# DESCRIPTIVE REPORT

**Type of Survey**: PLANIMETRIC

**Field No. Ph-36(LR)**  **Office No. T-9221**

**LOCALITY**

**State**: TEXAS

**General locality**: LAGUNA MADRE

**Locality**: LAGUNA VISTA TO BROWNSVILLE SHIP CHANNEL

**CHIEF OF PARTY**

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

A.L. Wardwell, Tampa Photogrammetric Office

**LIBRARY & ARCHIVES**

**DATE**: Oct 15 1953
DATA RECORD

Final 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, Fla.

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): Inapplicable

Scale Factor (III): None

Date received in Washington Office (IV): 27 January 1951

Date reported to Nautical Chart Branch (IV): JAN 14 1952

Date registered (IV): 8-18-53

Publication Scale (IV): Not to be published

Publication date (IV): 

Geographic Datum (III): N.A. 1927

M.H.W. Vertical Datum (III): Untouched except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (2) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): POINT ISABEL SO. BASE, 1886

Lat.: 26° 03' 41.489 (1276.7M) Long.: 97° 16' 08.774 (243.9M)

Adjusted:

Plane Coordinates (IV):

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)
DATA RECORD

Field inspection by (II):  J. H. Clark  

Planetary contouring by (II):  Inapplicable  

Completion Surveys by (II):  W. H. Shearer  

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

Air Photo Compilation  

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

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

Control plotted by (III):  R. J. Pate  

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

Radial Plot of extension by (III):  M. M. Slavney  

Stereoscopic Instrument compilation (III):  Inapplicable  

Manuscript delineated by (III):  Rudolph Dossett  

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

Elevations on Manuscript checked by (III):  Rudolph Dossett  

Date:  August 1950  

Date:  

Date:  14 Aug. 1950  

Date:  21 Sept. 1950  

Date:  27 Sept. 1950  

Date:  13 Feb. 1951  

Date:  26 Feb. 1951  

Date:  2 May 1951  

Date:  

Date:  31 Aug. 1951  

Date:  8 Nov. 1951  

Date:  31 Aug. 1951
Camera (kind or source) (III): U.S. C. & G.S. Mine-lens, 8\(\frac{1}{2}\) in. focal length
Fairchild Cartographic Camera O, 6\(\frac{1}{4}\) Metrogon lens

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Tide (III)

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Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): C. Hovenich

Final Drafting by (IV): E. F. Jackson

Drafting verified for reproduction by (IV): L. W. Hultin

Proof Edit by (IV): L. W. Hultin

Land Area (Sq. Statute Miles) (III): 51
Shoreline (More than 200 meters to opposite shore) (III): 27
Shoreline (Less than 200 meters to opposite shore) (III): 24
Control Leveling - Miles (II): 0.0
Number of Triangulation Stations searched for (II): 18 Recovered: 14 Identified: 12
Number of BMs searched for (II): 46 Recovered: 36 Identified: 32
Number of Recoverable Photo Stations established (III): 1
Number of Temporary Photo Hydro Stations established (III): 0

Remarks:

Date: 24 September 1952
Date: 6-10-52
Date: 6-9-53
Date: 7/3/53
Project Ph-36(48) 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(48) 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-9161, T-9162, T-9204, and T-9205, 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 Geog. Names Report will be filed in the Project Completion Report.
2. AREAL FIELD INSPECTION

This area lies at the southwest corner of Laguna Madre, and is a short distance west of Port Isabel, Texas. A comparatively small portion of Laguna Madre and a short section of the Brownsville Ship Channel are in the area.

Principal industries are fishing and cattle raising. Some cotton farming is to be found in the northern portion of the area.

Photographic interpretation is comparatively easy. White tones are generally sand or occasional bare mud, or spoil areas. Light gray tones denote a mixture of sand and mud, sometimes covered by shallow water. Cultivated areas also appear light gray. Smooth gray areas are usually water, or sometimes small areas of short grass. The rougher gray areas are mesquite scrub, the scattered black dots being cactus clumps or individual mesquite bushes. Aside from the deeper water and small dark scrub areas, the dark gray to black tones usually represent varying types and heights of grass.

Field inspection was not as thorough as desirable, particularly in the central and south portions of the quadrangle. Some difficulty was encountered in lack of cooperation on the part of the land owner.

Interior field inspection notes are to be found on nine-lens photograph No. 25733, and the following single lens, 1:20,000 scale, ratio prints: 48-0-1449 through 48-0-1451, and 48-0-1474 through 48-0-1476. For clarity, notes on numerous buildings will be found both on ratio print 48-0-1474 and nine-lens photograph No. 25733.

3. HORIZONTAL CONTROL

No supplemental control, of third-order accuracy or better, was established in this particular area.

The following recovered traverse stations were established by other agencies as indicated. Datum adjustments were made: NO 19H 1929 USGS, JBL 5 1929 USGS, JBL 6 1929 USGS, JBL 7 1929 USGS. Station NO 19H 1929 USGS was not identified, and station NO 20H 1929 USGS was not searched for because of landowner's refusal to grant permission to enter the area.


Station MESENA 2 1885 was identified as "doubtful" because there is still some doubt as to absolute identity of mark recovered. Rough plotting of station position and apparent age and type of bottles recovered would seem to bear out the actual recovery, although lack of marking of any kind, and presumed erosion of ground surface leaves some doubt. Station was held during the radial plot.
The following stations are reported lost: NO 34, 207.99 (USE) 1939; JBL 8 1929 USGS; JBL 11 1929 USGS; NO 4H 1928 USGS.

4. VERTICAL CONTROL

As this is a planimetric quadrangle, no additional horizontal control was established by this party.

The following are first-order bench marks established by the C&GS, which were recovered: D 677; JBL 5 1929 (USGS); JBL 6 1929 (USGS); JBL 7 1929 (USGS); M 678; POINT ISABEL WEST BASE TRIANGULATION STATION; POINT ISABEL WEST BASE AZIMUTH MARK; POINT ISABEL WEST BASE RM 1; POINT ISABEL WEST BASE RM 2; P 25 (Cam, Co.); P 26 (Cam, Co.); P 27 (Cam, Co.); P 28 (Cam, Co.); P 29 (Cam, Co.); P 30 (Cam, Co.); P 31 (Cam, Co.); P 32 (Cam, Co.); P 33 (Cam, Co.); P 34 (Cam, Co.); P 35 (Cam, Co.); P 36 (Cam, Co.); P 37 (Cam, Co.); P 38 (Cam, Co.).

These bench marks are west of sheet limit.

The following are recovered second-order bench marks established by the C&GS: J (USE); RM 2 J (USE); POINT ISABEL SOUTH BASE AZIMUTH; POINT ISABEL SOUTH BASE RM 1; POINT ISABEL SOUTH BASE RM 2; P 776; Q 776; R 776; S 776; T 776; U 2 (Cam, Co.); U 3 (Cam, Co.).

Bench mark H 19 1929 USGS, accuracy unknown, was recovered but not identified.

Bench marks are identified on the following single-lens contact prints: 48-0-1991, 48-0-1993, and 48-0-2052, and also on the following single lens, 1:20,000 scale ratio prints: 48-0-1474, 48-0-1475, 48-0-1476, 48-0-1450, 48-0-1451, and 48-0-2098.

5. CONTOURS AND DRAINAGE

No contouring was done as this is a planimetric quadrangle.

Drainage over the greater part of the area is intermittent. It is noticeable that the Brownsville Ship Channel, acting as a drainage feature, has tended to lower the water level in adjacent ponds and lakes.

6. WOODLAND COVER

Occasional small patches of mesquite scrub were found in the area. Representative areas have been symbolized with the letter "s", in red ink. Many dark, grassy areas have been labeled as such so as not to be mistaken for wooded terrain.

7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line, mean low water line, and storm water line of Laguna Madre have been indicated on nine-lens photograph No. 25733. On the northern part of that shoreline, the MHWL and MLWL are so close together as to be identical.
As mentioned in paragraph 5, the shoreline of Bahia Grande has changed considerably, both by drainage to the Brownsville Ship Channel and because of blowing sand and dust. For lack of access to this area, the lake shoreline was determined only by very cursory field inspection, and is indicated on single-lens, 1:20,000 scale, ratio prints 48-0-1475 and 48-0-1476, as approximate mean water line.

8. OFFSHORE FEATURES

There are no offshore features worthy of note. An exposed wreck and fences indicated on the photographs are self-explanatory. The exposed wreck is noted on photograph No. 48-0-1475 since it did not appear clearly on the nine-lens photograph.

9. LANDMARKS AND AIDS

There are no landmarks, aids to navigation, or aeronautical aids.

10. BOUNDARIES, MONUMENTS, AND LINES

See "Special Report, Boundaries, Project Ph-36(48), Baffin Bay to the Rio Grande".

11. OTHER CONTROL

One recoverable topographic station, BIRD 1950, was established and identified on photograph No. 48-0-1474.

12. OTHER INTERIOR FEATURES

All roads are classified according to Photogrammetry Instructions No. 10, dated 14 April 1947, as amended 24 October 1947.

Buildings are classified according to Photogrammetry Instructions No. 29, dated 1 October 1948.

13. GEOGRAPHIC NAMES

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

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA


Data, Quadrangle T-9221(    ), forwarded to Baltimore Office 17 August 1950, on letter of transmittal Ph-36 Field 84.

Submitted
15 August 1950

James H. Clark
Cartographic Survey Aid

Approved

George E. Morris, Jr.
Chief of Party
COMPILATION REPORT T-9221

PHOTOGAMMATIC PLOT REPORT.

Submitted with T-9220.

31. Delineation.

Compiled by the graphic method.

All single-lens photographs were clear and of good scale. Nine-lens photograph 25733 was of poor scale and was used only for delineation of detail noted by the field inspector.

The littoral regions of Bahia Grande and San Martin Lake, in the central part of the map manuscript, had no field inspection due to the inability of the field inspector to gain access to these areas; consequently, the delineation used is the photographic interpretation of the compiler and has been referred to the field editor for investigation.

32. Control.

Horizontal control was satisfactory with respect to identification, density and placement. All of the control found in the area is attached to the Descriptive Report for T-9220.

33. Supplemental Data.

None.

34. Contours and Drainage.

Reference Item No. 5.

35. Shoreline and Alongsore Details.

All shoreline and shoreline structure has been delineated according to field inspection notes.

Shoreline inspection along Laguna Madre was adequate. It was, however, incomprehensive as compared with the inspection of the areas to the north in Quadrangles T-9219 and T-9217, particularly relative to the L.W.L. and H.W.L. In the aforementioned quadrangles, the dotted lines delineated were called approximate L.W.L. whereas the H.W.L. and H.W.L. were identified as being coincident on this map manuscript.

Refer to item 66 of the Review Report.
36. OFFSHORE DETAILS.
   No statement.

37. LANDMARKS AND AIDS.
   No statement required.

38. CONTROL FOR FUTURE SURVEYS.
   One (1) recovery card (Form 524) has been submitted for recoverable topographic station BIRD, 1930. This station has been listed under Item 49.

39. JUNCTIONS.
   Satisfactory junction is made as follows:

   Survey T-9219 on the north
   "   T-9222 on the east
   "   T-9224 on the south

   The project limits are the western limits of this quadrangle. Junction is made here with U. S. G. S. Quadrangle LOS FRESNOS survey of 1930.

40. HORIZONTAL AND VERTICAL ACCURACY.
   No statement.

46. COMPARISON WITH EXISTING MAPS.
   Comparison was made with U. S. Geological Survey Quadrangle LAGUNA VISTA, scale 1:31,680, surveyed in 1929, edition of 1936, reprinted 1946. The most outstanding change noted was the newly constructed Brownsville Ship Channel and the consequently receded Bahia Grande shoreline.
47. **Comparison with Nautical Charts.**

Comparison was made with Nautical Chart 1288, scale 1:80,000, edition of 1941, corrected to 13 October 1950. Agreement was satisfactory.

**Items to Be Applied to Nautical Charts Immediately.**

None.

**Items to Be Carried Forward.**

None.

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Rudolph Dosssett  
Carto. Photo. Aid

**Approved and Forwarded:**

Arthur L. Wardwell  
Chief of Party
Geographic Name List:

- Bahia Grande
- Bird Island
- Boca Chica Cutoff Turning Basin
- Buena Vista Road
- Brownsville Ship Canal

- Cameron County
- Carretas Crossing
- Commissioners Precinct No. 1
- Commissioners Precinct No. 2

- El Tular
- Elsede

- La Aura Crossing
- La Atravezada
- La Escalera
- Laguna Larga
- Laguna Madre
- Laguna Vista
- Laguna Vista Cove
- Loma de la Grulla
- Loma del Potrero Cercado
- Loma La Cuchilla
- Loma Felona
- Loma la Jaula
- Loma del Vallo
- Long Ridge

- Missouri Pacific R. R.

- Paso Corvinas
- Posta de Roque
- Puerta de Trancas
- Punta de las Bahias

- Redhead Ridge
- Rincon de las Viejas
- Rincon Largo

- San Martin Lake

- Texas 100
- State Farm Road 510

- General Brant Highway

- Texas

N.B. For type list all Dela, Del, LA, except at beginning of name, to be in lower case.

Names underlined in red are approved.

9-18-52 L. Heck
NOTES FOR THE HYDROGRAPHER.

Two (2) recoverable topographic stations which may be useful to the hydrographer is as follows:

1) BIRD, 1936
2) Pt. Isabel S. Base Ny Mkt (1936), 1950.
PHOTOGRAFFOMETRIC OFFICE REVIEW

T- 9221


CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy M.M.S. 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) J.G. 7. Section interior points J.G. 8. Bench marks J.G.


ALONGSHORE AREAS

(Nautical Chart Data)


PHYSICAL FEATURES


CULTURAL FEATURES


BOUNDARIES

31. Boundary lines J.G. 32. Additional information

MISCELLANEOUS


39. Forms J.G. 40. Jesse A. Gillespie Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

43. Remarks:

Compiler

Supervisor
51. Methods.—To make a thorough ground comparison, all roads were ridden out. The classification of each was checked and all natural and cultural features compared with the compilation. Shoreline and offshore features were verified from truck or walking near the water's edge. At the same time questions raised by the reviewer were answered after the necessary investigation of the feature was made.

Some marsh exists around San Martin Lake. It is true marsh and was verified by James A. Clear and William H. Shearouse. The lake is fed salt water from the Brownsville Ship Channel and salt deposits were found along the shoreline where high winds had pushed the water. Several marsh areas have been labelled on photographs 48-0-1449 and 1476. In drafting the area it is suggested the marsh symbol be used, working from the shore cut, to merge with the grass-in-water symbol near open water.

Deletions, additions and corrections were made on the Field Edit Sheet or the photographs.

Violet ink was used for additions and corrections; green for deletions.

Field edit information will be found on the Field Edit Sheet, Discrepancy Print and the following photographs: 48-0-1449, 1450, 1451, 1474, 1475, 1476, and 2096.

52. Adequacy of compilation.—The compiling is well-done and will be complete after application of field edit information.

53. Map accuracy.—No accuracy tests were made.

54. Recommendations.—None offered.

55. Examination of proof copy.—It is recommended that a proof copy of the map be sent to Mr. Geo. C. Colley, Fort Isabel, Texas, and one to Mr. F. L. Rockwell, City Hall, Brownsville, Texas, for examination. Both men are long-time residents and it is believed they are qualified to make the examination.

No discrepancies were noted in charted names.

Respectfully submitted,

7 April 1952

[Signature]

William H. Shearouse,
Cartographer
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

Rudolph Rossell, Chart Photo Aid

J. E. Waugh

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<tr>
<td>FROSTSVILLE CHANNEL RANGE B, REAR LIGHT</td>
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<tr>
<td>FROSTSVILLE CHANNEL RANGE B1, FRONT LIGHT</td>
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<tr>
<td>FROSTSVILLE CHANNEL LIGHT 35</td>
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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.
62. **Comparison with Registered Topographic Surveys:**

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<tr>
<td>T-1046</td>
<td>(1867)</td>
<td>1:20,000</td>
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63. **Comparison with Maps of Other Agencies:**


A new channel - The Brownsville Ship Channel - has been constructed.

64. **Comparison with Contemporary Hydrographic Surveys:**

None

65. **Comparison with Nautical Charts:**

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

Four lights along Brownsville Ship Channel do not appear on the chart. They are listed in the 1952 Intracoastal Waterway Light List. *(shown in 1952 print).*

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

Water stages in the Laguna Madre and in other areas on this map 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 in identifying the MHW line from photographs of this area.

2. It was considered impractical to resolve this situation 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 decisions 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

APPROVED:

[Signatures and titles with names redacted]
**NAUTICAL CHARTS BRANCH**

**SURVEY NO. T-9221**

Record of Application to Charts

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<thead>
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<th>DATE</th>
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<th>CARTOGRAPHER</th>
<th>REMARKS</th>
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<td>1288</td>
<td>A.J. Hoffman</td>
<td>Examine Before After Verification and Review No con.</td>
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Before After Verification and Review

Before After Verification and Review

Before After Verification and Review

Before After Verification and Review

Before After Verification and Review

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Before After Verification and Review

Before After Verification and Review

Before After Verification and Review

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.