

8938

Diag. Cht. No. 1280

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey SHORELINE (PHOTOGRAMMETRIC)

Field No. Ph-14(46) Office No. T-8938

LOCALITY

State TEXAS

General locality INTRACOASTAL WATERWAY

Locality CAPLEN AND GILCHRIST

194 9

CHIEF OF PARTY

R. A. Gilmore, Chief of Field Party.
Div. of Photogrammetry, Washington, D. C.

LIBRARY & ARCHIVES

DATE December 26, 1951

8938

DATA RECORD

T-8938

Project No. (II): Ph-14(46) Quadrangle Name (IV): Vicinity of Caplen and
 Gilchrist, Texas

Field Office (II): Chief of Party: R. A. Gilmore
 Div. of Photogrammetry
 Photogrammetric Office (III): Graphic Compilation Officer-in-Charge:
 Section - Wash., D. C.

Instructions dated (II) (III): Copy filed in Division of
 Photogrammetry (IV)

Supplemental I, 22 July 1947, and letters
 dated 5 June 1947 and 29 July 1947

Method of Compilation (III): Radial Plot

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): 6-8-49 Date reported to Nautical Chart Branch (IV): 6-13-49

Applied to Chart No. 885 Date: May 3, 1950 Date registered (IV): 20 Nov. 1951

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): N. A. 1927 Vertical Datum (III): M. H. W.

Mean sea level except as follows:
 Elevations shown as (25) refer to mean high water
 Elevations shown as (6) refer to sounding datum
 i. e., mean low water or mean lower low water

Reference Station (III): Gilchrist, 1933

Lat.: 29° 30' 50.818"	Long.: 94° 29' 06.462	Adjusted
(1564.6m)	(174.0m)	Unadjusted

Plane Coordinates (IV): State: Texas Zone: South Central

Y= 638,828.95 X= 3,435,600.43

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
 or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

Areas contoured by various personnel
(Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II): Ross A. Gilmore, Chief of Party

Date: Aug. Oct. 1947

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):

Date Photographs were taken 11/23/46 and date of Field Inspection 8/12/47.

Projection and Grids ruled by (IV): W. E. Ward

Date: 11/9/48

Projection and Grids checked by (IV): W. E. Ward

Date: 11/9/48

Control plotted by (III): R. W. Williams

Date: 11/15/48

Control checked by (III): R. L. Sugden

Date: 11/15/49

Radial Plot or Stereoscopic L. M. Gazik

Date: 1 - 49

Control extension by (III):

Planimetry

Date:

Stereoscopic Instrument compilation (III):

Contours

Date:

Manuscript delineated by (III): R. W. Williams

Date: 4 - 49

Photogrammetric Office Review by (III):

Date:

Elevations on Manuscript checked by (II) (III):

Date:

Camera (kind or source) (III): U.S.C. & G.S. nine-lens

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
18444	11/23/46	11:00	1:10,000	Not Applicable *
18445	11/23/46	11:01	1:10,000	☐ ☐
18446	11/23/46	11:01	1:10,000	☐ ☐
18447	11/23/46	11:02	1:10,000	☐ ☐

Tide (III)

Reference Station:
 Subordinate Station:
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): *Lina J. Stevens*

Date: *25 May, 1950*

Final Drafting by (IV): *Baltimore Office*

Date:

Drafting verified for reproduction by (IV): *Breene S. Striffler*

Date: *5/1/51*

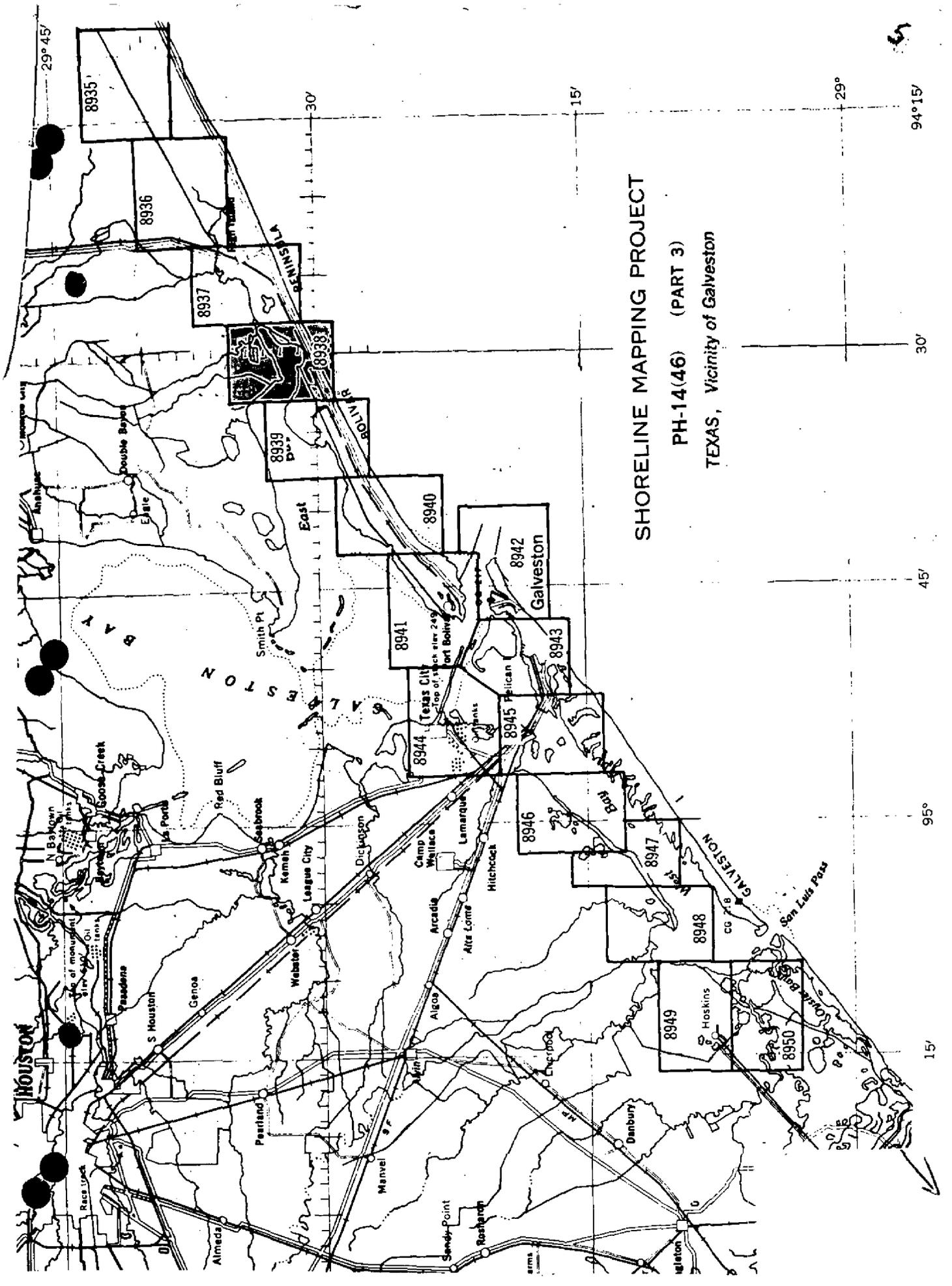
Proof Edit by (IV): *S. Striffler*

Date: *7/25 51*

Land Area (Sq. Statute Miles) (III):
 Shoreline (More than 200 meters to opposite shore) (III):
 Shoreline (Less than 200 meters to opposite shore) (III):
 Control Leveling - Miles (II):
 Number of Triangulation Stations searched for (II):
 Number of BMs searched for (II):
 Number of Recoverable Photo Stations established (III):
 Number of Temporary Photo Hydro Stations established (III):

Recovered: Identified:
 Recovered: Identified:

Remarks: * See 30, Compilation Report



SHORELINE MAPPING PROJECT

PH-14(46) (PART 3)

TEXAS, Vicinity of Galveston

6

Descriptive Report: T-8938

Project: Ph-14(46) *Part III, 16 maps, T-8935 to T-8950, incl.*

Location: Vicinity of Gilchrist and Caplen, Texas

Scale: 1:10,000

This report is concerned with a shoreline survey southwest of Port Arthur, Texas and is one of a series of surveys extending along the Intracoastal Waterway from Houma, Louisiana, Longitude 90° 44' West of Corpus Christi Bay, Texas, Longitude 97° 15' West.

Project Ph-14(46) was undertaken to furnish the necessary data to prepare a new series of inland waterway charts at 1:40,000 scale.

The field party recovered the control and indicated other pertinent field inspection data by photogrammetric methods by identifying it on the photographs for compilation in this office. The field work was accomplished by Lt. Comdr. R. A. Gilmore, Chief of Party.

Compilation notes were made from field records and photographs and instructions from Special Report Letter 84 (1948) Port Arthur, Texas to Cedar Lake, Texas.

This shoreline sheet is filed in the Division of Photogrammetry and Chart Letter 84 (1948) is filed in the Nautical Chart Branch.

Field Inspection Report
Gulf Intracoastal Waterway
Port Arthur, Texas, to Cedar Lakes, Texas
January, 1948

Ross A. Gilmore
Chief of Party

Harold A. Duffy
Photogrammetrist

Chart Letter 84(1948)

27. Radial Plot Report for T-8938 to T-8944

A continuous radial plot was prepared using 27 transparent vinylite templets made from as many nine-lens photographs.

Templets for photographs #18446 and #18447 from T-8938 made satisfactory junction with previous plot positions on T-8937. ~~described in a report filed with T-8933.~~

A list of the 44 triangulation and substitute stations held in the plot will be found at the end of this report.

Control Density. - For sheets T-8941 to T-8944 the density of control was quite adequate, while the minimum requirements were satisfied for sheets T-8938 to T-8940.

Control Identification. - Office identification of control is indicated in the appended list of stations.

Attention should be called to the field identification of several shadows on field photograph #18433 instead of visible towers, beacons, etc.

Office identification of GALVESTON, HIGH GRADE PACKING COMPANY, W.T., 1933, which held in the plot with other control in the immediate vicinity should be accepted instead of the "positive" identification in the field.

Field recovery supplied a planetable acetate templet for PARRS GROVE (U.S.E.), 1912. With one of the angles on the templet held to the displaced top of a 115 foot tower and three other ground points, the fix was used in the field to pick PARRS GROVE on field photograph #18436. Trying to correct this recovery for the displacement error the templet was held to the base of the tower but one of the other angles failed to check; consequently, it was not held in the plot.

Areas of Questionable Accuracy. - None, except that the comments under Closure and Adjustment, and under Remarks should be considered.

Remarks. - Buoy positions around the principal point of photograph #18415 could not be cut in satisfactorily with the plot because of small angles of intersection. Positions determined with small angles of intersection due to proximity to azimuth lines occur particularly on T-8938 and T-8939 for lights and topographic stations recovered along the Intracoastal Waterway.

DREDGE (U.S.E.), 1933, a tripod, and N. JETTY LT., 1933, rebuilt in 1947, were recovered in the field and recommended to be used with caution. N. JETTY LT. was held in preference to DREDGE.

No explanation is made for not holding Substitute Station EAST BEACH (U.S.E.), 1932, better than 1 mm.

*see 32, Compil Rept
for T-8942, p 9.
"Error in computation"
"Station re-plotted"*

Further, the sextant fixes given in Form 250, GALVESTON and TEXAS CITY, Vol. 2 of 5, R. A. Gilmore, 1947, Chart Letter 886, for various buoys were checked against their supposed respective positions recovered in the plot. None checked. It has been suggested that since the date of the photographs, November 1946, and the date of the field work, October 1947, these buoys may have been moved.

In the Descriptions of Triangulation Stations, No. 870 Supplement, Texas Coast, Part II, Galveston Bay, the HOUSTON CHANNEL BNS. #2 and #3 are described as having been rebuilt. Without any attempt to do so, BN. 2 held the old position and BN. #3 held to within 0.5 mm of its old position. It would seem that both these beacons were rebuilt on their old bases.

Substitute Station RM #1, MOORE, 1933, plotted on a dog-ear for T-8944 held with the only cut available from photograph #18424.

TEXAS CITY, R.R. TERMINAL, EAST and WEST W.Ts., 1933, were separated by a bad junction between chambers 3 and 7 on photograph #18424 and only the EAST W.T. could be held satisfactorily with the control in the area.

Changes have taken place in the Texas City waterfront area due to an explosion, April 16, 1947, about five months after the photographs were taken. TEXAS CITY, SUGAR REFINERY CO., SMOKESTACK, 1933, identified on the photographs was used as control although destroyed in the explosion.

For these and many other changes in triangulation throughout the Texas City, Houston and Galveston channel areas see the Supplement mentioned in the second paragraph above.

Stations plotted but crossed out in the Galveston area by red crayon are described as destroyed in the above-mentioned Supplement. It is suggested that these be checked in the final compilation.

Radial Plot Report
T-8938 to T-8944
Page 3

Plot positions circled in green were determined by two cuts; those circled in blue were determined by three or more cuts.

Submitted by:

Approved by:

L. Martin Gazik
L. Martin Gazik
March 17, 1949

L. C. Lande
L. C. Lande

CONTROL FOR T-8938 to T-8944
(Sheet 1 of 2)

- T-8938 {S.S. GILCHRIST, 1933
{S.S. SHELL, 1933
{BRANT, 1933
{CAPLEN, 1932
- T-8939 {SLIPPER, 1933
{PATTON, 1932
{COX (U.S.E.), 1901
{/WAY, 1933/ not recovered or used in plot
- T-8940 {ELM, 1933
{WATER, 1933
- T-8941 {INLAND, 1933
{P (U.S.E.), 1900
{BOLIVAR PT. LT. HSE (U.S.E.), 1900 } Also on T-8942
{TRAVIS, 1933 }
{O (U.S.E.), 1933 (also on T-8943)
{TEXAS CITY, CHANNEL, CUY "B", OUTER R.R. BN, 1933
(also on T-8943)
{ " " " CUY "A", F.R. LT., 1933 on T-8944
{ " " " CUY "B", OUTER F.R. BN, 1933
{HOUSTON CHANNEL DN #2, 1933 } rebuilt
{ " " " #3, " }
{DREDGE, 1933
- T-8942 {FT. POINT LT. HSE (U.S.E.) 1933
{QUARANTINE STA. CUPOLA, 1933
{S.S. JACINTO, 1933
{S. JETTY LT., 1933
{E. BANK DN., 1933
{SEADY HOSPITAL CUPOLA (U.S.E.), 1900
{S.S. WALL, 1933
{S.S. SAN, 1933
{N. JETTY LT., 1933
{TRAVIS, 1933 - also on T-8941
{BOLIVAR PT. LT. HSE. (U.S.E.), 1900 - also on T-8941

All substitute points have been removed from the manuscripts.

L.T.S.

CONTROL FOR T-8938 to T-8944
(Sheet 2 of 2)

T-8943 { GALVESTON, HIGH GRADE PACKING CO., W.T., 1933
" : COTTON CONCENTRATION CO., W.T., 1933
" S. PACIFIC CO. R.R., W.T., 1933
" U.S. MARINE HOSPITAL, STACK, 1933
" WHARF CO., PIER 40, W.T., 1933
" " " " 34 " "
" " " " 16 " "
" MOODY'S PRESS, W.T., 1933
" S. COTTON CO., W.T., 1933
" S. PACIFIC CO. R.R., SMOKESTACK, 1933
{ O (U.S.E.), 1933
{ M (U.S.E.), 1933) also on T-8941
{ S.S. GALVEZ, 1933
{ TEXAS CITY, CHANNEL, CUT "B", OUTER R.R. DN.,
1933 - also on T-8941

T-8944 { (S.S. RM #1, MOORE, 1933
{ KNOX REFINING CO. TANK, 1933
{ TEXAS CITY, CHANNEL, CUT "B" INNER R.R. LT., 1933
" " " "A" R.R. LT., 1933
" " " "A" E.R. " "
" " MUNICIPAL W.T., 1933
" " R.R. TERMINAL, EAST W.T., 1933

Compilation Notes

26 Control

The control and other field inspection data was recovered by the field party and has been indicated on the field photographs. For the layout of control on this manuscript, refer to the Radial Plot Report which is appended to this report.

27 Radial Plot

Refer to the Radial Plot Report which is ^{included} appended with this descriptive report.

28 Delineation

This compilation is in accordance with photogrammetry Instructions No. 17, dated 15 September 1947. The field inspection was adequate for the area covered by this survey.

Limits of areas of marsh, high ground, and interpretation of other inland features were determined by stereoscopic methods field photographs, and the latest U.S.E. Quadrangles.

29 Supplemental Data

Compilation notes were made from field records, photographs, existing maps and instructions from Special Report Chart Letter 84 (1948) Port Arthur to Cedar Lake, Texas.

30 Mean High Water Line

The tide range in this area is negligible for purposes of compilation.

32 Details Offshore from the High Water Line

All offshore detail such as pipes, piling, fish traps, and piers was compiled directly from the photographs.

The point on Range, East Bay Range was located on the field photographs but the compiler was unable to determine its nature through lack of information.

34 Landmarks and Aids to Navigation

The Range Lights shown on this sheet were cut in the Radial Plot. A list of positions of these lights is filed on form 567 "Non floating Aids for Charts" and is filed with the Nautical Chart Branch.

The compiler noticed in scaling the position of Light, East Bay Rear Range that this new position differs from that of L. 84 (1948). This new position fits the pattern of the other lights and should supersede that of L. 84 (1948). All buoys located on

26 Control

The control and other field inspection data was recovered by the field party and has been indicated on the field photographs. For the layout of control on this manuscript, refer to the Radial Plot Report which is appended to this report.

38 Control for Future Surveys

27 Radial Plot

Forms 524 were submitted for:

- USE Station 2020+00 (disc)
- USE Station 2130+00 (iron pipe)
- C&GS Gilchrist RM 2 (AZ.Mk) 1933 (disc)
- C&GS Caplen 2 (RM 2 X AZ.Mk) 1933 (disc)

All these stations were recovered during field inspection.

Points of areas of marsh, high ground, and interpretation of other island features were determined by stereoscopic methods field photographs, and the latest U.S.E. photographs.

29 Supplemental Data

Compilation notes were made from field records, photographs, existing maps and instructions from Special Report Chart Letter 1018 (1918) Port Arthur to Cedar Lake, Texas.

30 Mean High Water Line

The tide range in this area is negligible for purposes of compilation.

31 Details Offshore from the High Water Line

All offshore detail such as piles, piling, fish traps, and others was compiled directly from the photographs.

The point on Range, East Bay Range was located on the field photographs but the compiler was unable to determine its nature through lack of information.

32 Landmarks and Aids to Navigation

The Range lights shown on this sheet were out in the Radial Plot. A list of positions of these lights is filed on Form 527 "Non floating aids for Charts" and is filed with the Radial Chart Branch.

The compiler noticed in sailing the position of Light, East Bay Range that this new position differs from that of L. 20 (1918). This new position is the pattern of the other lights and should supersede that of L. 20 (1918). All buoys located on

this sheet were compiled directly from the photographs.

Field inspection photographs 18446 & 18447.

35 Geographic Names

The geographic names of this area were taken from Special Report 107 (1948) on Geographic Names.

A list of geographic names accompanies this report.

44 Comparison with Existing Topographic Quadrangles

This manuscript agrees favorably with TVA Quadrangles, Caplen, Frozen Point, and High Island, Texas, (scale 1:25,000) 1943.

The following differences were noted:

1. Drainage ditches on this sheet are not shown on the Quadrangles.
2. Two additional slips and roads connecting them to Gilchrist are shown on this sheet and are not on the Quadrangles.
3. The Coast Guard Station just southwest of Caplen is shown on the Quadrangles and not on this sheet. *discontinued*
4. Fish traps, piling and obstructions to navigation are shown on this sheet and not on the Quadrangles.
5. Aids to navigation are shown on this sheet and not on the Quadrangles.

This sheet was compared with the Graphic Control Survey T-4862(1933) but did not favorably agree. Areas of shoreline, spoil, navigation aids and hazards, and cultural features have changed since this survey; they have been corrected on this manuscript.

45 Comparison with Nautical Charts

This manuscript was compared with Chart No. 1280 (June 1945) scale 1:80,000 and seemed to be in agreement, however, the difference in scale limited the comparison.

This manuscript is complete in all details except those mentioned above and ~~should~~ supersede previously charted information.

Submitted by:

Robert W. Williams
R. W. Williams

Approved by:

L. C. Lande
L. C. Lande

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED }
TO BE DELETED } ~~STRIKE OUT ONE~~

Div. of Photogrammetry Wash, D.C. May 4 19 49

I recommend that the following objects which have ~~(have not)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by R. A. Gilmore

L. C. Lande

Chief of Party.

CHARTING NAME	STATE	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
				LATITUDE		LONGITUDE							
				°	'	°	'						
885 K ✓ Lt. 8	Texas	East Bay	K ₈₈₅	29	32	94	28	1209.5	646.6	N.A. 1927	May 1949	X	1280
885 K ✓ Lt.	Texas	East Bay, Range Rear	K ₈₈₅	29	31	94	28	1219.8	1123.3	"	"	X	1280
885 K ✓ Lt.	Texas	East Bay, Range Front	K ₈₈₅	29	31	94	29	1036.5	233.5	"	"	X	1280
885 K ✓ Lt. 18	Texas	East Bay	K ₈₈₅	29	30	94	30	1835.8	1284.2	"	"	X	1280
Scaled by: R. W. Williams, 5 - 49													
Checked by: S. C. Blankenbaker, 5 - 49													
Note: These positions are also listed on pg. 8 of the Special Report (Chart Letter 84, 1948) which is filed in the Nautical Chart Branch.													

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating* aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

Geographic Names

- ✓ • Boliver Peninsula
- ✓ • Brant Island
- ✓ • Caplen
- ✓ • Devils Elbow
- ✓ • East Bay
- ✓ • Faggard Slip
- ✓ • Frozen Point
- ✓ • Gilchrist
- ✓* • Gulf of Mexico
- ✓ • Intracoastal Waterway
- ✓ • Little Pasture Bayou
- ✓ • Little Pasture Cove
- ✓ • Lower Marsh
- ✓* • Mussel Point
- ✓ • Oyster Bayou
- ✓ • Rollover
- ✓ • Rollover Yacht Club
- * Texas

* = DATES BGN
 • = Names approved

5-24-50
 A.J.W

Review Report T-8938
Shoreline Survey
25 May, 1950

62. Comparison with Registered Surveys:

T-8462 1:20,000 1933 (No contours)

63. Comparison with Maps of Other Agencies:

USE Caplen 1:20,000 1949
USE High Island 1:31,680 1943
USE Frozen Point 1:25,000 1949

64. Comparison with Contemporary Hydrographic Surveys:

None

65. Comparison with Nautical Charts:

1280 1:80,000 ed. June 1945 rev. Aug. 1946.

A charted post in the central part of East Bay is not shown on T-8938. It is not visible and was not noted by field inspection.

The Gulf Coast shoreline has receded since chart publication.

66. Accuracy:

This compilation meets the standards for charting purposes.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

Approved by:

S. V. Griffith
Chief, Review Section H.R.B. 11/29/51
Division of Photogrammetry

W.C. Dunbar
Chief, Nautical Chart Branch
Division of Charts

O.S. Reading
Chief, Div. of Photogrammetry

W.M. Scoble
Chief, Div. Coastal Surveys

