FE-244

Diagram No. 1278

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic Field Examination

Field No. R/H-20-3-83

Office No. FE-244

LOCALITY

State Louisiana

General Locality Gulf of Mexico

Locality Southeast of Sabine Bank

1983

CHIEF OF PARTY
LCDR R.C.Arnold

LIBRARY & ARCHIVES

DATE April 18, 1984

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

FE-244

AREA 4
CHARTS
11344
11320
11340
} to sign off see Record of Application

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

FE-244

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.

R/H-20-03-83

State LOUISIANA

General locality GULF OF MEXICO

Locality ~~SOUTH OF CALCASIEU PASS~~ SOUTHEAST OF SABINE BANK

Scale 1:20,000 Date of survey APRIL 28 to APRIL 28, 1983

Instructions dated JANUARY 6, 1983 Project No. OPR-K667-RU/HE-83

Vessel NOAA Ship RUDE (9040)

Chief of party LCDR RUSSELL C. ARNOLD

Surveyed by LCDR R.C. ARNOLD, ENS T.G. CALLAHAN

Soundings taken by echo sounder, ~~hand lead, pole~~ DE-719B (RAYTHEON)

Graphic record scaled by LTJG J.W. BAILEY, ENS T.G. CALLAHAN, G.L. ANDERSEN

Graphic record checked by J.W. BAILEY, T.G. CALLAHAN, G.L. ANDERSEN

Protracted by _____ Automated plot by Kynetics 1201 Plotter (AMC)

Verification by Hydrographic Surveys Branch, Atlantic Marine Center

Soundings in fathoms (feet) at MLW (MLLW) ~~GULF COAST LOW WATER DATUM REDUCED FOR PREDICTED TIDES~~

REMARKS: ALL TIMES RECORDED FOR THIS SURVEY ARE G.M.T.

The following was removed from this report and filed with the survey records:

Projection Parameters
Electronic Control Parameters
Corrections to Echo Soundings Abstract
Bottom Sediment Data
Request for Smooth Tides
Project Signal List
Position System Range Calibration Values
TDC Calibration Reports
TDC Observations
Settlement & Squat Data
Velocity Table 1 & Velocity Graph

STANDARDS CK'D 4-18-84 C.Lay

AWOIS 4/20/84 mgf

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

☆ U.S. GPO: 1974-0-768-081/1207

CONTENTS

DESCRIPTIVE REPORT
To Accompany FE-244
HYDROGRAPHIC SURVEY ~~H~~
Field Number RH-20-03-83

A. PROJECT

This survey is part of OPR-K667-RU/HE-83, Calcasieu Pass, Sabine Bank, Louisiana and Heald Bank, Texas. This project was conducted in accordance with project instructions dated 6 January 1983, issued by the Chief, Nautical Charting Division, and forwarded via the Director, Atlantic Marine Center. There were no changes issued during this survey.

B. AREA SURVEYED

This survey was conducted in the Gulf of Mexico, vicinity of the safety fairway, south of Calcasieu Pass, Louisiana. The actual survey limits are as follows:

29°21'33"N 093°14'42"W	000° True to	29°23'03"N 093°14'42"W
29°23'03"N 093°14'42"W	090° True to	29°23'03"N 093°11'54"W
29°23'03"N 093°11'54"W	180° True to	29°21'33'N 093°11'54"W
29°21'33"N 093°11'54"W	270° True to	29°21'33"N 093°14'42"W

The four vertices of the surveyed area are:
29°21'30" 93°11'45"
29°21'30" 93°15'00"
29°23'20" 93°11'45"
29°23'20" 93°15'00"

There was no coastline contained within the above metioned survey limits. Hydrography was conducted on 28 April 1983, JD118.

C. SOUNDING VESSEL

Hydrography was performed by the NOAA Ship RUDE S590. Data acquistion was accomplished by hand logging data while on line. The EDP designation number for the NOAA Ship RUDE is Vesno 9040.

These vessels proved to be fair sounding platforms at best. Vessel size and hull design, during even minimal sea conditions, contributed greatly to jagged fathometer traces. 4-5 ft. seas. See section 4. of the Evaluation Report.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

All soundings for this survey were obtained by the NOAA Ship RUDE S590. The fathometer used for this survey was the Raytheon portable fathometer, model DE-719B, S/N 5799. The fathometer was maintained at a zero initial setting with a static draft of 7.0 feet being added to all corrector tapes.

The velocity of sound corrections will be based upon a T.D.C. cast taken by the NOAA Ship HECK, S591, Vesno 9140. The T.D.C. cast was performed on 26 April 1983, JD116, at 29°02'36"N, 094°14'24"W, to a depth of 18 meters. The instrument used was a Martek Mark VII, model #167, serial number 126. This unit was calibrated by Atlantic Marine Center, Acoustic Branch, during the 1982-83 winter in-

port period. A copy of those calibrations will be forwarded with this report. The velocity table, graph and correctors were computed and applied to all field work by Atlantic Marine Center, Electronic Data Processing Section. – See section 4. of the Evaluation Report.

A vertical cast was taken on 2 May 1983, JD 122, for both vessels (Vesno 9040, 9140). Both vessels installed and checked all three fathometers (S/N's 5799, 5499, 6212) for possible instrument error. Results indicated fathometer, S/N 6212, consistently reading 1 foot shoaler than fathometer 5497 and 5799 ~~5~~ used for hydro. This cast also revealed a 0.7 foot difference between the two vessels. NOAA Ship RUDE, Vesno 9040, records 0.7 foot deeper on all fathometers than those on the NOAA Ship HECK, Vesno 9140. These errors were applied to all final soundings via the TC/TI tape. – Fathm. 5799 was used for JD 118. 0.7' was subtracted from the TC/TI tape

Settlement and Squat corrections were determined on 25 January 1983, JD025, by AMC and ship personnel at Port Norfolk Reach Channel. A copy of settlement and squat results are appended to this report. (Supplemental Data File). Vessel numbers were applied to the graph during verification.

Speed changes were noted in daily sounding records and settlement and squat correctors were entered on sounding correction abstracts. The Sounding Corrector Abstract is appended to this report. (Appendix D). – No speed changes occurred during hydrography – no soundings were taken on the D.P.s.

All soundings were corrected for velocity of sound, instrument error, settlement and squat, and predicted tides by AMC. The ship encountered reduced survey depths ranging from 39 to 50 feet. – See section 4. of the Evaluation Report

E. HYDROGRAPHIC SHEETS

The field sheet used while on line was constructed and drawn on board the NOAA Ship RUDE. This sheet was prepared by the Digital PDP 11/34 computer and Houston Instruments roll bed plotter.

Field sheets were also prepared by AMC using sounding and position data provided by NOAA Ship RUDE. These field sheets consisted of one sheet of position plots of all fixes and soundings, one sheet of all plots of main scheme soundings, and a third sheet containing plots of all crossline soundings. All plotted soundings were corrected for velocity of sound, instrument error, settlement and squat, and predicted tides as mentioned in section D.

F. CONTROL STATIONS

Datum used was NAD 1927. All electronic and visual control stations used during this survey were of Third Order, Class I positional accuracy standards or better. A complete list of signals is found in Appendix F. – See section 4. of the Evaluation Report.

G. HYDROGRAPHIC POSITION CONTROL

Vessel positioning for all work was accomplished with ARGO, medium range positioning system, in the range/range mode at frequency 1646.7 KHz. The following is a list of equipment and serial numbers used:

Vessel	Vesno	Equipment	S/N
NOAA Ship RUDE	9040	RPU	RO47855
S590		CDU	CO37942
		ALU	AO47846
		Power Supply	VO478104
		Thermal Printer	AO4127
		Strip Chart	00152
Shore Station 01		RPU	RO47843
H-24-TX		ALU	AO47853
		Power Supply	VO478107
Shore Station 02		RPU	RO379107
CHAN		ALU	AO379106
		Power Supply	VO379131

Vessel calibrations were performed by steering a known range and observing precomputed sextant angles and ARGO rates. Four independent fixes were observed during opening calibration of JD117. The first observation was used to set exact precomputed values into the CDU. Subsequent fixes were then taken to ensure that the proper values were, in fact, set in.

There was no closing calibration due to the loss of the ARGO system on JD119, before closing calibration could be accomplished. The master station, NOAA Ship HECK, Vesno 9140, switched automatically into the standby mode when the HECK was alongside the Corps of Engineers Pier at Galveston, Texas. This occurred while the RUDE was enroute to the calibration site on JD119 to perform closing calibration. Numerous checks on drilling platforms in and around the survey areas, which were confirmed by the NOAA Ship HECK, Vesno 9140 (Supplemental Data File), and careful annotation and examination of the strip chart recorder give no indication of any gain or loss of lanes during the operation of the ARGO system for this survey. – See section 4. of the Evaluation Report.

A complete file of daily calibrations and whole lane checks is appended to this report. (Supplemental Data File). – The data in the supplemental data file only gives what the values should be, not the actual system calibration.

H. SHORELINE

There was no shoreline contained within the survey limits.

I. CROSSLINES

Throughout this survey 10.5 NM of crosslines were run. This constituted 15% of the total mainscheme hydrography. Crossline agreement was good, within ~~2 feet~~ 2-foot in all cases.

J. JUNCTIONS

N/A

K. COMPARISONS WITH PRIOR SURVEYS

See Attachment 6 for additional information.

L. COMPARISON WITH THE CHART

See Attachment 6.

M. ADEQUACY OF SURVEY

See Attachment 6.

N. AIDS TO NAVIGATION

There were no U.S. Coast Guard maintained Aids to Navigation contained in this survey.

The position of three drilling rig platforms contained in the survey limits and two other platforms in the general vicinity were computed as follows:

Position #	Platform	Latitude and Longitude
232	*NW Leg of Chevron WC 172CO	29°22'40.5102"N 093°14'31.7054"W
233	*SW Leg of Chevron WC 172CC	29°22'43.7355"N 093°12'01.0390"W
234	NE Leg of Chevron WC 181B	29°21'32.1638"N 093°12'02.1179"W
235	*Chevron S/N 8614411	29°21'50.1405"N 093°14'32.2666"W
236	Chevron WC172CB	29°23'27.9974"N 093°14'34.4256"W

See sections 4.4 of the Evaluation Report.

*Contained in survey limits

It was noted that the platform just outside the survey limits with charted position 29°22'47"N, 093°14'54"W, was no longer present. - See sections 4.4 & 7. of the Evaluation Report.

O. STATISTICS

Category	
Total number of positions	236
NM of soundings	69.3
Sq. NM of hydrography	3.8
Bottom Samples	12

P. MISCELLANEOUS

The 12 bottom samples were taken during this survey with a clam shell type grab. A copy of the oceanographic log sheet M is included in Appendix H.

Q. RECOMMENDATIONS

See Attachment 6.

R. AUTOMATED DATA PROCESSING — All automated data processing was accomplished by the Electronic Data Processing Section, Hydrographic Surveys Branch, Atlantic Marine Center.
N/A

S. REFERENCE TO REPORTS

Supplemental data file contains ARGO station values, daily calibrations, Settlement and Squat data.

APPROVAL SHEET
RH-20-03-83

Field operations contributing to the accomplishment of this survey were conducted under my supervision with frequent personal checks of progress and adequacy. This report and field sheet have been closely reviewed. See Attachment 6 for charting recommendations.

Russell C. Arnold

Russell C. Arnold
LCDR, NOAA
Commanding Officer
NOAA Ships RUDE & HECK

~~Appendix F~~

List of Stations

PROJECT: K667

FE-244
RH-20-02-83

SIGNALS/STATIONS

4
H-2X-TX-71, 1978

ID NBR 1
LAT 293513.603 ✓
LON 941717.965 ✓
FREQ 1646.70 KHZ
FILE 1

Source: AMC Operations

CHAN, 1963

ID NBR 2
LAT 294556.168 ✓
LON 932051.826 ✓
FREQ 1646.70 KHZ
FILE 2

Source: N.G.S.

BOLIVAR POINT LIGHTHOUSE USE, 1900

ID NBR 3
LAT 292159.597 ✓
LON 944600.263 ✓
FILE 3

Source: N.G.S.

~~GALV. BAY LOWER RGE FRONT LT.~~

ID NBR 4
LAT 292043.444
LON 944727.340
FILE 4

Not Used

GALVESTON COAST GUARD, RADIO MAST, 1960

ID NBR 5
LAT 292001.985 ✓
LON 944605.559 ✓
FILE 5

Source: N.G.S.

CHANNEL
HOUSTON SHIP ~~CHAN.~~
OUTER ~~RGE~~ RANGE FRONT LT., 1963

ID NBR 6
LAT 292008.340 ✓
LON 944611.100 ✓
FILE 6

Source: N.G.S.

~~ENT N. SIDE DREDGING RGE.~~

ID NBR 7
LAT 292215.653
LON 944456.929
FILE 7

Not Used

~~GALV. S. JETTY LT.~~

ID NBR 8
LAT 291939.258
LON 944132.887
FILE 8

Not Used

~~Appendix G~~

Abstract of Positions

ABSTRACT OF POSITIONS

VESNO: 9040

RH-20-03-83

JD DAY	POSITIONS	CTRL	S1	M	S2	REMARKS
118	1-164	R/R	01		02	MAIN SCHEME
"	165-203	"	"		"	DEVELOPMENTS
"	204-206	"	"		"	MAIN SCHEME SPLIT
"	207-219	"	"		"	CROSS LINE
"	220-231	"	"		"	BOTTOM SAMPLES
"	232-236	"	"		"	DETACHED POSITIONS ON OIL RIG PLATFORMS

~~Appendix I~~

Landmarks for Charts

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [x] 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
- [x] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
NOAA Ships RUDE & HECK	LOUISIANA	GULF OF MEXICO SOUTH OF CALCASIEU PASS	28/APRIL 83

The following objects HAVE [x] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
K667-RU/HE-83		FE-244 RH-20-01-83 3	NAD 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
Platform	Platform is no longer present. However a submerged well head may exist. See section 7. of the Evaluation Report.	29°-25	47"	093°-14'	54"			11344
	NC see L-634(83)							

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ 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.

☆ U.S.GPO:1975-0-665-080/1155

Supplemental Data File
&
Attachment 6.

~~The second area, several soundings in the mid to upper 30-foot range, was run at 180-meter spacing. RUDE & HECK reduced soundings were again deeper than soundings obtained by the MT MITCHELL in 1978 (H-9775) in this area by 0-3 feet. No evidence of the reported shoaling was found.~~

~~LORAN C comparisons were run by the ships while transiting between Galveston and Heald Bank, Galveston to Sabine Bank, Sabine Bank to Calcasieu Channel and Heald Bank to Sabine Bank. These comparisons show LORAN C fixes using W and X rates, plotting consistently to the northwest of ARCO positions by 0.15 to 0.40 nautical miles. Using the prescribed X and Y rates, there is good agreement between ARCO and LORAN C.~~

~~Charting Recommendation~~

~~The 34-foot reported at 29°04'N, 094°13'54"W, would be difficult to miss, as it would represent an 18-foot rise above the next shoalest charted sounding in the area. This command is confident that no such shoal exists. Remove this reported sounding from the charts.~~

~~The area of soundings in the mid to upper 30-foot range was surveyed by the MT MITCHELL in 1978, and no such shoal was evident then. The RUDE and HECK confirmed the MT MITCHELL survey of this area. It is recommended that soundings from the MT MITCHELL's survey, which are slightly shoaler than RUDE & HECK soundings, be reapplied to the chart.~~

Area 3, R/H 20-03-83, South of Calcasieu Pass

This sheet involved hydrographic investigation of shoaling in the center of the Safety Fairway south of Calcasieu Pass. Main scheme hydrography was run at 180-meter spacing and split to 90-meter spacing. RUDE and HECK soundings on this sheet were ~~1-3~~ 1½ to 2 feet deeper than prior survey H-8738, which was conducted in 1963. The shoalest sounding obtained by the RUDE and HECK in the center area of the Fairway was ~~42~~ 39 feet.

Charting Recommendation

Prior survey H-8738 indicates shoals of 38 feet on the west side of the Fairway and 36 feet on the east side, with 40 feet in the middle. The RUDE and HECK got 40 feet on the west side, 38 feet on the east side, and 42 feet in the middle. The best water in this section of Fairway is still up the middle. Remove the 38 foot reported 1976 from the chart. Continue to chart soundings from H-8738 as they are shoaler than RUDE and HECK soundings.

See section 6. of the Evaluation Report.

Concur

Remove the platform at Latitutde 29°22'47"N, Longitude 93°14'54"W. This platform no longer exists at that location. - See section 7. of the Evaluation Report.

~~Area 4, R/H 20-04-83, South of Sabine Bank~~

~~This sheet involved hydrographic investigation of reported shoaling in the Sabine Safety Fairway. Two spikes reported by the WHITING in 1982 were also investigated and side scanned. Basic hydrography was run at 180-meter spacing and then split to 90-meter spacing in the reported areas for the spikes and shoaling.~~

Soundings obtained by the RUDE and HECK were deeper by 2 to 4 feet than the prior survey, H-8738 and Chart 11341.

Charting Recommendation

Soundings from prior survey H-8738 should be reapplied to the chart as they are consistently shoaler than RUDE and HECK soundings. No further evidence of shoaling was obtained.

The WHITING spikes were investigated with side scan sonar with negative results. The southern spike is within 0.20 NM of the 40-foot sounding from H-8738 (WHITING got 41.3 feet) and the northern spike is within 0.20 NM of a 42-foot sounding obtained by the RUDE and HECK (WHITING got a 38.5 that was extremely conservative; this command believes that the spike was wake-induced; see attached copy of fathogram). This command considers the WHITING spikes resolved; no charting action is warranted.

The wreck of the GULF TIDE at Latitude 29°15.8'N, Longitude 93°39.4'W, was investigated by the RUDE and HECK in 1973 and cleared to an effective depth of 40 feet, (see attached copy of draft instructions, item underlined in bold black), yet 10 years later the charts of the area still carry the wreck symbol with "40 ft rep". As this 40-foot sounding is the controlling depth for this portion of the Safety Fairway, NOS should correct the wreck symbol to reflect the RUDE and HECK's 1973 work.

OPR-J657-RU/HE-83, was begun on 12 May 1983, with the installation of an ARGO electronic control station on Egmont Key, Florida (TAMPA PILOTS). A second ARGO station was established in Venice, Florida (LORAN) on 14 May 1983. Field work for this project consisted of side scan sonar investigation. Operations on item AW015 #02671 began and were completed on 16 May 1983. Operations on item AW015 #00174 began on 18 May 1983 and were completed on 19 May 1983. Side scan sonar coverage of 400% revealed no indication of either wreck and resolved that neither wreck remains or is a hazard to navigation. It is therefore recommended that the corresponding wreck symbols be deleted from Charts 11400 and 11424. ARGO station TAMPA PILOTS was taken down on 20 May 1983 and station LORAN was taken down on 23 May 1983.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
NOAA SHIPS RUDE & HECK
439 West York St.
Norfolk, VA 23510

December 20, 1982

To: Director, Atlantic Marine Center
ATTN: MOA1

From: LCDR Russell C. Arnold
Commanding Officer

Subj: Equipping RUDE & HECK for Hydrography

Project Instructions for OPR-K667-RH-83, Calcasieu Pass, Heald Bank, Sabine Bank, Louisiana, require conducting basic hydrographic operations for which the ships are not properly equipped. It is estimated that about 1000 nautical miles of hydrography will need to be run to satisfy project requirements. There are several ways to equip the ships, depending on what type of end product is desired:

1. Data could be collected with the equipment that is presently on board. The survey would be recorded in sounding volumes, using Raytheon DE-719B fathometers and the ARGO positioning system. The final field sheet would display hand plotted position numbers and soundings, reduced for predicted tides.

In this case, the final product submitted by the ships would be sounding volumes and a hand plotted field sheet.

2. If data loggers and teletypes were added to the ships, sounding volumes could be eliminated, with the rest of the data collection process being the same as above.

In this case, the final product submitted by the ships would be annotated teletype printouts, paper punched tape, and a hand plotted field sheet.

3. Full-blown Hydroplot systems could be installed. Complete systems would be needed; no components are aboard at this time.

In this case, the final product would be annotated teletype printouts, paper punched tape and a machine plotted field sheet.

4. Portions of the Hydroplot system could perhaps be installed. The final product would depend upon which components were or were not installed. (e.g., the plotter).

This Command would like to think that the assignment of this hydrographic project to the RUDE & HECK is a one-time-only deal. These vessels are

equipped, staffed and trained to conduct and process wire drag surveys and item investigations. They are not equipped, staffed or trained to conduct and process hydrographic surveys.

The RUDE and HECK can accomplish this project using any of the scenarios outlined above. It will take a tremendous amount of effort on the part of the officer complement to do it. The ships are fortunate at present to have officers with strong hydrographic backgrounds aboard. Six months from now, that will not be the case. This Command would prefer to keep the collection and processing of the data as simple as possible, i.e., Scenario 1.

~~Appendix B~~

~~Request for Smooth Tides~~

Approved Tide Note

February 23, 1984

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic Marine Center

OPR: K667

HYDROGRAPHIC SHEET: FE-244 (R/H-20-3-83)

Locality: Offshore Sabine Pass, Texas

Time Period: April 7 - May 6, 1983

Tide Station Used: 877-0590 Sabine Pass, Texas

Plane Of Reference (Mean Lower Low Water): 4.2 ft.

Height Of Mean High Water Above Plane Of Reference: 1.8 ft.

Remarks: Recommended Zoning:

For Area 3 located at latitude 29°22.5', longitude 93°13.0' apply -30 minute time correction and x1.04 range ratio.

James R Hubbard
Chief, Tidal Datum Section

~~Appendix C~~

Geographic Names List

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

FE-244

Name on Survey	A ON CHART NO. 11344	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 (title)	X									1
LOUISIANA(title)	X									2
SABINE BANK (title)	X									3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
					Approved:					17
										18
					Charles E. Harrington					19
					Chief Geographer - N/CG2x5					20
					15 March 1984					21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

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

HYDROGRAPHIC SURVEY STATISTICS

FE-244

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	2
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	3

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

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			236
POSITIONS REVISED	1	0	1
SOUNDINGS REVISED	62	0	62
CONTROL STATIONS REVISED	0	0	0
	TIME - HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL	1		1
VERIFICATION OF POSITIONS	26		26
VERIFICATION OF SOUNDINGS	10		10
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	4		4
COMPARISON WITH PRIOR SURVEYS AND CHARTS		12	12
EVALUATION OF SIDESCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		17	17
OTHER		8	8
TOTALS	41	37	78

Pre-processing Examination by C. D. Meador	*Beginning Date* Aug. 9, 1983	*Ending Date* Aug. 9, 1983
Verification of Field Data by F. L. Saunders & M. B. Hickson	*Time(Hours)* 41	*Ending Date* Mar. 12, 1984
Verification Check by L. G. Cram	*Time(Hours)* 5	*Ending Date* Mar. 8, 1984
Evaluation and Analysis by M. B. Hickson	*Time(Hours)* 37	*Ending Date* Mar. 22, 1984
Inspection by R. D. Sanocki	*Time(Hours)* 2	*Ending Date* Mar. 21, 1984

ATLANTIC MARINE CENTER
EVALUATION REPORT

REGISTRY NO.: FE-244 FIELD NO.: R/H-20-3-83

Louisiana, Gulf of Mexico, Southeast of Sabine Bank

SURVEYED: April 28, 1983

SCALE: 1:20,000 PROJECT NO.: OPR-K667-RU/HE-83

SOUNDINGS: Raytheon DE-719B Fathometer CONTROL: ARGO (Range-Range)

Chief of Party ..... R. C. Arnold

Surveyed by ..... J. W. Bailey
..... T. G. Callahan

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

1. INTRODUCTION

a. Unusual problems encountered during verification of this field examination are addressed in section 4. of this report.

b. Necessary corrections and notes made by the evaluator to the Descriptive Report are denoted in red ink.

2. CONTROL AND SHORELINE

a. The source of control was not adequately described in section F.and Appendix F. of the Descriptive Report. Section 4. of this report addresses this deficiency.

b. There is no shoreline within the area of this field examination.

3. HYDROGRAPHY

a. Soundings at crossings are in excellent agreement. Depths are within one (1) foot.

b. No standard depth curves were drawn on the smooth sheet. Depths range from 36 to 49 feet. The supplemental 36-foot curve is shown to define the shoal characteristics within the area. The 36-foot curve on the shoal in approximately Latitude 29°22'40", Longitude 93°14'40" was closed based on prior survey H-8738 (1962-63) hydrography.

c. The development of the bottom configuration and investigation of least depths is considered adequate with the following exceptions:

(1) The isolated 36-foot shoal in approximately Latitude 29°22'10", Longitude 93°12'10" was not adequately defined. The area should have been

developed to define the extent and least depth of the feature. This isolated shoal is charted.

(2) The isolated 36-foot shoal in approximately Latitude 29°22'40", Longitude 93°14'40" was not adequately defined. The area should have been developed to define the extent and least depth of the feature. This isolated shoal is charted.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate and conform to the requirement of the Hydrographic Manual with the following exceptions:

a. In reference to LCDR Arnold's letter of December 20, 1982 to the Director, Atlantic Marine Center (see the Supplemental Data section of the Descriptive Report), it is recognized that the vessels and personnel are not properly equipped to conduct hydrography. The effort involved in accomplishing this project is commendable. It is recommended that the RUDE and HECK not be assigned hydrographic projects in the future without being adequately equipped.

b. Velocity correctors submitted were in error and were redone during verification.

c. No TC/TI abstract or printout was provided. TC/TI data was generated and applied as necessary during verification.

d. No data of ARGO positioning system calibration for hydrography conducted on this survey was submitted.

e. The settlement and squat data provided on the RUDE and HECK were not annotated whether the launches were on board or not during these tests. No comments were made in the Descriptive Report whether the launch was on board or not during the hydrography conducted on this survey. It was subsequently learned that the launch was on board during the hydrography for this survey.

f. No Abstract of Corrections to Electronic Position Control was included in the Descriptive Report. Insufficient information was provided to verify the electronic control correctors applied to the data, therefore, the correctors applied were accepted.

g. No dangers to navigation were identified by the hydrographer and no report was submitted. A negative report was required.

h. No field tide note was included in the Descriptive Report.

i. The four platforms and the one well located by this field examination were not adequately described. Descriptions should include the nature of the detached position (such as northeast leg), the platform or well complete name, size, orientation, and light and sound (horn, whistle, bell, etc.) characteristics. The hydrographer should have made contact with the U.S. Coast Guard, Eighth District, to gain any additional information that may be available about the platforms and well, particularly the missing platform discussed in section 7. of this report.

j. Control stations listed in Appendix F. of the Descriptive Report were corrected as necessary. The name listed on three stations were not as listed by N.G.S. One station name was in error. The year of establishment was not provided for any of the stations. The source was not provided for any of the stations.

k. Portions of Attachment 6. of the Descriptive Report, pages 2 and 3, contains information not relevant to this field examination and should have been stricken from the report.

l. Fathogram quality is poor as sea conditions were 4 to 5 feet during times of hydrography which degraded the bottom trace and makes accurate interpretation difficult.

m. Bottom samples were not plotted on the final field sheet. No bottom samples were taken on the two isolated shoal features noted in section 3. of this report.

n. No depth curves were drawn on the final field sheet.

o. The Geographic Names List was corrected during Evaluation and Analysis.

5. JUNCTIONS

This field examination does not junction with any contemporary hydrographic surveys. See section 6.a. of this report.

6. COMPARISON WITH PRIOR SURVEYS

a. Hydrography

D-1 (1982)
H-8738 (1962-63)

Reconnaissance hydrographic survey D-1 (1982) provided no useable information or plots for comparison and therefore no comparison was made.

Prior hydrographic survey H-8738 (1962-63) is common to the entire area of this field examination and is the source of all charted hydrography within the common area. Agreement is generally excellent with present survey depths ranging from one foot shoaler to two feet deeper than prior hydrography. The present hydrography is considered adequate only to supplement prior hydrography within the common area. The prior data is adequately charted and no additional hydrography is recommended for charting.

b. Wire Drag

H-9627 WD (1976)

No conflicts exist between present hydrography and prior wire drag effective depths. The isolated 36-foot shoal in approximately Latitude 29°22'10", Longitude 93°12'10" was cleared by an effective depth of 36 feet on the prior survey.

7. COMPARISON WITH CHART 11344 (23rd Edition, November 27, 1982)

a. Hydrography

The charted hydrography originates with the previously discussed prior survey of H-8738 (1962-63). The disposition of charted soundings common to this field examination is adequately discussed in section 6. of this report. The charted "(38ft. rep 1976)" in approximately Latitude 29°22'30", Longitude 93°13'00" should be deleted from the chart.

b. Aids to Navigation

No aids to navigation, per se, fixed or floating, exist within the area of this field examination. However, five lighted structures (four platforms and one well) were located by this survey. Six platforms are presently charted within the common area. The platform charted at Latitude 29°21'50", Longitude 93°14'34" was identified as a well and should be so charted. The platform charted at Latitude 29°22'47", Longitude 93°14'54" was identified as no longer in existence. The possibility exists that a submerged well, hazardous to navigation, exists in the location of the missing platform. Additional investigation is required in order to determine the proper charting action. The remaining four platforms should remain as charted.

8. COMPLIANCE WITH PROJECT INSTRUCTIONS

This field examination adequately complies with Project Instructions OPR-K667-RU/HE-83 dated January 6, 1983 except as noted in this report.

9. ADDITIONAL WORK

This is an adequate field examination which serves the intended purpose. No additional field work is recommended.

Frank L. Saunders
Cartographic Technician
Verification of Field Data

Maurice B. Hickson, III
Cartographer
Evaluation and Analysis

for R. W. Sanock
Leroy G. Cram
Supervisory Cartographic Technician
Verification Check

INSPECTION REPORT
FE-244

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

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

David B. MacFarland

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

Approved March 23, 1984

Wesley V. Hull

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

93° 15'

93° 14'

93° 13'

93° 12'

29° 23'

29° 22'

29° 21'

FE - 244

APRIL , 1983

SCALE - 1: 20,000

SOUNDINGS IN FEET AT MLLW

NORTH AMERICAN DATUM OF 1927

POLYCONIC PROJECTION

CHEVRON WC 172 CB
platform (lighted) horn
priv maintd

CHEVRON WC 172 CC
platform (lighted)
priv maintd

CHEVRON WC 172 CO
platform (lighted)
priv maintd

CHEVRON S/N 8614411, WELL NO. 2
well (lighted)
priv maintd

CHEVRON WC 181 B
platform (lighted)
priv maintd

fne br S Sh

FE-244
POSITION OVERLAY

93°15'
93°14'
93°13'
93°12'
93°11'
29°23'
29°22'
29°21'

460 (2)
480 (2)
500 (2)
520 (2)
480 (2)
500 (2)
520 (2)

1120 (1)
1140 (1)
1160 (1)
1180 (1)
1200 (1)
1140 (1)
1160 (1)
1180 (1)
1200 (1)

93° 15'

93° 14'

93° 13'

93° 12'

FE - 244

EXCESS LEVEL

29°23'

29°22'

29°21'

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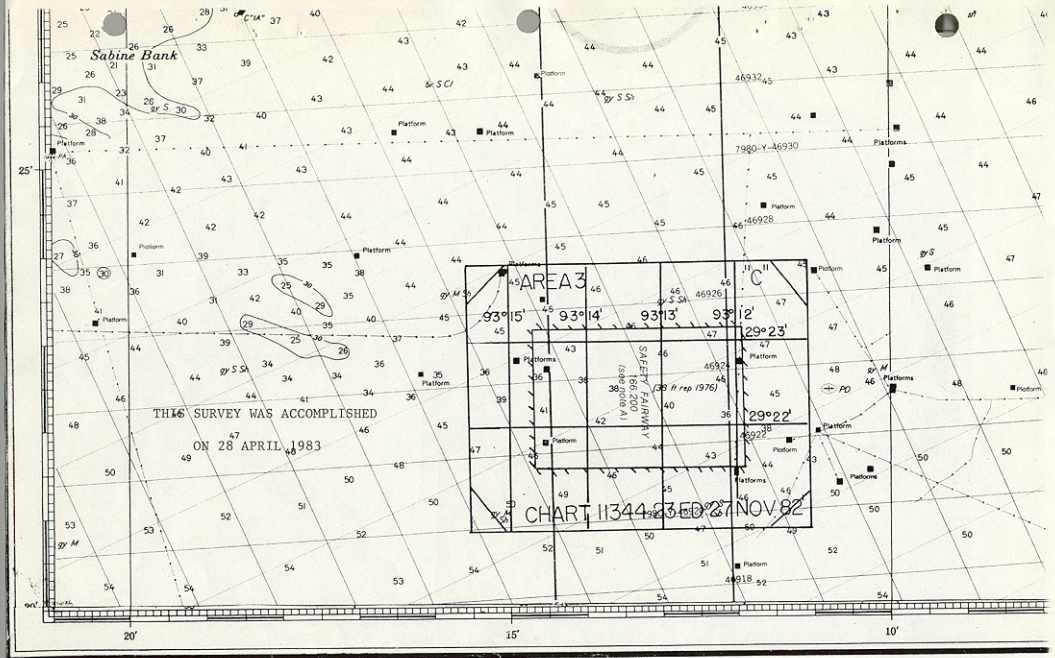

23rd Ed., Nov. 27/82 ■

11344

LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners published weekly by the Defense Mapping Agency Hydrographic /Topographic Center and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the print date shown in the lower left hand corner.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

This nautical
National Oce
or comments
NOAA, Rock

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

Hydrographic Index No. 88 F

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. FE-244

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
11344	3 MAY 84	DM PERKINS	Full ~~Part Before~~ After Verification Review Inspection Signed Via
		DLP 5-10-84	Drawing No. 35
11330	4 MAY 84	DM PERKINS	Full ~~Part Before~~ After Verification Review Inspection Signed Via
		DLP 5-10-84	Drawing No. 1
11340	4 MAY 84	DM PERKINS.	Full ~~Part Before~~ After Verification Review Inspection Signed Via
		DLP 5-10-84	Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			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-P6