, buildings are situated both below and on the bluff. In the northern part of the city the shore is flat and unmarked by a bluff. Objects such as stacks, elevated water tanks, and prominent buildings which show distinctly along the flat shore are listed under landmarks.

A narrow sand beach extends along the Corpus Christi Bay shore. The Nueces Bay shore is very irregular and is mainly of a marshy character.

A riprap breakwater protects the Corpus Christi shore from rough water. This breakwater is constructed of brown limestone and is bare about 5 ft. at mean high water. Openings in the breakwater are used as passages by boats. Two of these openings are marked by lighted beacons. The Corpus Christi Channel passes through the northernmost opening in the breakwater and continues under the bascule drawbridge to the turning basin. The channel extends on west from the turning basin to an industrial plant at Avery Point. The channel is well marked with beacons and ranges, most of which are lighted. A lighted beacon is maintained east of the southern part of the breakwater. This beacon is located at the entrance of an old channel which is no longer maintained (see descriptive report for hydrographic sheet No.2).

Landmarks:

Plaza Hotel, sign, lighted, red.
Breakers Hotel
Port tank (elevated), (triangulation station not plotted on sheet)
Aransas Compress Co. tank (elevated)
Central Power & Light Co. stack
Spohn Hospital, steel stack

Traverse Closures and Methods of Adjustment:

Traverses	Closure Error (meters)	Distance(mi.)
Spohn Hospital, steel stack to		
Central Power and Light Co. stack	4	1.2
Breakers Hotel, north elevator shaft to	.2	1.0
C. C. Channel Bn. No. 29		

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

Because of ample control most of the work on this sheet was mapped from stations located by the 3-point-fix method with the plane-table.

Character of Control Used:

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

Auxiliary Surveying Methods:

The Nueces Bay shoreline was surveyed with the plane-table. The area back of the shoreline which is broken up into a large number of small islands and shoal water ponds was transferred from a photo-topographic sheet compiled by a party under Ensign T. M. Price, Jr. These features were placed temporarily on Photo-Topographic Sheet Field No. 15, Register No. 5365 and removed therefrom after being transferred to the plane-table sheet.

Discrepancies:

Comparison was made with chart 1286 dated Feb. 15, 1934, as representing all previous surveys and also with photo-topographic sheet Register No. 5365 which is now being compiled.

The present street layout of Corpus Christi differs in detail somewhat from the layout shown on chart 1286. The layout should be revised on the chart to agree with the plane-table and photo-topographic sheets.

A number of small piers not shown on chart 1286 have been constructed on the northernmost point of Rincon Pt. These are of some importance since they are used considerably by fishermen.

Small piers have been constructed along the shore of Corpus Christi. These should be charted as they are frequently used by small boats.

A railway pier shown on chart 1286 at Lat. $27^{\circ} 49.4'$, Long. $97^{\circ} 23.1'$ has been wrecked. A number of piles remain as wreckage.

Recently constructed terminal facilities around the turning basin should be charted.

The detail shape of the south end of the breakwater is incorrectly shown on chart 1286.

Small shell islands situated near C. C. Ch. Bm. No. 29 should be charted.

No discrepancies were found in comparing with photo-topographic sheet, Register No. 5365.

List of Plane-Table Positions:

OIL, SE corner of dock.
REAR, C.C. Harbor Rear Range.
FRONT, C.C. Harbor Front Range.
YELL, peak of east gable Houston Oil Co.
DAY, C.C. Harbor Rear Range (daymark)
NO, 25 ft. white water tank.
LU, chimney on Princess Louise Hotel.
CON, white concrete stack on Nueces Hotel Laundry.
GRAY, southeast corner Presbyterian Church belfry.
CORN, northeast corner two-story white house.

Changes in Coast Line:

By a comparison of this sheet with C. & G.S. chart 1286, dated Feb. 14, 1934, the principal change in coast line was found to be due to dredging the Corpus Christi Turning Basin and the channel to Avery Point. The turning basin is incorrectly shown as to its detail shape on C. & G.S. chart 1286 and the channel

from the turning basin to Avery Point is of too recent construction to be shown on C. & G.S. chart 1286 of the above date.

By comparing the geographic positions of a number of points on the shore with points that have the same geographic position on C. & G.S. chart 1286, an apparent recession of the shore in the vicinity of Rincon Point is noted and a growth of the shore in the southern part of the City of Corpus Christi is noted. It is likely that the Corpus Christi Bay shore may have been cut back by erosion in the vicinity of Rincon Point, but it is highly improbable that any growth or emergence of the shore has come about in the southern part of the city, because of the nature of the high bluff bank which extends along the bay shore. Most likely the changes noted are due to errors in the earlier survey and to a change in datum. Comparison with the chart has been made using an adjustment for the difference in the 1906 and the 1927 triangulation datum.

On C. & G.S. chart 1286, Rincon Point is mapped as a marsh area bare at mean high water. By this survey it is found that the surface nature of Rincon Point is considerably changed. Much of this area is flooded at mean high water which results in the area being divided into a large number of small islands surrounded by very shallow water.

Character of Marsh:

The marsh area on Rincon Point is very low and flat. Occasional sand and shell spots are to be found scattered over the marsh area. It is estimated that a tide 8 in. above mean high water covers 75% of the area not already covered by mean high water. At mean low water the shallow areas are either bare or covered with shallow water remaining as separate ponds. During seasons when extreme low tides persist for a considerable period, the shallow ponds largely dry up and the areas slightly covered at mean high water remain as bare sand and mud flats.

Inspected and approved:

Earl O. Heaton

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

Respectfully submitted,

W. T. White

W. T. White,
Observer

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Texas

February 20, 1935 _____, 1935

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.

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

Topo sheet R.

U. S. COAST & GEODETIC SURVEY
DIVISION OF CHARTS, FILE NO. _____
LIBRARY & ARCHIVES

MAR 8 1935

Acc. No. Acknowledged
188

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Texas

February 20, 1935, 193

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

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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.

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TEXAS

Survey No. 6230

Chart No. 1286

Diagram No. 1286

Under investigation. Q

[illegible]