9191

Diag. Cht. No. 1286-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. Ph-36(48)C *Office No.* T-9191

LOCALITY

State TEXAS

General locality KLEBERG COUNTY

Locality CAYO DEL GRULLO

1952

CHIEF OF PARTY

G.E.Morris,Jr., Chief of Field Party.
H.A.Paton,Baltimore Photogrammetric Office.

LIBRARY & ARCHIVES

DATE Dec-15-1953

8-1870-1 (1)

9191

DATA RECORD

T- 9191

Project No. (II): Ph-36(48)C Quadrangle Name (IV): Riviera Beach NW

Field Office (II): Brownsville, Texas Chief of Party: George E. Morris, Jr.

Photogrammetric Office (III): Baltimore, Md. Officer-in-Charge: Hubert A. Paton

Instructions dated (II) (III): 14 February 1949
Supplement No. 2(Field) 26 July 1949
Supplement No. 2 " 28 July 1949
Office compilation assignment, 8 June 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): 1.000

Date received in Washington Office (IV): 5-3-50 Date reported to Nautical Chart Branch (IV): 5-8-50

Applied to Chart No. Date: Date registered (IV): 8-29-52.

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

Geographic Datum (III): N. A. 1927 Vertical Datum (III): MSL

Mean sea level 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): GRULLO, 1949

Lat.: 27° 22' 54.165"(1667.2m) Long. 97° 41' 38.546"(1059.1m) ~~Adjusted~~ Unadjusted

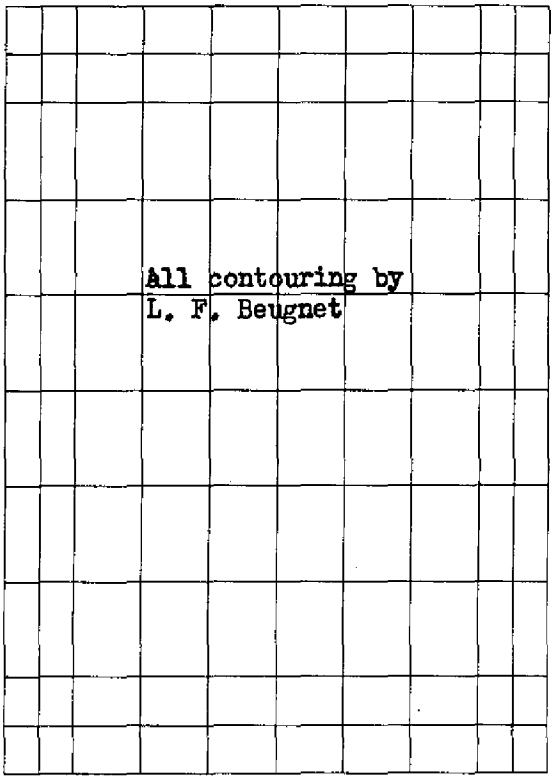
Plane Coordinates (IV): State: Texas Zone: South

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.

M-2618-12(4)



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

DATA RECORD

Field Inspection by (II): L. F. Beugnet — Date: June, July, August 1949

Planetable contouring by (II): L. F. Beugnet — Date: June, July, August 1949

Completion Surveys by (II): William H. Shearouse — Date: Feb. 1952

Mean High Water Location (III) (State date and method of location): 10 August 1949
See Field Report (ST, this report)

Projection and Grids ruled by (IV): VIEW — Date: 10-18-49

Projection and Grids checked by (IV): HDW — Date: 10-21-49

Control plotted by (III): F.J. Tarcza — Date: 12-21-49

Control checked by (III): W. L. Lineweaver — Date: 12-30-49

Radial Plot ~~XXXXXXXXXX~~ ~~XXXXXXXXXX~~ by (III): F.J.Tarcza — Date: 1-18-50

Stereoscopic Instrument compilation (III): Planimetry — Date:

Contours — Date:

Manuscript delineated by (III): M.L.Bloom — Date: 5-1-50

Photogrammetric Office Review by (III): J.W.Vonasek — Date: 5-1-50

Elevations on Manuscript checked by (II) (III): J.W.Vonasek — Date: 4-26-50

Camera (kind or source) (III):

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
48-0-2160 to 2163	12-10-48	1134	1:20,000	None
48-0-2133 to 2136	12-10-48	1109	1:20,000	

Tide (III)

No tide; see field report (57; this report)

Reference Station: The mean range of tide in this
Subordinate Station: area is less than ½ foot
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): Everett H. Ramey Date: 30 Apr 1952

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 55
Shoreline (More than 200 meters to opposite shore) (III): 3
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II): 32.8 4th-order levels
(1) Number of Triangulation Stations searched for (II): 6 Recovered: 6 Identified: 3
(2) Number of BMs searched for (II): 11 Recovered: 10 Identified: 10
Number of Recoverable Photo Stations established (III): 2
Number of Temporary Photo Hydro Stations established (III): none

STATISTICS OUTSIDE THE QUADRANGLE (ALSO PROJECT)

Remarks: (1) Triangulation -

a. USC&GS - 17 stations were searched for, 11 were recovered, and 7 were identified.

b. USGS - 5 stations were searched for, 5 were recovered, and 5 were identified.

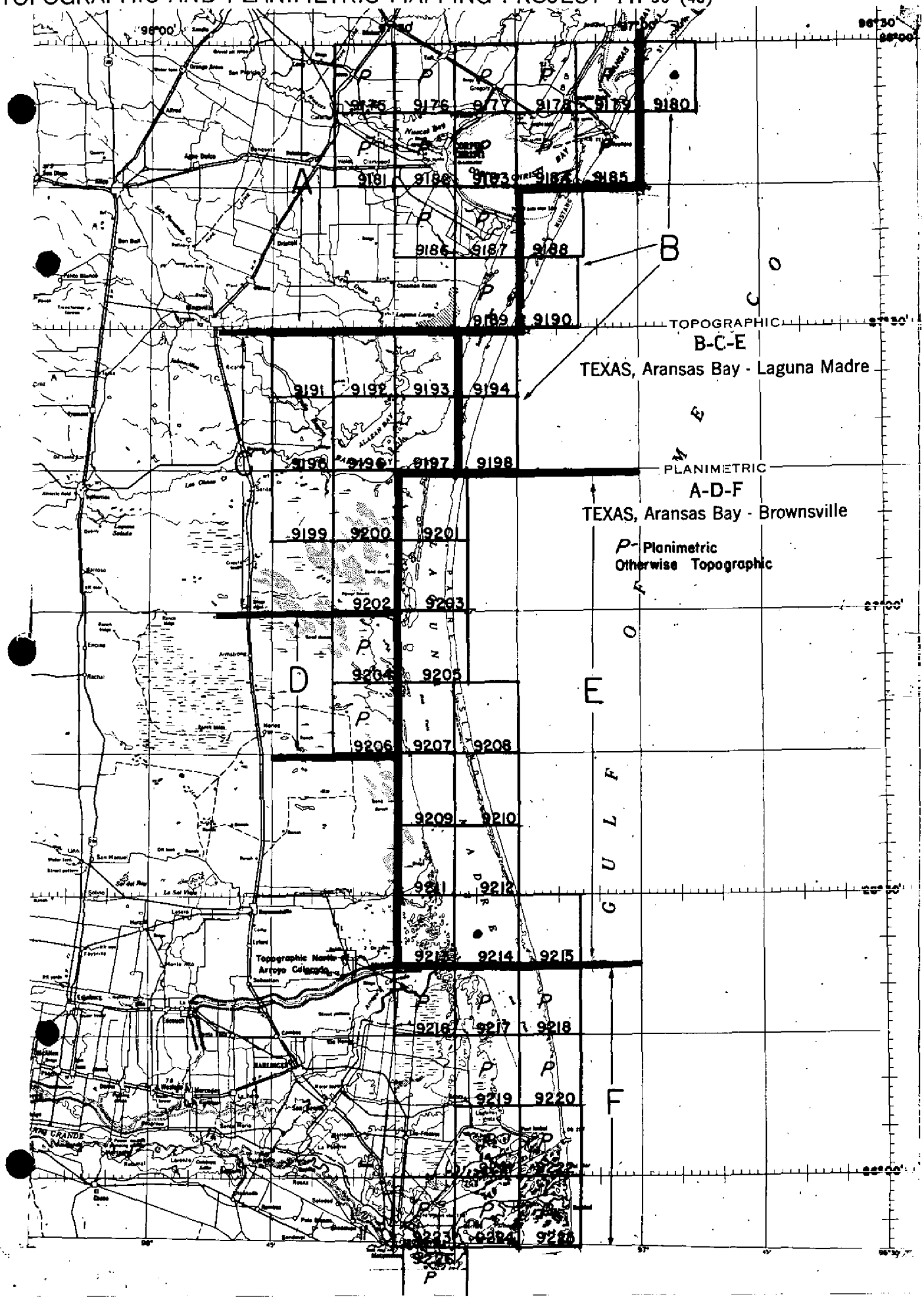
(2) Bench Marks

a. USC&GS - 40 stations were searched for, and 31 were recovered.

b. USGS - 5 stations were searched for, and 5 were recovered.

M-2618-12(4)

TOPOGRAPHIC AND PLANIMETRIC MAPPING PROJECT PH-36 (48)



Summary T- 9191

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-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 quadrangle is situated in the north central part of Kleberg County, Texas. The relief varies from prominent along the eroded streambeds, and a ridge that extends north from the south limit of the quadrangle approximately 5 miles through the east central part of the quadrangle, to relatively flat in the other areas. The soil is a sandy clay silt loam that is typical of the coastal prairie region.

Only about 5½ square miles SW of ~~Grulla Bayou~~ Cayo Del Grullo EHR in the SW corner of the quadrangle has been developed as farmland with cotton the chief crop. This area is sparsely populated and is served by a fair road net.

The remainder of the land area is in the Laureles Division of the famous King Ranch and is used exclusively for cattle grazing. The ranch area is unpopulated and is accessible only by private roads through locked gates. The road net is adequate for the ranch operations. Because of the noted absence of cultural features on King Ranch, fences, windmills, and corrals have been indicated on the field inspection photographs.

Photography was adequate for the field work. The photographic tone varies from white in the sand areas to almost black in the areas of dense, high mesquite. Scattered and/or low mesquite differs in tone from a white mottled texture on the ridges to a dark grey mottled tone in the flat areas. The change in growth from open to scrub is very gradual in most instances and the line of delineation is rather indefinite. For this reason the field inspector has delineated several of the typical scrub growths.

Field inspection was performed on the following photographs: 48-0-2133 to 48-0-2136 inclusive; 48-0-2160 to 48-0-2163 inclusive.

(Field Editor see paragraph 7 concerning mean (normal) water line.)

3. HORIZONTAL CONTROL

See "Special Report, Supplemental Control, Project Ph-36(48)", filed under project number in Div. of Photogrammetry.

The following USC&GS stations within the limits of photography were not identified for the reasons given:

NORIA 1949: NORIA HONDA WINDMILL 1949 (third-order intersection station established by this field party) was identified instead nearby thus avoiding a long traverse from NORIA to a suitable substitute station.

CUATITAS WINDMILL; JABALINA WINDMILL; LEONCITAS WINDMILL; PALO MARCADO WINDMILL; and TRES ESQUINAS WINDMILL (all third-order intersection stations established by this party) were not identified because of a plethora of other identified control.

Only one USC&GS station, BISHOP STANDPIPE 1913, within the limits of photography was reported lost.

The following USGS stations, north of the quadrangle, were recovered and identified:

PRIM	TRAV	STA	NO	26Y	1923	TEXAS	
"	"	"	"	27Y	"	"	A3
"	"	"	"	28Y	"	"	A4
"	"	"	"	29Y	"	"	A5
"	"	"	"	30Y	"	"	A6

Horizontal control identification was made on the following photographs: 48-0-1393, 48-0-2133, 48-0-2135, 48-0-2137, 48-0-2159, 48-0-2160, 48-0-2161, 48-0-2187, 48-0-2190, 48-0-2192 and 48-0-2193.

4. VERTICAL CONTROL

Within the quadrangle, the following second-order USC&GS bench marks were recovered and identified on the contour photographs:

B 634	G 634
C 634	H 634
D 634	J 634
E 634	L 634
F 634	Y 918

USC&GS second-order bench mark K 634, within the quadrangle, was found broken off and the disk was removed by this party.

To provide additional control for contours, 32.8 miles of 4th-order levels were run between the bench marks within the project limits between level points 91-01 to 91-31. All closures were under 0.07 ft. except one 4½ mile loop with a closure of 0.75 ft. The 0.75 ft. was prorated throughout the loop.

Level points were spotted on the contour photographs.

5. CONTOURS AND DRAINAGE

Contouring was done by standard planetable methods on the single lens ratio prints. Photographs were carefully examined under the field stereoscope prior to field work and again prior to inking of the pencil contours. Moderate relief, large open areas, and the use of vehicles by the rodmen greatly facilitated the field contouring.

Vertical accuracy checks run as a check on the topographer have been indicated in violet ink and required changes in the contours also indicated in violet ink. Original contours in brown ink that were found in error have been deleted with green "X's". Also see §53, this report

Contouring was done on the following photographs: 48-0-2133 to 48-0-2136 inclusive; 48-0-2160 to 48-0-2163 inclusive.

The entire quadrangle drains into ~~Grullo Bayou~~ Cayo Del Grullo EHK and all drainage upstream of the mean water line is intermittent. Adequate notes explaining the streambed characteristics appear on the field inspection photographs.

(See paragraph 7 concerning the storm water and wash line.)

6. WOODLAND COVER

Woodland cover on King Ranch consists only of scrub growths of mesquite, principally on the ridges and around the intermittent ponds, that covers approximately fifteen per cent of the ranch area.

SW of ~~Grullo Bayou~~ Cayo Del Grullo EHK, mesquite is also the principal growth in the uncleared areas and ranges in height up to a maximum of 20 feet. Mesquite above 6 feet that covers more that thirty per cent of the ground area has been classified "T".

Local citizens state that the greater part of the entire quadrangle was at one time covered by dense mesquite, but in recent years it has been cleared away by bulldozers and other heavy equipment.

7. SHORELINE AND SHORELINE FEATURES

There is no tide in ~~Grullo Bayou~~ Cayo Del Grullo EHK. The maan (normal) water line extends less than ½ mile N into the quadrangle, and north of that point the stream is intermittent.

At the time of field inspection the water level had dropped, since photography, approximately 0.5 ft. in elevation and had receded up to a maximum of about 1000 ft. horizontally.

Tide gage information from a private source that will help determine the normal water level will be made available early in 1950. At that time the small amount of normal water line in this quadrangle will be located by planetable methods on a duplicate print of photographs 48-0-2133 and 48-0-2163. See "Special Report on the Identification and Delineation of Shoreline in the Laguna Madre, Project Ph-36(48)"* to be submitted to Washington at a later date.

* Filed in the Div. of Photogrammetry under Project Ph-36(48).

Strong southerly winds resulting in a storm water stage backs salt water up ~~Grullo Bayou~~ Cayo Del Grullo EHK (Santa Gertrudis Creek) and Velederos Creek beyond the West limit of the quadrangle. After heavy rains the streams are filled with large runoffs from upstream areas. The storm water line, or wash line, caused by either or both of these flood conditions is very near the vegetation line or the 5 foot contour, whichever is found farther offshore. Determination of a more exact storm water line would be impossible without the use of precise planetable methods or photography flown at a representative flood stage. See §6B this report

No shoreline structures were found within the limits of the quadrangle.

8. OFFSHORE FEATURES

None were noted by the field inspector.

9. LANDMARKS AND AIDS

There are no objects suitable for charting as landmarks, nor are there any aids to navigation, or aeronautical aids.

10. BOUNDARIES, MONUMENTS, AND LINES

See "Special Report, Boundaries, Baffin Bay to Latitude N28°00', Project Ph-36(48)". Filed under this project number in Div. of Photogrammetry.

11. OTHER CONTROL

Two azimuth marks within the quadrangle were located; PINTO AZ MK 1949 * by 3-point fix on third-order intersection stations established by this field party, and GRULLO AZ MK 1949 by the photo station method.

* Just west of map limits. ENR

Establishment of topographic stations along the shoreline was considered unnecessary.

12. OTHER INTERIOR FEATURES

All roads were classified in accordance with Photogrammetry Instructions No. 10 dated 14 April 1947, and Amendment dated 24 October 1947.

There are no bridges or cables over navigable waters within the area.

All buildings to be shown have been classified in accordance with Photogrammetry Instructions No. 29 dated 1 October 1948.

One Navy auxiliary landing field, Field 52, is within the quadrangle and has been indicated on photograph 48-0-2163. The field is seldom used for flying purposes but is actively used as a bombing range by training planes based at the Naval Air Station at Corpus Christi, Texas.

13. GEOGRAPHIC NAMES

See "Special Report, Geographic Names, Aransas Bay to Baffin Bay, Project Ph-36(48)". Filed in Geographic Names Sect., Div. of Charts.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

"Special Report, Supplemental Control, Project Ph-36(48)", forwarded to Washington 20 July 1949. See § 3, this report.

"Special Report, Boundaries, Baffin Bay to Latitude N28°00', Project Ph-36(48)", forwarded to Washington 20 July 1949. See §10, this report.

"Special Report, Geographic Names, Aransas Bay to Baffin Bay, Project Ph-36(48)", forwarded to Washington 27 July 1949. See §13, this report

"Special Report on the Identification and Delineation of Shoreline in the Laguna Madre, Project Ph-36(48)", to be submitted to Washington at a later date. See § 7, this report.

Records, Quadrangle T-9191( ) to Baltimore 6 October 1949 by letter of transmittal Ph-36 Field 37.

Submitted
23 September 1949

Leo F. Beugnet

Leo F. Beugnet
Cartographic Survey Aid

Approved
6 October 1949

George E. Morris, Jr.

George E. Morris, Jr.
Chief of Party

PHOTOGRAMMETRIC PLOT REPORT

Project Ph-36(48)B
and Ph-36(48)C

Surveys T-9191 to T-9198, incl.

21. AREA COVERED

This radial plot covers the areas of Surveys T-9191 to T-9198, incl., located along the Gulf of Mexico and along Laguna Madre and north of, and including, the area of Baffin Bay. They form part of a series of planimetric and topographic surveys in Project Ph-36(48) which extends from the area of Rockport to Brownsville, Texas. Surveys T-9194 and T-9198 are topographic surveys in sub-project Ph-36(48)B and the remainder of the surveys in this radial plot are topographic surveys in sub-project Ph-36(48)C.

22. METHOD - Radial plot

Map Manuscripts

The map projections furnished the compilation office are on acetate sheets, ruled with polyconic projections in black and Texas South Grids in red, at a scale of 1:20,000. No base sheets were furnished.

All control stations and substitute stations were plotted on the map projection sheets using beam compass and meter bar, except SUB. PT. BM 99(USE) 1949 which was plotted graphically.

A sketch showing layout of surveys, distribution of control and photograph centers, and a list of control stations are attached to this report.

PHOTOGRAPHS

The photographs used in this radial plot are all single lens photographs, contact scale 1:40,000, ratioed to a scale of 1:20,000. They were taken with Type O camera, focal length 152.37 mm (6 inches). Sixty-eight (68) photographs were used in this radial plot. They are numbered as follows:

48-0-1135 to 48-0-1139 incl.
48-0-1173 to 48-0-1181 incl.
48-0-1187 to 48-0-1194 incl.
48-0-1230 to 48-0-1237 incl.
48-0-1352 to 48-0-1360 incl.
48-0-1393 to 48-0-1401 incl.
48-0-2128 to 48-0-2137 incl.
48-0-2159 to 48-0-2168 incl.

22. METHOD (continued)

Photographs (continued)

There were several flights of photographs, taken at contact scale 1:20,000, along the shoreline of Laguna Madre, Gulf of Mexico, and Baffins Bay. These were used by the field inspection party to supplement the ratioed prints but office prints were not needed in the radial plot.

The photographs used in this radial plot were printed with special fiducial marks for adjustment when making templets. These fiducial marks were made by using the special glass plate, containing these marks, in the negative holder of the enlarger.

The symbols for pass points, control station and conjugate centers are in accordance with Photogrammetry Instructions No. 12, dated 17 March 1947

Templets

Transparent plastic (Kodapak) templets were made of all photographs, corrections for paper distortion being made by adjustment to a master templet furnished by the Washington Office.

Closure and Adjustment to Control

Since no base sheets were furnished by the Washington Office, vinylite base sheets, with 10,000 foot grids, previously used on another project were used for base sheets in this radial plot. Control stations and substitute stations were transferred from the map projection sheets by matching common grid lines. The pass points and photograph centers were also transferred from Survey T-9189, which was completed in a previous radial plot.

The plot was laid in the usual manner, beginning in the area of Survey T-9193 and T-9194 where there was sufficient control for a good fix and where the previously established pass points and photograph centers could be used. The plot was extended southward to Baffin Bay which falls in the southern part of Surveys T-9195, T-9196,and T-9197. Since field identification on surveys south of the bay is not yet available and positions of control identified in that area on Survey T-9197 are not available, the small area south of the bay on Survey T-9197 could not be fixed in this radial plot,due to inaccurate azimuths to the water centers. On Survey T-9194, SUB. PT. MIDWEST, 1939, could not be held in the radial plot. Since no reason for the discrepancy could be found, the channel lights on Corpus Christi-Port Isabel Channel were identified in the office on photographs 48-0-1173 to 48-0-1178 inclusive. These positions strengthened the plot and a radially-plotted position for SUB.PT. MIDWEST, 1939 was established. The radial plot was extended to station UNION, 1939 which is the only recovered station on Survey T-9198. With no control identification available to the south, and SUB. PT.UNION, 1939 being near the flight line, positions in the southern part of Survey T-9198 may be weak. The identification of SUB. PT. MIDWEST, 1939

22. METHOD (continued)

Closure and Adjustment to Control (continued)

was rechecked in the field and found to be misidentified. Two new substitute stations were established and the radial plot was relaid holding these. The remainder of the plot was laid holding all control without difficulty except in Survey T-9195. All stations could not be held in the south half of that survey. It was found that a satisfactory plot could be laid by disregarding station GERMAN CATHOLIC CHURCH STEEPLE, 1931, and holding all other stations. This station was established by intersection and there is no check on its position so that it is possible that the position is weak. No other discrepancies were found in the stations identified as control. A number of windmills were pricked on field photographs but not as control stations. Since the positions of these were available they were pricked on office photographs and used as supplementary control but less weight was given to them. All except four of these positions could be held in the radial plot. See §23, below

Transfer of Photogrammetric Points

The positions of pass points and photograph centers were transferred to the map projection sheets by placing the map projections on the completed radial plot over a light table. Common grids were matched with the base sheets and positions were pricked directly on the map projection sheets.

23. ADEQUACY OF CONTROL

The amount and distribution of control is adequate for a good radial plot, except in Survey T-9198 which covers part of Padre Island. Here only one of seven control stations, UNION, 1939, was recovered and identified , near the south boundary of the survey. It was necessary to extend the radial plot southward across the survey and hold SUB. PT. UNION, 1939. Since this station was onbnly two photographs and very near the flight line, positions in the south half of the survey may be weak. However, a satisfactory plot within the required accuracy is believed to have been obtained. At least one more station, properly selected, in the center or near the southern boundary of the survey would have strengthened the radial plot considerably. Since control station identification in the area to the south is not yet available, the radial plot could not be extended to the next control points at this time.

The radially-plotted position for GERMAN CATHOLIC CHURCH STEEPLE, 1931, falls 0.4 mm northeast of its geographic position. The geographic position is listed as a "no check" position intersected from two stations which form a small angle of intersection. The geographic position of this station is probably in error by several meters. See §32 of Descriptive Report 9195

The radially-plotted position for SUB. PT. MIDWEST, 1939 falls 3.0 mm southeast of its geographic position. When no apparent reason could be found for this discrepancy, a recheck of the position of the substitute station was requested since it was in the weak area near Survey T-9198.

23. ADEQUACY OF CONTROL (continued)

A recheck in the field revealed bad identification and two new substitute stations were established. These were held in the radial plot. T9193

There were two stations identified in Survey T-9197 south of Baffin Bay but due to lack of position for a new station, GRIFFINS POINT NO. 4, 1949, the substitute stations could not be computed. It will be necessary to delay compilation of the small area south of Baffins Bay that falls on surveys in this radial plot until the radial plot on surveys to the south is completed. See §67, this report.

24. SUPPLEMENTARY DATA

No geographic control surveys were used in the area of this radial plot.

25. PHOTOGRAPHY

Photographic coverage was adequate and definition was good. No badly tilted photographs were found.

Except at MIDWEST, 1939, the choice and identification of substitute points on photographs were very good on this project. See §23, above.

Respectfully submitted

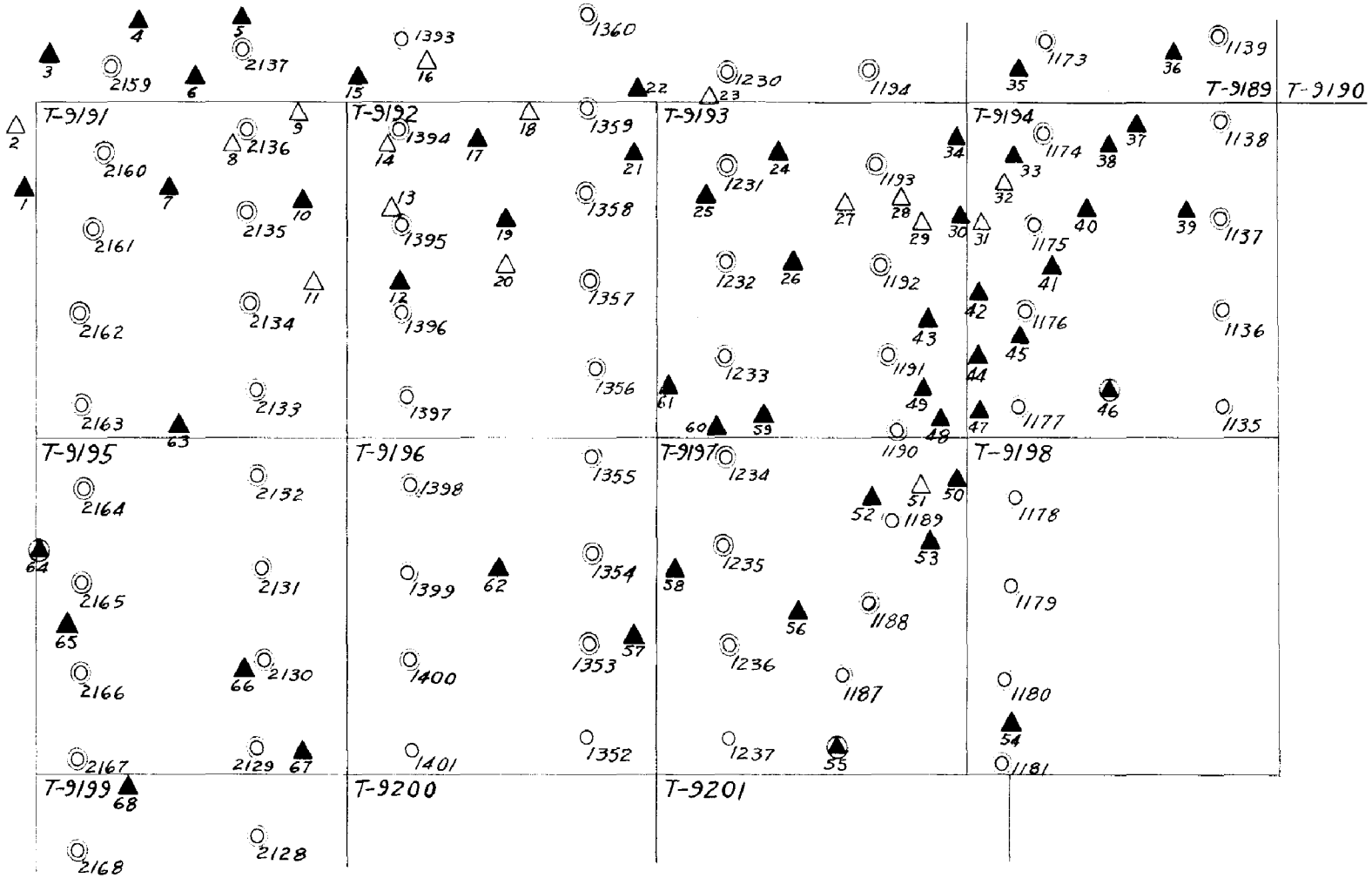
Frank J. Tarcza

Frank J. Tarcza
Cartographer (Photo.)

NO.	STATION	IDENTIFICATION
1.	PINTO, 1949	Sub. Pt.
2.	LEONCITAS, 1949	None
3.	NORIA BEE WINDMILL, 1949	Sub. Pt.
4.	NORIA HONDA WINDMILL, 1949	Sub. Pt.
4.	P.T.S. 28Y, 1923 (TEXAS A-4) (USGS)	Sub.Pt.
5.	P.T.S. 29Y, 1933 (TEXAS A-5) (USGS)	Sub.Pt.
6.	TAZA WINDMILL,1949	Direct and Sub.Pt.
7.	TELEPHONE WINDMILL, 1949	Sub.Pt.
8.	TRES ESQUINAS WINDMILL, 1949	None
9.	CAUATITAS WINDMILL,1949	None
10.	CALLITO WINDMILL, 1949	Sub. Pt.
11.	JABALINA WINDMILL,1949	None
12.	PORTAIES, 1949	Sub. Pt.
13.	GUAYACAN WINDMILL, 1949	None
14.	HUISACHE WINDMILL, 1949	None
15.	FIELD 25 WINDMILL, 1949	Direct
16.	NORIA DAN WINDMILL,1949	None
17.	NORIA MARIA WINDMILL, 1949	Sub.Pt.
18.	BURRO WINDMILL, 1949	None
19.	FIELD 15 WINDMILL, 1949	Sub.Pt.
20.	ZACAHUISTLE WINDMILL, 1949	None
21.	FIELD 14 WINDMILL, 1949	Sub.Pt.
22.	MUJERES GRANDES WINDMILL, 1949	Sub.Pt.
23.	TLACUACHE WINDMILL, 1949	None
24.	LARGA, 1949	Sub.Pt.
24.	PALOMAS WINDMILL, 1949	None
25.	BECERRA WINDMILL, 1949	Sub. Pt.
26.	AURAS WINDMILL, 1949	Sub.Pt.
27.	OJO DE AGUA WINDMILL, 1949	None
28.	ESTRELLA WINDMILL, 1949	None
29.	CALEXTRO WINDMILL, 1949	None
30.	WIND, 1912	None
31.	NOVILLO WINDMILL, 1949	None
32.	USE BM 83, 1949	Direct
33.	LOBO, 1939	Sub.Pt.
33.	LOBO WINDMILL, 1949	None
33.	NO. 79 (USE) 1939	None
34.	MATEO WINDMILL, 1949	Sub.Pt.
35.	TORO WINDMILL	Direct
36.	NORTH BIRD, 1912	Sub.Pt.
37.	SOUTH BIRD, 1912	Sub.Pt.
38.	CORPUS CHRISTI–PORT ISABEL LIGHT 57, 1949	Direct, in office

NO.	STATION	IDENTIFICATION
39.	QUAIL, 1939	Sub.Pt.
40.	CORPUS CHRISTI-PORT ISABEL LIGHT 63, 1949	Direct, in office
41.	CORPUS CHRISTI-PORT ISABEL LIGHT 69, 1949	Direct, in office
42.	BM 99 (USE) 1949	Sub. Pt.
43.	SORDO, 1939	Sub.Pt.
43.	SORDO WINDMILL, 1949	None
44.	NO. 107 (USE) 1949	Sub.Pt.
45.	CORPUS CHRISTI-PORT ISABEL LIGHT 75, 1949	Direct, in office
46.	MIDWEST, 1939	Sub. Pts.
47.	CORPUS CHRISTI PORT ISABEL LIGHT 83, 1949	Direct, in office
48.	BM 117 (USE) 1932	Photo Pt.(not control)
49.	TANQUES DE LUIS WINDMILL, 1949	Sub. Pt.
50.	CORPUS CHRISTI-PORT ISABEL LIGHT 89, 1949	Direct, in office
51.	BM 126 (USE) 1932	Photo Pt.(not control)
52.	ROX, 1912	Sub.Pt.
53.	CORPUS CHRISTI-PORT ISABEL LIGHT 95, 1949	Direct, in office
54.	UNION, 1939	Sub.Pt.
55.	NO. 137 (USE) 1939	Sub. Pt.
55.	GRIFFINS POINT No. 4, 1949	Sub. Pt.
56.	KENNEDY, 1877	Sub.Pt.
57.	RABBIT 2, 1912	Sub.Pt.
58.	ALAZAN, 1939	Sub.Pt.
59.	NOCHE BUENO WINDMILL, 1949	Sub.Pt.
60.	FRANK 2, 1912	Sub. Pt.
61.	HINDJOSO, 1949	Sub. Pt.
62.	AGUA, 1912	Sub. Pt.
63	GRULLO, 1949	Sub.Pt.
64.	GERMAN CATHOLIC CHURCH STEEPLE, 1931	Direct
65.	ROBBINS, ECC., 1931	Sub.Pt.
66.	BUENA VISTA HOTEL WATER TANK, 1939	Direct
66.	BUENA VISTA HOTEL SOUTH CHIMNEY, 1912	Direct
67.	PARADISO, 1912	Sub.Pt.
68.	KENNEDY RANCH OIL WELL DERRICK, 1913	Direct

LAYOUT SKETCH
PROJECT PH-36(48)
SURVEYS T-9191 to T-9198, Inc.



Photogrammetry

MAP T-9191 PROJECT NO. Ph-36(48)C SCALE OF MAP 1:20,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
CUATITAS WINDMILL 1949 ✓	G-8133 P.12 Field	N.A. 1927	27 29 55.119			1696. 150.2	
			97 38 45.148			1239.2 407.7	
GALLITO WINDMILL, 1949 ✓	G-8133 P.12 Field	"	27 27 57.555			1771.5 75.3	
			97 38 31.904			876.0 771.4	
JABALINA WINDMILL, 1949 ✓	G-8133 P.12 Field	"	27 26 00.906			27.9 1818.8	
			97 38 21.068			578.6 1069.3	
TRES ESQUINAS WINDMILL, 1949 ✓	G-8133 P.12 Field	"	27 29 10.115			311.3 1535.5	
			97 40 03.548			97.4 1549.7	
TAZA WINDMILL, 1949	G-8133 P.12 Field	"	27 30 30.871			950.2 896.6	N. of map limits
			97 41 08.979			246.4 1400.3	
TELEPHONE WINDMILL 1949 ✓	G-8133 P. 13 Field	"	27 28 05.646			173.8 1673.0	✓
			97 41 48.518			1332.1 315.3	
NORIA HONDA WIND-MILL, 1949	G-8133 P.13 Field	"	27 31 43.735			1346.2 500.6	N. of map limits
			97 42 28.086			770.7 875.8	
SUB.PT. GALLITO WINDMILL,1949			27 27			1796.9 49.9	
			97 38			843.6 803.8	
SUB.PT.TAZA WINDMILL,1949			27 30			914.5 932.3	
			97 41			229.2 1417.5	
SUB.PT.TELEPHONE WINDMILL,1949			27 28			263.6 1583.2	
			97 41			1348.4 299.0	
SUB.PT.NO.1 NORIA HONDA WINDMILL, 1949			27 31			1388.1 458.7	
			97 42			710.9 935.6	
NORIA BEE WINDMILL, 1949	G-8133 P.13 Field	N.A. "	27 31 01.755			54.0 1792.8	
			97 44 46.097			1265.1 381.6	

1 FT.=.3048006 METER

COMPUTED BY: W.L.Lineweaver DATE 13 December 1949 CHECKED BY: F.J.Tarcza DATE Dec.22,1949

M-2388-12

Photogrammetry

MAP T- 9191 PROJECT NO. Ph-36(48)C SCALE OF MAP 1:20,000 SCALE FACTOR None.

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
SUB. PT. NORIA BEE WINDMILL, 1949			27 31			78.6 1768.2	
			97 44			1257.1 389.6	
LEONCITAS WINDMILL 1949	G-8133 P.13 Field	N.A. 1927	27 29 37.270			1147.2 699.6	W. of map limits
			97 45 32.669			896.8 750.2	
GRULLO, 1949	G-8043 P. 6 Field	"	27 22 54.165			1667.2 179.6	
			97 41 38.546			1059.1 589.5	
SUB. PT. GRULLO, 1949			27 22			1657.0 189.8	
			97 41			1130.0 518.6	
NORIA, 1949	G-8043 P.6 Field	"	27 31 45.953			1414.4 432.4	N. of map limits
			97 41 58.044			1592.8 53.7	
PINTO, 1949	G-8043 P.6 Field	"	27 28 08.674			267.0 1579.8	W. of map limits
			97 45 15.635			429.3 1218.1	
SUB.PT.PINTO,1949			27 28			267.5 1579.3	
			97 45			414.4 1233.0	
PRIM.TRAV.STA.NO. 28-Y-1923 TEXAS A-4	USGS PETRONILLA QUADRANGLE P 9	N.A.	27 31 41.79	1286.3 560.5	+ 3.4	1289.7 557.1	N. of map limits
	"		97 42 30.54	838.0 808.4	-25.5	812.5 833.9	
PRIM.TRAV. STA.NO. 29-Y-1923 TEXAS A-5	"	"	27 31 47.57	1464.2 382.6	+3.4	1467.6 379.2	N. of map limits
			97 40 05.97	163.8 1482.6	-25.5	138.3 1508.1	
SUB.PT.PRIM.TRAV. STA.No.29-Y-1923 TEXAS A-5			27 31			1477.4 369.4	N. of map limits
			97 40			137.6 1508.8	
SUB.PT. PRIM.TRAV. STA.NO.28-Y-1923 TEXAS A-4			27 31			1286.7 560.1	N. of map limits
			97 42			823.4 823.0	
MEZQUITE WINDMILL 1949 ✓	GP's III p 512	NA 1927	27 29 27.33			841.2 1005.6	
			97 43 46.73			1282.7 364.3	

1 FT.=.3048006 METER M-2388-12

COMPUTED BY: W. L. Lineweaver DATE 15 December 1949 CHECKED BY: F.J.Tarcza DATE Dec.22,1949

COMPILATION REPORT, T-9191

31. DELINEATION

All delineation was by graphic methods. A discrepancy overlay has been prepared and is being submitted with the manuscript. The field inspection and photo coverage was complete and satisfactory.

32. CONTROL

The identification and density of horizontal control was adequate.

33. SUPPLEMENTAL DATA

All filed in Div. of Photogrammetry

1. General lands office map of Kleberg County dated July 1913 (marked Boundary Sheet 2) shows precinct boundaries.

2. Geographic names standards dated 11-4-49 on the Sarita quadrangle.

3. A plan of Outlying Field 52, U. S. Naval Air Station, Corpus Christi, Texas, shows the military reservation boundary.

34. CONTOURS AND DRAINAGE

No comment.

35. SHORELINE AND ALONGSHORE FEATURES

See § C8, this report

An approximate mean water line was delineated instead of the MHWL. Reference should be made to the field report for Survey No. T-9195 in addition to the field report for this survey for a discussion of the mean water line.

The storm water line or wash line was delineated just offshore of the five foot contour to avoid merging the two lines. In the upper reaches of the washes the line was placed above the 5 foot contour.

There is no low water line in the area.

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

Forms 524 for Grullo Azimuth Mark, 1949, and Pinto Azimuth Mark, 1949 were prepared in the compilation office and are being submitted with this report.

39. JUNCTIONS

Junctions with surveys T-9192 to the east and T-9195 to the south are in agreement. There are no contemporary surveys to the north or west.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment. See § 53, this report.

41-45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with the Corps of Engineers, U. S. Army; Sarita Quadrangle, scale 1:125,000, edition of 1920, revised in 1928.

47. COMPARISON WITH NAUTICAL CHARTS

This area does not appear on any existing chart.

Respectfully submitted
24 April 1950

Mary L. Bloom
Mary L. Bloom
Cartographic Aid

Approved and forwarded
3 May 1950

Hubert A. Paton
Hubert A. Paton
Comdr., USC&GS
Officer in Charge

48. GEOGRAPHIC NAMES

Cayo del Grullo (recent B.G.N. decision)
* ~~Commissioners Precinct I~~ EHR
* ~~Commissioners Precinct III~~ EHR
* ~~Commissioners Precinct IV~~ EHR
Cuatitas Windmill

* Gallito Windmill

* Jabalina Windmill

King Ranch
Kleberg County

Madero Lake
* Madero Windmill
* Mesquite Windmill
Outlying Field 52 (U.S. Navy)
* Paso Los Flacos Windmill
Pinto Well
Pinto Creek
* Ramos Windmill
Zancudedo
* ~~Zancudera~~ Windmill

* Telephone Windmill
* Tres Esquinas Windmill
Tunas Creek

Valderos Creek

~~*These have not been shown on the manuscript as the position of the boundary line is in doubt.~~ Not required. EHR

* Well rather than windmill has been shown as the geographic name to maintain consistency. Both features will be shown on the published map. EHR

Names underlined in red are approved.
4-26-51.
L. Heck

Field Edit Report, T-9191

51. Methods.--Field edit was accomplished by riding all roads to check their classification and to check or verify the existence and classification of all other topographic features.

All additions and corrections shown on the Field Edit Sheet were located by standard planetable methods, while those shown on the photographs were by direct identification. All field edit information will be found on the Field Edit Sheet and the following photographs: 48-0-2133, 2134, 2135, and 2163.

Additions and corrections have been noted in violet ink and deletions in green.

52. Adequacy of compilation.--The map compilation will be adequate after application of field edit information.

53. Map accuracy.--The horizontal accuracy is very good as indicated by closures of planetable traverses on road intersections, windmills, etc.

Eight areas were tested for vertical accuracy and in only one place, where a ridge had been displaced, were the contours out appreciably vertically. A total of 187 points were tested and 19 points were out more than ½ contour interval. The percentage of all points tested is 90 within ½ contour interval of being correct. The original field party tested the quadrangle in eight areas and shifted the contours accordingly. It is believed that the contours as a whole are within vertical accuracy requirements.
See letter dtd 19 Feb 1952, attached to this report.

54. Recommendations.--None offered.

55. Examination of proof copy.--It is recommended the proof copy of the map be sent to the King Ranch Office, attention Mr. Robert G. Wells, for examination. The address is Kingsville, Texas.

No discrepancies were noted in geographic names.

Respectfully submitted,
19 February 1952
William H. Shearouse
William H. Shearouse,
Cartographer

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
PHOTOGRAMMETRIC PARTY NO. 2

POST-OFFICE ADDRESS: P. O. Box 216
TELEGRAPH ADDRESS: Raymondville, Texas

EXPRESS ADDRESS:

19 February 1952

To: The Director
U. S. Coast and Geodetic Survey
Washington 25, D. C.

Subject: Vertical Accuracy Tests, Quadrangle T-9191,
Project Ph-36(48)

Extensive vertical accuracy testing of quadrangle T-9191 has been accomplished. The terrain was found to be very flat-appearing in the north part, with change in elevation so gradual as to be hard to discern and so lacking in expression as to substantiate smooth contours. The ridges in the south part are smooth-sided and tend toward smooth-line contours.

In all, eight areas were tested by standard planetable methods, for a total of 187 points. Horizontal beginnings and endings were at well defined topographic features. Vertical beginnings and endings were at bench marks or fly-level points. In no instance was error of closure so large as to warrant adjustment.

Of the 187 points tested 19 were found in error more than $\frac{1}{2}$ contour interval. A ridge was found to be displaced, which accounted for most of the large errors.

It is noted that eight areas were accuracy checked on the photographs during the contouring. These tests, plus the ones by the field editor, make up almost a complete checking of the quadrangle and it is believed the vertical accuracy will now meet standard requirements.

Respectfully submitted,

William H. Shearouse

William H. Shearouse,
Cartographer

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9191

1. Projection and grids JWV 2. Title JWV 3. Manuscript numbers JWV 4. Manuscript size JWV

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy JWV 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) JWV 7. ~~Photo hydro stations~~ ___ 8. Bench marks JWV 9. Plotting of sextant fixes JWV 10. Photogrammetric plot report JWV 11. Detail points JWV

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline JWV 13. Low-water line None 14. Rocks, shoals, etc. None 15. Bridges None 16. Aids to navigation None 17. Landmarks None 18. Other alongshore physical features JWV 19. Other alongshore cultural features None

PHYSICAL FEATURES

20. Water features JWV 21. Natural ground cover JWV 22. Planetable contours JWV 23. ~~Stereoscopic instrument contours~~ ___ 24. Contours in general JWV 25. Spot elevations JWV 26. Other physical features JWV

CULTURAL FEATURES

27. Roads JWV 28. Buildings JWV 29. Railroads None 30. Other cultural features JWV

BOUNDARIES

31. Boundary lines JWV 32. ~~Public land lines~~ ___

MISCELLANEOUS

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

40. Joseph W Vonasek — Reviewer | Joseph Steinberg — 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
Topographic Map T-9191
1 May 1952

62. Comparison with Registered Topographic Surveys:

None in area.

63. Comparison with Maps of Other Agencies:

Sarita quadrangle (C.of E.) 1:125,000 edition of 1920 (revised 1928)

64. Comparison with Contemporary Hydrographic Surveys:

None.

65. Comparison with Nautical Charts:

None. See item 47 this report.

66. Adequacy of Results and Future Surveys:

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

67. Control:

Reference last paragraph of item 23.this report. The radial plotted positions of the two stations held satisfactorily in the plot to the southward. See Photogrammetric Plot Report which is part of the Descriptive Report for T-9200.

68. Shoreline: See Review Report T9180 #66

Reference fourth paragraph of item 7 this report. According to the field edit sheet for this survey, salt water extends up Cayo del Grullo to a point opposite Ramos Well. This line is shown on the manuscript to mark the inshore limits of the storm water line.

Reference item 35 this report. The dashed line which defines the limits of areas subject to inundation is shown throughout this map in lieu of the high-water line.

There is a portion of low-water line shown on this map. It was interpreted to conform with the field inspection of adjacent areas.

Reviewed by:

Everett H. Ramey

Everett H. Ramey

Approved:

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

H. R. Edmonston
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

Earl O. Heaton
Chief, Div. of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. T-9191

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11/51	1117	Risegari	Before ~~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
			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

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.