

9374

WIRE DRAG

Diagram No. 1115-2 & 1266-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey Wire Drag
Field No. RH-40-1-73
Office No. H-9374 WD

LOCALITY

State Mississippi & Alabama
General Locality Gulf of Mexico
Locality Mobile Bay Entrance

19 73

CHIEF OF PARTY
CDR. L.E. Pickens

LIBRARY & ARCHIVES

DATE May 1, 1975

9374
WIRE DRAG

AREA 4

CHARTS

11378 B

11006

11360

11376

411-NC

HYDROGRAPHIC TITLE SHEET

H-9374 WD

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.

RH 40-1-73

State MISSISSIPPI - ALABAMA

General locality ~~MOBILE BAY ENTRANCE~~ Gulf of Mexico

Locality Mobile Bay Entrance

Scale 1:40,000 Date of survey 10 April - 1 June 1973

Instructions dated JANUARY 26, 1973³ Project No. OPR - 479

Vessel NOAA SHIPS RUDE & HECK

Chief of party CDR L.E. PICKENS

Surveyed by SHIPS PERSONNEL

Soundings taken by echo sounder, hand lead, pole _____

Graphic record scaled by _____

Graphic record checked by _____

Protracted by _____ Automated plot by _____

Soundings penciled by _____

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXX~~ BASED ON PREDICTED TIDES gm 6/29/84

REMARKS: _____

Applied to sheet 6/10/75

CRS

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0 30 + 89 00 +

OPR-479-R/H-73

WIRE DRAG

GULF OF MEXICO

NOAA SHIPS RUDE & HECK

L.E. PICKENS, CHIEF OF PARTY

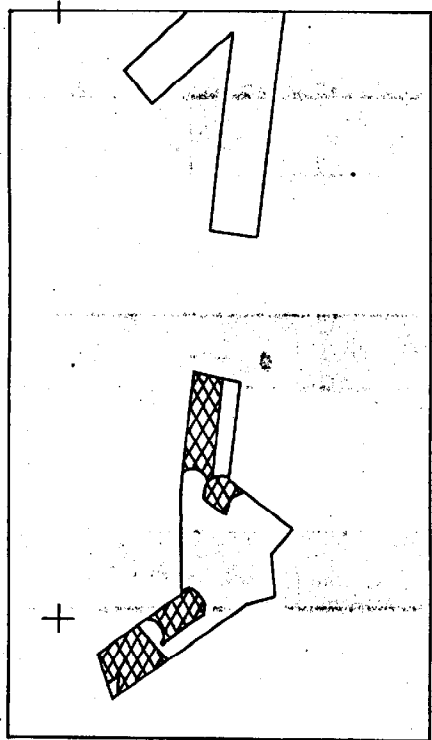
APRIL 1973

SCALE 1:456,394

0 00 +

88 30 +

88 00 +



AREA COMPLETED IN APRIL 1973

89 00
+

PROGRESS SKETCH

OPR-479-R/H-73

WIRE DRAG : SHEET 40-1-73

GULF OF MEXICO

NOAA SHIPS RUDE & HECK

L.E. PICKENS, CHIEF OF PARTY

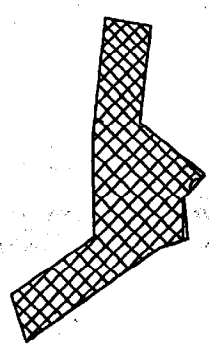
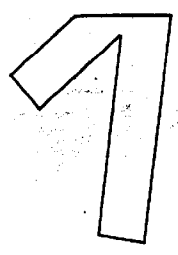
MAY 1973

SCALE 1:456,394

458-572

+

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+



REPRESENTS AREA COMPLETED

+

30 00

88 00
+

30 30

DESCRIPTIVE REPORT
TO ACCOMPANY
DATA TAKEN DURING OPR-479-RU/HE-73
WIRE DRAG OPERATIONS
FIELD NUMBER RH-40-1-73
CDR LEONARD E. PICKENS
NOAA SHIPS RUDE & HECK

A. AUTHORITY

OPR-479-RU/HE-73 was authorized by instructions dated 26 January 1973; Supplemental Instructions dated 16 April, 1973 contained additional items to be investigated.

B. PROJECT DESCRIPTION

The project was done on a scale of 1 to 40,000 and boat sheet limits were from 29°58'N to 30°16'N and from 87°54'W to 88°28'W.

Most of the area covered was in the Safety Fairway with only minor overlap and limited adjacent areas being the exception.

C&GS Charts #1266 and #872-SE cover the Mobile Bay entrance area; however, limits and co-ordinates for the Safety Fairways were obtained from the Army Corp of Engineers as the project limits extending to the 60 ft. curve were south of chart #1266 limits.

(See Attachment I.)

C. CONTROL AND SHORE LINE

Position control was by a Raydist DR-S Range-Range system and the shore stations were at the following points:

The Red Station (R1) was erected on a selected point by ship's personnel; the point is referred to as "BILE" and its location was at $30^{\circ}13'19.334''N$ and $88^{\circ}01'39.684''W$. The station is not recoverable, no permanent mark was left except for a nearby light pole. Power for this station was supplied from the pole through the permission of the Army Corp of Engineers.

The Green Station (R2) tower was erected over the triangulation marker "DAUPHIN". A 50 ft. tower was found to be adequate. Power for the station was supplied by a TELAN 2T9P Thermoelectric Generator; the generator supplied sufficient power to the transmitter. However, under warmer conditions, a shade for the generator would be advisable as the emf potential is supplied due to temperature difference. In general, two, one hundred pound LP gas bottles would supply the station with power for 7 to 8 days (but not for nine); the station was serviced weekly. (There are no permanent power supplies on that section of the island.) The Triangulation Marker "DAUPHIN" was established in 1935. It is in QUAD 300882, at STATION 1036 (Ala-Miss) in DIAGRAM NH 16-4 MOBILE. The position is at $30^{\circ}13'49.573''N$ and $88^{\circ}18'15.159''W$.

Aides to Navigation are included as Attachment III.

D. DATE OF SURVEY

The RUDE & HECK arrived at the Marine Fisheries Pier in Pascagoula,

Mississippi on 4 April 1973. Survey operations began 10 April and continued through 1 June. The ships departed the area on 4 June 1973.

E. TIDAL REDUCERS

Predicted tides were first obtained using predicted tides based on Ft. Gaines on Dauphin Island. As the project proceeded, tides were drawn on the standard form rather than on the computer interpolation as the print out seemed to be in error.

Although we do not have data to support this, it does not seem reasonable that tide stages would be the same outside Sand Island Light as compared to Ft. Gaines or Ft. Morgan when the current literally "gushes" from the bay as observed. (See recommendations).

F. JUNCTIONS

Not applicable.

G. SPLITS

There are ^{two} ~~no~~ splits on RH-40-1-73.

H. GROUNDINGS AND HANGS

Groundings and hangs are listed in Attachment IV; one hang in particular will be treated in Section K and one "mud hang" is mentioned here.

Position 6-0 and 11-T identify the "mud knoll" divers reported

during 10 May operations. No definite obstacle existed on the bottom; buoys did not topple as in a grounding. (Refer to the boat sheet.) The area did not have a clearing strip run over it due to lack of time; there was not enough time to do accurate hydrography with a wire. The Mobile Pilot reported that the deepest draft vessel entering the channel now is 40 ft. so that this grounding is not a hazard to navigation.

I. GENERAL NOTES

Initially, calibrations were made by running the range on Mobile Point and turning angles to the Dauphin Island Water Tank. This proved to be difficult due to poor day and night visibility and the shortness of distance between range markers. Calibrations for most of the project were made on Sand Island Light, lane counts were made on the Sea Buoy and channel buoys 1, 2, and 4.

We found that data supplied to us based on a 1920 survey was out of date and reconnaissance hydro over the entire project area was necessary. The most difficult problem was that of shear^{a?} currents, sudden current changes and eddy currents; these currents caused lift-sag problems and made maneuvering difficult. (See recommendations.)

J. CURRENTS

As mentioned above in Section I, currents were not the simple one direction type. With these forces acting on the drag, the drag performance could, at times, only be described as "odd".

The currents in the area seem to be the product of several effects; the general tidal variations in and out of the bay; the stream in the gulf and the wind. Water piled in the bay and then suddenly pushes into the gulf; the most violent reactions occurring at the water body interfaces. The variations seemed endless and unpredictable.....but worthy of further study. (See Attachment VI.)

Normal techniques of decreasing or increasing speed would not, at times, solve a high lift or sag problem; much data had to be rejected. Sudden reversals and change of direction in the current also plagued dragging operations. As the project neared completion, a rotary current pattern of sorts seemed to exist; whether this was due to moderating weather or our own ability to "out guess" the current is not definite.

K. DISCREPANCIES AND COMPARISONS WITH RECENT SURVEYS AND CHARTS

The bottom has changed as might be expected in an area with such fast currents and high river discharge. Reconnaissance hydro had to be extensive due to bottom changes.

The following obstructions were hung during the operation:

- 1) F/V GRACIE L in 60 ft. of water with a cleared effective depth of 23 1/2 ft. (predicted tides) lies at 30°07.35'^{1?} and 88°01.05'W, (positions 11-Q, 25-Z, 22-N). Ships with draft great enough to strike mast would not be damaged but shrimp and fish nets could become fouled in the rigging. "GRACIE L" should be considered a hazard to navigation.

3646
11378

*cleared to 52 1/2 ft in 1974
LNM 30(1974)*

2) Anchor fluke ^{in the vicinity of} ~~at~~ 30°08.27'N and 88°05.1⁷'W extends 2 ft. off

the bottom ~~at 40 ft.~~ (position 15-B). No hazard to navigation. Due to the lack of useable lift tests, no determination of an accurate depth was accomplished. The position of the hang was cleared to an effective depth of 34 ft.

✓ 3642
11278

3) "Partially buried anchor" at 30°04.80'N. and 87°59.50'W
extends approximately 2 st. from bottom at 56 ft. (position 8-J).

No hazard to navigation.

4) Ships anchor extending 2 ft. from the bottom at 58 ft. at
30°07.59'N and 88°04.15'W, (position 5-W). Represents no hazard.

5) Anchor 1.5 ft off Bottom 30°04.80' 87°59.50' hang @ 60
No Hazard

L. PERSONNEL AND EQUIPMENT

Throughout the survey, the RUDE was the Guide Vessel. The ships were equipped with Raytheon DE-723 Fathometers.

During the survey the launches and skiffs of both ships were used for testing and in addition two Coast Guard Launches (one at a time) were used. The 40 ft. launch (40396) and 30 ft. launch (30548) were equipped with Ross depth indicators (ID1244/SON-13) and were able to move from buoy to buoy faster than our own launches.

Also, toggle buoys constructed of PVC pipe and pipe caps and sized to approximate buoyancy of standard aluminum toggles were tested on the drag. Results were favorable as to performance (i.e. lift and sag).

All other equipment was standard wire drag equipment.

Officers participating in the operations were CDR L.E. Pickens, LCDR W.E. Noble, LTJG B.L. Wescott, ENS H.B. Arnold, ENS T. Bergner, ENS R. Wells, and ENS K. Van Train.

M. MISCELLANEOUS

During the survey, several storms passed through the area. It may be noted here that the drainage area of Mobile Bay (fourth largest in U.S. in terms of discharge) had a 100 year storm pass over it during the operation. General flooding conditions existed around Alabama and Mississippi; this undoubtedly had an effect on the Mobile Bay Entrance currents. Attachment VI deals with observations of researchers of the area.

N. SUMMARY

The project at the Mobile Bay Entrance represents 26 days of work that data was taken and accepted. As the hydro supplied prior to the project was of the 1920 vintage, it was necessary to do extensive reconnaissance hydro over the entire area.

There were four different obstructions hung; one of which extended far enough from the bottom to be considered a hazard: the F/V GRACIE L at $30^{\circ}07.35'N$ and $88^{\circ}01.05'W$ in 60 ft. of water with a cleared effective depth of 23 1/2 ft. (predicted tides). *cleared by 52 1/2 ft. in 1974*

The hydro data supplied to the RUDE & HECK was not adequate for wire drag purposes; also, the currents in the area need further study as the tables did not seem to describe what actually occurred.

3446

O. RECOMMENDATIONS

Recommend that F/V GRACIE L be charted as a hazard to navigation.

Recommend that Mobile Bay Entrance be given priority for a hydro project in the near future.

Recommend that Mobile Bay Entrance and Mobile Bay be considered for a current study in the near future.

APPROVAL SHEET

All records of this survey prior to smooth plotting and with the noted exceptions are hereby approved. The project, including daily operations and collection of data, was personally supervised by the undersigned.

Leonard E. Pickens
CDR Leonard E. Pickens
Commanding Officer
NOAA Ships RUDE & HECK

LIST OF ATTACHMENTS

ATTACHMENT I

Army Corp of Engineers Safety Fairway Limits

ATTACHMENT II

A. Raydist Shore Station Position

B. Controls Used in Calibration

ATTACHMENT III

Floating Aides to Navigation

ATTACHMENT IV

Groundings and Hangs

ATTACHMENT V

Raydist Correctors and Statistics Data

ATTACHMENT VI

Available Current and Hydro Data on Mobile Bay and Proposed Studies

ATTACHMENT VII

Range and Circle Calibration Values

ATTACHMENT VIII

Project Instructions

ATTACHMENT IX

A. Report - Tide Station

B. Smooth Tides

ATTACHMENT X

Chart Corrections

ATTACHMENT XI

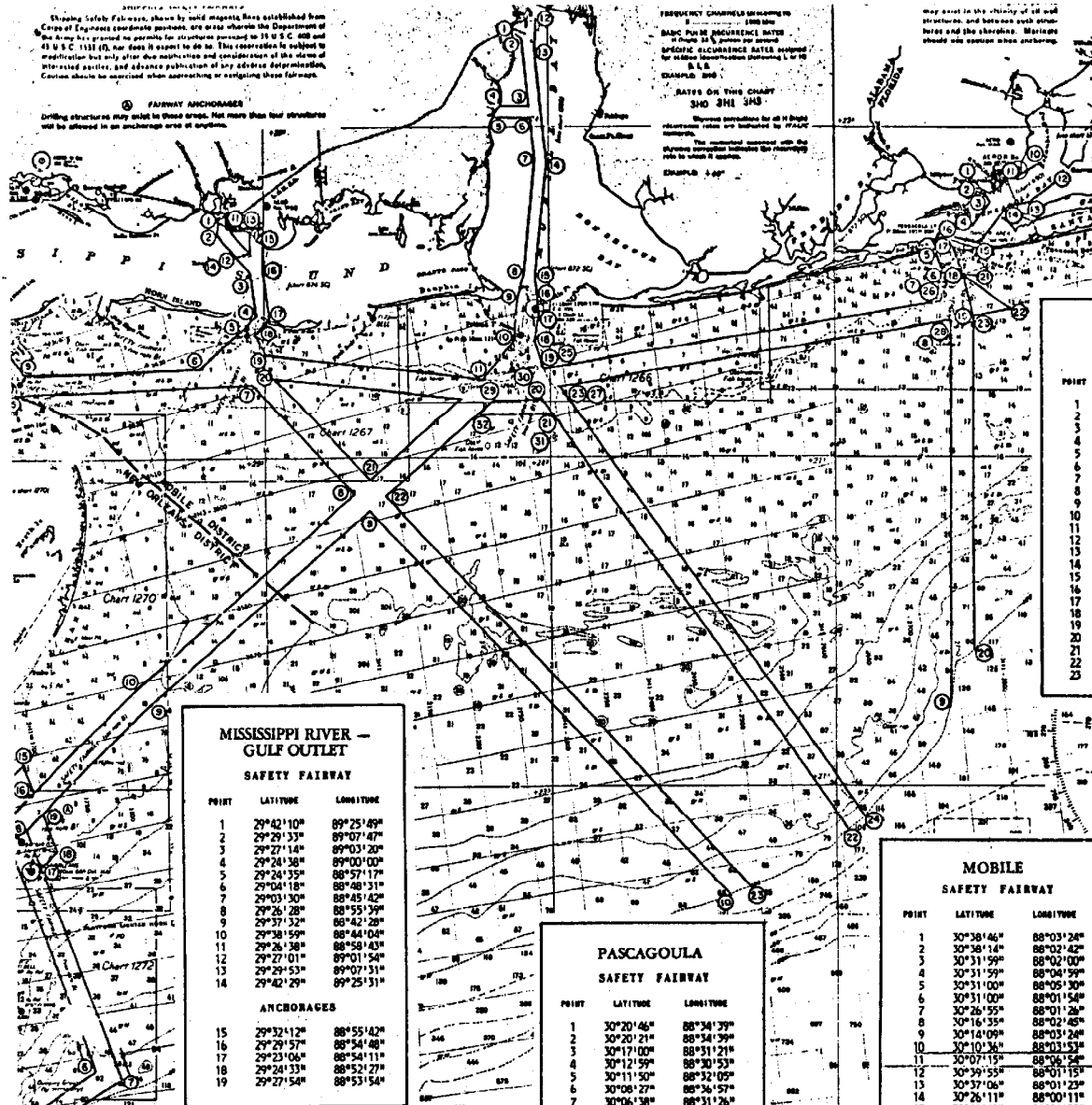
Boat Sheet and Electronic Control Parameter Sheets

Shipping Safety Fairways, shown by solid magenta lines established from Corps of Engineers coordinate points, are shown on the Department of the Army has granted no permits for structures pursuant to 35 U.S.C. 408 and 41 U.S.C. 1131 (f), nor does it expect to do so. This restriction is subject to modification but only after due notification and consideration of the views of interested parties, and advance publication of any adverse determination. Caution should be exercised when approaching or navigating these fairways.

FAIRWAY ANCHORAGES
Lifting structures may exist in these areas. Not more than four structures will be allowed in an anchorage area at any time.

FREQUENCY CHANNELS (COMMUNICATIONS)
1500 MHz
BASIC PULSE PROCEDURE RATES
14 pulses per second
SPECIFIC SECURITY RATES (AS REQUIRED)
FOR ALL COMMUNICATIONS (INCLUDING L or R)
CLASS 1 AND 2
RATES ON THIS CHART
310 311 312
Minimum power level is 1000 Watts
The authorized channel with the highest power level is the primary channel for the frequency.

may exist in the vicinity of all such structures and between such structures and the shorelines. Masters should use caution when anchoring.



MISSISSIPPI RIVER — GULF OUTLET SAFETY FAIRWAY

POINT	LATITUDE	LONGITUDE
1	29°42'10"	89°25'49"
2	29°29'33"	89°07'47"
3	29°27'14"	89°03'20"
4	29°24'38"	89°00'00"
5	29°24'35"	88°57'17"
6	29°04'18"	88°48'31"
7	29°03'30"	88°45'42"
8	29°26'28"	88°55'59"
9	29°37'13"	88°42'28"
10	29°38'59"	88°44'04"
11	29°26'38"	88°58'43"
12	29°27'01"	89°01'54"
13	29°29'53"	89°07'51"
14	29°42'29"	89°25'31"

ANCHORAGES

15	29°32'12"	88°55'42"
16	29°29'57"	88°54'48"
17	29°23'06"	88°54'11"
18	29°24'33"	88°52'27"
19	29°27'54"	88°53'54"

PASCAGOULA SAFETY FAIRWAY

POINT	LATITUDE	LONGITUDE
1	30°20'46"	88°34'39"
2	30°20'21"	88°34'39"
3	30°17'00"	88°31'21"
4	30°12'59"	88°30'53"
5	30°11'50"	88°32'09"
6	30°08'27"	88°36'57"
7	30°06'58"	88°31'26"
8	29°55'43"	88°20'50"
9	29°55'14"	88°19'15"
10	29°20'00"	87°41'42"
11	30°20'30"	88°33'18"
12	30°18'59"	88°31'25"
13	30°20'26"	88°31'25"
14	30°18'39"	88°31'25"
15	30°19'21"	88°30'12"
16	30°17'25"	88°30'12"
17	30°12'46"	88°29'42"
18	30°11'21"	88°31'00"
19	30°09'33"	88°29'48"
20	30°07'30"	88°29'09"
21	29°58'03"	88°19'05"
22	29°56'34"	88°17'30"
23	29°20'48"	87°39'31"

MOBILE SAFETY FAIRWAY

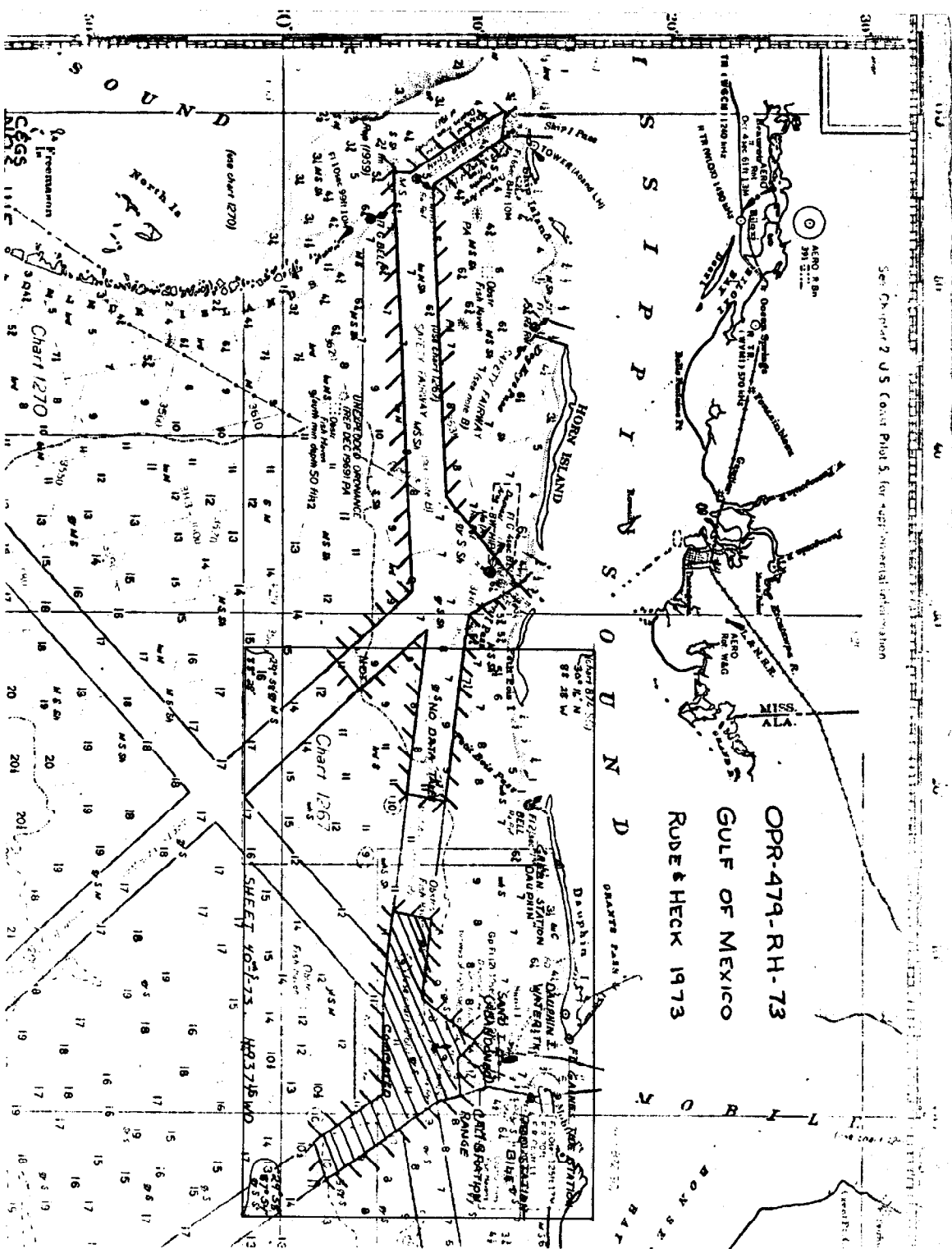
POINT	LATITUDE	LONGITUDE
1	30°38'46"	88°03'24"
2	30°38'14"	88°02'42"
3	30°31'59"	88°02'00"
4	30°31'59"	88°04'59"
5	30°31'00"	88°05'30"
6	30°31'00"	88°01'54"
7	30°26'55"	88°01'26"
8	30°16'35"	88°02'48"
9	30°14'09"	88°03'24"
10	30°10'36"	88°03'53"
11	30°07'19"	88°04'54"
12	30°09'55"	88°01'15"
13	30°37'06"	88°01'23"
14	30°26'11"	88°00'11"
15	30°16'18"	88°01'35"
16	30°13'52"	88°01'12"
17	30°13'14"	88°01'12"
18	30°10'36"	88°01'35"
19	30°08'04"	88°00'36"
20	30°05'15"	88°01'11"
21	30°05'50"	88°00'00"
22	29°25'48"	87°29'13"
23	30°06'17"	87°59'15"
24	29°27'00"	87°27'18"
25	30°03'04"	88°00'36"
26	30°14'20"	87°19'05"
27	30°06'17"	87°59'15"
28	30°12'31"	87°18'00"
29	30°05'15"	88°04'05"
30	30°05'15"	28°01'15"
31	30°03'50"	88°00'00"
32	30°03'50"	88°08'01"

SOUTH PASS (MISSISSIPPI RIVER) SAFETY FAIRWAY

POINT	LATITUDE	LONGITUDE
1	28°55'18"	89°08'30"
2	28°58'42"	89°07'30"
3	28°28'09"	89°08'30"
4	28°55'56"	89°03'09"
5	28°54'55"	89°00'48"
6	28°54'15"	88°59'00"
7	28°55'42"	88°57'06"
8	28°56'16"	88°58'29"

COPIES AVAILABLE FROM CORP OF ENGINEERS — MOBILE

POINT
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See Chapter 2 US Coast Pilot 5, for supplemental information

OPR-479-RH-73
 GULF OF MEXICO
 RUDE & HECK 1973

ATTACHMENT II

A. RAYDIST SHORE STATION POSITIONS

STATION	LATITUDE	LONGITUDE	REMARKS
"DAUPHIN"	30°13'49.573"N	88°18'15.159"W	Permanent and Recoverable (Green Station)
"BILE"	30°13'19.334"N	88°01'39.689"W	Not permanent (Red Station)

B. CONTROLS USED IN CALIBRATION

SIGNAL	LATITUDE	LONGITUDE
Sand Is. Lt.	30°11'14.826"N	88°03'02.236"W
Dauphin Is. Water Tk.	30°15'11.959"N	88°06'44.901"W
Mobile Ship Channel		
Front Range	30°13'17.429"N	88°01'36.589"W
Rear Range	30°13'39.375"N	88°01'27.147"W

ATTACHMENT III

FLOATING AIDS TO NAVIGATION

R"20" Pascagoula Ship Channel
Red 1014.94 Green 428.52
 ---Initializing Points

R"22" Pascagoula Ship Channel
Red 1018.1 Green 431.8
 ---Initializing Points

Sea Buoy Mobile Ship Channel
Red 229.85 Green 556.1
LAT 30°08.05'N LONG 88°04.00'W

R"2" Mobile Ship Channel
Red 194.15 Green 561.0
LAT 30°08.83'N LONG 88°03.48'W

ATTACHMENT IV

GROUNDINGS AND HANGS

POSITION NO. DAY LETTER	BOUY NO.	LATITUDE	LONGITUDE	GROUNDING EFF. DEPTH	CLEARED BY DAY STRIP NO.	CLEARED EFF. DEPTH	SOUNDING	CHARTED DEPTH
✓ 15-B 9-D	5	30°08.27'	88°05.17'	48' 58'	AB-1 E-1	34 50	43'	49'
11-F 9-11	Approx 8	30°04.7'	87°59.4'	61 59	M-1 D-1	58 1/2 51	None	None
8-J 14-J	7-8 N	30°03.23' 30°03.75'	87°59.58' 87°59.33'	56' 56'	M-1 M-1	50 1/2 49	55'	63'
23-J	5-6	30°04.80'	87°59.50'	60'	F-1	62'	58'	66'
4-L	8-9	30°06.15'	88°01.58'	63' 54	K-1	60 1/2 24	64'	68' Not Plotted
22-N	5-6	30°07.25'	88°00.92'	56 1/2 8	Z-4	23 1/2 55	60'	64' *
11-P	6-7	30°06.79'	88°02.58'	58.0'	V-2	52 1/2	59'	66'
6-Q	6-7	30°07.60'	88°01.68'	60 1/2			61'	63' ?
11-Q 14S	3-4	30°07.35'	88°01.05'	40' 60'	Z-4 M-1	23 1/2 49	10'	64' Not Plotted
16-T	7	30°07.65'	88°04.1'	52'	Z-2	52'	None	51' Not Plotted
11-T	6-7	30°07.55'	88°01.41'	58 1/2	52		None	63'
14-U 14-U	3-5	30°06.8'	88°02.6'	58 1/2 56	V-2 P-1	52 1/2 58	None	66'
5-W 23-W	2-3	30°07.59'	88°04.15'	54' 47	Z-1 V-3	50'	58'	51'
25-Z 14S	3-4	30°07.35	88°01.05'	56 1/2 60	Z-4 F-1	23 1/2 61	261'	64'
✓ 38 Y (142)	N	30° 08.45'	88° 05.58'	41 ft.	Not cleared			

Reference Pos 15 B above (Day 101):
The effective depth of the hang is indeterminate due to lack of lift tests.

* Cleared by
52 1/2 ft. in 1974

ATTACHMENT V
RAYDIST CORRECTORS AND STATISTICS

DATE	DAY LETTER	STRIP	VOL. NO.	POSITIONS	L.N.M.	S.N.M.	RED CORR.	GREEN CORR.	LENGTH OF DRAG	SMOOTH PLOT
10 April 1973	A	HYDRO	I HYDRO	53 R 59 H			-0.1 R 0.0 H	+0.1 R -0.1 H		
11 April	B	1	I	1-6	1.0	1.40	0.0 R +0.1 H	-0.1 R -0.1 H	11200	
11 April	B	2	I	7-15			0.0 R +0.1 H	-0.1 R -0.1 H	6400	
11 April	B	3	I	16-23	1.7	2.04	0.0 R +0.1 H	-0.1 R -0.1 H	9600	
12 April	C	1	I	1-21	4.45	6.90	0.0 R +0.1 H	-0.1 R -0.1 H	12000	
12 April	C	HYDRO	I HYDRO	26 R 10 H			0.0 R +0.1 H	-0.1 R -0.1 H		
24 April	D	1	I	1-17	2.8	3.92	-0.1 R +0.2 H	+0.4 R -0.3 H	12000	
25 April	E	1	I	1-19	3.5	4.38	-0.1 R -0.3 H	+0.2 R +0.4 H	9600	
25 April	E	2	I	20-28	1.6	1.92	-0.1 R -0.3 H	+0.2 R +0.4 H	9600	
26 April	F	1	I	1-11	2.15	3.01	0.0 R +0.1 H	0.0 R -0.1 H	12000	
27 April	G	HYDRO	I HYDRO	17 R 16 H			+0.1 R +0.1 H	0.0 R -0.1 H		
1 May	H	1	I	1-12	1.90	2.19	+0.1 R -0.5 H	+0.1 R 0.0 H	9600	
12 May	J	1	II	1-8	1.25	1.63	0.0 R -0.1 H	0.0 R -0.1 H	9600	
3 May	K	1	II	1-15	1.47	2.25	0.0 R 0.0 H	+0.1 R +0.1 H	12000	

ATTACHMENT V CONT'D

DATE	DAY LETTER	STRIP	VOL. NO.	POSITIONS	L.N.M.	S.N.M.	RED CORR.	GREEN CORR.	LENGTH OF DRAG	SMOOTH PLOT
3 May 1973	K	2	II	16-31	2.85	3.70	0.0 R 0.0 H	+0.1 R +0.1 H	9600	
4 May	L	1	II	56 R			+0.1 R 0.0 H	+0.2 R +0.2 H		
			HYDRO I	HYDRO 79 H						
5 May	M	1	II	1-18	3.3	4.62	+0.1 R 0.0 H	0.0 R 0.0 H	12000	
8 May	N	1	II	1-13	2.35	1.9	-0.1 R -0.1 H	+0.1 R +0.1 H	6400	
8 May	N	2	II	14-22	1.4	1.4	-0.1 R -0.1 H	+0.1 R +0.1 H	8000	
9 May	P	1	II	1-12	1.3	1.30	-0.1 R 0.0 H	0.0 R +0.1 H	8000	
9 May	P	2	III	13-16			-0.1 R 0.0 H	0.0 R +0.1 H		
10 May	Q	1	III	1-6	.65	.65	-0.1 R 0.0 H	0.0 R +0.1 H	8000	
10 May	Q	2	III	7-11			-0.1 R 0.0 H	0.0 R +0.1 H	6800	
14 May	R	HYDRO	I HYDRO				-0.1 R	-0.1 R		
15 May	S	1	III	1-5	0.75	0.75	0.0 R +0.1 H	-0.1 R +0.1 H	8000	
15 May	S	2	III	10-16	1.05	.9	0.0 R +0.1 H	-0.1 R +0.1 H	6400	
16 May	T	1	III	1-15	1.75	1.75	-0.2 R +0.1 H	-0.2 R +0.1 H	8000	
16 May	T	2	III	12-16			-0.2 R +0.1 H	-0.2 R +0.1 H		

ATTACHMENT V CONT'D

DATE	DAY LETTER	STRIP	VOL. NO.	POSITIONS	L.N.M.	SUN.M.	RED CORR.	GREEN CORR.	LENGTH OF DRAG	SMOOTH PLOT
21 May 1973	U	1	III	1-14	3.1	2.6	-0.2 R 0.0 H	-0.2 R -0.1 H	6400	
21 May	U	2	III	15-21	1.25	1.06	-0.2 R 0.0 H	-0.2 R -0.1 H	6400	
22 May	V	1	III & IV	1-27	5.6	9.24	-0.2 R 0.0 H	-0.2 R -0.1 H	13000	
22 May	V	2	IV	28-32	1.0	0.65	-0.2 R 0.0 H	-0.2 R -0.1 H	4800	
22 May	V	3	IV	33-39	1.25	0.69	-0.2 R 0.0 H	-0.2 R -0.1 H	4800	
23 May	W	1	IV	1-5	0.50	0.38	-0.2 R 0.0 H	-0.2 R -0.1 H	5600	
23 May	W	2	IV	6-22	3.90	2.34	-0.2 R 0.0 H	-0.2 R -0.1 H	4800	
23 May	W	3	IV	23-29	1.25	0.81	-0.2 R 0.0 H	-0.2 R -0.1 H	4800	
23 May	W	4	IV	30-36	1.0	0.7	-0.2 R 0.0 H	-0.2 R -0.1 H	5600	
24 May	X									
29 May	Y	1 & 2								
30 May	Z	1	IV	1-7	.85	.51	+0.3 R +0.1 H	+0.3 R 0.0 H	4800	
30 May	Z	2	IV	8-15	1.2	.96	+0.3 R +0.1 H	+0.3 R 0.0 H	6400	
30 May	Z	4	V	16-20	.45	.23	+0.3 R +0.1 H	+0.3 R 0.0 H	3600	
30 May	Z	5	V	21-25	.5	.43	+0.3 R +0.1 H	+0.3 R 0.0 H	6400	

ATTACHMENT V CONT'D

DATE	DAY LETTER	STRIP	VOL. NO.	POSITIONS	L.N.M.	S.N.M.	RED CORR.	GREEN CORR.	LENGTH OF DRAG	SMOOTH PLOT
31 May 1973	AA	1	V	1-17	2.0	1.6	+0.3 R +0.1 H	+0.3 R 0.0 H	6400	
31 May	AA	2	V	18-30	1.4	2.15	+0.3 R +0.1 H	+0.3 R 0.0 H	10000	
1 June	AB	1	V	1-10	1.7	1.36	+0.3 R +0.1 H	+0.3 R 0.0 H	6400	
1 June	AB	2	V	11-15	0.65	0.35	+0.3 R +0.1 H	-0.3 R 0.0 H	4800	
1 June	AB	3	V	16-39	4.45	5.83	+0.3 R +0.1 H	-0.3 R -0.1 H	10000	
TOTAL					69.27	78.50				

ATTACHMENT VI
to Descriptive Report
for Wire Drag Project (OPR-479) In Safety Fairways
at Mobile Bay Entrance, Mobile, Alabama

CURRENT DATA ON MOBILE BAY AREA AND PROPOSED STUDIES

The NOAA Ships RUDE & HECK conducted a wire drag survey in the Safety Fairways off of Mobile Point between the dates 10 April and 1 June, 1973.

The prior surveys included data taken 10 June through 9 Nov., 1920 (register no. 4171). Hydro data was supplied which extended to R"2" in the Mobile Ship Channel (Lat. 30°09') but no further south (HFP-745-20-1-70). Data taken in 1970 included hydro from the west end of Dauphin Island to the west end of Petit Bois Island but no new data for most of the safety fairway project area.

With the aid of extensive reconnaissance hydro, the wire was put as close to the bottom as possible; this procedure resulted in many groundings and much time and equipment used. The overall result was a "wire drag hydrography" project the results of which will probably not get on the chart #1266 (with the exception of the wreck #GRACIE L").

If the Safety Fairways are dragged with a wire, it seems reasonable that the drag data would supplement up to date launch hydro.

Especially tricky currents served to make drag operations diffi-

cult. Under the weather conditions (one hundred year storms), one might have expected currents out of the ordinary but local individuals indicate that the unusual was usual for the area.

The Mobile River is the fourth largest system (discharge) in the U.S. and is in a commercially active section of the country. Studies of possible super-port facilities are now being considered. Aquacultured operations are being studied and developed. Drilling for petroleum in the gulf just outside the Entrance to the Bay will soon start.

Several studies of the bay have been completed; their topics have been circulation patterns, sedimentology, biology, etc. Complete studies for single individuals doing research has been difficult due to lack of facilities and funds.

There is a concerted effort being proposed to purchase and share equipment by the Alabama Department of Conservation and Natural Resources, Dauphin Island, U.S. Corp of Engineers, and Alabama University Marine Science Conservatorium (Dauphin Island) with participation by several other organizations.

The number one priority for future projects is a complete current and hydro study of the area ("Evaluation and Planning of Alabama's Renewable Marine Resources and Requirements" by Swingle, 1973).

The above comments base on observations by ship's personnel and
conversations with the following individuals:

- 1) R.M. McPheirson - Biologist with Food and Drug Admin.
P.O. Box 158
Dauphin Island, Alabama 36528
- 2) Hugh Swingle - Biologist
Alabama Dept. of Conservation and Natural
Resources
Dauphin Island, Alabama 36528
- 3) Dr. R. Crosier - Alabama University Marine Science
Conservatorium
Dauphin Island, Alabama 36528

Some publications on available data are the following:

"The Hydrography of Mobile Bay and Mississippi Sound, Alabama"
by Roland McPhearson, Jr. 1970

"A Sedimentologic Study of Mobile Bay, Alabama" by John J.
Ryan 1969

(The above are available from McPhearson).

"Proposed Research Submitted to Mobile Oil Company" ("Water
Circulation, Biology, and Sedimentology of Alabama Estuaries
as Related to Oil Drilling"), Wayne E. Swingle.

"Evaluation and Planning of Alabama's Renewable Marine
Resources Research and Development Requirements" - Wayne E.
Swingle January 1973.

(The above available from Swingle).



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

Date : 17 April 1973

Reply to Attn. of:

To : C32

From : Commanding Officer
NOAA SHIPS RUDE & HECK

Subject: Chart corrections for C & GS 1266, 872-SC and 1115

The enclosed corrections are submitted for possible use in updating the above mentioned charts.

File

CHART CORRECTION , CHART 872-SC

No. 1. TANK in 4 feet of water at 1830Z MAY 4,1973 protruding
16 inches above the water surface.

ANGLES: DAUPHIN IS. BRIDGE, SOUTH TOWER 39° 25'
DAUPHIN IS. WATER TANK 37° 05'
MOBILE PT. RANGE, REAR

No. 2. PILE in 6 feet of water at 1815Z MAY 4,1973 protruding
12 inches above the water surface.

ANGLES: DAUPHIN IS. BRIDGE, SOUTH TOWER 64° 25'
DAUPHIN IS. WATER TANK 41° 20'
MOBILE PT. RANGE, REAR



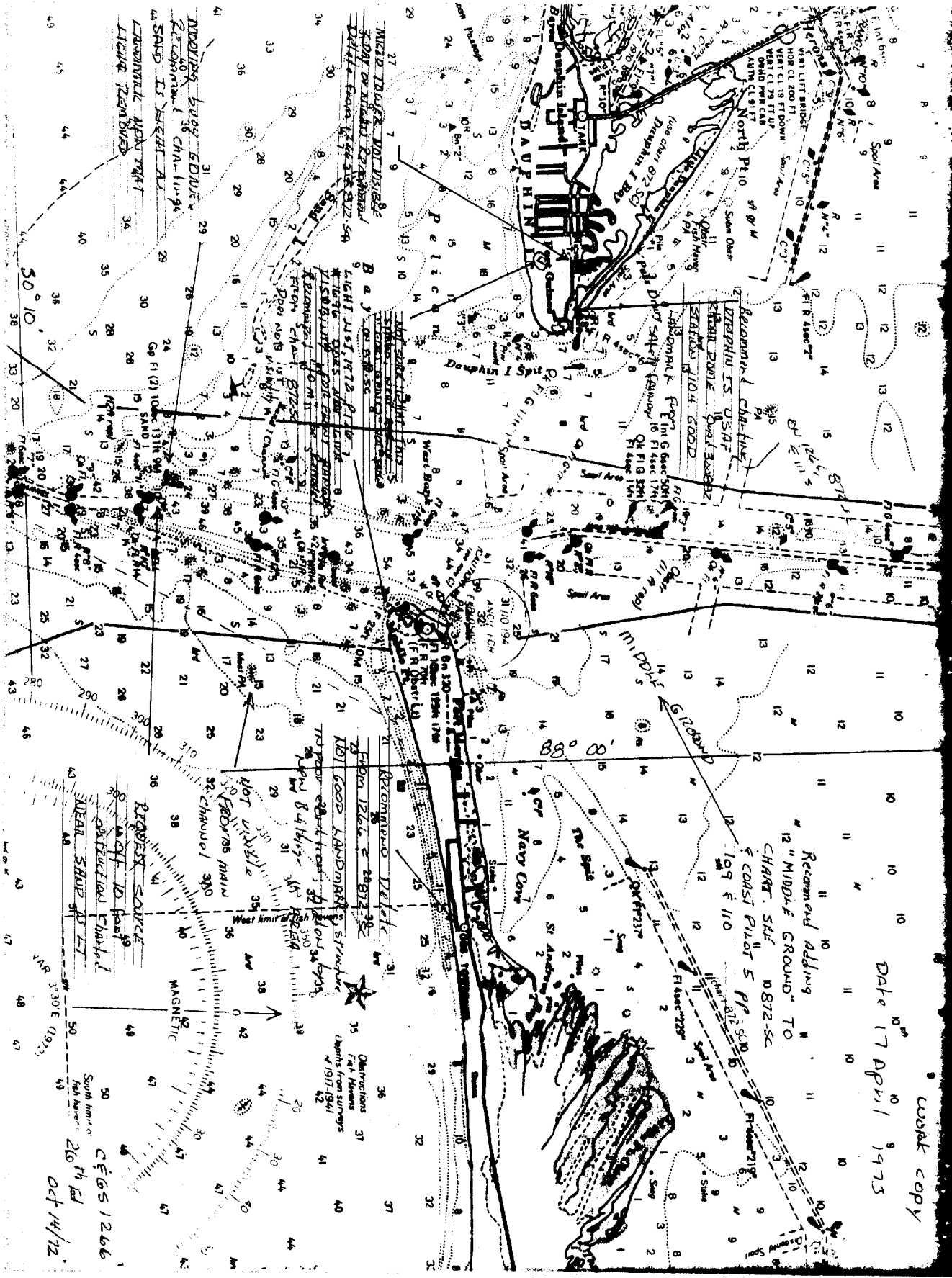
CHART 87252

PELICAN

88° 08' W

88° 00' W

88° 04'



Date 17 April 1973
 Chart copy

RECOMMEND ADDING
 "12" MIDDLE GROUND"
 CHART 514 0872-5X
 "COAST PILOT 5 PP 510
 109 & 110

Request source
 10 ft ID float
 attached channel
 DEAR SHIP 51
 VAP 330° E (1973)
 CEG 51266
 26th Ed
 Oct 14/72

Obstructions
 Fair Havens
 Limits from SURVEY
 #1917-1941

MAGNETIC

South line of
 Fair Havens
 26th Ed
 Oct 14/72

RECOMMEND ADDING
 "12" MIDDLE GROUND"
 CHART 514 0872-5X
 "COAST PILOT 5 PP 510
 109 & 110

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 "12" MIDDLE GROUND"
 CHART 514 0872-5X
 "COAST PILOT 5 PP 510
 109 & 110

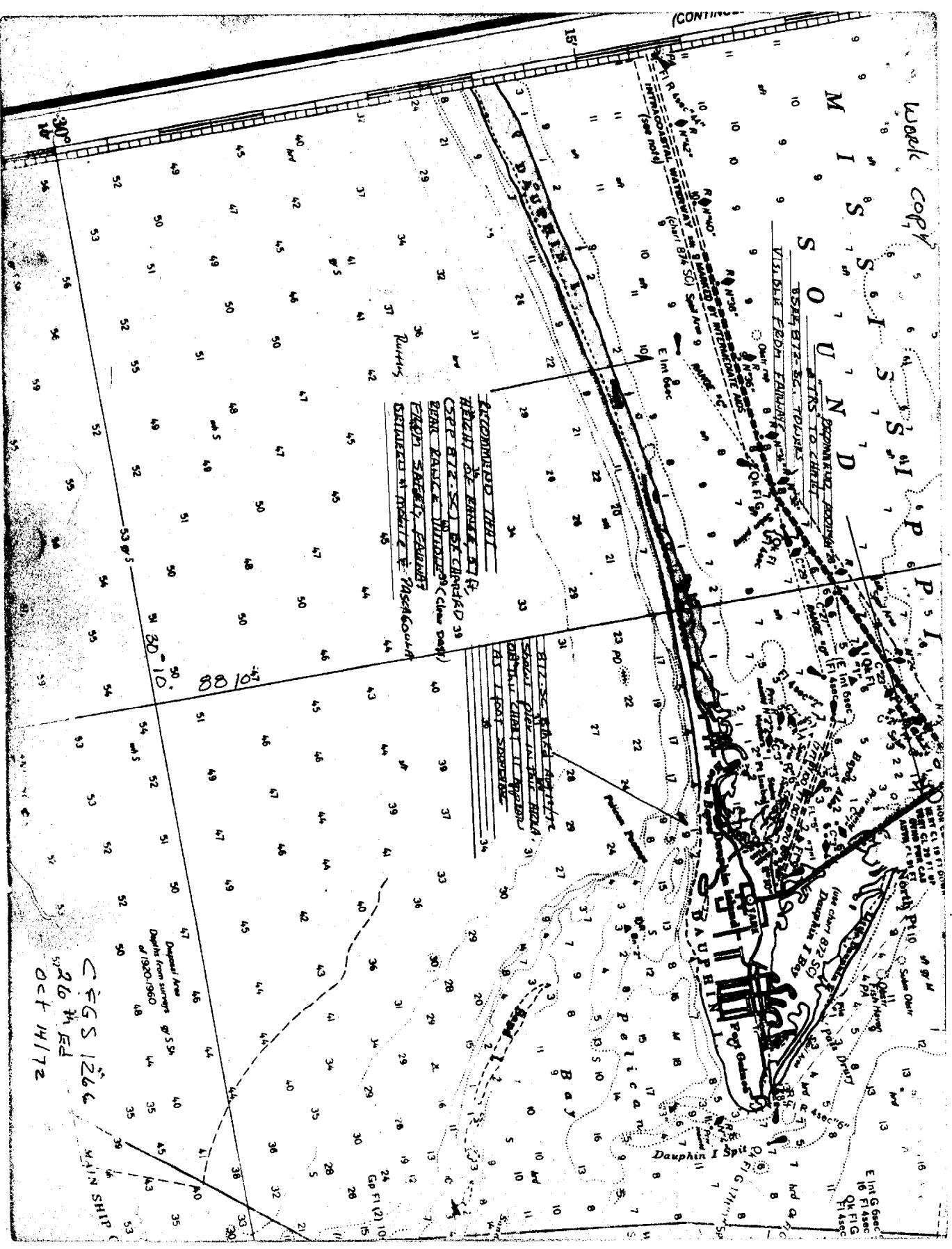
RECOMMEND ADDING
 "12" MIDDLE GROUND"
 CHART 514 0872-5X
 "COAST PILOT 5 PP 510
 109 & 110

RECOMMEND ADDING
 "12" MIDDLE GROUND"
 CHART 514 0872-5X
 "COAST PILOT 5 PP 510
 109 & 110

(CONTINUED)

Work copy

M I S S O U R I S O U N D



ACCOMMODATED TRAIL
 HEIDI DE BRUN, M. F.
 COPP BIZ-SC, BIL CHING-KO, 38
 BENNY KASICK, WINDYBEE (Claw Dog)
 SERGEANT M. MOULTON
 SERVICED IN MONTAGNE, PASADENA

BIZ-SC, BIL CHING-KO
 SERVICED IN MONTAGNE, PASADENA
 SERVICED IN MONTAGNE, PASADENA
 SERVICED IN MONTAGNE, PASADENA

C F G S 1266
 26th ED
 Oct 14/72

MAINT SHIP

E 1st G sec
 16th Fl sec
 OR Fl G
 5th Fl sec

LIST OF GP'S TO BE INCLUDED ON 3a
 MOBILE POINT BOAT SHEET # 1 40-1-73
 SCALE 1: 40,000

PLOT
 ↓

SIGNAL #	NAME	QUAD #	STATION #	LAT.	LONG.
1.	FORT MORGAN	300882	1042	030° 13' 42.022"	088° 01' 23.698"
BLANK	MOBILE Pt., FORT MORGAN LIGHTHOUSE	300882	1128	030° 13' 39.367"	088° 01' 27.152"
BLANK	MOBILE Pt. RANGE REAR LIGHT	300882	1044	030° 13' 39.375"	088° 01' 27.147"
4.	MOBILE Pt. RANGE FRONT LIGHT	300882	1127	030° 13' 17.429"	088° 01' 36.589"
5.	MOBILE Pt. CONST. GUARD RADIO TR.	300882	1043	030° 13' 37.658"	088° 01' 24.859"
BLANK	BILE* ϕ 30/13/19.334 - λ 88/01/39.689 use station name instead of number on this signal.				
7.	SAND ISLAND LIGHTHOUSE	300882	1062	030° 11' 14.8260"	088° 03' 02.2355"
8.	FORT GAINES (USE)	300882	1041	030° 14' 52.2951"	088° 04' 29.3414"
9.	DAUPHIN IS. USAF EAST RADAR DOME	300882	1104	030° 14' 59.635"	088° 04' 42.266"

MORGAN LIGHTHOUSE

(36)

~~3. MOBILE Pt. RANGE 300882 1044 030° 13' 59.375" 088° 01' 27.147"
REAR LIGHT~~

~~4. MOBILE Pt. RANGE 300882 1127 030° 13' 17.129" 088° 01' 36.589"
FRONT LIGHT~~

~~5. MOBILE Pt. CONST 300882 1043 030° 13' 37.658" 088° 01' 24.854"
GUARD RADIO TR.~~

~~6. BILE*~~

~~7. SAND ISLAND 300882 1062 030° 11' 14.8260" 088° 03' 02.2355"
LIGHTHOUSE~~

~~8. FOOT CHAINES (USE) 300882 1041 030° 14' 52.2951" 088° 04' 29.3414"~~

~~9. DAUPHIN Is. USAF 300882 1124 030° 14' 59.635" 088° 04' 42.266"
EAST RADAR DOME~~

10. DAUPHIN Is. So. 300882 1102 030° 15' 08.537" 088° 05' 08.874"
BELL TELEPHONE
TELEGRAPH MICRO-
WAVE MAST

SIGNAL #	NAME	QUAD #	STATION #	LAT.	LONG.
11.	DAUPHIN IS. WATER TANK	300882	1103	030° 15' 11.959"	088° 06' 44.901"
12.	DAUPHIN	300882	1036	030° 13' 49.573"	088° 18' 13.159"
13.	WET 2	300882	1015	030° 12' 44.600"	088° 29' 56.821"
14.	HORN IS. PASS ENTRANCE RANGE REAR	300883	1144	030° 13' 04.545"	088° 30' 03.547"

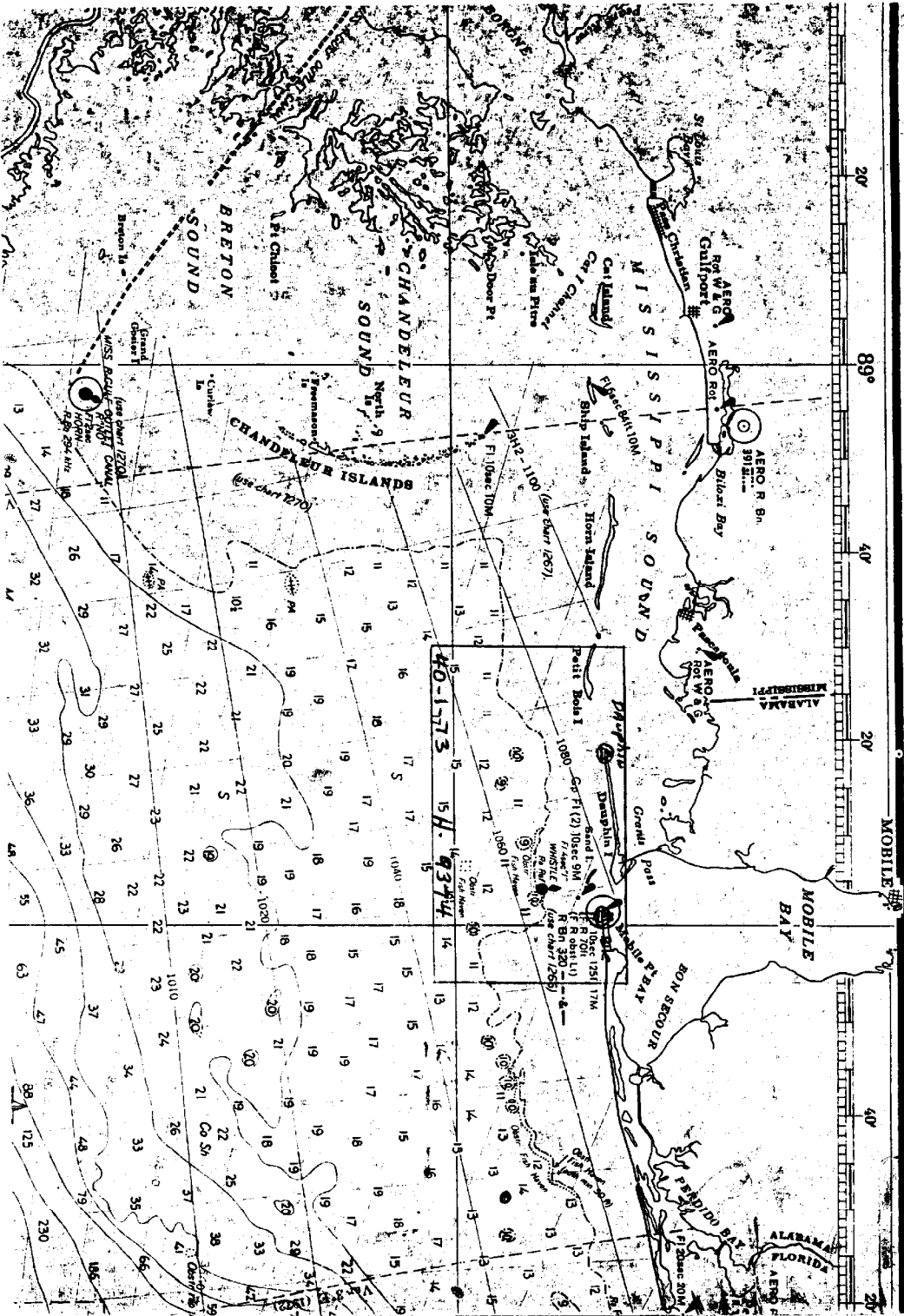
3c

* STATION ESTABLISHED BY SHIP'S FIELD PARTY; SEE ATTACHED PAGE.

** SIGNALS #2 AND #3 MAY NOT BE DISCERNABLE ON A 1:40,000 SCALE BOAT SHEET. THE GP OF #2 (MOBILE PT., FORT MOREN LIGHTHOUSE) MAY BE PLOTTED AND LABELED SIGNALS #2 AND #3.

** Label signal # 12 (PHIN) instead of using the number. (SORRY)

FATHOMS



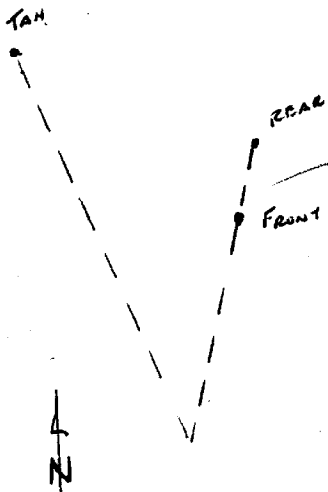


ECAL

Mobile Bay Entrance

Sheet # 1 1:40,000

Calibration Range: Mobile Point Entrance Chan.



Front { $30^{\circ} 13' 17''.429 N$
 $88^{\circ} 01' 36''.589 W$

Rear { $30^{\circ} 13' 39''.375 N$
 $88^{\circ} 01' 27''.147 W$

Left \times to Dauphin Island
Water Tank

$30^{\circ} 15' 11''.959 N$
 $88^{\circ} 06' 44''.901 W$

Please compute the red and green values
for each degree as the left \times changes
from 30° to 60° .

ADDENDUM

To Accompany

H 9374 WD

The following discrepancies were noted and this office was unable to resolve them with the given data:

1. 12.4U, 56' grounding cleared by 58' (5P)
58' grounding cleared by 61' (5P) and 57' (19V)
2. 6Q, 60' hang not cleared (Bottom)
3. 11T, 52' hang not cleared (Bottom)
4. 16K, 61' grounding cleared by 61' (F1)
5. 14J-21J, 56' grounding cleared by 49' (M1) and 60' (10-11F)
6. 23J, 60' hang cleared by 61' (10F)
7. 6M, 60' grounding may have insufficient overlays to clear by 49' (6M)
8. one split

The following strips had 'tester on the bottom' only or throughout some sections but were used to salvage portions of this survey:

<u>Day</u>	<u>Strip</u>
J	2
K	2
N	1
S	1
W	1

Strip 1, Day J (50' hang on anchor) had #6 upright fouled around ground wire and was not plotted; the field felt the anchor was not a hazard.

Sheet 1.1
Mobile

①

ATLANTIC MARINE CENTER
PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

no 29.0, another change of the projection

- 1. Project No. H 76 Requested By CDR. W. E. Picken's
- 2. Reg. No. _____ Ship or Office Rude & Heck
- 3. Field No. 40-1-73 6. Date Required March 26, 1973

7. Polyconic Modified Transverse Mercator

8. Central Meridian of Projection 88° 12' 00"

9. Survey Scale: 1: 40,000

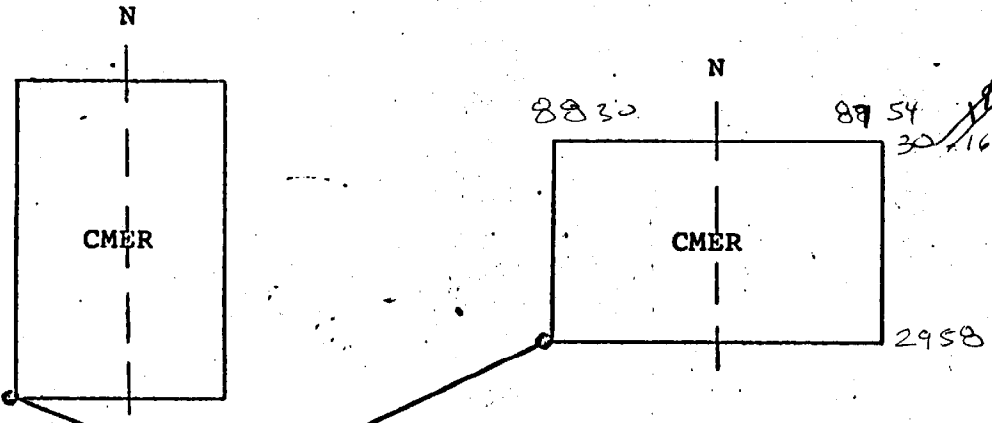
10. Size of Sheet (check one):

36 x '54 36 x 60 Other Specify _____

11. Sheet Orientation (check one):

NYX = 1

NYX = 0



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 29° 57' 00"

Longitude 88° 31' 00"

13. G.P.'s of triangulation and/or signals attached.

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify _____

15. Remarks: Print Lat. & Long Values across center of sheet North & South and East & West as well as around edges of sheet. 4 Copies Each (over)

DEPARTMENT OF THE ARMY
ENGINEERING CENTER

please number all the signals whose G.P.'s are supplied with this request when they are printed on the boat sheet.

Sheet 1
Mobile

ATLANTIC MARINE CENTER
ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-479 2. Reg. # H- 3. Field # 40-1-73
 4. Type of Control RAY DIST (Hi-Fix, Raydist, EPI, etc.)
 5. Frequency 3300.4 KHz (for conversion of electronic lanes to meters)
 6. Mode of Operation (check one):

Range-Range

Range One (R₁) Station I.D. BILE
 Range Two (R₂) Station I.D. PHIN

Range-Visual
 Lat. 30-13-19.334 " *Computations not completed in field.*
 Long. 88-01-39.689 "
 Lat. 30 ° 13 ' 49.573 "
 Long. 88 ° 18 ' 15.159 "

Hyperbolic (3-station)

Slave One Station I.D. _____
 Master Station I.D. _____
 Slave Two Station I.D. _____

Hyper-Visual
 Lat. _____ ° _____ ' _____ "
 Long. _____ ° _____ ' _____ "
 Lat. _____ ° _____ ' _____ "
 Long. _____ ° _____ ' _____ "
 Lat. _____ ° _____ ' _____ "
 Long. _____ ° _____ ' _____ "

7. Location of Survey:

Range-Range

Imagine an observer is standing at R₁ Station and looking directly at R₂ (check one):

Survey area is to observer's Right A=0

Survey area is to observer's Left A=1

Hyperbolic

Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From Time	Day	To Time	Day	Position Numbers (inclusive)
_____	_____	_____	_____	_____	_____ to _____
_____	_____	_____	_____	_____	_____ to _____

9. Remarks: R₁ = Red Station (Red Arcs)
R₂ = Green Station (Blue Arcs)

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

REPORT - TIDE STATION

Station Dauphin Island, Alabama Lat. 30 15.0 N
Long. 88 01.5 W Time Mer. 90 V
Inspected by William L. Outlaw Date 4/13/77
Wharf - Name and location Dauphin Island, Fishing Pier, east end of Island near Ft. Gains,
Owner and arrangements for maintaining station Permission from Dauphin Island Park and
Beach Board, Mr. Norman Walton, Chairman.
Tide Observer - Name, address and telephone No. J. W. Davis, Box 25, Dauphin Island, Ala. 36528
Phone: 861-2321

Business address and telephone No. _____
Tide House - Size and brief description 4x6x7 ft. frame house, elevated six feet on steel
stand, painted white inside and outside, C&GS sign on door.

Tide Staff - Portable or fixed Portable Date of installation 5/17/71
Limits of graduations 0-9ft. Hinged? Yes Vitrified scale? No
Scale graduation corresponding to stop 9.000 ft. Is staff support sheathed with copper? No
Method of securing staff and support in place and remarks Staff support is a 3x8x7 ft. creosoted
timber bolted to piling on south side of pier and about 15 feet in front of
tide house.

Type of Gage ADR Date of installation 5/17/71
C. & G. Survey No. 7002A1124M13 Scale 1-24 Scale _____
Float, size 8 1/2 in.; weight 4 1/2 lb. Counterpoise _____ lb. Tension weight _____
Remarks Solid state timer, 4v motor, 7 1/2 v battery

Floot Well - Material Fiberglass Date of installation 5/17/71
Length, top to intake 18.3 ft. Inside diameter 12 in. Size and position of intake 1 in.
cone in end of pipe
Construction, installation, and remarks Fiberglass well secured at tide house floor and at
wharf deck with plywood collars. It is fastened at HWM with a fiberglass band
to a creosoted 3x8x14 ft. timber, timber is bolted to pier piling.

*A section of chart showing location should accompany this report.

(Use reverse side of form for additional information)

DATE: March 30, 1982

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 873-5180 Dauphin Island, AL

Period: April 1-June 1, 1973

HYDROGRAPHIC SHEET: H-9374 *WD*

OPR: 479

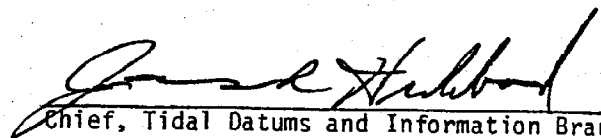
Locality: Off Ship Island Pass, Mississippi

Plane of reference (mean ~~DW~~ low water): 2.6 ft.

Height of Mean High Water above Plane of Reference is 1.7 ft.

REMARKS: Recommended Zoning:

Apply x1.417 range ratio. This supersedes Tide Note dated February 28, 1975.


Chief, Tidal Datums and Information Branch

GEOGRAPHIC NAMES

H-9374 W.D.

Name on Survey	A	B	C	D	E	F	G	H	K
	ON CHART NO.	ON PREVIOUS SURVEY NO.	CON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND MCNALLY ATLAS	U.S. LIGHT LIST	

GULF OF MEXICO										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
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										22
										23
										24
										25

Approved
Chas. B. Harrington
 Staff Geographer - C51K2
 8 Sept. 1975

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H 9374 WD

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS (A & D Sheet)		1	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES			1			1
CAHIERS	1	1				
VOLUMES	3	8 wire				
BOXES			1	1		

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	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				880
POSITIONS CHECKED		88		
POSITIONS REVISED		18		
DEPTH SOUNDINGS REVISED		10		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		1		
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK	14	291		
TOTALS	14	292	23	
PRE-VERIFICATION BY <u>Johnnie Griffin</u>	BEGINNING DATE <u>Oct. 7, 1974</u>	ENDING DATE <u>Oct. 9, 1974</u>		
VERIFICATION BY <u>Michael W. Johnson</u>	BEGINNING DATE <u>Oct. 10, 1974</u>	ENDING DATE <u>Dec. 13, 1974</u>		
REVIEW BY <i>Limited Review By R. W. Wellman</i>	BEGINNING DATE	ENDING DATE <u>4-8-82</u>		

OFFICE OF MARINE SURVEYS AND MAPS
HYDROGRAPHIC SURVEYS DIVISION
LIMITED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9374 WD

FIELD NO. RH-40-1-73

Mississippi--Alabama, Gulf of Mexico, Mobile Bay Entrance

SURVEYED: April 10 - June 1, 1973

SCALE: 1:40,000

PROJECT NO.: OPR-0479

SOUNDINGS: Wire Drag

CONTROL: Raydist
(Range-Range)

Chief of Party	L. E. Pickens
Surveyed by	Ship's Personnel
Automated Smooth Plot of Drag Strips by	AMC
Verified by	M. W. Johnson
Limited Review by	K. W. Wellman
	Date: April 8, 1982
Cursory inspection made--survey	G. K. Myers
processing considered complete	April 16, 1982

A. Purpose of Survey

The purpose of this wire-drag survey was to determine cleared depths and positions for charted obstructions located at the entrance to the Mobile Bay Main Ship Channel.

B. Shoreline and Control

Not applicable.

C. Junctions

Not applicable.

D. Comparison with Hydrographic Surveys

Not applicable.

E. Comparison with Chart 11376, 35th Edition, latest print date, September 12, 1981

1. Hydrography

The present limited review was restricted to consideration of the following charted items:

a. The Obstr rep ED, Shi to 28 ft rep 1973 charted in the vicinity of latitude $30^{\circ}08.00'N$, longitude $88^{\circ}05.40'W$, originates with Local Notice to Mariners No. 10, dated February 5, 1973. The charted feature was not verified or disproved by the present survey and was not cleared to within 6 feet of general surrounding depths. However, the charted position of this obstruction was cleared to an effective depth of 41 feet as shown on the present survey. The chart should be revised as considered appropriate. 3644 ✓

b. The cleared depth of 41 feet charted in the vicinity of latitude $30^{\circ}08.30'N$, longitude $88^{\circ}05.20'W$, originates with the verified smooth sheet of the present wire-drag survey. The verified hang depth of 41 feet was incorrectly charted as a cleared depth. An examination of the records reveals that the effective depth of this hang is indeterminate due to a recorded time difference between the lift tests and the drag. Nevertheless, this item was cleared to an effective depth of 34 feet. The chart should be revised accordingly. 3642 ✓

c. The cleared depth of 35 feet charted in the vicinity of latitude $30^{\circ}08.50'N$, longitude $88^{\circ}05.55'W$, originates with the verified smooth sheet of the present wire-drag survey. However, due to lift test deficiencies noted in paragraph b, the strip which provided a 35-foot clearance over the feature was rejected during review. The 41-foot grounding depth on the present survey should be charted at this position. 3641 ✓

d. The sinuous Obstruction Fish Haven charted between latitudes $30^{\circ}07'N$ to $30^{\circ}09'N$, longitudes $88^{\circ}04'W$ to $88^{\circ}12'W$, originates with Chart Letters 921 of 1959 and 638 of 1962. With the exception of the most westerly 1,200 meters of this charted feature, it falls within areas cleared to depths ranging from 47 feet to 56 feet on the present wire-drag survey. 3627 ✓

2. Aids to Navigation

Not applicable.

F. Condition of Survey

1. Field Work

Field work was satisfactorily accomplished, except the recorded times for lift tests do not agree with the period of the affected drag strips (day 101). This difference in time necessitated the rejection of wire-drag

strips accomplished on day 101. A more comprehensive review of the present survey may reveal additional anomalies of this nature. (See section 5-2 of the Wire Drag Manual.)

2. Records

The records examined during review are adequate, except as noted in item F.1.

3. Descriptive Report

The Descriptive Report is complete and comprehensive for the purposes of this review.

4. Field Plotting

The smooth plotted drag strips were accurately and neatly done.

G. Compliance with Project Instructions

Not applicable.

H. Additional Field Work

Not applicable.


I. Miscellaneous

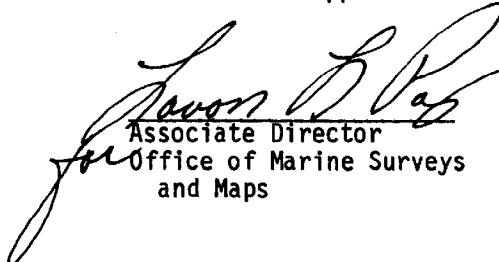
1. The verifier did not submit a Tide Approval Note.

2. The rejection of the wire-drag strips on day 101 necessitated some changes to the A & D sheet. The cleared areas on the A & D sheet, outside of the areas covered by this limited review, as well as unexamined groundings and hangs should not be regarded as reviewed and are to be used accordingly.

3. Appropriate notations/revisions have been annotated in red ink in section K-2 and Attachment IV (Groundings and Hangs) of the Descriptive Report.

Examined and Approved:


Chief
Hydrographic Surveys Division


Associate Director
Office of Marine Surveys
and Maps

See Notice to Mariners.
Signals

and 2 dashes for 60 sec., silent 120 sec.
1 dot, 1 dash, and 1 dot for 60 sec., silent 120 sec.
for 60 sec., silent 120 sec.
for 60 sec., silent 120 sec.

