

10151 A&B

Diagram No. 1266-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey Hydrographic
Field No. HFP-20-2-84
Registry No. H-10151 a&b

LOCALITY

State Alabama
General Locality Gulf of Mexico
Sublocality 12 Miles East of Mobile
Point.....

19 84-86

CHIEF OF PARTY

..... LCDR. R.W. Jones and LCDR. K.W. Perrin.....

LIBRARY & ARCHIVES

DATE November 18, 1987.....

☆U.S. GOV. PRINTING OFFICE: 1985-566-054

10151 A&B

Area 3
CHATS

11376

113785C B

11360

11006

411

TO SIGN OFF SEE
"RECORD OF APPLICATION"

HYDROGRAPHIC TITLE SHEET

H-10151a & H-10151b

INSTRUCTIONS - 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.

HFP-20-2-84

State ALABAMAGeneral locality GULF OF MEXICOLocality 12 MILES EAST OF MOBILE POINT
SOUTHWEST OF GULF SHORESScale 1:20,000Date of survey 06 AUG. 1984 - 24 MAR. 1986Instructions dated 23 NOVEMBER 1983 *Project No. OPR-J217-HFP-84Vessel NOAA LAUNCH 1257 (EDP 1257) & NOAA LAUNCH 0518 (EDP 0518)Chief of party LCDR R. W. JONES (until JAN. 1985), LCDR K. W. PERRIN (from JAN. 1985)Surveyed by HYDROGRAPHIC FIELD PARTY #1 - OICs LT C. B. GREENAWALT & LTJG P. M. KENULSoundings taken by echo sounder, hand lead, ~~and~~ RAYTHEON DE-723D & DSF 6000N FATHOMETERGraphic record scaled by PARTY PERSONNEL: PMK, GSL, GLM, GDH, MMO, RWAJGraphic record checked by PMK, CBG, MMO, GSLProtracted by -

Field Sheet

Automated plot by PDP/e ComputerSmooth SHEET: KINETICS (201 (AMC))Verification by AMC HYDROGRAPHIC SURVEYS BRANCH J. B. WILSONSoundings in ~~fathoms~~ feet at ~~XXXX~~ MLLW

REMARKS: * Change No. 1 - 06 AUG. 1984

PMK - Philip M. Kenul

Change No. 2 - 15 JAN. 1985

CBG - Charles B. Greenawalt

Change No. 3 - 27 AUG. 1985

GSL - George S. Lloyd

GLM - Gary L. Merrill

GDH - Glenn D. Hendrix

MMO - Maria Mangual-Ortiz

RWAJ - Reginald W. Adams, Jr.

A list of HYDROTRAC strip charts which included data for this survey and were not sent at this time is enclosed with the submitted strip charts.

NOTED IN THE DESCRIPTIVE REPORT WERE MADE IN RED DURING
OFFICE PROCESSING.SC 4-21-97AWOIS/SURFV 4/27/89 SJV

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* DATA REMOVED FROM DESCRIPTIVE REPORT AND
FILED WITH FIELD RECORDS.

OPR-J217-HFP-84

PENSACOLA

MOBILE BAY

T. G.
(873-5180)

T. G.
(872-984)

H-1015

HFP-20-2-84

1985

1984

88° 00'

30° 00'

87° 30'

30° 00'

GULF OF MEXICO

From Chart 11360

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10151a & H-10151b
HFP-20-2-84

Scale: 1:20,000

Chief of Party: Lt. Cdr. Ronald W. Jones (until Jan. 85)
Lt. Cdr. Kenneth W. Perrin (from Jan. 85)
Officer-in-Charge: Lt. C. B. Greenawalt (until Nov. 84)
Lt. (jg) Philip M. Kenul (from Nov. 84)

Hydrographic Field Parties Section

Hydrographic Field Party 1

Launch 1257

A. PROJECT

Hydrographic Survey H-10151 was accomplished in accordance with Project Instructions QPR-J217-HFP-84, dated 29 November 1983, and amended by:

Change No. 1, dated 06 August 1984,
Change No. 2, dated 15 January 1985,
Change No. 3, dated 27 August 1985.

B. AREA SURVEYED

The area surveyed was southwest of Gulf Shores starting at the 2-fathom curve then seaward approximately 12 nautical miles, and bounded by the following points:

| | |
|---------------------|----------------------|
| Latitude 30°13'33"N | Longitude 87°51'54"W |
| Latitude 30°01'48"N | Longitude 87°51'54"W |
| Latitude 30°01'48"N | Longitude 87°42'30"W |
| Latitude 30°14'40"N | Longitude 87°42'30"W |

This survey was conducted from 06 August 1984 to 24 March 1986.

C. SOUNDING VESSEL

The soundings on this survey were collected from NOAA Launch 1257 (EDP 1257), a 59-foot high speed launch. No unusual problems were encountered. A single lead line was taken from NOAA Launch 0518 (EDP 0518) on DN 353 (1985) for a least depth on an inshore wreck. A sandbar near this wreck precluded the use of Launch 1257. This information is included in Volume II of the NOAA Launch 1257 (p. 33).

D. SOUNDING EQUIPMENT AND CORRECTION TO ECHO SOUNDINGS

Soundings for DN 219 (1984) through DN 006 (1986) were recorded with a Model DE723D Raytheon Fathometer (Recorder S/N 37018, Digitizer S/N 2772, and ECU S/N 37009) for depths ranging from about six feet to about 98 feet.

The DE723D Fathometer aboard Launch 1257 developed several minor problems during this survey. On DN 256, 271, 272, and 275 (1984), and DN 106, 108, 129, 130, 141, and 144 (1985), the chart drive jammed momentarily on several occasions throughout these days. Generally, the jamming was insignificant. However, several soundings were rejected on DN 106, 129, and 130 (1985) and rerun. The chart drive was repaired after DN 144 (1985) and the jamming no longer occurred. Differences occurred between the analog depths and digital depths which varied by about 0.2 - 0.3 feet. This was taken into account during scanning of the fathogram records. The instrument initial was monitored continuously. Adjustments were made either on-line or when the fathograms were scanned.

The Raytheon DE723D Fathometer was replaced by a Raytheon DSF 6000N Fathometer in February 1986. Both the high and low frequency transducers are at the same draft and there were no differences in settlement or squat correctors. All sounding correctors apply to both beams.

Soundings for DN 083 (1986) were recorded with a Model DSF 6000N Raytheon Fathometer (Recorder/Transcriber S/N B054N, TMU 7191 S/N AB-221) for depths ranging from about 40 feet to about 60 feet. No problems were encountered with this recorder.

All fathograms were scanned for peaks and deeps and for the effects of heave. The appropriate changes were made on the corrector tapes.

The following procedures were used to determine the corrections to echo soundings:

Velocity Corrections - Bar checks were taken when weather and sea conditions permitted. A total of 38 bar checks were obtained from Launch 1257. A copy of a lead line/bar line calibration is included in the Appendix. Corrections to echo soundings for velocity of sound through water were determined from 16 TDC casts and 38 bar checks. The dates and positions of the TDC casts are abstracted in the Appendix. The velocity corrector tables were generated by HYDROPLOT Program RK530, Layer Correctors for Velocity, using the data from these casts. Two Nansen casts were performed (DN 157 and 277, 1985) to field check the accuracy of the Martek equipment. The agreement was found to be very good. Copies of these casts are included with the supplemental data in the accordion file. SEE ALSO SECTION 4.b. OF THE EVALUATION REPORT.

Two Martek Mark VII, Model 167, instruments were used for TDC cast during this survey. Serial number 205 was used for all TDCs taken in 1984, and serial number 232 was used in 1985. The latest calibration date is 03 February 1984, for S/N 205. No calibration report is available for S/N 232 at this time. A copy of the calibration data is included in the Appendix.

The instrument corrections for Launch 1257 were determined from the graphs of bar check and velocity corrector data and have been applied to the soundings on the final field sheet via the field velocity corrector tapes. These instrument correctors have not been included in the final velocity tapes submitted with this survey, but will be applied to the soundings on the final smooth sheet through the TC/TI tapes.

On DN 232 (1985), a shallow bar check was taken in 30 feet of water. The slope of this bar check was not as steep as other bar checks and TDC casts taken during this period. This information was discussed with Mr. Leroy Cram, Chief, Verification Group, HSB. It was decided that a single velocity table would be made for this bar check and used only for the shoreline hydrography run this day (deepest uncorrected depth is 33 feet).

On DN 006 (1986), a single bar check was taken and a velocity table was computed from this data. This velocity table was used for hydrography run this day only.

On DN 083 (1986), no TDC cast was available. A two-bar check velocity table was computed for hydrography run this day (deepest uncorrected depth is 54 feet).

Settlement and Squat - Trials for Launch 1257 were measured using the level instrument method described in Section 4.9.4.2. of the Hydrographic Manual. The results of these measurements are included in the Appendix. Settlement and squat correctors were not applied to the final field sheet, but have been included on the TC/TI tapes and will be applied to the soundings on the final smooth sheet.

Draft Correction - A launch draft correction of 2.7 feet was applied. A copy of the Sounding Correction Abstract is included in the Appendix, along with printouts of the velocity and TC/TI tapes.

E. HYDROGRAPHIC SHEETS (FIELD SHEETS)

Field sheets used during this survey were prepared in the field using a PDP8/e computer and a Houston Instrument DP-3 Complot Plotter. Worksheets, final field sheets, and overlay sheets are included with this survey. Mainscheme soundings, developments, and crosslines are plotted on the final field sheet. Bottom samples, detached positions, additional spike

investigations, charted soundings, junction soundings, and prior survey soundings are plotted on the overlay sheet. Inshore hydrography is plotted on the overlay (see Section P, Miscellaneous).

The projection parameter tapes are included with the project data. Parameter tape listings are include in the Appendix.

All records will be forwarded to the Hydrographic Surveys Branch at the Atlantic Marine Center for verification and smooth plotting.

F. CONTROL STATIONS

Control stations used during this survey were either existing geodetic control published by the National Geodetic Survey or control established by the Hydrographic Field Parties Support Group. All stations meet a minimum of Third-order, Class I standards. All positions are based on the North American 1927 Datum.

A listing of control stations used during this survey are included in the Appendix.

G. HYDROGRAPHIC POSITION CONTROL

The HYDROTRAC system operated in the Range/Range mode, provided position control for Launch 1257 during most of the survey. All data on DN 284, 288, 289, 294, and 295 (1985) were rejected due to walkout problems (station drift) in the HYDROTRAC system. This hydrography was rerun after the equipment was repaired.

The left shore station used was a 100-foot aluminum tower. The station was located at Fort Pickens in Pensacola, Florida, from DN 219 (1984) to DN 051 (1985). After DN 051 (1985), the station was relocated to Gulf State Park in Gulf Shores, Alabama, and a 90-foot tower was erected. Hydrography was run from this station throughout the rest of the survey. The right station was a 120-foot tower previously used as a LORAN-A antenna. The launch antenna was a 35-foot whip located over the Fathometer transducer. Frequent problems were encountered with the HYDROTRAC throughout the survey. Numerous equipment failures occurred in the system which required continuous maintenance, repair, and replacement as the units malfunctioned.

For hydrography run on DN 083 (1986), an 80-foot tower was erected at Fort Morgan, Alabama for the left station. The right station was in Gulf State Park, Gulf Shores, Alabama.

The following ODOM HYDROTRAC survey equipment was used at frequency 1718.59 KHz for DN 219 (1984) - DN 323 (1985).

H-10151a+b

| Location | HYDROTRAC Unit | S/N | Day Number |
|-------------------|-------------------|-----|-------------------------|
| Left Shore Sta: | Slave Drive | 215 | 219 - 223 (1984) |
| (Signal #911) | Model 701 | 214 | 240 - 272 (1984) |
| | | 215 | 275 (1984)-051 (1985) |
| (Signal #912) | | 215 | 091 - 108 (1985) |
| | | 214 | 129 - 214 (1985) |
| | | 215 | 225 - 268 (1985) |
| | | 226 | 290 - 297 (1985) |
| | | 215 | 317 - 323 (1985) |
| (Signal #911) | Power Amplifier | 539 | 219 - 292 (1984) |
| | Model 74-81 | 540 | 008 - 051 (1985) |
| (Signal #912) | | 539 | 091 - 232 (1985) |
| | | 537 | 235 (1985) |
| | | 539 | 267 - 323 (1985) |
| (Signal #911) | 24 VDC Power | 751 | 219 (1984) - 051 (1985) |
| | Supply/Model 620 | | |
| (Signal #912) | | 752 | 091 - 235 (1985) |
| | | 751 | 267 - 323 (1985) |
| | Antenna Coupler | 722 | 291 (1984) - 323 (1985) |
| | Model 610 | | |
| Right Shore Sta: | Slave Drive | 226 | 219 (1984) - 235 (1985) |
| (Signal #901) | Model 701 | 214 | 267 - 323 (1985) |
| | Power Amplifier | 540 | 219 - 240 (1984) |
| | Model 74-81 | 538 | 242 (1984) - 235 (1985) |
| | | 537 | 267 - 268 (1985) |
| | | 538 | 290 - 297 (1985) |
| | | 537 | 317 - 323 (1985) |
| | 24 VDC Power | 754 | 219 (1984) - 235 (1985) |
| | Supply/Model 620 | 752 | 267 - 323 (1985) |
| | Antenna Coupler | 133 | 219 (1984) - 323 (1985) |
| | Model 610 | | |
| Launch Equipment: | Master Drive | 122 | 219 (1984) - 091 (1985) |
| | Model 702 | 121 | 106 - 144 (1985) |
| | | 122 | 193 - 235 (1985) |
| | | 121 | 267 - 297 (1985) |
| | | 122 | 317 - 323 (1985) |
| | Power Amplifier | 538 | 219 - 223 (1984) |
| | Model 74-81 | 536 | 240 (1984) - 051 (1985) |
| | | 537 | 091 - 193 (1985) |
| | | 540 | 199 - 235 (1985) |
| | | 536 | 267 - 323 (1985) |

| Location | HYDROTRAC Unit | S/N | Day Number |
|-------------------|-------------------|-----|-------------------------|
| ===== | | | |
| Launch Equipment: | Receiver | 327 | 219 (1984) |
| | Model 700 | 328 | 220 - 223 (1984) |
| | | 326 | 240 - 249 (1984) |
| | | 328 | 256 - 272 (1984) |
| | | 327 | 275 (1984) - 235 (1985) |
| | | 328 | 267 - 323 (1985) |
| | 24 VDC Power | 753 | 219 (1984) - 323 (1985) |
| | Supply/Model 620 | | |
| | Antenna Coupler | 130 | 219 (1984) - 108 (1985) |
| | | 134 | 129 (1985) - 323 (1985) |

The HYDROTRAC equipment was calibrated by three-point sextant fixes with check angles using HYDROLOT Program RK561, Range-Range Geodetic Calibration. Calibrations were taken before and after each period of hydrography. Exceptions to normal calibration procedures were as follows:

DN 219, 220, 222, 223, 240 (1984); DN 051, 232 (A.M. only), and 235 (A.M. only) (1985) - No check fixes were taken due to reduced visibility.

DN 220 (1984) - A lane was lost on signal #901 after position 210. Five soundings were rejected. Only partials of afternoon calibration were used to compute daily correctors on signal #901.

DN 009 (1985) - No ending calibration was taken since both signals were lost due to sea spray on the antenna. Weather conditions deteriorated and no further hydrography was run.

DN 044 (1985) - No ending calibration due to a generator malfunction. Morning and evening whole lane counts agreed.

DN 091 (1985) - No ending calibration. Signal #901 was down after position 1839. Ten soundings were rejected.

DN 133 (1985) - Lost signal #912 after position 2450. Ten soundings were rejected. The HYDROTRAC was recalibrated and work continued.

DN 144 (1985) - Lost both signals after position 2937. The HYDROTRAC was recalibrated and work continued.

DN 193 (1985) - Lost signal #912 in route to afternoon calibration. No closing calibration on signal #912.

DN 235 (1985) - No afternoon calibration. Lost signal #912. One position was rejected.

DN 267 (1985) - Lost both signals due to receiver malfunction. No ending calibration.

DN 268 (1985) - Lost signal #901 after position 3559. Nine soundings were rejected. No ending calibration for signal #901. A fixed point closing calibration was taken on signal #912 at Perdido Pass Light No. 1 (LL2373) due to reduced visibility.

DN 297 (1985) - HYDROTRAC malfunction, lost both signals. No afternoon calibration.

DN 318 (1985) - A fixed point morning calibration was taken at Perdido Pass Light No. 1 (LL2373) due to reduced visibility. No ending calibration was taken since both signals were lost due to HYDROTRAC malfunction.

DN 322 (1985) - No ending calibration was taken since both signals were lost due to HYDROTRAC malfunction.

DN 323 (1985) - No ending calibration was taken since both signals were lost momentarily due to weather conditions and sea spray on the antenna. During the hydro, two lanes were lost from signal #912 and one lane gained on signal #901. One additional lane was gained on signal #901 while on the way to signal #138 for a whole lane count. Lanes lost and gained were accounted for on the strip chart and applied accordingly via the corrector tape. Only four bottom samples were taken this day.

On all days during which an adequate closing calibration could not be performed, the strip charts were carefully examined. If any discrepancies were found the work was rejected and rerun. This was found to be the case on DN 093, 136, and 294 (1985).

Numerous HYDROTRAC problems after August 1985 necessitated the use of alternate methods of position control to complete the survey. The equipment used was as follows:

H-10151a+b

| Day Number | Control | Location | Equipment |
|---------------|---------|----------------------------------|-------------------------------------------------------|
| DN 331 (1985) | R/R | Signal #154 (left) | DNTI Remote S/N 256, Code 74 |
| | | Signal #152 (Right) | DNTI Remote S/N 264, Code 78 |
| | | Launch | DNTI DMU, S/N 517 DNTI Master S/N 1066, Code 78 |
| DN 336 (1985) | R/AZ | Signal #152 (Range & Azimuth) | HP-3810B, EDM S/N 192 9A 00 438 |
| DN 338 (1985) | R/AZ | Signal #154 (Range) | DNTI Remote S/N 256, Code 74 |
| | | Signal #154 (Azimuth) | Wild T-2 S/N 12118 |
| | | Launch | DNTI DMU, S/N 172 DNTI Master S/N 185, Code 78 |
| DN 340 (1985) | R/AZ | Signal #154 (Range) | HP-3810B, EDM S/N 192 9A 00 438 |
| | | Signal #154 (Azimuth) | Wild T-2 S/N 12118 |
| DN 347 (1985) | R/AZ | Signal #152 (Range & Azimuth) | HP-3810B, EDM S/N 192 9A 00 438 |
| DN 352 (1985) | R/R | Signal #156 (Left) | DNTI Remote S/N 264, Code 78 |
| | | Signal #154 (Right) | DNTI Remote S/N 256, Code 74 |
| | | Launch | DNTI DMU, S/N 172 DNTI Master S/N 185, Code 78 |
| DN 353 (1985) | R/AZ | Signal #152 (Range) | HP-3810B, EDM S/N 192 9A 00 438 |
| | | Signal #152 (Azimuth) | Wild T-2 S/N 12118 |
| DN 006 (1986) | R/AZ | Signal #152 (Range) | DNTI Remote S/N 264, Code 78 |
| | | Signal #152 (Azimuth) | Theodolite/Nikon NT-2D S/N 31010 |

H-10151a**bb**

| Day Number | Control | Location | Equipment |
|---------------|---------|-----------------------|-----------------------------------------------------------------|
| DN 006 (1986) | R/AZ | Signal #157 (Range) | DNTI Remote S/N 256, Code 74 |
| | | Signal #147 (Azimuth) | Wild T-2 S/N 10216 |
| | | Launch | DNTI DMU, S/N 172 DNTI Master/Remote S/N 185, Code 78 |

On DN 331 (1985), no closing baseline calibration was available for DNTI DMU, S/N 517, since a malfunction occurred before the ending calibration. The daily system check values were applied as correctors for this day through the corrector tape. *SEE ALSO SECTION 4.a. OF THE EVALUATION REPORT.*

On DN 083 (1986), the following ARGO DM-54 system equipment was used to complete the survey.

| Location | ARGO Unit | Serial Number |
|--------------------------------------------------------------|------------------------------------|---------------|
| Left Shore Station: Code: Slave-Fixed 1 (Signal #916) | Range Processing Model DM-54 | R047840 |
| | Antenna Loading Model DM-54 | A047854 |
| | Power Supply 24VDC Model DM-54 | V0379122 |
| Right Shore Station: Code: Slave-Fixed 2 (Signal #913) | Range Processing Model DM-54 | R047851 |
| | Antenna loading Model DM-54 | A047853 |
| | Power Supply 24VDC Model DM-54 | V0379127 |
| Launch Equipment: Code: Mobile-Master | Control and Display Model DM-54 | C047825 |
| | Range Processing Model DM-54 | R047854 |
| | Antenna Loading Model DM-54 | A0374116 |

No problems were encountered with this equipment.

Due to limitations in the placement of shore stations, the angle of intersection along the inshore northwesternmost area of the survey was less than 30°. The angle of intersection was never less than 26° and should not degrade the accuracy of the data.

Other problems encountered were with the strip chart recorder. The pattern pen was not working properly on DN 242 (1984). Evening calibration indicated lanes were not lost or gained.

The ANDIST correctors for Launch 1257 was 0.0 meters. An Electronic Corrector Abstract is presented in the Appendix. All raw calibration data are included in the supplemental data folder.

Production activities were continually curtailed by repeated HYDROTRAC system failures. Technical representatives from ODOM Hydrographic Systems, Inc. made visits to HFP-1 on three occasions from May to August 1985 to provide assistance and make major repairs to the HYDROTRAC system. These repairs were usually short-lived and HYDROTRAC failures would occur soon after their departure.

H. SHORELINE SEE ALSO SECTIONS 1.b. AND 2.b. OF THE EVALUATION REPORT.

Shoreline details for this survey were transferred to the final field sheets from stable base film copies of shoreline manuscripts TP-00931 and TP-00932. The aerial photographs for TP-00931 were taken in February 1981. The aerial photographs for TP-00932 were taken February 1981 - March 1982. (No field edit has been done on either manuscript.) Field edit was not required for this survey; however, it was conducted and corrections are compiled on the field sheet.

The shoreline in general is sand beach. Numerous high rise condominiums and cottages are being built along the beach - some right at the high water line.

Construction has generally destroyed the dune line; therefore accelerating shoreline migration. The Alabama coastline along the Fort Morgan Peninsula and Little Lagoon is made up of old barrier islands which have become part of the mainland. This section of the coastline can be treated as a modern barrier island as far as coastal dynamic processes and the associated hazards are concerned. The coastline is very dynamic and is constantly being altered by storms. During 1985, the survey area was affected by four hurricanes between August and November. The shoreline was noticeably eroded during this period and the hydrographer decided shoreline verification would be in order. Detached positions were taken along the high water line using an HP-3810B, EDM (S/N 192 9A 00 438) and a Wild T-2 (S/N 12118). These positions have been compiled on the field sheet and changes in the shoreline have been noted with a broken red line.

Shoreline was not verified west of longitude 87°49'40"W due to a lack of adequate horizontal control; however, the area was inspected from seaward and along the beach by jeep for any major discrepancies on the shoreline manuscript. No gross discrepancies were apparent in this area.

A site analysis shoreline map is appended to this report from Living with the Alabama-Mississippi Shore, 1985, Duke University Press. This publication is the result of research sponsored by NOAA, Office of Sea Grant, Grant No. NA81AA-D-00050. This study indicates that the shoreline along the survey area is extremely likely to change during storm activity. This was reflected in the surveyed shoreline after the season's storms.

The shoreline manuscript does not accurately depict the inlet at Lagoon Pass. The shoreline manuscript was compiled from photography taken prior to construction of the jetty and depicts the inlet as meandering laterally. This was accentuated during severe storm activity. A photograph of the inlet as it appeared prior to construction of the jetty and footbridge is appended to the report (from Living with the Alabama-Mississippi Shore, OP. CIT.). This photograph shows an extreme lateral shift after Hurricane Frederick. Construction of the jetty has straightened the inlet. An aerial photograph (altitude 1200 feet) of the inlet taken in March 1984 showing the inlet as it appears now is appended to the report.

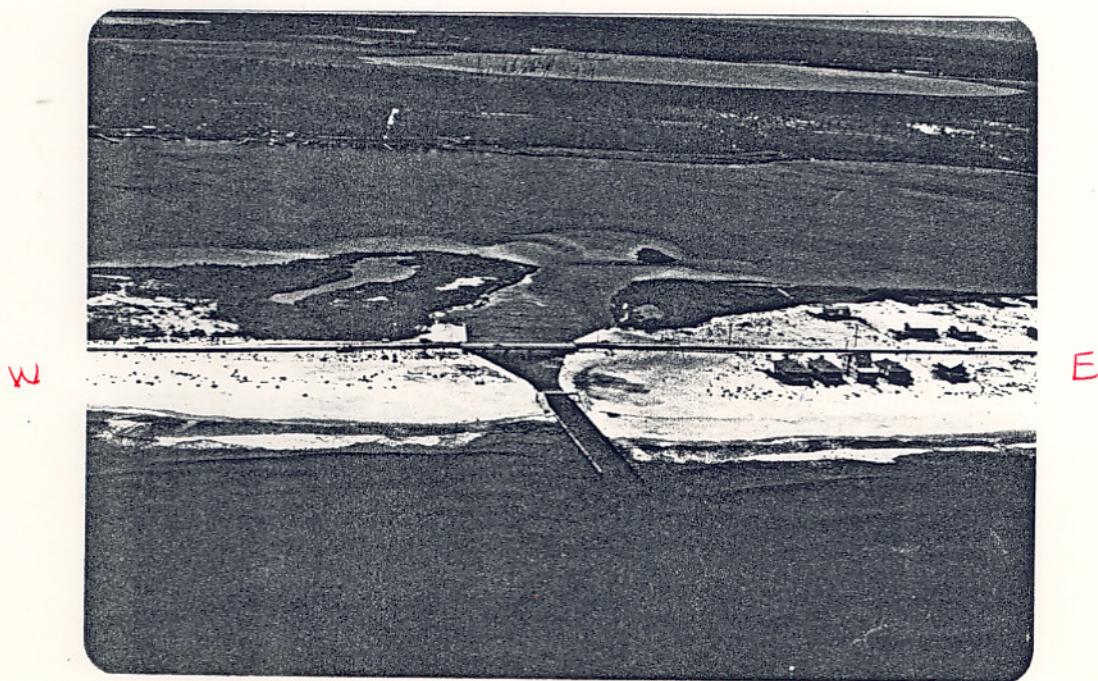
A mast shown on the shoreline manuscript at lat. 30°14'42"N, long. 87°42'09"W no longer exists.

These shoreline changes are compiled on the field sheet in red.

One control station exists seaward of the shoreline: PK GULF PIER, 1983 (lat. 30°14'48.831"N, long. 87°40'04.615"W). This station does not fall within the sheet limits.

I. CROSSLINES SEE ALSO SECTION 3.a. OF THE EVALUATION REPORT.

Crosslines totaled 124.4 nautical miles or 15.0% of the hydrography. Ninety-one percent (91%) of all crossline soundings agreed within one foot of the mainscheme soundings. No soundings disagreed by more than two feet. The 2-foot differences occurred when the mainscheme hydrography was run in seas greater than two feet and in area of irregular bottom. This meets the criteria stated in the Hydrographic Manual, Section 4.6.1. and Section 1.1.2., Part B.II.1.



Shoreline, Footbridge and Jetty at Lagoon Inlet. Not readily visible is Dolphin on right (or east jetty). A concrete section of the east jetty has collapsed into inlet on east side, covered by approximately 1 foot of water.

J. JUNCTIONS *SEE ALSO SECTION 5. OF THE EVALUATION REPORT.*

This survey junctions with the following surveys in accordance with Section 4.3.2. of the Hydrographic Manual:

3-85)

H-10114 (1985), 1:20,000 scale, to the east,
H-10179 (1985-1986), 1:20,000 scale, to the west,
H-10180 (1985-1986), 1:40,000 scale, to the south.

The junction soundings are in excellent agreement. No soundings disagreed by more than two feet. This disagreement can be attributed to the 3-5 foot seas. The comparisons meet the criterion listed in Section 1.1.2., Part B.II.1. of the Hydrographic Manual.

K. COMPARISON WITH PRIOR SURVEYS *SEE ALSO SECTION 6. OF THE EVALUATION REPORT.*

No Automated Wreck and Obstruction Information System (AWOIS) items originating from prior NOS surveys exist in this survey area. All AWOIS items are discussed in Section L, Comparison with the Chart, of this report.

The prior surveys were evaluated as per guidelines given by Section 5.3.4.(K) and 6.3.7. of the Hydrographic Manual. The survey area was previously covered by the following surveys:

| Survey | Year | Scale |
|---------|-----------|----------|
| ===== | ===== | ===== |
| H-4023a | 1917-1918 | 1:40,000 |
| H-4139 | 1919-1920 | 1:80,000 |
| H-6554 | 1940 | 1:40,000 |

Representative soundings for Survey H-4023a were plotted on the final field overlay in blue. Considering that Survey H-4023a was conducted almost 70 years ago the comparisons were generally quite good. Eighty-eight percent (88%) of the soundings agreed within two feet. The greatest differences occurred along the shoreline. This is not unexpected since the area along the shoreline is dynamic and frequently affected by beach erosion and hurricanes.

Representative soundings from Survey H-4139 were plotted on the final field overlay in yellow. Comparisons with the survey were fair with 65% of the soundings agreeing within two feet. Ninety-eight percent (98%) of the soundings agreed within five feet. When considering the fact that this survey was conducted almost 70 years ago, the surveys compared fairly well.

Representative soundings from Survey H-6554 were plotted on the final field overlay in red. Comparisons with the survey were

fair as eighty-two percent (82%) of the soundings agreed within three feet. Ninety-four percent (94%) of the soundings agreed within five feet.

RECOMMENDATION: Supersede surveys H-4023a, H-4139, and H-6554 with Survey H-10151 for all common area.

L. COMPARISON WITH THE CHART *SEE ALSO SECTION 7. of the EVALUATION REPORT.*

This survey was compared with the following charts:

| Chart | Edition | Date | Scale |
|-------|---------|------------------|-----------|
| 11360 | 28th | 10 December 1983 | 1:456,394 |
| 11376 | 37th | 04 February 1984 | 1:80,000 |
| 11378 | 19th | 29 October 1983 | 1:40,000 |

Soundings from Chart 11360 are plotted on the final field overlay in green. The survey was also compared to NOS Chart 11360, 15 June 1985, 29th Edition. Sounding comparisons with the chart were very good with all soundings agreeing within three feet.

Soundings from Chart 11376 are plotted on the final field overlay in violet. Survey H-10151 was compared to Chart 11376. The survey was also compared to the 38th Edition. With the exception of a few discrepancies the survey compared fairly well with the charted soundings. Seventy-nine percent (79%) of the soundings agreed within two feet and ninety-six percent (96%) agreed within five feet. Generally, there was closer agreement between soundings inshore than offshore; although the inshore area was found to be about 1-3 feet shallower than previously charted. *At lat. 30°13'30"N, long. 87°50'42"W, the charted 14-foot sounding along the shoreline was found to be seven feet. ** Another discrepancy was noted offshore at lat. 30°08'18"N, long. 87°46'27"W where the charted sounding is 40 feet. All survey depths in this area were found to be 49 feet. A charted 29-foot shoal at lat. 30°11'30"N, long. 87°45'24"W was found to have shifted to the southwest approximately 200 meters. CONCUR

Soundings from Chart 11378 were plotted on the final field overlay in red-violet. The survey was also compared to the 20th Edition, 15 December 1984. Sounding comparisons with the chart are generally very good, with all soundings but one agreeing within three feet. This one sounding was along the shoreline at lat. 30°13'30"N, long. 87°50'42"W and was found to be charted seven feet deeper than the present survey indicated. Again, this can be attributed to a dynamic shoreline. *SEE ALSO SECTION 1.a. of the EVALUATION REPORT.*

A significant shoal investigation (Position 4151 - 4176) was conducted on DN 083 (1986). Line spacing was split to 100 meters and two axial lines were run along the shoal orientation.

Numerous 41 foot soundings were located over the shoal at lat. 30°06'42"N, long. 87°47'45"W (position 1799 +6 on DN 091, 1985, and position 4157 +5 and position 4173 +6 on DN 083, 1986). An isolated 41-foot sounding was found at lat. 30°07'00"N, long. 87°48'03"W (position 3113 +2 on DN 207, 1985). Depths in this area are as deep as 60 feet to the south and 56 feet to the north.

not shown on sheet

Ten AWOIS items originating from sources other than NOS were listed for this survey. It should be noted that many of these items are part of The State of Alabama's Artificial Reef Program. Where applicable the information items have been updated to agree with the published LORAN-C coordinates by the State of Alabama. A copy of the State's listing is appended to the report.

AWOIS Item 03609 (Information): Obstruction, Fish Haven (8.25 fathoms authorized minimum depth), charted at lat. 30°04'15"N, long. 87°50'00"W on Chart 11360. This information originated from Chart Letter 114 (1980) Corps of Engineers and is described as a 55-foot tugboat with a 20-foot beam cut to a height of seven feet before sinking. Line spacing on this item was split to 100 meters within a 300-meter radius of the reported location. No evidence of this fish haven was found on the fathogram records. On 19 December 1985, Mr. Hugh Swingle, Alabama Department of Marine Resources, informed the hydrographer that this tug described in the listing was not sunk; however, the stripped hull of a Coast Guard boat (40 feet, steel) was sunk instead in September 1979. The reported LORAN-C rates are W-12875.8, Y-47048.0 on the 7980 Chain. RECOMMENDATION: Chart as is;

✓

~~however, revise the charted position to lat. 30°05'24.92"N, long. 87°50'36.94"W which was computed from the LORAN-C rates using RK321, LORAN-C Computations. DELETE OBSTRUCTION FISH HAVEN IN LATITUDE 30°04'15"N, LONGITUDE 87°50'00"W. CHART DANGEROUS SUNKEN WRECK IN LATITUDE 30°05'24.92"N, LONGITUDE 87°50'36.94"W.~~

Relain Fish Haven

AWOIS Item 03610 (Information): Obstruction, Fish Haven charted at lat. 30°03'30"N, long. 87°48'44"W on Chart 11360. This information originated from Chart Letter 860 (1973), Alabama Department of Conservation and is described as a steel push tug with a vertical height of 15 feet. Line spacing on this item was split to 100 meters within a 300-meter radius of the reported position. No evidence of this fish haven was found during survey operations at this location. This fish haven is known locally as Lipscomb Tug and is part of the Alabama State Artificial Reef Program. On 18 December 1985, a steel push tug was located using Range/Range Del Norte at lat. 30°04'52.14"N, long. 87°48'12.32"W during dive operations (see Dive Report appended to this report). The tug was located in approximately 55-60 feet of water with a least depth by diver held lead line of 42 feet (corrected for predicted tides) at 1635 UTC. The tug was approximately 60 feet long with the stern buried

✓
X not on 11360

in the sand. The dive site was determined using LORAN-C (7980 Chain, W-12899.9, Y-47045.1). Mr. Hugh Swingle, Alabama Department of Marine Resources, confirmed that this is the tug referred to AWOIS Item 03610 and it is charted incorrectly. RECOMMENDATION: ~~Remain charted as is, however,~~ ³ Revise charted position to agree with surveyed position of lat. 30° 04'52.14"N, long. 87°48'12.32"W, ⁴ AND SHOW AS 42 WK.

AWOIS Item 03614 (PSR 283) (Full Investigation): Charted as a dangerous submerged wreck (PA) at lat. 30°03'30"N, long. 87°42'25"W on Chart 11360 (reported LORAN-C position: 7980 Chain, W-12957.8, Y-47039.9). This information originated from Local Notice to Mariners 9 (1979) and is described as a 105-foot tugboat sunk as a fish haven in 72 feet of water with no authorized minimum clearance. Chart Letter 891 (1979) from the Alabama Department of Conservation reported a ten-fathom clearance. Mr. Fred Givens of Pleasure Island Dive Center, P.O. Box 1730, Gulf Shores, Alabama 36542, reports that he has dove on this wreck many times in the past. Mr. Givens reports it showed progressive signs of deteriorating. He has not been able to locate it for nearly two years and believes it to be broken up. Mr. Donald Kelly, Marine Resources Division, Alabama Department of Conservation, Gulf Shores, Alabama, reports that he also believes it to be completely broken-up. He has not been able to locate it for two years. Additional LORAN-C rates on this wreck provided by local fisherman are as follows: W-12956.9, Y-47040.1; W-12957.2, Y-47040.1 on the 7980 Chain. Line spacing was split to 100 meters for a radius of 1,000 meters from the charted position. The reported LORAN-C rates were also noted. No evidence of the wreck was found on the fathogram records. RECOMMENDATION: Revise the charting symbol to a sunken wreck not dangerous to surface navigation, ^{ED} PA. The position should be updated to lat. 30°03'45.69"N, long. 87°42'26.37"W which was computed from the LORAN-C rates using RK321, LORAN-C Computations. **CONCUR**

AWOIS Item 03620 (Information): Obstruction, Fish Haven, charted at lat. 30°06'40"N, long. 87°42'59"W on Charts 11360 and 11376. This information originated from Chart Letter 1940 (1976), U.S. Army Corps of Engineers. The item is described as a barge 105 feet long by 10 feet high. The mainscheme lines in this area were split to 100 meters and no evidence of this wreck was found. RECOMMENDATION: Remain charted as is. **CONCUR**

AWOIS Item 03621 (Information): Obstruction, Fish Haven (authorized minimum depth 52 feet), charted at lat. 30°05'10"N, long. 87°50'00"W on Charts 11360 and

11376. This information originated from Chart Letter 1374 (1975), U.S. Army Corps of Engineers. The item is described as a 220-foot steel barge with a height of nine feet, locally known as Buffalo Barge No. 2. Sounding lines in this area were split to 100 meters. No evidence of this wreck was found. This barge is one the Alabama State artificial fishing reefs and the published LORAN-C rates on the 7980 Chain are W-12881.9, Y-47045.4. Dive operations were conducted on this item on 18 December 1985 (see Dive Report appended to this report). ⁴⁰ A steel hopper barge was located at lat. 30°05'01.35"N, long. 87°49'57.05"W (Range/Range Del Norte) 1950 UTC (position 4037). A least depth of 50 feet (corrected for ^{smooth} predicted tides) was measured by diver held lead line. The barge was located in 55-60 feet of water and was approximately 220 feet long with the bow buried in the sand and the mid portion of the side walls collapsed.

RECOMMENDATION: ~~Remain charted as obstruction, Fish Haven; however, the authorized minimum depth should be changed to 50 feet and the charted position should be revised to the surveyed position of lat. 30°05'01.35"N, long. 87°49'57.05"W.~~ CHART AS 50 WK IN PRESENT SURVEY LOCATION. *Return Fish Haven
No work to
Chart*

AWOIS Item 03622 (Information): Obstruction, Fish Haven (authorized minimum depth 10 fathoms), charted at lat. 30°05'15"-35"N, long. 87°50'20"W on Charts 11360 and 11376. The information originated from Chart Letter 533 (1975), U.S. Army Corps of Engineers. The item is described as 600 tons of culvert pipe. This fish haven is locally known as Radmoor or Fort Morgan pipes. Fred Givens, Pleasure Island Dive Center, reports that some of the pipe is still above the bottom but most is now buried. Donald Kelly, Alabama Department of Conservation, Marine Resources Division, also confirms that much of this pipe is buried but that portions of the pipe are at times uncovered due to the shifting bottom sands. The reported position was split to 100 meters and no sign of the fish haven was noted on the fathogram records. This item is also on the State of Alabama's published list of fishing reefs. The LORAN-C rates on the 7980 Chain are W-12883.1, Y-47040.0. This area was also searched and no indication of the obstruction was found. ✓

RECOMMENDATION: Remain charted as is; however, update the position to lat. 30°03'42.30"N, long. 87°49'46.00"W which was computed from LORAN-C rates using RK321, LORAN-C Computations. CONCUR

AWOIS Item 03623 (Information): Obstruction, Fish Haven (authorized minimum depth 51 feet), charted at lat. 30°05'10"N, long. 87°50'45"W on Charts 11360 and 11376. The information originated with Chart Letter 1374 (1975), U.S. Army Corps of Engineers. The item ✓

is described as a 200-foot steel barge with a height of nine feet. Sounding lines were split to 100 meters within a 200-meter radius of the charted position. No evidence of the wreck was found. Mr. Fred Givens, P.I.D.C., reports that the barge is still intact and can be located at LORAN-C rates (7980 Chain) W-12876.7, Y-47044.2. These agree with the State of Alabama's published listing. The wreck was located on 18 December 1985, 2015 UTC, at lat. 30°04'43.46"N, long. 87°50'26.17"W (position 4038, Range/Range Del Norte). A depth of 59.0 feet (corrected for draft, velocity, and ~~predicted~~⁵⁸ tides) was found by Fathometer. RECOMMENDATION: Remain ~~charted as is;~~^{REVISE} however, ~~update~~ the position to lat. 30°04'43.46"N, long. 87°50'26.17"W. **CONCUR**

AWOIS Item 03626 (Information): Obstruction, Fish Haven centered at lat. 30°07'12"N, long. 87°38'00"W and charted along the 60-foot contour on Charts 11360 and 11376. The information originated from Chart Letter 921 (1959), U.S. Corps of Engineers. The item is described as 50 to 100 car bodies placed at approximately 0.5-mile intervals along the 60-foot contour. No evidence of this wreckage was found during survey operations. RECOMMENDATION: Remain charted as is; however, should the 60-foot contour line shift, the fish haven should remain in the previously charted position. **CONCUR**

AWOIS Item 03628 (PSR 190) (Full Investigation): Submerged dangerous wreck (PA) charted at lat. 30°08'00"N, long. 87°46'00"W on Charts 11360 and 11376. The information originated from Local Notice to Mariners 51 (1976) and is described as the BETSY M, a 55-foot fishing vessel, sunk in 46 feet of water approximately 0.25 nautical miles south of the safety fairway. This item called for verification or disproval through a bottom drag with a 1.5 nm minimum radius. NOAA Launch 1257 is not rigged for wire drag operations. The area in question was split to 100-meter spacing. No evidence of this wreck was found on the fathogram records. Mr. Fred Givens, Pleasure Island Dive Center, reports that most of this vessel is either broken-up or buried in the sand. No rigging is sticking up from the bottom. Only the trawling booms are partially exposed above the bottom. Mr. Givens no longer had the position information of this wreck. RECOMMENDATION: Considering the proximity to the safety fairway, the wreck should remain charted as is. **CONCUR**

AWOIS Item 03630 (PSR 277) (Full Investigation): Visible wreck, charted at lat. 30°13'36"N, long. 87°50'54"W on Charts 11376 and 11378. The information originated from Notice to Mariners 53 (1960) and is described as the COLLE 7, a small

wooden barge. The area of this wreck is inshore in the proximity of two parallel sandbars along the beach (see following paragraph). No evidence of this wreck was observed during survey operations. A bottom drag was required. HFP-1 does not have wire drag capability and a chain drag this close to shore was not deemed prudent on NOAA Launch 1257. None of the local dive organizations or fishermen have any information concerning this wreck. A wooden wreck of this size has probably broken-up or been buried.

RECOMMENDATION: Remain charted at the current position. However, the charting symbol should be revised to a sunken wreck ~~not~~ dangerous to surface navigation, ~~existence doubtful~~. CONCUR

It should be noted that along the inshore area of the survey, two parallel sandbars exist where NOAA Launch 1257 could not prudently venture. Between these two sandbars, depths can reach 20 feet. Within this area, several uncharted wrecks lie along the Alabama coast. One such wreck was located during dive operations on 23 November 1985. The wreck is the remains of a steam powered side wheel vessel (possibly the MIAMI, c. 1870). Most of the wood hull has deteriorated; however, the lower keel is intact from bow to stern and comes off the bottom about 2-4 feet. The hull is approximately 225 x 30 feet. The wreck lies approximately 75-100 meters off the beach in 8-18 feet of water. Three prominent features remain intact on the vessel: the iron boilers with a least depth of 5.0 feet, the iron paddle wheel hubs with a least depth of 6.5 feet, and a heavy steel structure thought to be a cargo boom with a least depth of 4.3 feet (1555 UTC, 19 December 1985, lead line, corrected for predicted tides). The wreck was positioned on 19 December 1985 by Range/Azimuth methods (position 4040) using an HP-3810B (EDM) and a Wild T-2 Theodolite at lat. 30°14'09.01"N, long. 87°45'32.09"W. A dive report and sketch are appended to this report. RECOMMENDATION: Chart as a ~~submerged~~ ^{SUNKEN} dangerous wreck at lat. 30°14'09.01"N, long. 87°45' 32.09"W. CONCUR (4/25/89, JTV) 8.99

The location of an uncharted wreck of a 60-foot steel tugboat was also reported to HFP-1 by Mr. Fred Givens, P.I.D.C., and Mr. Joe Van Valkenburgh, Underwater Bridge Inspection Engineer, Alabama Highway Department, at the LORAN-C coordinates of W-12922.1, Y-47049.5 (7980 Chain). The tug was searched for on 17-18 December 1985 at this location but not found.

RECOMMENDATION: The hydrographer recommends this wreck be charted as a ~~dangerous submerged wreck~~ ^{SUNKEN} wreck, PA, at lat. 30°05'43.84"N, long. 87°46'05.07"W (computed from the reported LORAN-C rates using RK321, LORAN-C Computations). NOAA Launch 1257 was scheduled for shipyard repairs and therefore was no longer available to continue the search for this wreck. Upon completion of shipyard repairs further attempts will be made to locate this uncharted wreck.

A reinforced concrete jetty projects seaward from both sides of the inlet charted at lat. 30°14'28"N, long. 87°44'18"W (refer to Section H). Approximately 13 meters of the seaward end of the

east jetty has collapsed into the east side of the inlet and is covered by approximately one foot at low water. This obstruction should be charted at lat. 30°14'22.60"N, long. 87°44'15.19"W (position 3912). The Coast Guard was notified of this obstruction on 09 December 1985. A dolphin is located on the east jetty where the jetty had terminated prior to its failure at lat. 30°14'22.29"N, long. 87°44'15.10"W (position 3911). The east jetty now extends out to lat. 30°14'22.70"N, long. 87°44'15.16"W (position 3910). The west jetty terminates at a dolphin at lat. 30°14'22.81"N, long. 87°44'15.66"W (position 3913). In August 1985, the controlling depth in the inlet was observed to be approximately 1.5 feet. Small outboard powered boats frequently use this inlet to access the Gulf of Mexico. An aerial photograph of the jetty and a photograph of the jetty and dolphin taken from the east side on the beach are appended to this report. *1 ft*

A footbridge is also located just inshore over the inlet (see Section N). Station JONES is located on the east side of this structure. Neither the footbridge or the jetties are depicted on Shoreline Manuscript TP-00932 or Chart 11376. A highway overpass north of the footbridge over the inlet is accurately depicted on the shoreline manuscript and Chart 11376. *Foot Bridge*

Another inlet is charted on Chart 11376, east of Pine Beach at lat. 30°13'49.5"N, long. 87°47'45.0"W. This inlet no longer exists. It was filled in by Hurricane Frederick in 1979. The shoreline in this area is shown correctly on Shoreline Manuscript TP-00932 and the field sheet. The charted shoreline should be revised to agree with TP-00932 and the field sheet. CONCUR *Not on sheet*

An uncharted wreck was located at lat. 30°14'32.95"N, long. 87°43'13.62"W (position 3908) on 02 December 1985. This was the wreck of the "WE TWO" which ran aground in 1981 or 1982. Property owners on the beach showed the hydrographer a photograph of the 36-foot wooden vessel when it was intact. The vessel owners "salvaged" the craft with an axe shortly after it ran aground and removed one of the V-8 engines. All that remains now is an 8 x 6 foot section of the keel with one engine block. The wreck has been sanded over for about two years and was only recently uncovered in September 1985 after Hurricane Elena. The wreck lies on the high water line and is already starting to cover-up. It poses no danger to navigation. RECOMMENDATION: The hydrographer recommends this wreck remain uncharted. Do not CONCUR *Visible at*
Chart as portrayed on present survey. *add Ruins*

Pier ruins made of 14-inch piles were located on 02 December 1985 at lat. 30°14'37.63"N, long. 87°42'25.94"W (position 3903). The ruins north of this point were 12 feet high and extended approximately 20 meters. The pier ruins extend about 30 meters seaward of this point and are cut off below the surface except for one 12-foot, 14-inch pile at lat. 30°14'37.44", long. 87°42'25.91"W (position 3904). It should be noted that this pile was no longer intact in February 1986 when photographs of this item were taken. A photograph of the pier in ruins is appended to this report.

Three 14-inch piles were located on 06 December 1985 at lat. 30°13'44.72"N, long. 87°48'41.12"W (position 4018). These piles were on the high water line and were exposed three feet above the beach. They were located five feet apart forming a triangle. The position was taken at the center of the triangle. *Chart as shown on PRESENT SURVEY.*

M. ADEQUACY OF SURVEY

This survey was conducted in accordance with the Project Instructions and the Hydrographic Manual and is complete and adequate to supersede all prior surveys for charting.

N. AIDS TO NAVIGATION

No fixed or floating aids to navigation exist in the survey area.

No ferry routes exist in the survey area.

A prominent footbridge is located over an inlet (see Section L) at lat. 30°14'28"N, long. 87°44'18"W (vertical clearance 13 feet at 1900 UTC, 11 December 1985). This footbridge is not depicted on NOS Chart 11376. A highway overpass (known as Lee Callaway Bridge) north of the footbridge, runs over the inlet with a vertical clearance of 11 feet at 1905 UTC, 11 December 1985. A pipeline with a vertical clearance of 7 1/2 feet (1910 UTC, 11 December 1985) is located on the north side of Lee Callaway Bridge. This bridge is depicted on NOS Chart 11376. The vertical clearance heights have not been adjusted for tides to MHW.

Copies of NOAA Form 76-40 are included in the Appendix.

O. STATISTICS

| | <u>Launch 1257</u> | <u>Launch 0518</u> |
|------------------------------------------|--------------------|--------------------|
| Number of positions..... | 4175 | 1 (D.P.) |
| Nautical miles of sounding lines..... | 1475.5 | 0 |
| Mainscheme..... | 945.4 | 0 |
| Cross lines..... | 112.0 | 0 |
| Development..... | 418.1 | 0 |
| Square nautical miles of hydrography.... | 102.3 | 0 |
| Miles run to and from survey area..... | 3233.0 | 30 |
| Bottom samples..... | 63 | 0 |
| Velocity casts..... | 16 | 0 |

P. MISCELLANEOUS

Numerous unauthorized fish havens exist in the survey area. These fish havens consist of automobiles, dumpsters, automobile and heavy equipment tires, large household appliances (e.g. washing machines, dryers, refrigerators), etc. The fishermen who place these fish havens are reluctant to reveal the locations. These fish havens have been in deep water and are not hazardous to navigation.

LORAN-C verification data were not routinely collected during this survey. The LORAN-C unit would not operate properly after the installation of the HYDROTRAC system. The strength of the LORAN-C signal varied continuously while the HYDROTRAC system was operating. The electrical ground connections and antenna couplers were cleaned and checked to insure good connections. This did not solve the problem.

Two axial fairway lines were run along the Safety Fairway. The mainscheme Safety Fairway lines were split to 100 meter as per Section 6.5.1. of the Project Instructions.

Supplemental hydrography was run to determine the extent of change in the inshore area after the exceptionally severe 1985 Hurricane Season. Two sandbars run parallel to the beach. The offshore sandbar was found to have shifted shoreward which produced depths as much as eight feet deeper.*The supplemental hydrography was run after the HYDROTRAC became inoperable and was accomplished using Del Norte Range/Azimuth. Arcs could not be run in this area due to the proximity of the shoal; therefore, Launch 1257 ran parallel to the offshore side of the offshore shoal along specific contours. As such, the coverage may not be as complete as desired. It was found that mainscheme hydrography run offshore of the shoal was not affected. A crossline was run offshore of the shoal and agreement was found to be quite good. The original data have already been plotted on the final field sheet. These data have not yet been rejected. The supplemental hydrography has been plotted on the final overlay.**The hydrographer recommends positions 3230-3270, DN 214 (1985) and positions 3313-3358, DN 232 (1985) not be smooth plotted by the verifier***These data should be replaced by positions 3921-4017, DN 338 (1985) and positions 4041-4144, DN 006 (1986).*SEE also section 1.b. of the EVALUATION REPORT. ** SURVEY NO. H-10151A *** SURVEY NO. H-10151B

On final review of the predicted tide tape listings, it was found the "Time Meridian of Output-west" was incorrectly entered as 090 instead of 000 for DN 267, 268, and 290 (1985). These days were plotted with incorrect predicted tides and some soundings may have varied up to one foot. A printout of the incorrect predicated tides listing clearly marked is included in the accordion file as well as a copy of the correct predicted tide listing.

Dauphin Island tide gage (873-5180) malfunctioned on 12 February 1985 and was repaired the same day by Chapin and Associates. No hydrography was run this day.

No anomalous currents were observed in the survey area.

Q. RECOMMENDATIONS

The hydrographer recommends the charted shoreline be revised to reflect the discrepancies noted in Section H. The delineation of Lagoon Pass should be updated to reflect the changes brought about by construction in the pass. *

SEE ALSO SECTION I.6. OF THE EVALUATION REPORT
Due to the exceptional number of hurricanes which made landfall along the Gulf Coast during 1985, the hydrographer recommends the coastline from Apalachicola to Mississippi Sound be updated by photogrammetric methods.*

SEE ALSO SECTION I.6. OF THE EVALUATION REPORT.
No additional field work is necessary. See Sections K, L, M, and P for additional recommendations.

R. AUTOMATED DATA PROCESSING

The following HYDROPLOT system programs were used during this survey:

| | | |
|-------|------------------------------------------------|----------|
| RK112 | Range-Range and Hyperbolic Real-Time HYDROPLOT | 04/23/84 |
| RK201 | Grid, Signal, and Lattice Plot | 04/18/75 |
| RK211 | Range-Range Non-Real Time Plot | 02/13/84 |
| RK212 | Visual Station Table Plot | 04/01/74 |
| RK216 | Range-Azimuth Non-Real Time Plot | 02/24/84 |
| RK300 | Utility Computations | 10/21/80 |
| RK321 | LORAN-C Computations | 10/21/80 |
| RK330 | Reformat and Data Check | 05/04/76 |
| PM360 | Electronic Corrector Abstract | 02/02/76 |
| RA362 | RK330 and AM602 Combined | 08/20/84 |
| RK407 | Geodetic Inverse/Direct Computation | 09/25/78 |
| RK409 | Geodetic Utility Package | 09/20/78 |
| AM500 | Predicted Tide Generator | 11/10/72 |
| RK530 | Layer Corrections for Velocity | 05/10/76 |
| RK561 | H/R Geodetic Calibration | 12/01/82 |
| AM602 | ELINORE--Line Oriented Editor | 12/08/82 |
| RK606 | Tape Duplicator | 08/22/74 |
| MI999 | Utility Plot | 05/30/73 |

REFERENCE TO REPORTS

A Coast Pilot Report was sent in December 1985 to N/MOA233 to be forwarded to N/CG243. A copy is appended to this report.

H-10151 a/b

Copies of the Dive and AWOIS Item Reports are appended to this report.

A Horizontal Control Report, Perdido Key to Gulf Shores, Alabama, dated 23 July - 18 September 1984, was forwarded to N/MOA233 on 25 February 1985. A copy is appended to this report.

The User Evaluation Report for the 1985 Field Season was forwarded to N/MOA233 in February 1986.

Respectfully submitted,

Robert Lewis

for Philip M. Kenul
LTJG, NOAA
OIC, HFP-1

SIGNAL TAPE LISTING

OPR-J217
HFP-20-2-84
H-10151 *afb*
VESNO 1257

| | | | | | | | | | | | | |
|-----|---|----|----|-------|-----|----|-------|-----|------|--------|--------------------------------------------------------|----|
| 136 | 7 | 30 | 17 | 42156 | 087 | 29 | 07647 | 139 | 0000 | 000000 | ONO ISLAND TANK QUAD 3008724, 1982 | ** |
| 138 | 7 | 30 | 16 | 10568 | 087 | 33 | 28878 | 250 | 0000 | 000000 | PERDIDO PASS LT. 1 QUAD 3008731, 1984 | ** |
| 146 | 6 | 30 | 17 | 30887 | 087 | 34 | 12079 | 139 | 0000 | 000000 | ORANGE BEACH TANK QUAD 3008731, 1983 | ** |
| 147 | 6 | 30 | 16 | 23259 | 087 | 35 | 02928 | 139 | 0000 | 000000 | COTTON BAYOU STAND PIPE 1984 QUAD 3008731 | ** |
| 148 | 6 | 30 | 15 | 30316 | 087 | 39 | 05519 | 139 | 0000 | 000000 | GULF STATE PARK TK QUAD 3008731, 1983 | ** |
| 149 | 1 | 30 | 14 | 48831 | 087 | 40 | 04615 | 250 | 0007 | 000000 | PK GULF PIER, 1983 QUAD 3008731 | ** |
| 150 | 6 | 30 | 16 | 05984 | 087 | 41 | 12517 | 139 | 0000 | 000000 | GULF SHORES TANK QUAD 3008731, 1983 | ** |
| 151 | 1 | 30 | 16 | 08278 | 087 | 41 | 12398 | 139 | 0000 | 000000 | GULF SHORES TANK NORTH, 1983 QUAD 3008731 | ** |
| 152 | 2 | 30 | 14 | 25841 | 087 | 44 | 15601 | 250 | 0006 | 000000 | JONES 1983 QUAD 3008732 | ** |
| 154 | 1 | 30 | 13 | 49506 | 087 | 48 | 06182 | 250 | 0005 | 000000 | SMITH 1983 QUAD 3008733 | ** |
| 156 | 0 | 30 | 13 | 54501 | 087 | 53 | 20906 | 250 | 0032 | 000000 | SW CONDO ELEV SHAFT 1984 QUAD 3008733 | ** |
| 157 | 2 | 30 | 13 | 54409 | 087 | 53 | 20849 | 250 | 0032 | 000000 | SW CONDO ELEV SHAFT ECCENTRIC QUAD 3008733, 1986 | ** |

SIGNAL TAPE LISTING (CONTINUED)

OPR-J217
HFP-20-2-84
H-10151 *af b*
VESNO 1257

| | | | | |
|-------|--------------------------|-----------------|-----------------------------------------------------------------|------|
| 901 7 | 29 40 09229 085 21 26851 | 250 0000 171859 | CAPE SAN BLAS LORAN TR, 1956 QUAD 2908513 STATION 1018 | **** |
| 911 7 | 30 19 45842 087 17 42886 | 250 0000 171859 | H-82-FL, 1982 QUAD 3008724 | ** |
| 912 2 | 30 15 20065 087 38 18945 | 250 0000 171859 | BRANYON 2, 1983 QUAD 3008731 | * |
| 913 6 | 30 15 20065 087 38 18945 | 250 0000 164670 | BRANYON 2, 1983 QUAD 3008731 | * |
| 916 0 | 30 13 36330 088 01 31070 | 250 0000 164670 | WHITING 82 QUAD 3008821, 1982 | **** |

CONTROL LOCATED BY:

* HYDROGRAPHIC FIELD PARTY #1
** HYDROGRAPHIC FIELD PARTY SECTION
*** OPERATIONS DIVISION
**** NATIONAL GEODETIC SURVEY

NOAA FORM 76-40
(8-74)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

ORIGINATING ACTIVITY

Replaces C&GS Form 567.

~~NOAA FORM 76-40~~ LANDMARKS FOR CHARTS

- ☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT
(Field Party, Ship or Office)

HFPS - HFP1

STATE

Alabama

LOCALITY

Gulf of Mexico

Southwest of Gulf Shores

DATE

Jan. 86

- ☒ HYDROGRAPHIC PARTY
☐ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☐ COMPILATION ACTIVITY
☐ FINAL REVIEWER
☐ QUALITY CONTROL & REVIEW GRP.
☐ COAST PILOT BRANCH

The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

(See reverse for responsible personnel)

OPR PROJECT NO.

OPR-J217

JOB NUMBER

HFP-20-2-84

SURVEY NUMBER

H-10151

DATUM

NAD 1927

METHOD AND DATE OF LOCATION

(See instructions on reverse side)

CHARTS
AFFECTED

CHARTING
NAME

DESCRIPTION

(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses)

LATITUDE

LONGITUDE

° / ' " D.M. Meters

° / ' " D.P. Meters

OFFICE

FIELD

BLDG

(SW CONDO ELEV SHAFT)
Nine story bldg., rectangular, lying
north-south in length. Elevator shaft
projects on NW corner. ht = 125 (132)

30 13

54.501

087 53

20.906

F-3-6-L
July 1984

11376

MC L-698(86)

107

| RESPONSIBLE PERSONNEL | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| TYPE OF ACTION | NAME | ORIGINATOR | |
| OBJECTS INSPECTED FROM SEAWARD | P.M. Kenul, LTJG., NOAA | <input type="checkbox"/> PHOTO FIELD PARTY | <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY |
| | | <input type="checkbox"/> GEODETIC PARTY | <input type="checkbox"/> OTHER (Specify) |
| POSITIONS DETERMINED AND/OR VERIFIED | P.M. Kenul, LTJG., NOAA | FIELD ACTIVITY REPRESENTATIVE | |
| | | OFFICE ACTIVITY REPRESENTATIVE | |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | <input type="checkbox"/> REVIEWER | <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |
| INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64, | | | |
| OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75 FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located Vis - Visually V - Verified 1 - Triangulation 5 - Field Identified 2 - Traverse 6 - Theodolite 3 - Intersection 7 - Planetable 4 - Resection 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. | | FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982 II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods. | |

NOAA FORM 76-40
(8-74)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

ORIGINATING ACTIVITY

Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

- ☒ HYDROGRAPHIC PARTY
☒ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☐ COMPILATION ACTIVITY
☐ FINAL REVIEWER
☐ QUALITY CONTROL & REVIEW GRP.
☐ COAST PILOT BRANCH
(See reverse for responsible personnel)

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT
(Field Party, Ship or Office)
HFPS - HFP1

STATE
Alabama

LOCALITY
Gulf of Mexico
Southwest of Gulf Shores

DATE
Jan. 86

The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM | | | | METHOD AND DATE OF LOCATION (See instructions on reverse side) | | CHARTS AFFECTED |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|-----------|-------------------|--------------------------------------|-------------------------------------------------------------------|----------------|--------------------|
| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | LATITUDE | | LONGITUDE | | OFFICE (unadjusted field Posits.) | FIELD | | |
| | | ° / | // D.M. Meters | ° / | // D.P. Meters | | | | |
| OPR-J217 | HFP-20-2-84 | H-10151 | NAD 1927 | | | | | | |
| TANK | (ORANGE BEACH TANK) elevated tank supported by five legs with a central pipe. Ht = 125(148) | 30 17 | 30.887 | 087 34 | 12.079 | | F-3-6-L March 1983 | 11378 11382 | |
| TANK | (COTTON BAYOU STANDPIPE) standpipe tank ht=99.5(119) | 30 16 | 23.259 | 87 35 | 02.928 | | F-3-6-L Sept. 1984 | 11378 11382 | |
| TANK | (GULF STATE PARK TANK) elevated tank supported by six legs with a central pipe. ht=130(*) | 30 15 | 30.316 | 87 39 | 05.519 | | F-3-6-L March 1983 | 11376 | |
| TANK | (GULF SHORES TANK) elevated tank supported by four legs with a central pipe. ht=118(136) | 30 16 | 05.984 | 87 41 | 12.517 | | F-3-6-L March 1983 | 11376 11360 | |
| TANK | (GULF SHORES TANK NORTH) elevated tank supported by six legs with a central pipe. ht=122.5(140) | 30 16 | 08.278 | 87 41 | 12.398 | | F-3-6-L Sept. 1984 | 11376 11360 | |
| *Note: Height above MHW will be obtained and added to this form. | | | | | | | | | |
| NOTE: Previously submitted with OPR-J217, HFP-20-3-83, H-10114 | | | | | | | | | |

NC-L-385(85)

NOAA FORM 76-40
(8-74)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

ORIGINATING ACTIVITY

Replaces C&GS Form 567.

~~NON-LOADING AIDS~~ OR LANDMARKS FOR CHARTS

- ☐ TO BE CHARTED
☐ TO BE REVISED
☒ TO BE DELETED

REPORTING UNIT
(Field Party, Ship or Office)

HFPS - HFP-1

STATE

Alabama

LOCALITY

Gulf of Mexico

Southwest of Gulf Shores

DATE

Jan. 86

- ☒ HYDROGRAPHIC PARTY
☐ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☐ COMPILATION ACTIVITY
☐ FINAL REVIEWER
☐ QUALITY CONTROL & REVIEW GRP.
☐ COAST PILOT BRANCH
(See reverse for responsible personnel)

The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.

JOB NUMBER

SURVEY NUMBER

DATUM

OPR-J217-HSB-81

HFP-20-2-84

H-10151

NAD 1927

METHOD AND DATE OF LOCATION

(See instructions on reverse side)

CHARTS
AFFECTED

CHARTING
NAME

DESCRIPTION

(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses.)

LATITUDE

LONGITUDE

° / ' //
D.M. Meters

° / ' //
D.P. Meters

OFFICE

FIELD

TOWER

Tower is a small lighthouse atop Motel.
Tower is surrounded by taller buildings
and is no longer a good landmark.

30 14

57.70

087 40

40.20

V-Vis

Dec. 1984

11376

Delete from chart.

NOTE: Previously submitted with OPR-J217, HFP-20-3-83, H-10114

nc L-385(85)

DIVE INVESTIGATION REPORT
PROJECT NUMBER OPR-J217
SURVEY H-10151a+b
FIELD NUMBER HFP-20-2-84

DIVE NUMBER 1

23 November 1985
DIVE DATE 30 November 1985

I. AREA OF INVESTIGATION

- A. State/Country Alabama, USA Sub-Locality Southwest of Gulf Shores
B. Position: Latitude 30° 14' 09.99"N Longitude 087° 45' 32.09"W
(Dive site or center of search area)
C. Method of Positioning RANGE/AZ, HP-3810B S/N 192-9A00-438
WILD T-2 S/N 12118

II. PURPOSE OF INVESTIGATION

- A. AWOIS item number: Uncharted wreck
B. Source of item being investigated (if other than AWOIS listing): HFP-1, From various local sources of information.
C. Contacts (e.g. USCG, C of E, Harbor Masters, Owners, etc.):
Mr. Fred Givens, Pleasure Island Dive Center
D. Names, Addresses and Phone Numbers etc. of contacts:
Mr. Fred Givens
Pleasure Island Dive Center
P. O. Box 1730
Gulf Shores, AL 36542
Phone (205) 968-6883

III. SURVEY PROCEDURES

- A. Determination of dive site (e.g. wire drag, side scan, development): Landmarks on shore.
B. Search Procedure (e.g. following a groundwire, circle search, sweep along known feature, etc.) Dive operations from beach.
C. Known reference to features nearby: 2107 meters west of Station Jones (Callaway Bridge over cut to Little Lagoon) can be reached by vehicle on State Highway 182.
D. Area and depths covered:
Depth: 8-18 feet
Area: 225 x 30 feet
Wreck lies almost parallel to the beach with the bow pointing east and stern west.

IV. DIVE DATA

- 23 Nov. 1985: LTJG Philip Kenul, T. Rybarski
 A. Divers: 30 Nov. 1985: LTJG Philip Kenul, T. Schattden, E. Delinger
- | | 23 Nov. | 30 Nov. |
|---------------------------------|---------|---------|
| B. Time of Dive (in UTC) - Real | 1800 | 2115 |
| Elapsed | 30 min. | 55 min. |
- C. General Bottom Depths (units and method of determination):
8-18 feet (Diver depth gage)
- D. Current and conditions: _____
- E. Visibility (number of feet - horizontally and vertically):
 23 Nov.: Horizontally 0, Vertically 0
 30 Nov.: Horizontally 3-5 feet, Vertically 3-5 feet
- F. Bottom type (mud, sand, rocks, etc.): Sand, Shell

IV. RESULTS

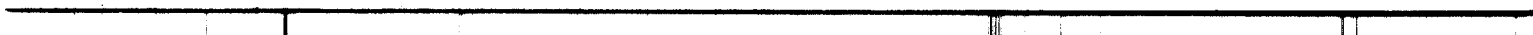
- A. Detached Positions Number(s): 4040 (19 Dec. 1985)
 Time of D.P.'s (UTC): Describe if other time zone: 1555
 Least Depth and Fix Numbers (raw depth): 4.5 feet
 Method of determining depth (The raw sounding should be recorded. The reduced least depth should be plotted on the field sheet.) Lead line
- B. Description of findings:
 Wreck of steam powered side wheel vessel, wooden hull, possible the MIAMI (c. 1870)
- C. Dimensions of item or feature (attach sketch if appropriate):
 See Sketch.
- D. Unusual Conditions:
 None

VI. CHARTING RECOMMENDATIONS

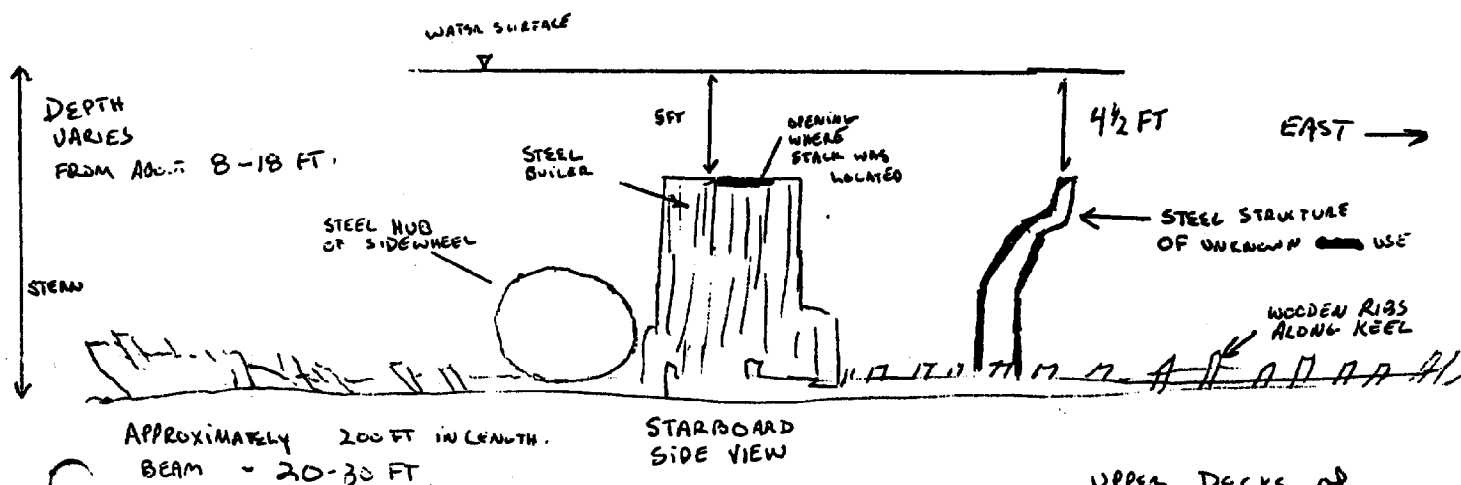
Position Lat. 30° 14' 09.^{8.99}01"N Long. 087° 45' 32.09"W

Reduced Depth 4.3 (corrected for predicted tides)

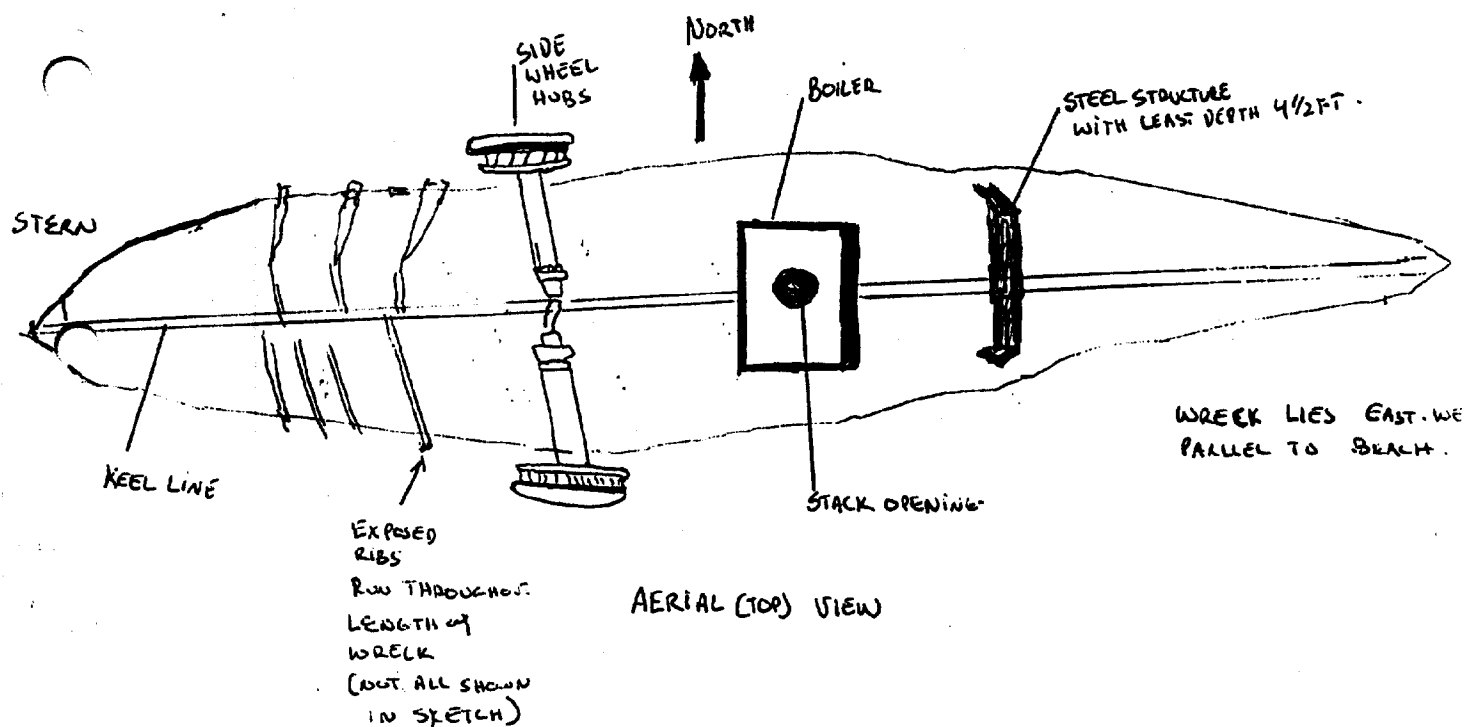
Type of Feature (Reference Chart No.1) SUNKEN Submerge Dangerous Wreck
 SEE SECTION L. P. 20 OF THE HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATION



WRECK OF STEAM POWERED
SIDE WHEELER - NOT TO SCALE
UNCHARTED



UPPER DECKS OF
VESSEL ARE GONE.



WRECK LIES EAST-WE
PARALLEL TO BEACH.

WRECK POSSIBLY THE MIAMI
SUNK C. 1870.

DIVE INVESTIGATION REPORT
PROJECT NUMBER OPR-J217
SURVEY H-10151a**4b**
FIELD NUMBER HFP-20-2-84

DIVE NUMBER 2

DIVE DATE 18 December 1985
D.N. 352

I. AREA OF INVESTIGATION

- A. State/Country Alabama, USA Sub-Locality Southwest of Gulf Shores
- B. Position: Latitude 30° 04' 52.14⁹"N Longitude 087° 48' 12.32⁴"W
(Dive site or center of search area)
- C. Method of Positioning DNTI

II. PURPOSE OF INVESTIGATION

- A. AWOIS item number: 03610 (Charted in wrong location)
- B. Source of item being investigated (if other than AWOIS listing): _____
- C. Contacts (e.g. USCG, C of E, Harbor Masters, Owners, etc.):
Fred Givens
Pleasure Island Dive Center
P.O. Box 1730
Gulf Shores, AL 36542
Phone (205) 968-6883
- D. Names, Addresses and Phone Numbers etc. of contacts:
see above

III. SURVEY PROCEDURES

- A. Determination of dive site (e.g. wire drag, side scan, development): LORAN-C, 7980 Chain, W-12899.9
Y-47045.1
- B. Search Procedure (e.g. following a groundwire, circle search, sweep along known feature, etc.)
- C. Known reference to features nearby: None
- D. Area and depths covered:
55-60 feet, searched along perimeter of tug

IV. DIVE DATA

- A. Divers: LTJG P. Kenul, T. Rybarski, M. McMann
- B. Time of Dive (in UTC) - Real 1821 UTC
Elapsed 20 minutes
- C. General Bottom Depths (units and method of determination):
55-60 feet (Divers depth gage, fathogram).
- D. Current and conditions: Swift current on surface, no current on bottom.
- E. Visibility (number of feet - horizontally and vertically):
Horizontally - 5 feet, Vertically - 5 feet
- F. Bottom type (mud, sand, rocks, etc.): Sand

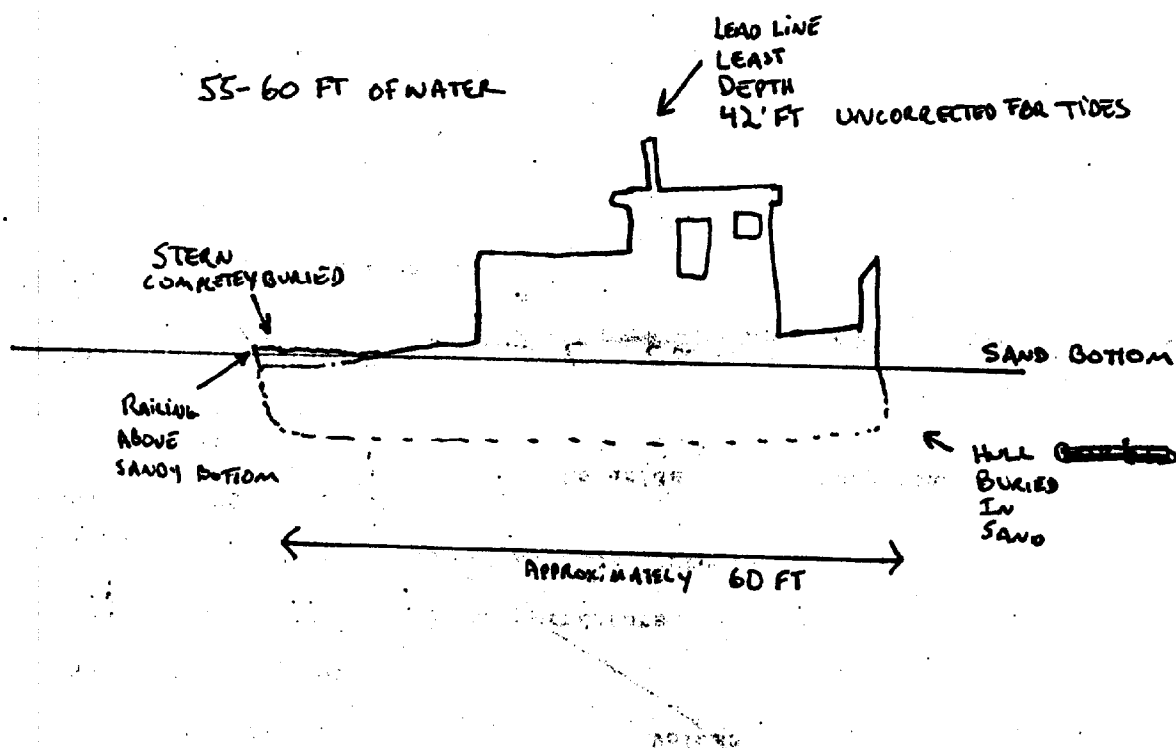
IV. RESULTS

- A. Detached Positions Number(s): 4036 D.N 352/1985
Time of D.P.'s (UTC): Describe if other time zone: 163500
Least Depth and Fix Numbers (raw depth): 42 feet
Method of determining depth (The raw sounding should be recorded. The reduced least depth should be plotted on the field sheet.) Diver lead line
- B. Description of findings: Steel push tug approximately 60 feet in length. Stern buried in sand. Wheel house intact. Least depth on verticle metal brace on cabin.
- C. Dimensions of item or feature (attach sketch if appropriate):
See Sketch.
- D. Unusual Conditions:
None

VI. CHARTING RECOMMENDATIONS

Position Lat. 30° 04' 52.14⁹"N Long. 087° 48' 12.32⁴"W
Reduced Depth 42 feet (corrected for predicted tides)
Type of Feature (Reference Chart No.1) Fish Haven
SEE SECTION L, P.17 of the HYDROGRAPHER'S REPORT
FOR CHARTING RECOMMENDATION.

AWOIS 03610
PUSH TUG SUNK
AS FISH HAVEN.



DIVE INVESTIGATION REPORT
PROJECT NUMBER OPR-J217
SURVEY H-10151a4b
FIELD NUMBER HFP-20-2-84

DIVE NUMBER 3

DIVE DATE 18 December 1985

I. AREA OF INVESTIGATION

- A. State/Country Alabama, USA Sub-Locality Southwest of Gulf Shores
B. Position: Latitude 30° 05' 01.35⁴⁰"N Longitude 087° 49' 57.03⁶"W
(Dive site or center of search area)
C. Method of Positioning DNTI RANGE/RANGE

II. PURPOSE OF INVESTIGATION

- A. AWOIS item number: 03621
B. Source of item being investigated (if other than AWOIS listing): _____
C. Contacts (e.g. USCG, C of E, Harbor Masters, Owners, etc.): _____

- D. Names, Addresses and Phone Numbers etc. of contacts:

III. SURVEY PROCEDURES

- A. Determination of dive site (e.g. wire drag, side scan, development): LORAN-C, 7980 Chain, W-12881.9
Y-47045.4
B. Search Procedure (e.g. following a groundwire, circle search, sweep along known feature, etc.)
C. Known reference to features nearby: None
D. Area and depths covered: All along and around wreckage, 60 feet

IV. DIVE DATA

- A. Divers: LTJG Philip Kenul, T. Rybarski
- B. Time of Dive (in UTC) - Real 1847
Elapsed 30 minutes
- C. General Bottom Depths (units and method of determination):
Fathometer and Depth Gage, 55 feet scoured to 60 feet
- D. Current and conditions: Strong current on top, no current on bottom.
- E. Visibility (number of feet - horizontally and vertically):
Horizontally 4 feet
Vertically 5 feet
- F. Bottom type (mud, sand, rocks, etc.): Sand, Shell

IV. RESULTS

- A. Detached Positions Number(s): 4037
Time of D.P.'s (UTC): Describe if other time zone: 1950
Least Depth and Fix Numbers (raw depth): 50 feet
Method of determining depth (The raw sounding should be recorded. The reduced least depth should be plotted on the field sheet.) Diver Held Lead Line
- B. Description of findings: 220 feet steel barge, with center section rusted away.
- C. Dimensions of item or feature (attach sketch if appropriate):
See Sketch.
- D. Unusual Conditions:
None

VI. CHARTING RECOMMENDATIONS

Position Lat. 30° 05' 01.35⁴⁰"N Long. 087° 49' 57.05⁶"W

Reduced Depth 50 feet (corrected for predicted tides)

Type of Feature (Reference Chart No.1) Fish Haven

SEE SECTION L, P. 18 OF THE HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATION.

AWC's ITEM 03621
HOPPER BARGE SUNK
AS FISH HAVEN

SIDE VIEW

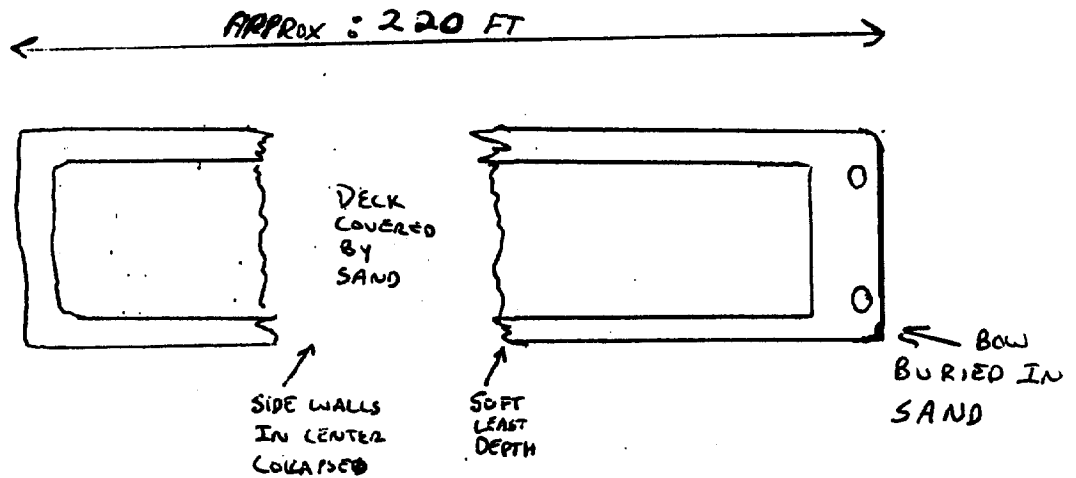
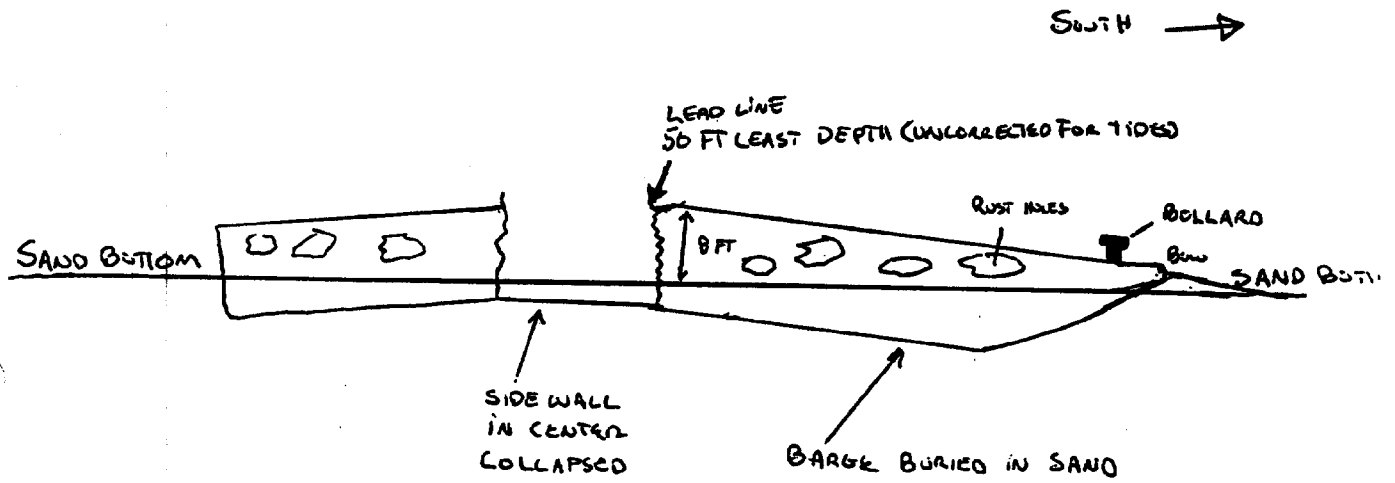


CHART # 11376

ITEM # Uncharted

ITEM DESCRIPTION: Submerged reinforced concrete jetty which has collapsed into inlet.

SOURCE: HFP-1, NOAA LAUNCH 1257

INVESTIGATION DATE: 02 December 1985 TIME: 1730 UTC VESSEL: NOAA LAUNCH 1257

OIC: Philip M. Kenul, LTJG, NOAA

REFERENCES:

Position No: 3912 Volume 2 pg. 6

CORRECTORS APPLIED:

☐ Velocity ☐ TRA Correctors
☐ Predicted or ☐ Actual Tide Correctors

GEODETIC POSITION:

| | Latitude | Longitude |
|-----------|-----------------|------------------|
| Charted: | | |
| Observed: | 30° 14' 22.60"N | 087° 44' 15.19"W |

POSITION DETERMINED BY: R/AZ, HP-3810B, EDM

METHOD OF ITEM INVESTIGATION: Obstruction was observed on east side of Inlet Little Lagoon to Gulf of Mexico. Obstruction estimated to be covered by less than 1 foot at low water. (See chartlet)

CHARTING RECOMMENDATIONS: Obstruction, Dangerous to Surface Navigation, 1 foot.

Compilation Use Only

CHART

APPLIED AS



INTRACOASTAL
 Intracoastal Waterway
 Carrabelle, Fla.
 1. Aids with red board side; green port side.
 2. Where the Inland Incidents with and purpose aids have angles on the squares on the

CHART # 11360

ITEM # Uncharted wreck

ITEM DESCRIPTION: Steel tug boat (50-60 ft)

SOURCE:

INVESTIGATION DATE: 17 December 1985 TIME: 1500 UTC VESSEL: NOAA 1257

OIC: LTJG Philip Kenul

REFERENCES:

Position No: See note below Volume PG.

CORRECTORS APPLIED:

☐ Velocity ☐ TRA Correctors
☐ Predicted or ☐ Actual Tide Correctors

GEODETIC POSITION:

| | Latitude | Longitude |
|-----------|-----------------|------------------|
| Charted: | N/A | N/A |
| Observed: | N/A | N/A |
| Reported: | 30° 05' 43.84"N | 087° 46' 05.07"W |

POSITION DETERMINED BY:

See note below.

METHOD OF ITEM INVESTIGATION:

This wreck was searched for using LORAN-C rates, 7980 Chain, W-12922.1
Y-47049.5

Nothing was found. The above position was computed from the reported LORAN-C coordinates. These coordinates were reported to HFP-1 by local dive organization. This wreck is in approximately 50 feet of water.

CHARTING RECOMMENDATIONS: ~~Submerged wreck, PA~~ SEE SECTION L., P.20 of
THE HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATION.

Compilation Use Only

CHART

APPLIED AS

CHART # 11360

ITEM # 03610

ITEM DESCRIPTION: Steel Tug, sunk as Fish Haven by State of Alabama,
Marine Resources Division.

SOURCE:

INVESTIGATION DATE: 18 December 1985 TIME: 1635 UTC VESSEL: NOAA 1257

OIC: LTJG Philip Kenul

REFERENCES:

Position No: 4036

Volume 2

PG. 32

CORRECTORS APPLIED:

☐ Velocity

☐ TRA Correctors

☒ Predicted or

☐ Actual Tide Correctors

Least depth of 42 ft
measured by diver held
leadline, corrected to
42 feet.

GEODETTIC POSITION:

| | Latitude | Longitude |
|-----------|----------------------|-----------------------|
| Charted: | 30° 03' 30.00"N | 087° 48' 44.00"W |
| Observed: | 30° 04' 52.14"N 9 | 087° 48' 12.32"W 4 |

POSITION DETERMINED BY:

R/R DNTI

METHOD OF ITEM INVESTIGATION:

Located wreck by LORAN-C rates, 7980 Chain, W-12899.8
Y-47045.1

Dive operations - confirmed tug which was sunk as Fish Haven
reported in wrong location.

CHARTING RECOMMENDATIONS: ~~Revise charted position of Fish Haven~~
~~to surveyed position. SEE SECTION L.P.17 of the~~
hydrographer's report for charting recommendations

Compilation Use Only

CHART

APPLIED AS

CHART # 11376

ITEM # 03621

ITEM DESCRIPTION: 220-foot barge sunk as Fish Haven by State of Alabama,
Marine Resources Division

SOURCE:

INVESTIGATION DATE: 18 December 1985 TIME: 1950 UTC VESSEL: NOAA 1257

OIC: LTJG Philip Kenul

REFERENCES:

Position No: 4037

Volume 2 pg. 32

CORRECTORS APPLIED:

☐ Velocity

☐ TRA Correctors

Least depth by diver
leadline, 50 ft, corrected
to 50 feet.

☒ Predicted or

☐ Actual Tide Correctors

GEODETIC POSITION:

| | Latitude | Longitude |
|-----------|-------------------------------|-------------------------------|
| Charted: | 30° 05' 10.00"N | 087° 50' 00.00"W |
| Observed: | 30° 05' 01.35"N ₄₀ | 087° 49' 57.05"W ₆ |

POSITION DETERMINED BY:

R/R DNTI

METHOD OF ITEM INVESTIGATION:

Located by LORAN-C, 7980 Chain, W-12881.9
Y-47045.5

Dive operations - confirmed barge.

CHARTING RECOMMENDATIONS: ~~Revise charted position of Fish Haven to~~
~~surveyed position. SEE SECTION L, P. 18 of the~~
HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATION.

Compilation Use Only

CHART

APPLIED AS

CHART # 11360

ITEM # Q3623

ITEM DESCRIPTION: 200-foot steel barge sunk as Fish Haven by State of Alabama, Marine Resources Division

SOURCE:

INVESTIGATION DATE: 18 December 1985 TIME: 2015 UTC VESSEL: NOAA 1257

OIC: LTJG Philip Kenul

REFERENCES:

Position No: 4038

Volume 2 PG. 32

CORRECTORS APPLIED:

☐ Velocity

☐ TRA Correctors

☐ Predicted or

☐ Actual Tide Correctors

A least depth of 53.5 feet was found by Raytheon Fathometer (uncorrected for tides and velocity of sound).

GEODETTIC POSITION:

| | Latitude | Longitude |
|-----------|-----------------|------------------|
| Charted: | 30° 05' 10.00"N | 087° 50' 45.00"W |
| Observed: | 30° 04' 43.46"N | 087° 50' 26.17"W |

POSITION DETERMINED BY:

R/R DNTI

METHOD OF ITEM INVESTIGATION:

Located from LORAN-C rates, 7980 Chain, W-12876.7
Y-47044.2

CHARTING RECOMMENDATIONS: ~~Revise charted position of Fish Haven to surveyed position. SEE SECTION L, P. 19 & HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATION.~~

Compilation Use Only

CHART

APPLIED AS

CHART # 11376

ITEM # Uncharted

ITEM DESCRIPTION: Steam powered side wheel, wooden hull
may be MIAMI (c. 1870)

SOURCE:

LOCATED: 19 Dec. 1985

INVESTIGATION DATE: DIVES: 23 Nov. 1985 TIME: 1555 UTC VESSEL: NOAA LAUNCH 0518
30 Nov. 1985

OIC: LTJG Philip Kenul

REFERENCES:

Position No: 4040

Volume 2 pg. 33

CORRECTORS APPLIED:

☐ Velocity

☐ TRA Correctors

☒ Predicted or

☐ Actual Tide Correctors

Leadline depth from
LAUNCH NOAA 0518 of 4.5 ft,
corrected for predicted tide
to 4.3 feet.

GEODETTIC POSITION:

Charted:

Latitude

Longitude

Observed:

N/A

N/A

30° 14' 09.01"N

087° 45' 32.09"W

8.99

POSITION DETERMINED BY:

R/AZ Wild T-2, S/N 12118

HP-3810B, EDM, S/N 192 9A00 438

METHOD OF ITEM INVESTIGATION:

Located item from various local sources, conducted dive operations
from beach. Marked wreck with buoy. Positioned with NOAA LAUNCH 0518,
and leadline taken on 19 December 1985. The wreck lies between two
sandbars along the beach.

CHARTING RECOMMENDATIONS: ^{SUNKEN} Dangerous ~~submerged~~ wreck. SEE SECTION L. P. 20 of
THE HYDROGRAPHER'S REPORT FOR CHARTING RECOMMENDATIONS

Compilation Use Only

CHART

APPLIED AS



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA LAUNCH 1257
General Delivery
Orange Beach, AL 36561

20 November 1985

TO: N/CG222 - Norman Banks
Chief, Chart Information Section

THRU: N/MOA233 - LCDR Kenneth W. Perrin
Chief, HFPS

FROM: N/MOA233 - LTJG Philip M. Kenul
OIC, HFP-1

SUBJECT: Submerged Uncharted Wreck, OPR-J217, H-10151

The attached letter and section of Chart 11376 were sent to Commander, Eighth Coast Guard District, New Orleans, Louisiana, for inclusion in the Local Notice to Mariners, concerning the location of an uncharted submerged wreck.

The wreck was located by me during a non-duty dive on 13 November 1985. A revised position and least depth will be determined at a later time.





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA LAUNCH 1257
General Delivery
Orange Beach, Alabama 36561

19 November 1985

Commander, Eighth Coast Guard District
Aids to Navigation Branch
Hale Boggs Federal Building, Room 1141
500 Camp Street
New Orleans, Louisiana 70130

Dear Sir:

During survey operations of the National Ocean Service's Hydrographic Field Party 1, an uncharted submerged wreck was positioned on 14 November 1985, at latitude 30° 14' 12.00"N, longitude 087° 45' 34.55"W. The wreck is in 8-14 feet of water and rests between two sand bars. A least depth has not been determined at this time; however, it was reported that prior to hurricane Elena the least depth was about 5 feet. This position is approximate since the survey vessel could not safely navigate that close to shore. A section of NOS Chart 11376 showing the position of the wreck is enclosed.

The preceding advance field information is subject to review and verification. If you have any questions, please contact me at (205) 981-9193.

Sincerely,

Philip M. Kenul, LTJG, NOAA
Officer-in-Charge



(CONTINUED ON CHART 11378)

(JOINS CHART 11382)

INTRACOASTAL WATERWAY AIDS
Intracoastal Waterway aids are characterized by yellow strip. Proceeding from Carrab. Fla. to Brownsville, Tex.:
1. Aids with red reflectors are on the starboard side; green reflectors are on the port side.
2. Where the Intracoastal Waterway coincides with another waterway, the dual purpose aids have distinctive yellow triangles on the starboard side and yellow squares on the port side.



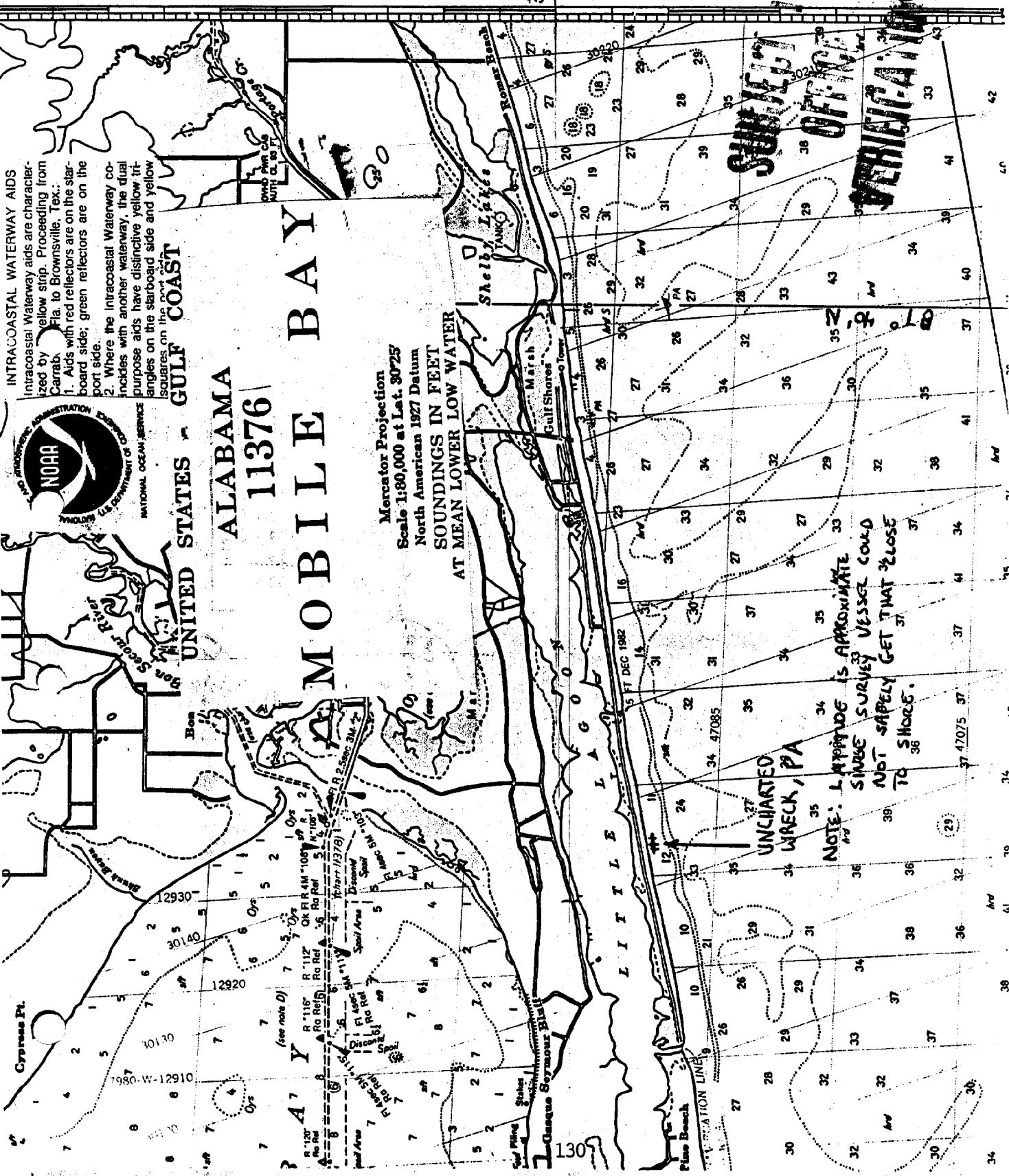
UNITED STATES - GULF COAST

ALABAMA

11376

MOBILE BAY

Mercator Projection
Scale 1:80,000 at Lat. 30°25'
North American 1927 Datum
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER



SUBJECT OFFICIAL VERIFICATION

UNLOCATED WRECK, PA

NOTE: LATITUDE IS APPROXIMATE
SINGLE SURVEY VESSEL COULD NOT SAFELY GET THAT CLOSE TO SHORE.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA LAUNCH 1257
General Delivery
Orange Beach, AL 36561

09 December 1985

TO: N/CG222 - Norman Banks
Chief, Chart Information Section

THRU: N/MOA233 - LCDR Kenneth W. Perrin
Chief, HFPS

FROM: N/MOA233 - LTJG Philip M. Kenul
OIC, HFP-1

SUBJECT: Submerged Dangerous Obstruction, NOS Chart 11376, Survey H-10151

Enclosed is a copy of the letter sent to Eighth Coast Guard District, concerning a submerged dangerous obstruction. They were also notified by telephone on 09 December 1985.





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA LAUNCH 1257
General Delivery
Orange Beach, Alabama 36561

09 December 1985

Commander, Eighth Coast Guard District
Aids to Navigation Branch
Hale Boggs Federal Building, Room 1141
500 Camp Street
New Orleans, Louisiana 70130

Dear Sir:

A submerged dangerous obstruction was located by the National Ocean Service's Hydrographic Field Party 1, on 02 December 1985. The obstruction is a section of a reinforced concrete jetty which has collapsed into the east side of the inlet from Little Lagoon to the Gulf of Mexico, west of Gulf Shores. The obstruction is estimated to be covered by less than 1 foot at low water, and is located at latitude 30° 14' 22.60"N, longitude 087° 44' 15.19"W. A section of NOS Chart 11376 showing the position of the obstruction is enclosed.

The preceding advance field information is subject to review and verification. If you have any questions, please contact me at (205) 981-9193.

Sincerely,

Philip M. Kenul, LTJG, NOAA
Officer-in-Charge





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
NOAA LAUNCH 1257
General Delivery
Orange Beach, AL 36561

20 December 1985

TO: N/CG222 - Norman Banks
Chief, Chart Information Section

THRU: N/MOA233 - LCDR Kenneth W. Perrin
Chief, HFPS

FROM: N/MOA233 - *Philip M. Kenul*
LTJG Philip M. Kenul
OIC, HFP-1

SUBJECT: Wrecks Located During Survey Operations

The attached letter and section of NOS Chart 11360 has been sent to Commander, Eighth Coast Guard District. This information was also transmitted by telephone on 19 December 1985.





**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL OCEAN SERVICE

NOAA LAUNCH 1257

General Delivery

Orange Beach, AL 36561

20 December 1985

Commander, Eighth Coast Guard District
Aide to Navigation Branch
Hale Boggs Federal Building, Room 1141
500 Camp Street
New Orleans, Louisiana 70130

Dear Sir:

During survey operations of the National Ocean Service, Hydrographic Field Party 1, several wrecks were located by NOAA Launch 1257. The following information affecting NOS Chart 11360 should be noted in the next Local Notice to Mariners. These wrecks were located using RANGE/RANGE Del Norte control from Third Order-Class I, Horizontal Control Stations.

An uncharted wreck was located by Raytheon Fathometer at latitude $30^{\circ} 03' 52.67''\text{N}$, longitude $087^{\circ} 42' 29.94''\text{W}$ on 18 December 1985. The wreck is reported to be a wooden tug converted to a fishing trawler in 70 feet of water with a least depth of approximately 58 feet.

A charted Fish Haven reported at latitude $30^{\circ} 03' 30''\text{N}$, longitude $087^{\circ} 48' 44''\text{W}$, was found during dive operations on 18 December 1985, 1635 UTC, at latitude $30^{\circ} 04' 52.14''\text{N}$, longitude $087^{\circ} 48' 12.32''\text{W}$. The Fish Haven is an intact steel push tug in 55-60 feet of water with the stern buried in the sand. A least depth measured by diver held leadline was 42 feet (uncorrected for tides).

A charted Fish Haven reported at latitude $30^{\circ} 05' 10''\text{N}$, longitude $087^{\circ} 50' 00''\text{W}$, was located during dive operations on 18 December 1985, 1950 UTC, at latitude $30^{\circ} 05' 01.35''\text{N}$, longitude $087^{\circ} 49' 57.05''\text{W}$. The Fish Haven is a 220-foot steel barge. A least depth measured by diver held leadline was 50 feet (uncorrected for tides).

A charted Fish Haven reported at latitude $30^{\circ} 05' 10''\text{N}$, longitude $087^{\circ} 50' 45''\text{W}$, was located by Raytheon Fathometer at latitude $30^{\circ} 04' 43.46''\text{N}$, longitude $087^{\circ} 50' 26.17''\text{W}$, on 18 December 1985 at 2015 UTC. The Fish Haven is described as a 200-foot steel barge in 55-60 feet of water. A least depth of 53.5 feet was found by Raytheon Fathometer (uncorrected for tides and velocity of sound).

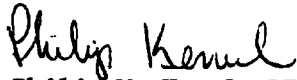


An uncharted wreck previously reported by HFP-1 in a letter dated 19 November 1985 to Eighth Coast Guard District was located on 19 December 1985. The revised position is latitude $30^{\circ} 14' 09.01''$ N, longitude $087^{\circ} 45' 32.09''$ W. This position was determined by RANGE/AZIMUTH methods using a Wild T-2 Theodolite and an HP-3810B, EDM. This wreck also affects NOS Chart 11376.

Additionally, HFP-1 received information concerning an uncharted steel tug boat sunk at latitude $30^{\circ} 05' 43.84''$ N, longitude $087^{\circ} 46' 05.07''$ W, in approximately 50 feet of water. This position was computed from the reported LORAN-C coordinates. This wreck was searched for on 17 December 1985 but not found, and should be reported as position approximate.

A section of NOS Chart 11360 depicting the location of these wrecks has been attached. This advance field information is subject to verification and final office review. If you have any questions, please contact me at (205) 981-9193.

Sincerely,



Philip M. Kenul, LTJG, NOAA
Officer-in-Charge

10'

88°

50'

30'

20'

LORAN-C GENERAL EXPLANATION

LORAN-C FREQUENCY 1000 KHz
PULSE-REpetition INTERVAL 7980
STATION TYPE DESIGNATORS (Not individual station letter designators)
Master
Secondary
Secondary
Secondary
Secondary

EXAMPLE: 7980-W

RATES ON THIS CHART

7980-W 7980-X 7980-Y

SUBMERGE

A select pipelines in Uncharted cables, man well structures and use caution trawling. Covered lighted or u

The Loran-C lines of position overprinted on this chart were prepared for use with ground wave signals and are presently compensated only for theoretical propagation delays which have not yet been verified by observed data. Mariners are cautioned not to rely entirely on these lines in shallow waters. Skywave corrections are not indicated.

Uncharted wreck
(Steam powered side wheeler)
30° 14' 09.01"N Lat.
087° 45' 32.09"W Long.

Fish Haven
(220-ft steel barge)
30° 05' 01.35"N Lat.
087° 49' 57.05"W Long.

Uncharted wreck, PA
(steel tug boat)
30° 05' 43.84"N Lat.
087° 46' 05.07"W Long.

Fish Haven
(200-ft steel barge)
30° 04' 43.46"N Lat.
087° 50' 26.17"W

Fish Haven
(Intact steel push tug)
30° 04' 52.14"N Lat.
087° 48' 12.32"W Long.

Uncharted wreck
Lat. 30° 03' 52.67"N
Long. 087° 42' 29.94"W

28th Ed., Dec. 10/83

11360 LORAN-C OVERPRINTED

APPROVAL SHEET

For
a**f**b
SURVEY H-10151_^ (HFP-20-2-84)

The hydrographic records transmitted with this survey are complete and adequate to supersede prior surveys for charting with no additional field work recommended.

No direct supervision was given by me during the field work.

Approved and forwarded.

Kenneth W. Perrin

Kenneth W. Perrin

LCDR, NOAA

Chief, Hydrographic Field Parties Section

LETTER TRANSMITTING DATA

TO:

Chief, Data Control Branch, N/CG243
Room 151, WSC-1
National Ocean Service - NOAA
Rockville, MD 20852

DATA AS LISTED BELOW WERE FORWARDED TO YOU
BY (Check):☐ ORDINARY MAIL☐ AIR MAIL☒ REGISTERED MAIL☐ EXPRESS☐ CBL (Give number) _____

DATE FORWARDED

26 Oct 1987

NUMBER OF PACKAGES

THREE (3)

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H-10151a&b (HFP-20-2-84)
OPR-J217, Alabama, Gulf of Mexico
21 miles east of Mobile Point

PKG. 1 (TUBE)

- 2 SMOOTH SHEET
- 2 FINAL SMOOTH POSITION OVERLAY
- 4 FINAL EXCESS OVERLAYS
- 4 FINAL FIELD SMOOTH SHEETS
- 1 ORIGINAL DESCRIPTIVE REPORT

PKG. 2 (BOX)

- 1 CAHIER containing FINAL POSITION PRINTOUT
- 1 CAHIER containing FINAL SOUNDING PRINTOUT and L-FILE
- 1 ENVELOPE containing SUPPLEMENTAL DATA from PRINTOUT
- 1 SMALL BOX containing SAWTOOTH POSITION CHARTS
- 2 NOAA FORM 77-44 (SOUNDING VOLUMES)
- 1 ENVELOPE containing DATA REMOVED FROM ORIGINAL DESCRIPTIVE REPORT
- 1 ENVELOPE containing VELOCITY CALIBRATION DATA

FROM: (Signature)

NORRIS A. WIKE

*Norris A. Wike*RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

Chief, Hydrographic Surveys Branch,
N/MOA23
Atlantic Marine Center
439 W. York Street
Norfolk, VA 23510-1114

LETTER TRANSMITTING DATA

TO:

Chief, Data Control Branch, N/CG243
Room 151, WSC-1
National Ocean Service - NOAA
Rockville, MD 20852

DATA AS LISTED BELOW WERE FORWARDED TO YOU
BY (Check):☐ ORDINARY MAIL☐ AIR MAIL☒ REGISTERED MAIL☐ EXPRESS☐ SGL (Give number) _____DATE FORWARDED
26 OCT 1987NUMBER OF PACKAGES
THREE (3)

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H-10151a&b (HFP-20-2-84)
OPR-J217, Alabama, Gulf of Mexico
21 miles east of Mobile Bay

PKG. 3 (BOX) cont:

- 1 ACCORDION FILE containing MASTER TAPE PRINTOUTS,
CORRECTOR TAPE PRINTOUTS, and FATHOGRAMS for
following JD,s: VESNO 0518: 1985--353
VESNO 1257: 1984--219-223, (229, 233 bar check
fathograms only, 240, 242, 249, 256-257,
271-272, 275-277, 285, 292
1985--08-09, 44, 50-51, 91, (93 bar check
fathogram only), 106, 108, 129-130, 134
141, 144, 193, 199, 207, 214, 225, 232,
235, 267-268, (277 bar check fathogram
only), 290, 297, 317, -318, 322-323, 331,
336, (337 bar check fathogram only), 338,
(340, 347 printout only), 352
1986--06, 83
1 SLOT with PREDICTED TIDE LISTING DATA
1 ENVELOPE containing FIELD POSITION CALIBRATION DATA

FROM: (Signature)

NORRIS A. WIKE

*Norris A. Wike*RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

Chief, Hydrographic Surveys Branch,
N/MOA23
Atlantic Marine Center
439 W. York Street
Norfolk, VA 23510-1114

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

TIDE NOTE FOR HYDROGRAPHIC SHEET

DATE: March 5, 1986

Marine Center: Atlantic

OPR: J217

Hydrographic Sheet: H-10151 *a & b*

Locality: Offshore Alabama Coast

Time Period: August 6, 1984 - January 6, 1986

Tide Station Used: 873 5180 Dauphin Island, AL

Plane of Reference (Mean Lower Low Water): 2.68 ft.

Height of Mean High Water Above Plane of Reference: 1.2 ft.

Remarks: Recommended Zoning:

Apply a -15 minute time correction to all heights.


Chief, Tidal Datum Quality
Assurance Section

GEOGRAPHIC NAMES

H-10151a**b**

| Name on Survey | A ON CHART NO. 11376 B ON PREVIOUS SURVEY NO. 11360 C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G RAND MCNALLY ATLAS H U.S. LIGHT LIST K | | | | | | | | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--|--|--|--|--|--|--|----|
| | Alabama (title) | X | | | | | | | | |
| Gulf of Mexico | X | | | | | | | | | 2 |
| Mobile Point (title) | X | | | | | | | | | 3 |
| Pine Beach | X | | | | | | | | | 4 |
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Approved:

Charles E. Harrington
Chief Geographer- N/CG2x5

JAN 14 1987

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NO.: H-10151a&b

| | |
|----------------------------|-------|
| Number of positions | 2095 |
| Number of soundings | 27752 |
| Number of control stations | 11 |

| | <u>TIME-HOURS</u> | <u>DATE COMPLETED</u> |
|----------------------------|-------------------|-----------------------|
| Preprocessing Examination | 41 | 19 May 86 |
| Verification of Field Data | 199 | 6 Nov 86 |
| Quality Control Checks | 79 | |
| Evaluation and Analysis | 36 | 6 Feb 87 |
| Final Inspection | 8 | 4 Feb 87 |
| TOTAL TIME | 363 | |
| Marine Center Approval | | 6 Feb 87 |

Transmittal letter of survey and survey records will be included in the Descriptive Report to identify the records accompanying the survey.

ATLANTIC MARINE CENTER
EVALUATION REPORT

SURVEY NO.: H-10151a and
H-10151b

FIELD NO.: HFP-20-2-84

Alabama, Gulf of Mexico, 12 miles east of Mobile Point

SURVEYED: 6 August 1984 through 24 March 1986

SCALE: 1:20,000

PROJECT NO.: OPR-J217-HFP-84

SOUNDINGS: RAYTHEON DE-723D
Fathometer, RAYTHEON
DSF-6000N Fathometer,
Leadline

CONTROL: ODOM HYDROTRAC
(Range/Range),
DEL-NORTE/Wild T-2 and
NIKON NT-2D and
HP-3810B
Theodolite (Range/
Azimuth), CUBIC
WESTERN DM-54 ARGO
(Range/Range)

Chief of Party.....R. W. Jones
.....K. W. Perrin

Surveyed by.....C. B. Greenawalt
.....P. M. Kenul
.....G. S. Lloyd
.....G. L. Merrill
.....G. D. Hendrix
.....M. Mangual-Ortiz
.....R. W. Adams, Jr.

Automated Plot by.....XYNETICS 1201 Plotter (AMC)

1. INTRODUCTION

a. The personnel of Hydrographic Field Party 1 are to be commended for the effort and initiative used in performing work on and excellent basic survey. These efforts have provided the program with valuable charting information. As a result, the effected charts will provide the mariner with the most complete information available.

b. As discussed in section H., page 12, of Descriptive Report four (4) hurricanes hit the shoreline of the present survey during survey operations. A reverification of the shoreline area was performed. A second smooth sheet, survey H-10151b (1985-86), was prepared from a resurvey of the nearshore area after the hurricane. It is recommended that the present survey, H-10151a (1985-86), main sheet, be superseded by H-10151b (1985-86) within the common areas. The shoreline shown on both smooth sheets reflects the post hurricane condition.

c. Notes in the Descriptive Report were made in red during office processing.

2. CONTROL AND SHORELINE

a. Control is adequately discussed in sections F., G., and S. of the Descriptive Report.

b. Shoreline originates with final reviewed Class III Photogrammetric Manuscripts TP-00931 (1981) and TP-00932 of 1981-82. Shoreline changes on present survey are adequately discussed in section H. of the Descriptive Report. The shoreline on present survey is for orientation purposes only except where revised by hydrographer which is shown in red.

3. HYDROGRAPHY

a. Soundings at crossings are in excellent agreement and comply with the criteria found in sections 4.6.1. and 6.3.4.3. of the HYDROGRAPHIC MANUAL.

b. The standard depth curves could be drawn in their entirety. The zero (0) and six (6) foot curves were not delineated because of vessel safety. The supplemental twenty-four (24) and thirty-six (36) foot curves were drawn to show additional bottom relief. Some brown and dashed curves were also drawn to delineate bottom relief.

c. The development of the bottom configuration and determination of least depths is considered adequate.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the HYDROGRAPHIC MANUAL with the following exceptions:

a. The field unit failed to use the minimum allowable distance of 1800 meters to baseline calibrate the DEL-NORTE system. Only 1516.6 meters of distance was used to calibrate the system. AMC OPORDER 79 outlines the necessary guidelines to be used to determine baseline calibrations for DEL-NORTE. In general, this does not degrade the overall quality of the survey.

b. The field unit failed to take twice daily bar checks as required by sections 1.5.2. and 4.9.5.1.1. of the HYDROGRAPHIC MANUAL. Thirty-eight (38) out of a possible fifty (50) bar checks were taken. Sixteen (16) TDC casts were taken to supplement the bar check data. In general, this does not degrade the overall quality of the survey.

5. JUNCTIONS

H-10114 (1983-85) 1:20,000 to the east
H-10179 (1985-86) 1:20,000 to the west
H-10180 (1985-86) 1:20,000 to the south

Standard junctions could not be effected with junctional survey H-10114 (1983-85). The junctional survey is archived at National Ocean Service (NOS) Headquarters, Rockville, Maryland. Survey H-10151a (1984-86) and survey H-10114 (1983-85) are in substantial agreement. Depths generally agree to within one (1) foot. Survey H-10151b (1985-86) and survey H-10114 (1983-85) are in disagreement up to seven (7) feet in depths less than thirty (30) feet. This is because of changes that took place in this area because of hurricanes. Survey H-10114 (1983-85) should be superseded by the data shown on survey H-10151b (1985-86) in the common area. Any adjustments to the depth curves in the junctional areas will have to be made at headquarters on the chart compilation after application of the survey data.

Survey H-10179 (1985-86) which joins the present survey to the west has not been submitted to this office at the present time. The junction between the present survey and survey H-10179 (1985-86) will be addressed in the Evaluation Report for survey H-10179 (1985-86).

Survey H-10180 (1985-86) which joins the present survey to the south has not reached an appropriate stage in office processing for junctioning; therefore, a junction between the two surveys can not be made at this time. The junction between the present survey and survey H-10180 (1985-86) will be addressed in the Evaluation Report for survey H-10180 (1985-86).

6. COMPARISON WITH PRIOR SURVEYS

a. Hydrographic

H-4023a (1917-18) 1:40,000
H-4139 (1919-20) 1:80,000
H-6554 (1940) 1:40,000

The three (3) prior surveys listed above cover the present survey area in its entirety.

Prior survey H-4023a (1917-18) compares favorably with the present survey and shows a general trend of varying plus or minus (\pm) one (1) to two (2) feet. A partial line of soundings running from Latitude 30°13'18"N, Longitude 87°45'17"W to Latitude 30°13'51"N, Longitude 87°45'15"W is four (4) to six (6) feet shoaler than present survey. The partial line of soundings discussed above is considered superseded by the present survey.

Prior survey H-4139 (1919-20) compares favorably with the present survey and shows a general trend of being one (1) to five (5) feet deeper than present survey depths. An eighty (80) foot sounding in Latitude 30°02'36"N, Longitude 87°50'21"W and sixty-eight (68) foot sounding in Latitude 30°03'27"N, Longitude 87°50'18"N are eight (8) feet deeper than present survey depths. The following soundings from prior survey H-4139 (1919-20) are six (6) to twelve (12) feet shoaler than present survey depths.

| <u>Depths</u> | <u>Latitude</u> | <u>Longitude</u> |
|---------------|-----------------|------------------|
| 40 | 30°08'18"N | 87°46'30"W |
| 60-61 | 30°02'54"N | 87°48'00"W |
| 60's | 30°02'57"N | 87°49'54"W |
| 63 | 30°02'42"N | 87°49'51"W |
| 67 | 30°02'45"N | 87°49'30"W |
| 66 | 30°02'36"N | 87°49'51"W |

The soundings discussed above are considered superseded by the present survey.

Prior survey H-6554 (1940) compares favorably with the present survey and shows a general trend of being one (1) to five (5) feet deeper than present survey depths. There are some scattered soundings on prior survey H-6554 (1940) that are one (1) to two (2) feet shoaler than present survey depths. The soundings discussed above are considered superseded by the present survey.

The difference between the present and prior surveys may be attributed to natural changes in the bottom and technological advances in surveying.

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

7. COMPARISON WITH CHART 11360 28th. Edition 10 Dec. 1983
11376 37th. Edition 4 Feb. 1984
11378 19th. Edition 29 Oct. 1983

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys and requires no further consideration. Several charted features which originate from miscellaneous sources are adequately discussed in section L. of the Hydrographer's report.

The present survey is adequate to supersede the charted hydrography except as noted in the Hydrographer's report in the common area.

b. Aids to Navigation

There are no fixed or floating aids to navigation within the limits of this survey.

8. COMPLIANCE WITH INSTRUCTIONS

This survey complies with the Project Instructions except as noted in section 4. of this report.

9. ADDITIONAL FIELD WORK

This is an excellent basic survey. No additional work is recommended.

James B. Wilson

James B. Wilson
Cartographic Technician
Verification of Field Data

Norris A. Wike

Norris A. Wike
Cartographer
Evaluation and Analysis


Robert R. Hill

Robert R. Hill
Senior Cartographic Technician
Verification Check


Inspection Report
H-10151a and H-10151b

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey complies with National Ocean Service requirements except as noted in the Evaluation Report. The survey records comply with NOS requirements except where noted in the Evaluation Report.

Inspected




R. D. Sanocki
Chief, Hydrographic Survey
Processing Section
Hydrographic Surveys Branch



David B. MacFarland
Chief, Hydrographic Surveys Branch

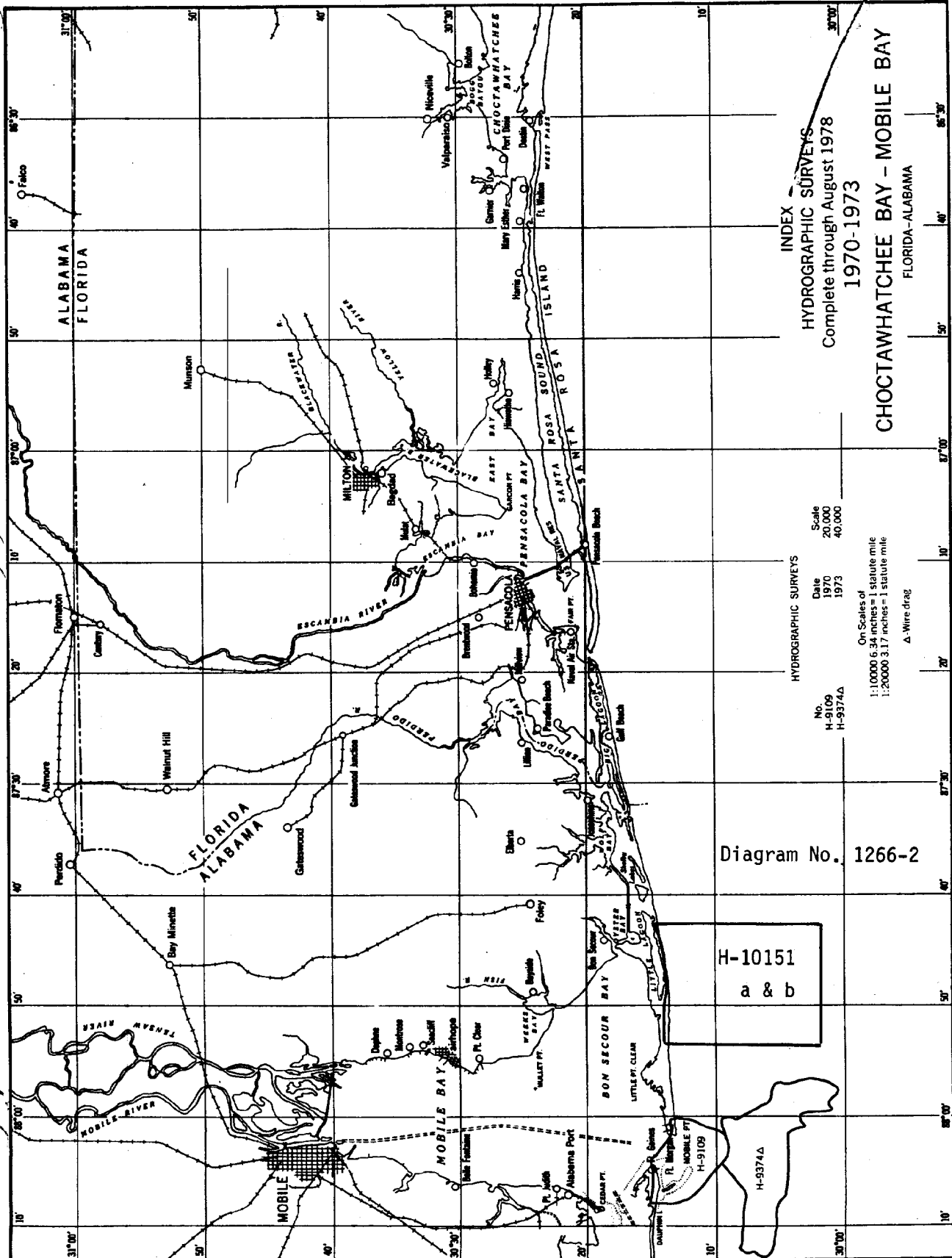
Approved: 6 February 1987



Ray E. Moses, RADM, NOAA
Director, Atlantic Marine Center

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Survey
Rockville, Maryland

Hydrographic Index No. 85 F



FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10151 a&b

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.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED

Appd to Std 11-25-89 Mr