6546

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* H-6546

State LOUISIANA

LOCALITY

Gulf of Mexico

South of Terrebonne Bay

1940

CHIEF OF PARTY

G. C. Mattison

U. S. GOVERNMENT PRINTING OFFICE 103231

6546

Form 537
Ed. Dec. 1930

REG. NO. H-6546

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. 123

H6546

REGISTER NO. H-6546

State LOUISIANA

General locality GULF OF MEXICO

Locality SOUTH OF TERREBONNE BAY

Scale 1:120,000 Date of survey Apr.-June Oct.Nov. 1939, 19 40

Vessel HYDROGRAPHER

Chief of Party G. C. MATTISON

Surveyed by Ship's Officers

Protracted by A. J. Campagna

Soundings penciled by A. J. Campagna

Soundings in fathoms ~~feet~~

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by G. B. LITTLEPAGE

Verified by G. B. LITTLEPAGE

Instructions dated June, Oct. 1939, 19

Remarks: With the exception of depth curves, this sheet was processed at the Pensacola Processing Office.

U. S. GOVERNMENT PRINTING OFFICE

H6546

D E S C R I P T I V E R E P O R T

TO ACCOMPANY

SHEET NO. H-6546(1940)

This is one of a series of hydrographic sheets which were sent to this office for completion by the Pensacola Processing Office.

With the exception of the depth curves, this sheet was processed before its receipt at this office. Since no descriptive report was written by the field party or the Pensacola Processing Office, the following report is written in lieu of same.

LOCALITY:

This sheet comprises an area bounded on the north by Latitude 28° 15', on the south by Latitude 26° 15', on the east by Longitude 90° 25' and on the west by Longitude 91° 30'. This is an offshore sheet south of Terrebonne Bay in the Gulf of Mexico, off the coast of Louisiana.

DISCREPANCIES:

Soundings on F day beginning at positions 66F - 84F are doubtful (choppy sea and cloudy). Due to weather conditions and misses there seems to be a probability that the fathometer was not functioning properly. Rejected

Bad crossings between positions (20-21H) & (77-78F) 60 fathom discrepancy. Soundings on F day are doubtful and control on H day is very poor. Since H day was plotted by soundings which agree good at other crossings in that vicinity, it is assumed that the error is due to incorrect recording of soundings on F day. Lat. 27°43'.5, Long. 91°26'.0. F day rejected

25 fathom discrepancy between positions (36 & 37V) - (79 & 80F) 365 on 440 fathoms. Error seems to be incorrect recording of soundings on F day. Due to weather conditions there is a possibility that the fathometer was not functioning properly and the soundings on F day appear to be doubtful. Latitude 27° - 40', Longitude 91° - 26'. F day rejected

End of sounding lines on A' day does not check with tie at positions 50 & 51Z) - (53 & 54A'). Error probably due to incorrect recording of soundings in that area since both lines are fairly well controlled. Latitude 27° - 46', Longitude 91° - 05'.2. Z day replotted

10 fathom discrepancy between positions (1 & 2B') - (16 & 17N), 186 fathoms on 176 fathoms. It is believed that the error occurs on N day since this line is controlled by single arcs. Latitude 27° - 52' Longitude 91° - 11'. N day rejected

9 fathoms discrepancy between positions (13 & 14B') - (46-47H) 209 on 200 fathoms. Error seems to be due to incorrect recording of soundings on H day. The fathometer appears to have not been functioning correctly on H day in this area. Latitude 27° - 51', Longitude 91° - 17'.5.

COMPARISON WITH PREVIOUS SURVEYS:

H-5939: The present survey, in general, is in excellent agreement with H-5939. Attention, however, is called to the following discrepancies: (1935).

Sheet 5939(1935) Faths.	Sheet 6546 (1940) Faths.	Latitude	Longitude	
29	31	28° 05'.8	91° 01'.5	Accepted. Somewhat irregular bottom here
30	56	28 06.5	91 02.7	
68	81	27 ~~58.6~~ 59.5	91 26.8	

H-6184:(1936) This sheet is also in excellent agreement with the present survey. Superseded. See Rev., par. 4B

DANGERS:
No obstructions or dangers were found on this sheet.

CHANNELS:
No channels were developed on this sheet.

GEOGRAPHIC NAMES:
There are no new geographic names in the area covered by this sheet.

JUNDTION WITH CONTEMPORARY SURVEYS:
The present survey is joined on the east by H-6547 (1940) and on the west by H-6502.(1940) Since these sheets were not available, comparisons of junctions could not be made.

~~Several sounding lines from H-6548 make junction with the present survey around buoys "MAN" and "OAR" and are in good agreement.~~

Respectfully submitted,

Isadore M. Zeskind,
Associate Cartographic Eng'r.

Norfolk, Va.,
July 17, 1942.

Approved and forwarded:

H. C. Warwick,
Officer in Charge
Norfolk Processing Office.

H6546

LIST OF R.A.R. SURVEY BUOYS

to accompany

DESCRIPTIVE REPORT FOR HYDROGRAPHIC SHEET H-6546 (1940

The R. A. R. survey buoys controlling hydrography on Sheet H-6546 are listed below in the order in which their positions were plotted on the sheet. Under the name of each buoy is listed all available data fixing its position, with pertinent notes regarding plotting on the sheet.

1. VEX (1939) - Position transferred from Sheet H-6502. (1940)

2. USE (1939) - Position transferred from Sheet H-6502. (1940)

3. BIM (1939) - Position transferred from Sheet H-6502. (1940)

4. TAX (1939) - Located by comparing 1939 soundings obtained in vicinity of the buoy with soundings on Sheet H-5939(1935). This comparison fixes the buoy in a general north and south direction.

   Bomb distance VEX - TAX = 29.07 sec.(Mn. of 3). Vel.=1519 m/s. (10/19/39)

   Buoy plotted on bomb arc for control in east and west direction.

5. GIN (1940) - Located by comparing 1940 soundings obtained in vicinity of the buoy with soundings obtained in 1939 in vicinity of buoy TAX. This comparison gives a good location, and if the position of TAX is good as plotted, then the position of GIN is good.

6. EEL (1940) - Located from following data:-

   Sun azimuth GIN - EEL = 161°- 41' (4/13/40).
   Bomb distance GIN - EEL = 5.90 sec.(Mn. of 3). Vel.=1517 m/s. (4/13/40).

7. FIT (1940) - Located by comparing 1940 soundings taken in vicinity of the buoy with soundings obtained in 1939 in vicinity of buoy USE. If the 1939 position of USE is good, then this position of FIT is good.

8. HUP (1940) - Located from following data:-

   Bomb distance HUP - FIT = 18.47 sec.(Mn. of 3). Vel.=1485 m/s. (4/15/40).
   Bomb distance HUP - EEL = 40.02 sec.(Mn. of 8). Vel.=1494 m/s. (4/15/40).

9. HUP_2 (1940) - Located from following data:-

   Bomb distance HUP_2 - FIT = 18.76 sec.(Mn. of 4). Vel.=1485 m/s. (4/24/40).
   Bomb distance EEL - HUP_2 = 40.01 sec.(Mn. of 3). Vel.=1491 m/s. (4/25/40).
   Bomb distance EEL - HUP_2 = 40.16 sec.(Mn. of 5). Vel.=1491 m/s. (5/11/40).
   Bomb distance FIT - HUP_2 = 18.94 sec.(Mn. of 3). Vel.=1484 m/s. (5/16/40).

   The above bomb arcs were meaned to obtain plotted position.

LIST OF R. A. R. SURVEY BUOYS H6546

10. KIM (1940) - Located from the following data:-

Bomb distance KIM - FIT - 8.66 sec.(Mn of 3). Vel.-1500 m/s. (4/24/40).
Bomb distance KIM - HUP_2-18.00 sec.(Mn.of 2). Vel.-1490 m/s. (4/24/40).
Bomb distance KIM - HUP_2-18.18 sec.(Mn.of 2). Vel.-1491 m/s. (5/16/40).

Bomb arcs from HUP_2 were meaned to obtain final position.

11. IKE (1940) - Located by comparing 1940 soundings taken in the vicinity of the buoy with soundings on sheet H-6184. This comparison fixes IKE in a general north and south direction.

Bomb distance IKE - EEL - 30.44 sec.(Mn of 3).Vel.-1508 m/s (4/16/40).

Buoy plotted on bomb arc for control in east west direction.

12. OAR(1940) - Located from the following data:-

Sun azimuth OAR - Ike - 13° 50' (5/11/40).
Bomb distance IKE to Oar-6.18 sec.(Mn of 3). Vel. - 1500 m/s (5/11/40).

13. MAN (1940) Located from the following data:-

Sun azimuth MAN - Oar 333° 20' (5/16/40).
Sun azimuth MAN - IKE 359° 04' (5/16/40).
Bomb distance IKE-Man- 9.36 sec.(Mn of 5). Vel.-1496 m/s (5/9/40).
Bomb distance IKE-MAN- 9.50 sec.(Mn of 3). Vel.-1492 m/s (5/25/40).

Buoy plotted using sun azimuths and bomb arc from IKE obtained on 5/9/40. This gives an excellent position which the bomb arc from IKE obtained on 5/25/40 fails to check by 200 meters(long).The latter arc was disregarded.

14. PIP (1940) - Located from the following data:-

Bomb distance PIP-MAN - 14.83 sec.(Mn of 3). Vel.-1500 m/s(5/24/40).
Bomb distance IKE-PIP - 11.20 sec.(Mn of 2). Vel.-1507 m/s(5/25/40).

15. ROW(1940) - Located from the following data:-

Bomb distance ROW-PIP - 9.87 sec.(Mn of 3). Vel. -1511 m/s (5/25/40).
Bomb distance IKE-ROW - 8.45 sec.(Mn of 2). Vel. -1511 m/s (5/25/40).

16. NIG (1940) - Located from the following data:-

Bomb distance EEL-NIG - 9.74 sec.(Mn of 3). Vel. - 1498 m/s (5/11/40).
Bomb distance NIG-EEL -10.10 sec.(Mn of 3). Vel. - 1498 m/s (5/9/40).

Buoy plotted using mean arc from EEL obtained on 5/11/40 and arcs on 40D - 43D. The mean arc from EEL obtained on 5/9/40 fails to check this position by about 470 meters (long), and was disregarded. According to record the accepted bomb returns were good whereas those rejected were poor and fair only.

NOTE: Simultaneous bearings obtained from positions 8-9-10V checks location of buoy NIG as plotted.

H6546

LIST OF R.A.R. SURVEY BUOYS

17. YIP (1940) - Position transferred from Hydrographic Sheet H-6547. (1940)

Initial positions plotted by James C. Tison, Jr.
Positions checked and revised by E. C. Baum.
Revision checked by James C. Tison, Jr.

Data for plotting assembled by James C. Tison, Jr.
Data checked by A. J. Campagna.

H6546

STATISTICS

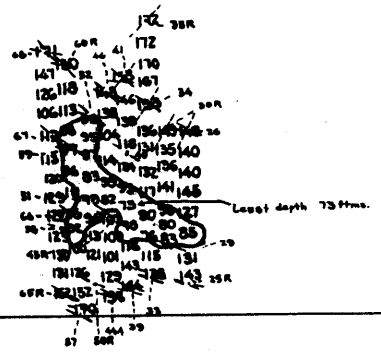
SHEET NO. H-6546

Date 1939		Day	Statute Miles	Soundings	Positions
Oct.	19	A	69.0	723	51
	20	B	41.4	409	21
	27	C	11.5	116	8
Nov.	3	D	34.5	368	16
1940					
Apr.	11	E	78.2	791	55
	13	F	112.8	1058	84
	14	G	144.8	996	56
	15	H	102.1	650	56
	16	J	76.6	669	50
	23	K	29.2	313	15
	24	L	99.5	841	60
	25	M	131.8	787	51
	26	N	148.9	1013	73
	27	P	172.0	972	57
	28	Q	24.2	270	20
	30	R	101.42	1323	109
May	1	S	128.2	1626	139
	8	T	130.4	1197	79
	9	U	121.1	973	64
	10	V	157.5	945	76
	11	W	131.5	1093	81
	12	X	163.3	850	53
	13	Y	160.8	828	69
	14	Z	152.3	1045	88
	15	A'	159.1	889	54
	16	B'	85.8	619	49
	23	C'	140.2	800	48
	24	D'	128.0	1377	118
	25	E'	119.8	1230	97
June	7	F'	25.7	135	13
	14	G'	10.4	61	6
	Total		3,192.02	24,967	1,816

91°-30′

91°-20′

KIM



27°-50′

27°-50′

H6546

OVERLAY
SHOWING HYDROGRAPHIC DEVELOPMENT
SOUTHWEST OF BUOY KIM
SCALE 1:120,000

HUP 2

27°-40′

27°-40′

91°-30′

91°-20′

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6546

Records accompanying survey:

Boat sheets one.; sounding vols. (11).; wire drag vols. ....;

bomb vols. ..(3).; graphic recorder rolls .....;

special reports, etc Cahier of R.A.R. and Dead Reckoning abstracts....

.....

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

Number of positions on sheet		1816.
Number of positions checked		Numerous } see rm report
Number of positions revised		"
Number of soundings recorded		24967
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions + Curves	Time	50 hrs
Verification of soundings from graphic record	Time	.....

Verification by S. Blatteyage. Total time 153 hrs Date 10/15/43

Review by Harold W. Murray ..... Time 41 hrs. Date 10/14/43

	Remarks	Decisions
1	For title	
2	" "	U.S.G.B.
3		
4		
5		
6		
7	Location of tide staff	
8	" " " "	
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GEOGRAPHIC NAMES
Survey No. H6546

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Gulf of Mexico										1
Terrebonne Bay										2
										3
										4
										5
										6
Port Eads										7
Fort Morgan										8
										9
										10
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										26
										27

Names underlined in red ap[illegible]
by L. Heck on 10/21/42

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~REGISTER OF~~

No. H H6546
~~No.~~

received July 28, 1942
registered August 6, 1942
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	R. W. Knox

√Rank

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 8, 1942.

~~Division of Hydrography and Topography~~:

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 6546

Locality South of Terrebonne Bay, Gulf of Mexico

Chief of Party: G. C. Mattison in 1939-40
Plane of reference is mean low water reading
5.3 ft. on tide staff at Port Eads
3.6 ft. below B. M. 1
2.4 ft. on tide staff at Fort Morgan
5.4 ft. below B. M. 1

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

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY — REGISTRY NO. 6546

Field No. 123

Louisiana, Gulf of Mexico, South of Terrebonne Bay
Surveyed October - November 1939; April - June 1940
Scale 1:120,000
Instructions dated June 24 and October 13, 1939
Project H. T. 236

Soundings:	Control:
Dorsey and 312 Fathometers	R.A.R. Dead-reckoning

Chief of Party - G. C. Mattison
Surveyed by - Ship's Officers
Protracted by - A. J. Campagna
Soundings plotted by - A. J. Campagna
Verified and inked by - G. B. Littlepage
Reviewed by - Harold W. Murray
Inspected by - H. R. Edmonston, October 19, 1943

1. Control

This offshore survey is controlled by R.A.R. and dead-reckoning. Additional details on buoy locations are given in the Descriptive Report, pages 3-5.

2. Sounding Line Crossings

General agreement of sounding line crossings is satisfactory. Several discrepancies listed in the Descriptive Report were mainly attributed to faulty fathometer operation and could not be reconciled. These were smoothed out by omitting portions of the conflicting sounding lines.

3. Depth Curves

Considerable irregularity in bottom exists throughout the area of the present survey. The survey has therefore been contoured with 25-fm. intervals by the verifier to facilitate a better determination of the 100-fm. contours. The resulting delineation is satisfactory.

4. Junctions with Surveys

a. The junctions on the east with H-6547 (1940) and on the north and northwest with H-5939 (1935) are satisfactory.

b. The present survey overlaps about 14 miles of H-6184 (1936) on the northeast. Good agreement exists in many spots but since disagreements of 1 to 15 fathoms are noted, particularly outside the 100-fm. curve (mostly 312 Fathometer work), it was considered expedient to entirely supersede the 1936 work in the common area. An appropriate note has accordingly been placed on the 1936 sheet.

c. The junction on the west with H-6502 (1940) will be considered when that survey has been verified.

5. Comparison with Prior Surveys

H-1350 (1875-77), H-1351a and b (1875-77) and H-5303c (1933), Scales 1:400,000 to 1:1,000,000

The above reconnaissance surveys are controlled by star fixes and dead-reckoning. The surveys contain no information that merits specific consideration in this review except that the following soundings are still retained on the chart (chart 1116 dated 5-14-43):

(1)	153 fathoms	Lat.	27°50.6'	Long 91°25.0'
(2)	189 "		27°51.6'	91°21.0'
(3)	161 "		27°51.6'	91°16.3'
(4)	253 "		27°51.0'	90°48.0'
(5)	329 "		27°50.8'	90°43.1'
(6)	335 "		27°53.5'	90°27.0'
(7)	455 "		27°50.2'	90°26.5'
(8)	455 "		27°47.8'	90°30.0'
(9)	608 "		27°27.6'	90°57.5'
(10)	711 "		27°19.5'	90°59.4'
(11)	923 "		27°11.4'	91°13.5'
(12)	1123 "		27°11.6'	91°21.6'

Many of the above soundings, such as the 253 fathoms (No. 4), appear to be slightly shoaler. Inasmuch as the present survey shows similar depths close by, the old survey soundings are evidently slightly out of position. The present basic survey is adequate to supersede the above surveys. All bottom characteristics, however, should be retained where needed.

6. Comparison with Chart 1116 (New Print date May 14, 1943)

a. Charted hydrography originates with surveys discussed in the foregoing paragraphs, from miscellaneous sources and from the present survey prior to verification and review. Changes deemed necessary in the verification which include lesser depths on shoals, rejections or replottings of portions of lines, as well as a superseding of a portion of H-6184 (1936), render it advisable to recompile the chart northward of the 27°50' parallel. Southward of this parallel the following soundings have been rejected on the present survey and should accordingly be expunged from the chart.

(1)	460	fathoms	Lat.	27°44.6'	Long.	91°25.8'
(2)	310	"		27°41.4'		91°25.8'
(3)	650	"		27°36.3'		91°25.8'

Considerable changes in delineations of depth curves have also been made.

b. 26-fathoms, Lat. 28°02', Long. 90°58'

This shoal was reported by the Fishing Schooner FORTUNA in Chart Letter 6 of 1916 and is described as being about 1 mile wide with a coral bottom. It falls in depths of 76 fathoms on the present survey. The development here is sufficiently intensive to reveal any such shoal in this position if it should really exist. This report may therefore be disregarded. It should be noted, however, that the present survey shows a large shoal 5 miles northwestward which has two detached flat-topped areas, the largest of which is about 1 mile in diameter with a least depth of 29 fathoms. This is probably the shoal referred to in the report.

c. 32-fathoms, Lat. 28°04', Long. 91°05.4'

This shoal was reported in Chart Letter 160 of 1911 by Captain L. A. Smith of the Gulf Fisheries Company. No description of the shoal is given except that the position is considered approximate. Inasmuch as the 32 falls in reasonably well-developed depths of 59 to 66 fathoms and is 3 miles southwest of the large shoal discussed in the preceding paragraph, the 32 is probably another slightly incorrect reporting of the same and may be disregarded.

d. 30-fathoms, Lat. 28°10', Long. 90°35'

This shoal (removed from chart) originates with Chart Letter 160 of 1911 mentioned in the preceding paragraph and is unaccompanied by any description. It falls between two lines on the present survey spaced 1-1/2 miles apart but is only 1/3 mile west of one line which shows a depth of about 52 fathoms. This line spacing is not necessarily conclusive but in view of the proximity to the one line, the perfectly smooth bottom indicated, and the realization that the reported position was not intended to be an accurate one, it would appear that the 30 may be anywhere in a large radius and most probably not in the position given. Its removal from the chart is concurred in.

7. Condition of Survey

Satisfactory.

8. Compliance with Project Instructions

Satisfactory.

9. Additional Field Work Recommended

This is an excellent survey and no additional work is necessary.

10. Superseded Surveys

H-1350	(1875-77)	in part
H-1351a	" "	" "
H-1351b	" "	" "
H-5303c	(1933)	" "

Examined and approved:

Chief, Surveys Branch

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys

applied to chart 1116 before verification and review.
January 30, 1943. L.A.M.
applied to chart 1116 after verfication and review 4/19/44 L.A.M.