9832

Diag.Cht.Nos.1116-3 & 1273-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey ....Hydrographic.....

Field No. .....MI-50-1-79.....

Office No......H-9832.....

LOCALITY

State .....Louisiana.....

General Locality ....Northern Gulf of Mexico.....

Locality .....Mississippi Canyon.....

.....

19 79

CHIEF OF PARTY
J.S. Midgley

LIBRARY & ARCHIVES

DATE .....Jan.14,1980.....

★ U.S. GOV. PRINTING OFFICE: 1976—669-441

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-9832

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.

MI-50-1-79

State LOUISIANA

General locality Northern Gulf of Mexico

Locality ~~Offshore Grand Isle, La.~~ MISSISSIPPI CANYON

Scale 1:50,000 Date of survey 30 May - 16 June 1979

Instructions dated 22 February 1979 Project No. OPR-K104-MI-79

Vessel NOAA SHIP MT MITCHELL (S-222)

Chief of party Capt. James S. Midgley, NOAA

Surveyed by See remarks

Soundings taken by echo sounder, ~~hand lead, pole~~ Ross Model 5000 Fineline and Raytheon Universal Graphic Recorder

Graphic record scaled by R.J., R.W., R.M., P.S., E.M., A.S.

Graphic record checked by A.S. Verification Branch (AMC)

Protracted by N/A Automated plot by Hydroplot System XYNETICS 1601 PLOTTER (AMC)

Soundings ~~penciled~~ verified by L.G. Cram

Soundings in fathoms feet at ~~MEAN LOW WATER~~ GCLWD

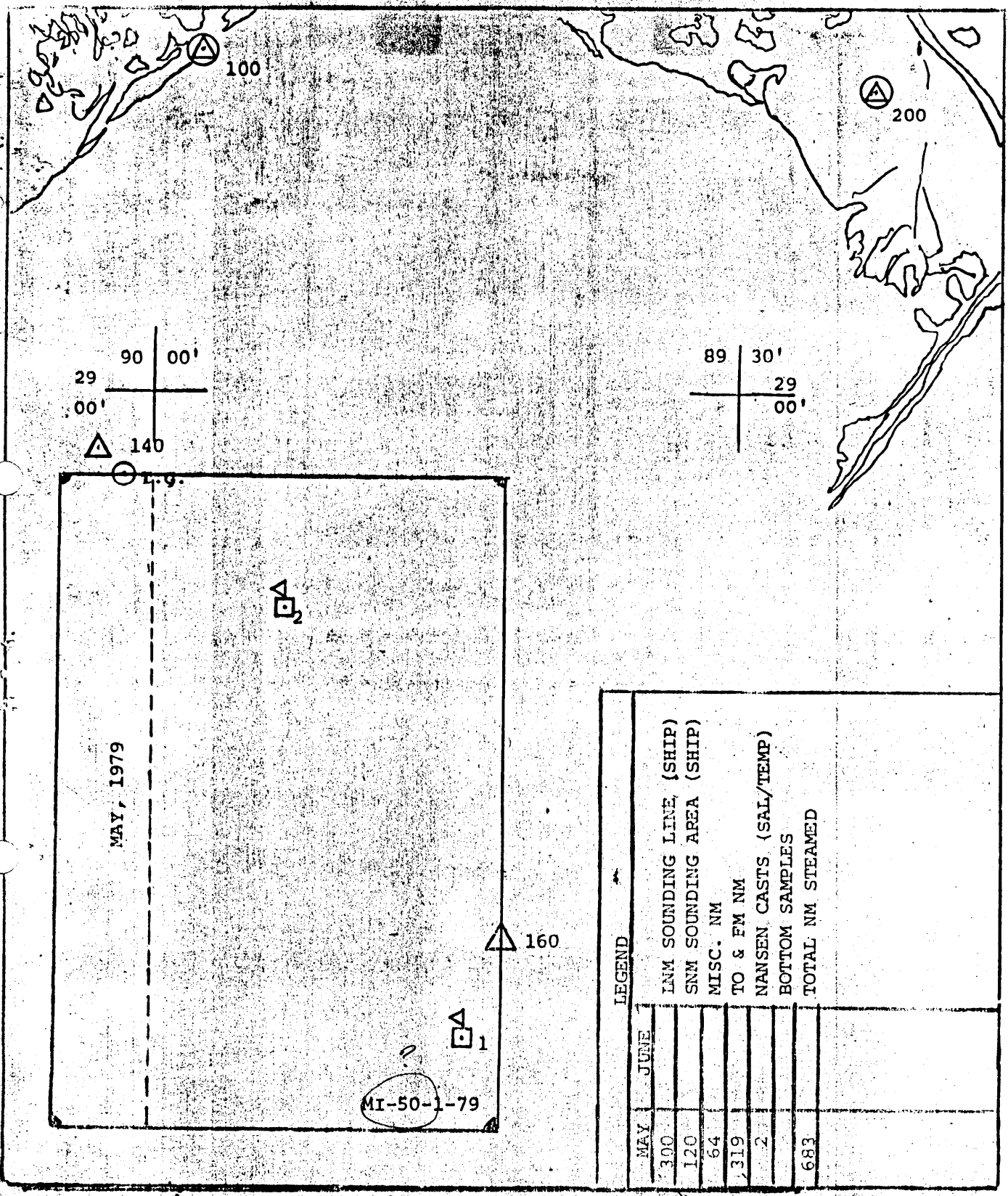
REMARKS: Lt.Cdr. Ronald Jones, Lt. Charles D. Mason, Lt.(jg) John Wilder, Lt.(jg) William Pringle, Ens. Andrew Shepard, Ens. Paul S. Morton, Ens. Ronald Dutton, Ens. James Long, Mr. Robin Sainsbury, Mr. Richard Peoples

Changes in red made by verifier during verification.

Applied to state 4/1/80

ZWH 3/23/83

USCOMM-DC 37009-P66



PROGRESS SKETCH
OPR-K104-MI-79
HYDROGRAPHIC OPERATIONS
NOAA SHIP MT. MITCHELL S-222
JAMES S. MIDGLEY, CAPT., NOAA
COMMANDING

SCALE OF CHART 11340

A. PROJECT

This survey was carried out in accordance with Project Instructions OPR-K104-MI-79 issued 22 February 1979 and amended by change 1 dated 2 March 1979, change 2 dated 29 March 1979, and change 3 dated 18 June 1979.
* Verbal instructions given prior to date of survey by C.351

B. AREA SURVEYED

This survey was conducted in the Gulf of Mexico offshore of Grand Isle, Louisiana. The limits of the survey are roughly described by lines connecting the following points in a clockwise manner:

28°23.0'N	89°39.0'W
28°23.0'N	90°07.5'W
29°00.0'N	90°07.5'W
29°00.0'N	89°39.0'W

The survey was conducted between 30 May 1979 (Julian Day 150) and 16 June 1979 (Julian Day 167).

C. SOUNDING VESSEL

Soundings for the survey were obtained by the NOAA Ship MT. MITCHELL (VESNO 2220).

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following equipment was aboard the ship during this survey:

Equipment (VESNO 2220)	Serial Number
Ross Model 5000 Fineline Depth Recorder	1050
Ross Model 4000 Transceiver	1050
Ross Digitizer	1050
Raytheon Universal Graphic Recorder	170
EDO 248-1 Transceiver	219
Digitrak 261-C Digitizer	202

Soundings for the MT. MITCHELL were taken with 2 skeg mounted transducers (antenna distance for both is 32.0 M), one each for the Ross and UGR.

The Ross Fathometer was utilized on the 0-100, 100-200, 200-300 and 300-400 ft. scales. The UGR was utilized on the 0-1200 and 0-2400 ft. scales; the resolution of analog depths in feet for scanning purposes was marginal at best. When shifting sounding from one to the other, both were kept running for various periods of time to obtain a comparison. In general the Ross was operated as long as as a bottom trace held. All survey records were scanned by survey department personnel and checked by the officer in charge. Peaks and deeps considered significant that occurred between soundings were inserted and digitizing errors were corrected on the electronic corrector tape.

Phase calibration checks were made at frequent intervals. Any necessary adjustments were made and noted in the sounding volume and on the fathogram. Any departures of the trace from the calibration due to phase differences were corrected during the scanning process.

Velocity corrections were obtained from 2 Nansen casts at the following locations:

Cast	Latitude	Longitude	Date
1	28°30'42"N	89°43'42"W	5/21/79
2	28°50'00"N	89°53'30"W	5/21/79

An explanation of how sound velocities were derived along with all tables and printouts of velocity tapes is included in Appendix D.

A draft of 14.0 feet was applied to all soundings taken by the MT. MITCHELL during the on-line process and to the smooth sheets. The transducers are located 17.5 feet forward of the after draft markings. The after draft was noted at the beginning and end of each trip and remained at 14'3" throughout the survey, as all fuel consumed was taken from the forward fuel tanks. Due to the close proximity of the transducers and aft draft markings the actual draft was considered to be 14'3" and a constant draft corrector of 0.3 foot results. Settlement and squat correctors for the ship were determined on 12 June 1978 (JD 163) at Galveston (Inner Bar Channel), Texas. No significant equipment changes, which might have altered the 1978 results, were made from 12 June 1978 to the time of this survey. A copy of the field data and settlement and squat correctors versus the ship's speed is included in the survey support data. The ship's draft corrector and settlement and squat correctors are incorporated into the TC/TI tapes which are include in the survey data. A printout of these tapes is included in Appendix D.

This survey was smooth plotted using predicted tides based on daily predictions for the reference station at Pensacola, Florida. The following correctors were applied for hydrography as per instructions in Section 5.10 of the Project Instructions:

For all hydrography east of longitude 89°54'W.

Time Correctors		
High Water	Low Water	Height-Range Ratio
-2 h 12 m	-2 h 08 m	XO.92

For all hydrography west of longitude 89°54'W.

Time Correctors		
High Water	Low Water	Height-Range Ratio
-1 h 50 m	-1 h 45 m	X0.95

E. HYDROGRAPHIC SHEETS

This survey was plotted on five paper Complot roll plotter sheets by the MT. MITCHELL Hydroplot system with a skew of 90, 21, 54. Soundings on the on-line field sheets are corrected only for estimated ships draft (+14.0 ft.). The survey was smooth plotted off-line using an electronic corrector tape, ASCII tide tape for predicted tides and a sound velocity corrector tape. The smooth sheets are not corrected for actual draft, settlement and squat, smooth tides or instrument error. The final smooth sheet will be plotted at the Atlantic Marine Center, Norfolk, Virginia.

All field records and the following tapes have been forwarded to the Atlantic Marine Center:

Master Range-Range Data Tapes
Electronic Corrector Tapes
Velocity Correction Tapes
Parameter Tapes
Signal Tape
Transducer Corrector/Table Indicating Tape

F. CONTROL STATIONS

ARGO Control Stations used for this survey were:

Name	Number	Latitude	Longitude	
~~Grand Isle~~ Gault RM 3, 1979	100	29°15'25".671N	89°57'41".081W	
~~Venice~~ H-5-LA-78, AMC	200	29°13'42".627N	89°23'25".014W	"Field Position"

The stations were located and erected by personnel from the Operations Division and Electronic Engineering Division, Atlantic Marine Center. Both stations were maintained by personnel from the NOAA Ships RUDE and HECK.

G. HYDROGRAPHIC POSITION CONTROL

A CUBIC DM-54 (ARGO) Long-Range Offshore Positioning System operating at a frequency of 1643.0KHZ in a Range-Range mode was used to provide positioning control for ship hydrography on this survey. The serial numbers for the equipment used are as follows:

Vessel or Shore Station	Equipment	Serial Number
VESNO 2220	DM-54 Range Processing Unit	RO379119
	DM-54 Control Display Unit	CO37953
	HP-IB ASCII Parallel Converter	1632401202
	DM-54 Antenna Loading Unit	AO379119
	DM-54 Power Supply	VO379124
	EPSCO Sawtooth Recorder Model 8082	8501
Station 100	DM-54 R.P.U	RO47844
	DM-54 A.L.U.	AO47853
	DM-54 P.S.	VO478103
Station 200	DM-54 R.P.U.	RO47864
	DM-54 A.L.U.	AO47858
	DM-54 P.S.	VO478105

Initial and final calibrations for each trip (JD 150-158 and 163-167) for the ARGO control were accomplished using the circling technique as described in the Hydro Manual (p. 4-28) on offshore oil well platform CAGC 48D.

The geographic position was converted to electronic control patterns using the Utility Computations Program, RK 300. The initial calibration ~~for~~ partial lane correctors were used on-line throughout each cruise. Each cruise's initial and final partial lane correctors were meaned before being utilized for all off-line plotting. The partial correctors varied by less than 0.15 lanes for both P1 and P2.

In addition the whole lane count was checked four times using platform CAGC 48D and platform SHELL WEST DELTA 152A, again using the circling technique. Copies of the Descriptions of Triangulation Stations for both platforms are included with the records accompanying this report.

While using ARGO positioning the lane count was constantly monitored by the Survey Department by comparing the CDU displayed rates with the running count on the sawtooth recorder. A smoothing of "zero" was used throughout the sheet. "ΔT" was forced to be zero for both P1 and P2 with all partial and whole lane correctors entered only on the HYDORPLOT controller. Lane jumps occurred at the following positions:

1. JD 151 - P2L2 - Position 188
2. JD 157 - P1G1 - Position 1789+4
3. JD 158 - P1L2 - Position 1855+5

On-line, the appropriate whole lane correctors were put into the HYDORPLOT controller as soon as possible after the jumps, and off-line the correctors were applied to all affected soundings via the electronic corrector tape. An abstract of the calibration data is included with the records accompanying this report.

H. SHORELINE

There was no shoreline within the limits of this survey.

I. CROSSLINES

Crosslines were run at approximately 45 degrees to the main scheme sounding lines. Crossline mileage amounted to 7% of the main scheme lines. Crossline soundings generally agree to within ~~2-3~~ 1-2 feet of the main scheme lines, with agreements of less than a fathom in areas of steep slopes. concur

J. JUNCTIONS

No junctions were required for this survey.

K. COMPARISON WITH PRIOR SURVEYS See Verifiers Report

The following prior surveys were within the area of this survey:

Survey Number	Date	Scale
H-6184	1936	1:80,000
H-6185	1936	1:80,000

For both prior surveys, in depths of less than 300 feet, comparision was very good with 95% of the soundings agreeing to within 2-3 feet and the remainder to within 5 feet. The larger discrepancies could be the result of using predicted tides on the off-line plot. Agreement in waters deeper than 300 feet is generally good with 85% of the soundings agreeing to within a fathom. The larger discrepancies are in most cases the result of the steep slope gradients and rugged bottom profile in these deeper areas. There are shifts in the contour lines, particularly in areas of steep slopes, which are believed to be the result of the influence of the Mississippi river outflow into the area of this survey. West-northwest currents estimated to be 3-4 knots were evident at times during the survey.

The following are presurvey review items for OPR-K104-MI-78, as described in Project Instructions OPR-K630-RU/HE-79 (dated 8 January 1979) for the NOAA Ships RUDE and HECK that are located within the limits of this survey:
Items 154 through 159 listed below are addressed in the Descriptive Report of F.E. No. 2, 1979 W.D. (R/H-20-2-79). The reader is referred to that report for the disposition of these items.

CHART 11340

154.(6) The dangerous sunken wreck, PA, charted at latitude 28°52', longitude 89°59', originates with Notice to Mariners 50 of 1961. The wreck is not identified but described to be a trawler sunk in 124 feet of water. Additional details concerning the vessel's contruction are not available.

155.(7) The dangerous submerged obstruction, (5 fm rep), PA, charted in the vicinity of latitude 28°49'03", longitude 89°45'49", originates with Notice to Mariners 49 of 1965. The obstruction is not described but is possibly the remains of a damaged oil well structure.

156.(8) The dangerous submerged obstruction, (16 fm rep), charted at latitude 28°48'54", longitude 89°46'18", originates with Notice to Mariners 42 of 1965. The obstruction is described as a collapsed oil well structure with a least depth of 100 feet.

157.(13) The pipe, reported, PA, charted at latitude 28°42'00", longitude 89°58'30", originates with Notice to Mariners 39 of 1964. The obstruction is described as a 16-inch pipe extending 3 feet above the water. Visual reconnaissance of the area may disclose the continued existence of the feature; however, it is probable that the pipe will not be visible in which case a wire drag will be required.

158.(11) The dangerous submerged obstruction, charted at latitude 28°43'54" longitude 89°50'30", originates with Notice to Mariners 50 of 1965. The obstruction is described as a partially submerged 15-foot by 30-foot metal section from an oil rig. Since the feature may be entirely submerged at this time, reconnaissance may be hazardous. Accordingly, appropriate caution should be exercised.

159.(12) The dangerous submerged obstruction, reported, PA, charted at latitude 28°43'30", longitude 89°50', originates with Notice to Mariners 40 of 1968. The obstruction is described as a collapsed oil rig. The depth of the feature is unknown.

162.(15) The 20-fathom depth, (Rep 1975), PA, charted at latitude 28°28' longitude 89°51', originates with Chart Letter 1955 of 1975 and Local Notice to Mariners 37 of 1975. The depth is described as being in the vicinity of charted 92-fathom depths. The prior surveys should be examined to determine the most likely location of possible shoaling and the wire-drag development scheduled accordingly. See page 9 of this report, and Descriptive Report for FE No. 2, 1979, W.D.

The MT. MITCHELL was not required to investigate any of the above items as they are scheduled for investigation by the RUDE and HECK. Item #162 above was however developed as described below in section L, development number 1.

L. COMPARISON WITH THE CHART See Verifiers Report

This area is covered and was compared to the following NOAA Charts:

Chart #	Edition	Data	Scale
11340	36th	Nov. 1977	1:458,596
11358	27th	Jan. 1979	1:80,000

Charted depths from chart 11358 generally agree with this survey to with 2-3 feet. Charted depths from chart 11340 generally agree with this survey to within 2-3 feet in water of less than 300 feet. Deeper than 300 feet, agreement is generally good with most soundings agreeing to within a fathom. The discrepancies which exist appear to be the result of (1) the strong currents and subsequent high rates of sediment transport in the area, (2) the steep slopes and rugged nature of the bottom, (3) the possible lesser

accuracy of the positioning systems used on the prior surveys and ((4) the scanning difficulties as stated in section "D" (Sounding Equipment) of this report.) No.

The following charted platforms were located within the survey limits and their positions were verified while running hydrography by RADAR ranges and visual bearings as they were close abeam. Verbal authorization for this procedure was received through Operations Division, AMC and formal authorization was included in Change 3 of the Project Instructions. It is recommended that they be retained as charted:

	NAME	DESIGNATION	LATITUDE	LONGITUDE
	SHELL 183-1	SH-WD-152A	28°35'14"N	89°41'58"W Δ Signal 160
A.	SHELL 163-3	SH-WD-122C	28°45'05"N	89°42'30"W
B.	SHELL 163-4	SH-WD-134D	28°44'04"N	89°44'07"W
C.	CONTINENTAL 112-35	CAGC WD-94V	28°55'36"N	89°46'55"W Chart No. 11358
D.	GULF 130-4	GU-WD-117D	28°49'08"N	89°47'24"W Chart No. 11358
E.	GULF 130-6	GU-WD-117F	28°48'37"N	89°47'32"W Chart No. 11358
F.	EXXON 136-1	EXXON-WD-99A	28°49'53"N	89°47'44"W Chart No. 11358
G.	CONTINENTAL 112-29	CAGC-WD-95T	28°54'34"N	89°48'32"W Chart No. 11358
H.	CONTINENTAL 112-28	CAGC-WD-95S	28°54'21"N	89°49'14"W Chart No. 11358
J.	JFD 101-2	JFD-GI-81A	28°43'12"	89°56'56"W
K.	SHELL 191-1.	SH-GI-76A	28°44'17"	90°01'34"W
L.	CONTINENTAL 104-4	CAGC-GI-48E	28°56'03	90°02'37"W Chart No. 11358
M.	SHELL 191-3	SH-GI-75-JA	28°44'09"N	90°03'05"W
N.	MOBIL 187-1	MOBIL-GI-93C	28°32'57"N	90°04'07"W
P.	CONTINENTAL 133	CAGC-GI-63A	28°48'32"N	90°04'35"W Chart No. 11358

The following charted platforms were positioned by the circling method as their verified position appeared to be in error:
Chart present survey information.

ITEM 1 Q

Platform charted at 28°56'01"N and 89°46'45"W has a calculated position of 28°56'01.155"N and 89°46'45.119"W (JD 166, No position number). It is a six-legged, yellow, lighted structure with a sign reading "~~CAGC-94G~~" It is recommended that this item be retained as charted. Chart No. 11358
Continental 112-13 CAGC-WD-94G

ITEM 2 R.

Platform charted at 28°53'57"N and 89°50'13"W has a calculated position of 28°53'56.736"N and 89°50'13.037"W (JD 166, No position number). It is a six-legged, yellow, lighted structure with a sign reading "~~CAGC-96R~~". It is recommended that this item be retained as charted. Chart No 11358
Continental 112-24 CAGC-WD-96R

ITEM 3 S.

Platform charted at 28°48'34"N and 89°47'17"W has a calculated position of 28°48'34.306"N and 89°47'16.180"W (JD 166, No position number). It is an eight-legged, gray, lighted structure with a sign reading "GU-WD-117C". It is recommended that this item be retained as charted. chart No. 11358

Gulf 130-3

The following uncharted platforms were located within the survey limits and positioned by the circling technique:

ITEM 4

good position

An uncharted platform was found (JD 167, Pos 2677) at a calculated position of ~~28°48'17.239"N and 89°48'07.178"W.~~ It is an eight-legged, gray, double deck, lighted structure with a sign reading "GU-WD-117E/G. An orange and white buoy with a flashing, four second, white light marking a submerged well head (covered by 150 ft.) is presently charted at 28°48'17"N and 89°48'06"W. It is recommended that the buoy be removed from the chart and the platform be added at the calculated position. This change is described in the LNM 27/79 ~~(I-1.3)~~ for chart 11358, 27th Edition, 13 January 1979. concur

~~Pos # 2677 Lat. 28° 48' 17.13" Long. 89° 48' 10.90"~~ 19

Gulf 130-5

See QC Report, para. 6

ITEM 5

good position

An uncharted platform was found (JD 167, Pos 2678) at a calculated position of ~~28°41'29.537"N and 89°48'28.286"W.~~ It is an eight-legged, yellow, 3 deck, lighted structure with a sign reading "ANADARKO Prod. Co. WD-138A". It is recommended that this item be charted at the calculated position.

~~Pos # 2678 Lat. 28° 41' 29.47 Long. 89° 48' 32.74"~~

ITEM 6

good position

An uncharted platform was found (JD 167, Pos 2679) at a calculated position of ~~28°39'07.717"N and 89°47'11.619"W.~~ It is an eight-legged, gray, 4 deck lighted structure with a sign reading "EXXON M/C 268A-OSCG 2970". It is recommended that this item be charted at the calculated position.

~~Pos # 2679 Lat. 28° 39' 07.54 Long. 89° 47' 16.33"~~

ITEM 7

good position

An uncharted platform was found (JD 167, Pos 2680) at a calculated position of 28°38'33.198"N and 89°47'39.394"W. It is an eight-legged, yellow, double deck, lighted structure with a sign reading "SH-MC-311A". It is recommended that this item be charted at the calculated position.

~~Pos # 2680 Lat 28° 38' 33.06" Long. 89° 47' 44.17"~~

ITEM 8

An orange and white, horizontally striped buoy was located at 28°53'10"N and 90°01'30"W. The buoy is privately maintained and has a flashing white light. The buoy was located while running hydrography with a RADAR range when it was close abeam. A subsequent position was not obtained as a 2 mile long seismic cable had been fouled on the buoy's mooring chain. Position number 2681 was assigned for plotting purposes, and should be considered a position approximate. concur

The following developments were run on this survey:

Development	Julian Day	Positions	Approximate GP
1	165	2465-2480	28°28.0'N 89°51.5'W
2	167	2610-2618	28°35.0'N 89°44.0'W
3	165 167	2485-2493 2620-2627	28°33.0'N 89°55.0'W
4	167	2628-2493	28°35.0'N 89°57.0'W
5.	167	2648-2660	28°53.0'N 89°54.0'W
6	167	2661-2676	28°53.4'N 90°00.7'W

(Item 162)
Development 1 was an investigation of a reported shoal with a least depth of 20 fm as charted on Chart 11340. The least depth found was 550 ft or 92 fm (Pos. 2479; 28°27.8'N, 89°51.4'W). The least depth from prior survey H-6185 was 100 fm or 600 ft at 28°28'05"N, 89°50'57"W. The 20 fm depth was found in 1955 by a private citizen in the area of the charted 92 fm depth (Ref: Project Instructions for OPR-K630-RU/HE-79, Item 162). The profile of the feature on the 1955 analog record and the current analog records (JD 165; Pos. 2472-2480) are similar. It is suspected that the reported 20 fm depth was the result of erroneous scale reading or of a multiple interval bottom return. It is recommended that the charted 20 fm sounding be changed to 92 fm at ~~28°27.8'~~ 28° 27' 47.96"N, 89°51.~~4~~ 23.08'W. PSR 162(15) origin CL 55/75 Concur

Rude & Heck advanced information from FE-2, HT-9WD indicates area swept to 18 fms.

Development 2 was a delineation of a ridge feature. The least depth found was 344 ft or 57.5fm (Pos. 2614 +4; 28°34.~~9~~ 52.11"N, 89°43.~~7~~ 38.23'W). The least depth from Chart 11340 is 62 fm at 28°35.3'N and 89°43.9'W. It is recommended that the charted depth be ~~moved to the above position~~ deleted. (Pos. 2614 +4) ~~and changed to~~ 57 fm. concur Chart present depths

origin H-6185 (1936) Concur

Development 3 was an investigation of a shoal with a charted least depth of 71 fm. A new least depth of 41~~67~~ 635 +3 ft or 69.5fm (Pos. 630 +5; 28°32.~~9~~ 54.18"N, 89°55.~~7~~ 40.37'W) was found. It is recommended that charted shoal be moved to the above position and changed to 69.5fm.

origin H-6184 (1936) Concur

Development 4 was a delineation of an extension of a charted ridge feature. A least depth of 472 ft or 7~~8~~9fm (Pos. 2636 +2; 28°35.5 27.97'N, 89°56.4 23.26'W) was

found in water charted as deeper than 600 feet. It is recommended that the charted 100 fm curve be relocated eastward with a least depth of 7/8 fm at the above position. Concur

Developments 5 and 6 were investigations of stray spikes which appeared on the Ross analog records (JD 155; Pos. 1077 and JD 156; Pos. 1320 +6, respectively). No further evidence of any permanent obstructions was obtained by either development. Numerous similar spikes occurred on the Ross fathograms usually accompanied with distortion of the initial. The developments were run to determine if the spikes were the result of permanent obstructions, electronic interference or temporary features (e.g. fish). These particular spikes were selected as they were in less than 120 feet of water and they appeared more solid than others in that depth of water. It is recommended that the investigated features and similar spikes be ignored and not charted.
Concur Spikes rejected

M. ADEQUACY OF THE SURVEY

Two submerged well-heads within the sheet limits were not investigated during this survey. Both are described in the Department of Transportation, U.S. Coast Guard, "LISTING OF OFFSHORE OIL STRUCTURES AND SUBMERGED WELLS IN THE EIGHTH COAST GUARD DISTRICT" of 1 June 1978. The first is present on Chart 11340 (36th Edition, November 1977) as a well covered by 22 fms of water. They are:

1. Submerged wellhead, SH-GI-75-1, marked by an unlighted marker buoy with 133 feet over it at 28°44'02"N and 90°03'40"W. The marker buoy was not found during this survey. Retain well as charted See V.R. para 7.9.1.

2. Submerged wellhead, SH-WD-134A, marked by an unlighted marker buoy with 90 feet over it at 28°44'09"N and 89°44'19"W. The marker buoy was not found during this survey. See Descriptive Report for ~~F.G. Nov 2, 1977 WD-2~~ FE 219WD. See V.R. para 7.9.2. charted as subm. obst (13 fms rep) chart 11340, Jan 6, 1979

All information on both items was relayed to the NOAA Ships RUDE and HECK which were running wire drag surveys in the area of the sheet. Nothing done by wire drag survey on ~~three~~ two items. (1)

This survey is considered complete and adequate to supersede prior surveys for charting.

N. AIDS TO NAVIGATION

There is one floating aid to navigation within the limits of this survey:

	Latitude	Longitude
OrW Fl Priv. Maintd.	28°53'09"N	90°01'30"W

The location of the buoy is described in section L, Item 8.

O. STATISTICS

Linear nautical miles of hydrography	2328.2
" " " " crosslines	162.5
" " " " development	53.1
Total linear miles of hydrography	2543.8
Total miscellaneous miles	567.1
Total miles run	3110.9
Square miles of hydrography	614.0
Nansen casts	2
Bottom samples	20

P. MISCELLANEOUS

Areas of closer than normal line spacing (Pos. 2243-2248 and 2537-2609) were due to using incorrect X-Y values and the resulting need for additional splits. Incorrect X-Y values were also used from Pos. 2460-2463 causing lines 100 m east of the holidays they were intended to close.

Q. RECOMMENDATIONS

1. As the RUDE and HECK and the MT. MITCHELL were working concurrently of the same working ground, each ship should have been furnished with the others's Project Instructions. This would have allowed time to resolve responsibility for items (i.e. tide gages, PSR items ect.) prior to the commencement of operations.

2. No Tide Station Reports were received prior to the beginning hydrography.

R. AUTOMATED DATA PROCESSING

The following HYDROPLOT programs were used to acquire and process the survey data:

RK	111	Range-Range Real Time Plot	1/30/76
RK	201	Grid, Signal and Lattice Plot	4/18/75
RK	211	Range-Range Non-Real Time Plot	1/15/76
RK	300	Utility Computations	2/05/76
RK	330	Data Reformat and Check	5/04/76
PM	360	Electronic Corrector Tape Abstract	2/02/76
RK	530	Velocity Corrections Computations	5/10/76
RK	602	Extended Line Orientated Editor	5/20/75
MI	555	Temperature and Thermometric Depth Computation	6/01/78

S. REFERENCE TO REPORTS

Horizontal Control Report

Respectfully Submitted,

Andrew N. Shepard, Ens. NOAA

APPROVAL SHEET

H-9832

MI 50-1-79

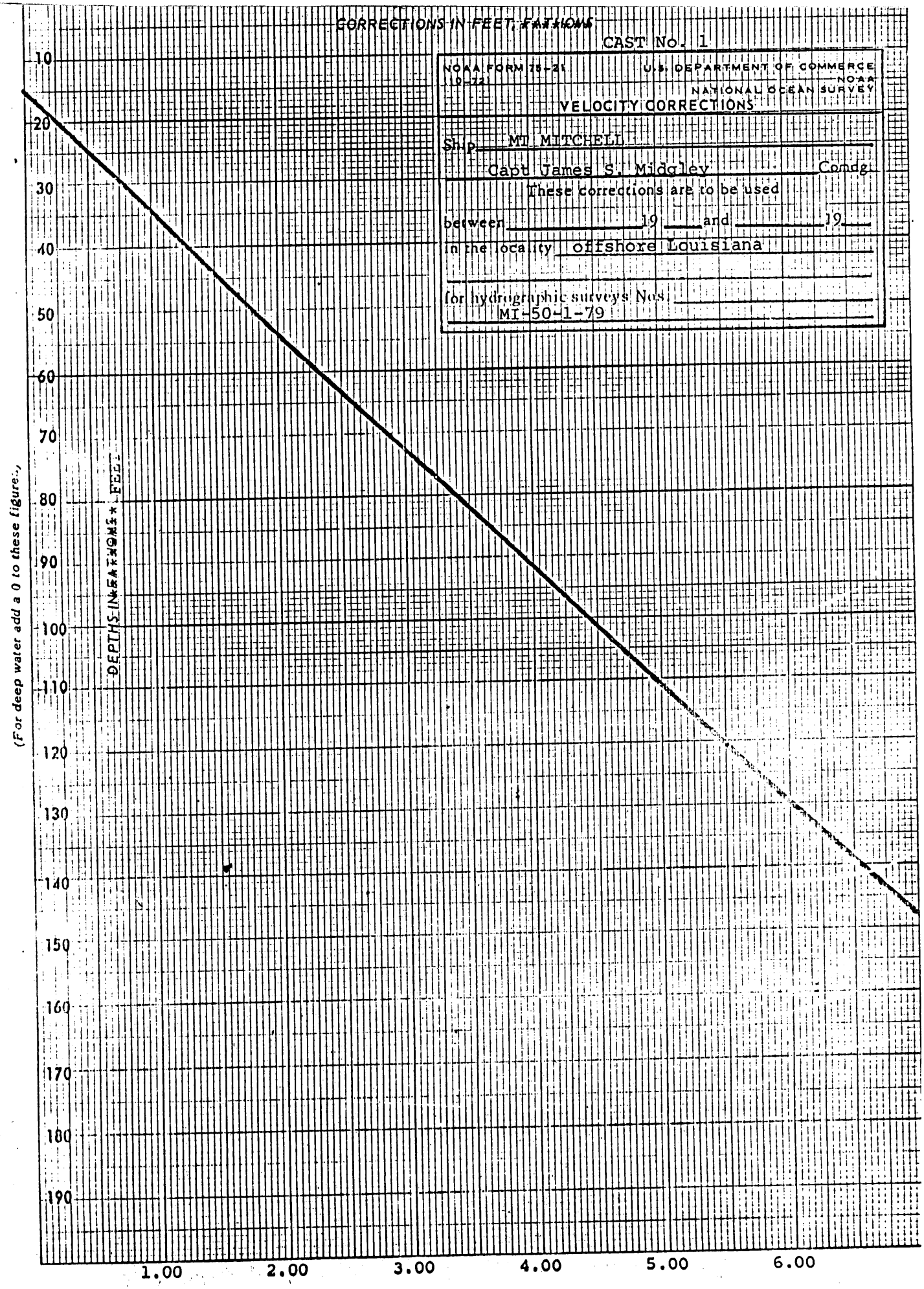
The field work of this Hydrographic Survey was under my daily supervision. The boat sheet and records have been reviewed and approved by me.

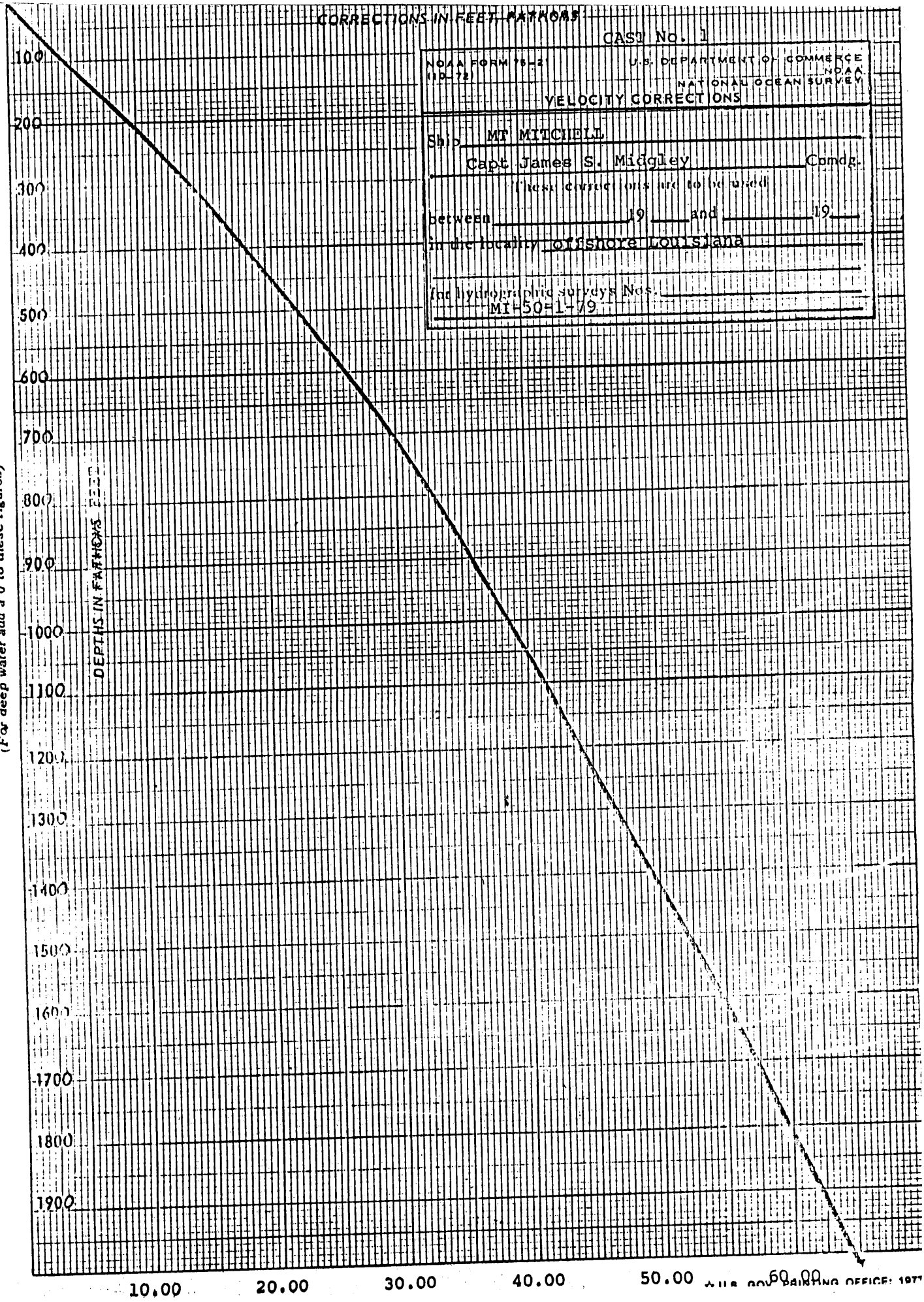
James S. Midgley
Commanding Officer

001 SIGNAL NAMES TAPE PRINTOUT H-9832 OPR-K104-MI-79 MI-50-1-79
002
003
004
005

006	100	~~GRAND ISLE, LA.~~ Gault, RM 3, 1979	AMC OPS	
007	110	GU 151 H RM2	AMC OPS	
008	120	GU 128A	AMC OPS	
009	130	GU 130C RM 2	AMC OPS	
010	140	CATC 48D, CA GC-GI-48-D 1963	AMC OPS	
011	150	CATC 40F	AMC OPS	
012	160	SHELL WEST DELTA 152A, 1975	AMC OPS	
013	200	~~VENICE, LA.~~ H-5-LA-78	AMC OPS	"Field Position" pending final adj by NGS.

```
001  SIGNAL TAPE PRINTOUT H=9832 OPR=K104-MI-79 MI-50-1-79
002
003
004
005
006 100 0  29 15 25671 089 57 41081  250 0030 164300
007 110 0  28 36 59888 090 15 22464  139 0000 000000
008 120 0  28 40 14724 090 15 49611  139 0000 000000
009 130 0  28 39 58576 090 09 21326  139 0000 000000
010 140 0  28 57 37684 090 02 36808  139 0000 000000
011 150 0  29 58 08986 090 01 15541  139 0000 000000
012 160 0  28 35 13422 089 41 59227  139 0000 000000
013 200 0  29 13 42627 089 23 25014  250 0030 164300
```


CORRECTIONS IN FEET, FATHOMS
CAST No. 1
NOAA FORM 76-21
10-72
U.S. DEPARTMENT OF COMMERCE
NOAA
NATIONAL OCEAN SURVEY
VELOCITY CORRECTIONS
Ship MT. MITCHELL
Capt James S. Midgley Comdg.
These corrections are to be used
between 19 and 19
in the locality offshore Louisiana
for hydrographic surveys Nos.
MI-50-1-79
DEPTHS IN FATHOMS* FEET
(For deep water add a 0 to these figures)
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
1.00
2.00
3.00
4.00
5.00
6.00


CORRECTIONS IN FEET FATHOMS
CAST No. 1
NOAA FORM 76-21 (10-72)
U.S. DEPARTMENT OF COMMERCE
NOAA
NATIONAL OCEAN SURVEY
VELOCITY CORRECTIONS
Ship MT MITCHELL
Capt James S. Midgley Comdg.
These corrections are to be used
between 19 and 19
in the locality offshore Louisiana
for hydrographic surveys Nos. MI-50-1-79
(For deep water add a 0 to these figures)
DEPTHS IN FATHOMS
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
10.00
20.00
30.00
40.00
50.00
60.00

VELOCITY TAPE LISTING
MI-50-1-79
IN FEET

VESSEL 2220
CAST# 1
TABLE # 1

```
000190 0 0002 0001 000 202000 050179
000230 0 0004
000265 0 0006
000305 0 0008
000345 0 0010
000385 0 0012
000425 0 0014
000460 0 0016
000500 0 0018
000540 0 0020
000575 0 0022
000615 0 0024
000655 0 0026
000690 0 0028
000725 0 0030
000765 0 0032
000800 0 0034
000875 0 0038
000955 0 0042
001035 0 0046
001115 0 0050
001190 0 0054
001265 0 0058
001375 0 0064
001485 0 0070
001650 0 0076
001800 0 0084
001950 0 0092
002100 0 0100
002300 0 0110
002550 0 0120
002750 0 0130
002950 0 0140
003200 0 0150
003450 0 0160
003650 0 0170
003950 0 0180
004150 0 0190
004650 0 0210
*
```

```
049 005150 0 0230
050 005700 0 0250
051 006250 0 0270
052 007150 0 0300
053 008050 0 0330
054 009450 0 0370
055 010900 0 0410
056 012400 0 0450
057 013900 0 0490
058 015350 0 0530
059 016900 0 0570
060 018550 0 0610
061 020200 0 0650
062 021700 0 0690
063 999999 0 0690
*
```

```
001          VELOCITY TAPE LISTING
002               MI-50-1-79
003                 IN FEET
004
005
006               VESSEL 2220
007                 CAST# 2
008                 TABLE # 2
009
010
011 000190 0 0002 0002 000 202000 050179
012 000235 0 0004
013 000280 0 0006
014 000320 0 0008
015 000365 0 0010
016 000410 0 0012
017 000450 0 0014
018 000495 0 0016
019 000535 0 0018
020 000575 0 0020
021 000615 0 0022
022 000655 0 0024
023 000700 0 0026
024 000740 0 0028
025 000780 0 0030
026 000820 0 0032
027 000900 0 0036
028 000985 0 0040
029 001065 0 0044
030 001150 0 0048
031 001230 0 0052
032 001345 0 0058
033 001465 0 0064
034 001575 0 0070
035 999999 0 0070
*
```

CORRECTIONS IN FEET-~~FATHOMS~~

CAST No. 2

NOAA FORM 76-21 (10-72) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship MT MITCHELL

Capt James S. Midgley Comdg.

These corrections are to be used

between _____ 19____ and _____ 19____

in the locality offshore Louisiana

for hydrographic surveys Nos. MI-50-1-79

(For deep water add a 0 to these figures)

DEPTHS IN ~~FATHOMS~~ FEET

10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190

1.00 2.00 3.00 4.00 5.00 6.00

1240

* U.S. GOV. PRINTING OFFICE: 1977

SETTLEMENT AND SQUAT

MT MITCHELL 1978 FIELD SEASON

The settlement and squat test for the MT MITCHELL (S-222) was conducted June 12, 1978 in the Galveston Inner Bar Channel, approximately one-half mile east of the Coast Guard Base at Galveston, Texas, using a Zeiss Ni-2 Level (s/n 142936) positioned on the southern breakwater. To determine possible water level changes during the test, the height of water was measured before, during and after the level sightings; no change was observed.

A tower on the northern side of the channel was used as a range, and the readings were taken as the ship aligned with the tower. Passes with the ship were made at idle, half, and standard speeds with a heading of 100 on each pass. An initial reading was taken with the ship dead in the water. A portable tide staff (graduated in tenths of feet), was positioned on the center of the fantail cargo hatch located amidships to allow a clear line of sight to the onshore observer. The displacement of the staff from the skeg transducer was approximately 3 feet aft. Since all hydrography for OPR-K104-MI-78 was to be recorded using this transducer, the settlement and squat correctors were only determined at one location.

A draft reading of 14.7 feet was taken before the test. The ship was carrying four launches--two Pacific Plastics launches in davits #3 and #4, and two Jensen launches in davits #5 and #6. Settlement and squat was run using both engines and various pitch combinations as determined from a speed curve established May 1977, offshore Cape Henry, Virginia. The ship carried a full load of fuel during the test.

Included is an abstract of the data obtained, suggested correctors versus ship speed, the graph of ship speed versus settlement and squat correctors, the "C" shot determination of instrument error, and the ship's speed curve.

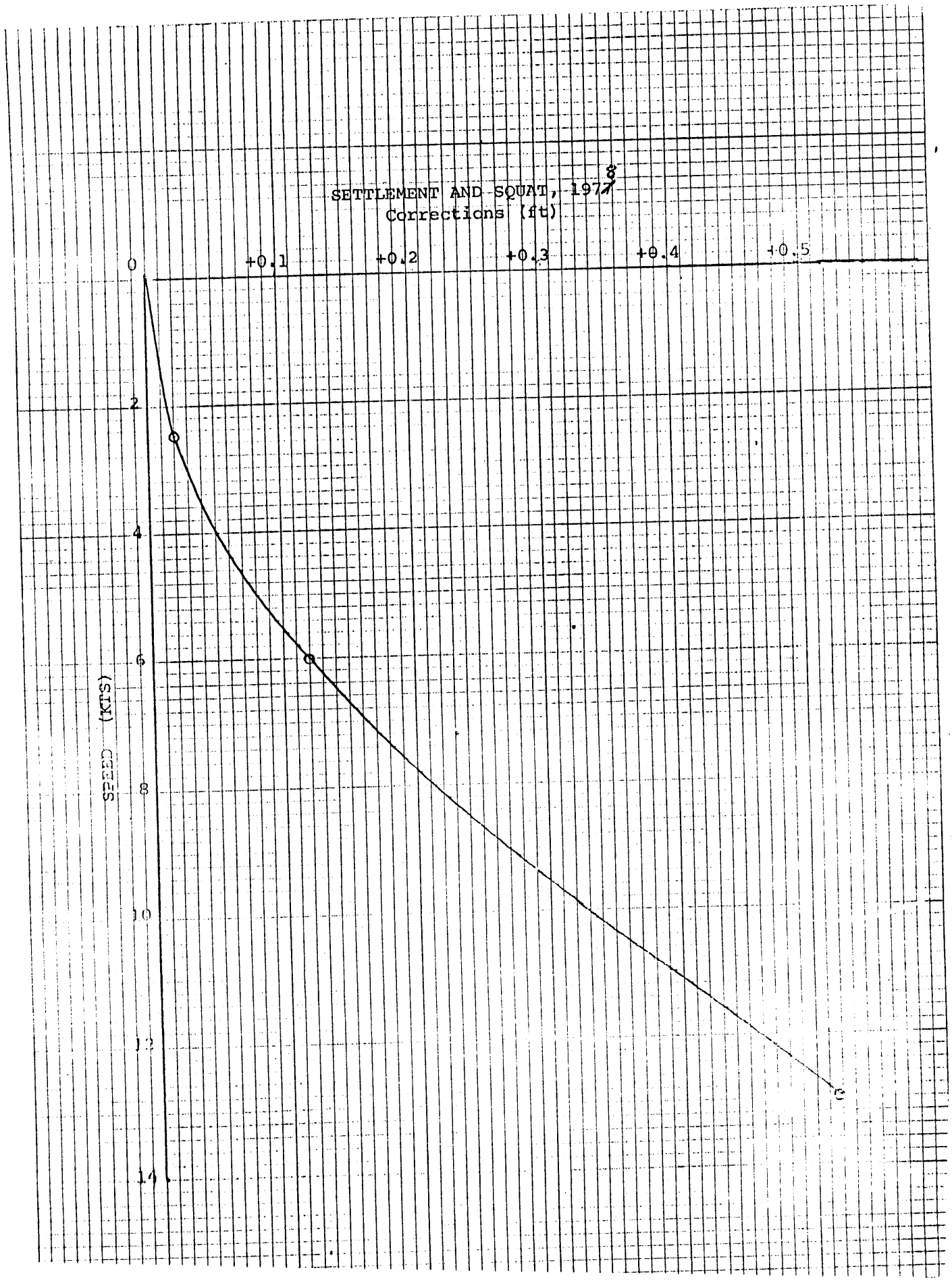
Respectively submitted,

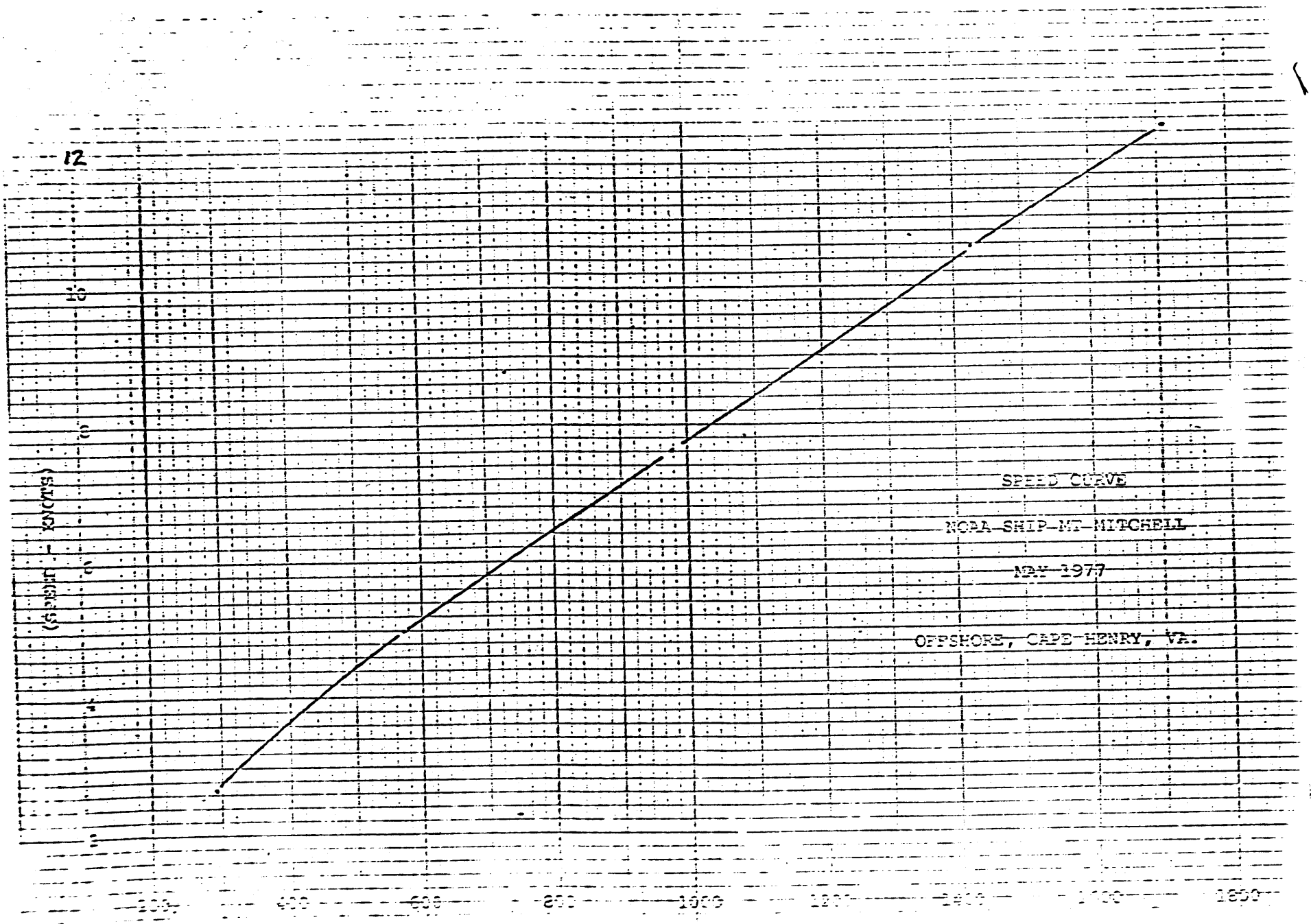
John D. Wilder, LT(jg), NOAA

SETTLEMENT AND SQUAT CORRECTORS

June 12, 1978

SPEED (KTS)	CORRECTION (FT)
1	0
2	0
3	0
4	0
5	0.1
6	0.1
7	0.2
8	0.2
9	0.3
10	0.3
11	0.4
12	0.5
13	0.5


SETTLEMENT AND SQUAT, 1978
Corrections (ft)
+0.1
+0.2
+0.3
+0.4
+0.5
0
2
4
6
8
10
12
14
SPEED (KTS)


SPEED CURVE
NOAA SHIP MT MITCHELL
MAY 1977
OFFSHORE, CAPE HENRY, VA.
SPEED (KNOTS)
400
600
800
1000
1200
1400
1600

FIELD TIDE NOTE

Field tide reduction of soundings were based on predicted tides from Pensacola, Florida ,
corrected to *area per Project Instructions,
and were interpolated on a PDP8/E Computer utilizing program AM500.
All times of both predicted and recorded tides are GMT.

The number and type of tide gages installed, thier geographic locations, dates of installation/removal, leveling, plane of reference and period of operation are appended to this note, along with a copy of a letter to C331 requesting verified hourly heights of tides from gages listed in this report.

Contact with respective tide gage observers was made in person by Mt. Mitchell personnel upon arrival in the project area, There after, observers were contacted during inport periods to ascertain the status of the respective gages.

The respective gages reportedly operated properly during this project, with any exceptions listed under "Remarks" on the appended tide gage sheets.

*For all hydrography east of Longitude 89°54'W.

High Water	Low Water	Height Range Ratio
-2 hr. 12 min.	-2 hr. 08 min.	X0.92

For all hydrography west of Longitude 89°54'W.

High Water	Low Water	Height Range Ratio
- 1 hr. 50 min.	-1 hr. 45 min.	X0.95

August 23, 1979

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 Form 362

Tide Station Used (NOAA Form 77-12): 876-1689 Continental Tower CAGC GI 47A; LA
104-1 AQ
Lat. 28°56'42"
Long. 90°01'51"

Period: May 30 - June 16, 1979

HYDROGRAPHIC SHEET: H-9832

OPR: K104

Locality: "Loop" area, Gulf of Mexico

CONTINENTAL TOWER 79

Plane of reference (Gulf coast low water datum): 3.6 ft. (5/30-6/4, 1700 hrs)
Plane of reference (~~xxxxxxxxxxxxxxxxxx~~): 2.4 ft. (1800 hrs, 6/4-6/16)

Height of Mean High Water above Plane of Reference is
1.3 ft.

REMARKS: Zone direct.

James R. Hubbard
Chief, Datums and Information Branch

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9832

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	
GULF OF MEXICO										1
MISSISSIPPI CANYON										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
				Approved:						16
				Chas E. Harrington						17
				Chief Geographer - C3x5						18
										19
				28 FEB 1980						20
										21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

APPROVAL SHEET
FOR
SURVEY H-9832

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the Verifier's Report.

Date: 12-21-79

Signed: [signature]

Title: Chief, Verification Branch

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER H-9832

HYDROGRAPHIC SURVEY STATISTICS

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	10&0
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS	2 .3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	15 - PDR Fath		-			1-misc. data
CAHIERS	2-with printouts		-			
VOLUMES	2					
BOXES			1- Smooth			1- Sawtooth records

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS: PRE-VERIFICATION	AMOUNTS: VERIFICATION	AMOUNTS: TOTALS
POSITIONS ON SHEET			2681
POSITIONS CHECKED		10	
POSITIONS REVISED		0	
SOUNDINGS REVISED		30	
SOUNDINGS ERRONEOUSLY SPACED		-	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		-	
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	5		
VERIFICATION OF CONTROL	-	-	
VERIFICATION OF POSITIONS	-	16	
VERIFICATION OF SOUNDINGS		26	
COMPILATION OF SMOOTH SHEET		66	
APPLICATION OF TOPOGRAPHY		-	
APPLICATION OF PHOTOBATHYMETRY		-	
JUNCTIONS		-	
COMPARISON WITH PRIOR SURVEYS & CHARTS		32	
VERIFIER'S REPORT		12	
OTHER			
TOTALS	5	157	

Pre-Verification by F. Lamison	*Beginning Date* 08/21/79	*Ending Date* 08/21/79
Verification by . Kelley, L. Cram	*Beginning Date* 10/15/79	*Ending Date* 11/29/79
Verification Check by Harry Smith	*Time (Hours)* 6	*Date* 11/30/79
Marine Center Inspection by Hydrographic Inspection Team (AMC)	*Time (Hours)* 8	*Date* 12/21/79
Quality Control Inspection by R.W. DeVazeaux	*Time (Hours)* 92	*Date* 2/12/80
Requirements Evaluation by D Baumgardner	*Time (Hours)* 4	*Date* 3/19/80

G. Mipes 19hrs 2/29/80

REGISTRY NO. 9832

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

REGISTRY NO. 9832

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 9-23-82 TIME REQUIRED_____ INITIALS JHC

REMARKS:

ATLANTIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO. H-9832 FIELD NO. MI-50-1-79

Louisiana, Northern Gulf of Mexico, ~~Offshore Grand Isle~~ Mississippi Canyon

SURVEYED: 30 May through 16 June 1979

SCALE: 1:50,000 PROJECT NO.: OPR-K104

SOUNDINGS: Ross Digital Echo Sounder
Raytheon Universal Graphic Recorder

CONTROL: AGRO (Range-Range)

Chief of Party ..... J.S. Midgley
Surveyed by ..... R. Jones
..... C.D. Mason
..... J. Wilder
..... W. Pringle
..... A. Shepard
..... P. Morton
..... R. Dutton
..... J. Long
..... R. Sainsbury
..... R. Peoples
Automated Plot by ..... XYNETICS 1201 Plotter (AMC)
Verified and Inked by ..... L.G. Cram
Date ..... November 29, 1979

1. Introduction

a. An unusual problem was encountered in that no documentation could be found authorizing the field to do this survey at a scale of 1:50,000. The survey was carried out in accordance with Project Inspections OPR-K104-MI-79 which mentions survey scales of 1:20,000, 1:40,000 and 1:80,000. Another problem was encountered in that no Presurvey Review Items were marked on any chart covering this area. It remained unclear during verification if there were any Presurvey Review Items in the area, to be investigated by the field unit.

b. Some notes and changes were made in red ink in the Descriptive Report by the verifier during verification.

2. Control and Shoreline

a. The source of control is adequately described in Sections F. and G. of the Descriptive Report.

b. This being an offshore survey no shoreline is shown.

3. Hydrography

a. The agreement at crossings on this survey is adequate; depths agree within the limits prescribed by the Hydrographic Manual.

b. The standard depth curves are drawn in their entirety. A 500 ft. brown curve was added to the survey to help delineate a feature.

c. This survey is considered adequate to delineate the basic bottom configuration and least depths in the area prescribed by the Project Instructions. See Q.C. Report, para. 1

4. Condition of Survey

The smooth sheet and accompanying overlays, hydrographic records and reports comply with the requirements of the Hydrographic Manual with the following exceptions:

a. The sounding volumes are incomplete in regards to indexing of detached positions and general notes.

b. If in fact the chart scale of this survey area is to be at 1:50,000, as mentioned in the Project Instructions then the running of this survey at 1:50,000 is in conflict with section 1.2.3 p. 1-5 of the Hydrographic Manual. This could present a problem in another area. That being the line spacing for this sheet on the shore ward end is 200 meters in depths of 83 ft. to 120 ft.

c. The field unit verified the existence of three charted platforms without the use of position numbers. It is desirable from a verification standpoint to have any objects located by the field to have a position number.

5. Junctions

No junctions were required for this survey, present depths are in general harmony with the charted depths.

6. Comparison With Prior Surveys

See Q.C. para. 7

a.	H-6184	(1936)	1:80,000
	H-6185	(1936)	1:80,000

These are the most recent prior surveys in this area that provide complete coverage.

The comparison with prior surveys has been adequately discussed under Section "K" of the Descriptive Report. There are bigger differences than indicated in the Descriptive Report. In some isolated areas of the deeper portions of the sheet (800 to 1900 ft.)

the differences can be as much as 200 ft. with the present survey being shoaler and at other times the prior survey is shoaler. It would appear that these differences are most probably the results of the less accurate methods of control used on the prior surveys. The present survey is adequate to supersede the prior surveys within the common area.

7. Comparison With Charts #11358 ~~(26th Edition, May 1978)~~
#11340 ~~(37th Edition, June 1978)~~

a. Hydrography See Q.C. Report, para. 8

All of the charted hydrography originates with the previously discussed prior surveys. Due to the selection of charted soundings from the prior surveys 99% of the charted hydrography agrees within ± 1 fathom of the present survey.

The present survey is adequate to supersede the charted information after attention is given to the following items:

SH-G1-75-1

1. Submerged well head at latitude 28°44'02", longitude 90°03'40" was not developed on present survey nor was it investigated on the wire-drag survey ~~*F.E. No. 2~~, 1979. The least depth from the present survey is 144 feet. Recommended retaining this item as charted.

SH-WD-134 A

2. Submerged well head at latitude 28°44'09", longitude 89°44'19" was not developed on present survey. The least depth from the present survey is 278 feet. See the Descriptive Report, para 6.a.2. for ~~*F.E. No. 2~~, 1979 ~~W.D.~~ for investigation and least depth.
Submerged well transferred to present survey from FE-219 as PA 86 feet report.

3. The disposition of several charted obstructions identified as Presurvey Review Item #154 through 159 and 162 are discussed in Section K. of the Hydrographic Report.

b. Aids to Navigation

There was one floating aid to navigation in the survey area and is adequately described in Sections L. and N. of the Descriptive Report. The purpose of this buoy is unclear from exsisting records at the time of verification.

8. Compliance With Instructions

This survey adequately complies with the Project Instructions with the exceptions listed else where in this Report.

9. Additional Field Work

This is a excellent basic survey, additional field work may be desirable on the following items.

Survey redesignated as FE-219 WD
RWD 5/80

a. The submerged well head charted at latitude 28°44'02", longitude 90°03'40".

b. The buoy located at latitude 28°53'09", longitude 90°01'30". If the past history is any indication of what is happening, then this buoy is probably located over a submerged well head or the feature location of an oil well.

Inspection Report
H- 9832 (1979)

Any verification errors regarding procedures and presentation of survey data detected during inspection by the Hydrographic Inspection Team have been corrected before submission for administrative approval. HIT comments regarding quality of field work, compliance with instructions, and adequacy of the survey have been incorporated within the Verifier's Report.

Examined and Approved:
Hydrographic Inspection Team
Date: December 21, 1979

Robert A. Trauschke
Robert A. Trauschke, CDR, NOAA
Chief, Processing Division

David W. Yeager, Lt. Cdr., NOAA
Field Procedures Officer
Operations Division

R. D. Sanocki
R.D. Sanocki
Technical Assistant
Processing Division

Maureen L. Kenny
Maureen Kenny, LT, NOAA
Chief, Electronic Data
Processing Branch

Billy J. Stephenson
Billy J. Stephenson
Team Leader
Verification Branch

Approved/Forwarded

R H Houlder
Richard H. Houlder
RADM, NOAA
Director, Atlantic Marine Center

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

OA/C352:RWD

February 12, 1980

TO: Glen R. Schaefer GRS.
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: R. W. DerKazarian RW. DerKazarian
Quality Evaluator

SUBJECT: Quality Control Report for H-9832 (1979), Louisiana, Northern Gulf of Mexico, Mississippi Canyon

A quality control inspection of H-9832 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, sounding line crossings, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. Revisions and additions to the smooth sheet, plus helpful comments made to the verifier, are identified on a one-half scale copy of the survey to be furnished the verifier.

The status of the control station H-5-LA-78 (triangulation station) could not be substantiated by the National Geodetic Survey (NGS). It is assumed, however, that the necessary records and computations will eventually be submitted to the NGS. Ultimately, therefore, it is expected that the triangulation station status of the control station will be validated. Accordingly, the control station is pending formal processing and acceptance as such by the NGS, and described as "(Field position)", in the Descriptive Report.

In general, the present survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report, the HIT Report, and as follows:

1. The following supplements paragraph 3.c. of the Verifier's Report:

Additional splits would have been desirable in the vicinities of the following depths.

Depth (feet)	Latitude (N)	Longitude (W)
269	28°39'16"	89°48'45"
610	28°37'04"	89°51'12"

2. The field work is considered deficient in determining the position and describing several platforms. Visual bearings and radar ranges used to determine the positions of these features are omitted from the survey records.

3. Seventeen platforms and designations pertaining to the ownership and location of these oil structures were annotated on the smooth sheet during quality control from available information in the Descriptive Report.

4. Inasmuch as corrected rates for positions of four platforms and one buoy (Pos. 2677-2681) were erroneously logged as raw data on the Master Tape Listing by field personnel and rate correctors inadvertently assigned to these values during processing, the verified positions were smooth plotted in error. These positions were corrected during quality control.

5. The triangulated electronic control stations (Nos. 100 and 200) were not sufficiently described in the Descriptive Report, paragraph F, or on the Signal Names List. The names and years of establishment for these stations have been confirmed by AMC Operations Division and are appropriately documented in the Descriptive Report. This information was also added by the quality evaluator to the arc overlay which accompanies the survey. (See Hydrographic Manual, section 7.3.2.)

6. A platform erroneously described in paragraph L, item 4, of the Descriptive Report as "GU-WD'117E" was confirmed in a discussion with the Eighth Coast Guard District to be "GU-WD-117G" during quality evaluation.

7. The following supplements paragraph 6 of the Verifier's Report:

The prior Descriptive Reports indicate that the Dorsey and the Type 312 fathometers used for sounding produced strays from bad returns. These anomalies probably account for some drastic isolated differences between prior and present depths. Also, Radio Acoustic Ranging (R.A.R.) employed as control on the prior work is considered the reason for a 500- to 800-meter displacement between several distinct shoal features.

8. The following supersedes in part and supplements the Verifier's Report, paragraph 7.a:

Comparison with Charts 11358, 27th Edition, January 13, 1979
11340, 38th Edition, January 6, 1979

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, supplemented by several chart letters, Notice to Mariners, and Local Notice to Mariners and Pre-survey Review items addressed in paragraphs K, L, and M in the Descriptive Report.

4. The charted platform in latitude 28°48'49"N, longitude 89°47'05"W, designated as Gulf 130-5 and signed as GU-WD-117E, in the Coast Guard publication, "Listing of Offshore Oil Structures and Submerged Wells in the Eighth Coast Guard District," of June 1, 1979, was not addressed in the present survey records. The Coast Guard was queried in respect to the existence of this structure during quality control and it was confirmed to exist.

5. The charted submerged well at latitude 28°43'12"N, longitude 90°01'24"W, designated as Mobil 200-1 and signed as Mobil GI 83-2, in the previously mentioned Coast Guard publication, was not addressed in the present survey records. Retain well as charted.

cc:
OA/C35
OA/C351

National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

OA/C351:SRB

MAR 31 1980

TO: OA/CAM - Richard H. Houlder

FROM: for OA/C3 - Roger F. Lanier

SUBJECT: H-9832 (1979), OPR-K104-MI-79, Mississippi Canyon, Northern Gulf of Mexico, Louisiana, Report of Compliance with Project Instructions

The smooth sheet and Descriptive Report for the subject survey have been examined. In addition to the Quality Control Report, dated February 12, 1980 (copy attached), and the Hydrographic Survey Inspection Team Report, dated December 21, 1979, the following is submitted:

1. The survey was conducted at a scale of 1:50,000 rather than at the 1:40,000 scale required by the project instructions. No justification for this scale change was indicated in the Descriptive Report. However, it does not appear that the reduction in survey scale significantly affects the data quality for nautical charting purposes.

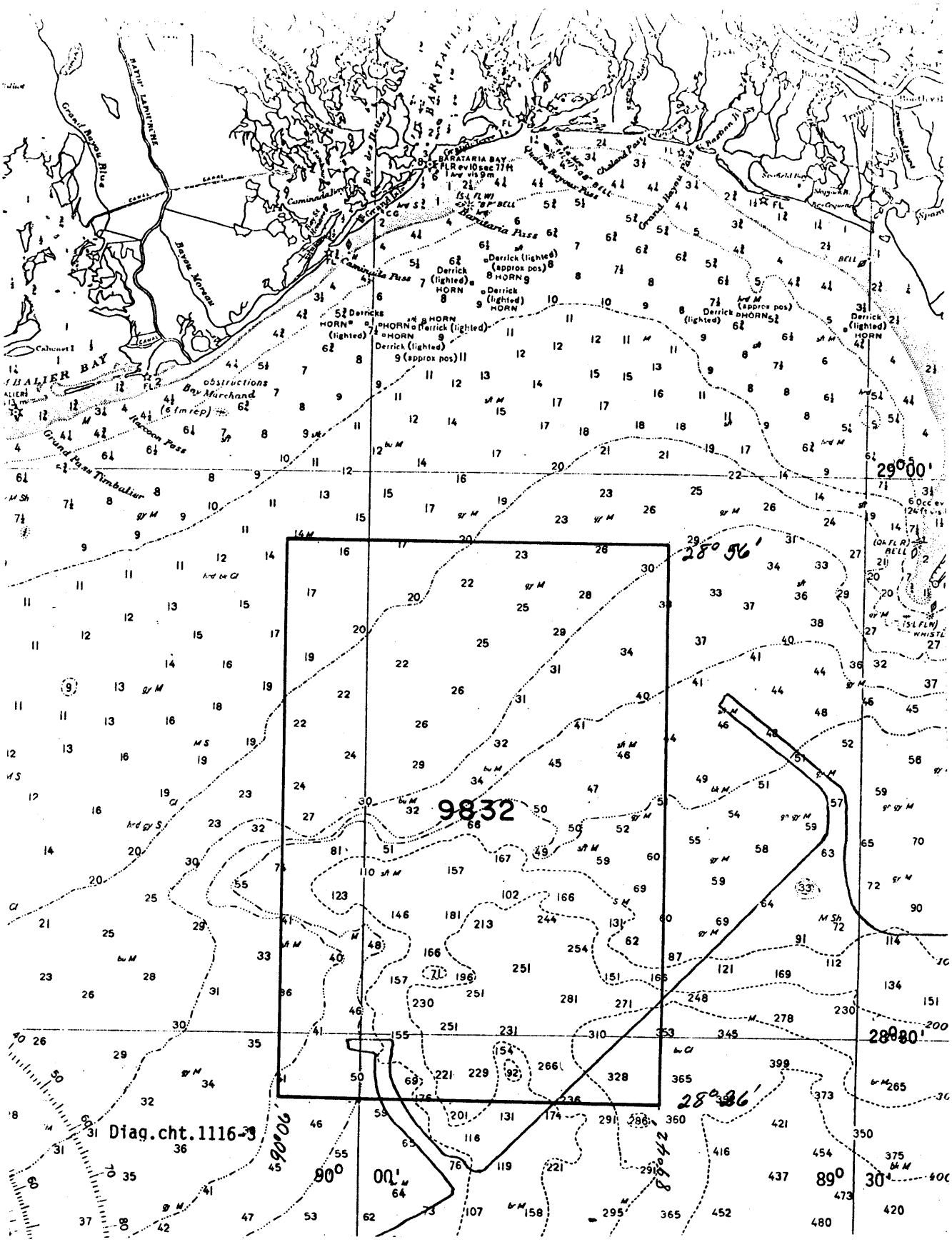
2. The smooth sheet exceeded the maximum allowable length of 60 inches. The smooth sheet was trimmed at Headquarters to meet this requirement.

3. In addition to the velocity corrector determination obtained just prior to the beginning of the survey, an additional determination taken upon completion of field work would have been desirable to bracket the hydrography and ensure the adequacy of the velocity correctors.

Except as noted, the survey is complete and adequate for the purposes intended and is in compliance with Project Instructions OPR-K104-MI-79, dated February 22, 1979.

Attachment

cc:
OA/C352 w/o att.


9832
29°00'
28°56'
28°80'
28°86'
90°00'
89°42'
90°
00'
89°
30'
Diag.cht.1116-3

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9832

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 Revie

CHART	DATE	CARTOGRAPHER	REMARKS
11359	3/18/80 MCP	B. Williams	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 1 ~~Appl~~ Fully applied to Fathom side and Metric side
11358	6-9-80	A. Wills	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 45 + 45M
11340 9	6-8-81	O. Williams	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 61
411 D	6-26-81	Otto Williams	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 56
[illegible]	[illegible]	[illegible]	
11006 TWA	5-14-82	Steve Tartaris	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 32
			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