



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. 44

REGISTER NO. H-6553

State LOUISIANA

General locality GULF OF MEXICO

Locality SOUTH OF MISSISSIPPI RIVER DELTA

Scale 1:40,000 Date of survey October 1939  
April 1940

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

Chief of Party G. C. MATTISON  
E. R. McCarthy, P. L. Bernstein, E. C. Baum,  
Surveyed by E. B. Lewey, G. C. Mast and J. C. Tribble.

Protracted by L. S. Roberson

Soundings penciled by L. S. Roberson

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by Lewey King Aug 19, 1943

Verified by

Instructions dated June 24, 1939

Supplemental Instructions dated July 1, 1939 & October 13, 1939.

Remarks:

*K.W.W 3/22/43*

H6553

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEET H-6553.

GULF OF MEXICO - SOUTH OF MISSISSIPPI RIVER DELTA

PROJECT HT 236

U.S.C.& G.S.S. HYDROGRAPHER ---- G. C. Mattison, Commanding

SEASON 1940.

INSTRUCTIONS:

This survey was executed in accordance with The Director's Instructions for Project H.T.-236, dated June 24, 1939, and supplemental instructions dated July 1, 1939 and October 13, 1939.

CONTROL:

Triangulation stations located in previous years along the lower Mississippi River Delta, and topographic stations located by means of contemporary topographic surveys furnished control for this survey. These were supplemented by two shore hydrographic stations, VIL and LEFT, and by two offshore survey buoys, DOC and VET.

There is no record in sounding volumes for this sheet as to how hydrographic station VIL was located, and it is assumed that the position was transferred either from Sheet ~~H-6513~~ <sup>(1939)</sup> or H-6492, which covers the area between this sheet and the shoreline.

Hydrographic station LEFT <sup>and Oil 2</sup> was located on this sheet by means of intersecting outs; two taken from shore stations and several taken from offshore positions by means of sextant angles.

Both buoys DOC and VET were located by means of three point sextant fixes on shore stations.

Buoy ELM also located.

SURVEY METHODS:

Standard hydrographic surveying methods were used throughout. Positions were determined by three point sextant fixes on shore stations, except for "G" day, during which positions are largely from single bomb arcs and gyro compass bearings to sono buoy DOC.

All soundings were taken with type III Dorsey Fathometer No. 34, which is installed on the Ship HYDROGRAPHER.

FATHOMETER CORRECTIONS:

A separate report has been prepared on fathometer corrections for the 1940 field season.

Two corrections were entered in the sounding volumes; the first for temperature and salinity combined, where such correction amounted to more than 1% of the depth; and the second for index, draft, and settlement combined. All corrections were entered in tenths of feet.

DANGERS:

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

CHANNELS:

No channels are located in the area surveyed on this sheet.

ANCHORAGES:

No anchorages exist in the area covered by this survey.

DISCREPANCIES:

No discrepancies were noted in the location of signals.

Considering the very uneven character of the bottom on this

sheet, crossings of sounding lines are in general excellent. Differences in soundings of from 1 to 3 feet at crossings were considered good.

The following discrepancies of more than 3 feet were noted:

(1) At Lat.  $28^{\circ}-54.4'$  and Long.  $89^{\circ}-20.4'$ , the cross line 69-70 "F" shows a 5 foot discrepancy where it crosses the line from 148-149 "E". The sounding at Position 148 $\epsilon$ +1 appears to be about 5 feet too deep and it is recommended that soundings between 69-70 "F" be used for charting purposes.

*Irregular  
bottom - slight  
displacement  
account for  
discrepancy*

(2) At Lat.  $28^{\circ}-55.1'$  and Long  $89^{\circ}-17.5'$ , the sounding of 139 feet on Position 116 "E" and that of 138 feet 1/2 minute before this position appear to be about 2 fathoms shoal when compared with soundings on the cross line 73-75 "F". Soundings were missed before and after these recorded depths, and although no mention is made in the record concerning fathometer trouble, it is obvious that the recorder was experiencing difficulty in reading correct soundings at this point. In view of this uncertainty, rejection of the 139 and 138 foot soundings is recommended.

*sigs were omitted*

(3) At Lat.  $28^{\circ}-54.8'$  and Long.  $89^{\circ}-14.3'$ , a 4 foot discrepancy in depths exists at the crossing of the line 17-13 "A" with Position No. 79 "F". The bottom slopes rapidly here, and soundings are probably correct as plotted. Charting of the shoaler depth of 173 feet on Position No. 79 "F" is recommended.

(4) At Lat.  $28^{\circ}-57.9'$  and Long.  $89^{\circ}-05.8'$ , a 134 foot sounding between Positions 66 and 67 "J" falls very near a 148 foot sounding between Positions 10 and 11 "C". The rapidly sloping bottom indicates that both soundings are probably correct as plotted.

(5) At Lat.  $29^{\circ}-00.0'$  and Long  $89^{\circ}-03.9'$ , a 128 foot sounding between Positions 103 and 104 "D" plots just to the south of a 134 foot sounding on Position 22 "D". The discrepancy occurs on a steep slope and is probably due to a slight misplacement in position of soundings. The shoaler sounding is recommended for charting.

(6) At Lat.  $28^{\circ}-57.5'$  and Long.  $89^{\circ}-09.8'$ , a 73 foot sounding on Position 88 "J" plots on an 80 foot sounding on Position 195 "D". The discrepancy occurs on a very steep slope and both soundings are probably correct as plotted.

JUNCTIONS WITH CONTEMPORARY SURVEYS:

1. North of Latitude  $29^{\circ}-07.6'$  and east of Longitude  $88^{\circ}56.3'$  this sheet joins Hydrographic Sheet H-6551 (1940), Scale 1:40,000. The juncture occurs in an area of rapidly changing depths, with soundings on Sheet H-6551 being generally slightly shoaler than those on this sheet. The junction is satisfactory except for the following:

At Lat.  $29^{\circ}-07.3'$  and Long.  $88^{\circ}-54.4'$ , in general depths of about 185 feet, several soundings on Sheet H-6551 are from 6 to 9 feet shoaler than those on this sheet.

At Lat.  $29^{\circ}-07.6'$  and Long.  $88^{\circ}-56.5'$ , a 133 foot sounding from this sheet falls on a 120 foot sounding from Sheet H-6551.

At Lat.  $29^{\circ}-09.4'$  and Long.  $88^{\circ}-53.8'$ , a 185 foot sounding from this sheet falls on a 177 foot sounding from Sheet H-6551.

At Lat.  $29^{\circ}-09.7'$  and Long.  $88^{\circ}-53.5'$ , a 202 foot sounding from this sheet falls between 193 feet and 183 feet soundings from Sheet H-6551.

in each case the conflict occurs on an irregular bottom where a slight shift in the line would bring agreement.  
~~at~~ Change from shore signal to buoy signal may account for discrepancy.

No explanation is apparent for the above discrepancies and charting of the shoaler depths is recommended in each case.

2. On the north, between Long.  $88^{\circ}56.6'$  and Long.  $88^{\circ}59.0'$ , this sheet joins Hydrographic Sheet H-6637 (1940), Scale 1:20,000. Soundings on Sheet H-6637 were taken with the hand lead and are generally about 4 feet deeper than fathometer soundings on this sheet. The sheets join in an area of very irregular bottom, and noted below are discrepancies of more than 4 feet, for which no explanation is apparent:

*Difference in method of sdg. - hand lead vs fathometer probably caused part of discrepancy*

At Lat.  $29^{\circ}07.75'$ , Long  $88^{\circ}57.7'$ , soundings on this sheet are 13 feet shoaler than those on H-6637.

*irregular bottom. Shoaler sdgs plotted.*

At Lat.  $29^{\circ}07.70'$ , Long  $88^{\circ}58.1'$ , soundings on this sheet are 12 feet shoaler than those on H-6637.

3. On the north, between Long.  $88^{\circ}58.8'$  and Long  $89^{\circ}11.6'$ , this sheet joins Hydrographic Sheet H-6513 (PARIS). A detailed copy or tracing of Sheet 6513 was not available for making a comparison, so soundings from that sheet which had been transferred to the boat sheet for H-6553 and shown thereon in red ink, were used instead. Where soundings overlap, those from H-6513 are consistently from 2 feet to 5 feet deeper than soundings on this sheet, except as follows:

At Lat.  $28^{\circ}58.7'$ , Long  $89^{\circ}06.8'$ , 52 and 5<sup>2</sup> foot soundings from Sheet 6513 appear to be too shoal by about 10 and 23 feet, respectively, when compared with adjacent soundings from this sheet.

*irregular bottom  
52' sdg ok.  
53' sdg probably erroneous since it conflicts with crossline of own survey. Present depths accepted.*

At Lat.  $28^{\circ}-58.3'$ , Long  $89^{\circ}-07.1'$ , a <sup>4</sup> ~~5~~ <sup>H.L.</sup> foot sounding from *H.L. sdgs probably in error. Present depths accepted.*  
 Sheet H-6513 falls on a 65 foot sounding from this sheet.

At Lat.  $28^{\circ}-58.4'$  and Long  $89^{\circ}-06.85'$ , a <sup>6</sup> ~~5~~ <sup>H.L.</sup> foot sounding *H.L. sdg probably in error. Present depths accepted*  
 from Sheet H-6513 appears to be about 25 feet too shoal when compared with adjacent depths from this sheet.

No explanation can be offered for the above large discrepancies, although use of a detailed and authentic copy of sheet H-6513 in making the comparison may correct same. *These sdgs fall on an irregular bottom and are unimportant with respect to charting.*

4. On the north, between Long.  $89^{\circ}-11.5'$  and Long.  $89^{\circ}-15.5'$ , this sheet joins Hydrographic Sheet H-6492 <sup>(1939)</sup> (FARIS). A detailed copy or tracing of H-6492 was not available for making a comparison, so soundings from that sheet which had been transferred to the boat sheet for H-6553 and shown thereon in red ink, were used instead. There is no overlapping of soundings along the juncture, but adjacent soundings indicate that a satisfactory junction was accomplished.

5. On the south, west of Long.  $88^{\circ}-54.0'$ , this sheet joins Hydrographic Sheet H-6549 (1940), Scale, 1:80,000. This junction will be discussed in the descriptive report for Sheet H-6549. *Discrepancies disposed in D.R. of H-6549*

#### JUNCTIONS WITH PREVIOUS SURVEYS:

1. On the north, between Long.  $89^{\circ}-15.6'$  and Long.  $89^{\circ}-24.0'$ , this sheet joins Hydrographic Sheet H-6174 (1936), Scale 1:20,000.



Soundings are in excellent agreement along the junction and no discrepancies were noted.

2. On the north, between Long.  $89^{\circ}26.2'$  and Long.  $89^{\circ}28.4'$ , this sheet joins Hydrographic Sheet H-6157 (1936), Scale 1:40,000. There is no overlapping of soundings along the juncture, but adjacent soundings indicate that a satisfactory junction was accomplished.

3. On the west, along Long.  $89^{\circ}29.58'$ , this sheet joins Hydrographic Sheet H-6185 (1935)<sup>6</sup>, Scale 1:80,000. The easterly sounding line on H-6185 crosses lines on this sheet, and soundings thereon are consistently from 8 to 16 feet deeper than those on this sheet. No explanation can be offered for this discrepancy unless the line on H-6185 is poorly controlled. *Discrepancy probably due to change in bottom. No junction made.*

COMPARISON WITH SHEET H-4175:

West of Long.  $89^{\circ}15.0'$ , Sheet 6553 supercedes a large portion of Sheet H-4175, surveyed in 1921-1922 on Scale 1:40,000. The present survey indicates marked shoaling as having taken place in the area common to both sheets, particularly off the entrance to Southwest Pass. H-4175 is the only survey available for an inshore junction with the present survey off Southwest Pass, and such junction is not satisfactory. *holiday remains in this vicinity*

At Lat.  $28^{\circ}54.1'$ , Long  $89^{\circ}21.8'$ , a 60 foot sounding from Sheet H-4175 was not verified on the present survey, and its deletion from charts is recommended. *Disposed of on H-6174*

GEOGRAPHIC NAMES:

No new Geographic Names appear on the sheet.

NOTE REGARDING SMOOTH PLOTTING:

This sheet was protracted and soundings plotted by L. S. Roberson, Draftsman. During the investigation of poor crossings which existed on the supposedly completed smooth sheet, numerous errors in plotting were discovered and corrected. It was quite evident that certain portions of lines had been carelessly protracted, without regard for notes in the record books, recorded courses, or for obviously misplaced soundings. Evidently no attempt was made in such instances to refer to the Boat Sheet.

The smooth sheet has been carefully compared with the boat sheet before forwarding, and it is believed that such errors have been corrected.

STATISTICS:

Statute miles of sounding line	648.1
Number of positions	944
Number of soundings	9424
Area in square statute miles	165

Respectfully submitted,

*James C. Tison, Jr.*  
 James C. Tison, Jr.,  
 Jr. H. & G. Engineer,  
 U.S. Coast & Geodetic Survey.

FORWARDED:

*W. M. Seale*  
~~W. M. Seale,~~  
 Commanding HYDROGRAPHER.

LIST OF SIGNALS

To Accompany

HYDROGRAPHIC SHEET H-6553

Triangulation Stations:

<u>Name</u>	<u>Hydrographic Name</u>
East Jetty L. H. 1904	East
Forks, 1922	Forks
N. E. Pass Lt., 1858	N.E.
Pass a Loutre L. H., 1904	Lou
Picayune Bayou Lt., 1921	Pic
Port Eads Pilot Tower, 1921	Lot
South Pass Lt. (Rear), 1904	South
Southwest Pass L. H., 1904	Pass

Topographic Stations:

<u>Name</u>	<u>Hydrographic Name</u>	<u>Sheet</u>
Double Bayou Lt. 1936	Dou	<del>T-5403</del>
Eads	Eads	T-6723a (1939)
Edge	Edge	T-6723a
High	High	T-6723a
Lak	Lak	T-6723b
Light "7"	Sev	T-5403 (1932)
Light "11"	Eve	T-5403
Light "2"	Two	<del>T-5404</del> (1932)
Mud	Mud	T-6723a
Nut	Nut	T-6723b
Oil	Oil	T-6723a

LIST OF SIGNALS

Topographic Stations: (continued)

<u>Name</u>	<u>Hydrographic Name</u>	<u>Sheet</u>
<del>Oil 2</del>	<del>Oil 2</del>	<del>T-6723a</del>
Oysterville Lt.	Oy	T-5407 (1932)
Flat	Flat	T-6723a
Range	Range	T-6723a
Tuf	Tuf	T-6723a
S.W.Pass East Jetty End Lt.	Jet	T-6796 (1940)
S.W.Pass Ent. W.Jetty, F.R. (1940)	F.R.	T-6796
S.W.Pass Ent. W.Jetty, R.R. (1940)	R.R.	T-6796
S.W.Pass Inner R.R. (1940)	Inn	T-6796

Hydrographic Stations:

~~Oil~~  
 Left (See Index Vol. #1 and Vol. #2 for method of location).  
 (1939)  
 Vil (Probably transferred from Sheet ~~H-6513~~ or H-6492; location not given in sounding volumes for Sheet H-6553).

Buoys:

Doc (See Vol. #3, page 49 for location).  
 Vet (See Vol. #4, Index, for location).

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H.6553**

Records accompanying survey:

Boat sheets <sup>one</sup>....; sounding vols. <sup>(5)</sup>....; wire drag vols. ....;  
 bomb vols. <sup>(1)</sup>....; graphic recorder rolls .....;  
 special reports, etc. ....  
 .....

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

Number of positions on sheet	.944.
Number of positions checked	.51..
Number of positions revised	.10..
Number of soundings recorded	9424
Number of soundings revised (refers to depth only)	9
Number of soundings erroneously spaced	.23..
Number of signals erroneously plotted or transferred	.0..
Topographic details	Time .....
Junctions	Time .34 hrs.
Verification of soundings from graphic record	Time .....

Verification by *Leay King*..... Total time 140  $\frac{1}{2}$  hrs Date *Aug 19, 1943*

Review by *R.A. Carstens*..... Time 36 hrs Date *Aug 27, 1943*

Remarks.

Decisions

	Remarks.	Decisions
1		
2		
3		
4		
5	Location of tide staff.	
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
234		

GEOGRAPHIC NAMES  
 Survey No. **H6553**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Gulf of Mexico</u>											1
<u>Mississippi River Delta</u>											2
											3
											4
<u>Port Eads, La.</u>											5
											6
											7
											8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved  
 by L. Heck on 6/18/42

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

No. H **H6553**  
~~No. T~~

received Oct. 10, 1941  
 registered Oct. 13, 1941  
 verified *Aug. 19, 1943*  
 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
----	------------

*RWK*



RAC  
HLL

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 22, 1941.

~~Division of Hydrography and Topography:-~~

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

Plane of reference approved in  
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6553

Locality South of Mississippi Delta, Gulf of Mexico

Chief of Party: G. C. Mattison in 1939-1940  
Plane of reference is mean low water reading  
5.3 ft. on tide staff at Port Eads  
3.6 ft. below B. M. 1

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

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6553

Field No. 44

Louisiana, Gulf of Mexico, South of Mississippi River Delta  
Surveyed October 1939 - April 1940; Scale 1:40,000  
Instructions dated June 24, July 1, and October 13, 1939

Soundings:

Dorsey Fathometer

Control:

Three-point fix on shore signals  
R.A.R.

Chief of Party - G. C. Mattison  
Surveyed by - Ship's Officers  
Protracted by - L. S. Roberson  
Soundings plotted by - L. S. Roberson  
Verified and inked by - L. King  
Reviewed by - R. H. Carstens  
Inspected by - H. R. Edmonston, August 27, 1943

1. Shoreline and Signals

No shoreline is shown on this offshore survey. The signals originate with T-5403, T-5404 and T-5407 of 1932, T-6723 (1939), and T-6796 (1940). Several survey buoys and hydrographic signals were located by sextant fixes which are recorded in the sounding volumes of the present survey and H-6492 (1939).

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory.

4. Junctions with Contemporary Surveys

Satisfactory junctions were effected with H-6157 (1936), H-6174 (1936), H-6492 (1939) and H-6513 (1939) on the north; H-6551 (1940) on the northeast, and H-6549 (1940) on the south. In the junctions with the handlead surveys to the north, particularly with H-6513, present fathometer

depths are 2-4 feet shoaler in some places, but no difficulty should arise in charting the curves or depths. In the area overlapped by H-6185 (1936) on the west there are differences in depth of as much as 15 feet, which are probably caused by a change in the bottom. No junction with this survey is shown. The junction with H-6637 (1940) on the northeast will be considered in the review of that survey.

A small holiday remains off the mouth of Southwest Pass between the limits of the present survey, H-6157 and H-6174.

#### 5. Comparison with Prior Surveys

a.	H- 483 (1854-55)	1:1,200,000
	H- 599 (1857-58)	1:1,200,000
	H-1116 (1871)	1: 40,000
	H-1152 (1872)	1: 40,000
	H-1251 (1875)	1: 20,000
	H-1351 (1875-77)	1: 400,000
	H-1956 (1874-75)	1: 40,000

In this group of sparsely developed and reconnaissance surveys there are differences of as much as 70-100 feet with depths of the present survey. Deposition of sediment has occurred off the mouths of the various passes and in these localities the 20-fm. curve has advanced offshore as much as 2 miles. The present survey should supersede these earlier surveys within the common area.

b.	H-2888 (1917)	1:60,000
	H-2888a (1917)	1:40,000
	H-3908 (1916-17)	1:40,000
	H-4175 (1921-22)	1:40,000

Shoaling, particularly off the mouths of the passes, has extended considerably since these prior surveys were accomplished. In these places there are differences in depth of as much as 39 feet as, for example, in Lat.  $29^{\circ}51.7'$ , Long.  $89^{\circ}28.1'$  where prior depths of 174 feet from H-4175 fall on present depths of 135 feet. Off the mouth of Southwest Pass the 20-fm. curve has advanced offshore about one mile. Between the passes agreement in depth is fair, generally being less than 10 feet. The 54-ft. sounding (chart 1272)

in Lat. 28°57.5', Long. 89°11.2' from H-2888 was not investigated on the present survey and has been carried forward. Because of the changes which have taken place in the bottom, the present survey, together with the retained sounding, should supersede these surveys within the common area.

6. Comparison with Chart 1272 (Latest print date 1-14-43)

a. Hydrography

The charted hydrography within the limits of the present survey originates with the previously discussed surveys which need no further consideration.

b. Aids to Navigation

No floating aids to navigation were located on the present survey. The survey positions of fixed aids to navigation are in satisfactory agreement with the charted positions.

7. Condition of Survey

Satisfactory, except <sup>that</sup> the soundings penciled on the smooth sheet were not always properly selected with respect to depth, and in only a few cases were the proper notations regarding the latitude and longitude of the beginning of lines entered in the sounding records.

8. Compliance with Instructions for the Project

The present survey complies with the instructions for the project except that a satisfactory junction was not made with H-6185 (1936) on the west and the sea buoys off the entrance to the passes were not located.

9. Additional Field Work Recommended


Attention is called to the holiday off the entrance to Southwest Pass.

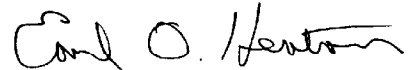
10. Superseded Surveys


H- 483 (1854-55)	in part	H-1956 (1874-75)	in part
H- 599 (1857-58)	" "	H-2888 (1917)	" "
H-1116 (1871)	" "	H-2888a(1917)	" "
H-1152 (1872)	" "	H-3908 (1916-17)	" "
H-1251 (1875)	" "	H-4175 (1921-22)	" "
H-1351 (1875-77)	" "		

Examined and approved:

  
Chief, Surveys Branch

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of  
Coastal Surveys

Applied to chart	1272.	Feb. 4, 1944.	L.A.M. (after review)
"	"	" 1116	April 29, 1944 L.A.M. " "
"	"	" 1115	May 1, 1944) L.A.M. " "
Applied to new chart	11366	10-30-91	John Pierce