

5045

U. S. COAST & GEODETIC SURVEY
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Form 504 Ed. June, 1923	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. Patton Director	
State: <u>Texas</u>	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. T-5045
LOCALITY	
<u>Texas</u>	
<u>Pass Cavallo</u>	
<u>34</u> <u>1935</u>	
CHIEF OF PARTY	
<u>B. G. Jones</u>	

U. S. GOVERNMENT PRINTING OFFICE: 1925

5045

Applied to chart 1284 by J.G.L. 1938

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.

REGISTER NO. T-5045

State.....Texas.....

General locality.....~~Gulf Coast~~.....

Locality.....Pass Cavallo.....

Scale...1:20,000..... Date of survey...August....., 1935

Vessel...Washington Office.....

Chief of Party...B.G. Jones.....

Surveyed by...*Compiled in the Washington Office*
from sources listed in the following report

Inked by...R. Heap...E. E. Goyea.....

Heights in feet above.....to ground to tops of trees

Contour, Approximate contour, Form line interval.....feet

Instructions dated....., 19.....

Remarks:.....

G P O

Reference station: Matagorda Lighthouse, 1906

Latitude: 28° 20' 15.375" (473.3 meters) (Unadjusted)
Longitude: 96° 25' 25.718" (700.5 meters)

REPORT ON COMPILATION OF T-5045

GENERAL INFORMATION

T-5045 covers Pass Cavallo, the western tip of Matagorda Peninsula, Barroom Bay, Port O'Connor, the Eastern end of Matagorda Island, and Espiritu Santo Bay.

GENERAL DESCRIPTION OF TOPOGRAPHY

For a general description of the topography of the area covered by T-5045, refer to the Descriptive Reports for T-5351 and T-5364. For a description of this area as viewed from seaward, refer to page 1 of the Descriptive Report for T-4903.

COMPILATION

(a) Method

T-5045 is composed in the main part of a tracing on a scale of 1:20,000 of T-4903(1:10,000)^{May 1934}(1934). This is supplemented by additions of small areas of detail traced from T-5364* on the west and from T-5351* on the north. These last-mentioned sheets are air-photo compilations prepared by the party of Ensign T. M. Price, Jr. T-4903 is a plane table survey prepared by the hydrographic party of Lt. E. O. Heaton.

It was considered that the best interests of the topographic survey project in this area would best be served by the publication of this important Pass Cavallo sheet which covers an area not yet compiled by the air-photo compilation party. The small areas transferred from the adjacent air-photo compilations make the Pass Cavallo sheet more complete.

The plane table sheet T-4903 was photographed to 1:20,000 scale on a wet-plate negative and a positive print made on celluloid which has held its shape very well. From this print the tracing was

* Photo compilations
from photographs taken
Nov. 1933

* This position of low water line has proved to check very closely with the position as determined by ~~sound~~ notes in the sounding records, etc. of H-5866 & H-5877. For this reason, the location shown has been accepted as the true position, and has been shown on the original celluloid with the standard dotted symbol.

R.H.B. 4/6/36

made onto a celluloid sheet on which a projection had been ruled with the projection ruling machine.

The portion of T-5351 was traced from the 1:20,000 scale photo-lithographic print of that sheet.

The portion of T-5364 was traced from the original celluloid (1:20,000 with a scale factor of 1.01) which was so close to the true scale that no difficulty was experienced in adjusting to fit the new scale.

All detail on T-4903 except magnetic meridian, and temporary signals, characteristics of beacons, and H.W. clearances of piles, etc. which are all above H.W. is now shown on T-5045.

(b) Interpretation

Where the low water line was delineated on the plane table survey, it is shown on T-5045 with the usual dotted symbol. In places where the ground survey did not show the low water line, it was delineated from the photographs and shown with a dashed line^{*} which is believed closely to approximate the true position although it must be remembered that the photographs^{of this area} do not show any marked difference between areas bare at low water and shoal areas.

RECOVERABLE STATIONS

Form 524 for the following recoverable stations are filed under T-4903:

Mast, Ed, Big, Club.

Form 524 for the following recoverable stations are filed under T-5045:

Center of Barn, Chimney.

Control plotted by R. Heap and checked by H.L. Hawkins

Detail transferred by R. Heap and E.E. Goyea and checked by *R.M. Berry* R.M. Berry.

REVIEW OF AIR PHOTO COMPILATION T5045

Comparison With Graphic Control Surveys

There are no graphic control surveys in this area.

Comparison With Previous Topographic Surveys

T-644 (1:20,000)(1857)

T-644 covers the entire area of T-5045.

The shoreline of Espiritu Santo Bay is in good general agreement. The shoreline of Matagorda Bay and Pass Cavallo has undergone a general recession of 100 to 400 meters. At the southeast point of Matagorda Island there has been about 200 meters of accumulation. On the shore of the Gulf of Mexico there is recession at the entrance to Pass Cavallo of about 700 meters. This gradually decreases, and passes to accumulation at long. 96-28.5. This change takes the form of a general swing in azimuth of the coastline.

The tip of Matagorda Peninsula has extended about 200 meters and the width of the peninsula has decreased, about 100 meters on the N.W. shore and about 200 meters on the S.^{E.} shore.

Pelican Island is no longer two islands and its position is about three-quarters of a mile to the north of the position shown on T-644.

T-5045 is adequate to supersede T-644 in all points of detail within the area common to the two surveys.

Misc. 16 (1:20,000)(1863)

Misc. 16 is a sheet showing the location of "rebel fortifications" during the Civil War. It is of little importance for charting purposes. It shows Pelican Island as one island and in position about one-half mile to the north of the position as shown on T-644 and about one-quarter mile to the south of the latest position as given on T-5045.

Except for military or historical information, T-5045 is adequate to supersede Misc. 16 in all points of detail.

Comparison With Recent Hydrographic SurveysH-5877 (1:20,000) (1934-1935)

A cedar post shown about 168 meters south of Topo sta. "North" at the east end of Barroom Bay on H-5877 does not agree in position with a post shown on T-4903 at about 96 meters south of the same station. The position as shown on T-4903 is accepted pending review of H-5877.

An 8" cedar post about 165 meters northeast of Topo sta. North was transferred to T-5045 from H-5877.

A few minor variations in the position of high water line occur in the Barroom Bay area. Checking with the photographs shows the compilation to be correct. It is thought that these variations are due to inaccurate transfer of the shoreline from T-5351 (scale factor 1.01) and from T-4903 (scale 1:10,000). There is no conflict between soundings and the shoreline as shown on T-5045, ~~which is the position accepted.~~

Two piles near the dock shown at lat 28-20.7 long 96-26.4 were transferred to T-5045 from H-5877.

The pier crossing Blackberry Island at long 96-27.1 does not agree with the position as given on T-5045 by 10 meters. This pier was an intersected point in the radial plot of T-5045 and for that reason the position is held pending review of H-5877.

The following beacons located by the hydrographic survey and recommended in the list of landmarks are not shown on T-5045:

Barroom Bay Channel Beacons 3, 5, 7, & 9

Remains of old beacons near B.B.Ch.Bn. 7

H -5866 (1:20,000) (1934-1935)

There are some minor discrepancies in the position of high water line but as the H.W.L. was transferred from an air-photo compilation having a scale factor of 1.01, the position as shown on T-5045

is accepted because it was traced from photographic or photo-lithographic prints to true scale. These differences do not affect the soundings in any way.

The tide gauge at Port O'Connor and the beacon at the entrance to Big Bayou are not shown on T-5045.

Other than the differences mentioned above, there are no discrepancies between T-5045 and H-5866.

H-5864 (1:10,000) (1934-1935)

The shoreline of H-5864 was taken from T-4903 which is the original source of the major part of the detail on T-5045. Detailed comparison of shoreline was, therefore, not made as H-5864 and T-5045 are on different scales.

Saluria Bayou Beacons 3 and 4 are shown with red circles on H-5864 but they are not shown on T-4903. It is assumed that a mistake was made by the draftsman who should have inked these stations in blue to designate hydrographic positions. These beacons are not shown on T-5045.

Two wrecks as follows were transferred to T-5045 from H-5864:

lat 28-20.4	long 96-23.9
lat 28-21.7	long 96-23.1 - not on T-5045

The tide gauge on the Gulf Coast near station Pile is not shown on T-5045.

There is ^{no} conflict between H-5864 and T-5045

Comparison With Chart 1284

Very complete and detailed comparisons with Chart 1284 are given in the descriptive reports for T-4903, T-5351, and T-5364.

Landmarks and Aids to Navigation

Landmarks, aids to navigation, and deletions from the charts are listed for this area in Chart Letters as follows:

271(1934)
 205(1935)
 282(1935)
 775(1935)
 820(1935)
 902(1935)

All landmarks and aids to navigation listed in Chart Letters above are shown on T-5045 except those mentioned under comparisons with hydrographic surveys.

Accuracy

The accuracy of the different parts of this survey varies. T-4903 was stated to have a probable error of not more than 3 meters for definitely located points and not over 8 meters for other detail. T-5351 and T-5364 are given corresponding accuracies of 5 and 8 meters respectively. A better statement would be 5 meters for definitely located points and not over 10 meters for other detail. This rather high probable error takes care of any small inaccuracies in tracing.

Respectfully submitted

Ralph M. Barry
 Ralph M. Barry

✓ B.G. Jones
 11/15/36

Survey No. T-5045

Chart No. 1284

Diagram No. _____

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Port O'Connor</u>				
	<u>Matagorda Bay</u>				
✓	<u>Matagorda Peninsula</u>				
✓	<u>Matagorda Island</u>				
✓	<u>Blackberry Island</u>				
✓	<u>Bayucos Island</u>				
	<u>Grass Island</u>				
✓	<u>Farwell Island</u>				
✓	<u>Pelican Island</u>				
✓	<u>Deeros Point</u>				
✓	<u>Pass Cavallo</u>				
✓	<u>Saluria Bayou</u>				
✓	<u>Big Bayou</u>				
✓	<u>Barroom Bay</u>				
✓	<u>Espiritu Santo Bay</u>				
	<u>Gulf of Mexico</u>				
<p><i>Underslined names approved Jan. 21 1926</i></p> <p><i>C. E. Guier</i></p>					

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party:

Compiled by:

Project:

Instructions dated:

- ✓1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)
- ✓2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)
- ✓3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)
- 4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28) *None submitted*
- ✓5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
- 6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i) *None*
- 7. ~~High water line on marshy and mangrove coast is clear and adequate for chart compilation.~~ (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) *See report*
- ✓9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60) *See review*
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c) *No Bridges*
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted.
- ✓14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 - ✓1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 - ✓2. The degrees and minutes of Latitude and Longitude are correctly marked.

- ✓ 3. All station points are exactly marked by fine black dots.
- ✓ 4. Closely spaced lines are drawn sharp and clear for printing.
- ✓ 5. Topographic symbols for similar features are of uniform weight.
- ✓ 6. All drawing has been retouched where partially rubbed off.
- ✓ 7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

✓ 16. No additional surveying is recommended at this time.

17. Remarks:

T-5045 is adequate to supersede all previous topographic surveys of this area

18. Examined and approved;

B.G. Jones

Chief of Party

19. Remarks after review in office:

compiled and reviewed in Washington office. See preceding report.

Reviewed in office by: *Ralph M. Berry* ✓ *B.G. Jones 1/15/36*

Examined and approved:

C. K. Green

Chief, Section of Field Records

L. O. Solball

Chief, Division of Charts

F. B. Borden

Chief, Section of Field Work

G. H. Hinde

Chief, Division of Hydrography and Topography.