

4904

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. Q  
~~Hydrographic~~ }

State Texas

LOCALITY  
Corpus Christi  
Nueces Bay & Corpus Christi Bay

193 4-5

CHIEF OF PARTY

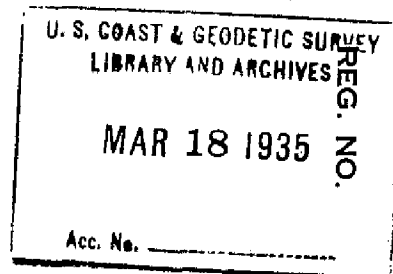
Earl O. Heaton

U. S. GOVERNMENT PRINTING OFFICE: 1934

4904

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. 9

REGISTER NO. 4904

State Texas

General locality Corpus Christi  
~~Nueces Bay and Corpus Christi Bay~~

Locality Nueces Bay and Corpus Christi Bay  
~~Nueces Bay shore and the north shore of Corpus Christi Bay, eastward to Long. 97° 17'.~~

Scale 1 : 20,000 Date of survey Feb., Mar., Sept., 1934  
Feb. 1935

~~Project~~ Project HT-118

Chief of party Earl O. Heaton

Surveyed by J. W. Somers & W. T. White

Inked by J. W. Somers & 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, Sup. Nov. 16, 1933., 19\_\_\_\_

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

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET Q  
Nueces Bay shore and the north shore of Corpus Christi Bay,  
eastward to Long.  $97^{\circ} 17'$   
Surveyed Feb., Mar., & Sept. 1934, & Feb., 1935  
E. O. Heaton, H. & G. Engr., Chief of Party  
J.W.Somers & W.T.White, Topographers  
Instructions dated Nov. 5, 1932, Sup. Nov. 16, 1933

Purpose of Survey:

This survey was executed primarily to furnish supplemental control for hydrographic work and secondarily to aid in the control of photo-topographic sheets Register No. 5365, 5366, 5367 compiled by the party of Ensign T. M. Price. If it had not been desirable to start hydrographic work before the photo-topographic compilation had been completed this sheet would not have been necessary. In addition to signals located for hydrography the low water line was established and in places the high water line was obtained as an aid in compilation of the photographs. A few plane table positions were used as control for the photo compilation.

General Description of the Coast:

The shore line of the north side of Nueces Bay from Portland westward to Long.  $97^{\circ} 26.5'$  has a narrow sandy beach near the foot of a bluff bank of an average height of 35 feet. From Long.  $97^{\circ} 26.5'$  the bluff swings inshore to the north and west around a flat marshy cove which is located east of Rosita. The shore around White Point is marshy and follows close to the foot of the bluff along the east and south sides. The west shore of White Point is at the foot of a 3 ft. bank, approximately 100 meters west of the high bluff at the point.

The form of the south shore line of Nueces Bay from Long.  $97^{\circ} 25'$  to Long.  $97^{\circ} 26.3'$  is the result of the recent construction of the Southern Alkali Co's. ship channel and turning basin. This shore has at the north side of the ship channel and turning basin a spoil dump composed of sand, clay, and shell, light gray in color and ranging in height from 9 to 18 ft.

The bay shore from Long.  $97^{\circ} 27'$  to Long.  $97^{\circ} 29.7'$  is a low marsh area extending inshore to the railroad.

A part of the north and west shore of Corpus Christi Bay is also shown on this sheet. From La Quinta westward to Long.  $97^{\circ} 19.4'$  the shore is a narrow sand and clay beach at the foot of a bluff bank approximately 30 ft. in height. The south shore of Indian Pt. is a steep and narrow sand and shell beach and the north shore is flat and marshy.

Landmarks:

Stack - smoke stack, Southern Alkali Co.

Chimney - red chimney S end of 2 story house, ( $\Delta$  Rosita ranch house, 1905)

Character of Control Used:

Sheet "Q" is controlled by 25 second and third order triangulation stations and by plane table traverse.

Date on Triangulation Stations:

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

Closing Errors of Traverse and Methods of Adjustment:

Traverse	Closure error (meters)	Distance (miles)
Counterweight R.R. Bridge to Indian Pt.	3	1.7
Indian Pt. to stake (3-pt.-fix)	15	2.1
Quintana to stake (3-pt.-fix)	12	2.8
Portland to stake (3 pt.-fix)	8	1.2
Portland to Fay	14	2.7
Fay to Koonce	12	4.5
White Pt. to Koonce	16	3.5
Southern Alkali Co. to Corpus Christi municipal stack incinerator stack	10	1.8
Southern Alkali Co. stack to Viola	10 (rerun)	4.7

All traverse lines were adjusted as perscribed in U.S.C. & G.S. publication No. 144.

Comparison of this Sheet to Other Surveys:

The shore line of this sheet was compared with shore line on chart 1286 and with photo-topographic sheet Register No. 5366.

The comparison with chart 1286 is as follows:

The north shore of Corpus Christi Bay shows a recession of from 10 to 40 meters. The north shore of Nueces Bay from Portland to Long.  $97^{\circ} 26.5'$  has in general receded from 0 to 40 meters. From Long.  $97^{\circ} 26.5'$  to White Pt. the marsh delta has built out nearly 200 meters in places. Very little change has taken place at White Point. The south shore of Nueces Bay from Long.  $97^{\circ} 25'$  to  $97^{\circ} 26.3'$  has been built out from 0 to 900 meters by the construction of a channel and turning basin for the Southern Alkali Co. From Long.  $97^{\circ} 27'$  to Long.  $97^{\circ} 29.7'$  very little change in the shore line was found.

In comparing the shore line on this sheet with that of photo-topographic sheet Register No. 5366 the agreement was found to be satisfactory.

Geographic Names:

1. Indian Point - The south end of the peninsula extending SW from Portland, Texas is well known locally as Indian Point. This name and designation was thoroughly checked in the field by Lt. E. O. Heaton, Chief of Party.
2. The railroad from Corpus Christi to Portland and points north is shown on chart 1286 as the S.A. & A.P.R.R. This road is now owned and operated by the Southern Pacific Lines and is known as Southern Pacific.
3. The railroad from Corpus Christi NW to Viola and points northwest, is shown on chart 1286 as the S.A.U. & G.R.R. This road is owned and operated by the Missouri Pacific R.R. and the name as charted is correct for this branch.
4. White Point is a well established local name. This name has been checked in the field by men of this party and also of the party of Ensign T. M. Price, and it is recommended that it be charted as White Point instead of Whites Point.
5. Avery Point is a well established name for the point where the Southern Alkali Co. is now located.

List of Plane-table Positions:

- SW corner of house - Lat.  $27^{\circ} 52.28'$ , Long.  $97^{\circ} 19.05'$
- Bert - chimney, east end of house, 0.5 mile west of Portland
- Bouy - remains of old bouy
- Red - chimney, west end of house
- Chimney, center of house, Lat.  $27^{\circ} 52.58'$ , Long.  $97^{\circ} 24.25'$
- Nell - south gable of house
- Chimney, south end of house
- SW corner tin shed (pipe line valve house)

- 5"x5" concrete post, Lat.  $27^{\circ} 49.70'$ , Long.  $97^{\circ} 29.76'$
  - West end of bridge, Lat.  $27^{\circ} 49.42'$ , Long.  $97^{\circ} 29.55'$
  - End - west end center line of bridge
  - 5"x5" concrete post, Lat.  $27^{\circ} 49.04'$ , Long.  $97^{\circ} 28.44'$
  - West gable yellow house
  - Station sign Nueces
  - Tow - windmill
  - Nu -
  - Ace -
  - Rail -
  - Way -
  - Pass -
  - Sing -
  - Sho -
- } N.E. corner of safety zones on the Nueces Bay railroad bridge

Character of Marsh:

The marsh east of White Point is a delta formed by sand and clay washed down from the high land north of Nueces Bay. This area is covered with numerous small ponds and tide water bayous. M.H.W. covers about one-fourth of this marsh. The marsh on the south and west shores of Nueces Bay is composed of mud and sand. 75% of this marsh is flooded by M.H.W.

Inspected and approved:

*Earl O. Heaton*

Earl O. Heaton,  
Chief of Party

Respectfully submitted,

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

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Corpus Christi, Texas

March 6, 1935 193

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.*

DESCRIPTION	POSITION						METHOD OF DETER- MINATION	CHARTS AFFECTED	
	LATITUDE			LONGITUDE					DATUM
	°	'	D.M. METERS	°	'	D.P. METERS			
2,3 * STACK									
Δ Southern Alkali stack, 1934	27	48	1476.1	97	25	1465.5	N.A. 1927	Triangu- lation 1286	
2,3 CHIMNEY									
Δ Rosita ranch house, south chimney, 1905	27	52	851.9	97	28	482.7	"	" 1286	
See descriptive report for Hydrographic Sheet No. 2 for additional landmarks.									
These objects are visible from the water.									
Checked and verified by: <i>JW Tanner</i>									

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

## DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

AIDS TO NAVIGATION

## LANDMARKS FOR CHARTS

Corpus Christi, Texas

February 5, 1935 \_\_\_\_\_, 193

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:

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

Date. March 21, 1935.

Chart No. 1286

Under investigation. Q

(M-136)

REVIEW OF GRAPHIC CONTROL SURVEY T-4904, SCALE 1:20,000

## Date of Review

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5366, , , with particular attention to the following details:

- (a) Projection has been checked in the Field.
- (b) Accuracy of location of plane table control points.
- (c) Discrepancies between detail on this survey and the air photo compilations listed above.
- (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5366, , , for a more complete discussion of any errors or discrepancies found.

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.

Notes and corrections resulting from the review are shown on this survey in green.

Errors. S. E. Cor. House.  
9 meters error

N. W. Cor. House  
6 meters error

Windmill.  
13 meters error

T 5366 by H. L. Naulis,

Frank G. E. E. E.

REVIEW OF GRAPHIC CONTROL SURVEY T-4904 , SCALE  $\frac{1}{25,000}$  ,

## Date of Review

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T- ,5367 , , with particular attention to the following details:

- ✓(a) Projection has been checked in the Field.
- (b) Accuracy of location of plane table control points.  $\pm 5m$
- (c) Discrepancies between detail on this survey and the air photo compilations listed above. *No discrepancies*
- (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. *None*

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5367 , , , for a more complete discussion of any errors or discrepancies found.

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.

Notes and corrections resulting from the review are shown on this survey in green.

*R. M. Kerry*

*July 26, 1935*

*Frank G. Enbure*