5399

5399

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, *Director*

State: Texas

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* 21 5399

LOCALITY

North Portion of Galveston Bay

Trinity Bay

1933

CHIEF OF PARTY

Earl O. Heaton

U. S. GOVERNMENT PRINTING OFFICE: 1930

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO. 5399

HYDROGRAPHIC TITLE SHEET

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

Field No. 21

REGISTER NO. 5399

State Texas

General locality ~~North Portion of~~ Galveston Bay

Locality Trinity Bay Large

Scale 1:20,000 Date of survey February - June, 19 33

Vessel Launch "Gladys"

Chief of Party Earl O. Heaton

Surveyed by J. S. Morton and G. S. Tinsley

Protracted by C. W. O'Melveny

Soundings penciled by C. W. O'Melveny

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W. MLW

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated November 5, 19 32

Remarks: Project HT-118

U. S. GOVERNMENT PRINTING OFFICE: 1931

1 Landmarks filed with T-4822-Sup.

DESCRIPTIVE REPORT TO ACCOMPANY
HYDRO SHEET # 21
GALVESTON BAY (TRINITY BAY)

Date of Instructions:

Instructions for this work were dated Nov. 5, 1932 (Project HT-118).

Survey Methods.

With the exception of the usual skiff work in shoal water at an average distance of 300 meters from shore and some development work on Fisher's Reef, the entire area on this sheet was accomplished by using a launch and a sounding pole graduated in feet. The skiff work was done by means of a skiff with an outboard motor and a sounding pole graduated in feet. Sounding poles had plates about 6 inches in diameter on the bottom to prevent their sinking into a soft mud bottom. At certain points in the Trinity River channel a lead line graduated in feet was used from the launch. It had a similarly constructed lead plate.

Discrepancies.

The following discrepancies were found and corrected as indicated below:

The soundings on O day from position 1 to 35, inclusive, were found to be too shoal and left off the smooth sheet. This area was rerun on the FF day from position 36 to 62, inclusive.

The last two soundings between positions 7 and 8 on the U day were questioned and later found to be erroneous. Positions 1 to 9 for this day were rejected and replaced by soundings from 28 to 35 on the FF day.

Positions 82 to 90 U were also found to be in error and were replaced by the accurate depths of positions 12 to 20 on the JJ day.

Positions 1 to 10 V were replaced by soundings obtained on the FF day, positions 19 to 27.

Positions 1 to 9 W and 133 to 140 W (inc.) were found to be erroneous and upon investigation during the FF day were replaced by soundings from 10 to 18 FF and 1 to 9 FF respectively.

Positions 17 to 20 BB day were not plotted as the soundings between these positions were deeper than others which were made at a later date.

Soundings from position 1 to 11 (inc) and 21 to 26 (inc) on the EE day were too deep and were rejected in favor of a later development on the FF day.

The soundings on GG day from #1 to the end of the day are apparently too low. Positions and soundings were left off smooth sheet from #13 to 26 and the soundings were left off from #27 to 30. Soundings and positions were shown for the remainder of the day.

In nearly all the above cases the error was caused by rough water and heavy seas on the sounding days affected.

Field dispositions accepted in office - Sup.

a log also bares 1' MLW, lat. 29°40.4', long. 94°51.0'.

Dangers. a snag also in lat. 29°43.7', long. 94°47.0'

At position 101 R, Latitude 29° 43.6', Longitude 94° 48.3', there is a 12" x 12" pile which bares 1 foot at low tide. Inasmuch as the average depth in the vicinity is 6½ feet, this would be submerged at any ordinary rise in tide and thus constitute a distinct menace to small craft. A letter was written to the District Engineer, U. S. E., at Galveston in December 1933 recommending that this post or piling be removed; but to date I have not received notice of its removal. The depth of water at the pile is 6½ feet.
also another about ⅓ m. N.W. observed during 1.4 ft. of tide (in 5 ft of water)

Channels.

There are two channels on this sheet; namely, Trinity River channel and Double Bayou channel. Double Bayou channel information is entirely covered in the report to follow on Hydro sheet 22 (H 5510)

Trinity River channel information as obtained in the field has been left off of this sheet because the channel is now being dredged to a new controlling depth of 6 feet by the U.S. Engineer Department, of Galveston. The present width of the Trinity River channel is about 50 feet. The channel is used by boats drawing about 3 to 5 feet of water. One boat, the "Bonnie", which is about 40 feet long, 10' beam, and drawing about 4' of water, makes bi-weekly trips to Galveston from Anahuac. Tugs of about the same class, and fishermen's boats comprise the remainder of traffic.

Plotted in the office.

Comparison with Previous Surveys.

The water area at the northern edge of this sheet has shoaled considerably due to the silt depositing from the Trinity River. On the west side of Trinity River channel from Anahuac down to Beacon B no soundings were obtained as the water was too shallow. At low tide a great part of this area becomes a mud flat.

From Beacon A southward the depths gradually approach those that were previously charted. The previous charts show a 4 foot depth at about Latitude 29° 42.3', Longitude 94° 48.2'. This particular area was thoroughly developed and found to have a present average depth of 5½ feet. The previous charts show a 4 foot depth at Latitude 29° 43.4', Longitude 94° 48.3', which upon investigation was found to be correct.

both shoals have shifted NW.

Geographic Names.

No new geographic names have been assigned except as shown below:

Exception: The upper reaches of Galveston Bay are known locally as Trinity Bay.

Statistics.

Total number of Positions	3,209
Total number of Soundings	19,176
Statute Miles of Sounding Lines Plotted	784.6

Men in Charge of Hydrography.

Lieut. J. S. Morton was the officer in charge of most of this hydrography, but he was detached from the party before this report could be written.

G. S. Tinsley, an observer, had charge of a small part of the work.

C. W. O'Melveny,
Draftsman.

Inspected and Approved by:

Earl O. Heaton,
Chief of Party, C. & G. S.

POST-OFFICE ADDRESS: 230 Nixon Bldg.; Corpus Christi, Texas.

TELEGRAPH ADDRESS:

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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

February 16, 1934.

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

From: Earl O. Heaton, Lieut., C. & G. S.

Subject: Inspection and approval of field records and smooth sheet #21.

Smooth hydrographic sheet #21 and record books have been inspected and approved by me.

Earl O. Heaton

Earl O. Heaton,
Lieut., C. & G. S.

July 20, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 5399

Locality **Trinity Bay, Galveston Bay, Texas.**

Chief of Party: **E. O. Heaton in 1933**
Plane of reference is **mean low water, reading**
2.5 ft. on tide staff at **Anahuyac (Round Point)**
19.4 ft. below B. M. 1

2.9 ft. on tide staff at Morgan Pt.
7.1 ft. below B.M. 1

Height of mean high water above plane of reference is approximately 0.8 ft.

Condition of records satisfactory except as noted below:

✓

Paul Schureman

Acting Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No H 5399.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	3209.
Number of positions checked	25.
Number of positions revised	2.
Number of soundings recorded	19176.
Number of soundings revised	7.
Number of signals erroneously plotted or transferred	0.

Date: Oct. 11. 1934

Cartographer: .....

[redacted] by Leo S. Straw Time 2 hr.

Verification of inking by [signature] Time 8 dys 4½ hrs.

Review by H. W. Murray Time 10¼ hr.

Inspection of H-5399

Trinity Bay Surveyed in 1933 by E. O. Heaton.
Three Point Fix - Sounding Pole
Soundings in feet

1. Records.

The records conform to the requirements of the Hydrographic Manual.

2. Protracting.

A visual check of the protracting indicates that it is satisfactory.

3. Plotting.

The plotting is satisfactory. It is directed by the Assistant Chief of the Field Records Section that all fractions, except those of critical soundings on shoals and those adjacent to the six foot curve as revised in pencil on the smooth sheet, be omitted. In congested areas, soundings which do not contribute to essential hydrographic information should be omitted.

4. Remarks.

The name Trinity Bay should not be inked on this sheet unless it is known to have appeared by higher authority. Report.

Respectfully submitted,

Leo S. Straw

September 21, 1934

Field Record Section — Oct 11, 1934

Report on H-5399

The records conform to the requirements of the General Instructions, except as noted below. ✓

The usual depth curve can be drawn. ✓

The field drafting was well done. However, the shore line at the northern end of sheet was left off as well as all docks on the entire sheet were left off by the field draftsman. ✓

Trinity River Channel was plotted in this office as it was not plotted in the field. (See D.R. "Channels") ✓

Attention is called to the following:

Sunken Tree - 52-53 AA (Red) Lat. 29°-43.7' & Long 94°-47.1' ✓

4"x4" Pile - 16-17 GG (Red) Lat 29°-44.1' & Long 94°-49.0' ✓

Sunken Logs 43 & 52 W (~~blue~~ green) day Lat 29°-45.4' & Long 94°-43.6' Vol. 12. The records refer to logs in this vicinity. Since the records do not give sufficient information to properly delineate the limits of area covered by logs pencil notations were made on this sheet. Information is requested from higher authority as to the proper notation for this danger. ✓

Line of Piling 67 to 68 W (blue) day Lat 29°-44.1' & Long 94°-42.8'. ~~notation in records~~ Vol 12. notation in records "Line passes thru piling." Request information from higher authority as to proper delineation of this danger.

[Left margin, beside bracket:] This information now furnished on test and has been disposed of. - H.W.R.

Oct. 1, 1934

Report on H-5399

No overlap was ~~was~~ made on the south of this sheet because H-5510 has not been inked or verified.

The crossings in general are in good agreement.

Respectfully submitted

[signature] Zeskind

Survey No. H-5399

GEOGRAPHIC NAMES

Date. Oct. 11, 1934

Chart No. 1282

Names underlined in red approved Oct. 12, 1934 H.B.

Diagram No. 1282-2

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
H.B.	Double Bayou ✓	Double Bayou ✓			λ 94°41.8 φ 29°39.3
H.B.	Ash Point	Ash Point ✓			
H.B.	Round Point	Round Point ✓			
H.B.	Umbrella Point	Umbrella Point ✓			
H.B.	Cedar Point ✓	Cedar Point ✓			
H.B.	Mesquite Knoll	Mesquite Knoll	This feature is not named on the sheet nor mentioned in the Desc. Rept as a new Geog. name. The Desc. Rept mentions work being done on Fishers Reef and there is a ⚠ Std called Fishers Reef Beacon. Do not use name till inquiry is made H.B.		
	Fisher's Reef Hold				
H.B.	Galveston Bay ✓ Hold till limits of Trinity Bay are defined	Galveston Bay			
	Trinity Bay Hold		Trinity Bay	Do not put name on till limits are defined H.B.	

(M 100)

Section of Field Records.

REVIEW OF HYDROGRAPHIC SURVEY NO. 5399 (1933).

Trinity Bay, North Portion Galveston Bay, Texas.
Instructions dated November 5, 1933 (E. O. Heaton).
Surveyed - February - June 1933.

Hand Lead and Pole Soundings - 3 Point Control on Shore Signals.

Chief of Party - Earl O. Heaton.
Surveyed by - J. S. Morton; G. S. Tinsley.
Protracted and soundings penciled by - C. W. O'Melveny.
Verified and inked by - L. S. Straw; I. M. Zeskind.

1. Condition of Records.

The records are neat, legible and conform to the requirements of the Hydrographic Manual except as follows:

Topographic features outside the high water line such as docks were not shown on the sheet. These were transferred in the office.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Sounding Line Crossings.

Sounding line crossings are adequate. Average agreement with the main system of lines is within $\frac{1}{2}$ foot.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn including portions of the zero foot curve.

5. Junctions with Contemporary Surveys.

The junction with H. 5510 (1933) will be considered in the review of that sheet.

The junction with H. 5398 (1933) on the north is satisfactory.

6. Comparison with Prior Surveys.

a. H. 470 (1855).

Soundings of this survey average from 1 to 2 feet deeper than those of H. 5399 (1933) with the exception of the northwestern portion (vicinity of Trinity River Beacon "B") where differences of as much as 3 feet are noted.

b. H.414 (1853).

Soundings of this survey on the southwest are deeper in some spots than those of H. 5399 (1933) and shoaler in others. The variations are from 1 to 2 feet.

7. Comparison with Chart No. 1282.

The soundings shown on the chart within the limits of H. 5399 (1933) originate with U. S. Engineers Blueprint No. 10987 (1905). Comparison with the present survey shows depths in the southern portion practically unchanged whereas in the northeastern portion considerable shoaling is noted on the present survey due to the depositing of silt from Trinity River on the north. The more important items in connection with these two surveys are the following:

a. The charted 4 ft. shoal in lat. 29°43'.3, long. 94°48'.3 falls in depths of about 7 feet on the present survey. The shoal has evidently shifted about 160 m. N.N.W. and is unchanged in depth.

b. The charted 4 foot shoal in lat. 29°42'.3, long. 94°48'.1 falls in depths of about 7 feet on H. 5399 (1934). The shoal has evidently shifted about 260 m. N.W. and has deepened 1½ feet.

c. The reef off Umbrella Pt. while unchanged in extent has deepened about 1 foot at the southeastern limits and has shoaled to a least depth of ½ foot in lat. 29°40'.3, long. 94°51'.1.

Within the area covered, H. 5399 (1933) should supersede all chartings from Blueprint No. 10987 (1905).

8. Field Plotting.

Field plotting and protracting were accurate and conform to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

This survey is complete, no additional field work is required.

10. Superseding Previous Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H. 414 (1853) in part.
H. 470 (1855) in part.

11. Note to Compiler.

Attention is called to the Chief of Party's statement in the Descriptive Report (page 2) regarding the pile in lat. 29°43'.6, long. 94°48'.3.

12. Reviewed by - Harold W. Murray - Oct. 31, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green,
Acting Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

H. S. Borden
Chief, Section of Field Work.

G. Lincke
Chief, Division of H. & T.