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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: Texas

DESCRIPTIVE REPORT

Photo
Topographic } Sheet No. 5362
~~Hydrographic~~

LOCALITY

Texas

Brazos River

to

Freeport and Vicinity

1935-35

CHIEF OF PARTY

T. M. Price, Jr., Ensign

U. S. GOVERNMENT PRINTING OFFICE: 1923

5362

applied to new chart 593
" " chart 1283

Sept 1937
Dec. 6, 1937

J. S. P.
J. S. P.

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5362

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. 12

REGISTER NO. 5362

State Texas

General locality Brazos River

Locality Freeport

Scale 1:20,000 photographs: { November 4, 1933
Date of survey { December 19, 1933
compilation: Nov.-Dec. 1934

~~United States~~ 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

Remarks: Compilation of aerial photographs, single lens, Nos. 62 to 76, incl., and five lens, Nos. L-82 to L-106, incl. sheet reduced to scale and printed by photo-lithographic process.

Sections of shoreline added from
T-6326(1935)

-NOTES ON COMPILATION-

SHEET NO. 12 (REG. NO. 5362)

PHOTOS: Single lens nos. 62 to 76, incl.; and five lens, nos.

L-82 to L-106, incl.

DATE OF PHOTOGRAPHS: Single lens, Nov. 4, 1933
Five lens, Dec. 19, 1933

TIME: 2:26- 2:47 P.M.
10:47-11:18 A.M.

	BY	DATE
SCALE FACTOR (0.980)	(sgd) <u>Ben Benson</u>	7/31/34
PROJECTION	(sgd) <u>Ben Benson</u>	8/28/34
PROJECTION CHECKED	(sgd) <u>J. L. Smith</u>	8/28/34
CONTROL PLOTTED	(sgd) <u>V. L. Riehl</u>	8/30/34
CONTROL CHECKED	(sgd) <u>Ben Benson</u>	8/30/34
TOPOGRAPHY TRANSFERRED	(sgd) <u>Ben Benson</u>	11/12/34
TOPOGRAPHY CHECKED	(sgd) <u>V. L. Riehl</u>	11/12/34
SMOOTH RADIAL LINE PLOT	(sgd) <u>R. J. Moore, Jr.</u>	11/7 /34
RADIAL LINE PLOT CHECKED	(sgd) <u>Ben Benson</u>	11/11/34
DETAIL INKED	(sgd) <u>Ben Benson</u>	12/21/34

AREA OF DETAIL INKED 65.81 sq. statute miles

LENGTH OF SHORE LINE OVER 200 m. 16.0 statute miles

LENGTH OF SHORE LINE UNDER 200 m. 106.4 statute miles

LENGTH OF SHORE LINE OF SMALL INLAND LAKES 25.6 statute miles

GENERAL LOCATION FREEPORT, TEXAS

LOCATION SAN BERNARD RIVER TO DRUM BAY

DATUM STATION BEND, 1933 Latitude 28°-58'-20.887" ⁷⁵ ~~(645.0)~~ Meters ✓
Longitude 95°-18'-07.472" ⁹⁶ ~~(202.3)~~ ✓
(~~adjusted~~)
(position from field computations)

Keg 1934 Lat. 28°-54'-48.292" (1486.7m) (unadjusted)
Long. 95°-20'-32.340" (876.1m)

COMPILER'S REPORT
for
PHOTO TOPOGRAPHIC SHEET FIELD NO. 12 (REG. NO. 5362)

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 Fairchild five lens T-3A camera # 31-76. The photographs used were single lens nos. 62 to 76, inclusive, and five lens nos. L-82 to L-106, inclusive. The flight for the single lens photos was made on November 4, 1933 from 2:26 (approximately) to 2:47 P. M., covering the coast from Cany Creek to San Luis Pass. The tide on the Gulf Coast was approximately half high when these 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 five lens photographs nos. L-82 to L-106, because the single lens photographs, nos. 62 to 76 showed it more satisfactorily.

2. CONTROL

(a) Sources

Triangulation by Lieut. E. O. Heaton, 1933 and 1934.

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

Triangulation by U.S. E., recomputed on 1927 datum by Lieut. E. O. Heaton.

One theodolite three point fix was made by the field inspection party. This three point fix is station "INTER", latitude, 28°-59'-06.410", and longitude, 95°-22'-14.164", located with fourth order accuracy, described on form 524, and submitted with this report.

(b) Errors

Two hydrographic stations, Port and Tripod, positions taken T4866 from plane table sheet, field letter "P", were not used, because the radial plot showed station Port to be off about 30 meters and station Tripod, about 15 meters. These stations were probably located wrong on the photographs by the field inspection party due to lack of definite detail around them.

(c) Remarks

The U. S. E. stations shown on this sheet were either relocated or recomputed by Lieut. E. O. Heaton in 1933 and 1934.

The hydrographic and topographic stations (shown by black

2. CONTROL (CONT'D)

(c) Remarks (Cont'd)

circles) were located on the ground, and the points selected on the photographs by the field inspection party without reference ties. Their positions are established by the radial plot only, with the exception of station "INTER", which was located by theodolite three point fix.

The control is on the 1927 N. A. datum. The field party's unadjusted geographic positions were used, for the 1933 and 1934 triangulation, and the U. S. E. triangulation; the difference between the unadjusted and the final adjusted positions would not be 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 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 nearby detail, was made from a combination of five lens and single lens photographs. The center and radial points of the single lens photographs were located on the wings of the five lens photographs and plotted. The single lens photographs (most of which were not sufficiently controlled to use alone) were plotted in, using the available ground control together with the common radial point locations made by the plot of the five lens photographs, which was well controlled. The single lens photographic plot conformed perfectly with the five lens plot, without large adjustments.

(b) Adjustment of Plot

Photograph no. L-97 is tilted over 3° and was not used in either the plot or tracing of this sheet. The remaining photographs covered by this sheet were not tilted excessively, and the radial plot required no unusual adjustments. The control for the five lens photographs is strong and the plot gave good intersections.

(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. T 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 trail shown on the south side of the river at Lat. $28^{\circ}57.25'$ Long. $95^{\circ}21.5'$ marks the center of the levee which was omitted here for lack of room.

3. COMPILATION (CONT'D)

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

The coast line from the San Bernard River to Drum Bay, except in the vicinity of the Brazos River (which is covered by ~~plane table sheet, field letter "X"~~ T6326 by Lieut. E. O. Heaton) is a wide sand beach, which changes further inshore to sand and grass. There are no ridges or bluffs on the Gulf shore. Instead, the shore rises from the water line to a height of about five feet, three hundred feet inshore; thence, the land is approximately level to the spoil banks of the intracoastal canal.

Generally there is a spoil bank on the southeast side of the *intracoastal* canal, and grass or marsh on the northwest side.

Jones Creek is a series of lakes, the sizes of which diminish gradually upstream. There is a dam across Jones Creek just below the point where well water is diverted into the City of Freeport by means of an open ditch.

The Brazos River Diversion Channel has levees about 12 feet high along both banks. See page 9 A, paragraph 4 (7)

Heavy growths of trees (maximum height about 70 feet) line both banks of Jones Creek, Brazos River, and Oyster Creek, down to about three or four miles from the Gulf Coast. These trees are live oak, cypress, and gum. Heavy brush line the banks for about one mile more toward the coast. Brush about 6 feet high covers most of the land in the northwest part of this sheet. The above trees and brush were shown with the general tree and brush symbols. At Bryan Beach, there is a large clump of salt cedars. ~~These were also shown with the general tree symbol, but labelled as salt cedars.~~ Shown thus *

West of Jones Creek, there are relatively large areas of marsh. Between Jones Creek and the Diversion Channel, the southern portion is mainly marsh and intermittent lakes; the northern portion is grass, brush, trees and a few cultivated farms. ~~This is the only place on this sheet where there is any cultivation.~~

The area around the City of Freeport, including the Bryanmound sulfur mines, is thoroughly drained by canals and ditches, some of which have levees on either side. The city of Freeport, proper, and vicinity, including the Brazos River Entrance, is covered by a plane table sheet, field letter "X", by Lieut. E. O. Heaton. Reference should be made to this plane table sheet for further interpretation of topography in this area. T6326

Oyster Creek is a meandering stream which has changed its course quite often, leaving lakes and marsh in the old stream bed. *

The eastern part of this sheet is all marsh with numerous small lakes and intermittent lakes. Mud and sand flats have been left open and labeled as such.

* Usually these old stream beds are grown over with tall reeds. Where this is the case, the marsh symbol was used. Where there is intermittent standing water without cane growth, the intermittent lake symbol was used.

3. COMPILATION (CONT'D)

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

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

All highways (including concrete, asphalt, and gravel) are shown with a double solid line. The main streets in Freeport and Velasco are also shown with double solid lines. Streets and roads of secondary importance and other streets in the residential districts of the two above towns, are shown with double dashed lines. Very poor, and seldom used streets, and roads, as well as trails in the prairie, are shown with a single dashed line. The importance of the road was used to determine the symbol rather than the nature of construction. These roads have been labelled in sufficient instances to avoid confusion with canals and ditches. The many private roads and trails at Bryarmound are also shown by a single dashed line. Transmission lines crossing navigable waters are shown by the standard symbol as given in the topographic Manual.

The ferry across Oyster Creek is a small skiff accomodating pedestrians only.

There are numerous pipe lines in and around the Bryarmound sulfur mines. Since some of these have been abandoned and destroyed and new ones built since the photographs were taken, the compiler did not attempt to show these pipe lines, except one large important one, which is shown by a single dashed line and labelled. This is above ground and shows clearly on the photographs.

Serving the sulfur mines, are numerous reservoirs, which are enclosed by small levees. The levee symbol was omitted in this instance for lack of room, but indicated by label. In one case it was necessary to use one solid line to indicate the water line of two abutting reservoirs and the levee in between. There is only one road on top of a levee and this road is shown by a single dashed line, although the levee, itself, is not shown, but is indicated by label.

On the west side of the Diversion Channel are three abandoned reservoirs enclosed by levees. These now act as intermittent lakes and are shown as such. The abandoned flume which connected these is not shown as it is said to have recently been removed. The fuel storage tanks at Bryarmound are surrounded by small fire levees. These protective levees were shown as single solid lines in the form of a rectangle around each tank.

(d) Bridges

All bridges within the limits of this sheet were shown by the standard bridge symbols, whether concrete, steel, or railroad trestle, and labelled fixed or draw. There is only one bridge

Bridges, continued

Railway Bridge over the Brazos River at Freeport has a vertical clearance of 5 ft. at High Water and a clear span of 122 ft. It is a swing bridge.

The highway bridge over the Intracoastal Waterway at Quintana has a vertical clearance of $3\frac{1}{2}$ ' at high water and a clear span of 50'. It is a swing bridge.

The highway bridge over the Intracoastal Waterway at Bayans Beach has a vertical clearance of $3\frac{1}{2}$ ft. at high water and a clear span of 50 ft. It is a swing bridge.

Authority for above:

"List of Bridges over the Navigable Waters of the United States, 1927."
see "Inland Waterway"

3. COMPILATION (CONT'D)

(d) Bridges (Cont'd)

across a navigable stream within the limits of this sheet, (see opp. page)
i. e., a three span, steel, highway, swing bridge over the
Brazos River Diversion Channel. The horizontal clearance is
100 feet, and the vertical clearance is 20 feet at M. L. W.
and 10 feet at H. W. This information was furnished by the
U. S. Engineers Office, Galveston, Texas, and verified in
the field.

No attempt was made to show culverts.

(e) Transmission Lines

Three transmission lines, crossing navigable waters, fall in
the limits of this sheet. One is across the Brazos River at
6 miles above its mouth, horizontal clearance is 640 feet,
vertical clearance is 60 feet at M. L. T.; another, ^(2 lines 100 ft. apart) is across
the Diversion Channel, $\frac{1}{2}$ mile below the dam, horizontal clear-
ance is 600 feet, ^(2 lines 120 ft. apart) and vertical clearance is 50 feet at M. L. T.;
and the third, is across the Diversion Channel about $2\frac{1}{2}$ miles
below the dam, horizontal clearance is 580 feet, and the vert-
ical clearance is 50 feet at M. L. T. This information was
furnished by the U. S. Engineers Office, Galveston, Texas, except
for the third which was obtained by the field inspection party.

(f) Information from Other Sources

All information was obtained from the photographs, except
as follows: See Page 11

- (1) The Gulf coast, high and low, water lines, from longitudes
95°-17' to 95°-14.4' and the high water line for the intra-
coastal canal, Drum Bay, and lakes from longitudes 95°-14.4'
to 95°-15' and from latitudes 28°-59' to 29°-00', were
transferred from plane table sheet, field letter ^(P), ex- T 4866
ecuted by a party under Lieut. E. O. Heaton and checked
against the photographs. It was found to be in agreement.
- (2) Notes written by the field inspection party.
- (3) Clearance data for the swing bridge and ²transmission lines,
which were furnished by the U. S. Engineers.
- (4) ~~Position of the transmission line crossing the Diversion
Channel $2\frac{1}{2}$ miles below the dam, which was transferred from
a blue print of Freeport Harbor and Vicinity, which was
furnished by the Freeport Sulfur Co.~~
- (5) Identification of various features in the Bryar mound plant
of the Freeport Sulfur Co. from a General Building Blue-
print of that company.
- (6) New names as described in following paragraph, and other names
from present charts.

Note: The transmission line crossings were located on the photos
from their relation to adjacent detail, without measurements.

3. COMPILATION (CONT'D)

(g) Conflicting Names

(1) Bryarmound

The U.S.C. & G.S. chart 1283 shows BRYAN MOUND
War Dep't. map, BRAZOS RIVER TO PASS CAVALLLO, Section 8,
Index sheet # 2 shows Bryan Mound
The Freeport Sulfur Co., operators of this plant, spell
the name in one word, Bryarmound. The authority is their
engineer in charge, and the blue prints of the plant.

(2) Missouri-Pacific Railroad

The Missouri-Pacific Railroad now owns and operates the form-
er H. & B. V. R. R. It is recommended that new charts
show the line as the Missouri-Pacific Railroad.

(h) List of New Names

(1) Munson Lake

The first lake east of the Brazos River Diversion Channel,
between the Gulf Coast and the intracoastal canal is called
Munson Lake by the U. S. Engineers, Int.coast.W.W. Survey 1928
Index Sheet No.2

(2) East Union Bayou

East Union Bayou is the largest stream between Oyster
Creek and the Brazos River. It roughly parallels Oyster
Creek about 2 miles southwest, and empties into the
intracoastal canal. The name was taken from a map owned
by the Freeport Sulfur Co. Also in Inside Route Pilot P.126
1925 Ed.

(i) Junctions with Adjoining Sheets

This sheet is joined by sheet Register No. 5361 (Field No. 11)
on the southwest, by a 1:20,000 plane table sheet Field Letter
"P" and the special air-photo compilation for that sheet on
the northeast, and in the center of this sheet there are three
lines of junction with the 1:10,000 plane table sheet Field Letter
"X" by Lieut. E. O. Heaton. see Page 11

Transferred to
Celluloid in
office.
No junction.

The junctions with adjoining sheets are satisfactory.

4. COMPARISON WITH OTHER SURVEYS

Surveys of this area were made by the Coast & Geodetic Survey
about 1880 (chart no. 1283) and the Intracoastal Waterway Survey,
U. S. Engineers in 1927 and 1928 (Sheet No. 1, Section No. 8, and
Sheet No. 8, Section No. 7). No comparison was made to the U. S.
Engineers surveys. Detail comparison with chart no. 1283 is as
follows:

(note: also 1933-34 plane table survey E.O.H.
sheet fld. letter P, see P.7, PP. f (1))

4. COMPARISON WITH OTHER SURVEYS (CONT'D)

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

	Latitude				Longitude			Change, old to new * (meters)	Remarks
	°	'	"		°	'	"		
Near	28	52		on	95	25	00	-244	The Gulf shore
on	28	52	00	near	95	25		-411	line has receded
near	28	53		on	95	24	00	-153	an average of
on	28	53	00	near	95	24		-171	130 meters be-
near	28	54		on	95	22	00	-133	tween longitudes
on	28	54	00	near	95	22		-216 ⁵⁰	95°-15' to 95°-
near	28	54		on	95	21	00	-25	25'. At Bryan
on	28	58	00	near	95	16		-41	Beach, it has re-
near	28	58		on	95	16	00	-45	ceded but 25 me-
on	28	59	00	near	95	15		-190	ters.
near	28	59		on	95	15	00	-164	

- (2) The lakes adjacent to the intracoastal canal and also those between the intracoastal canal and the Gulf, have changed considerably between longitudes 95°-21' to 95°-25'. Probably, due to the construction of the canal with its spoil bank on the southeast side, some lakes have entirely disappeared, others have changed their shapes, and one or two new ones have been formed.
- (3) The roads ~~leading~~ into Bryarmound at latitudes 28°-55' to 28°-56' and longitudes 95°-21.7' to 95°-22.5' should be removed from charts, because they have been abandoned and replaced by a new road paralleling the Missouri-Pacific tracks. Other road changes should be made to conform to this compilation.
- (4) Chart 1283 shows a road on the sand beach paralleling the coast from the Brazos River to Cany Creek. This road is misleading. Although, the beach permits of vehicle travel at low tide, 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. Except for this short stretch of trail (which lies within the limits of plane table sheet Field Letter "X") it is recommended that no roads be indicated along the beach. T632C

For other comparisons see next page(9A)

5. LANDMARKS

There are four landmarks within the limits of this sheet. They were selected by the field inspection party and located direct on the photographs, and their positions were determined by the radial plot of this sheet, except for TANK (ELEVATED) Freeport Sulfur Co., 1931, which is a triangulation station. Form 567 has been filled out for these landmarks and submitted by the field inspection party. Filed under T5362.

* † indicates accumulation, -, recession, measured along the meridian or parallel and not necessarily normal to the shore line.

4. Comparison with other Surveys (CONT'D.)

- (5) Jones Creek south of Lat. 28°-55' consists of an irregular line of lakes instead of a uniform stream as on chart 1283
- (6) The brickyards north of the dam at Velasco are no longer prominent. They have been recommended for deletion on form 567.
- (7) Along the Brazos River Diversion Channel, south of the Intra-coastal Canal, the characteristic of the bank is more that of spoil dumps and banks, rather than a levee of the type that is ~~to the~~ to the north.
- (8) ~~Hatchures~~ ^{mtt} are shown around Bryarmound on chart 1283. What these represent is not apparent at the site. There is no bluff or prominent levee, although the elevation at the plant is somewhat higher than the surrounding country and there are numerous mounds resulting from the mining operations. The representation by hatchures around the plant is deceiving and it is recommended for removal.
- (9) Chart 1283 shows 3 small islands in Drum Bay west of Drum Point. Only one is now present.

5. LANDMARKS (CONT'D)

Description	Latitude ° ' ''	Longitude ° ' ''
TANK (ELEVATED) (Freeport Sulfur Co. Tank, 1931)	28 54.9	95 22.6
STACK (Freeport Sulfur Co. Southerly of 3 stacks.)	28 54.7	95 22.6
STACK (Freeport Sulfur Co. Easterly of 3 stacks.)	28 55.3	95 22.5
STACK (Freeport Sulfur Co. Westerly of 3 stacks.)	28 55.3	95 22.6

The deletion of several landmarks has been recommended on form 567. Additional landmarks in this area from Chart Letter 644 (M35) and 436 (1938)

6. RECOVERABLE OBJECTS

Additional R.C.H. & T. stations in this area located in 1937 and Forms 524 filed under Nos. T-6610 and T-6611

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 ("Inter ") which is a theodolite three point fix station. The field inspection party has submitted descriptions of these recoverable objects on Form 524. Filed under T 5362

*T.M.P.
Aug. 30's 8*

Object	Latitude meters ° ' ''	Longitude meters ° ' ''
Inter (d)	28 59 (197.3)	95 22 (383.3)
Windmill (d)	28 58 (1343.0)	95 18 (60.2)
Corner of Steel Box (d)	28 52 (1657.1)	95 24 (644.1)
Windmill (d)	28 57 (1420.4)	95 23 (434.5)
Water tank (d)	28 57 (1831.4)	95 22 (453.8)

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

7. RECOMMENDATION 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 report
on review*

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.

Continued on Page 11

Submitted by (sgd) Ben Benson
Ben Benson

*Note: The relative position of roads and railroads, canals and levees, and similar detail where very close to each other, was changed sufficiently to allow clear printing, and less important detail was omitted if necessary.

Information from other Sources and Junctions (continued)

Note:

The plane table survey (Sheet Field Letter X) disclosed a large change in the Gulf Shore at the junction with this sheet at Lat. $28^{\circ} 54.5'$ and Long. $95^{\circ} 20.8'$. That the radial plot was correct was shown by the fact that other junctions in the vicinity were satisfactory, but the shoreline as found by the plane table survey fell well out into water on the photographs. It was apparent that the difference was occasioned by the natural forces, particularly by the hurricane of the summer of 1934 which centered near here. The topographer of the above plane table sheet carried the shoreline over half a mile beyond the junction (this was beyond the limit of the plane table sheet and the method used is described in the report of that sheet) in order that a junction might be made. At this point, Lat. $28^{\circ} 54.2'$ and Long. $95^{\circ} 21.35'$ the new shoreline approached the former shoreline within 15 meters and the two were joined, arbitrarily in the office at this place since it did not appear practicable to continue the survey further under the conditions. Therefore the mean high water line on this sheet ~~for~~^{from} Lat. $28^{\circ} 54.5'$ and Long. $95^{\circ} 20.8'$ to Lat. $28^{\circ} 54.2'$ and Long. $95^{\circ} 21.35'$ was obtained from information obtained by the topographer of plane table sheet X as described by him in the report for that sheet, and this information was transferred to this sheet by proportional dividers. Furthermore, it appears that the shoreline has built out slightly southwest of the corrected ^{position} ~~position~~, but since no information was available, the shoreline from the photographs was joined to the new shoreline at their closest approach to each other in such a way as to cause no abrupt break in the shoreline.

See also report for T 6326 ("Auxiliary Surveying Methods")

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, TexasDecember 20, 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:

Sheet Field No. 12
Register No. 5362T. H. Price Jr.

Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETER- MINATION	CHARTS AFFECTED	
	LATITUDE			LONGITUDE					DATUM
	°	'	D. M. METERS	°	'	D. P. METERS			
TANK (ELEVATED) (Δ Free- port Sulfur Co. Tank 1931)	28	54	1642.1	95	22	967.1	N.A. 1927	Triang.	# 1283 593
STACK (Freeport Sulfur Co. southerly of three stacks)	28	54	1348.7	95	22	920.8	"	Photo Gomp.	# 1283 593
STACK (Freeport Sulfur Co. easterly of three stacks)	28	55	624.4	95	22	860.0	"	"	# 1283 593
STACK (Freeport Sulfur Co. westerly of three stacks)	28	55	619.0	95	22	947.6	"	"	# 1283 593
Inspected from shore and from the Intracoastal Canal at distance of 5 mi.									
									</

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

LANDMARKS FOR CHARTS

Corpus Christi, Texas

December 20 1934

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

should be deleted from chart 1283.

The following determined objects ~~are prominent, some to readily distinguished from seaward from the~~
~~description given below, and should be charted:~~

Sheet Reg. No. 5362

Field No. 12

T. M. Price, Jr.

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

Survey No. T-5362

GEOGRAPHIC NAMES

Date. August 17, 1935

Chart No. 1283 - 593

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>Oyster Creek</u>	Same			
✓	<u>Brum Bay</u>				
✓	<u>Intracoastal Waterway</u>				
✓	<u>Brazos River</u>				
✓	<u>Jones Creek</u>				
✓	<u>Velasco</u>				
✓	<u>Freeport</u>				
✓	<u>East Union Bayou</u>		Same		
✓	<u>Big Bend</u>	Same			
✓	<u>Quintana</u>				
✓	<u>Diversion Channel</u>				
✓	<u>Bryan Mound</u>				
✓	<u>Lake Bryan</u>				
✓	<u>Bryan Beach</u>				
✓	<u>Gulf of Mexico</u>				
✓	<u>Munson Lake</u>		Same		
✓	<u>Brazosport</u>	Same			
✓	<u>Houston & Brazos Valley Ry Co.</u>				
✓	<u>Galveston and Brazos River Canal</u>				

Names underline in red are approved.

Missouri-Pacific R.R. (see D.R. pg. 8)
 A part of Intracoastal Waterway see T-6326
 JHE 10/17/37

W.J. Woods

(M-136)

REVIEW OF AIR PHOTO SURVEY T-5362

Scale 1:20,000

This survey is a combination of T-6326 and an air photo topographic survey. T-6326 is an aluminum plane table sheet on 1:10,000 scale. This was reduced photographically to 1:20,000 scale and transferred to the celluloid in this office.

Comparison with Graphic Control Surveys.

There are no Graphic Control Surveys in this area.

Comparison with Contemporary Topographic Surveys.

(a) T-4866 (1934) scale 1:20,000. T-4866 covers the eastern end of this survey.

The high and low water lines on this survey agree with those shown on T-4866.

At lat. 25° 57.6', long. 95° 17.3' T-4866 shows a dam. The Descriptive Report for T-6326 states that no dam exists in that area. T-6326 is the later survey.

There are no topographic stations on Form 524 affecting the area covered by T-5362.

All detail shown on T-4866 has been shown on T-5362 except the proposed route of the Intracoastal Waterway shown on T-4866 in pencil, and the temporary stations.

(b) T-6326 (1935) scale 1:10,000. T-6326 covers the area at the entrance to the Brazos River. T-6326 has been completely transferred to this survey with the following exceptions, the magnetic meridian, the buoys at the entrance to the Brazos River, the Coast Guard telephone line and the temporary topographic signals No. 2 USE tripod signal, and Jupiter, USE tripod signal.

The day and dredging beacons shown on T-6326 by triangles have been shown on this survey by circles.

With the above exceptions, all detail on T-6326 has been transferred to T-5362.

Comparisons with Previous Topographic Surveys.

(a) T-2251 (1897) scale 1:5,000. T-2251 covers the Brazos River for about two miles above Big Bend. T-5362 is adequate to supersede T-2251 in all respects.

(b) T-2250 (1897) scale 1:5,000. T-2250 covers the mouth of the Brazos River. The Gulf Coast at the entrance jetties has receded on the easterly side of the entrance about 350 m. and built out on the

westerly side about 450 m.

T-5362 is adequate to supersede T-2250 in all respects.

(c) T-375 (1852) scale 1:20,000. T-375 covers the area from approximately two miles west of the Brazos River to the eastern edge of this survey.

There are numerous changes in this area since this survey (T-375) was made.

T-5362 is adequate to supersede T-375 in all respects.

Comparison with Contemporary Hydrographic Surveys.

H-5521 (1934) scale 1:20,000. H-5521 covers the Gulf Coast at the eastern end of this survey. There is no conflict with H-5521.

Comparison with Chart 525.

A detailed comparison with Chart 525 is given in the Descriptive Report for T-6326.

The high water line at lat. $25^{\circ} 56.6'$, long. $95^{\circ} 19'$ appears on Chart 525 about 25m. to the north of the high water line shown on this survey. On examination of the photographs, T-5362 is accepted as correct.

The turning basin in the same locality is shown larger on T-5362 and T-6326 than on Chart 525. This could not be verified by the photographs. T-6326 is of a later date than the photographs and is accepted as correct.

Oyster Creek has decreased in size as shown.

The Descriptive Report for T-6326 states that the "Road to Velasco" is no longer a prominent feature. The bridge shown on Chart 525 over the Intracoastal Waterway at this road is also gone.

The area at Big Bend has been covered with spoil. The hachures in this area are no longer indicative of the topography.

Comparison with Chart 1283.

For detailed comparison with Chart 1283 see Descriptive Report for T-5362.

The small lake at lat. $28^{\circ} 52.5'$, long. $95^{\circ} 24.6'$ is not visible on the photographs and should be deleted from the chart.

For comparison in the vicinity of the Brazos River entrance see Comparison with Chart 525.

Landmarks.

The landmarks for this area including those to be deleted have been submitted on Chart Letters 644 (1935) and 304 (1935).

All recommended landmarks have been shown on this survey.

Aids to Navigation.

The Brazos River Lighthouse has been shown on this sheet by the standard triangulation symbol.

The Brazos River entrance buoys have not been shown. For the location of these buoys see T-6326.

Remarks.

The projection has been tested and is accepted as satisfactory.

The accuracy stated in "Recommendations for Further Surveys" is too great. A better estimate of the accuracy of this survey would be 0.3 to 0.5 mm for intersected points and 0.3 to 0.8 mm for other detail.

August 10, 1935.

H. L. Hawkins
H. L. Hawkins.

Frank G. E. Kline

T-6326 Transferred by R. Heap

REVIEW OF AIR PHOTO COMPILATION NO. 5362

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, ~~extent~~, 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)
Maps for names, and identification of features at Bryamound only.
- ✓ 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)
no unusual or large adjustments
- ✓ 7: High water line on marshy ~~and mangrove coast~~ ^{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~~
~~reefs~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41). As described in descriptive report, certain high water and low water line was transferred from a plane table sheet. In some instances shoal areas were indicated by a dashed outline which does not represent the low water line necessarily.
- ✓ 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)
- ✓ 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-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:

18. Examined and approved;

T. M. Price, Jr.
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Frank G. Jenkins

Examined and approved:

C. K. Green
Chief, Section of Field Records
L. O. Lobert
Chief, Division of Charts

F. S. Borden
Chief, Section of Field Work
G. H. Hude
Chief, Division of Hydrography
and Topography.