10001

Diagram No. 1115-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. WH-40-1-82

Office No. H-10001

LOCALITY

State Alabama

General Locality Gulf of Mexico

Locality 32 Miles SE of Mobile Point

1982

CHIEF OF PARTY
CDR F.P. Rossi & CDR R. K. Matsushige

LIBRARY & ARCHIVES

DATE October 1, 1984

☆U.S. GOV. PRINTING OFFICE: 1980—766-230

10001

Area 4
CHTS
11360 } to sign off see
11006 } Record of Application
411 }

FORM C&GS-537 (5-66)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-10001

FIELD NO. WH-40-1-82

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State ~~Florida~~ ALABAMA

General locality Gulf of Mexico

Locality ~~Pensacola, Florida~~ 32 Miles SE of Mobile Point

Scale 1:40,000 Date of survey 05 March to 26 March 1982

Instructions dated 13 July 1981 Project No. OPR-J217-HSB-81

Vessel NOAA Ship WHITING S-329 (EDP 2930)

Chief of party Commander Roy K. Matsushige/Commander Frank P. Rossi, Commanding Officers

Surveyed by A. Armstrong III, V. Shaffer, E. Steigerwald, P. Ruiz, P. Kenul, T. Wolf

Soundings taken by echo sounder, ~~hand lead, pole~~ Ross Model 5000

Graphic record scaled by WHITING personnel

Graphic record checked by VNS, EAS, PJR, PK, TAW, FRC, RWB, DVM

Protracted by _____ Automated plot by ~~Hydroplot~~ XYNETICS 1201 PLOTTER (AMC)

Soundings ~~penciled~~ VERIFIED by R.L. KEENE

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW

REMARKS: All times are Coordinated Universal Time. This project includes LORAN-C data already incorporated on the survey's raw master tapes and computer printouts to be used for LORAN-C Chart Verification.

NOTES IN THE DESCRIPTIVE REPORT WERE MADE IN RED DURING OFFICE PROCESSING OF THE SURVEY.

STANDARDS CK'D 10-B-84 C.Loy

AWOIS MSM 11-6-84

SURF MSM 11-6-84

USCOMM-DC 37009-P66

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* FILED WITH ORIGIONAL SURVEY DATA.

PROGRESS SKETCH

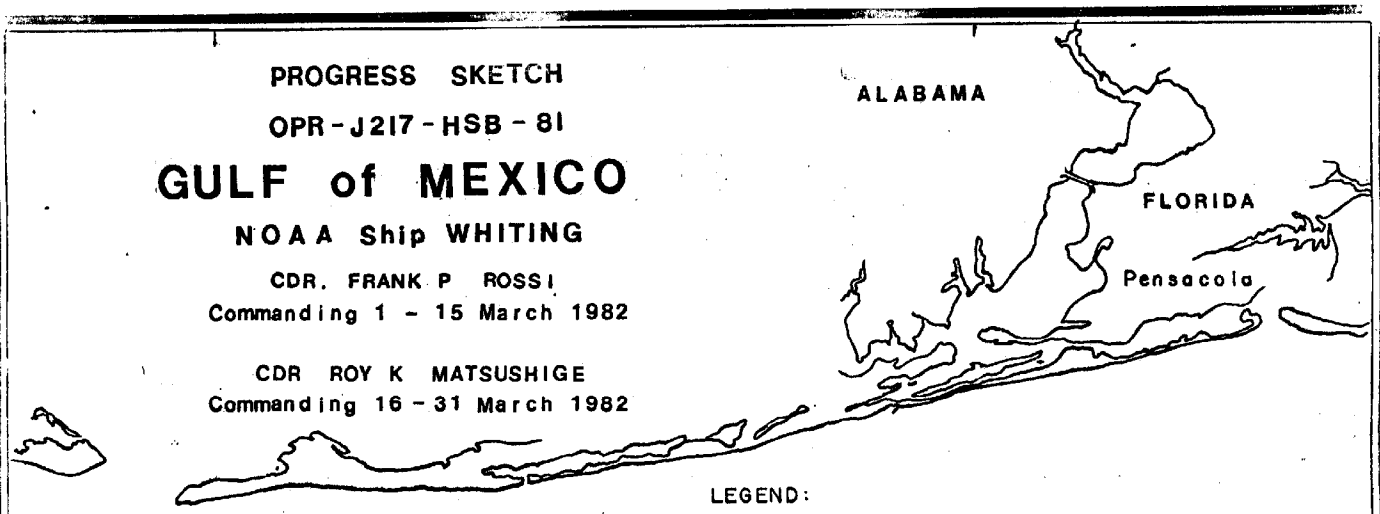
OPR-J217-HSB-81

GULF of MEXICO

NOAA Ship WHITING

CDR. FRANK P ROSSI
Commanding 1 - 15 March 1982

CDR ROY K MATSUSHIGE
Commanding 16 - 31 March 1982

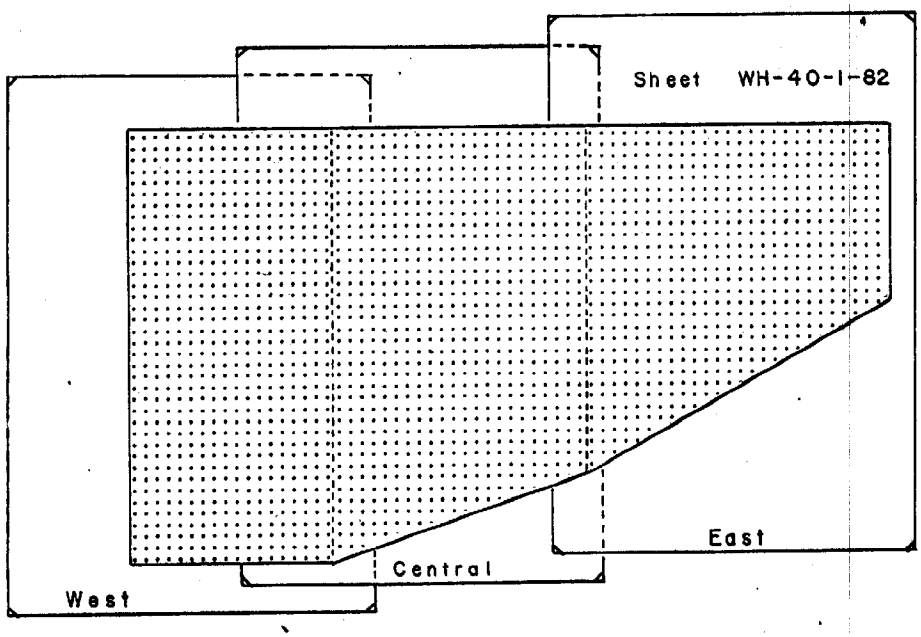


LEGEND:

Sq. N.M. Sounding	348
L. N.M. Sounding	3454
L. N.M. Misc. Distance	527
L. N.M. Dist. to & from	200
Stations Recovered	6
Electronic Control Sta.	2
Bottom Samples	58
T.D.C.	5
Nansen Cast	3
Ships Hydrography	

30° 00'

30° 00'



29° 30'

29° 30'

From Chart No: 11360

88°00'

Scale 1 : 456,394

87° 30'

DESCRIPTIVE REPORT

TO ACCOMPANY

BASIC HYDROGRAPHIC SURVEY

WH-40-1-82

H-10001

SCALE: 1:40,000

SURVEYED MARCH 5 - MARCH 26, 1982

BY NOAA SHIP WHITING S-329

CDR. ROY K. MATSUSHIGE/CDR. FRANK P. ROSSI

COMMANDING OFFICERS

DESCRIPTIVE REPORT

TO ACCOMPANY SURVEY H-10001

WH-40-1-82

A. PROJECT

Hydrographic Survey H-10001 was performed in accordance with Project Instructions for OPR-J217-HSB-81, Gulf of Mexico, dated July 13, 1981, as amended by:

i. Change No. 1, dated July 23, 1981

ii. Change No. 2, dated October 26, 1981, and

iii. Change No. 3, dated December 23, 1981

iv. CHANGE NO. 4, DATED FEBRUARY 10, 1982

v. CHANGE NO. 5, DATED MARCH 2, 1982

This hydrographic survey was performed offshore P~~ensacola~~, ~~Florida~~ of MOBILE POINT, ALABAMA to JUST BEYOND the 20-fathom curve. LORAN-C Chart Verification was also included as part of this basic survey. No shipboard data processing of this supplemental data was required.

B. AREA SURVEYED

The area surveyed was THE Gulf of Mexico, 32 45 nautical miles offshore, ~~southwest~~ EAST of ~~Pensacola coast~~, ~~Florida~~ MOBILE POINT, ALABAMA. It was bounded by Latitude 029°50'00"N to the North and Latitude 029°32'45"N to the South, 087°27'35"W 28 00 Longitude to the East and 087°~~57~~ 58 00'~~40~~"W Longitude to the West. Hydrography was run offshore up to JUST BEYOND the 20-fathom curve demarcation. The surveyed area was ~~characterized by a gentle slope with bottom composition of~~ COVERED WITH EXTENSIVE SAND WAVE AREAS AND A BOTTOM COMPOSITION OF mostly fine grain sand constituents.

This survey was conducted from March ~~4~~ 5, 1982 to March ~~31~~ 26, 1982, ~~Julian~~ YEAR Days 064 -0~~90~~ 85.

C. SOUNDING VESSEL

The sounding vessel used in this survey was the NOAA Ship WHITING S-329, EDP Number 2930, which was equipped with standard hydrographic equipment.

The Hydrotrac Electronic Positioning System was used in this survey. No problems were encountered with the use of this equipment, even under adverse weather conditions.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The sounding equipment used throughout this survey were the ROSS Model 5000 Fine-Line ~~fathometers~~ ECHO SOUNDERS, serial numbers 1049 and 1053.

Problems with the initial on the analog recorders were encountered throughout this survey. This problem would manifest itself by showing the initial trace either too high or too low of its reference mark. The electronic technicians assigned during this survey attributed this defect to "paper drift", (looseness of the ~~fathometer~~ ECHO SOUNDER paper) and not a mechanical problem with the units. This fault was compensated for by frequent phase checks and adjustments by the operator if necessary at mid-scales; 50 feet for 0 - 100 ft. and 150 feet for 100 - 200 scale. This reduced any errors that would have affected the quality of the acquired data. This was the only instrument error encountered.

The following is a list of the ~~fathometer~~ ECHO SOUNDER serial numbers used and the Julian Days these units were utilized:

SHEET	LOCALITY	VESSEL EDP NO.	JD'S	S/N	DEPTH (FT)
WEST	Gulf of Mexico	2930	064	1049	80 - 150
"	"	2930	065	1049/1053	80 - 150
"	"	2930	066	1053	80 - 150
"	"	2930	067	1053	80 - 150
"	"	2930	068	1053	80 - 150
"	"	2930	069	1053	80 - 150
"	"	2930	079	1049	80 - 150
"	"	2930	085	1053	80 - 150
CENTRAL	"	2930	070	1049/1053	80 - 150
"	"	2930	071	1053	80 - 150
"	"	2930	076	1053	80 - 150
"	"	2930	077	1053	80 - 150
"	"	2930	078	1053	80 - 150
"	"	2930	078/079	1049	80 - 150
"	"	2930	083	1053	80 - 150
EAST	"	2930	079/080	1049	80 - 150
"	"	2930	081	1049/1053	80 - 150
"	"	2930	082	1053/1049	80 - 150
"	"	2930	083	1049/1053	80 - 150
"	"	2930	084	1053	80 - 150
"	"	2930	085	1053	80 - 150

To determine other correctors for echo soundings, the following procedures were conducted.

TRA Corrections

Two sets of lead-line measurements were taken during JD's 071 and 074 and were compared with the ~~fathometer~~ ECHO SOUNDER output to determine instrument error. Refer to Appendix IV for results. The instrument error, defined by the difference between the digital and fathometer readout, is considered insignificant as a result of these two tests. Differences between the digital and lead-line values are attributed to error in the lead-line observations, since there is a systematic difference between the two in both tests - that is, the mean of the lead-line values ~~were~~ WAS always deeper than the digital output. The sandy sediment composing the seafloor contributed to this, since the leadline undoubtedly sank into the substrate before the marks were observed, producing a systematic error and a deeper depth.

Fore and aft draft values were recorded at the beginning and end of each trip. The two sets of values were averaged to determine a mean draft for the period. See Appendix IV.

Settlement and Squat

This trial was conducted in the surveyed area near Buoy "C", Latitude 29° 45.4' N, Longitude 87° 43.2' W during March 19, 1982. A description of the method, a table of observed data, and the graph of the results are included in Appendix IV. Correctors from this test will be applied during final processing of the data by the Processing Division, via TC/TI tapes. This trial was made using a ROSS Model 5000 Fine-Line ~~fathometer~~ ECHO SOUNDER S/N 1053.

Velocity Corrections

TDC casts were taken during JD's 064, 067, 070, 080, and 084 using a Martek TDC Model 167, S/N 127, calibrated during the month of February 1982. The values obtained were compared with one Nansen cast performed on JD 080. The result of this cast was graphed and compared to the TDC casts. They were found to be in agreement. See Appendix IV.

These correction values represent the correctors to be applied on this survey for the specified areas, depths and vessel.

Predicted Tides

Tide correctors used on the smooth field sheets were determined from logger tapes provided by Processing Division, AMC, using AM 500 (see predicted tide printout, Appendix IV). The reference gage used was the Pensacola station 872-9850, Latitude 30° 24.0' N, Longitude 87° 13.0' W.

E. HYDROGRAPHIC SHEETS

All field sheets were plotted on a Houston Instrument Model DP-3 Roll Plotter, S/N 4680-1, on board the WHITING. This survey was divided into three sections - East, Central, and West sheets.

The sheet origins and skews were plotted as follows:

SHEET	ORIGIN	SKEW
East	29° 32' 45" N 87° 27' 35" W	90,21,33
Central	29° 32' 45" N 87° 40' 00" W	90,21,34
West	29° 32' 45" N 87° 49' 30" W	90,21,33

Each sheet was plotted with crosslines, mainschemes, and bottom samples with their corresponding detached positions. No developments were performed on any of the sheets, as it was not necessary to further define the sea floor topography.

A total of nine plotter sheets were submitted with this survey. One set contains crosslines, bottom samples, mainscheme lines, and splits (boat sheets). The second set contains mainscheme lines only (smooth field sheets) and the last set contains the overlays (smooth field plot of crosslines and bottom samples).

No irregularity in projections or scales were experienced on the sheets submitted to AMC, CAM3, where field records were transferred for verification. Smooth field sheets were plotted on a Houston Instrument Model DP-3, S/N 4680-1.

F. CONTROL STATIONS

The stations used for electronic positioning sites and for calibration signals for this survey are listed in Appendix VI. Stations 001 and 002 were used as electronic control sites for the Hydrotrac positioning system. The position for station 001 was obtained from NGS published data. The position for station 002 was determined by WHITING personnel, using the traverse method. A complete synopsis of the surveying procedure can be found in the Horizontal Control Report that was submitted to Operations Division, AMC. In addition, an amendment to the original Horizontal Control Report was given to

Gary Fredrick, Operations Division. This amendment includes a third-order determination of signal MOBILE POINT LIGHT, and provides a check position on the MOBILE POINT FRONT RANGE LIGHT. The position on the MOBILE POINT REAR RANGE LIGHT as determined by the original survey is less than third order. It was used during some of the visual calibrations of the Hydrotrac system, however, the partial lane correctors determined using this signal did not vary from those determined using other combinations of signals. Therefore, the position did not degrade the visual calibration results.

G. HYDROGRAPHIC POSITION CONTROL

The range-range method was used for sounding position control. Hydrotrac positioning system was utilized for all the mainscheme, crosslines, and bottom samples. Slave unit stations were chosen so that intersections of rates were greater than 30^{o} and no more than 150^{o}. All data were recorded in real-time using RK112. Recording of LORAN-C data did not affect the ranges on this survey nor was there evidence of LORAN-C signal degradation during adverse weather.

Hydrotrac, a phase-stabilization system, was installed on the ship during February, 1982. A 100-foot tower was installed at each of the two shore stations during the early part of March, 1982.

The following components constituted the equipment used by the WHITING personnel:

Receiver S/N 127
Power Amplifier S/N 539

Master S/N 122
Slave 1 S/N 214
Slave 2 S/N 226
ALU S/N JH101206
Sawtooth Recorder S/N 1914/1460

LORAN-C Model LC-204, S/N 4772-B was used as the receiver for LORAN-C rates using the 7980 net, stations X and Y. No problems were encountered with this unit. SEE SECTION 4 of THE EVALUATION REPORT.

Calibrations for the system were done in accordance with the Hydrographic Manual. To determine the whole lane count, two survey buoys, "W" and "C", were deployed by the WHITING during this survey. Refer to Appendix X for the list of correspondence with the Coast Guard regarding the establishment of these floating aids in the area. Calibration buoy "W" was installed on March 5, 1982, in 120 feet of water at Latitude 29° 43.0' N, Longitude 87° 52.4' W. The second calibration buoy "C" was installed on March 11, 1982, in 120 feet of water at Latitude 29° 45.4' N, Longitude 87° 43.2'W. Whole lane calibrations are included in this report, Appendix V.

Correctors for partial lane calibration were determined by visual three-point sextant fixes with a check angle, at the beginning of each trip, after weather disturbances, prior to ship's inport, and whenever loss or gain of whole lanes was suspected. These values are shown on the Electronic Corrector Abstract, Appendix V. The ANDIST correctors applied during all visual calibrations ~~was~~ WERE the distance from the antenna to the side of the deck where ~~angle benders~~ OBSERVERS were standing. The~~se~~ ANDIST

correctors applied during all visual calibration ~~was~~ WERE the distance from the antenna to the side of the deck where ~~angle benders~~ OBSERVERS were standing. These ANDIST correctors were: 270° and 5 meters on the starboard and 090° and 5 meters on the port side.

THE Hydrotrac system proved to be highly stable and reliable during this survey. No equipment malfunctions were observed or reported. The signals were always strong and within acceptable operating limits. However, on JD 065-066, the WHITING encountered heavy weather and between 1530 GMT JD 065 and 1430 GMT JD 066, a whole lane was gained on both stations. This was determined by buoy circle calibrations, by inspection of the sawtooth record, and by the visual calibration on JD 066. It is observed from the sawtooth record that the disturbance occurred at approximately 2100 GMT. On March 29 1982, the teardown group discovered that a section of the antenna tower had failed structurally. It was verified by one of the WHITING officers in conversation with the personnel at Fort Morgan Park that this section broke the afternoon of JD 065 due to heavy weather. It is possible that this was the reason for which a lane was gained, however, the lane gain occurred on both rates, so it is felt by the hydrographer that the rough weather and atmospheric conditions caused the lane loss and not the failure of the tower section alone. The remaining antenna height was 38 feet. Since the antenna did not detune when the tower section failed and since the observed AGC readings were only slightly lower than prior to the failure, no problem with the tower was suspected. Once the partial lane values were determined on JD 066, these correctors

remained constant for the remainder of the survey. The failure of the tower section did not appear to degrade the positional accuracy of the survey. VERIFICATION OF THE PRESENT SURVEY SHOWED THAT THERE WERE NO POSITIONAL PROBLEMS WITH THE SOUNDING DATA.

Four lines run during this period are spaced slightly wider than required. At the scale of the survey and considering the low relief of the topography of the seafloor, it is the opinion of the hydrographer that this difference did not cause any features dangerous to navigation to be missed.

H. SHORELINE

There were no shoreline requirements ~~in~~ FOR this survey.

I. CROSSLINES

Two hundred and thirty-six nautical miles were run, which is seven percent of the mainscheme total. Agreement with the mainscheme lines was very good. Ninety-five percent agreed within one foot of the mainscheme soundings and five percent agreed within four feet. These agreements meet the accuracy criteria for hydrographic surveys. SEE SECTION 3a OF THE EVALUATION REPORT.

J. JUNCTIONS SEE SECTION 5 OF THE EVALUATION REPORT.

Junctions were not required for this survey. The field party operating in the area is expected to junction with the inshore and eastern boundaries of the region.

K. COMPARISON WITH PRIOR SURVEYS

The following prior surveys were compared with H-10001:

Registry No.	Scale	Year Surveyed
H-6554	1:40,000	1940
H-6656	1:80,000	1940

H-10001 was compared with the southern limits of H-6554. Agreement was very good--98% of all depths were within 2-3 feet of the new depths. The other 2% agreed within 7 feet. Agreement with H-6656 was good--95% of all depths were between 1-3 feet of the present survey. The other 5% agreed within 6 feet of the new survey. These depths compare within acceptable limits.

L. COMPARISON WITH THE CHART

H-10001 was compared with NOS Chart 11360, 1:456,394, 26th Edition, January 30, 1982 ~~February 21, 1981~~. Comparisons were made in the area bounded by the survey limits. Agreement with the chart was good. Survey depths varied from 1-7 feet from charted depths in most areas. Differences may be attributed to THE PRIOR SURVEY SOUNDINGS WHICH ARE THE SOURCE OF THE CHARTED HYDROGRAPHY. ~~the difference in the scale of the chart and that of the survey~~.

M. ADEQUACY OF THE SURVEY

This survey was conducted in accordance with the Project Instructions and the Hydrographic Manual. No part of this survey is considered incomplete or substandard. This survey is adequate to supercede prior surveys of the area.

N. AIDS TO NAVIGATION

There were no aids to navigation within the limits of the survey.

O. STATISTICS

VESNO EDP	Number of Positions	Total Miles
2930	4600	3454

Total Nautical Miles of Hydrography	:	3453
Total Square Miles of Hydrography	:	348
Tide Stations	:	3
Total Positions	:	4600
Bottom Samples	:	58
Current Stations	:	0
TDC Casts	:	5
Nansen Casts	:	3
Electronic Control Stations	:	2

P. MISCELLANEOUS

1. During JD 079, fathometer S/N 1053 was replaced with fathometer S/N 1049 as a result of a motor failure. Fathometer S/N 1049 performed satisfactorily with some loss in the trace darkness. To prevent further fading it was necessary to switch from AGC mode to manual mode. Where the trace faded, positions 2994 - 2999 were rejected.

2. The smooth field sheets forwarded with this project were plotted using velocity correctors, draft corrector (11.0 ft.) and predicted tide corrections.

The following correctors were NOT used on the smooth field sheets:

a. Settlement and Squat (TC/TI),

b. Instrument errors and actual draft, (TRA), and

c. Smooth Tides data.

3. Errors on the Raw Master Data tapes were found during field plotting. WHITING personnel were unable to run the master punch tapes through RK-330 because of the LORAN-C long word. These errors could not be detected until plotted. Therefore, we are including them with the data so AMC Processing Division can fix them before smooth plotting. They are:

CENTRAL

JD 070	4821 01043 01622 056112 168556 000
Correction	014821 01043 01622 056112 168556 000
JD 070	163052 01097 02467 084034 169629 000
Correction	163052 01097 02467 084034 169629 000
JD 078	61034 01178 02783 070035 170846 000
Correction	161034 01178 02783 070035 170846 000

WEST

JD 068	020402 0095801031 051997 173444 000
Correction	020402 00958 01031 051997 173444 000

EAST

NO BAD MASTERS

4. No gyro input was available for use with RK-112 on this survey. Therefore, the value for the antenna distance offset to the transducer used must be applied offline using the direction

steered as logged in the sounding volumes. The distance between the transducer used and the antenna was 5.5 meters for the entire survey.

Q. RECOMMENDATIONS

No additional field work is required. Survey H-10001 is considered adequate and complete. However, it is recommended that since the topographic relief is so low on the 1:40,000 scale surveys in this area, line spacing should be increased to 400 meters. It is the opinion of the hydrographer that this would not degrade the navigational safety of the chart published from this survey. SAND WAVES ARE 6 TO 20 FEET SHOALER THAN SURROUNDING DEPTHS. INCREASED LINE SPACING WOULD HAVE MISSED SOME OF THE SHOALER DEPTHS.

R. AUTOMATED DATA PROCESSING

Program Name	Number	Version Date
1. R/R Real Time Hydroplot/Hydrolog	RK112	8/04/81
2. Grid, Signal, and Lattice Plot	RK201	2/19/75
3. R/R Sounding Plot	RK211	2/21/81
4. Utility Computations	RK300	7/25/80
5. Data Reformat and Check	RK330	5/04/76
6. Layer Corrections for Velocities	AM530	5/10/76
7. Predicted Tide	AM500	8/30/71
8. Geodetic H/R-R Calibration	RK561	10/19/76
9. Extended Line Oriented Editor	RK602	5/20/75
10. Line Printer Listings	RK612	8/01/79

S. REFERRAL TO REPORTS

The Horizontal Control Report was sent to CAM1, March 4, 1982. The supplemental report was submitted to Mr. Gary Fredrick, Operations Division, on April 6, 1982.

To ensure completeness on this hydrographic survey (H-10001), all the field and office work was supervised on a day to day basis.

All the work was executed in accordance with the Project Instructions and the Hydrographic Manual standards.

This survey is considered complete and adequate for charting purposes.

Approved/Forwarded:

Roy K. Matsushige

Commander Roy K. Matsushige, NOAA
Commanding Officer, NOAA Ship WHITING S-329

VI. LIST OF STATIONS

MASTER SIGNAL TAPE LISTING

OPR-J217-WHITING 1982

**	001	6	30	23	03963	086	26	50475	250	0006	171870	CLAUSEN RM3 1955 300862 1019
***	002	6	30	13	36330	088	01	31070	250	0001	171870	WHITING 82 1982 (field position)
*	003	6	30	13	52256	087	59	21068	139	0000	000000	H-61-05-AL 1981 G 16674
*	004	6	30	13	50829	087	59	52270	139	0000	000000	H-61-04-AL 1981 G 16674
*	005	6	30	13	55608	087	57	50908	139	0000	000000	H-61-03-AL 1981 G 16674
*	006	6	30	13	46648	087	58	05173	139	0000	000000	H-61-02-AL 1981 G 16674 (field position)
*	007	6	30	13	26995	088	00	33550	139	0000	000000	H-61-01-AL 1981 G 16674 (field position)
**	008	6	30	13	42022	088	01	23698	139	0000	000000	FORT MORGAN 1846 300882 1042
*	009	6	30	13	42242	088	01	23852	139	0000	000000	FORT MORGAN 1846 ECC 1981
**	010	6	30	11	14826	088	03	02235	139	0000	000000	SAND ISLAND LIGHTHOUSE 1930 300882 1062
*	011	6	30	14	52295	088	04	29341	139	0000	000000	FORT GAINES USE 1958
***	012	6	30	13	18826	088	01	35867	139	0000	000000	MOBILE POINT FRONT RANGE LIGHT 1982 (field position)
***	014	6	30	13	40773	088	01	26553	139	0000	000000	MOBILE POINT REAR RANGE LIGHT 1982
**	015	6	30	15	11959	088	06	44901	139	0000	000000	DAUPHIN ISLAND, WATER TANK 1956 300882 1102
***	076	6	30	19	55431	087	08	29041	139	0000	000000	PENSACOLA BEACH TANK 1978
****	082	6	30	20	26339	087	05	51599	139	0000	000000	PENSACOLA BEACH EAST TANK 1978
**	106	6	30	21	35305	087	10	56109	139	0000	000000	GULF BREEZE TANK 1981
**	111	6	30	20	47316	087	16	06799	139	0000	000000	PENSACOLA USN AIR STA PWR STACK 300872 1137 1934
**	114	6	30	20	45346	087	18	29205	139	0000	000000	PENSACOLA LIGHTHOUSE CENTER 1867 300872 1120
****	122	6	30	21	48807	087	16	24844	139	0000	000000	NAVY YARD SUPPLY TANK
**	124	6	30	20	49163	087	18	37416	139	0000	000000	SHERMAN FIELD TANK 1981
**	132	6	30	19	08571	087	25	32464	139	0000	000000	ESCAMBIA COUNTY TANK 1981
**	134	6	30	17	42154	087	29	07651	139	0000	000000	ONO ISLAND TANK 1981

*NGS Unpublished ***WHITING Personnel
**NGS Publication ****Field Party

1216

IX. LANDMARKS FOR CHARTING

THERE ARE NO LANDMARKS~~+~~FOR CHARTING ON THIS SURVEY.
AIDS

JULY 9, 1982

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: ATLANTIC Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 872-9678 NAVARRE BEACH, FL

Period: MARCH 5-30, 1982

HYDROGRAPHIC SHEET: H-10001

OPR: J-217

Locality: OFFSHORE ALABAMA AND FLORIDA COAST

Plane of reference (mean lower low water): 25.64 FT

Height of Mean High Water above Plane of Reference is 1.38 FT

REMARKS: ZONE DIRECT

Chief, Datums and Information Branch

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-10001

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	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	
		11360								
ALABAMA (title)	X									1
GULF OF MEXICO (title)	X									2
MOBILE PT. (title)	X									3
										4
										5
										6
										7
										8
										9
										10
										11
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										23
										24
										25

Approved:

Charles E. Harrington

Chief Geographer - N/CG2x5

JUN 27 1984

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27 | U.S. DEPARTMENT OF COMMERCE | REGISTRY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-10001

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	4
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	2

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDIAN FILES	3					
ENVELOPES					1	
VOLUMES					5	
CAHIERS	2					
BOXES						

SHORELINE DATA

SHORELINE MAPS(List):

PHOTOBATHYMETRIC MAPS(List):

NOTES TO THE HYDROGRAPHER(List):

SPECIAL REPORTS(List):

NAUTICAL CHARTS(List):

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			4282
POSITIONS REVISED	428		
SOUNDINGS REVISED	608	1	
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION	28		28
VERIFICATION OF CONTROL	2		2
VERIFICATION OF POSITIONS	26		26
VERIFICATION OF SOUNDINGS	176		178
VERIFICATION OF JUNCTIONS	2	2	4
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	109		109
COMPARISON WITH PRIOR SURVEYS AND CHARTS		12	12
EVALUATION OF SIDESCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		55	55
OTHER			
DIGITIZING	2		2
TOTALS	347	65	411

Pre-processing Examination by J.S.Bradford, L. G. Cram	*Beginning Date* 18 May 1982	*Ending Date* 24 May 1982
Verification of Field Data by J.S.Bradford, R.L. Keene, D.V.Mason, R.R.Hill, R. H. Whitfield	*Time(Hours)* 347	*Ending Date* 14 June 1984
Verification Check by L.G. Cram, R.R. Hill, H.R. Smith, R.H.Whitfield	*Time(Hours)* 48	*Ending Date* 16 July 1984
Evaluation and Analysis by R. H. Whitfield	*Time(Hours)* 65	*Ending Date* 27 July 1984
Inspection by C. D. Meador	*Time(Hours)* 8	*Ending Date* 26 July 1984

ATLANTIC MARINE CENTER
EVALUATION REPORT

SURVEY NO.: H-10001 FIELD NO.: WH-40-1-82

Alabama, Gulf of Mexico, 32 miles SE of Mobile Point

SURVEYED: 05 March through 26 March 1982

SCALE: 1:40,000 PROJECT NO.: OPR-J217-HSB-81

SOUNDINGS: Ross Digital Echo Sounder CONTROL: Hydrotrac (Range/Range)

Chief of Party.....R. K. Matsushige
.....F. P. Rossi

Surveyed by.....A. A. Armstrong, III
.....V. N. Shaffer
.....E. A. Steigerwald
.....P. J. Ruiz
.....P. M. Kenul
.....T. A. Wolf

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

1. INTRODUCTION

a. Hydrography from March 6 to March 26 was run with the antenna height of one Hydrotrac Station reduced from one hundred (100) to thirty eight (38) feet because of storm damage. The failure of the tower section did not appear to degrade the positional accuracy of the survey.

b. No unusual problems were encountered during verification.

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

2. CONTROL AND SHORELINE

a. The control is adequately discussed in sections F and G of the Descriptive Report.

b. There is no shoreline within the area surveyed.

3. HYDROGRAPHY

a. Soundings at crossing in the vicinity of Latitude 29°48.0'N, Longitude 87°28.0'W do not agree within the criteria stated in Sections 4.6.1 and 6.3.4.3 of the Hydrographic Manual and Section 6.6 of the Project Instructions. Echograms were re-inspected at questionable crossings during office

processing and found to be correct. The differences are attributed to the irregular nature of the bottom.

b. The standard 120 ft. depth curve could be drawn in its entirety. Additional dashed and brown curves were drawn to better show bottom relief.

c. Development of the bottom configuration and determination of least depths is well done.

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. Change No. 3 to the Project Instructions required Loran-C Stations 7980X and 7980Y to be monitored. Station 7980Z was also used at times.

b. Hydrographic Title Sheet, NOAA Form 77-28 should be used instead of CGS - 537.

c. The proper chart (NOS Chart 11360, 26th edition January 30, 1982) was not used for comparison. The hydrographer used NOS Chart 11360, 1:456,394 25th edition, February 21, 1981.

d. The request for smooth tides did not have times of hydrography, only dates.

e. A copy of the Horizontal Control Report was not included with the Descriptive Report.

f. The daily correctors for year days 64 and 85 were averaged incorrectly. This was corrected during office processing of the survey.

g. The locations of the TDC casts were not listed in Section D of the Descriptive Report.

h. The hydrographer did not break off lines of hydrography for crosslines but continued sounding during the turns to the next crossline. There was no serious conflict with the surrounding hydrography. Hydrography was retained in the survey.

i. In order to reduce the bulk of the Descriptive Report, Sections A-S should be single spaced rather than double spaced.

j. Numerous sounding inserts were made during verification to better show the bottom topography.

5. JUNCTIONS

H-9954 (1981) to the east
H-10113 (1983) to the west

Excellent junctions were made between the present survey and surveys H-9954 (1981) and H-10113 (1983).

There are no contemporary junctional surveys to the north and south of the present survey. The charted depths and present survey depths are in harmony to the north and south.

6. COMPARISON WITH PRIOR SURVEYS

H-6554 (1940) 1:40,000
H-6656 (1940) 1:80,000

The above surveys taken together cover the entire present survey.

H-6554 (1940) covers only a small portion of the northern edge of the present survey and shows a general trend of being one (1) to five (5) feet shoaler.

H-6656 (1940) compares favorably and shows a trend of being one (1) to five (5) feet shoaler with about 5% of the depths being six (6) feet to (7) feet shoaler than the present survey.

The locations of deeps and highs show excellent agreement between the prior surveys and the present survey. There is better delineation of all features on the present survey because of its greater sounding density. All indications show that this is an extremely stable bottom area and the differences between prior and present survey depths can be attributed to the less accurate sounding methods used in the past.

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

7. COMPARISON WITH CHART 11360 (26th EDITION, JAN 30, 1982)

a. HYDROGRAPHY

The charted hydrography originates with the previously discussed prior surveys and needs no further discussion.

The present survey is adequate to supercede the charted hydrography in the common area.

b. AIDS TO NAVIGATION

There are no fixed or floating aids to navigation in the survey area.

8. COMPLIANCE WITH PROJECT INSTRUCTIONS

This survey adequately 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 field work is necessary.

Reginald L. Keene
Cartographic Technician
Verification of Field Data

Richard H. Whitfield
Cartographic Technician
Evaluation and Analysis

Guy F. Trefethen
Senior Cartographic Technician
Verification Check

Inspection Report
H-10001

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

Charles D. Meador

Charles D. Meador
Chief, Evaluation and Analysis
Group
Hydrographic Surveys Branch

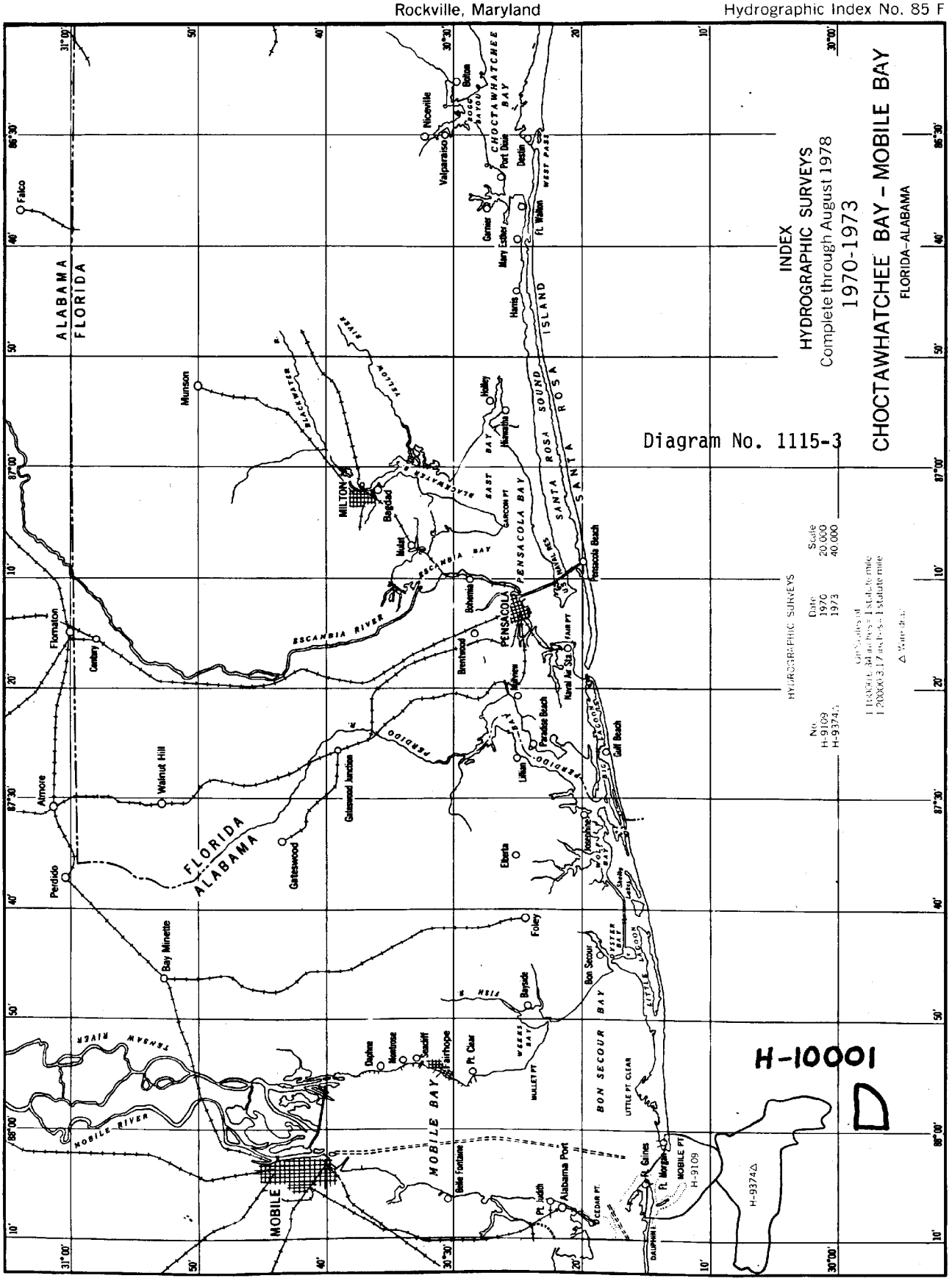
David B. MacFarland, Jr., LCDR, NOAA
Chief, Hydrographic Surveys Branch

Approved July 27, 1984

Wesley V. Hull, RADM, NOAA
Director, Atlantic Marine Center

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

Hydrographic Index No. 85 F



FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10001

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11360	3/4/85	[illegible]	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 42
11006	3/5/85	[illegible]	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 35
411	3/5/85	[illegible]	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 59
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63