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Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. H-6636
Hydrographic }

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
SEP 2 1941
Acc. No.

State Florida

LOCALITY

Gulf of Mexico

Off. Santa Rosa Island

1934

CHIEF OF PARTY

G. C. Mattison

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
H6636

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. 23

REGISTER NO. H-6636

State Florida

General locality ~~Florida Coast~~ Gulf of Mexico

Locality Off Santa Rosa Island

Scale 1,20,000 Date of survey April-May, 19 40

Vessel Launch FARIS

Chief of Party G. C. Mattison

Surveyed by E. B. Lewey

Protracted by Charles W. Clark

Soundings penciled by Charles W. Clark

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by J. A. McCormick

Verified by do

Instructions dated June 24, 19 39

Remarks:

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEETS H-6634, H-6635, and H-6636

U. S. C. & G. S. S. HYDROGRAPHER — Launch PARIS

Project HT-236

Season 1940

INSTRUCTIONS:

These surveys were executed in accordance with Directors Instructions for Project HT-236. Instructions dated June 24, 1939. Supplemental instructions dated July 1, 1939, Oct. 13, 1939, and ~~Jan. 31, 1940.~~

SURVEY METHODS:

Standard survey methods were used throughout. Positions were determined by 3-point sextant fixes on shore signals located by triangulation and Topography. All soundings were obtained with the hand lead.

DISCREPANCIES:

Crossings are in general ^{within} from 0 to 2 feet, with occasional 3 foot crossings which are not considered unreasonable because of the method of sounding employed, the character of bottom, and the fact that sounding was done at times in moderate swells. Larger discrepancies are as follows:

SHEET H-6634

Lat. 30°-14.0', Long. 87°-30.4'----- 4 feet

No explanation of this discrepancy is apparent. The soundings on the cross line (Pos. 112-114 r day) appear to be correct. It is recommended that the shoaler sounding be used.

No discrepancies were found in the location of signals on any of the three sheets.

DANGERS:

The only possible dangers found on any of the sheets are the 33 to 36 foot soundings around Pensacola Bay Entrance Buoy No. 1A, Lat. $30^{\circ}-16.5'$, Long. $87^{\circ}-17.6'$, on sheet H-6635, and the previously charted bar extending offshore at Long. $87^{\circ}-50'$ on sheet H-6634.

The least depth on shoal at Lat $30^{\circ}-16'$, Long. $87^{\circ}14'$ is 56 feet on Pos. 89 N N day (sheet H-6635).

CHANNELS:

There are no channels within the area. Caucus Channel (Pensacola Bay Entrance) lies entirely in the area covered by sheet H-6633. Buoy No. 1A, mentioned in the above paragraph, is at the outer entrance to this channel.

ANCHORAGES:

There are no sheltered anchorages in the area covered by these sheets. Ships may anchor according to draft anywhere in the area.

COMPARISON WITH PREVIOUS SURVEYS: Rev. par. 5.

Sheet H-4139 includes the entire area covered by these three sheets and extends offshore from south edge of sheets. Widely spaced lines on sheet 4139 do not define depth curves well enough to make an accurate comparison. Soundings indicate a general shoaling of from 1 to 3 feet over entire area. Greater discrepancies are as follows:

Sheet H-6634

Lat. $30^{\circ}-14.6'$, Long. $87^{\circ}-29.75'$. A 38 foot sounding between two

SHEET H-6634 (continued)

48-foot soundings from sheet 4139.

Lat. $30^{\circ}15.5'$, Long. $87^{\circ}28.9'$. A 38 foot sounding from sheet 4139 inside the 5-fathom curve.

Lat. $30^{\circ}14.8'$, Long. $87^{\circ}24.5'$. A 38 and a 39 foot sounding from sheet 4139 do not check 43 and 44 foot soundings on either side on this sheet. Depth curves indicate these shoaler depths may still exist.

SHEET H-6635

Lat. $30^{\circ}17.75'$, Long. $87^{\circ}11.55'$. A 49 foot sounding from sheet 4139 is 3 to 6 feet shoaler than surrounding soundings on sheet H-6635.

Soundings on sheet 4139 along inshore edge of sheet between Long. $87^{\circ}15'$ and east edge of sheet, such as 8 ft. at Lat. $30^{\circ}18.95'$, Long. $87^{\circ}13.4'$; 11 ft. at Lat. $30^{\circ}19.1'$, Long. $87^{\circ}11.95'$; 11 ft. at Lat. $30^{\circ}19.2'$, Long. $87^{\circ}11.25'$; and 15 ft. at Lat. $30^{\circ}19.3'$, Long. $87^{\circ}10.65'$, are from 2 to 5 feet shoaler than surrounding soundings from sheet 6635 and indicate a considerable change in the bar.

The 17 foot sounding on sheet 4139 at Lat. $30^{\circ}18.05'$, Long. $87^{\circ}19.1'$, and transferred to sheet 5730, could not be verified, and it is recommended that it be deleted from charts. See Sheet H-6636 for further development in this area.

SHEET H-6636

There is no indication of shoal with least depth of 56 feet at Lat. $30^{\circ}17.5'$, Long. $87^{\circ}09.5'$ as shown on sheet 4139. All depths in vicinity are from 10 to 15 feet deeper on sheet H-6636. ✓

There is no indication of 65 foot sounding questioned on sheet 4139 at Lat. $30^{\circ}17.85'$, Long. $87^{\circ}08.0'$. Surrounding depths are from 4 to 10 feet deeper on sheet H-6636. ✓

SHEET H-6636 (continued)

There is no indication of 56 foot sounding at Lat. $30^{\circ}-18.15'$,
Long. $87^{\circ}-06.6'$. Surrounding depths are from 4 to 7 feet deeper on sheet
H-6636.

There is no indication of 61 foot sounding at Lat. $30^{\circ}-19.6'$,
Long. $87^{\circ}-05.6'$. Surrounding depths are 8 to 14 feet shoaler on sheet
H-6636.

The greatest discrepancy between surveys is at the southeast
corner of this sheet (H-6636). The soundings on sheet 4139 on the line
along Long. $87^{\circ}-00'$, between Lat. $30^{\circ}-18'$ and Lat. $30^{\circ}-19'$, are from 1 to 17
feet shoaler than on this sheet. Soundings on 4139 north of Lat. $30^{\circ}-19'$,
and on the next line east of Long. $87^{\circ}-00'$, are from 4 to 10 feet deeper
than on this sheet.

Soundings on this sheet agree closely with those on sheet
H-4604, which overlaps the area, and this fact seems to indicate either a
considerable change in the bottom, or erroneous soundings on sheet 4139.

Because of the changeable bottom, and closer development on this
survey, (Sheets H-6634, H-6635, and H-6636), it is recommended that this
survey supercede sheet H-4139 in the entire area covered.

At the junction of adjoining sheets on this survey the lines
are continuous, with one sounding common to each of two sheets, therefore
there should be no discrepancies between sheets.

Sheets H-6633 covering the gap in the center of sheet H-6635
is part of this same survey. Sheet H-6633 was not plotted at the time of
writing this report so no comparison was made.

Sheet H-6634 joins sheet H-4023a at its west end. Soundings
and depth curves check in general, although widely spaced lines on sheet
4023a do not define depth curves well enough to make an accurate comparison.

Individual soundings check within 2 feet.

These surveys join sheet H-5730 along inshore side west of Pensacola Bay Entrance. Soundings and depth curves check satisfactorily.

Sheet H-6636 joins sheet H-5033 north of Lat $30^{\circ}20'.9''$ at east end. Soundings and depth curves check satisfactorily.

Sheet H-6636 joins sheet H-4604 at east end. There are various differences in soundings of from 1 to 3 feet. Depth curves agree fairly well. Minor differences are apparently due to greater number of soundings on this sheet.

GEOGRAPHIC NAMES:

No new names were used on these sheets.

STATISTICS:

SHEET H-6634

Number of positions-----	1574
Number of soundings -----	8856
Statute miles of sounding lines -----	458.9
Area covered, square statute miles-----	38.5

SHEET H-6635

Number of positions-----	2235
Number of soundings-----	10461
Statute miles of sounding lines-----	543.6
Area covered, square statute miles-----	37.3

STATISTICS: (continued)

SHEET H-6636

Number of Positions-----	1523
Number of soundings-----	6477
Statute miles of sounding lines-----	380.3 ✓
Area covered, square statute miles-----	37.1

Respectfully submitted,

Charles W. Clark
Charles W. Clark, Aid,
U. S. Coast & Geodetic Survey,

Forwarded:

W. M. Scaife
W. M. Scaife,
Chief of Party,
Commanding HYDROGRAPHER

TIDAL NOTE

To Accompany

HYDROGRAPHIC SHEETS H-6634, H-6635, and H-6636

Portable Automatic Tide Gage No. 181, established at Fort McRae by party from the Launch PARIS, attached to Ship HYDROGRAPHER, was used for reducing soundings on Sheets H-6634, H-6635 and H-6636.

LOCATION OF GAGE:

Lat. $30^{\circ}19.6'$ N., Long. $87^{\circ}18.7'$ W.

Reduction of soundings based on plane of mean low water at 3.8 feet above staff zero.

Highest tide observed ----- *

Lowest tide observed ----- *

*Value to be supplied by Division of Tides and Currents,

Washington Office.

On those sounding days upon which the Tide Gage at Fort McRae, Pensacola Entrance, was not in operation, tide reducers were taken from tides recorded by the Standard Automatic Gage at Port Eads, La. Simultaneous comparison show that tides at the two stations have the same range, with tides at Pensacola Entrance occurring $1\frac{1}{2}$ hours later than at Port Eads.

LOCATION OF PORT EADS, LA. GAGE:

Lat. $29^{\circ}00.9'$ N., Long. $89^{\circ}09.0'$ W.

Mean low water on staff ----- 5.3 ft.

LIST OF SIGNALS

To Accompany

HYDROGRAPHIC SHEET H-6636

TRIANGULATION STATIONS:

Name	Hydrographic Name
Black 2, 1934	(Black)
Pensacola Beach Tank, 1934	(Tank)
Range 3, 1934	(Ran)
Top, 1927-1934	

TOPOGRAPHIC STATIONS:

Name	Sheet
Ace	T-6794a
Bin	T-6794a
Bus	T-6794b
Der	T-6794b
Fog	T-6794a
Gal	T-6794a
Hen	T-6794a
Lar	T-6794a
Mob	T-6794b
Ney	T-6794a
Nol	T-6794b
Sab	T-6794a
Siz	T-6794b
Way	T-6794a
Wee	T-6794a

RAC
HLL

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 24, 1941.

~~Division of Hydrography and Topography:~~

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

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 6636

Locality Off Santa Rosa Island, Gulf of Mexico

Chief of Party: G. C. Mattison in 1940
Plane of reference is mean low water reading
3.8 ft. on tide staff at Fort McRee
3.6 ft. below B. M. 1

Height of mean high water above plane of reference is 1.1 feet.

Note: On sounding days when gage at Fort McRee was not in operation, tide reducers were taken from the Port Eads records. The range is the same at both stations but the tides at Pensacola Entrance occur $1\frac{1}{2}$ hours later than at Port Eads.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H6636**

Name on Survey

On Chart No. On previous survey No. On U. S. quadrangle Maps From local information On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List

Name on Survey	A	B	C	D	E	F	G	H	K	
<u>Santa Rosa Island</u>										1
										2
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Names underlined in red approved
by L. Beck on 8/10/42

Remarks

Decisions

	Remarks	Decisions
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Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6636**

Records accompanying survey:

Boat sheets ^{one}.; sounding vols. (4).; wire drag vols.; bomb vols.; 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 .1523
Number of positions checked ...13
Number of positions revised0
Number of soundings recorded .6477
Number of soundings revised (refers to depth only)12
Number of soundings erroneously spaced0
Number of signals erroneously plotted or transferred0
Topographic details Time2
Junctions Time8
Verification of soundings from graphic record Time

Verification by J.A.McCormick.... Total time .50 hrs. Date .2/28/42.

Review by J.A. McCormick..... Time .10 hrs. Date .3/2/42.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6636**
~~XXXX~~

received Sept. 4, 1941
 registered Sept. 8, 1941
 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
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RETURN TO

82	T. B. Reed
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v JBR

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTER NO. H6636

FIELD NO. 23

Florida; Gulf of Mexico; Off Santa Rosa Island
Surveyed in April-May, 1940, Scale 1:20,000
Instructions dated June 24, July 1 and Oct. 13, 1939 (HYDROGRAPHER)

Soundings:

Control:

Hand Lead

Sextant fixes on Shore Signals

Chief of Party - G. C. Mattison
Surveyed by - E. B. Lewey
Protracted by - C. W. Clark
Soundings plotted by - C. W. Clark
Verified and inked by - J. A. McCormick
Reviewed by - J. A. McCormick, March 2, 1942
Inspected by - H. R. Edmonston

1. Shoreline and Signals.

Shoreline is from topographic maps T-5473, T-5474, T-5475 and T-5476. Topographic signals are from graphic control surveys T-6794 a and b (1940).

2. Sounding Line Crossings.

The Descriptive Report, page 2, lists several discrepancies of 4 and 5 feet at crossings. Sounding speeds of 6 knots in addition to probable chop and swell can be responsible for sizable discrepancies in hand lead soundings of 10 to 14 fathoms.

3. Depth Curves.

Irregularities in the 60 foot curve are due in large measure to discrepancies noted in preceding paragraph.

4. Adjoining Surveys.

Satisfactory junctions were effected with H-5033 (1930 and H-4604 (1926-27) on the east. On the west H-6635 (1940) has not been verified but sounding lines at the junction of the two surveys are continuous from sheet to sheet and must automatically form a perfect junction. The area on the south is taken care of by H-4139 (1919-20), discussed in the following paragraphs.

5. Previous Surveys.

H-1308 (1875-76), 1:40,000; H-1309 (1875-76), 1:40,000;
H-4139 (1919-20), 1:80,000

Surveys of 1875-76 cover the area with lines normal to the beach and spaced 1 to 3 miles apart. Depths are in fair to good agreement with those of the present survey. H-4139 covers the area on a scale of 1:80,000 with normal lines spaced $\frac{1}{2}$ to $\frac{3}{4}$ mile apart and crosslines 1 to 2 miles apart. The Descriptive Report, pages 4 and 5, notes several differences between H-4139 and the present survey. Outstanding are the two 62 foot soundings (uncharted) in lat. $30^{\circ}18.4'$, long. $87^{\circ}00.0'$ on H-4139 as compared with depths of 78 to 82 feet at the edge of the present survey. Several soundings on either side of the 62's are almost as bad. The few lines on H-1308 and H-1309 are sufficient to indicate little change in the area and the reviewer is inclined to question the quality of hand lead and trolley work on H-4139. The present survey is satisfactory without additions from the older work.

6. Comparison with Chart 490 (New Print of Oct. 21, 1941)
Chart 1265 (New Print of Nov. 26, 1941)

Depths charted in this area are from surveys discussed in foregoing paragraphs.

7. Compliance with Project Instructions.

Satisfactory.

8. Additional Field Work Recommended.

None.

9. Superseded Surveys

H-1308	In part.
H-1309	" "
H-4139	" "

Examined and approved:

Robert W. King
 Chief, Surveys Section

S. P. Raymond
 Chief, Section of Hydrography

J. S. Bodin
 Chief, Division of Charts

G. H. Rude
 Chief, Division of Coastal Surveys

Applied to Cht. 490 11/8/41 S.P.

(Before verification + review)

Applied to Cht. 1265 5-21-42 K.P.

10 fm curve applied to Cht 490 12/23/42 H.F.L.

Applied to chart 872-SC (Completed Hydro in Gulf of Mexico) 11-2-65 C.F.K.