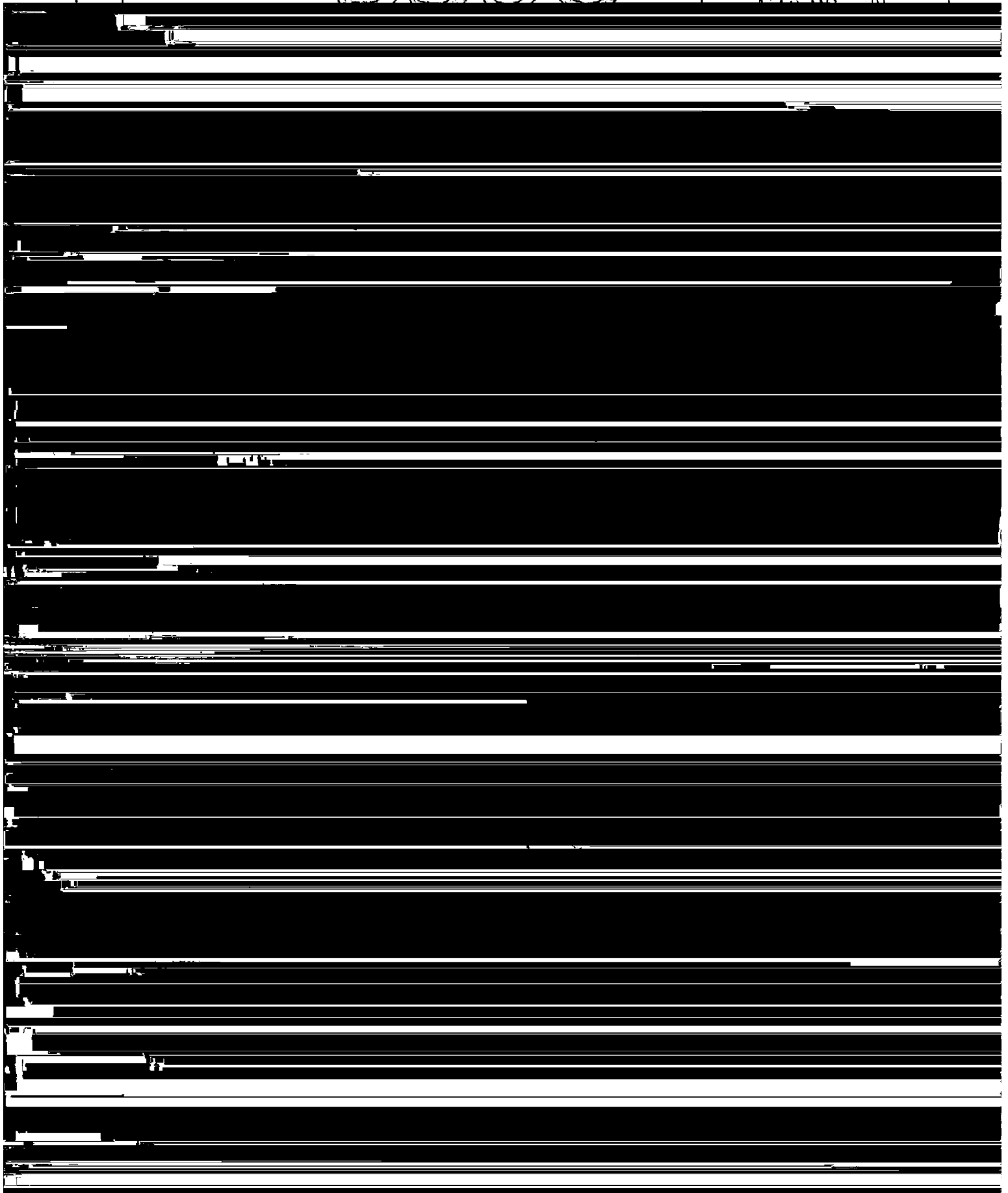


5396

U. S. COAST & GEODETIC SURVEY
LIBRARY & ARCHIVES



Applied to chart 1117
Applied to Chart 1285
Applied to chart - F-1150
Checked with 892-SC July 1969

May, 1940
May 1940

G.H.S.
P.C.

JCR

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO. 5396

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. 22

REGISTER NO. 5396

via 1286-2 T 1285

State Texas

General locality Aransas Bay

Locality Copano Bay and lower to head of St. Charles Bay

Scale 1:20,000 Date of Photographs: March 19, 1934
Compilation: January-February, 1935

Vessel Army Air Corps, Camera: Fairchild T-3a, 31-76

Compilation Party # 20, Corpus Christi, Texas.

Chief of party Ensign T. M. Price Jr.

Surveyed by See data sheet in the descriptive report.

Inked by J. R. Reynolds

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 7, 1933

Remarks: Compilation of aerial photographs R - 29 to R - 36 and O - 9 to O - 34. Sheet reduced to scale and printed by photo-lithographic process.

COMPILER'S REPORT
for
PHOTO TOPOGRAPHIC SHEET, FIELD NO. 22 REG. NO. 5396

1. GENERAL INFORMATION

This sheet was compiled from photographs taken by the U.S. Army Air Corps, using a Fairchild T-3A camera # 31-76. The photographs used are Nos. 29 to 36, R flight and Nos. 9 to 34, O flight. The flights for the photographs were made March 19, 1934 from 2:37 to 2:47 P.M. and from 1:47 to 1:57 P.M. respectively.

The tide in Copano Bay and St. Charles Bay is small in range and the only difference in its stage that would affect interpretation of the photographs, except for reefs and shoals, would be caused by strong continued winds. The height of the water at the time the pictures were taken was low.

2. Control

(a) Sources

Triangulation by F. L. G. 1931.

Triangulation by E. O. Heaton 1934.

The field parties geographic positions were used for the 1934 triangulation. The difference between the unadjusted and the final adjusted positions would be unplotable at the scale of this compilation.

Station "Ballou House" 1911, was relocated by the 1931 triangulation of the C. & G. S.

The U.S.E. stations used as control in compiling this sheet (outside of this sheet's limits) were established by the U.S.E.D. in 1927-28, but were relocated by the 1934 triangulation under E. O. Heaton.

"Rufus, (windmill)" theodolite three-point fix station was obtained as a supplemental control point and located with fourth order accuracy. It falls outside the limits of this sheet.

Gin Tank north of Cardwell, 1931 (in reality this is a ventilator on a gin) was used as control but it falls outside the sheet limits. This station and Rufus are marked on the celluloid but not named on the cover sheet as the name would be outside the photographing limit

(b) Errors

No errors in control were found by the radial line plot, except that the location on the photographs of Shrubbery 1934 could not be held with the rest of the control and since the detail here is indefinite, it is difficult to select strong ties, the error was considered due to the field location. There was sufficient control without this station, and since it is difficult to reach, it was not relocated.

(c) Remarks

The hydrographic stations and recoverable hydrographic and topographic stations were located on the ground and directly on the photographs without ties by the field inspection party. The exception to this is in the location of "Flag Pole" and "Midway between center of two tanks" at the C. C. C. Camp. The hydrographic party desired the location of these objects which had not been built at the time the photographs were taken.

2. Control (Continued)

(c) Remarks (Continued)

In order to locate them the field inspection party set up over a nearby house which showed on the photographs, initialled on a triangulation station and took the direction of these objects, then taped to them. The house which was set up over was then located on the sheet by radial plot and using this as an origin the desired objects were plotted graphically directly on the sheet by scale and protractor.

All the stations are shown by black circles and appropriate descriptive notation on the sheet, and the positions were established by the radial plot of this sheet only, either directly or indirectly.

3. COMPILATION

(a) Method

The usual radial line method of plotting from five lens photographs was used in the compilation of this sheet. There was no departure from the standard method now in practice.

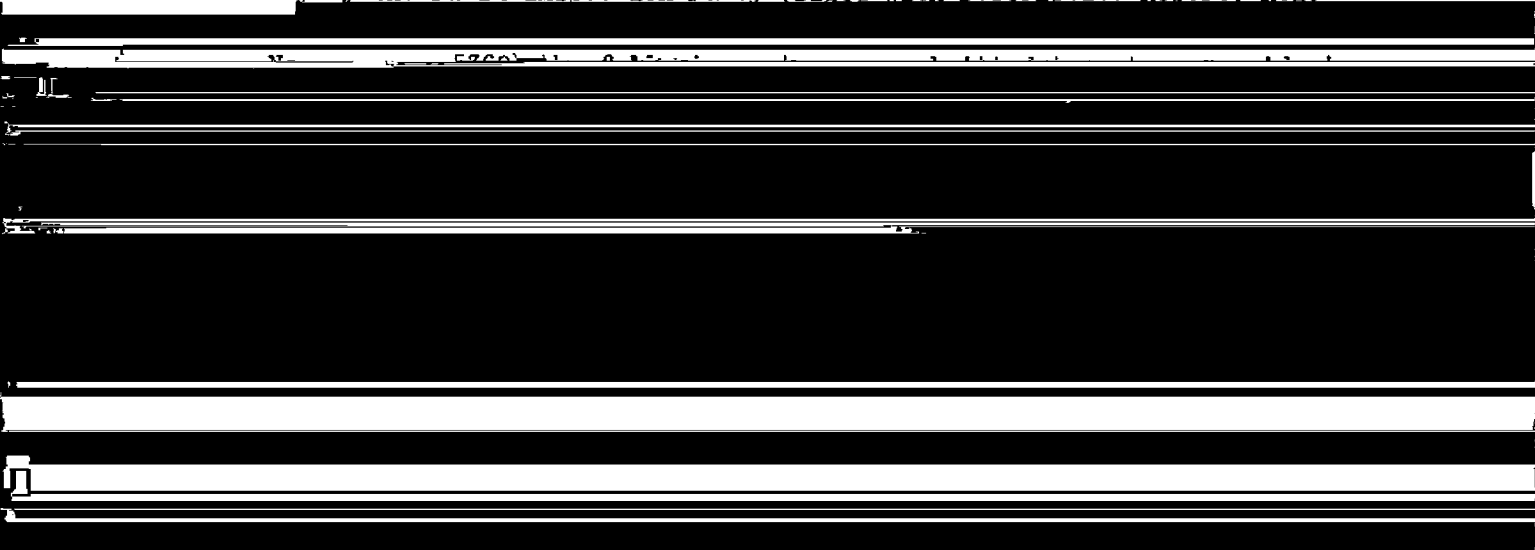
(b) Adjustment of Plot

The control for the R flight on this sheet was relatively scarce but by joining this sheet and sheet Reg. No. 5395 directly together and by carrying the plot through to a good fix, and by using many common points with the overlapping "O" flight which was more strongly controlled, a strong plot was obtained. The "O" flight, ~~was~~^{was} on the junction to sheet Reg. No. 5398, is not well controlled on this sheet but is well controlled on sheet Reg. No. 5398. The plot was therefore made on Sheet Reg. No. 5398 first and the radial points transferred by proportion to the sheet and the plot connected. In this way and by using many common points on the over-lapping N flight, a strong plot was effected.

No pictures of the O flight were found to be tilted excessively. However in the R flight, pictures Nos. 29-30-34 were tilted sufficiently to be of little use in the plot. The detail is clear on all photographs and there is sufficient overlap.

(c) General Description of Topography and Interpretation

In addition to the general report of Aransas, Copano and St. Charles Bay by the Field Inspection Party (filed with Descriptive Report, Reg.



3. COMPILATION (Continued)

(c) General Description of Topography and Interpretation (cont'd)

The marshy indentations are of sand and mud with sparse growth of marsh grass and are covered during storm high water. Inland, the country is pasture land with scattered brush and trees which gets denser toward the highway. The grass covered area is recorded on the photographs in two distinct shades, the lighter area being the higher ground and the darker area the somewhat lower ground, but not marsh. This lower area holds moisture better and has therefore a richer and deeper growth of grass which shows up dark on the photos.

The narrow shell beach from Newcom Point to the causeway at Lamar is surmounted by a low bluff about 4 feet in height.

The reef near the causeway labelled Pier Reef is subject to considerable variation in depth and position due to the strong wind tides in this locality. All reefs are shown only from their appearance on the photographs as could best be interpreted considering the tide. Information as obtained by the hydrographic party of Lt. E. O. Heaton will be better authority for their present condition, but since these reefs are so changeable their compilation will not be changed to agree with the hydrographic work in this regard.

There is at the present time a Civilian Conservation Corps Camp established in the locality known as Lamar. As this is of a temporary nature, no effort was made to indicate the exact layout of the camp with the temporary structures, tents etc. but the approximate location was indicated on the cover sheet. The westerly shore of St. Charles Bay from Hail Point, north to Cavasso Creek, is a narrow beach with numerous marsh areas bordering it. The higher ground inland is covered with a dense growth of trees and brush averaging 15 to 20 feet in height, but there are a few live oak trees which are very large. The soil for the most part is of a sandy nature. Before reaching Cavasso Creek the heavy growth of brush and trees disappears and the land is flat open grass covered prairie.

The section between Cavasso Creek and Twin Creek, on the northwest shore of St. Charles Bay consists exclusively of open pasture land. The nature of the shore line is generally marshy in character. In the vicinity of Salt Creek the Twin Creek there are large areas of sand and mud flats. These areas are either bare or covered with a short grass and are usually wet and muddy during the rainy season and in the summer dry out into a hard clay. These areas have been left open (no symbol used) and labeled. The country north of Cardwell is in general given over to cultivation and indicated on this sheet.

The section east of St. Charles Bay consists in general of low brush and grass. In the vicinity of station Shrubbery there is a heavier growth of brush as indicated on the cover sheet. There are numerous small ponds and lakes in this area that fill up and dry out intermittently. These are indicated by the intermittent pond symbol. The shore line in general is fringed by a narrow border of marsh. The brush and tree growth in the area covered by this sheet consists of mesquite and scrub live oak and all that type of growth generally classed as chaparral. The average height of trees is 15 to 18 feet and brush 6 to 10 feet. The general brush and tree symbols were used to indicate all the above growths.

3. COMPILATION (Continued)

(c) General Description of Topography and Interpretation (cont'd)

The through highway which is part shell and part asphalt, is indicated by a double solid line and the frequently travelled dirt roads and poor roads by a double dash line. Trails are indicated by a single dash line. The importance rather than the type or the material was emphasized.

(d) Shoals

The interpretation of the shell islands, reefs and general shoal areas was difficult because (1) of blemishes on the photographs, (2) because of low tide when the photographs were taken, (3) the ever changing nature of these features. A thorough field inspection was made and the representation on this sheet is for the time the photographs were taken, and will undoubtedly conflict in some respects with the present hydrographic survey. However, because it is recognized that no representation is true for long, the representation of these features on this sheet will not be changed to agree with that found by the hydrography.

The large shallow water areas, which on the photographs are rather indefinite in outline and depth, but which showed as distinctly shallower than adjacent waters, were outline with a light dash line. Definite shell reefs which would probably be bare or nearly bare at low water were outlined with dots. This latter treatment was given instead of dashes because in some cases these shoals were near small islands and a dash line might have been confused with a number of small islands. The dotted outline cannot be taken as necessarily representing the low water line.

(e) Bridges

There is one fixed highway bridge over Gavasso Creek on the through highway, consisting of a concrete slab superstructure on wooden ~~piles~~ bents. It has a horizontal clearance of 14 feet and a vertical clearance of 5 feet. Clearances were obtained by the field inspection party.

There is a fixed wooden trestle bridge connecting Lamar Peninsula and Goose Island. It has a horizontal clearance of 8 feet and a vertical clearance of $3\frac{1}{2}$ feet. Data supplied by field inspection party.

Other crossings consist of culverts or small wooden bridges of no importance to navigation, *except the Copano Bay Causeway which is described in the descriptive report for sheet Reg. No. 5-395*

(f) Information from other sources

The only sources of information were the photographs, the notes written by the field inspection party, and the knowledge obtained by the field inspection party from observation or measurements. Names were obtained from local ~~people~~ inhabitants after extensive inquiries by the field inspection party and checked by the hydrographic party of E. O. Heaton.

3. COMPILATION (CONTINUED)

(g) Conflicting Names

The following names shown on U.S.C. & G.S. chart #1285 should be changed to conform to local usage:

Salinas Creek to Salt Creek; Devil Bayou to Big Devil Bayou; Burgolinus Creek to Burgentine Creek. These changes are recommended after inquiries among the oldest and assumed reliable authorities were made by this party and the party of Lt. E. O. Heaton.

"Bill Mott Bayou" on chart 1285 is also called by some local people "Casterline Bayou" but since the former has as much use as the latter, no change is recommended.

Lamar is shown on chart 1117 as a town. This is a locality only and the town symbol should be removed.

(h) New Names

The point on the south side of the entrance to Copano Creek is known as Turtle Pen Point.

The point at Latitude 28°-11' and Longitude 97°-01' is known as Shell Point.

The bend formed by the shoreline of Copano Bay north west of Lamar is known as Newcom Bend; the point at the northerly end of the bend as Palmetto Point and the southerly point as Newcom Point.

The point of land northeast of Goose Island is known as Hail Point.

The point south of Bill Mott Bayou is known as Egg Point.

The point on the west side of St. Charles Bay near Latitude 28°-12' is known as Big Sharps Point and the rounded point south of it, as Little Sharps Point.

The small bayou on the easterly side of the bay at Latitude 28°-12' is known as Little Devil Bayou and the point of land on the north side of the entrance to this bayou is known as Indian Head Point.

The point on the easterly side of St. Charles Bay at Latitude 28°-13' is known as Meile Deitrich Point.

The inlet on the east shore of St. Charles Bay at Latitude 28°-14' is called McHugh Bayou.

Additional new names, the location of which is evident on the cover sheet, (or previously mentioned under conflicting names) are: Mills Wharf, St. Charles Bay Club, Lamar Peninsula, Blackjack Peninsula, Salt Creek, and Burgentine Bayou.

The authority for the above names is based on information obtained from J. H. Mills, Mills Wharf one of the foremost authorities, and checked by several authorities in Rockport.

4. COMPARISON WITH OTHER SURVEYS

This sheet is joined by sheet Reg. No. 5395 on the southwest, by sheets Reg. Nos. 5397 and 5363 on the southeast and sheet Reg. No. 5398 on the northeast. The junction with adjoining sheets is satisfactory. Surveys of this area were made by the Coast and

4. COMPARISON WITH OTHER SURVEYS (CONTINUED)

Geodetic Survey about 1891 (chart # 1286)

(a) Detail comparison to C. & G. Surveys (Chart # 1285)

1-Change in position of M. H. W. where it crossed the following meridians or parallels:

		o	'		o	'	(meters)*
Near	Lat.	28	11	On	Long.	97 02	-72.0
"	"	28	12	"	"	97 01	-60.0
"	"	28	11	"	"	97 01	+32.0
"	"	28	08	"	"	97 01	-58.0
"	"	28	08	"	"	97 00	-90.0
On	"	28	10	Near	"	96 58	0.0
Near	"	28	11	On	"	96 56	+79.0
"	"	28	14	"	"	96 56	+83.0
"	"	28	15	"	"	96 56	- 103.0
On	"	28	13	At Meile Detrich Point			0.0
At entrance to Cavasso Creek On Long. 96°-58' Widened							21.0

* + Accumulation; -recession.

The above differences were measured along the line of the parallel or meridian marked "On" and not necessarily normal to the shore line.

(b) General Comparison

1- The comparison of the shore line on this sheet with that on U.S.C. & G.S. chart # 1285 shows that it has receded generally on the north and west shores of the different bays and accumulated on the south and east shores.

2- There is no dam as shown on Copano Creek.

3- The entrance to Cavasso Creek has widened about 21 meters from that shown on U.S.C. & G.S. chart # 1285.

4- The island at Lat. 28° -09' Long. 96° -01.75' is no longer present but the water is ^{shallower} ~~shoal~~ here.

5- Road and Highway layout on chart to be entirely revised. There is now a causeway across Copano Bay entrance.

6- The position of Pier Reef has changed.

7- Marsh does not extend across the the north end of Lamar Peninsula as formerly shown.

~~(8- The causeway across Copano Bay at Lamar to be shown. see 5)~~

9- Piers in vicinity of Lamar should be revised to agree with this compilation. The pier formerly shown at Hail Point should be removed. There are piers now at the St Charles Bay Club.

10- The slough entrance at Lat. 28° -10.2' Long. 96° -58' has changed considerably.

11- The peninsula formerly shown at Lat. 28°-11' Long. 96°-56.1' now consists of islands.

5. LANDMARKS

There were no objects considered prominent enough in this locality, to be charted as landmarks.

6. RECOVERABLE OBJECTS

The field inspection party has submitted descriptions of the following objects on form # 524.

"Rufus" (Windmill) Lat. $28^{\circ} -13'$ +1800.6 meters; Long. $97^{\circ} 04'$ +688.7 meters, located by theodolite three point fix. This station does not come within the photographing limits of any sheet but it is indicated on the border of this sheet with a black circle without a name.

"Windmill" (d) Lat. $28^{\circ} -14'$ +961.2 meters; Long. $96^{\circ} -55'$ +636.8 meters. Position determined by the radial plot of this sheet.

"N. Gable of House" (d) Lat. $28^{\circ} -08'$ +1354.2 meters; Long. $96^{\circ} 58'$ +748.7 meters. Position determined by the radial plot of this sheet.

Several hydrographic stations not recoverable were also located by radial plot. The hydrographic party has not yet assigned names to these stations.

7. RECOMMENDATIONS FOR OTHER SURVEYS

The compilation of this sheet is believed to have a probable error of 5 meters in well defined detail and 8 meters for other data. It is understood that the width of roads, etc. may be slightly expanded in order to keep the detail clear and to keep it from printing as a solid line in the photolithographic process.

To the best of my knowledge this sheet is complete in all detail of importance for charting purposes, within the accuracy stated above and no additional surveys are required.

Submitted By (sgd)



J. R. Reynolds.

GEOGRAPHIC NAMES
Date. August 10, 1935.

Survey No. T-5396

Chart No. 1285

TEXAS

Diagram No. _____

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	<u>Twin Creek</u>				
✓	<u>Burgentine Creek</u>		Same		
✓	<u>Salt Creek</u>		"		
✓	<u>Cavasso Creek</u>				
✓	<u>Meile Dietrich Point</u>		"		
✓	<u>Blackjack Peninsula</u>				
✓	<u>Copano Creek</u>				
✓	<u>Indian Head Point</u>		"		
✓	<u>Turtle Pen Point</u>		"		
✓	<u>Big Sharps Point</u>		"		
✓	<u>Little Sharps Point</u>		"		
✓	<u>Copano Bay</u>				
✓	<u>Shell Point</u>		"		
✓	<u>Lamar Peninsula</u>		"		
✓	<u>Egg Point</u>		"		
✓	<u>Palmetto Point</u>		"		
✓	<u>Newcom Bend</u>		"		
✓	<u>Newcom Point</u>		"		
✓	<u>Hall Point</u>		"		
✓	<u>Pier Reef</u>				
Names underlined in red are approved					
W.J. Woods <i>W.J. Woods</i>					

Date. August 10, 1935

GEOGRAPHIC NAMES

Survey No. T-5396

Chart No. 1285

TEXAS

Diagram No. _____

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

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

Under investigation. Q

[illegible]

REVIEW OF AIR PHOTO COMPILATION T-5396

Scale 1:20,000.

Comparison with Graphic Control Surveys.

There are no graphic control surveys in this area.

Comparison with Previous Topographic Surveys.

T-828 (1860)(1:20,000):

T-828 covers the upper part of St. Charles Bay and the lower part of the westerly shore of San Antonio Bay. T-828 and the compilation are in agreement with few exceptions within 50 meters. In no case does the variation amount to more than 75 m. and that only on a marshy shore. T-5396 is adequate to supersede T-828 in all points of detail within the area common to the two surveys.

T-838 (1861)(1:20,000):

T-838 is an old plane table survey of Copano Bay and the lower end of St. Charles Bay. T-838 and the compilation are in agreement within 50 meters over the entire area common to the two surveys, the only point of difference being the Copano Bay Causeway, which has been built since the date of T-838.

T-5396 is adequate to supersede T-838 in all points of detail within the area common to the two surveys.

Comparison with Recent Hydrographic Surveys.

Hydrographic surveys in this area are under way but have not as yet been received in this office.

Comparison with Chart 1285.

A very complete and detailed comparison with chart 1285 is given on pages 7, 8 and 9 of the descriptive report for the compilation.

Landmarks.

No landmarks are charted within the area covered by the compilation and none are submitted with the compilation.

General ~~Projection~~.

Projection:

Diagonals across 7 minutes of longitude by 8 minutes of latitude failed to check by 1 mm. The failure of diagonals to check is probably due to a small differential change in the celluloid as this is a skew projection.

Respectfully submitted,

Ralph M. Berry

August 3, 1935.

Ralph M. Berry.

Approved
K.T. Adams

REVIEW OF AIR PHOTO COMPILATION NO. 5396

Chief of Party: T. M. Price Jr.

Compiled by: See page 2
of descriptive report

Project: Party # 20
Corpus Christi, Texas

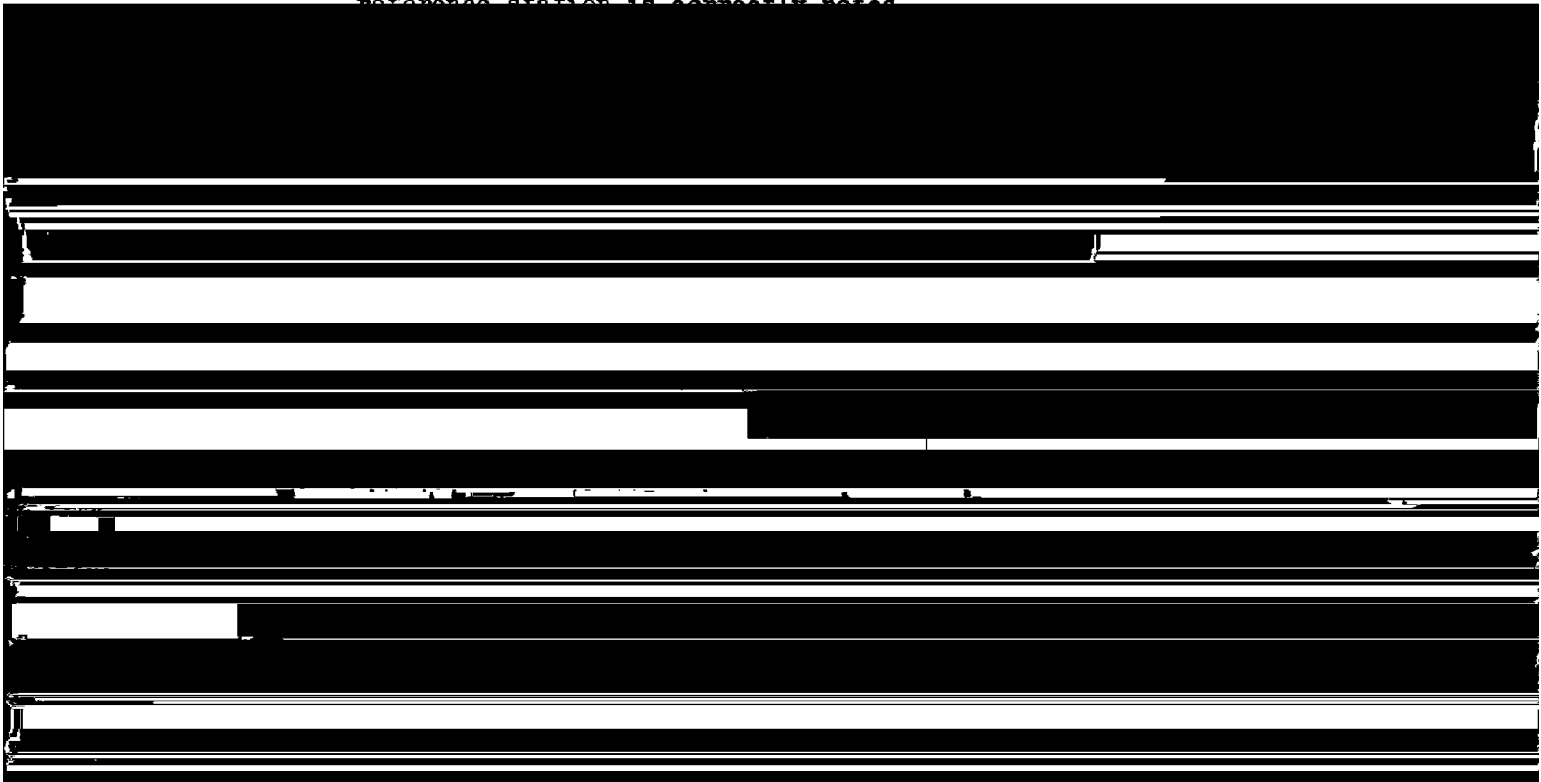
Instructions dated: Nov. 7, 1933

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 Transmitted.
5. No 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.

Hydrographic surveys not yet made of this locality.
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)

No unusual or large adjustments
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) Dash line indicates shallow water; dotted line more definite shoals as could be determined from photographs only, and does not represent the low water line necessarily. *This representation unchanged pending arrival of hydrographic surveys. R.H.B. 8/17/35.*
- ✓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)
No Landmarks
- ✓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)
- ✓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. C. S. Quadrangles~~ is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
Names Approved.
- ✓13. The geographic datum of the compilation is N. A. 1927 and the reference station is correctly noted
- 

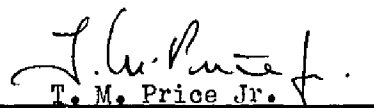
- 3. All station points are exactly marked by fine black dots.
- 4. Closely spaced lines are drawn sharp and clear for printing.
- 5. Topographic symbols for similar features are of uniform weight.
- 6. All drawing has been retouched where partially rubbed off.
- 7. Buildings are drawn with clear straight 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: The shell islands and reefs in this area are subject to continual change and such difference between this photo compilation and the hydrographic surveys may be attributed to the work of nature

18. Examined and approved;


T. M. Price Jr.
Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Ralph M. Perry* & *B. G. Jones*

Examined and approved:

K. T. Adams
Asst Chief, Section of Field Records
L. O. Lobnitz
Chief, Division of Charts

J. S. Borden
Chief, Section of Field Work
G. H. Hulse
Chief, Division of Hydrography
and Topography.