

# 9218

Diag. Cht. No. 1288

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey ..... PLANIMETRIC

Field No. Ph-36(48)F ..... Office No. T-9218

### LOCALITY

State..... TEXAS

General locality..... LAGUNA MADRE

Locality PADRE ISLAND-CAMERON COUNTY

194 .52

### CHIEF OF PARTY

G.E.Morris, Jr., Chief of Party.

A.L.Wardwell, Tampa Photogrammetric Office

### LIBRARY & ARCHIVES

DATE Sept 25-1953

8-1870-1 (1)

# 8128

DATA RECORD

T-9218

Project No. (II): Ph-36(48)F      Quadrangle Name (IV):

Field Office (II): **Brownsville, Texas**

Chief of Party: **George E. Morris, Jr.**

Photogrammetric Office (III): **Tampa, Florida**

Officer-in-Charge: **Arthur L. Wardwell**

Instructions dated (II) (III): **14 February 1949**

Copy filed in Division of  
Photogrammetry (IV)

*Office Files*

Method of Compilation (III): **Graphic**

Manuscript Scale (III): **1:20,000**

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): **—**

Date received in Washington Office (IV): **JUN 18 1951**

Date reported to Nautical Chart Branch (IV): **JUN 29 1951**

Applied to Chart No. **897**      Date:

Date registered (IV): **7-30-53**

Publication Scale (IV): ~~1:24000~~ **Not To be Published**

Publication date (IV):

Geographic Datum (III): **N.A. 1927**

**M.H.W.** Vertical Datum (III):

~~M.S.L. datum~~ except as follows:  
Elevations shown as (25) refer to mean high water  
Elevations shown as (5) refer to sounding datum  
i.e., mean low water or mean lower low water

Reference Station (III): **BURNT - 1939**

Lat.: **26°17' 11".153 (343.24)**

Long.: **97°11' 55".002 (1525.94)**

Adjusted  
~~XXXXXX~~

Plane Coordinates (IV):

State:

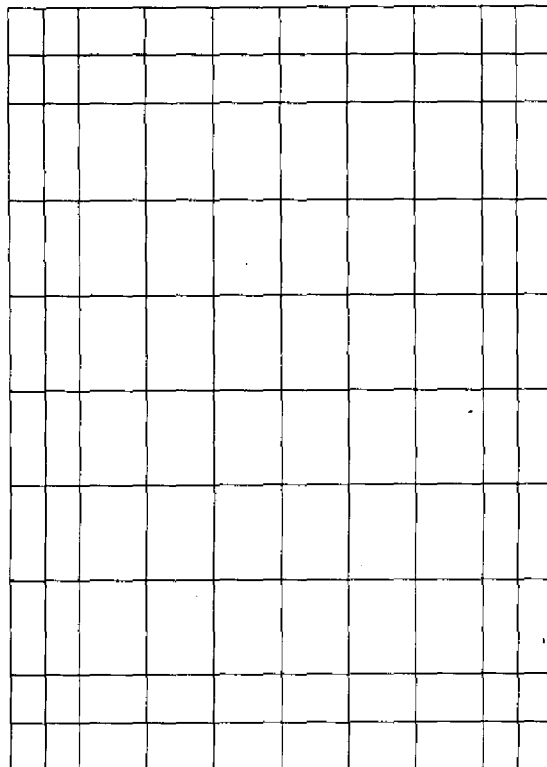
Zone:

Y=

X=

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)

Planimetric Only

DATA RECORD

Field Inspection by (II): **W. H. Nelson**  
**I. Y. Fitzgerald**

Date: **December 1949**

Planetable contouring by (II): **Inapplicable**

Date:

Completion Surveys by (II): **W. H. Shearouse**

Date: **Jan. 1952**

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

**Air Photo Compilation**

**9 Dec. 1949**

Projection and Grids ruled by (IV): **S.R.**

Date: **18 Sept. 1950**

Projection and Grids checked by (IV): **H.D.W.**

Date: **18 Sept. 1950**

Control plotted by (III): **Baltimore Office**

Date: **No date given**

Control checked by (III): **I. I. Saperstein**

Date: **22 Jan. 1951**

Radial Plot ~~checked~~  
~~checked~~ by (III): **M. M. Slavney**

Date: **23 Mar. 1951**

Stereoscopic Instrument compilation (III): **Inapplicable**  
Planimetry  
Contours

Date:

Date:

Manuscript delineated by (III): **C. J. Downing**

Date: **15 May 1951**

Photogrammetric Office Review by (III): **J. A. Giles**

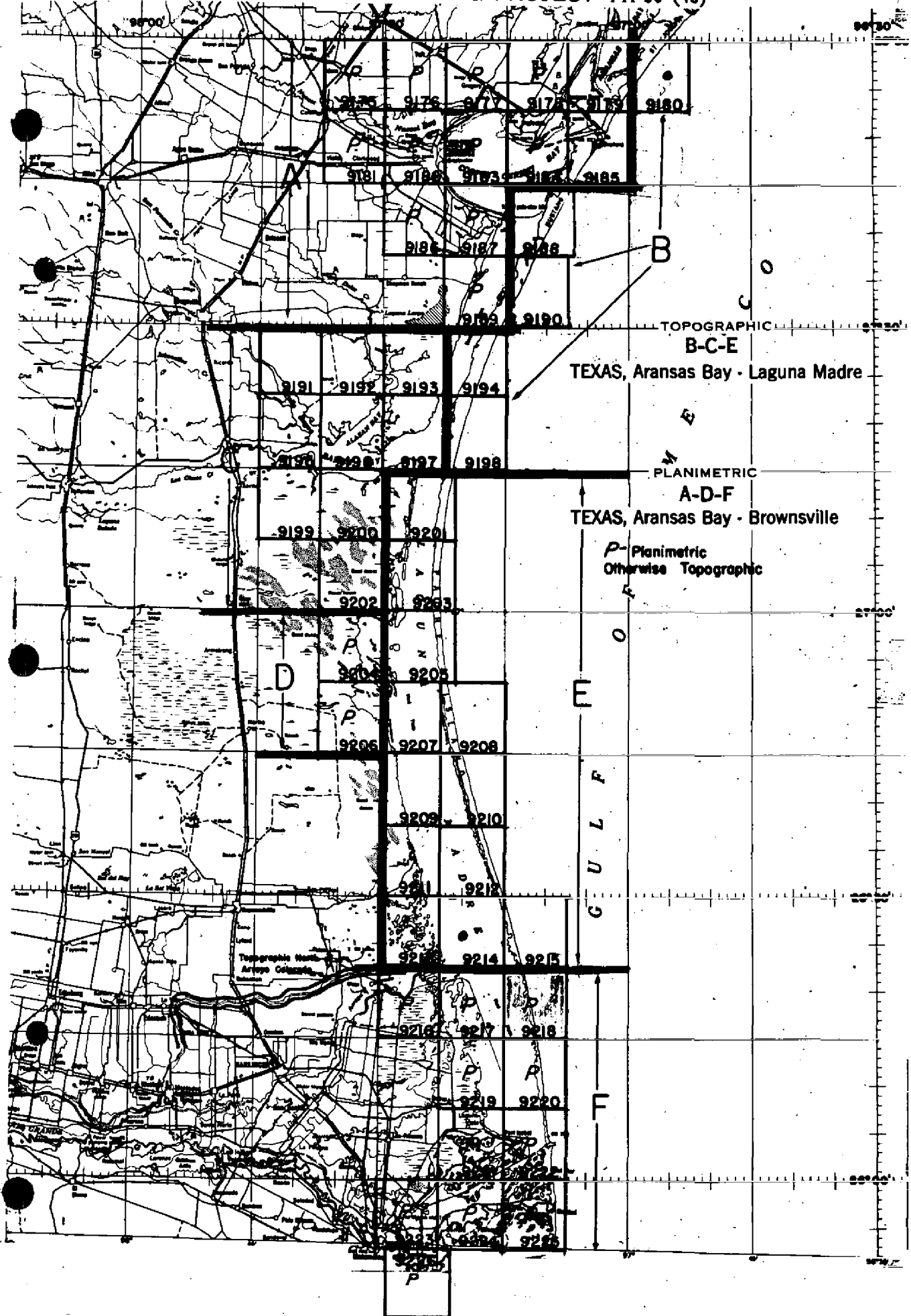
Date: **28 May 1951**

Elevations on Manuscript  
Checked by (II) (III): **Inapplicable**

Date:



TOPOGRAPHIC AND PLANIMETRIC MAPPING PROJECT PH-36 (48)



Fairchild Cartographic Camera "0"

Camera (kind or source) (III): Single-lens 6.09 in. focal length and USC&GS Nine-lens camera 8.25 in. focal length

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
48-0-1465-1466	8 Dec. 48	1504	1:20,000	1.1 ft.
48-0-1508 to 1515 incl.	9 Dec. 48	1052 to 1054	"	0.4 ft.
25795	4 May 1950	1528	"	1.3 ft.
25796	"	1529	"	"
25797	"	1530	"	"

Note: In the Laguna Madre area the tide is negligible, and is affected principally by wind conditions.

Tide (III)

Reference Station: GALVESTON, TEXAS  
 Subordinate Station: BRAZOS SANTIAGO, TEXAS  
 Subordinate Station:

Ratio of Ranges	Mean Range	Diurnal
		Spring Range
0.9	1.0	1.4
0.9	0.9	1.3

Washington Office Review by (IV): C. Hanavich

Date: 27 June 1952

Final Drafting by (IV): Taylor

Date: October 1952

Drafting verified for reproduction by (IV): L. Kauchor

Date: 11/26 52

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 2  
 Shoreline (More than 200 meters to opposite shore) (III): 26  
 Shoreline (Less than 200 meters to opposite shore) (III): 0  
 Control Leveling - Miles (II):  
 Number of Triangulation Stations searched for (II): 2 Recovered: 2 Identified: 2  
 Number of BMs searched for (II): 0 Recovered: 0 Identified: 0  
 Number of Recoverable Photo Stations established (III): 2  
 Number of Temporary Photo Hydro Stations established (III): 0

Remarks:

SUMMARY T- 9218

Project Ph-36(43) consists of fifty-two quadrangles at 1:20,000, each 7.5 minutes in latitude and longitude, covering the Gulf Coast of Texas and the Intracoastal Waterway from Aransas Bay to Brownsville and the Mexican Border. Adjoining the project to the north is a series of shoreline surveys in Part IV of Project Ph-14(46).

Information concerning Ph-36(46) in its broader aspects will be included in a project completion report to be compiled at the conclusion of the review of all surveys in this project.

Twenty-six of the quadrangles in this project are topographic surveys and are to be published at 1:24,000 scale by the Geological Survey. The other twenty-six quadrangles are planimetric surveys. Of these, nineteen are to be used as bases by the Geological Survey for the compilation of 7.5 minute topographic quadrangles and will not be published as planimetric maps. The remaining seven, T-9175, T-9176, T-9177, T-9181, T-9189, T-9204, and T-9206, will be published as planimetric maps.

Cloth-backed lithographic prints of the original map manuscripts at compilation scale and the descriptive reports for all maps in this project will be filed in the Bureau Archives. Cloth-backed copies of the published topographic quadrangles at 1:24,000 scale will also be filed.

*All special reports, except the Geographic Names Report will be filed in the Project Completion Report.*

2. AREAL FIELD INSPECTION

This area is mainly shifting, barren sand. Along the west edge of the Gulf beach is a broken line of shifting sand dunes. In general, these dunes are not over ten or fifteen feet high. Between the groups of dunes, and separating them, are sand flats which run from the Gulf beach across the island to Laguna Madre. To the west of the sand dunes, and also running parallel to the beach, are a few scattered grass covered areas which, for the most part, are rather low. To the west of the shifting sand and grass areas is a sand flat of varying widths, and to the west of this is Laguna Madre.

The Gulf beach and the shifting sands appear as the lightest tone on the photographs. The scattered dunes in the shifting sand appear as dark dots and the grass covered areas are the darkest tone; the sand flats and Laguna Madre appear as intermediate gray tones.

Field inspection was done on contact prints of photographs 48-0-1508 through 48-0-1515. These photographs are of good contrast.

3. HORIZONTAL CONTROL

All horizontal control stations were recovered and identified.

4. VERTICAL CONTROL

There is no vertical control within the limits of this quadrangle.

5. CONTOURS AND DRAINAGE

Not applicable.

6. WOODLAND COVER

There is no woodland cover to be shown.

7. SHORELINE AND ALONGSHORE FEATURES

The Gulf mean high water line was measured at intervals from identifiable detail on the field photographs. The low water line, because of diurnal tides at the time of shoreline inspection, could not be determined. The foreshore is sand with no bluffs, cliffs, piers, landings, submarine cables, or other shoreline structures.

The storm water line was indicated on the photographs in blue ink. On the west side of the island this line follows the edge of vegetation except in the shifting dune areas where it follows the westerly edge of the white areas of shifting sand.



Along the entire length of the island, in this quadrangle, there are areas in which the sand flats extend from Laguna Madre across the island to the low ridge immediately west of the MHWL of the Gulf of Mexico. These areas are bounded by the storm water line. All of them are covered by water during storm or rainy periods. At times some of them are completely dry, while at the same time, others have water in them. Those which are seldom dry have the darkest photographic tones. As the field inspection party was never there after an extended period of calm weather or ~~an extended period~~ of dry weather, it is not known whether all of these areas are ever completely dry.

In any case, all of these areas will be important landmark features to any person using a topographic map of the area, and for this reason, their value as such should be recognized and retained by the cartographer.

Tidal data for Laguna Madre <sup>have</sup> ~~has~~ been received from the Humble Oil and Refining Company. This will be used in determining the shoreline after new photography is received. See "Special Report, Identification and Delineation of the Shoreline of the Laguna Madre, Project Ph-36(48)", to be submitted at a later date.

8. OFFSHORE FEATURES

There are no offshore features.

9. LANDMARKS AND AIDS

There are no landmarks or aids.

10. BOUNDARIES, MONUMENTS, AND LINES

See "Special Report, Boundaries, Baffin Bay to the Rio Grande, Project Ph-36(48)", to be submitted at a later date.

11. OTHER CONTROL

The following recoverable topographic stations were established: AXIS 1949 and CODE 1949.

12. OTHER INTERIOR FEATURES

There is a telephone line running more or less parallel to the Gulf beach. This line, two wires on twenty foot poles, originates at the U. S. Coast Guard Station at Brazos Santiago and ends near the north limit of quadrangle T-9218(26°20.3) (see photograph 48-0-1513). The turns in the line have been indicated on the various photographs by a prick mark and a note. This telephone line is not in use at the present time, but is maintained by the U. S. Coast Guard in a standby condition.



*one bldg.*

There are no classifiable roads or buildings in this area.

In the northern section there is an abandoned fence. The posts are still in position and will be for several years. This fence was the northern boundary of a gunnery range of the Harlingen Army Air Force Gunnery School. It runs in an East-West direction across the island. The western end was inaccessible but the eastern section has been identified on the photographs. A faint line crossing the sand flats is visible on the photographs. These are "Weasel" tracks parallel to, and less than six feet south of the fence.

13. GEOGRAPHIC NAMES

See "Special Report, Geographic Names, Port Mansfield (Red Fish Landing) to the Rio Grande, Project Ph-36(48)", to be submitted at a later date.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

"Special Report, Identification and Delineation of the Shoreline of Laguna Madre, Project Ph-36(48)", to be submitted at a later date.

"Special Report, Boundaries, Baffin Bay to the Rio Grande, Project Ph-36(48)", to be submitted at a later date.

"Special Report, Geographic Names, Port Mansfield (Red Fish Landing) to the Rio Grande, Project Ph-36(48)", to be submitted at a later date.

Records, Quadrangle T-9218( ), letter of transmittal Ph-36 Field 54, forwarded to Washington Office 17 February 1950.

Submitted  
16 February 1950

*Wilber H. Nelson*  
Wilber H. Nelson  
Cartographic Survey Aid

Approved  
17 February 1950

*George E. Morris, Jr.*  
George E. Morris, Jr.  
Chief of Party



COMPILATION REPORT T-9218

PHOTOGRAMMETRIC PLOT REPORT

To be submitted with T-9220.

31. DELINEATION.

Compiled by graphic methods.

32. CONTROL.

Horizontal control was satisfactory with respect to identification, density and placement.

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS.

There are no wharves, piers, retaining walls, etc. Considerable difficulty was experienced in delineating the Storm High-Water Line on the west shore of Padre Island because of conflicting information on the field photographs. In most cases the Storm High-Water Line, as shown on the single-lens field prints, has been used since it appeared to be more nearly correct. The Low-Water Line has been shown as it was indicated on the field photographs.

*Delineation of storm high-water line verified during field edit.*

36. OFFSHORE DETAILS.

No statement.

37. LANDMARKS AND AIDS.

Inapplicable.



38. CONTROL FOR FUTURE SURVEYS.

Two (2) ~~recovery~~ cards (Form 524) have been submitted for recoverable topographic stations AXIS, 1949 and CODE, 1949. These stations have been listed under Item 49.

39. JUNCTIONS:

Joins Survey T-9214 on the north, satisfactory agreement.  
Gulf of Mexico on the east.  
Joins Survey T-9220 on the south.  
Joins Survey T-9217 on the west. These two quadrangles are not compiled at this time.

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement.

46. COMPARISON WITH EXISTING MAPS.

Comparison was made with U. S. Geological Survey, Quadrangle PADRE ISLAND, No. 2, Scale 1:31,680, edition of 1935, reprinted 1944. Agreement was satisfactory. *See Review Report.*

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison was made with Nautical Chart, 1288, scale 1:80,000, edition of 1941, corrected to 28 July 1950. Agreement was good on the Gulf of Mexico side of Padre Island. An intelligible comparison could not be effected on the Laguna Madre side because Storm High-Water is shown on the map manuscript instead of mean high water.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

None.

## ITEMS TO BE CARRIED FORWARD.

None.

*C. J. Downing*  
C. J. Downing  
Cartographic Aid

Approved and Forwarded: 6/15/51

*William A. Rasur*  
for Arthur L. Wardwell, Chief of Party



48. GEOGRAPHIC NAMES.CAMERON COUNTYCOMMISSIONER PRECINCT 1 (*precincts omitted in accordance with instructions*)GULF OF MEXICOLAGUNA MADREPADRE ISLANDTEXAS

Names underlined in red  
are approved. 6-26-52  
L. Heck

49. NOTES FOR THE HYDROGRAPHER

Two recoverable topographic stations which may be useful to the hydrographer are as follows:

AXIS - 1949

CODE - 1949



## Field Edit Report, T-9218

51. Methods.--The beach was traversed by Jeep. Visual comparison of the storm and high-water lines was made between the compiled lines and ground features. Notations of the results are shown on the Field Edit Sheet and photographs 48-O-1513, 1514 and 1515.

52. Adequacy of compilation.--Compilation of lines<sup>is</sup> adequate and the map manuscript will be complete after application of field edit information and symbolization of sand dunes, etc., called for by the Reviewer.

53. Map accuracy.--No tests were executed.

54. Recommendations.--None offered.

55. Examination of proof copy.--Mr. George C. Colley, Port Isabel, Texas, is as intimately acquainted with the area as anyone found. He has been a boat operator and fishing guide hereabouts for many years and it is believed he is qualified to make the examination, if one is considered necessary.

Respectfully submitted,  
4 February 1952

*William H. Shearouse*  
William H. Shearouse,  
Cartographer

REVIEW REPORT T-9218  
Planimetric Map  
27 June 1952

62. Comparison with Registered Topographic Surveys:

T-1476a & b	(1879-80)	1:20,000
T-6705a & b	(1939)	1:20,000

A comparison between the new and the old surveys shows that the shoreline along the Gulf Coast has receded. The extent of this recession is about 200 meters on the older of the two surveys; on the 1939 survey, the recession ranges from 0 to about 50 meters. Inland, on the Laguna Madre side, numerous changes have taken place along Padre Island.

These older topographic surveys are superseded by the new map (T-9218) for nautical charting.

63. Comparison with Maps of Other Agencies:

Padre Island No. 2 Quadrangle; USGS; Edition 1935; Reprint 1944; 1:31,680

A marked difference is found in the physical interpretation of the features along the west side of Padre Island.

64. Comparison with Contemporary Hydrographic Surveys:

None.

65. Comparison with Nautical Charts:

Chart No. 1288; 15 January 1951; 1:80,000

No significant differences exist between T-9218 and the chart.

66. Adequacy of Results and Future Surveys:

This map complies with the project instructions and the National Map Accuracy Standards.

In the Laguna Madre area the water stages vary widely with meteorological conditions. In view of this, it was decided to omit the high-water line where it is indefinite and unmarked by visible evidence on the ground, and in its place to indicate by a broken line symbol the approximate limits of areas which were subject to inundation. This decision was arrived at mainly for these reasons:

- (1) The difficulty found in identifying the MHW line from photographs of the Laguna Madre area and of other similar areas throughout the project.
- (2) It was considered impractical to resolve this problem by extensive leveling.

For a more detailed study and investigation of this problem, refer to the correspondence and sundry reports to be attached to the completion report which will be submitted when the review of the surveys on this project has been completed.

The reasons and the decision reached in adopting the special treatment accorded to the shoreline delineation are discussed in the pages of correspondence and instructions attached to the Descriptive Report for T-9214.

Reviewed by:

Charles Hanavich  
Charles Hanavich

Approved by:

S. V. Griffith  
Chief, Review Section  
Division of Photogrammetry

H. P. Edmonson  
Chief, Nautical Chart Branch  
Division of Charts

W. W. ...  
Chief, Div. of Photogrammetry

Carl O. Heston  
Chief, Div. of Coastal Surveys



# NAUTICAL CHARTS BRANCH

SURVEY NO. T-9218

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
	897	GEARHART	Before After Verification and Review
11-16-55	897	<i>[Signature]</i>	Before After Verification and Review <span style="float: right;">3.M.A.</span>
5-15-59	1288	A.J. Hoffman	Examined Before After Verification and Review No corr.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.