

6706 a&b

6706 a&b

Form 504 Rev. Dec. 1933 DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 6706 a & b
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES JUL 24 1940 Acc. No. U.S. COAST & GEODETIC SURVEY	
State TEXAS	
LOCALITY WEST GULF of Mexico	
PADRE ISLAND and BRAZOS ISLAND	
193 9	
CHIEF OF PARTY G. C. MATTISON	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

T4 PB

Field Letter T-4-A-B

REGISTER NO. 6706 a & b

T6706 a & b

State TEXASGeneral locality West Gulf of MexicoLocality Padre Island and Brazos IslandScale 1:20,000 Date of survey June, 19 39Vessel HYDROGRAPHERChief of Party G.C. MattisonSurveyed by P.A. WeberInked by P.A. WeberHeights in feet above H.W. to ground ~~to tops of trees~~

Contour Approximate contour Form line interval _____ feet

Instructions dated February 17, 19 37
and the Directors Letter Jan 5, 1939.Remarks: Project HT-214

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. COLBERT, DIRECTOR

DESCRIPTIVE REPORT
TOPOGRAPHIC SHEET NO. 6706 a & b
WEST GULF
PARTS OF PADRE ISLAND
BRAZOS ISLAND AND MAINLAND TO
THE RIO GRANDE
TEXAS

SHIP HYDROGRAPHER
GALVESTON, TEXAS

G.C. MATTISON
CHIEF OF PARTY

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEET 6706

AUTHORITY

Director's Orders dated February 17, 1937.

GENERAL

Topographic Features:

This sheet has two sides lettered "a" and "b".

Sheet 6706 a, covers a portion of Padre Island and shows only the shoreline on the Gulf side of the island. This stretch of the island is fairly low and contains no prominent dunes. The island is sand.

Sheet 6706 b, covers the southern end of Brazos Island and a portion of the mainland to the Mexican border at the Rio Grande.

Brazos Island is sand, and has a line of dunes about 200 meters from high water line. The dunes range in height from 10 to 20 feet, but are not conspicuous enough to be used as landmarks; they are also shifting in position constantly. The only community on this part of the island is Del Mar Beach, a tourist resort with a number of cabins, a restaurant, and a community house. The water tank for the resort is on top of a sand dune about 20 feet high; the tank is prominent from seaward and makes an excellent landmark for this area.

The portion of the mainland on the sheet is a low sand beach at the north end sloping up to bluffs varying from 10 to 15 feet at the south end at the Rio Grande.

The portion of Mexico on the sheet is a flat, sandy beach and was sketched in by intersections taken from the Texas side.

Hydrographic Features:

The Gulf of Mexico lies to the east of all the land area on the sheet.

The southern end of South Bay lies to the west of Brazos Island, it is very shallow and suitable only for very small boats, which can enter only from the north.

At the south end of Brazos Island was originally a cut known as Boca Chica, but it has filled in connecting the island to the mainland.

The Rio Grande, the boundary between Mexico and the United States, is closed to navigation by treaty; a bar at the mouth makes it impossible for any but very shallow draft boats to enter.

LANDMARKS

The only landmarks are the Municipal water tank at Port Isabel and the water tank at Del Mar Beach.

CONTROL

The sheet is well controlled by numerous triangulation stations

CONTROL (Cont'd)

Standard methods were used; along the beach where the visibility was poor due to sand being blown by the wind, a 300 foot steel tape was used to measure between stations.

GEOGRAPHIC NAMES

There are no new geographic names. All names shown are well established.

For South Bay see report for sheet T-6707.

CONCLUSION

Magnetic declinometer observations were taken at all stations marked "magnetic".

On the "a" side of this sheet the high water line on the west side of Padre Island was omitted. See Director's letter dated January 5, 1939, copy attached. *Par 4 & 6 of this Review.*

At the south end of the sheet near the Rio Grande are two marks, one is "SQUIRE U.S.E.D. 1938", and the other is probably a Boundary Commission mark. It is a concrete block about 3 feet high with a plate in the top with the following inscription

55 A
BC
C de L

The "Mouth of Rio Grande Quadrangle" filed as BP 30301 shows Boundary Mark 55 which has probably been replaced by "55 A - BC cdeL about 280 meters north of the old mark (B.M. 55).

There was no record of these marks at the Engineer's Office in Brownsville.

Respectfully submitted

Philip A. Weber

Philip A. Weber
Topographer.

Forwarded Approved:

G.C. Mattison
G.C. Mattison
Chief of Party.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

Ref. 22/MEK
1995 HY 4

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

January 5, 1939.

To: Commanding Officer,
U. S. Coast & Geodetic Survey
Ship HYDROGRAPHER,
P. O. Box 565,
Galveston, Texas.

From: The Director,
U. S. Coast & Geodetic Survey.

Subject: Topography of Padre Island.

Your letter of December 6, 1938, has received careful consideration. It has been decided that air photographic surveys of the barrier islands between Corpus Christi Pass and the Rio Grande are not necessary at this time and that, owing to the pressure for work in other localities, the expense involved is unwarranted. The air photographic surveys of this area are accordingly being deferred until some future date. However, in view of the conditions mentioned in your letter, paragraph 8 of the instructions for project HT-214, dated February 17, 1937, is hereby modified to the extent that for the remainder of your topographic work along these barrier islands a delineation of the shore line on the Gulf side of these two islands is all that is desired except that in the case of indentations or breaks in the shore line the shore line at such places shall be surveyed a reasonable distance back from the general trend of the coast line.

(signed)

L. O. Colbert
Director.

Statistics for Topographic Sheet T-6706a & b.

T-6706a	-----	9.3	statute miles shoreline.
T-6706b	-----	13.3	" " "
"	-----	1.7	" " concrete highway.
"	-----	1.1	" " dirt roads.

Remarks

Decisions

1		260971
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7		260971
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GEOGRAPHIC NAMES
Survey No. **T6706**
a & b

Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.
Boca Chica									1
Brazos Island									2
Del Mar Beach									3
Gulf of Mexico									4
Padre Island									5
Rio Grande									6
South Bay									7
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Not an underlined in red approved
by - c Heck on 10/18/40

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

~~No. T~~

No. T **T6706** a & b

received July 24, 1940
registered July 27, 1940
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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RETURN TO

82	T.B. Reed
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✓ JBR

DIVISION OF CHARTS

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6706a and b (1939)
FIELD NO. T-4A-B

Texas, Gulf of Mexico, Padre Island and Brazos Island
Surveyed in June 1939, Scale 1:20,000
Instructions dated February 17, 1937 and the Director's
letter dated January 5, 1939.

Plane Table Survey

Aluminum Mounted

Chief of Party - G. C. Mattison.
Surveyed by - P. A. Weber.
Inked by - P. A. Weber.
Reviewed by - Leo S. Straw, October 1, 1940.
Inspected by - H. R. Edmonston.

1. Junctions with Contemporary Surveys.

The junctions with T-6705b (1939) and T-6707 (1939)
are satisfactory.

There are no adjoining surveys by this Bureau on the
south since the present survey limit is the Rio Grande
River, the International Boundary between the United
States and Mexico.

2. Comparison with Prior Surveys.

T-453 (1854), 1:20,000; T-1045 (1867), 1:20,000;
T-1476a (1879-80), 1:20,000.

Portions of these three surveys are common to the
present survey. Extensive changes in shoreline have
taken place in the interim between the old and the new
surveys.

The Padre Island No. 1. U. S. Geological Survey Quad-
rangle shows that the shoreline at lat. 26°13' in 1930,
was 200 meters west of the location on the old surveys,
whereas the present survey locates the shoreline 100
meters west of the location on the old survey. This
indicates that after a recession of 200 meters or more
the shoreline has advanced 100 meters in the last ten
years. In lat. 26°06', the present shoreline is 350
meters farther west than on the old surveys, but is in
substantial agreement at this point with the U. S.
Geological surveys of 1930. From lat. 26°02' to lat.
25°59', the shoreline has built out from 100 to 200
meters, this advancement has completely blocked the
inlet, Boca Chica and leaves the shoreline continuous

at lat. 26°00'. The mouth of the Rio Grande River is located on the present survey about 3/4 of a mile north of its location on T-453 (1854). It is also noted that the mouth of the river is about 300 meters north of its location in 1930. (See mouth of Rio Grande Quadrangle, U. S. Geological Survey).

The radical changes noted above are characteristic of sand barrier beaches; although the changes may be periodic to some extent, severe storms generally cause marked changes in the shoreline.

Because of the age of the old surveys and the changeable nature of the area, the present survey should, within the common area, supersede them.

3. Comparison with Chart No. 1288 (New Print dated Nov. 3, 1939)

- a. The topography on the chart north of Brazos Santiago is from T-1045 (1867) and T-1476a (1879-80); south of Brazos Santiago the charted topography is from reported information and various U. S. Engineers' surveys. The present survey, within the area it covers, should supersede all of the above information.
- b. North of lat. 26°06' the buff color has been omitted from form lines indicating sand dunes, thus giving the impression of a lake instead of an elevation.

4. Condition of Survey.

North of lat. 26°05.3' only the Gulf shoreline is shown on the present survey, the west shore of Padre Island may be taken from the U. S. Geological Survey Quadrangles, "Padre Island No. 1" and "Port Isabel" compiled from aerial photographs in 1929 and 1930.

5. Compliance with Instructions for the Project.

Satisfactory.

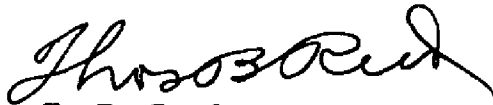
6. Additional Field Work Recommended.

No additional work is contemplated at this time for reasons stated in the Director's letter dated January 5, 1939, (see copy attached to the Descriptive Report).

7. Superseded Surveys.

T-453 (1854) in part
T-1045 (1867) in part
T-1476a (1879-80) in part.

Examined and approved:



T. B. Reed,
Chief, Section of Field Records.



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.