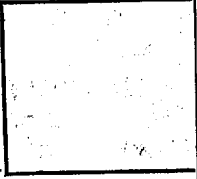


5786

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director



State: LOUISIANA

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 9

LOCALITY

GULF OF MEXICO

~~COAST OF LOUISIANA~~

EAST OF TRINITY SHOAL

19 34-35

CHIEF OF PARTY

W. E. PARKER, R. P. EYMAN, R. F. LUCE

5786

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. 9

REGISTER NO. 5766

State LOUISIANA

General locality GULF OF MEXICO 13

Locality EAST OF TRINITY SHOAL 20

Scale 1:40,000 Date of survey July 11, 1934, Jan. 4, 1935

Vessel U.S.C.&G.S.S. "HYDROGRAPHER"

Chief of Party W. E. Parker, R. P. Eymen, R. F. Luce

Surveyed by A. P. Ratti, R. W. Woodworth, P. C. Doran, G.R. Shelton

Protracted by P. Taylor

Soundings penciled by P. Taylor

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by -----

Inked by Mary Hamilton Brinkley

Verified by John W. Parsons

Instructions dated Dec. 17, 1932, Jan. 7, 1933, May 31, 19 33

Remarks: -----

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 9

GULF OF MEXICO

LOUISIANA COAST

DATE OF INSTRUCTIONS:

Instructions for this survey were dated December 17, 1932, and Supplemental Instructions of January 7, 1933. Letter of May 31, 1933, authorized the plane of reference and location of tide gauges. This is a continuation of work done by this party in 1933.

SURVEY METHODS:

This sheet embodies work executed by the ship's launch, motor launch PRATT, and the Ship HYDROGRAPHER. Fixes for the entire sheet were obtained by sextant angles and bearings on shore signals, water signals, and buoys. Shore signals were used out to their limit of visibility and then water signals, built with 2" x 4" timbers jettied into the bottom, were located by sextant cuts. Out beyond this, where the depth was such as to make water signals impractical, hydrographic buoys were used. These were located by a combination of Taut Wire, azimuths and sextant cuts.

The control for this sheet consists of the triangulation executed by Lieutenant E. R. McCarthy in 1933 with intermediate signals located by plane table traverses.

All buoys and water signals were plotted on an aluminum sheet from which the geographical positions were taken for plotting the smooth sheet.

The discrepancies noted between boat sheet and smooth sheet are due to the adjustment of the control on the aluminum sheet from which positions of signals were taken for smooth sheets.

Depths were obtained by the launches with the hand lead and by the ship by means of the hand lead through days A to N inclusive. The shoal water Fathometer was used by the ship on days P to S inclusive.

Bottom samples were obtained over the entire sheet by the soap lead method.

DISCREPANCIES:

Slight discrepancies noted in the depths on check lines can be attributed almost entirely to tide reductions. Good junction was obtained between the work done by the Ship's launch and Launch PRATT, however, between the work of Launch PRATT and that executed by the ship you will note that the Ship's soundings are, without exception, deeper than those obtained from the PRATT. I think that this can be attributed mostly to the increased sounding speed of the Ship. Basis for this assumption is taken from the junction between hand lead soundings of the ship and Fathometer soundings. Hand lead soundings are, almost without exception, deeper than those obtained by Fathometer.

Fathometer depths obtained by the Ship on R day between fixes 8 and 16 inclusive should be questioned as the fathometer was not in good working order, as indicated by the record. You will note that there are sudden changes in depths. Soundings between these fixes do not check with cross lines ran at a later date when Fathometer was working smoothly. Between fixes 17R and 30R a hand lead was used. Soundings obtained between these fixes are from one to three feet deeper than those obtained by fathometer on cross lines.

Most discrepancies in sextant fixes were found to be due to a mistake in recording and to a one to five degree error in reading sextant.

Bearings and depression angles, up to about 800 meters, checked fairly well with course, time and speed, however, the greater majority of distances obtained by the range finder did not check with Ship's run and course.

All doubtful fixes were checked against the boat sheet, and all deviations and rejections were noted in the sounding records opposite the fixes in question.

DANGERS:

There were no dangers found in the area covered by this sheet. The bottom slopes gradually from two feet to sixty-five feet at about thirty-two miles offshore. Shell reefs shown, at latitude $29^{\circ} 25' N$ longitude $91^{\circ} 51' W$, on this sheet are covered in the descriptive report of the Topographic Sheet. (T-4926). 1924

COMPARISON WITH PREVIOUS SURVEYS:

Comparison of this sheet with Chart No. 1116, revised October 1929, shows very good agreement with the soundings and bottom characteristics. Soundings agree to within two or three feet with a tendency of building up along the inshore limits and deepening along outer limits.

The remains of the wreck, shown on the old charts in latitude $29^{\circ} 28' N$ Longitude $91^{\circ} 51' W$, are still to be seen at low water in about the same position.
location of wreck. Lat. $29^{\circ} 24.5'$ Long $91^{\circ} 51.35'$ - F-4926 (1924) H-5837

Respectfully submitted,

Paul Taylor
Ensign Paul Taylor
U. S. Coast & Geodetic Survey

EXAMINED AND APPROVED

R. F. Luce

R. F. Luce, Commander,
U. S. Coast & Geodetic Survey,
Chief of Party.

STATISTICS FOR SHEET, FIELD No. 9

Statute miles sounding	1,193.4
Number positions	2,367
Number soundings	14,640

HYDROGRAPHIC SURVEY NO. 5766

Smooth Sheet 1

Boat Sheet 2

Sounding Records 8 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Filed in Vol. 8

Landmarks for Charts (Form 567) No Available Objects

Statistics Filed in D. R.

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None Rec'd

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

Remarks _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5766

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

Number of positions on sheet	.23.67
Number of positions checked	.142..
Number of positions revised	..2...
Number of soundings recorded	19,640
Number of soundings revised	..51...
Number of signals erroneously plotted or transferred	...0...

Date:

Verification by John W. Parsons

Time: 26 1/4 hrs.

Review by

[Signature]
R. J. Christman

Time: 9 hrs
5 hrs

LAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 28, 1935

Division of Hydrography and Topography:

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

Tide Reducers are approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 5766

Locality East of Trinity Shoal, Louisiana Coast

Chief of Party: W. E. Parker, R. P. Eymann, R. F. Luce in 1934-1935.

Plane of reference is mean low water reading
3.5 ft. on tide staff at Calcasieu Lighthouse (Staff #1)
5.9 ft. below B.M. 1

4.1 ft. on tide staff at Calcasieu Lighthouse (Staff #2)
5.9 ft. below B. M. 1

Height of mean high water above plane of reference is 1.5 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

Report on H-5766

The records are complete and conform to the requirements of the general instructions.

The usual depth curves within the limits of this sheet can be completely drawn.

The field plotting was very well done and is completed to the extent prescribed in the Hydrographic Manual.

The junctions with contemporary adjacent sheets are satisfactory.

All fixes using the signal (Nut) was plotted from an extension attached to the smooth sheet.

The discrepancies noted between boat sheet and smooth sheet are due to the adjustment of the control on the aluminum sheet from which positions of signals were taken for smooth sheet.

The descriptive report calls for a wreck shown at Lat $29^{\circ}28'N$ Long. $91^{\circ}51'W$. but I think this is a error in writing the report as the only wreck shown on smooth sheet and Chart (No. 1116) is at Lat $29^{\circ}29.6'N$ Long $91^{\circ}51.4'$.
Probably error in typing.
corrected.

John W. Parsons

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5766 (1934-35) - FIELD NO. 9

East of Trinity Shoal, Gulf of Mexico, Louisiana
Surveyed in 1934-35

Instructions dated December 17, 1932; January 7, 1933 (HYDROGRAPHER)

Hand Lead and Fathometer Soundings.
(Shoal Water Fathometer)

3 Point Fixes on Shore Signals,
Water Signals, and Buoy Signals.

Chief of Party - W. E. Parker, R. Eymann, R. Luce.
Surveyed by - A. P. Ratti, R. W. Woodworth, G. R. Shelton.
Protracted by - P. Taylor.
Soundings penciled by - P. Taylor.
Verified by - J. W. Parsons.
Inked by - M. H. Brinkley.

1. Condition of Records.

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

Frequent vertical casts were made to check the fathometer but no fixes were recorded for the ship's position, consequently vertical cast soundings are not plotted on the smooth sheet.

The "Descriptive Report" is clear and comprehensive and satisfactorily covers all matters of importance.

2. Compliance with Instructions for the Project.

This is a well executed survey and complies with the instructions for the project. However, a more definite delineation of the large shoal area at lat. 29°30', long. 91°55' would have been desirable.

3. Sounding Line Crossings.

Sounding line crossings are considered satisfactory.

Cross lines were run on an average of two miles apart throughout the limits of the sheet. Generally differences in depth at crossings are not more than one foot, but the line of hand lead soundings 17R to 30R shows depths about 2 feet greater than the adjacent fathometer soundings with a maximum of 3 feet at the cross line in lat. 29°03.8', long. 91°57.35' in depths of 46 feet. These differences are not considered serious and the shoalest soundings were used without any attempt at adjustment.

4. Depth Curves.

The usual depth curves can be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

The junction on the west with H-5765 (1934-35) is satisfactory.

The junction on the south with H-5767 (1934) is adequate. One line (position 89N to position 93N) on H-5767 (1934), which is R. A. R. work, is consistently 4 to 5 feet deeper than the cross lines on the present survey. This line, which is weakly controlled by only one distance arc and is probably out of position, has been omitted on H-5767 (1934) and the soundings of the present survey (3 point control on buoy signals) have been accepted.

Surveys to the east and southeast have not yet been received in the office.

6. Comparison with Prior Surveys.

a. H-1776 (1887-88) and H-1831 (1888-89).

A comparison between these surveys and the present survey indicates that changes in depths of 1 to 2 feet have taken place over large flat areas. The inshore shoal areas have built up so that the six foot curve now lies 1 to 2 miles farther offshore. The three detached 18 foot shoals (charted) in lat. $29^{\circ}19.8'$, long. $91^{\circ}50.8'$; lat. $29^{\circ}17.25'$, long. $91^{\circ}51.3'$; and lat. $29^{\circ}13.62'$, long. $91^{\circ}50.5'$ fall in depths of 18 to 23 feet on the present survey.

Because of the changes noted, the length of time since these surveys were made and the fact that all important areas were adequately developed on the present survey, H-5766 (1934-35) should supersede the above surveys for charting purposes.

b. See Addenda attached to this review.

7. Comparison with Chart No. 1116 and 1277.

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.

8. Field Plotting.

The field plotting is satisfactory and conforms to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

This survey is complete except in the inshore shoal area in approximate lat. $29^{\circ}30'$, long. $91^{\circ}55'$, which was covered by a general note, which is sufficient for the depth of water. This area
No additional work is considered necessary.

10. Superseding Old Surveys.

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

H-1139b(1872) in part.
H-1776 (1887-88) in part.
H-1831 (1888-89) " "


11. Reviewed by - Leo S. Straw and R. J. Christman, July 23, 1935.

Inspected by - R. L. Johnston.

Examined and approved:

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


Chief, Division of Charts.


Chief, Section of Field Work.


Chief, Division of H. & T.

Addenda to Review of H-5766 (1934-35)

Paragraph 6. Comparison with Prior Surveys.

b. H-1139b (1872).

A single line of soundings on this 1:80,000 scale survey crosses a portion of the present survey in the vicinity of latitude 29°25', longitude 91°56'. These soundings consistently vary 2 to 5 feet deeper than those of the present survey and should be superseded by that survey for charting purposes.

Reviewed by - Harold W. Murray, Dec. 4, 1935.

Inspected by - A. L. Shalowitz.

Applied to	Chart	1051	Aug	1937	Chas. F. Bush Jr
"	"	"	1276	"	"
"	"	"	1276	Oct	"