

8646

Diag. Cht. No. 1267.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECP-10-15-63 Office No. H-8646

LOCALITY

State Mississippi

General locality Mississippi Sound

Locality Horn Island Pass & Vicinity

1961 & 62

CHIEF OF PARTY

S. L. Hollis, Jr.

LIBRARY & ARCHIVES

DATE Feb. 17, 1964

USCOMM-DC 37022-P66

8646

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.

GA

REGISTER No. H-8646

Field No. ECFP 10-15-61

State MISSISSIPPI

General locality MISSISSIPPI SOUND

Locality HORN ISLAND PASS AND VICINITY

Scale 1:10,000 Date of survey 9 Nov. 1961 to 24 MAY 1962

Instructions dated 22/MEK, ECFP, DATED 18 SEP. 1959 AND 22/MMY, DATED 11 APRIL 1961

Vessel LAUNCH GS-183, LAUNCH GS-1177, SKIFF 758, SKIFF NO. 2

Chief of party LCDR. STEVEN L. HOLLIS, JR.

Surveyed by *H. W. Floyd, U.S. Stokes*
LT. LARRY S. BROWN & (JAMES B. ALLEN - Civilian)

Soundings taken by ~~fathometer~~, ~~graphic recorder~~, ~~beam trawl~~, ~~wire~~ SOUNDING POLE

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL

Protracted by Fred Bean (Norfolk Records Processing Unit)

Soundings penciled by Fred Bean " 2 " "

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ as true depths.

REMARKS:

K.W.W. 4-12-91

*WT
ME*

DESCRIPTIVE REPORT
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8646
(Field No. ECFP 10-15-61)
Project OPR-410

SCALE: 1:10,000

EAST COAST FIELD PARTY

CHIEF OF PARTY:

LCDR. STEVEN L. HOLLIS, JR.

* * * * *

A. PROJECT

Work on Project OPR-410 was executed in accordance with instructions 22/MEK, ECFP, dated 18 September 1959 and 22/MMY, ECFP, dated 11 April 1961. ✓

B. AREA SURVEYED

This survey is in the vicinity of Horn Island Pass, Mississippi Sound, Mississippi, and covers that portion of the Sound between latitudes 30°11.15' to 30°18.0' and longitudes 89°30.0' to 89°33.50'. ✓

This survey started 9 November 1961, and was completed on 24 May 1962. ✓

This survey ^{overlaps} ~~makes junction~~ with prior surveys No. 4020, scale 1:40,000, dated 1917-18, and No. 4171, scale 1:80,000, dated 1920, on the south, and with contemporary surveys H-8647 and H-8648, scale 1:20,000, dated 1961, on the east, H-8652, scale 1:10,000, dated 1962, on the west, and H-8645, scale 1:10,000, dated 1961 ^{and 1962} on the north. ✓

C. SOUNDING VESSELS

Launch CS-183, Launch CS-1177, Skiff 758, and a 14 foot aluminum Skiff designated as Skiff No. 2. The following colors were used: ✓

Launch CS-183	Violet
Launch CS-1177	Blue
Skiff 758	Red
Skiff No. 2	Green

D. SOUNDING EQUIPMENT

Model 255C, EDO graphic recorders serial Nos. 16, 13 and 15 were used on Launch CS-183 and Launch CS-1177. 808J fathometers Nos. 113S and 154 were used on Skiff 758. A sounding pole and lead line were used on Skiff No. 2.

Corrections to be applied to echo soundings were determined from daily bar checks and simultaneous comparisons. An abstract of these comparisons is tabulated in Appendix "B" of this report.

A sounding pole was used in depths which were too shoal for the EDO recorders, and 808J fathometer to record. An armed lead was used to obtain bottom samples. A hand lead line was used to obtain depths on detached positions.

No unusual difficulties were encountered with the Depth Recorders.

E. SMOOTH SHEET

The smooth sheet projection was made in the Washington Office with a projection ruling machine.

F. CONTROL

Horizontal control was obtained by standard visual three-point fix methods, as described in the Hydrographic Manual.

Advance photogrammetric manuscripts, numbers T-10765, T-10766, T-10767 and T-10769 compiled in 1959, were used for transfer of signals and shoreline. ^{to the 6942-3 sheets} The list of signals used and their sources are shown in Appendix A of this report.

G. SHORELINE

Shoreline detail was transferred from blue line prints of Advance Manuscripts Nos. T-10765, T-10766 and T-10767. Shoreline and along shore features were verified by the Hydrographer in the field.

The low water line was defined within the limits of safety, economy, equipment and tide range.

H. CROSSLINES

Crosslines were run at approximately 8% of the regular system of sounding lines. Crossings checked within 1 ft., and are considered in good agreement. ✓

I. JUNCTIONS

Depths at the junctions of the surveys listed in section "B" are in good agreement, and depth curves can be adequately drawn. ✓

J. COMPARISON WITH PRIOR SURVEYS

A comparison was made with Prior Survey No. 4020, 1917-18, scale 1:40,000; No. 4171, 1920, scale 1:80,000; and, No. 4021, 1917, scale 1:40,000 and are found to be in fair agreement with the exception of man-made changes, namely, the dredged channel leading to Pascagoula, Mississippi, and shoreline changes on the west end of Petit Bois Island, and the east end of Horn Island which are quite apparent. ✓

These changes are listed under item "K" - COMPARISON WITH CHART. ✓

K. COMPARISON WITH CHART

This survey was compared with C&GS Chart 414, 1st Edition, 22 February 1962, scale 1:20,000. The shoal area adjacent to Horn Island Pass Channel, and the east end of Horn Island show considerable change due to the shifting of the sand bars. The areas north of Petit Bois Island and Horn Island shows little change. The following changes are to be noted: ✓

CHARTED FEATURE AND DEPTH

POSITION

REMARKS

12 ft. depth curve

Lat. 30°11.65'
Long. 88°30.77'

The 12 ft. depth curve in this vicinity has moved 500 meters in a SW direction. ✓

12 ft. depth curve

Lat. 30°12.45'
Long. 88°30.98'

The 12 ft. curve in this area has shifted 340 meters west. Chart new location. ✓

CHARTED FEATURE
AND DEPTH

POSITION

REMARKS

Island
East End of
Horn Island

Lat. 30°13.55'
Long. 88°33.02'

This portion of
Island now covered
at MLW for approxi-
mately 940 meters
in a WNW direction.
Chart change of
topography. ✓

12 ft. depth curve

Lat. 30°11.75'
Long. 88°31.20'

This area now has
depths of 13-18 ft.,
with two isolated
12 ft. soundings.
Chart new location. ✓ Applied

Island
West End Petit
Bois Island

Lat. 30°12.95'
Long. 88°30.45'

The northwest tip
of Island has shift-
ed in a NW direction
60 meters and shows
filling on the south
side. Chart change
of topography. ✓

12 ft. shoal

Lat. 30°14.35'
Long. 88°32.40'

The 12 ft. shoal in
this area shows a
change in size and
shape and a shift
in a westerly direc-
tion of 340 meters. ✓ Applied

The area enclosed by latitudes 30°11.5' to 30°14.5',
longitudes 88°30.0' to 88°34.0', is subject to shifting and
should be so marked on Chart: Shifting, Subject to Change. Applied

L. ADEQUACY OF SURVEY

This survey is considered complete and adequate to
supersede prior surveys for charting purposes, with the
following exceptions: ✓

- (1) Areas of spoil west of Pascagoula
Ship Channel. ✓
- (2) The depths in Pascagoula Ship Channel. ✓

L. ADEQUACY OF SURVEY (continued)

Sounding lines in the above reference areas should be disregarded as they were run prior to and during the Corps of Engineers dredging operation, and are not correct. ✓

check Corps of Engineers after dredging survey should be referred to for proper channel depths and spoil limits for charting. ✓

M. AIDS TO NAVIGATION

There are 6 fixed aids to navigation maintained by the U. S. Coast Guard. ✓

Floating aids maintained by the U. S. Coast Guard should be taken from positions given by Coast Guard, as the dredging operations and the constant changing of aids during this survey make a comparison impossible. ✓

The fixed aids adequately serve the purpose for which they were established. ✓

N. STATISTICS

<u>VESSEL</u>	<u>NO. OF POSITIONS</u>	<u>NAUTICAL MILES OF SOUNDING LINE</u>
Launch CS-183	741	164.4
Launch CS-1177	1,478	224.4
Skiff 758	103	13.2
Skiff No. 2	<u>30</u>	<u>2.3</u>
Totals	2,352	404.3

Total area surveyed - 19.1 square miles.

A portable automatic tide gage, located at Pascagoula, Mississippi, furnished tide control for this survey, see Appendix C for additional information on this station. ✓

There are 20 bottom samples on this sheet.

N. STATISTICS (continued)

One magnetic station was observed on this sheet at
latitude $30^{\circ}12' 44.6''$, longitude $88^{\circ}29' 56.8''$.

Submitted by

Allen G. Davis

Allen G. Davis
Survey Technician

INDEX OF APPENDICES

- ✓A. LIST OF SIGNALS
- ✓B. ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS
- ✓C. TIDAL NOTE
- ✓D. APPROVAL SHEET

APPENDIX A

LIST OF SIGNALS

TRIANGULATION STATIONS

ANN	Pascagoula Channel Range B, Red Light, 1958
CAG	Pascagoula Channel Range B, Front Light, 1958
FRO	Horn Island Pass Range Front Light, 1962
LIG	Horn Island Lighthouse, 1910
PAS	Pascagoula Channel Range A, Front Light, 1958
REA	Horn Island Pass Range Rear Light, 1962

MARKED TOPOGRAPHIC STATION

NECK, 1958

TOPOGRAPHIC STATIONS

POD
SAM

*See Norfolk Office
Signal list.*

PHOTO-HYDRO SIGNALS

T-10765

ABE
CUE
FAR
TOM
WIN

HYDROGRAPHIC STATIONS

BUT	JOE
ERG	LON
HAM	NIX
JIM	RAD
	SIG

NORFOLK RECORDS PROCESSING UNIT

LIST OF SIGNALS *for smooth sheet*

H-8646

61-62

8

TRIANGULATION STATIONS

ANN PASCAGOULA CHANNEL RANGE B, REAR LIGHT, 1958
 CAG PASCAGOULA CHANNEL RANGE B, FRONT LIGHT, 1958
 FRO HORN ISLAND PASS ENTR. RANGE, FRONT LIGHT, 1962
 LIG HORN ISLAND LIGHTHOUSE, 1910-58
 PAS PASCAGOULA CHANNEL RANGE A, FRONT LIGHT, 1958
 REA HORN ISLAND ENTRANCE RANGE, REAR LIGHT, 1962
 NECK NECK, 1958
 NEL PASCAGOULA CHANNEL RANGE A, REAR LIGHT, 1958
 RM 2 WET 2, 1935

PHOTO-HYDRO STATIONS

SOURCE T-10765

ABE CUE FAR TOM WIN

SOURCE T-10769

SAM

HYDROGRAPHIC STATIONS

BUT Vol. 9, pg. 18
 CAL " 9, pg. 24
 EGG " 10, pg. 41
 HAM " 10, pg. 41
 JOE " 8, pg. 49 & 50
 LON " 13, pg. 4
 NIX " 5, pg. 17 & 18
 POD " 1, pg. 3
 " 10, pg. 41
 RAD " 13, pg. 4
 SIG " 13, pg. 4

APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

FATHOMETER DEPTH (ft.) CORRECTION (ft.)

Launch CS-183
"a" day and "b" day

0.0 to 16.0	0.0
16.1 to 23.0	+0.2
23.1 and deeper	+0.4

"c", "d", "g", "h" and "j" days

5.0 to 7.0	-0.2
7.1 to 11.0	0.0
11.1 to 22.0	+0.2
22.1 to 25.0	+0.4
25.1 to 28.0	+0.6
28.1 to 30.0	+0.8
31.0 and deeper	+1.0

"e" day and "f" day

5.0 to 8.0	-0.2
8.1 to 21.0	0.0
21.1 and deeper	+0.2

Skiff 758

"a" day and "b" day

2.0 to 21.0	+0.4
21.1 to 25.0	+0.6
25.1 and deeper	+0.8

Skiff #2

"a" day

Sounding Pole Used

APPENDIX B (Continued)

<u>FATHOMETER DEPTH (ft.)</u>	<u>CORRECTION (ft.)</u>
"j" thru "l" days	
0.0 to 3.4	0.0
3.5 to 8.5	-0.2
8.6 to 17.0	0.0
17.1 to 24.0	-0.2
24.1 to 27.0	-0.0
27.1 to 29.3	+0.2
29.4 to 31.0	+0.4
31.1 to 34.0	+0.6
34.1 to 40.0	+0.8
"m" day	
5.0 to 18.0	-0.2
18.1 to 25.8	-0.4
25.9 to 29.0	-0.2
29.0 and deeper	0.0

APPENDIX B (Continued)

FATHOMETER DEPTH (ft.) CORRECTION (ft.)

Launch CS-1177

"a" day and "b" day

6.0 to 14.0	0.0
14.1 to 17.2	+0.2
17.3 to 19.4	+0.4
19.5 to 24.0	+0.6

"c" day thru "g" day (Pos. 71)

5.4 to 6.4	-0.4
6.5 to 8.0	-0.2
8.1 to 10.4	0.0
10.5 to 15.5	+0.2
15.6 to 19.2	+0.4
19.3 to 22.2	+0.6
22.3 to 25.6	+0.8
25.7 to 28.4	+1.0
28.5 to 31.2	+1.2
31.3 to 33.4	+1.4

"g" day (Pos. 72) and "h" day

0.0 to 3.5	0.0
3.6 to 7.8	-0.2
7.9 to 10.0	-0.4
10.1 to 14.5	-0.6
14.6 to 18.0	-0.4
18.1 to 22.0	-0.2
22.1 to 32.0	0.0
32.1 to 34.0	+0.2
34.1 to 35.0	+0.4
35.1 to 35.7	+0.6
35.8 to 36.2	+0.8
36.2 and deeper	+1.0

APPENDIX C

TIDAL NOTE

GAGE LOCATION:

Pascagoula, Mississippi

Lat. $30^{\circ}20.42'$

Long. $88^{\circ}32.05'$

GAGE TYPE:

Portable Automatic

STAFF:

Mean Low Water corresponds to 1.2 feet on the staff.

CORRECTION:

No time or height correction was applied to the results obtained from the gage in reducing soundings.

The 90th meridian time was used at this station.

APPENDIX D

APPROVAL SHEET TO ACCOMPANY

Hydrographic Sheet H-8646 (ECFP 10-15-61)

Project OPR-410

The records, corrections, and all field and office work was supervised by LCDR Steven L. Hollis, Jr. ✓

Boat sheets and records were checked at least once a week by Officer-in-Charge, ECFP. ✓

This survey and the records are complete and adequate to the best of my knowledge. ✓

Approved and forwarded,

For *P. A. Stark*
Steven L. Hollis, Jr.
LCDR. C&GS
Officer-in-Charge

NORFOLK RECORDS PROCESSING UNIT
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8646 (ECFP-10-15-61)

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings except for a few depth discrepancies in the vicinity of channels where dredging operations were in progress.

DISCREPANCIES

The following is a list of positions on which some soundings were omitted because they were in conflict with after-dredging depths.

Lat.	Long.	Pos.	Lch.
30-17.85'	88-31.45'	1-2d,	1177 ✓
17.75	31.35	1-3a, ^g	" " ✓
17.60	31.20	3-4j,	" " ✓
17.15	30.77	4-6k,	" " ✓
18.00	30.75	52-53a,	" " ✓
17.95	31.55	81-82a,	" " ✓
17.32	30.95	83-84f,	" " ✓
16.20	30.65	39m,	" " ✓

FLOATING AIDS

All recorded positions of floating aids were smooth plotted. A list was not compiled for this report as they were being shifted constantly because of dredging activities and few of them were in their regular charted positions.

HYDROGRAPHIC SIGNALS

Field descriptions were not furnished for stations BUT, JOE, CAL and LON, all of which fall in water areas.

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt

Cartographer

Norfolk, Va.
10 Feb. 1964

GEOGRAPHIC NAMES

Survey No. H-8646

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
HORN ISLAND	✓										1
HORN ISLAND PASS	✓										2
PETIT BOIS ISLAND	✓										3
MISSISSIPPI SOUND	✓										4
											5
											6
											7
											8
											9
											10
											11
											12
											13
											14
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											24
											25
											26
											27

George W. Ball
March 3 1964
Geographic Names Section

Memorandum

TO : Chief, Nautical Chart Division
Coast and Geodetic Survey

THRU: Chief, Operations Division

FROM : Officer-in-Charge
Hydrographic Field Party 219

DATE: 2 March 1964

In reply refer to:

SUBJECT: Hydrographic signals, H-8646, Horn Island Pass, Mississippi

REF: Mimeo 211, dated 2/20/64

Personnel of this party who worked on the subject survey was contacted and the following descriptions were furnished: (1) BUT, white tripod; (2) JOE, anchored skiff; (3) CAL, anchored skiff; and (4) LON, anchored launch with flag. All signals were temporary and removed at the completion of the work.

The above descriptions are felt to be accurate. However, if there is still doubt they will have to be resolved from the sounding volumes.

They were not described in sounding volumes

A section of Chart showing the location of each signal and description is attached.

Harold E. McCall
Harold E. McCall

✓
Enclosure: -1

cc: 21



OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8646

FIELD NO. ECFP 10-15-61

Mississippi - Mississippi Sound, Horn Island Pass and vicinity

SURVEYED: November 9, 1961 -- May 24, 1962

SCALE: 1:10,000

PROJECT NO. OPR-410

SOUNDINGS: 808 Fathometer
EDO 255 Depth Recorder
Sounding Pole

CONTROL: Sextant angles
on shore signals

Chief of PartyS. L. Hollis
Surveyed by.....L. S. Brown
 H. W. Floyd
 W. G. Stokes
Protracted by.....F. Bean
Soundings Plotted by.....F. Bean
Verified and Inked by.....D. M. Taylor
Reviewed by.....G. K. Myers
 Date: 7/5/68
Inspected by.....R. H. Carstens

1. Description of Area

This is an inshore survey of Mississippi Sound covering that area of Pascagoula Channel from its intersection with Bayou Casotte Channel on the north to Horn Island Pass on the south.

The area west of Pascagoula Channel consists of a flat bottom with depths from 12 to 16 feet, except in the vicinity of spoil areas located about 700 yards from the channel. Here, the bottom is characterized by spoil banks.

At the entrance of Mississippi Sound a sand bar extends eastward from Horn Island to Horn Island Pass Channel, located at the western end of Petit Bois Island. Depths over the bar vary from about 4 to 11 feet.

On the southern extremity of the survey the bottom configuration, consisting of soft mud, slopes to depths of 38 feet in the Gulf of Mexico. Horn Island Pass Channel joins with Pascagoula Channel at Petit Bois Island. A limiting depth of about 34 feet was found in these channels.

2. Control and Shoreline

The source of control is given in the Descriptive Report.

The shoreline originates with revised photogrammetric manuscripts RS-883 (1962), RS-884 (1962), RS-885 (1962) and reviewed photogrammetric manuscript T-10769 (1958-1959). Shoreline in the following areas was revised from hydrographic information to reflect conditions during survey operations.

1. The spoil area in lat. $30^{\circ}17.7'$, long. $88^{\circ}30.42'$ from T-10769 was deleted.
2. The spoil area in lat. $30^{\circ}18.0'$, long. $88^{\circ}32.23'$ from H-8645 was added.
3. The shoreline on the eastern end of Horn Island from RS-884 was revised.
4. The shoreline on the western end of Petit Bois Island from RS-884 was revised.

With the exception of item one (1) above, the changes are shown in red on the smooth sheet.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated except for the area in Horn Island Pass where closer line spacing would have more clearly defined the limits of the 18 and 30-foot depth curves.

The 3-foot depth curve was added to more adequately define the bottom configuration.

C. Investigation of least depths is considered adequate on the present survey except as noted in Part "L" of the Descriptive Report.

4. Condition of the Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except for the following:

A. Data regarding bar checks was not completely recorded in accordance with Section 5-93 of the Hydrographic Manual.

B. Incorrect entries of recorded data were rejected improperly and therefore led to a misinterpretation of some soundings.

C. Hydrographic signals were not described in the sounding volumes or on the boat sheet.

D. The smooth plotting was accurately done, except that positions of the depth curves had to be revised because of the inaccurate inclusion or exclusion of depths.

E. Rescanning of fathograms, by the reviewer, in a few instances, was required because some peaks, falling at uneven intervals, were not recorded in the sounding volumes or smooth plotted.

F. Corrections to echo soundings, in some instances, were found to be in conflict between the field records and Appendix "B" of the Descriptive Report.

The reviewer corrected the deficiencies mentioned in paragraphs "C", "D", "E" and "F" above.

5. Junctions

Adequate junctions were made with H-8645 (1961-62) on the north, H-8647 (1961-62) on the east, H-8648 (1961-62) on the northeast, and H-8652 (1962) on the west. At the project limits on the south, present depths are in fair agreement with charted depths.

6. Comparison with Prior Surveys

A. H-190 (1846) 1:20,000

The poor control of the prior survey and its lack of development preclude a detailed comparison with the present survey. However, a displacement of Horn Island is evident.

B. H-327 (1852) 1:20,000

This reconnaissance survey with only a few sounding lines, falling within the area of the present survey, is of little value for comparative purposes. The soundings on H-327 are in good agreement with the present survey.

C. H-362 (1853) 1:20,000 H-1666 (1886) 1:20,000

The prior surveys fall within a common area of the present survey. A comparison reveals significant differences in the immediate vicinity of Horn Island Pass. Since 1853, extensive differences in shoreline have occurred and considerable shifting of depth curves over the entire area is evident. The changes are considered to have been caused by storms and current action.

D. H-4020 (1917) 1:40,000 H-4021 (1917) 1:40,000

These surveys taken together cover the area of the present survey. A comparison of the prior and present depths in Mississippi Sound indicates a general shoaling of 1-2 feet, except in the areas of dredged channels and spoil areas.

According to the Descriptive Reports of the prior and present surveys, the immediate vicinity of Horn Island Pass is subject to change by wind and sea conditions, especially after storms. These conditions seem to be causing the Pass to shift to the westward. A detailed discussion of this change is complicated by the general shoaling of Mississippi Sound. A few general statements concerning the changes taking place can be made, however.

The ends of both islands within the common area, bordering Horn Island Pass, have changed drastically. The western end of Petit Bois Island has accreted to a point $\frac{1}{2}$ mile northwest of its prior position, and the eastern end of Horn Island has eroded one mile northwestward. The shoreline in these areas is considered unstable.

Since 1917, Horn Island Pass Channel has been dredged to depths of 38 feet. This channel leads into Pascagoula Ship Channel.

In general, a comparison with present depth curves, immediately west of the channel in Horn Island Pass, with the prior surveys indicates that the bar is eroding at an average rate of 12 meters a year to the westward. The 6-ft. depth curve on the bar has migrated westward at a rate of 60 meters a year.

East of the Channel in the Gulf of Mexico, the crest of the ridge protruding about one mile in a southwestward direction into the Gulf has migrated slowly to the westward.

Depths southwest of the end of Petit Bois Island have shoaled 20-25 feet and depict a gentle slope from the accreted shore in an area where depths of 36 feet existed in 1917.

The present survey is adequate to supersede the prior surveys in the common area.

7. Comparison With Chart 414 (latest print date 1/15/68)

A. Hydrography

Most of the charted hydrography originates with the previously discussed surveys which require no further consideration supplemented by partial application of depths from the boat sheet of the present survey and from prior information furnished by the Corps of Engineers. Specific mention is made of the following:

1. Many soundings charted in the immediate vicinity of channels, originate with Corps of Engineers surveys subsequent to the date of the survey and should be retained on the chart.

2. The 30-ft. sounding charted in lat. $30^{\circ}11.4'$, long. $88^{\circ}32.78'$ was reported in the Notice to Mariners No. 45 of 1962 subsequent to the date of the survey and should be retained on the chart.

The present survey is adequate to supersede the charted hydrography, except as noted above.

B. Topography

1. The shoreline charted in the area of Horn Island Pass Channel originates with information subsequent to the date of the survey and should be retained on the chart.

2. The markers charted in the immediate vicinity of Horn Island Pass and Pascagoula Ship Channel at Petit Bois Island, originate with the Corps of Engineers surveys of 1966 (Bp-70141) and should be retained on the chart.

3. The platform charted at lat. $30^{\circ}13.5'$, long. $88^{\circ}32.15'$ was reported in Notice to Mariners No. 16 of 1964 subsequent to the date of the survey and should be retained on the chart.

4. The islets charted west of Pascagoula Channel originate with The Corps of Engineers surveys of 1964 (Bp-66591) subsequent to the date of the survey and should be retained on the chart.

C. Controlling Depths

The table of controlling depths is based on the Corps of Engineers data subsequent to the present survey and supersedes the present survey information.

D. Aids to Navigation

The fixed aids to navigation located on the present survey are in substantial agreement with the chart.

The present survey positions of floating aids along the channels are provisional because of changes due to dredging.

The charted positions of aids adequately mark the features intended.


8. Compliance With Instructions


This survey adequately complies with the Project Instructions.

9. Additional Field Work

This survey is a very good basic survey and no additional hydrography is recommended.

Examined and Approved


Chief
Marine Chart Division


Associate Director
Office of Hydrography
and Oceanography

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8646....

Records accompanying survey: Smooth sheets .1...;
 boat sheets .1...; sounding vols. .13...; wire drag vols.;
 Descriptive Reports .1...; graphic recorder envelopes .11...;
 special reports, etc. .1-Beat sheet overlay:.....

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

Number of positions on sheet	2,352
Number of positions checked	200
Number of positions revised	None
Number of soundings revised (refers to depth only)	12
Number of soundings erroneously spaced	None
Number of signals erroneously plotted or transferred	None
Topographic details	Time 5
Junctions	Time 10
Verification of soundings from graphic record	Time 16
Special adjustments	Time 5

Verification by *Noris M. Taylor* Total time *259* hrs. Date *Jan. 6, 1966*
 Reviewed by *George Ingus* Time *106* hrs. Date *July 5, 1968*

TIDE NOTE FOR HYDROGRAPHIC SHEET

Nautical Chart Division: R.H. Carstens

13 March 1964

Plane of reference approved in
13 volumes of sounding records for

HYDROGRAPHIC SHEET 8646

Locality Horn Island Pass & Vicinity, Mississippi

Chief of Party: S.L. Hollis Jr.

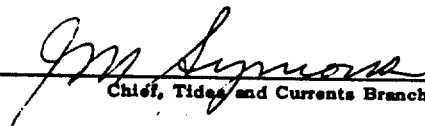
Plane of reference is mean low water reading

1.2 ft. on tide staff at Pascagoula, Miss.

5.7 ft. below B. M. NO 2 (1961)

Height of mean high water above plane of reference is: 1.5 ft.

Condition of records satisfactory except as noted below:



Chief, Tides and Currents Branch

Memorandum C-211

C-835

TO : Chief, Operations Division

DATE: February 18, 1964

FROM : Chief, Nautical Chart Division

SUBJECT: Description of offshore signals H-8646

It is requested that the descriptions of offshore hydrographic signals But, Joe, Cal, and Lon on survey H-8646 (ECFP 10-15-61) Horn Island Pass and Vicinity, Mississippi, be obtained from the hydrographer of that survey.

Lorne G. Taylor
Lorne G. Taylor

Joe	Vol 8	pg 49 & 50
Cal	" 9	" 24
But	" 9	" 18
Lon	" 13	" 4

Identify the areas ad

Hydro done - { Nov, Dec 1961 Steve Hollis. Clin C.
(April, May 1962

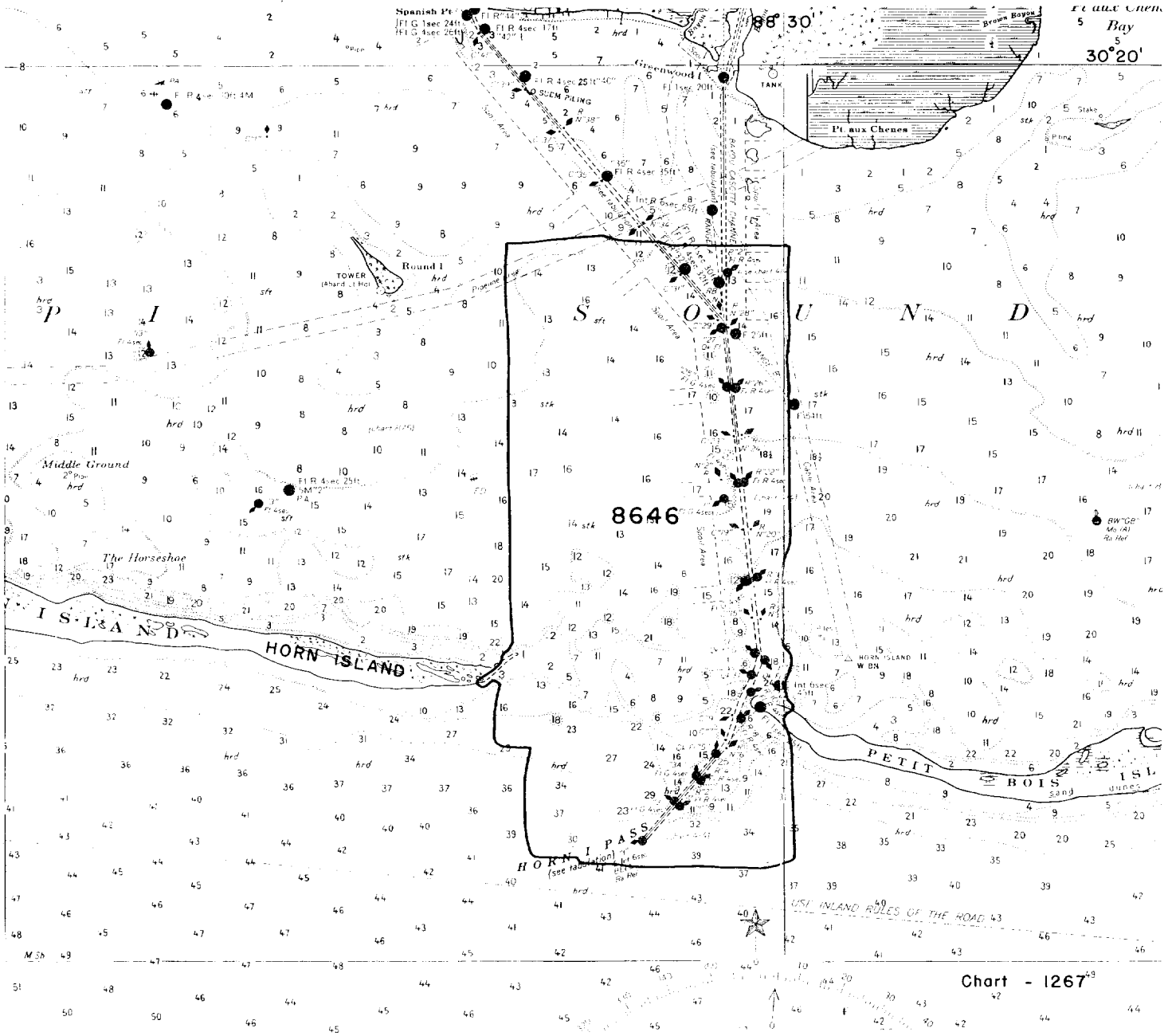
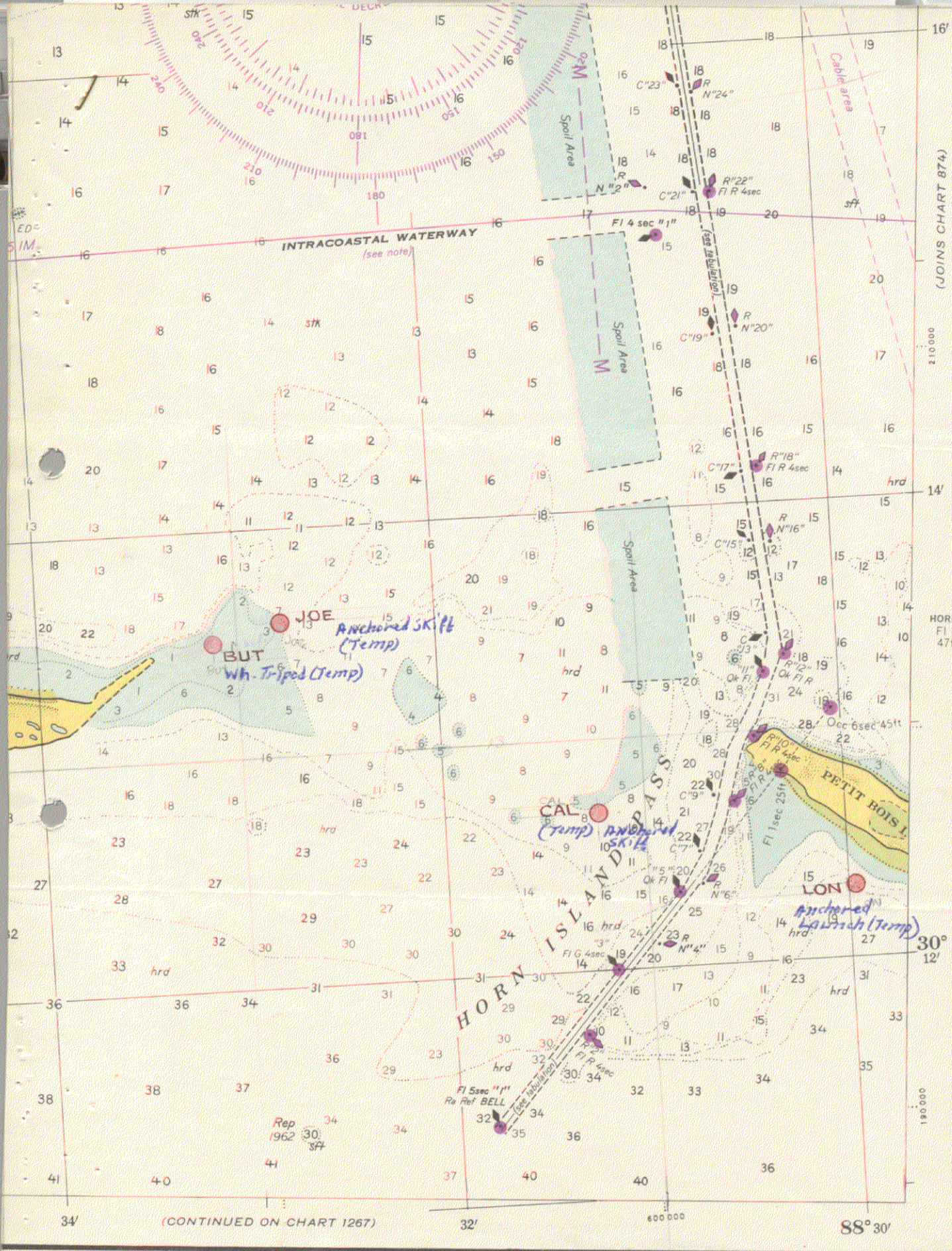


Chart - 1267⁴⁸



(CONTINUED ON CHART 1267)

Mississippi Sound, Pascagoula Channel to Biloxi

SOUNDINGS IN FEET - SCALE 1:40,000

C. & G. S. 875

PRICE 50 CENTS

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8646

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
414	3/25/64	John P. Wein	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>Added numerous shoal soundings and revised some curves</i>
874	6/17/64	Peter Kulberg	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>thru dwg # 4 chart 414</i> vmb
875	9/4/64	John P. Wein	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>thru Chart 414 dwg # 4</i>
1267	9/11/64	John P. Wein	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>30 Part Applied thru Chart 875 dwg # 16</i>
414	10/6/69	H. Quidley	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>10 - Consider adequately applied before "Camille" - 8/18/69.</i>
874	10/6/69	H. Quidley	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>5 - Examined - no correction</i>
1267	10/6/69	H. Quidley	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>37 - Examined - no correction thru chart 414 dwg # 10 see above</i>
414	4-25-73	C. E. Harringer	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>14 Revised several edge's curves (partly superseded by hurricane Camille)</i>
414	9-29-73	W.B. Wankless	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>15 Revised soundg and curves (superseded in part by hurricane Camille)</i>
874	2-11-74	W.B. Wankless	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>19 Revised soundg and curves (superseded in part by hurricane Camille)</i>
1267	2/13/74	D. Wylie	Fully Applied thru cht. 874 - DWG # 42
1115 (11360)	1/18/75	D. Wylie	FULLY APPLIED THRU CHT 1267 - DWG # 32