

5765

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

State: LOUISIANA

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**DESCRIPTIVE REPORT**

Topographic }  
Hydrographic } Sheet No. 8

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LOCALITY

GULF OF MEXICO

~~LOUISIANA COAST~~

TRINITY SHOAL & Tiger Shoal

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1934-35

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CHIEF OF PARTY

W. E. Parker & R. P. Eyma

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

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.

5765

Field No. 8

REGISTER NO.

State LOUISIANA

General locality GULF OF MEXICO

Locality TRINITY SHOAL & Tiger Shoal

Scale: 40,000 Date of survey May 18, 1934 to Jan. 19, 1935

Vessel HYDROGRAPHER

Chief of Party W. E. Parker, R. P. Eyma

Surveyed by A. P. Ratti, R. W. Woodworth, P. C. Doran, O. B. HARTZOG, E. L. Jones, E. H. Maher.

CRS

Protracted by D. H. Bassett

Soundings penciled by D. H. Bassett, E. D. Farmer, B. C. Freeman.

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by P.H. Scherr and J.G. Bowers.

Verified by P.S. and J.G.

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

Remarks: \_\_\_\_\_

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SHEET NO. 8      H-5765  
GULF OF MEXICO  
LOUISIANA COAST

DATE OF INSTRUCTIONS

Instructions for the survey of the area covered by this sheet were dated December 17, 1932, and Supplemental Instructions January 7, 1933. A letter of May 31, 1933, authorized the plane of reference and the location of tide gauge.

SURVEY METHODS

For purposes of executing the work on this sheet, five boat sheets were used. Sheet 8A covers the area from approximately one mile offshore southward to latitude  $29^{\circ} 27'$  and from the west limits of the sheet eastward to longitude  $92^{\circ} 03'$ . This area was surveyed by the Launch FARIS. Sheet 8B covers the area inshore from sheet 8A and the area east of sheet 8A between the shore and latitude  $29^{\circ} 25.5'$ . This area was surveyed by the Launch PRATT and the ship's port launch. Sheet 8C covers an area west of longitude  $92^{\circ} 06.2'$  extending from sheet 8A south approximately to the five fathom curve. It also includes an area bounded on the north by sheets 8A and 8B, on the west by longitude  $92^{\circ} 06.2'$ , on the south by latitude  $29^{\circ} 22'$  and on the east by longitude  $92^{\circ} 02'$ .

There is excepted from sheet 8C an area south of latitude  $29^{\circ} 17'$  lying between longitudes  $92^{\circ} 09.7'$  and  $92^{\circ} 13.7'$  and an area between latitudes  $29^{\circ} 17'$  and  $29^{\circ} 20.5'$  and extending from longitude  $92^{\circ} 13'$  to longitude  $92^{\circ} 13.7'$ . Two lines and the cross lines of these

excepted areas were run on sheet 8C and the balance on sheet 8D. Another small area, surveyed by the ship on sheet 8, is also excepted from sheet 8C. This area lies west of longitude  $92^{\circ} 12'$  between latitudes  $29^{\circ} 20'15''$  and  $29^{\circ} 28'$ . Sheet 8C was surveyed by the Launch FARIS.

Sheet 8D includes, in addition to the areas mentioned above, the area east of sheet 8C between sheet 8B and the approximate four fathom curve. This sheet also includes four cross lines between longitudes  $92^{\circ} 06'$  and  $92^{\circ} 10'$ . This area was surveyed by the Launch PRATT. Sheet 8 was surveyed by the ship and includes the work south of Sheets 8C and 8D and a small area mentioned above as being excepted from sheet 8C.

Position numbers in red denote work done by the HYDROGRAPHER. Those in green denote the FARIS; blue the PRATT and yellow the ship's port launch.

All positions on this sheet were determined by visual fixes on shore signals, water signals and buoys. Shore signals were used to carry the hydrography offshore to the limit of visibility. A system of triangulation using sextant angles, taut wire measurements and sun azimuths was used for locating water signals and buoys for control in the area beyond the visibility of shore signals. These buoys and water signals were plotted on an aluminum sheet and transferred to the smooth sheet by geographical positions so as to eliminate any errors due to distortion. The basis of control being the coastal triangulation executed by E. R. McCarthy in 1933.

Soundings were made by the Dorsey Fathometer on the HYDROGRAPHER on L, M, N days and part of P day. Hand lead was used the balance of the time.

Tidal reductions were made from data obtained by the automatic tide gauge located at Calcasieu Pass Lighthouse, Louisiana.

#### DISCREPANCIES

With the exception of the usual occasional errors in observing and recording, no difficulty was experienced in plotting.. Errors in the records were generally cases where the angle, signal or buoy actually recorded sounded very much like the correct angle, signal, or buoy. All doubtful fixes were checked against the boat sheets and notes covering all rejections and corrections were entered in the record in red. Some slight difficulty was experienced due to two or more signals having identical names.

Crossings, as a whole, were very good, the usual discrepancy being one foot with only an occasional two foot difference. The one fathom curve near the extreme northwest corner of the sheet is drawn disregarding the crosslines. This makes a smooth curve and joins fairly well with the one fathom curve on Sheet 7.

#### DANGERS

Near the northeast corner of the sheet are a number of small reefs. These are not shown on the sheet since the topographic sheet was sent to Washington before these features were transferred. This area is foul even for boats of light draft. There are numerous shoals having a depth of from four to six feet. These are oyster reefs and extend for some twelve or thirteen miles offshore in a general SSW'ly direction from Southwest Pass. These reefs are surrounded by various depths of water up to twelve feet. The bottom of the surrounding area is composed of gray sand and mud, with occasionally broken shell. The northern part of this sheet covers the Shoals known as Tiger and Trinity Shoals.

Reefs added in office

PREVIOUS SURVEYS

Suitable connections were made between this sheet and Sheet 7 on the west, Sheet 9 on the east and Sheet 10 on the south.

A very good comparison was made between this sheet and Chart #1277. No indications of the 17 or 18 foot shoals between Trinity and Tiger Shoals were found and no indications of the 16 foot shoal located in latitude 29° 10' longitude 92° 09' were found.

Trinity Shoal has apparently moved northward one-half mile. The three fathom curve does not pass the entire distance between Tiger and Trinity Shoals, but comes up from the east and west and turns back again. Also the 2 fathom curve closes on itself making a close deep area in the center of Tiger Shoal.

see PGC of Review. 1.55.

Respectfully Submitted,

*Bert C. Freeman*  
Bert C. Freeman, Surveyor,  
Coast and Geodetic Survey.

Examined and Approved:

*R. F. Luce*  
R. F. Luce, Commander,  
Coast and Geodetic Survey,  
Chief of Party.

STATISTICS

HYDROGRAPHIC SHEET No. 8

No. of Positions	6,010
No. of Soundings	34,820
Statute Miles of Sounding Lines,	2,397

Section of Field Records

VERIFIER'S REPORT ON H-5765

1. The records conform to the requirements of the General Instructions with the following exception. The color of the position numbers on covers and title pages did not correspond to those on the pages.
2. The usual depth curves were drawn. These are irregular and cannot be smoothed out as halves of feet are not recorded and cannot be added.
3. The field plotting was complete with the following exceptions. Positions 1-14, e'day, had not been plotted. Reefs described in the records were not delineated.
4. The office draftsman changed no part of the field party drafting.
5. The junction with H-5764 (1934), H-5766 (1934-5), and H-5767 (1934) are satisfactory.

Remarks.

(a) A shell reef is located by the party at lat.  $29^{\circ}33'$ , long.  $92^{\circ}01'$ , on page 33, volume 9 of the records. The extent of the reef is not given and is not given on the boat sheet or topographic sheet. This was not penciled or inked. *Note - "shell area" placed on smooth sheet*

Respectfully submitted,

P. H. Scherr.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5765

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

Number of positions on sheet	6010
Number of positions checked	18
Number of positions revised	0
Number of soundings recorded	34,870
Number of soundings revised	20
Number of signals erroneously plotted or transferred	✓ .....

Date: *19*  
Inked by *Bowers* *Bowers - 52 hrs*  
Verification by *P.H. Scherer* *80 hrs* Total Time: 138 hrs

Review by *R.J. Christman* Time: 13 hr  
34

HYDROGRAPHIC SURVEY NO. 5765

Smooth Sheet 1

Boat Sheets 5

Sounding Records 22 Vols.         

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol 8

Landmarks for Charts (Form 567) Filed in D.R. of T4924

Statistics Yes

Approved by Chief of Party Yes, but no separate sheet in D.R.

Recoverable Station Cards (Form 524) None

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

Remarks \* No floating aids within sight of  
shore objects.



Rae

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 27, 1935.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
22 volumes of sounding records for

HYDROGRAPHIC SHEET 5765

Locality Trinity Shoal and Tiger Shoal, Louisiana Coast

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

Plane of reference is mean low water reading

3.5 ft. on tide staff at Calcasieu Lighthouse (Staff No. 1)

5.9 ft. below B.M. 1

4.1 ft. on tide staff at Calcasieu Lighthouse (Staff No. 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:

*Paul Whitney*  
Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5765 (1934-35) - FIELD NO. 8

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

Instructions dated Dec. 17, 1932 - Jan. 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. P. Eymen.

Surveyed by - A. P. Ratti, R. W. Woodworth, P. C. Doran, O. B. Hartzog,  
E. L. Jones, E. H. Maher.

Protracted by - D. H. Bassett.

Soundings penciled by - D. H. B., E. D. Parmer, B. C. Freeman.

Verified and Inked by - P. H. Scherr and J. G. Bowers.

1. Condition of Records.

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

- a. The color of the position numbers on covers and title pages did not correspond to those on the pages of the volumes. These were corrected in the office.
- b. Frequent vertical casts were made to check the fathometer but no fixes were recorded for the ships position, consequently vertical cast soundings in the area covered by the fathometer were not plotted on the smooth sheet.
- c. The use of yellow for position number on day letter is contrary to instructions, see par. 62 of the Hydrographic Manual.
- d. The "Descriptive Report" satisfactorily covers all matters of importance except that no mention or recommendation is made regarding the reported shoal shown on Chart No. 1116 in lat. 29° 02.2', long. 92° 04.2'.

2. Compliance with Instructions for the Project.

This survey complies with the instructions except that the development at the entrance to Southwest Pass is incomplete.

3. Sounding Line Crossings.

Sounding line crossings are adequate and satisfactory. Cross lines were run on an average of two miles apart throughout the limits of the sheet. Generally, differences at crossings do not exceed one foot.

4. Depth Curves.

Within the limits of the survey the usual depth curves can be completely drawn except at the entrance to Southwest Pass. (See paragraph 2 of this review). Soundings were recorded in whole feet, consequently the depth curves could not be smoothed out by plotting the half feet.

5. Junctions with Contemporary Surveys.

The junctions with H-5766 (1934-35) on the east and H-5667 (1934) on the south are satisfactory.

The junction with H-5764 (1934) on the west will be considered in the review of that survey.

6. Comparison with Prior Surveys.

a. H-486 (1855).

This is a reconnaissance survey of Southwest Pass on a scale of 1 to 20,000. Because of the nature and age of this survey, a detailed comparison is not warranted. It should not be used in future charting.

b. H-1139a and H-1139b (1872).

These surveys are essentially of Tiger Shoal and Trinity Shoal on 1 to 40,000 and 1 to 80,000 scales. The depths on Trinity Shoal on the present survey are uniformly 1 to 2 feet deeper than those shown on H-1139a (1872). The development on Tiger Shoal (H-1139b, 1872) is too open to make a close comparison of depths with the present survey. Because of the age of these surveys and the changeable nature of the bottom, as well as the closer development of the present survey, H-5765 (1934-35) should supersede H-1139a and b (1872) for charting purposes.

c. H-1776 (1887-88) and H-1777 (1887-88).

These surveys are only in fair general agreement with the present survey. Tiger and Trinity Shoals, as delineated by the 12 and 18 foot curves, are substantially in the same position on the present survey. It is noted, however, that the critical depths on these shoals, particularly Tiger Shoal, do not agree in depth or in location with the present survey. This is undoubtedly due to natural forces. The inshore shoal areas have built up so that the six foot curve now lies approximately 1/4 mile farther off-shore.

11. Reviewed by - Leo S. Straw, July 29, 1935, and R. J. Christman,  
August 3, 1935.

Inspected by R. L. Johnston.

Examined and approved:

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

*F. O. Tolbert*  
Chief, Division of Charts.

*F. S. Borden* *act.* *R. R. Lukens*  
Chief, Section of Field Work. Chief, Division of H. & T.

Because of the time elapsed between these surveys and the present survey, and the changeable nature of the bottom, the present survey should supersede H-1776 (1887-88) and H-1777 (1887-88) for charting purposes.

7. Comparison with Chart No. 1277 and No. 1116.

a. Hydrography.

Within the limits of the present survey, the chart is based on surveys discussed in the foregoing paragraphs and needs no further consideration except for the "shoal reported" (lat. 29° 02.2', long. 92° 04.2') which originates with H. O. Daily Memo. 5313, 2/8/26. The Str. Agwimars reports touching bottom in a position about 11 miles 117° (true) from Trinity Shoal whistle buoy. (Draft of vessel not stated). This position, which is evidently very approximate, falls in depths of 58 feet in uniformly flat bottom on the present survey. Although no recommendation was made by the present field party regarding this shoal, it was indicated on their boatsheet and a sounding line was run across the position. The reported shoal is considered disproved and should be removed from the chart.

b. Aids to Navigation.

The lighted whistle buoy south of Trinity Shoal is charted about 600 meters west by north of the position located by the survey. (Θ Trin.). (F/W) "4"

8. Field Plotting.

The field plotting was satisfactory except that positions 1 to 14e' were not plotted. This was accomplished in the office.

9. Additional Field Work Recommended.

Attention is called to the fact that the area adjacent to Southwest Pass was not surveyed. It is understood that a survey is to be made of Vermilion Bay and Southwest Pass and the work should be extended to include the area left blank on the present survey.

10. Superseding Old Surveys.

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

H- 486	(1872)	in part.
H-1139a & b	(1872)	" "
H-1776	(1887-88)	" "
H-1777	(1887-88)	" "

Applied to Chart 1051 Aug 1937 Chas. R. Bush Jr.  
" " " 1277 Oct. 1937 H. S. S.