

5361

This Report contains the field inspection Report
for this area.

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Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: Texas

DESCRIPTIVE REPORT

Photo
Topographic
~~Hydrographic~~

Sheet No. 5361

LOCALITY

Texas

San Bernard River

San Cedar Lakes

33
1934

CHIEF OF PARTY

T. M. Price, Jr., Ensign

U. S. GOVERNMENT PRINTING OFFICE: 1921

5361

applied to chart 1283 Dec. 7, 1937 J. G. L.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO. 5361

PHOTO
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. 11

1283
12

REGISTER NO. 5361

State Texas

General locality San Bernard River

Locality Cedar Lakes

* Scale 1:20,000 photographs: November 4, 1933
Date of survey December 19, 1933
compilation: October 1934

~~U.S.~~ Army Air Corps Camera: Single lens, Type K-3B, No. A.C. 31-39
Five lens, Type T-3A, No. 31-76

Chief of party T. M. Price, Jr.

Surveyed by See data sheet in descriptive report.

Inked by Ben Benson

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 7, 1933, 1933

Remarks: Compilation of aerial photographs Nos. 49 to 62, incl., single lens; and Nos. L-60 to L-82, incl., five lens. Sheet reduced to scale and printed by photo-lithographic process.

* Scale of blue print 1:20,408

-NOTES ON COMPILATION-

SHEET NO. 11 (REG. NO. 5361)

PHOTOS: Single lens nos. 49 to 62, incl.; and five lens, L-60
to L-82, incl.

DATE OF PHOTOGRAPHS: Five lens, December 19, 1933 TIME: 10:47-11:18 A.M.
Single lens, November 4, 1933 2:26- 2:47 P.M.

	BY	DATE
SCALE FACTOR (0.980)	(sgd) <u>Ben Benson</u>	8/3/34
PROJECTION	(sgd) <u>T. M. Price, Jr.</u>	8/24 ^g /34
PROJECTION CHECKED	(sgd) <u>Ben Benson</u>	8/24 ^g /34
CONTROL PLOTTED	(sgd) <u>Ben Benson</u>	8/29/34
CONTROL CHECKED	(sgd) <u>V. L. Riehl</u>	8/30/34
TOPOGRAPHY TRANSFERRED	(sgd) <u>Ben Benson</u>	9/25/34
TOPOGRAPHY CHECKED	(sgd) <u>V. L. Riehl</u>	9/25/34
SMOOTH RADIAL LINE PLOT	(sgd) <u>C. H. Ruffs</u>	9/14/34
RADIAL LINE PLOT CHECKED	(sgd) <u>Ben Benson</u>	9/24/34
DETAIL INKED	(sgd) <u>Ben Benson</u>	11/ 3/34
AREA OF DETAIL INKED	<u>84.55</u>	sq. statute miles
LENGTH OF SHORE LINE OVER 200m.	<u>55.2</u>	statute miles
LENGTH OF SHORE LINE UNDER 200m.	<u>91.6</u>	statute miles
LENGTH OF SHORE LINE OF SMALL INLAND LAKES	<u>39.1</u>	statute miles
GENERAL LOCATION	FREEPORT, TEXAS INTRACOASTAL WATERWAY	
LOCATION	CEDAR LAKES AND VICINITY	
	CANY CREEK TO SAN BERNARD RIVER	
Datum N.A. 1927		Meters
DATUM STATION	<u>HAWK, 1934</u> ✓	Latitude 28°-49'-56.230" (1731.0) ✓
		Longitude 95°-31'-55.589" (1507.0) ✓
		(position from field computations)

COMPILER'S REPORT
for
PHOTO TOPOGRAPHIC SHEET FIELD NO. 11 (REG. NO. 5361)

1. GENERAL INFORMATION

This sheet was compiled from photographs taken by the U. S. Army Air corps, using a single lens K-3B camera #31-39, lens #126593, 8 $\frac{1}{4}$ " cone, and a five lens T-3A camera #31-76. The photographs used were Single Lens nos. 49 to 62, inclusive, and Five Lens nos. L-60 to L-82, inclusive. The flight for the single lens photos was made on November 4, 1933 from 2:06 to 2:47 P. M., covering the coast and Matagorda Peninsula from San Luis Pass to Pass Cavallo. The photographs southwest of Cany Creek that were made on this flight were rejected and reflown December 7, 1933. The photographs northeast of Cany Creek (nos. 47-92), however, were not rejected and it is this section of the single lens flight that is covered in part by this sheet. The tide on the Gulf Coast was approximately half high when single lens photos nos. 47 to 92 were taken. The flight for the five lens photographs was made on December 19, 1933 from 10:47 to 11:18 A. M., covering that area from Palacios Point to San Luis Pass. The high water line of the Gulf coast and inland waterway was not determined from photographs L-60 to L-82, because the single lens showed it more satisfactorily.

2. CONTROL

(a) Sources

Triangulation by Lieut. E. O. Heaton, 1934.

Triangulation by Lieut. F. L. Gallen, 1931.

One theodolite three point fix, and one short traverse and azimuth locations from triangulation stations were made by the field inspection party without establishing recoverable marks. The theodolite three point fix station is "SHED", latitude, 28-53-07.852, and longitude, 95-33-14.547, located with fourth order accuracy.

(b) Errors

Station "SPOT", a theodolite three point fix by the field inspection party was questionably located, both by instrument and on the photographs. The radial plot showed that this station was not correctly located and it was not used as control.

(c) Remarks

The U. S. Engineers stations shown on this sheet were relocated by observations by Lieut. E. O. Heaton, 1934.

2. CONTROL (CONTD.)

(c) Remarks (Cont'd.)

The hydrographic and topographic stations (shown by black circles) were located on the ground and the point selected on the photographs by the field inspection party without reference ties. Their position is established by the radial plot only with the exception of station "SHED", which was located by theodolite three point fix.

The control is on the 1927 N. A. datum. The field inspection party's unadjusted geographic positions were used and the difference from the final adjusted positions is thought to be not plottable on the scale of this sheet.

Note: For method of controlling plot see paragraph no. 3.

3. COMPILATION

(a) Method

The usual radial line method of plotting from a five lens photographs was used in the compilation of this sheet, except for a strip about one mile wide, inland from the coast and including the coast line. The plot for the coast line and detail near by was made from a combination of five lens and single lens photographs. The center points and radial points of the single lens photographs were located on the wings of the five lens and plotted. The single lens photographs (which were not sufficiently well controlled to use alone) were plotted in, using what ground control was available together with the common radial point locations made in the plot of the five lens photographs, which was well controlled. The single lens photographs' plot conformed perfectly with the five lens plot, without large adjustments.

A special projection and radial plot with a scale factor of 1.00 was made for the area between longitude $95^{\circ}-36'$ to longitude $95^{\circ}-43'$, to co-ordinate the plots of five lens and single lens, and sheets #10 and #11 which have different scale factors, and which join in this vicinity. Intersection between $95^{\circ}-36'$ and $95^{\circ}-40'$ on this special projection and plot, and which overlapped this sheet (#11.) were transferred by proportional dividers to this sheet (#11) and a perfect connection was made with both the five lens and single lens plots of this sheet and that of the special projection.

(b) Adjustment of Plot

Photographs nos. L-63 and L-67 are tilted over 3° and were not used in either the plot or the tracing. The remaining photographs covered by this sheet were not tilted excessively and the radial plot required no unusual adjustments. The control is strong and the plot gave good intersections.

3. COMPILATION (CONT'D)

(c) General Description of Topography and Interpretation

In addition to the General Report for Matagorda Bay to San Luis Pass, by the field inspection party (filed with the Descriptive Report, Register No. 5361) the following notes are submitted to act as a guide in the interpretation of this sheet, since the compiler also assisted in the field inspection of this area:

The coast line from Cany Creek to the San Bernard River is a wide sand beach, which changes further inshore to sand and grass and then marsh along the banks of the intracoastal canal. There are no ridges or bluffs, on the Gulf shore. Instead the shore rises from the water line to a height of about 5 ft., 300 ft. inshore; thence, the land is approximately level to the spoil banks of the intracoastal canal.

The culture along both banks of the canal is generally marsh. Mud and sand flats have been left blank and labelled as such.

In the vicinity of Cany Creek and the town of Sargent, the soil is relatively fertile and in cultivation. This area is broken up by ^{county and farm} section roads, and there are drainage ditches alongside the roads and through the cultivated fields along turn rows. The area north of this vicinity is covered by tall deciduous trees (maximum height about 70 ft.), and to the south by grass. There are on this sheet large areas of low flat prairie covered with grass. The nature of a greater portion of this prairie varies with the seasons. It is dry enough for automobile and wagon transportation in the dry summer time, which is a greater portion of the year, but contain from 1 inch to 6 inches of standing water throughout the entire rainy winter season, resembling fresh water marshes, with which it is easy to confuse from the photographs, unless thoroughly familiar with the area. The grass land symbol was used, however, in preference to marsh, as the former more accurately represents the dominating quality. Deciduous trees (Maximum height about 70 ft.) line the banks of the San Bernard River to about 4 miles above its mouth. Brush about 3 ft. high line its banks from 2 miles to 3 miles above its mouth. The grass lands in the middle northwest part of the sheet contain heavy growths of brush with maximum height about 6 ft.

That part of the land around what is known as the Cedar Lakes, is broken up by numerous shallow lakes and ponds of varying dimensions. Due to the large difference in the nature of dry and wet seasons, many of these lakes are intermittent, yet many contain water throughout the year. Also some of these lakes are covered with reeds from 2 to 6 feet in height. (These are shown as marsh whenever practicable.) These lakes have sand bottoms, and due to the angle of the plane and glare of the sun, it sometimes is impossible to distinguish the lakes from bare sand patches on the individual photographs.

~~dash~~ Boundaries of shallow water areas were indicated by a single dotted line, from the appearance on the photographs alone. ~~This should not be taken as representing the low water line.~~

3. COMPILATION (CONT'D)

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

The Cedar Lakes are shallow and have extensive shoal areas. The shoals are either sand or oyster shell reefs.

The Cany Creek highway from Bay City, Texas is an all weather shell road and shown as double solid. The Longs Bayou road, is a graded dirt road, but as it is the only road in this vicinity and used moderately, it, also, is shown as double solid. A double broken line is used to indicate section roads and county roads of lesser importance. A single broken line is used to indicate farm drives and trails through the grass lands and along creeks.

(d) Bridges

In the vicinity of Sargent, there are a few small fixed bridges and culverts across small intermittent creeks and ditches. There is only one bridge of importance, and that is across the Intra-coastal canal (called Longs Bayou at this place) near the San Bernard River. It is a wooden, swing, highway bridge, owned by the U. S. War Department. The horizontal clearance is 50 ft., and the vertical clearance is 6.5 ft. at M. L. W. and 3.5 ft. at H.W.

(e) Information from other Sources

All information was obtained from photographs, notes written by the field inspection party, except the data for the swing bridge, which was furnished by the U. S. Engineers Office, Galveston, Texas and verified in the field.

(f) Conflicting Names

(1) Town of Cedar Lake and Cedar Lake Bayou

The U. S. C. & G. S. chart 1117 shows Cedarlake and Cedarlake Bayou.

The U. S. C. & G. S. chart 1283 shows Cedar Lake and Cedar Lake Bayou.

The Dep't. of Interior, U. S. G. S. map shows Cedar Lake and Cedar Lake Creek.

War Dep't. maps, BRAZOS RIVER TO PASS CAVALLO:
Index Sheet # 2, File No. 16-4-4 shows Cedarlake.
Sheet # 2, File No. 16-4-4 shows Cedar Lake.

Post office name is Cedar Lake

It is recommended that all charts should show Cedar Lake and Cedar Lake Bayou.

Note: All of the above references to Cedar Lake are to the name of the town and of the Bayou and not to the chain of lakes known as Cedar Lakes.

3. COMPILATION (CONT'D)

(f) Conflicting Names (Cont'd)

(2) Swing Bridge over Intracoastal Canal near San Bernard River

War Dep't. maps, BRAZOS RIVER TO PASS CAVALLLO:
Index Sheet # 2, File No. 16-4-4 shows Long's Bayou Highway Bridge.
Sheet # 2, File No. 16-4-4 shows San Bernard Bridge.

Inside Route Pilot, Key West to the Rio Grande, 1925 gives Longs Bayou Bridge.

This bridge is not named on U. S. C. & G. S. charts and it is not recommended that it should be named, but that section of the intracoastal canal should be named Longs Bayou as noted under "List of New Names," this report.

(g) Conflicting Positions

(1) Cedar Lake and Cedar Lake Bayou.

The town of Cedar Lake and that part of Cedar Lake Bayou near the town should be changed on U. S. C. & G. S. charts 1117 and 1283. On these charts, the town is shown at latitude $28^{\circ} 53'$ and longitude $95^{\circ} 37'$. Although these features were not traced on this sheet because they were too far out in the wing prints, the plot of radial points on these features showed their positions to be at latitude $28^{\circ} 53'$ and longitude $95^{\circ} 36'$.

(2) Narrows

These are narrows in the San Bernard River. The U. S. Coast Pilot, Gulf Coast, Key West to Rio Grande, page 187, four lines from the bottom, and the Inside Route Pilot, Key West to Rio Grande, 1925, page 126, 30 lines from the top, read as follows:

"The narrows about 3 miles above the mouth are difficult to navigate without local knowledge."

This sheet plots the narrows to be $2\frac{1}{4}$ miles above the mouth, as does U. S. C. & G. S. chart 1283.

It is recommended that the sentence quoted from the U. S. Coast Pilot and the Inside Route Pilot, be changed to read,

"The narrows at $2\frac{1}{4}$ miles above the mouth, etc."

(h) List of New Names

(1) Longs Bayou

That part of the intracoastal canal connecting the Cedar Lakes to the San Bernard River is commonly called "Longs Bayou," and is so described in the Inside Route Pilot, Key West to Rio Grande, 1925.

3. COMPILATION (CONT'D)

(i) Junction with Adjoining Sheets

This sheet is joined by sheet Register No. 5359 (Field No. 9) on the south, by sheet Register No. 5360 (Field No. 10) on the south-west, and by sheet Register No. 5362 (Field No. 12) on the north-east.

The junctions with adjoining sheets are satisfactory. ✓

4. COMPARISON WITH OTHER SURVEYS

Surveys of this area were made by the Coast & Geodetic Survey about 1888 (chart no. 1283) and the Intracoastal Waterway Survey, U. S. Engineers in 1927-28 (Sheet No. 2, Section No. 8.) No comparison was made to the U. S. E. surveys. Detail comparison with chart no. 1283 is as follows:

- (1) Change in position of M. H. W. where it crosses the following meridians and parallels.

	Latitude				Longitude			Change, old to new*	Remarks
	°	'	"		°	'	"	(meters)	
near	28	52		on	95	26	00	-265	
near	28	50		on	95	28	00	-304	The Gulf
on	28	50	00	near	95	29		-449	shore line
near	28	49		on	95	30	00	-287	has receded
on	28	49	00	near	95	30		-480	from about
near	28	48		on	95	32	00	-318	200 meters to
on	28	48	00	near	95	32		-537	about 275 me-
near	28	47		on	95	34	00	-251	ters, between
on	28	47	00	near	95	34		-420	longitudes
near	28	46		on	95	36	00	-235	95° 28' and 95° 36'.

- (2) The small lakes shown on chart no. 1283 at latitude 28° 47' 30" and longitude 95° 34' 24" are no longer in existence, but have become part of the marsh.
- (3) Choctaw Lake is shown on chart no. 1283 as extending inland beyond the intracoastal canal. Now, however, the northwest side of Choctaw Lake roughly parallels the canal at about 150 meters southwest of the canal, and the bed of the other portion which was formerly lake is now marsh on both sides of the canal, except for the spoil bank on the southeast side of the canal.
- (4) The road shown along the Gulf Coast beach on chart 1283 from the vicinity of Brazosport to Cany Creek is misleading. Although the beach permits vehicle travel, there is no improvement to the natural beach and no particular track that is followed, except for a stretch of two miles southwest of Brazosport, where a trail exists.

* † indicates accumulation, -, recession.

4. COMPARISON WITH OTHER SURVEYS (CONT'D)

(4) Continued

Except for the above short trail, which does not appear on this sheet, there is no more of a road than exists on practically the whole length of the beach of the outside Gulf Coast in this part of Texas, and it is recommended that no road be shown,

- (5) The small island (southerly of two) on chart 1283, at latitude $28^{\circ} 49.5'$ and longitude $95^{\circ} 30.5'$, is now part of the large island between the Cedar Lakes and the Gulf, as shown on this sheet.

(6) Cut on Canyon Creek at Lat. $28^{\circ} 47.5'$ Long. $75^{\circ} 39'$ does not exist and there is no indication in the photographs of it having existed.

5. LANDMARKS

There is one landmark within the limits of this sheet. It was selected by the field inspection party and located direct on the photographs, and its position was determined by the radial plot of this sheet. Form 567 has been filled out for this landmark and submitted by the field inspection party.

Description	Latitude	Longitude
BUILDING (Peak of Roof)	$28^{\circ} 51.8'$	$95^{\circ} 26.3'$

It is the peak of the roof of a building, formerly used as a hotel, but which is now used as a private residence. The peak is about 30 ft. high and the upper part of the building can be seen from seaward and from inland. It is the only building in this vicinity.

6. RECOVERABLE OBJECTS

Additional Rec. H.T. stations in this area located in 1937 and filed under No. 6611 T. 19. P. Aug. 30 '38

The following objects are among the points selected by the field inspection party for hydrographic and topographic stations, and their positions were determined by the radial plot of this sheet, except one theodolite three point fix by field inspection party, SHED, 1934, which was also selected as a topographic station. The field inspection party has submitted descriptions of these recoverable objects on Form 524.

Object	Latitude	Longitude
SHED, 1934 (d)	28 53.1	95 53.2
Wind Mill (d)	28 53.5	95 28.9
Wind Mill (d)	28 53.9	95 29.6
Concrete Water Tank (d)	28 50.6	95 35.4

Two hydrographic stations which were not recoverable were selected in the field and located on this sheet by radial plot. The hydrographic party has not at this time assigned names to these stations.

7. RECOMMENDATIONS FOR FURTHER SURVEYS

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

See Review
Report.

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.

It was impracticable to locate the day beacons along the Intracoastal Waterway through the Cedar Lakes by triangulation and impossible to locate them on the photographs. A party of Lieut. E. O. Heaton's will probably locate them by sextant at a later date.

Submitted by (sgd)

Ben Benson
Ben Benson

~~Assisted by (sgd)~~

~~Ben Benson~~

FIELD INSPECTION REPORT
for
Matagorda Bay to San Luis Pass

This report covers the territory from the N. E. end of Matagorda Bay to San Luis Pass, said territory extending from the Gulf of Mexico to about 8 miles inland, including the Cedar Lakes territory from the N. shore of Drum & Oyster Bays to about 2 miles inland, but excluding the vicinity of Freeport except the control therein. The following notes are submitted to act as a guide in the compilation of the sheets for this area. These notes are compiled by notations and sketches made by the field inspection party and through a knowledge of this locality obtained by the field inspector in locating the control on the aerial photographs and establishing supplementary control points.

GENERAL DESCRIPTION OF TOPOGRAPHY

The shore line of the Gulf of Mexico has been indicated on the field prints at sufficient intervals to enable the draftsmen to carry said shore line thru. From the N. E. end of Matagorda Bay to about the San Bernard River, the high water line is marked by a one foot break in the black clay-like shore. From the San Bernard River north and east, the mean high water line is apparent as the outside uniform line showing a difference in color of the sand. Care should be exercised in determining this outside line since the intermittend water back of the high water line is misleading. The sand beach is relatively wide and the mean high water line should be placed far enough outside to include all intermittend water and that sand wetted by wave action.

The shore line at rivers and the lakes is easily distinguished by the marsh grass line and occasional strips of bright white sand and shell.

Special care must be exercised at bayou openings and river entrances due to the low flat sand bars which have been deposited. In most instances, these sand bars are below the M. H. W. and only that sand which shows up bright is above the M. H. W.

In the vicinity of the intra-coastal canal, the culture is mainly marsh. Different colors of grass, bare sand spots and small bodies of intermittend water predominate. This is true of all that territory adjacent to the lakes covered by this report. In the interior, beyond the marshes are found cultivated fields. The lines of demarcation between cultivated fields, grazing land, and marsh are evident on the photographs. In the marsh lands proper, are found numerous small lakes of intermittend water. Some of these lakes usually contain water most of the year round; however, many of them are dry during periods of drought. Intermittend lakes and bare spots can be differentiated on the photographs by differences in color shading.

There are no trees in the marsh areas. Near the Gulf beach are found occasional growths of salt cedars about 8-10 feet in height. In rare instances, salt cedars are found in small clumps on the bay shores. Heavy growths of tall trees (maximum height approximately 70 feet) line the rivers and creeks draining this area. One exception to this general classification is found in the southern portion of Oyster Creek where only marsh and grass are found.

In the drier parts of the marsh areas are found automobile and wagon trails.

A map of the Freeport Sulphur Co. plant at Bryan Mound has been procured for office aid in the compilation of the photographs in this vicinity as well as a map of Freeport which will be an aid in compiling the photographs adjoining the planetable topographic sheet of Freeport.

CONTROL

Triangulation executed by the party of Lieut E. O. Heaton in 1933-34 and the first order 1931 triangulation by Lieut. F. L. Gallen form the principle control for the area covered in this report. Theodolite 3 pt. fixes and occasional short traverse control was executed by the field inspection party. This supplemented the main control for the five lens photographs at occasional places where an additional point was needed to hold the radial line plot. The location of these

supplementary points was marked on the photographs and wherever these were recoverable, same were listed as recoverable topographic objects.

Stations of the U. S. E. D. intra-coastal canal survey 1927 were located on the photos as often as possible. All previously established control that could be used and which was not connected to the 1934 triangulation was used by applying an adjustment for change to 1927 datum.

The field inspection party also located on the ground and on the photographs points that could be used as hydrographic stations from Station Owen to Station Keg as well as recoverable topographic objects at various places. The positions of these points are to be determined by the photographic radial line plot.

CHANGES IN MAPS & PUBLICATIONS:

The town of Churchill on the San Bernard River about $3\frac{1}{4}$ miles north of Station McNeel should be shown on the chart together with the bridge across the San Bernard River at this point.

The brickyard north of the dam across the Brazos river are no longer landmarks and should be omitted from further publications of maps.

The stack on the N. E. side of the Brazos River north of Freeport is no longer a landmark and should be omitted.

The road from Velasco due east intersecting the intra-coastal canal at lat. 28-57.4, long. 95-17.5 has been abandoned.

The name of the Stafford Chem. Co. Tank, 1931, at E. Freeport should be spelled Stauffer.

There is a road which leaves the Bay City-Sargent road about $2\frac{1}{2}$ miles north of Sargent and runs east to Freeport via Cedar Lake and Churchill should be shown on map number 1283

Notations regarding other bridges and transmission lines have been furnished by the U. S. Engineers and will be listed in the descriptive report of the sheet in which they occur.

Attention is called to the 1:10,000 plane-table topographic sheet executed by a party of Lieut. E. O. Heaton of the vicinity of Freeport for further corrections in maps and publications.

COAST PILOT NOTES AND LIGHT LIST CORRECTIONS:

At Bryan Mound there are 3 concrete stacks, 1 elevated water tank and several derricks. Page 187 of the U. S. Coast Pilot, Key West to the Rio Grande should be corrected for this information.

Date. August 6, 1935

Chart No. 1117 & 1283

Diagram No.

Under investigation. Q

[illegible]

REVIEW OF AIR PHOTO TOPOGRAPHIC SURVEY T 5361

Scale 1:20,000.

Comparison with Graphic Control Surveys.

There are no recent graphic control surveys in this area.

Comparison with T 412, (1853) 1:20,000.

Correction to place on N. A. 1927 Datum Lat. - 117.8 m.
Long. + 692.3 m.

T 412 covers a strip about 2 miles wide along the coast, the entire length of this survey.

The shore of the Gulf of Mexico along this coast has receded approximately 250 meters.

T 412 shows bluff symbols all along the Gulf shore. The descriptive Report for T 5361 states definitely that no bluff exists in this area.

T 412 shows the local names "Salt Lake", "Oyster Lake" in the two ponds east of Cedar Lake. No mention of these names was made by the field party. They are not shown on the present charts.

T 5361 is considered adequate to supersede T 412 in all respects.

Comparison with contemporary Hydrographic Surveys.

There are no contemporary hydrographic surveys in the office at this time.

Comparison with Chart 1283.

A detailed comparison with this chart is made on page 8 of the descriptive report for this survey.

The large lake near the mouth of Cedar Lake Bayou has filled in considerably and has changed in shape.

A cut has opened through the beach about one mile west of Cedar Cut. This cut is not shown on Chart 1283.

Comparison with Chart 1117

A detailed comparison with this chart is also made on page 8 of the descriptive report for this survey.

Also see the paragraph on conflicting names on page 6.

Landmarks.

There are no charted landmarks in this area covered by this survey.

Chart letter 888 (1934) lists Building (Peak of roof) to be added to chart No. 1283.

Remarks.

The projection on which this survey is based has been checked and found satisfactory.

The accuracy stated in the paragraph on "Recommendation for further Surveys", in the descriptive report for this survey is too great. A better estimate of the accuracy would be 8 meters on intersected points and 15 meters on other detail.

N. L. Hawkins

8/6/35

Frank T. Enkins

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Tex

Nov. 3 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.

T. M. Price, Jr.

Chief of Party.

Sheet Fld. # 11 (Reg. No. 5361)

[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.

REVIEW OF AIR PHOTO COMPILATION NO. 5361

Chief of Party: T. M. Price Jr.

Compiled by: See page 2
Descriptive Report

Project: Party No. 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, transit, and~~ 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. 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.
No contemporary plane table or hydrographic surveys.
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)
Shoal areas indicated only, by dotted ^{out} line. No low water line obtained.
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) *Four submitted and filed under T.5361.*
10. A list of landmarks was furnished on Form 587 and instructions in the Director's letter of July 18, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)
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 ~~are from the U. S. G. S. Quadangles~~ 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.
The drafting is sufficiently accurate, but some symbols are not of as uniform weight as on other sheets of this party.
(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:

18. Examined and approved;

T. M. Price Jr.
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Frank G. Eakin

Examined and approved:

E. K. Green
Chief, Section of Field Records
L. O. Pollock
Chief, Division of Charts

T. B. Borden
Chief, Section of Field Work
W. H. Wade
Chief, Division of Hydrography
and Topography.