

9217

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-9217

LOCALITY

State TEXAS

General locality LAGUNA MADRE

Locality THREE ISLANDS TO ARROYO COLORADO
CUTOFF

19 ~~4~~ 52

CHIEF OF PARTY

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

A.L.Wardwell, Tampa Photogrammetric Office

LIBRARY & ARCHIVES

DATE Dec 17-1953

B-1870-1 (1)

9217

DATA RECORD

T-9217

Project No. (II): **Ph-36(48)F** Quadrangle Name (IV): ~~Amesbury Pass~~

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): **Inapplicable**

Scale Factor (III): **None**

Date received in Washington Office (IV): **9 1951** Date reported to Nautical Chart Branch (IV): **NOV 15 1951**

Applied to Chart No. **897** Date: Date registered (IV): **8-18-53**

Publication Scale (IV): ~~1:20,000~~ **Not to be published** Publication date (IV):

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

~~Mean Sea Level~~
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): **LUTES, 1939**

Lat.: **26°15'37".856 (1165.0M)** Long.: **97°19'40".965 (1136.7M)** Adjusted
~~UNADJUSTED~~

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.

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PLANIMETRIC

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

DATA RECORD

Field Inspection by (II): **W. H. Nelson**
J. H. Clark
W. M. Reynolds

Date: **April - June 1950**
July 1950
July 1950

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

Date:

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

Date: *19 March 1952*

Storn and

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

Air Photo Compilation

14 July 1950

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

Date: **18 Sept. 1950**

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

Date: **18 Sept. 1950**

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

Date: **19 Jan. 1951**

Control checked by (III): **R. J. Pate**

Date: **30 Jan. 1951**

Radial Plot ~~of Stereoscopic~~
~~Control~~ by (III): **M. M. Slavney**

Date: **22 Mar. 1951**

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

Date:

Date:

Manuscript delineated by (III): **R. Dossett**

Date: **20 Aug. 1951**

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

Date: **31 Oct. 1951**

Elevations on Manuscript
checked by ~~by~~ (III): **J. A. Giles**

Date:

30 Oct. 1951

Camera (kind or source) (III): U. S. C. & G. S. Nine-lens, $8\frac{1}{4}$ in. focal length and Fairchild Cartographic - 6" Metrogon lens, Camera "O"

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|-----------|--------------|------|---------|---------------|
| 25736 | May 4, 1950 | 1406 | 1:20,00 | No tide |
| 25737 | " | 1407 | " | " |
| 25738 | " | 1408 | " | " |
| 48-0-1425 | Dec. 8, 1948 | 1426 | " | " |
| 1426-1427 | " | 1427 | " | " |
| 1428 | " | 1428 | " | " |
| 1429 | " | 1429 | " | " |
| 1456 | " | 1450 | " | " |
| 1457 | " | 1451 | " | " |
| 1458 | " | 1452 | " | " |
| 1459 | " | 1453 | " | " |
| 1465 | " | 1504 | " | " |
| 1468 | " | 1508 | " | " |
| 1469-1470 | " | 1509 | " | " |

Range of tide is less than 1/2 foot

Tide (III)

Reference Station:
Subordinate Station: **Inapplicable**
Subordinate Station:

| Ratio of Ranges | Mean Range | Spring Range |
|-----------------|------------|--------------|
| | | |
| | | |
| | | |

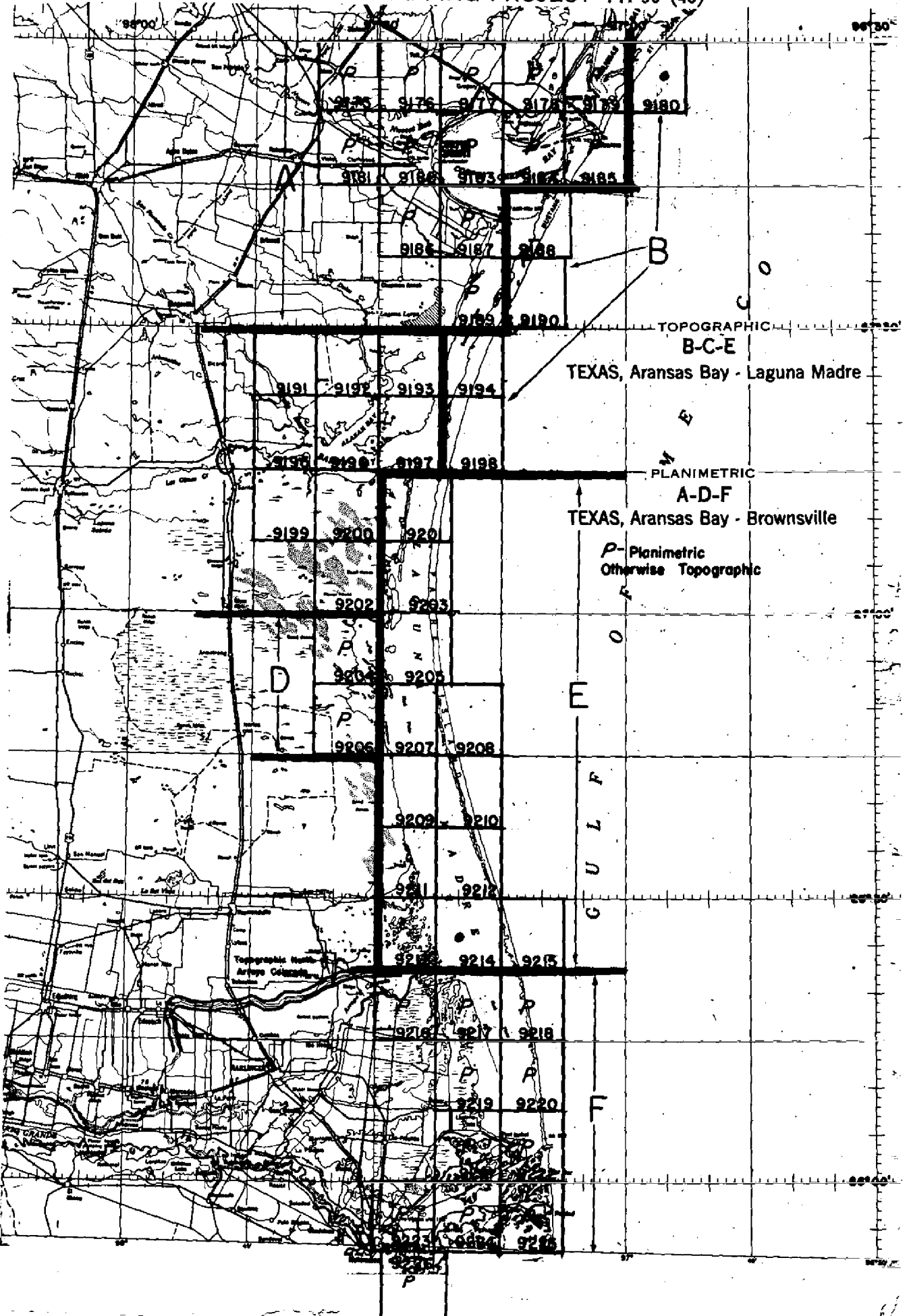
Washington Office Review by (IV): *C. Handvick*
Final Drafting by (IV): *E. C. Hunter*
Drafting verified for reproduction by (IV): *W. J. Hallum*
Proof Edit by (IV): *W. Steffler*

Date: *31 July 1952*
Date: *6-11-53*
Date: *6-10-53*
Date: *7-6-53*

Land Area (Sq. Statute Miles) (III): *4* 14
Shoreline (More than 200 meters to opposite shore) (III): *89* 39
Shoreline (Less than 200 meters to opposite shore) (III): 0.0
Control Leveling - Miles (II): 0.0
Number of Triangulation Stations searched for (II): 20 Recovered: 20 Identified: 13
Number of BMs searched for (II): 14 Recovered: 13 Identified: 11
Number of Recoverable Photo Stations established (III): 2.0
Number of Temporary Photo Hydro Stations established (III): 0.0

Remarks:

TOPOGRAPHIC AND PLANIMETRIC MAPPING PROJECT PH-36 (48)



Summary T- 9217

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-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 lies in the southern portion of Laguna Madre and just south of the mouth of Arroyo Colorado.

The greater part of the area is the Laguna Madre. The remainder is mud and sand flats, a few islands, and a narrow band of the mainland.

Cattle ranching, vegetable and cotton farming, are the chief industries, with cotton being the most important crop.

No difficulty was encountered when interpreting the photographs. Tone graduations vary from white to black. The white tones are spoil dumps, sand areas, and sand and mud flats; light gray tones are sand and mud flats with mud predominating, and light grassy areas; dark gray tones are grass covered areas which are flooded at times, areas of low mesquite and huisache and some intermittent ponds; the black tones are water or low grassy areas which contained water at the time of photography.

Interior field inspection was done on nine lens photograph No. 25737 and single lens photograph No. 48-0-1469.

3. HORIZONTAL CONTROL

The following are triangulation stations established by this party as supplemental control, aids to navigation, or supplemental stations needed to locate aids to navigation, using third-order methods: HORSE (USE) 1950; BUENA VISTA WINDMILL 1949; HARLINGEN ENTRANCE LIGHT 10 1950; CORPUS CHRISTI-PORT ISABEL LIGHT 326 1949; HARLINGEN-PORT ISABEL LIGHT 2 1949; HARLINGEN-PORT ISABEL LIGHT 9 1950; HARLINGEN-PORT ISABEL LIGHT 19 1950; HARLINGEN-PORT ISABEL LIGHT 29 1950; HARLINGEN-PORT ISABEL LIGHT 39 1950; HARLINGEN-PORT ISABEL LIGHT 49 1950.

See "Special Report, Supplemental Third Order Control and Aids to Navigation, Project Ph-36(48), Baffin Bay to Arroyo Colorado", and "Special Report, Aids to Navigation, Project Ph-36(48), Arroyo Colorado to Brazos Santiago."

Two stations, COLORADO 1879 and ARMADILLO 2 1913, were reported lost. The reference mark at each of these stations was recovered and identified for control of the radial plot.

The following traverse stations were established by the agencies as indicated. No datum adjustments of any kind were made: DOVE USE 1947; RL1 ARROYO COLORADO USE 1947; RL2 ARROYO COLORADO USE 1947; JBL 14 USGS; JBL 25 USGS; JBL 26 USGS; JBL 27 USGS.

Horizontal control was identified on the following single lens 1:20,000 scale, field photographs: 48-0-1456, 48-0-1457, 48-0-1458, 48-0-1459, and 48-0-1469.

Datum corrections were applied to the stations underlined in red to transpose them from the N.A. to the N.A. 1927 datum.

4. VERTICAL CONTROL

The following are second-order bench marks established by the C&GS which were recovered: X 675, Y 675, Z 675, N 676, P 676, Q 676, LUTTES TRIANGULATION STATION, LUTTES RM NO 1, LUTTES RM NO 2, JBL 14(USGS), JBL 26(USGS).

The following are bench marks of the USGS, accuracy ^{of 3-rd order or better} unknown, which were recovered: JBL 25 1929, JBL 27 1929.

As this is a planimetric quadrangle, no additional levels were run.

Bench marks were identified on the following 1:20,000 scale, single lens, ratio field photographs: 48-0-1456 through 48-0-1459.

5. CONTOURS AND DRAINAGE

No contouring was done as this is a planimetric quadrangle.

There is no prominent drainage system. All drainage is intermittent.

6. WOODLAND COVER

There are a few small areas of growth classified as "TM". Along the Laguna Madre a few areas are covered by mesquite, cactus, and huisache, and was classified "Scrub". Otherwise, the area is either under cultivation or is grass covered.

7. SHORELINE AND ALONGSHORE FEATURES

For mean high water line and mean low water line, see "Special Report, Identification and Delineation of the Shoreline of Laguna Madre, Project Ph-36(48)."

For practically the entire length, an earth bank parallels the Laguna Madre, and varying in elevation from 4 to 15 to 20 feet at the top edge.

8. OFFSHORE FEATURES

There are no offshore features.

9. LANDMARKS AND AIDS

There are no landmarks for nautical charts or aeronautical aids.

For fixed aids to navigation, see "Special Report, Supplemental Third Order Control and Aids to Navigation, Project Ph-36(48), Baffin Bay to Arroyo Colorado", and "Special Report, Aids to Navigation, Project Ph-36(48), Arroyo Colorado to Brazos Santiago."

10. BOUNDARIES, MONUMENTS, AND LINES

Seven boundary monuments of a U. S. Fish and Wildlife Service Game Refuge were recovered and identified on photographs as follows:

| <u>MONUMENT</u> | <u>PHOTOGRAPH NO.</u> |
|----------------------|-----------------------|
| NO 5 TRACT 48A | 48-0-1456 |
| NO 7 TRACT 48 | 48-0-1456 |
| NO 16 | 48-0-1459 |
| NO 17 | 48-0-1458 |
| NO 18 | 48-0-1458 |
| NO 19 | 48-0-1458 |
| NO 20 COR 2 TRACT 48 | 48-0-1458 |

} Outside project limits.

11. OTHER CONTROL

Two recoverable topographic stations, U. S. Fish and Wildlife Service Boundary Monument No. 18 and SLAM 1950, were identified on photographs 48-0-1458 and 48-0-1470, respectively.

LUTTES AZ MK (1939), 1950

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 *on file 204-L.H.*

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

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

"Special Report, Supplemental Third Order Control and Aids to Navigation, Project Ph-36(48), Baffin Bay to Arroyo Colorado", forwarded to Washington Office 13 March 1950.

"Special Report, Aids to Navigation, Project Ph-36(48), Arroyo Colorado to Brazos Santiago", forwarded to Washington Office 17 July 1950.

"Special Report, Geographic Names, Project Ph-36(48), Port Mansfield (Red Fish Landing) to the Rio Grande", forwarded to Washington Office 6 June 1950.

"Special Report, Boundaries, Project Ph-36(48), Baffin Bay to the Rio Grande", forwarded to Washington Office 8 June 1950.

Form 567, forwarded to Baltimore Office 17 July 1950 on letter of transmittal Ph-36 Field 71.

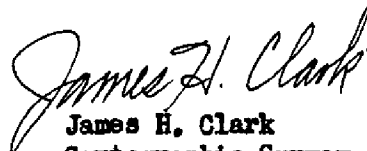
Geodetic Data, Aids to Navigation, Arroyo Colorado to Brazos Santiago, forwarded to Washington Office on letter of transmittal Ph-36 Field 70, 17 July 1950.

Geodetic Data and Form 567, Supplemental Third Order Control and Aids to Navigation, Baffin Bay to Arroyo Colorado, forwarded to Washington Office on letter of transmittal Ph-36 Field 56, 13 March 1950.

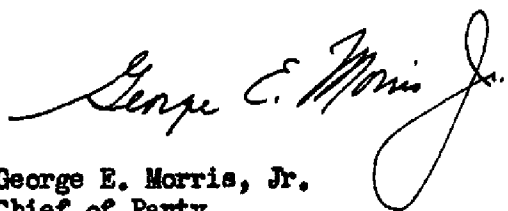
"Special Report, Identification and Delineation of the Shoreline of Laguna Madre, Project Ph-36(48)", to be forwarded at a later date.

Data, Quadrangle T-9217(), forwarded to Baltimore Office 28 July 1950, on letter of transmittal Ph-36 Field 78.

Submitted
26 July 1950


James H. Clark
Cartographic Survey Aid

Approved
28 July 1950


George E. Morris, Jr.
Chief of Party

COMPILATION REPORT T-9217PHOTOGRAMMETRIC PLOT REPORT.

Submitted with T-9220.

31. DELINEATION.

The graphic method was used. The scale of the single-lens photographs was good. The scale of the nine-lens photographs was poor and the projector was used in the delineation of the shoreline which was taken from them.

The field inspection was adequate.

32. CONTROL.

Sufficient secondary control was established and placement was such that no difficulty was encountered in securing detail points. *2 Forms M-2388-12 for T-9217 are enclosed in the Descriptive Report for T-9220.*

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

The drainage was delineated as shown by field inspection on the photographs.

Contours are inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS.

The shoreline inspection was adequate.

All shoreline and alongshore details have been shown according to field inspection.

Reference is made to Item 7 for further information relative to shoreline.

36. OFFSHORE DETAILS.

None.

37. LANDMARKS AND AIDS.

No statement required.

38. CONTROL FOR FUTURE SURVEYS.

Two (2) topographic stations are being submitted on Form 524. These topographic stations have been listed and included under Item 49.

39. JUNCTIONS.

A satisfactory junction has been made with T-9214 on the north, T-9216 on the west, T-9218 on the east and T-9219 on the south.

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement required.

41. BOUNDARIES.

The limits of LAGUNA ATASCOSA NATIONAL WILDLIFE REFUGE were reduced by pantograph from a plat made by the Department of the Interior and furnished the Tampa Office by the field party. This reduction was controlled by recovered monuments and features such as roads, fences and the like, visible on the photographs.

46. COMPARISON WITH EXISTING MAPS.

A comparison was made with topographic quadrangle BUENA VISTA, TEXAS, U. S. Geological Survey scale 1:31,680, edition of 1935, reprinted 1945. No comparison with the M. H. W. L. was made because the storm water line has been shown on the manuscript in its stead. Otherwise no outstanding differences were noted.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison was made with U. S. C. & G. S. Nautical Chart No. 1288, published September 1941 and corrected to 13 October 1950.

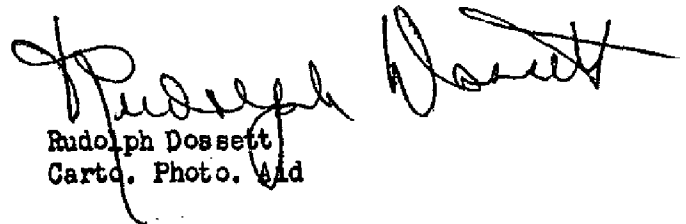
The shoreline as shown on the chart compares favorably with the storm water line except for a small area just north of "Arroyo Colorado Cutoff" which seems to have filled.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.


None.

ITEMS TO BE CARRIED FORWARD.

None.


Rudolph Dossett
Cartd. Photo. Ad

APPROVED AND FORWARDED:


Arthur L. Wardwell,
Chief of Party

48. GEOGRAPHIC NAME LIST.

- ARROYO COLORADO CUTOFF
- BUENA VISTA RANCH
- CALLO ATASCOSO
- CAMERON COUNTY
- COLORADO ISLAND
- COMMISSIONERS PRECINCT NO. 1
- EAST PASTURE
- EL MORRO
- HERON ISLAND
- HOBNAIL ISLAND
- HORSE ISLAND
- INTRACOASTAL WATERWAY
- LAGUNA MADRE
- LAGUNA ATASCOSA
- LAGUNA ATASCOSA NATIONAL WILDLIFE REFUGE
- MC GILVERY ISLAND
- RATTLE SNAKE ISLAND
- RED HEAD BLUFF
- RED HEAD COVE
- RESACA DE LOS CUATES
- RINCON BUENA VISTA
- RINCON DE GUAJARDO
- TEXAS
- THREE ISLANDS
- TOWN SITE POINT
- ^NWORTH POINT (names report has North Pt.)
- YUCCA ISLAND
- Cameron Co.

Names underlined in red
are approved. 7-31-52
L. Heck

49. NOTES FOR THE HYDROGRAPHER.

Following is a list of topographic stations that may be useful to the hydrographer:

SLAM, 1950

~~U. S. FISH & WILDLIFE SERVICE~~

BOUNDARY MON. NO. 18, 1950

*LUTTES AZ MK (1939), 1950 (Form 524
was not submitted for this sta).*

Field Edit Report, T-9217

51. Methods.--All roads were travelled by truck to check their classification and to answer questions raised by the reviewer. At the same time all other planimetric features were verified as to their existence and classification. Boundaries and Geographic Names were checked with the manager of the Wildlife Refuge.

Deletions, additions and corrections were made on the Field Edit Sheet, Discrepancy Print and photographs 48-O-1456, 1457 and 1458.

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

52. Adequacy of compilation.--In general the compilation appears to be very good and will be complete after application of field edit information.

53. Map accuracy.--No accuracy test was specified. From visual inspection only, the horizontal accuracy of the map details appears good.

54. Recommendations.--None offered.

55. Examination of proof copy.--It is recommended that the proof copy of the map be sent to Mr. Luther C. Goldman, Manager, Laguna Atascosa National Wildlife Refuge, U. S. Post Office Building, San Benito, Texas, for examination.

Geographic names.--Two discrepancies in charted names were noted.

It is recommended that the name WORTH POINT be changed to NORTH POINT. It applies to an entire peninsula, not one point of land as shown on the map manuscript. The name has been correctly placed on the Field Edit Sheet. The authority for this correction is the Manager of the Laguna Atascosa National Wildlife Refuge and other local citizens. It is also noted that NO. PT. is recorded on name sheet No. 1 of the Geographic Names Report (Port Mansfield to the Rio Grande). Recommendation approved

The name mapped CALLO ~~ATASCOSO~~ should be changed to CAYO ATASCOSA. Local authorities agree that CAYO more nearly fits the feature, as it is translated "shoal" whereas CALLO means "callus", "corn" or "bunion". The final letter "A" is recommended instead of "O" to agree with the spelling of Laguna Atascosa and Laguna Atascosa National Wildlife Refuge. This spelling retained by Geographic Names Section

Respectfully submitted,
19 March 1952

William H. Shearouse
William H. Shearouse,
Cartographer

50.

PHOTOGRAMMETRIC OFFICE REVIEW

T.

1. Projection and grids J.G. 2. Title J.G. 3. Manuscript numbers J.G. 4. Manuscript size U.G.

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. ~~XXXXXXXXXXXXXXXXXXXX~~ 8. Bench marks J.G. 9. Plotting of sextant fixes J.G. 10. Photogrammetric plot report J.G. 11. Detail points J.G.

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline J.G. 13. Low-water line J.G. 14. Rocks, shoals, etc. J.G. ~~XXXXXXXXXXXXXXXXXXXX~~ 16. Aids to navigation J.G. ~~XXXXXXXXXXXXXXXXXXXX~~ 18. Other alongshore physical features J.G. 19. Other along-shore cultural features J.G.

PHYSICAL FEATURES

20. Water features J.G. 21. Natural ground cover J.G. ~~XXXXXXXXXXXXXXXXXXXX~~ 26. Other physical features J.G.

CULTURAL FEATURES

27. Roads J.G. 28. Buildings J.G. ~~XXXXXXXXXXXXXXXXXXXX~~ 30. Other cultural features J.G.

BOUNDARIES

31. Boundary lines J.G. ~~XXXXXXXXXXXXXXXXXXXX~~

MISCELLANEOUS

33. Geographic names J.G. 34. Junctions J.G. 35. Legibility of the manuscript J.G. 36. Discrepancy overlay J.G. 37. Descriptive Report J.G. 38. Field inspection photographs J.G. 39. Forms J.G.

40. Jesse A. Giles *Jesse A. Giles* William A. Rasure *William A. Rasure*
Reviewer 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.

Compiler Supervisor

43. Remarks: M-2623-12

REVIEW REPORT
Planimetric Map T-9217
31 July 1952

62. Comparison with Registered Topographic Surveys:

T-1476 A & B (1879-80) 1:20,000

The Intracoastal Waterway, ^{and} including other cultural features, have been constructed since the old surveys.

The old topographic surveys are superseded by the new map (T-9217) for nautical charting.

63. Comparison with Maps of Other Agencies:

Buena Vista Quadrangle, USGS, Edition 1935, Reprint 1945, 1:31,680

The Intracoastal Waterway does not appear on the USGS map.

64. Comparison with Contemporary Hydrographic Surveys:

None

65. Comparison with Nautical Charts:

Chart No. 1288, 15 January 1951, 1:80,000
(See Item 47.)

66. Adequacy of Results and Future Surveys:

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

Water stages in this area 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 encountered in identifying the MHW line from photographs of this area as well as other similar areas throughout the project.
- (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 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. J. Griffith
Chief, Review Section *B*
Division of Photogrammetry

H. Edmonson
Chief, Nautical Chart Branch *ed*

O. S. Reading
Chief, Div. of Photogrammetry

Carl O. Heston
Chief, Div. of Coastal Survey *CH*

Bob

MS

