

6304

U. S. COAST & GEODETIC SURV.
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Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 21

State TEXAS

LOCALITY

GULF OF MEXICO

VICINITY OF HIGH ISLAND

1937

CHIEF OF PARTY

F. S. Borden

6304

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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 46304

State TEXAS

General locality GULF OF MEXICO

Locality VICINITY OF HIGH ISLAND

Scale 1:20,000 Date of survey May 6 - 19 37

Vessel HYDROGRAPHER (Launch FARIS)

Chief of Party F. S. Borden

Surveyed by V. M. Gibbens and Ross A. Gilmore

Protracted by G. L. Anderson and P. C. Doran

Soundings penciled by Ross A. Gilmore

Soundings in ~~fathoms~~ feet *

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by H. F. Stegman

Verified by H. F. Stegman

Instructions dated February 17 19 37

Remarks: *Plotted to $\frac{1}{2}$ feet at critical points and at depth
curve units.

APPROVAL SHEET

HYDROGRAPHIC SHEET No. 21 *H-6304*

The field work on this sheet was done during the season of 1937. At the time transfer of command was effected, no smooth plotting had been done. This was done by Lieut.(j.g.) Gilmore who remained in Galveston while the ship was on the working grounds.

The records and smooth sheet have been examined and are approved.

Appended to the report are tide curves and tabulations of tides at Galveston South Jetty Light and a tabulation of leadline corrections used in the reduction of soundings.

J. C. Mattison
J. C. Mattison,
Commanding HYDROGRAPHER.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET No. 21 *H-6304*

INSTRUCTIONS

This survey was made in accordance with the Director's ✓
instructions for Project No. 214, dated February 17, 1937.

GENERAL STATEMENT

This sheet is an inshore sheet in the vicinity of High ✓
Island, Texas, adjoining the 40,000 scale ship sheet No. 41 of the *H-6251(1937)*
same season. The general locality and limits of the survey, to-
gether with its relation to adjacent sheets, is shown on the attached
plate.

SURVEY METHODS

Sounding lines were run by the Launch FARIS excepting a ✓
few lines close to the beach which were run by the launch's skiff
with outboard motor attached. The launch (twin screw) was run on one
engine while sounding, usually at 4 to 5 knots, except when close
development required a slower speed.

Launch soundings were made with lead line and skiff sound- ✓
ings were made with a sounding pole. Lead line corrections were
necessary for the first few days of sounding until better lead lines
were made up. These corrections are indicated in the records.

All sounding lines were controlled by three point fixes on ✓
shore objects located by topography of the same season or on recovered

triangulation stations. Standard methods as outlined in the Hydro-
graphic Manual were used throughout.

Soundings were reduced to the nearest tenth of a foot where a lead line correction entered into the reduction and to the nearest 0.5 of a foot where only a tide reducer was necessary. A tidal note is appended to this report. Soundings were plotted to the nearest foot generally, except at critical points and at depth curve units where they were plotted to the nearest $\frac{1}{2}$ foot.

DISCREPANCIES

The gap appearing at the general position of the 6 foot curve was originally meant to be filled by a sounding line but adverse weather conditions prevented it at the time and it wasn't considered justifiable to delay further work in order to run it at a later date.

The line of soundings from 29a to 59a appear about 1 foot too deep in comparison with adjoining lines. This might be accounted for by the fact that different leadsmen sounded the adjacent lines.

The soundings from 106c to 113c also appear about 1 foot too deep.

The ^{13ft.}sounding on 83j and the one immediately before ^{14' Not plotted} it were rejected as too deep. *Retained - 13ft. - close to 12ft. depths and agrees with 114334(1923) H.F.S. L.S.S.*

In general, crossings on this sheet are very good with approximately 63% zero crossings and approximately 35% crossings within a foot.

DANGERS

There are no dangers in the area covered by this survey. $12\frac{1}{2}$ feet was the shoalest depth found in Lat. $29^{\circ} 31.0'$ Long. $94^{\circ} 26.6'$ and does not constitute a danger. *Plotted as 12ft to take 12ft. curve.*

CHANNELS

There are no channels in the area covered by this sheet.

GEOGRAPHIC NAMES

No new place names have been used on this sheet.

COMPARISONS WITH PREVIOUS SURVEYS

The junction with Sheet No. *H-4334* (1923) is in very good agreement. The junction with Sheet No. 41 of the same season is discussed in the descriptive report for Sheets 41, 42 and 43 (1937). No soundings were available at the time of this report to make a direct comparison.

The junction with Sheet No. 5511 appears to be in good agreement out to 26 feet and then the depths on No. 5511 appear from 1 to 2 feet deeper than those on Sheet No. 21. *H-6304*

This survey falls within the limits of Chart No. 1280. Comparison with this chart and Sheet No. 21 showed the 12 foot curve to be in very good agreement. The 18 foot curve on the chart, however, appears to be about $\frac{1}{4}$ mile further offshore than that of Sheet No. 21. *H-6304*
Depths beyond the 18 foot curve appear in better agreement except the following:

The 24 foot sounding shown in Lat. $29^{\circ} 32.25'$, Long. $94^{\circ} 18.95'$ on Chart No. 1280 appears to be 2 feet too shoal. *TP7 Review*

The 25 foot sounding shown in Lat. $29^{\circ} 31.50'$, Long. $94^{\circ} 20.12'$ on Chart No. 1280 appears to be 2 to 3 feet too shoal. *21*

STATISTICS

Statute miles of sounding lines	344 ✓
Number of positions,	1202
Number of soundings,	6772

Respectfully submitted,

Ross A. Gilmore
Ross A. Gilmore,
Jr. H. & G. Engineer.

FORWARDED:

G. C. Mattison
G. C. Mattison,
Comdg. HYDROGRAPHER.

OFFICE OF THE DIRECTOR

30-McC

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

December 2, 1937.

To: Commanding Officer,
U. S. C. & G. S. S. HYDROGRAPHER,
P. O. Box 888,
Galveston, Texas.

From: The Acting Director,
U. S. Coast and Geodetic Survey.

Subject: Tide Data, Texas.

With reference to your letter of November 22, 1937, the plane of mean low water at Brazos River East Jetty as determined by comparison with the standard station at Galveston corresponds to a staff reading of 2.3 feet. The comparison also shows the tide at this station to be practically the same, both as to time and range, as the tide at Galveston South Jetty, so that the Galveston South Jetty tides may be used without time or height correction for reducing soundings off Brazos River Entrance.

There are inclosed hourly heights for Galveston South Jetty for the period, August 25-October 17, 1937. Hourly heights prior to August 25 have already been furnished. The tabulated heights are referred to the zero of the tide staff, which is 2.4 feet below mean low water.

Inclosure

(s) J. H. Hawley,
Acting Director

C O P Y

Field Records Section (Charts)

H6304

HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet	1202.
Number of positions checked	25.
Number of positions revised	1.
Number of soundings recorded	6772.
Number of soundings revised	7.
Number of signals erroneously plotted or transferred	None.

Date: *Sept. 8, 1938*

Verification by *H.F. STEGMAN*

Review by

Ed Straw

Time: *6 days 6 hrs.*

Time: *13 days*

H6304

HYDROGRAPHIC SURVEY NO. _____

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 4 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) None

Statistics See Page #4 of D.R.

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 9; Last Date May 19, 1937

Remarks _____

Remarks

Decisions

	Remarks	Decisions
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GEOGRAPHIC NAMES
 Survey No. **16304**

Name on Survey	On Chart No. 1280		On previous survey		On U. S. quadrangle		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
	A	B	C	D	E	F	G	H	K							
<u>High Island (town)</u>	✓		✓			✓	✓								1	
<u>Gulf of Mexico</u>															2	
<u>Texas</u>															3	
															4	
															5	
															6	
			Names underlined in previous report												7	
			by L. Heck on 7-28-38												8	
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MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H -6304
~~No. 00000~~

{ received June 20, 1938
 registered July 21, 1938
 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
20			
22			
24			
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30			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ JBR

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 28, 1938.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis.

Plane of reference

~~Tide Reducers are~~ approved in
volumes of sounding records for

HYDROGRAPHIC SHEET 6304

Locality Vicinity of High Island, Gulf of Mexico.

Chief of Party: F. S. Borden in 1937

Plane of reference is mean low water reading

2.4 ft. on tide staff at South Jetty, Galveston Entrance

6.2 ft. below B.M. 2

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

Verification Report on H-6304 (1937)

This survey conforms to the requirements of the general instructions. The records are neat and complete, and the field plotting was very carefully done.

Only such half foot fractions as would smooth out the depth curves were inked by the verifier.

On the sounding following 58 a, ϕ 29-34.1, 1-94-17.9 the sounding record carries an entry of "Rock" as a bottom characteristic. This was inked as "rocky" by the verifier. It was questioned by the field plotter, probably because it is the only instance of rocky bottom on the sheet.

Sounding line crossings were in very good agreement. Maximum differences noted were 12 feet as for example at ϕ - 29-35.5 1-94-15.1 where the fourteen foot depth preceding position 83 falls on a twelve and half foot sounding at position 82 f. 14 ft. Not shown
12 1/2 inked

The shoreline, low water line, and signals originate with T-6609 (1937)

The following junctions were made:

H-5511 (1933) In good agreement. Beyond a depth of about 26 feet H-5511 soundings are one to two feet deeper - as mentioned on page 3 of the Descriptive Report. Joins western boundary of H-6304

H-4334 (1923) In good agreement. This junction was made under instructions of the Chief of Section. Joins eastern boundary of H-6304

H-6251 (1937) In good agreement. Soundings of H-6251 are in general either in exact agreement or one foot deeper. At ϕ - 29-31.05 1-94-21.5 a 29 foot depth of H-6251 falls close to a 27 foot sounding of H-6304. This sheet joins the offshore boundary of H-6304.

Sept. 8, 1938

Respectfully submitted
Harold F. Stegman

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6304 (1937) FIELD NO. 21

Vicinity of High Island, Gulf of Mexico, Texas
Surveyed in May 6 -1937, Scale 1:20,000
Instructions dated February 17, 1937 (HYDROGRAPHER)

Hand Lead and Pole Soundings.

3 Point fixes on shore signals.

Chief of Party - F. S. Borden.
Surveyed by - V. M. Gibbens and R. A. Gilmore.
Protracted by - G. L. Anderson and P. C. Doran.
Soundings plotted by - R. A. Gilmore.
Verified and inked by - H. F. Stegman.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is clear and satisfactorily covers all items of importance.

2.- Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the Instructions. It is noted that the total cross lines run constitute only 6% of the main system of lines whereas the Instructions (Par. 16) specify that the percentage should be more nearly 10% for launch hand lead work. The crosslines run are considered adequate however, for this particular survey.

The space between the second and third line parallel to the shoreline is from 150 to 200 meters. The reason for this gap is given under "Discrepancies" page 2 of the Descriptive Report. (Par. 15a of the Instructions).

3. Shoreline and Signals.

The shoreline and signals originate with T-6609 (1937)

4. Sounding Line Crossings.

A zig zag crossline was run, the agreement in depths with the main system of lines is very good.

5. Depth Curves.

A line run between the second and third sounding lines parallel to the shoreline would have more definitely located the 6 foot curve. The 12 and 18 foot curves are satisfactorily drawn.

6. Junction with Hydrographic Surveys.

The junctions with H-4334 (1923) on the east, H-6251 (1937) on

the south and H-5511 (1933) on the west are satisfactory.

7. Comparison with Prior Surveys

H-1556a (1883), scale 1:80,000 and H-1596a (1884) scale 1:80,000

The depths on these old surveys vary from 1 to 2 feet either shoaler or deeper than the present survey.

Some beach erosion is evidenced by the fact that the shoreline is approximately 100 meters farther inland on the present survey than on the prior surveys.

The present survey should, within the common combined area of the old surveys, supersede the latter for charting purposes.

8. Comparison with Chart No. 1280 (latest print dated Nov. 13, 1937 and Chart 1116 (latest print dated April 21, 1938))

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review.

9. Field Plotting.

The field plotting was excellent.

10. Additional Work Required.

This survey is complete and no additional work is necessary.

11. Superseded Old Surveys.


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

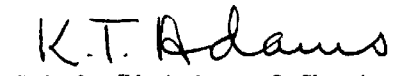
H-1556a (1883) in part H-1596a (1884) in part


12. Reviewed by - Leo S. Straw, Sept. 16, 1938.


Inspected by - E. P. Ellis.

Examined and approved:


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


K. T. Adams
Chief, Division of Charts.


Fred L. Peacock
Chief, Section of Field Work.


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

Applied to chart 1280 Aug. 1939 Z.M.A.
" " " 1116 May, 1940 K.R.