

5954

5954

13

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

DESCRIPTIVE REPORT

Topographic } ⁵⁹⁵⁴
Hydrographic } Sheet No. 13 **5954**

State LOUISIANA

LOCALITY

GULF OF MEXICO

SOUTH OF ATCHAFALAYA BAY

1935

CHIEF OF PARTY

R. F. LUCE

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.

Field No. 13

REGISTER NO.

State LOUISIANA

General locality GULF OF MEXICO

Locality SOUTH OF ATCHAFALAYA BAY

Scale: 40,000 Date of survey April to July, 1935

Vessel Ship HYDROGRAPHER and Launches PARIS & PRATT

Chief of Party R. F. LUCE

Surveyed by Messrs. ^{A.P.} Ratti, ^{R.W.} Woodworth, ^{P.C.} Doran, ^{P.} Taylor & ^{E.H.} Maher

Protracted by Karl B. Jeffers

Soundings penciled by Karl B. Jeffers

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by none

Inked by _____

Verified by _____

Instructions dated December 17th, 1932

Remarks: Three boat sheets.

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET No. 13

USC & GSS HYDROGRAPHER

INSTRUCTIONS

The hydrography on this sheet was done in accordance with and under authority of Instructions dated December 17, 1932.

LIMITS

This sheet joins the inshore hydrography on the north executed by Shore Party No. 4, T. B. Reed, Chief of Party, Sheet No. 14 on the east in Longitude $91^{\circ} 21'$, Sheet No. 15 at the ten fathom curve on the south, and Sheet No. 12 on the west in Longitude $91^{\circ} 35'$.

SURVEY METHODS

Soundings from the launches were all taken with lead line and the ship soundings from a junction with the launch work to Latitude $28^{\circ} 59.5'$ were all taken with lead line. The soundings south of Latitude $28^{\circ} 59.5'$ were taken with the Dorsey Fathometer.

All soundings were fixed by sextant angles on objects ashore or on floating signals. For complete information on buoy location see the cahier of RAR and signal data submitted with records for Sheets No. 15 and 16.

Corrections for fathometer soundings were obtained by daily comparison with vertical cast by lead line. A study was made of the effect of velocity factors and the relation of the draft correction to comparative sounding corrections. A complete analysis of the fathometer corrections will be found in a special report submitted on this subject.

DISCREPANCIES

There are no discrepancies of a serious nature. Soundings

in the area from the three fathom curve to the five fathom curve have occasional discrepancies of two feet on cross lines. These differences are probably due to uncertainty of tide reducer and the existence of strong currents in the area involved. Every care was exercised to prevent discrepancies of lead line soundings in strong currents. At the junction of fathometer and lead line sounded areas the fathometer soundings should be given preference.

There is considerable difference between the smooth plotting of the positions on "R" day and the boat sheet plotting. The buoys from "Dim to Hub" inclusive were adjusted and replotted at the end of "R" day without changing the hydrography. Allowance was made for this in running the adjoining lines.

Discrepancies in recorded angles and changes made in plotting are all noted in the sounding volumes. Slight jumps in the lines will be found occasionally. These occur at changes of fix and are explained by the nature of the objects used and the fact that the buoys can not be located with precision. These discrepancies are small and not important in an area such as this where the bottom is nearly flat.

DANGERS

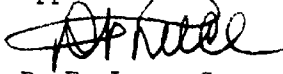
There are no shoals or dangers to navigation on this sheet.

COMPARISON WITH PREVIOUS SURVEYS

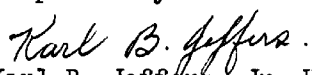
A detailed comparison was not made with the chart of this area. There are no charted shoals and the general depths agree with the chart.

Tidal data and a table of statistics are appended.

Approved and Forwarded:


R. F. Luce, Commander,
Coast and Geodetic Survey,
Commanding "HYDROGRAPHER".

Respectfully submitted,


Karl B. Jeffers, Jr. H. & G. Eng.
Coast and Geodetic Survey.

STATISTICS SHEET No. 13

SHIP HYDROGRAPHER

Positions	Soundings	Statute Miles of sounding line.
1270	7875 (Lead line)	694
642	5796 (Fathometer)	578
	Launch PRATT	
607	2880	225
	Launch FARIS	
175	974	175
<hr/>		
TOTAL 2694	17525	1672

HYDROGRAPHIC SURVEY NO. 5954

Smooth Sheet 1

Boat Sheet 3

Sounding Records 10 Vols. _____

Descriptive Report yes

Title Sheet yes

List of Signals yes

Landmarks for Charts (Form 567) No

Statistics yes

Approved by Chief of Party yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service No
(Circular Nov. 30, 1933)

Remarks _____

Field Records Section (Charts).

HYDROGRAPHIC SHEET NO. **5954**

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

Number of positions on sheet	<i>2694</i>
Number of positions checked	<i>42</i>
Number of positions revised	<i>none</i>
Number of soundings recorded	<i>17,525</i>
Number of soundings revised	<i>none</i>
Number of signals erroneously plotted or transferred	<i>none</i>

Date: *Oct. 14, 1935*

Verification by *S. Pregari*

Review by *R. J. Christman*

Time: *13 do. 1/2 hrs.*

Time: *16 hrs*

22

H5954

	Remarks	Decisions
1		
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27		

LIST OF SIGNALS USED ON SHEET No. 15

Name	Hydrographic Name	Located by	Year
S. W. Reef Tower	Reef	Triangulation	1933
Atchafalaya Bay Ship Channel Beacon No. 1	Bay	"	1933
Atchafalaya Bay Ship Channel Beacon No. 3	Com	"	1933
Eugene Light	Light	"	1933
Beach	Beach	"	1933
Ret ₂	Ret ₂	Topography	1935
Tow	Tow	"	1935
Bud	Bud	"	1935
Hot	Hot	Water Signal (Hydrographic)	

The following is a list of floating signals located by visual fix, or by taut wire and bomb distances:

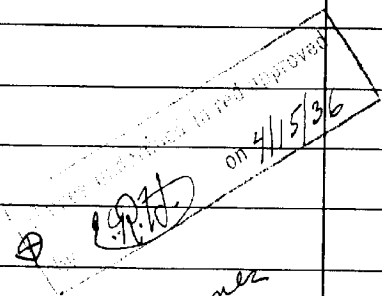
Lay	Cat	Up	Hat	New	Sac
Lay ₂	Dog	Dim	Ink	Mud	Use
Gar	End	Elf	Jay	Nap	Ton
Fid	Fox	Fig	Kit	Old	Yon
At	Gob	Gab	Low	Pal	Zip
Boy	Toe	Hub	Man	Red	Ace
Bim	Cob	Dif	Ice	Joy	Key
Lax					

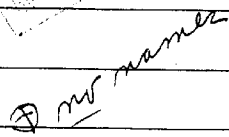
NOTE: Buoy positions were plotted on an aluminum sheet or on sheet No. 15. A complete list of all signals used during the season with d.m.'s and d.p.'s is attached to the taut wire and R.A.R. data.

Topographic stations are transferred from Topographic Sheets by Shore Party No. 4, T. B. Reed, Chief of Party.

GEOGRAPHIC NAMES
 Survey No. **H5954**

Name on Survey											
	A	B	C	D	E	F	G	H	K		
											1
											2
											3
											4
											5
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 on 4/15/36


 no names

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOGRAPHIC~~

} No. H-- 5954
~~INDEX~~

{ received *Mar 13, 1936*
 registered *Mar 30, 1936*
 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			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	
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ATTACHED

C. K. Green April 2, '36

200

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 3, 1936.

Division of Hydrography and Topography:

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

Tide Reducers are approved in
10 volumes of sounding records for

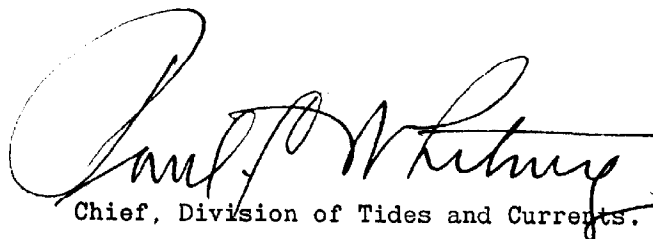
HYDROGRAPHIC SHEET 5954

Locality South of Atchafalaya Bay, Louisiana Coast.

Chief of Party: R. F. Luce in 1935.
Plane of reference is mean low water reading
1.4 ft. on tide staff at Eugene Island
4.2 ft. below B.M. 1

Height of mean high water above plane of reference is 1.4 ft.

Condition of records satisfactory except as noted below:


Chief, Division of Tides and Currents.

Report H-5954 (1935).

1. The records are neat and legible and conform to the requirements of the Hydro. Manual, except no bottom characteristics were taken south of approximate lat. $29^{\circ}00'$.

2. No shoreline is shown on this sheet, being an offshore survey.

The topographic signals are from T-6323 (1935) and T-6324 (1935). The hydrographic buoy signals are listed as a separate report included in a cahier. Hydrographic signal "Nor" is from H-5825 (1935) and is a temporary signal.

3. The depth curves can be satisfactorily completed except ^{where} the 12 foot curve joins H-5824 (1935). This is discussed below under ^{the} heading, "Discrepancies". In order to ~~insert~~ smooth out some sharp kinks in the 12, 18 and 30 foot curves, the $\frac{1}{2}$ foot tide reducers were obtained from the tide division and the resulting changes were made accordingly.

4. The field plotting was well done ^{and complete} except at turns in the ~~ends~~ ^{of} lines the recorded soundings, in general, were not plotted. These ^{soundings} omissions were added in the office.

5. The junctions with H-5825 (1935) and H-5826 (1935) on the North are satisfactory.

The junction with H-5824 (1935) on the North is satisfactory, except between approx. long. $91^{\circ}-28.2'$ and long. $91^{\circ}-32'$, which shows differences as much as 3 feet. This is discussed under the heading, "Discrepancies".

The junction with H-5955 (1935) on the east is satisfactory with the exception of the single horizontal ^{cross} line in approximate lat. $29^{\circ}-12'$ which shows differences ~~in places~~ as much as 2 feet. It is evident that this line of soundings from approximate pro. 68f to 79f (blue) is too shoal. This is evidenced from a study of the numerous north and south cross-lines of 3 different days work on H-5954 (1935), ^{which shows discrepancies as much as 3 feet,} as well as the ^{mentioned} ~~discrepancies with the~~ crosslines of H-5955 (1935). This above ^{mentioned} portion of 8 day is considered erroneous and has been omitted on the sheet and ^a paper note entered in ^{the} sounding volume.

The junction with H-5938 (1935) on the south is satisfactory.

The junction on the west with H-5953 (1935) will be considered in the report of that sheet.

See Review from 6 a

Report on H-5954

(3)

6. Discrepancies:

a. Soundings between positions 4d to 16d (green) and between positions 28d to 38d (green), in approximate lat. $29^{\circ}00'$ long. $91^{\circ}22'$, are deeper from 1 to 3 feet than the soundings on adjacent lines on d day (green).

These are all taken with the hand lead and from a study of these lines, it is evident that the deeper lines, which were run in the opposite direction to that of the shoal lines, were taken against the current with the launch ^{and} speed of 6 to 7 knots. This speed ^{condition is} ~~is~~ excessive ^{and} ~~is~~ ^{undoubtedly} ~~is~~ ^{and} ~~undoubtedly~~ ^{is} the cause ^{of} the ^{low} ~~differences~~ ^{greater} ~~in the depth.~~

The accepted lines on d day (green) are in general close agreement with the adjoining fathometer soundings which with themselves are in excellent agreement. There appears to be no question that the deeper soundings are erroneous ^{they} and have been ~~rejected~~ ^{adjusted} by reducing soundings on these lines by 1 and 2 feet respectively, and inking the reduced soundings across the shoal area on the smooth sheet. (See Review par. 2)

RPL

b. A general discrepancy exists at the junction of H-5824 (1935) and H-5954 (1935) from ^{long.} $91^{\circ}28.2'$ to long $91^{\circ}32'$ and may be due in part in the different sounding methods of the two surveys. The former having used both leadline and pole soundings, while the latter, ^{used} ~~is~~ ^{hand} ~~is~~ ^{lead} ~~is~~ only. In every case, however, H-5824 (1935) is deeper ^{from} ~~by~~ 1 to 3 feet. A study of the leadline soundings on H-5824 (1935) which conflict with the 12 foot curve ^{on} H-5954 (1935), in the vicinity of the channel, ^{from} ~~from~~ ^{pp.} 39 to ^{pp.} 47 (blue), reveals that the soundings were taken with the launch running from 7 to 7.8 knots which is excessive. The lines on H-5954 (1935) crossing these two lines

4270 H. on map

these deep soundings were not used in drawing the curve and a note to that effect was placed on H-5824 (1935). The 12 foot curve in this area was adjusted to its other sounding on both sheets.

Rye

Report H-5454

(4)

were run at 6 knots.

It is recommended that the soundings between ^{pos. 39p} ~~pos. 39p~~ ^{to} ~~pos. 46p~~ ^{pos. 46p} (blue) as well as the pole ^{the} south soundings beyond pos. 46p (blue) as well as the pole soundings between pos. 95 n (blue) and ^{the} fourth sounding beyond, be omitted on H-5824 (1935). This will enable the 12 foot curves on both surveys to join.

This questionable area was not completed on both sheets, ~~obscuring~~ ^{obscuring} the final disposition of the case. The junction has been adjusted by not using the deeper sounding plotting inside the 12 foot curve and so noted on H-5824 (1935).
R.P.B.

Respectfully submitted,

G. Pisegani.

Oct. 14, 1936.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5954 (1935) FIELD NO. 13

South of Atchafalaya Bay, Gulf of Mexico, Louisiana
Surveyed in April-July 1935 - Scale, 1-40,000
Instructions dated Dec. 17, 1932 (HYDROGRAPHER)

Hand Lead and
Dorsey Fathometer Soundings.

3 Point fixes on shore signals.
and on floating signals.

Chief of Party - R. F. Luce
Surveyed by - A. P. Ratti, R. W. Woodworth, P. C. Doran, P. Taylor,
E. H. Maher.
Protracted by - Karl B. Jeffers
Soundings penciled by Karl B. Jeffers
Verified and inked by - G. Risegari

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that tide reducers were entered in the sounding record in whole feet instead of at $\frac{1}{2}$ foot stages of the tide (see par. 133 and 134 of the Hydrographic Manual).

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

2. Compliance with Instructions for the Project.

The plan, character and extent of the development are in accordance with the project except that no bottom characteristics were obtained south of lat. 29-00 in the area sounded with the Dorsey Fathometer.

Two lines of hand lead soundings running northward across the shoal area in lat. 29-01, long. 91-22 are apparently 1 to 2 feet too deep. The difference probably is due to current and to an excessive sounding speed of the launch (6 to 7 knots). In order to avoid too wide spaces between lines, the lines in question were not rejected but an arbitrary correction applied to the soundings to bring them into harmony with adjacent lines and the reduced soundings inked on the sheet.

3. Shoreline and Signals.

This is an offshore survey and no shoreline is shown on the sheet. The topographic signals are from graphic control survey T-6323 (1935) and from plane table survey T-6324 (1935). Hydrographic signal "Hot" is from H-5825 (1935). Floating signals (survey buoys) were located by visual fix, taut wire and bomb distances plotted on an aluminum plate or on H-5938 (1935) and the D. M. and D. P. scaled (see List of Signals in Sounding Record Vol. 1).

4. Sounding Line Crossings.

The sounding line crossings are satisfactory.

5. Depth Curves.

Within the area of the present survey the usual depth curves can be satisfactorily drawn.

6. Junction with Contemporary Surveys.

Junctions with H-5824 (1935), H-5825(1935), H-5826 (1935) on the north; with H-5955 (1935) on the east; with H-5938 (1935) on the south; and with H-5953 on the west are satisfactory. However attention is directed to the following:-

- a. Differences of 2 feet are shown at the junction with H-5824 ^{1/2 ft} (1935) at lat. 29-17, long. 91-28. Some irregularity in bottom may still exist in this area where a 20 foot channel was dredged in 1910 (Descriptive Report H-5824 page 2 par. 4), although no evidence of the channel was found by the survey.

However, the main cause of the difference probably is the fact that the depths were read to fathoms and whole feet and the tide reducers applied by 1 foot stages on one sheet and by $\frac{1}{2}$ foot stages on the other sheet. In drawing the 12 foot curve the tide reducers for H-5954 (1935) were revised and the deeper soundings inside that curve on H-5824 (1935) were ignored.

- b. Differences of 2 feet also occur in the junction with H-5953 (1935) at lat. 28-54, long. 91-35. The soundings on both sheets were taken with the Dorsey fathometer and the difference is believed due entirely to the method of applying the tide reducers. A cross line from H-5953 (1935) extending into the area of the survey under consideration shows depths of 1 foot greater than the regular system of lines. The 19 foot soundings plotting inside the 18 foot curve on H-5954 (1935) were not used in drawing that curve.

7. Comparison with Prior Surveys.

- a. H-599 (1857-8), H-657 (1856).

These surveys on scales 1-1,200,000 and 1-635,000 are respectively offshore surveys showing a very few soundings within the area of the present survey. The depths appear to be in general agreement with the present survey, but due to the small scale of the surveys no close comparison was made. They need not be considered in future charting.

b. H-1831 (1889).

This survey on a scale of 1-80,000 covers the entire area of the present survey. A slight deepening (1 to 3 feet) is indicated in northwestern portion of the present survey resulting in a shifting of the 12 foot and 18 foot curves from $\frac{1}{2}$ to 1 mile to the northward. Otherwise the two surveys are in very good agreement. Because of the larger scale and closer development as well as the fact that it is the more recent survey, H-5954 (1935) should supersede the above survey for future charting purposes.

8. Comparison with Chart 199 (New Print dated Sept. 18, 1935)
Chart 116 (" " " Aug. 6, 1936)

a. Hydrography

Within the area of the present survey the charts are based on the surveys discussed in the foregoing paragraphs and contain no other information that needs discussion in this review.

b. Aids to Navigation.

No aids to navigation are charted within the area of the present survey.

9. Field Plotting.

The field plotting was very satisfactory.

10. Additional Surveys Recommended.

The survey is very satisfactory and no further work is required.

11- Superseding Old Surveys.

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

H-599 (1857-8)	in part
H-657 (1858)	" "
H-1831 (1889)	" "

12. Reviewed by - R. J. Christman, Oct. 17, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green
C. K. Green,
Chief, Section of Field Records.
J. L. Peacock
Chief, Section of Field Work.

L. D. Robert
Chief, Division of Charts.
Glenn
Chief, Division of H. & T.

Applied to chart # 1116.

Jan. 22, 1937. G.H.S.

Applied to Chart 1050

May 1937 Chas R. Bushy

" " " 1275

May 1937 H.S.

" " " 1276

Aug 1937 H.S.

App'd to area deleted of title notes 1/31/72. D.W.

□
X

□
X