

10429

10429

Diagram No 1288

NOAA FORM 78-35A

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

DESCRIPTIVE REPORT

Type of Survey ... Hydrographic/Side Scan Sonar
Field No. HE-20-2-92
Registry No. H-10429

LOCALITY

State Texas
General Locality .. Gulf of Mexico
Sublocality Southeast Approach to
Brazos Santiago Pass
1992
CHIEF OF PARTY
LCDR J.W. Blackwell

LIBRARY & ARCHIVES

DATE May 26, 1994

HYDROGRAPHIC TITLE SHEET

H-10429

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.

HE-20-2-92

State TEXAS

General locality GULF OF MEXICO

Locality SOUTHEAST APPROACH TO BRAZOS SANTIAGO PASS

Scale 1:20,000 Date of survey JUNE 1 ~~MAY 18~~ - OCT 06, 1992

Instructions dated APRIL 02, 1992 Project No. OPR-K470

Vessel NOAA Ship HECK (EDP 9140)

Chief of party JOHN W. BLACKWELL, LCDR, NOAA

Surveyed by LCDR J. BLACKWELL, LT M. ABBOTT, LTJG J. MARTIN, ENS M. WILLIAMSON, ST W. MORRIS

Soundings taken by echo sounder, ~~hand lead, pole~~ XXXXXXXXXX

aphic record scaled by LTJG JAMES E. MARTIN

Graphic record checked by LTJG JAMES E. MARTIN

Protracted by N/A Automated plot by HDAPS + YNETICS 1201

Verification by ATLANTIC HYDROGRAPHIC SECTION, N/CG 244 DOUGLAS MASON

Soundings in ~~feet~~ XXXXXXXX ~~feet~~ YY at ~~MLLW~~ XXXXXXXX MLLW SOUNDINGS IN METERS

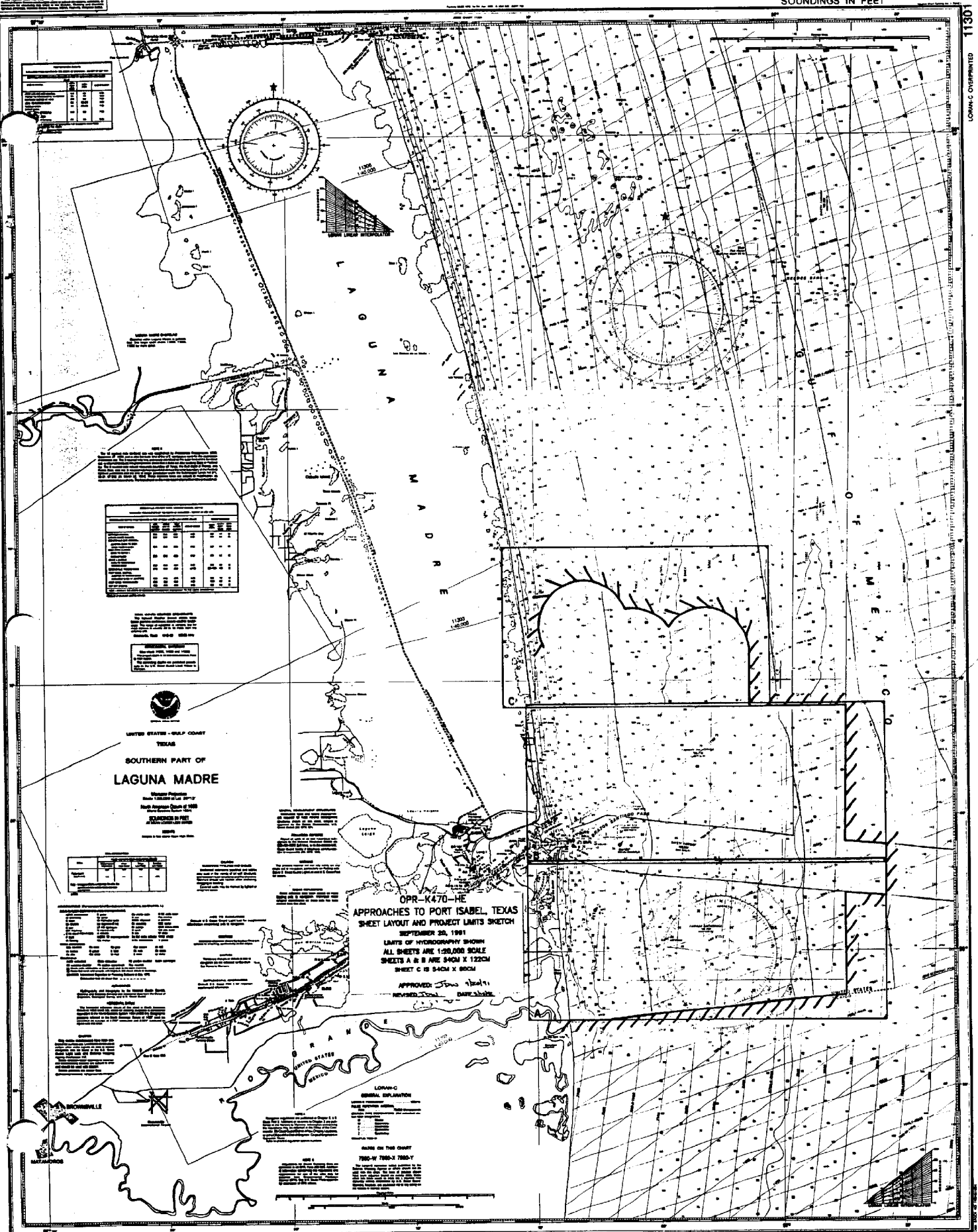
REMARKS: ALL TIMES UTC

Surf/Ancor check
6/17/94 MCR

ZWW 7/19/94

11301 LORAN-C OVERPRINTED

11301 LORAN-C OVERPRINTED



UNITED STATES - MEXICO BOUNDARY
 TEXAS
 SOUTHERN PART OF
LAGUNA MADRE

OPR-K470-HE
 APPROACHES TO PORT ISABEL, TEXAS
 SHEET LAYOUT AND PROJECT LIMITS SKETCH
 SEPTEMBER 30, 1961
 LIMITS OF HYDROGRAPHY SHOWN
 ALL SHEETS ARE 1:50,000 SCALE
 SHEETS A & B ARE 84CM X 122CM
 SHEET C IS 84CM X 80CM

LORAN-C
 GENERAL EXPLANATION

NAME ON THIS CHART
 750-W 7500-3 7500-1

DESCRIPTIVE REPORT TO ACCOMPANY
SURVEY H-10429
FIELD NUMBER HE-20-2-92
TEXAS
GULF OF MEXICO
SOUTHEAST APPROACH TO BRAZOS SANTIAGO PASS
Scale 1:20,000
NOAA SHIP HECK S-591
LCDR John W. Blackwell, NOAA, CMDG.

A. PROJECT

1. This survey was conducted in accordance with Hydrographic Project Instructions OPR-K470-HE, Approaches to Port Isabel, Texas.
2. Project Instructions are dated April 02, 1992.
3. No changes to instructions were issued.
4. This sheet has been designated as Sheet "A".
5. The purpose of this project is to accomplish complete side scan sonar coverage (200%, <20 meters of water and 100%, >20 meters of water) of the safety fairway and the fairway anchorages at the approaches to Port Isabel, Texas, and to investigate a number of wrecks and obstructions in or near the safety fairway.

B. AREA SURVEYED

1. The survey area, designated Sheet A in the Project Instructions, lies in the Gulf of Mexico, south of the entrance to Port Isabel, Texas.
2. The approximate survey area is a rectangle formed by connecting, in order, the following points:
 - a. LAT 25°57.5'N LON 097°08.1'W
 - b. LAT 25°58.4'N LON 096°57.4'W
 - c. LAT 26°02.0'N LON 096°57.4'W
 - d. LAT 26°02.0'N LON 096°56.0'W^{55.9}
 - e. LAT 26°03.6'N LON 096°56.0'W^{55.9}
 - f. LAT 26°03.6'N LON 097°08.4'W
3. Survey operations began on ~~May 18~~^{JUNE 1,}, 1992 (DOY ~~139~~¹⁵³), and were completed on October 06, 1992 (DOY 280).

C. SURVEY VESSELS

1. All hydrographic and side scan data were collected by NOAA Ship HECK (EDP 9140). All offset and layback information is contained in the offset table located in section IV of the separates.
2. No unusual vessel configurations were used.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

1. Survey data acquisition and processing were accomplished utilizing HDAPS hardware and the latest version of the NAVITRONIC NAVISOFT 300 software provided to the ship by N/CG24.
2. A listing of actual programs and versions is appended in Appendix VI.
3. No nonstandard automated acquisition or processing methods were used.

E. SONAR EQUIPMENT

1. HECK is equipped with an EG&G model 260 slant range corrected Side Scan Sonar (SSS) recorder and model 272 single frequency towfish. Serial numbers and dates of usage are as follows:

Towfish	S/N 011591	DOY 267 - 280
Towfish	S/N 011901	DOY 153 - 241
Recorder	S/N 012106	DOY 153 - 155
Recorder	S/N 012102	DOY 155 - 226
Recorder	S/N 012106	DOY 238 - 268 267
RECORDER	S/N 012105	DOY 280

2. The beam width and down angle are not adjustable on this unit.
3. All SSS data was collected using 100 Khz frequency.
4.
 - a. Line spacing of 160 meters on the 100 meter scale, 120 meters on the 75 meter scale and 80 meters on the 50 meter scale were used to maintain the required 2mm of adjacent line overlap.
 - b. Confidence checks were obtained, and annotated on the sonargrams, by towing the side scan unit either past known items or linear bottom features. A minimum of two confidence checks were obtained on a daily basis as required.
 - c. Required proof of sonar coverage is demonstrated through the included sonar coverage plots. The hydrographer chose this method in lieu of the sonar coverage abstract. The choice of method is left to the

hydrographer per Side Scan Sonar Manual section 3.1.3.

d. No anomalies were observed.

e. The towfish was deployed from the stern. All offset and layback information is provided in the offset table located in section IV of the separates.

5. Contacts were investigated using side scan sonar developments followed by diver or echosounder investigation if needed.

6. The sonar contact list (Side Scan Sonar Manual 3.1.1.1.) is provided through the HECK's side scan survey contact abstract table and the automated HDAPS contact printout that is produced during the computation and logging of contacts. Depths on HDAPS contact printout are raw, however, depths on the side scan survey contact list are manually corrected for draft (+2.1 meters). Both are located in the separates.

Thirty-two (32) contact tables were used during this survey. In order to prevent confusion all items were identified using their position number. Some contacts have more than one target number from successive hits during 200% coverage, developments, and detached positions. In this case the targets plotted on top of each other, however, the recommended charting positions were derived from their DP's.

Annotations required by section 2.6 of the Side Scan Sonar manual (ship's speed, ship's head, weather/sea state) are not placed on the sonargrams. This information is located in the digital records and can be examined in the "Depth/Position Edit" sub-routine of the Post-Survey routine.

F. SOUNDING EQUIPMENT

1. The following Raytheon DSF-6000N echosounders were used during this survey:

S/N A107N	DOY 153 - 216
S/N A110N	DOY 217 - 226
S/N A107N	DOY 238 - 268

Both low and high frequency depths were digitized, but only high frequency depths were plotted.

2. A leadline was used to measure all diver least depths. Good diving visibility (>30 ft) and minimal currents allowed scope to be minimized. The lead line comparison sheet is appended.

3. Annotations for sea state and weather appear at least once a day on the printout header, or the daily data

acquisition abstract. Hourly weather observations were also made and can be seen in appendix VI.

Heave information is recorded digitally from the HIPPY and the heave corrector is applied on line. Ship's head and speed are recorded digitally.

4. A dual beam echo sounder was not used during this project.

G. CORRECTIONS TO ECHOSOUNDINGS

1. a. The following table shows dates and locations of velocity casts conducted using the ODOM Digibar sound velocimeter (S/N 168):

<u>TABLE</u>	<u>DATE</u>	<u>LOCATION</u>
1	^{06 01} 01/06 /92 (DOY 153)	26°03'18"N 096°56'06"W
2	07/07/92 (DOY 189)	26°03'36"N 096°55'40"W
3	^{08 03} 03/08 /92 (DOY 216)	26°03'42"N 096°56'06"W
4	^{09 01} 01/09/92 (DOY 245)	26°03'14"N 096°55'34"W
5	^{10 05} 05/10 /92 (DOY 279)	26°03'30"N 096°56'12"W

b. The velocity cast data were reduced and velocity corrections calculated using program VELOCITY version 1.11.

c. The Digibar was checked on November 1, 1991 by ODOM and found to be functioning correctly. Field checks using the prescribed fresh water method were accomplished prior to each cast and recorded on the velocity cast form.

d. On DOY 115 a dual leadline comparison was conducted. A mean difference of 0.06 meter was obtained resulting in a corrector of 0.0 meter.

e. The computed velocity correctors were applied on line to echosounder depths (both high and low frequency) by entering the correction data into the HDAPS sound velocity table.

f. The static draft of 2.10 meters was applied on line to all echosoundings via the HDAPS offset table.

g. New requirements for settlement and squat correctors were agreed upon during the 1992 Hydrographic Field Procedures Workshop in Norfolk, VA. These requirements allow hydrographic units to conduct settlement and squat calibrations once every two years,

or after major modifications to the ship. Settlement and squat correctors for the HECK were determined on March 13, 1991 in the vicinity of Craney Island fuel pier in Norfolk, Virginia using the level rod method. These correctors are on file at N/CG244 and are included in separates section IV.

Settlement and squat values were applied on line to hydrographic soundings via the HDAPS offset table located in section IV of the separates.

h. Heave is measured by a Datawell B.V. (S/N 19110-C) heave, roll, and pitch sensor (HIPPY) located midships near the transducer. The sensor gathers on line data which is applied to the soundings in near real time. All data have been corrected by applying HIPPY correctors.

2. No unusual methods or instruments were used.
3. No zoning or special correctors were used.
4. Pneumatic depth gauges were not used.
5. No unusual factors were encountered.
6.
 - a. The tidal datum for this survey was mean lower low water (MLLW). The tide station at South Padre Island, Texas (877-9751) was the reference station. Contact with the observer was made, the station was inspected and bracketing levels were run by HECK's crew. No tide stations were established by HECK in support of this survey.
 - b. All hydrographic depths have been corrected for predicted tides. No zone correctors were specified in the project instructions. Tidal correctors were applied on line via the HDAPS predicted tide table.
 - c. Zoning was in accordance with project instructions.
APPROVED TIDES and ZONING have been applied during office processing

H. CONTROL STATIONS

1. The horizontal datum for this project is the North American Datum of 1983 (NAD 83).
2. The list of the horizontal control stations appears in appendix III, LIST OF HORIZONTAL CONTROL STATIONS submitted with this survey.
3. Horizontal control stations for this project were established jointly by HECK personnel and personnel from N/CG 23322, Coastal Surveys Unit. All control stations were positioned to Third order, Class 1 standards.

4. All stations were established using NAD 83 and Third order, Class 1 methods.
5. The horizontal control report for OPR-K470/K370 will be submitted with the descriptive report for the last sheet of the project.
6. No known anomalies or unconventional methods were noted.

I. HYDROGRAPHIC POSITION CONTROL

1. Position control was Differential Global Positioning System or multiple LOP utilizing Motorola Mini-Ranger shore stations. Control station positions were entered into the HDAPS Control Station Table which can be found in appendix III.
2. Accuracy requirements were met as specified by the Hydrographic Manual and Field Procedures Manual.
3. Equipment serial numbers appear as part of the header information on each day's data print out. The Mini-Ranger remote units are identified by their position and code numbers which relates to serial numbers in the appropriate C-0 table.
4. System checks were conducted in accordance with the Field Procedures Manual and appear as HDAPS screen dumps on the data printouts.
5. At no time during this project did the maximum residual consistently exceed 0.5 mm at the survey scale (10 meters) nor did the 95% confidence ECR consistently exceeded 1.5 mm at the survey scale (30 meters). Data not meeting these requirements were examined and high residuals either accepted or smoothed and high ECR's rejected.

When Differential GPS was used, the maximum allowable HDOP was set at 6.7 to avoid EPE's in excess of the allowable 30 meters for this scale survey. Data not meeting these requirements were examined and either accepted, smoothed or rejected.

6. a. No unusual methods were used.
- b. The Motorola Mini-Ranger system is starting to show its age. Baseline calibrations revealed a few weak remotes, and receiver/transmitters. The MASS setting for some combinations made long range work all but impossible. However, Mini-Ranger failures were not as common as in the past few years.
- c. No unusual atmospheric conditions were noted.

* Delete Sections 3 and 4, and use data in Evaluation
Report Section 6 instead.

- d. See 5 above (in this section).
- e. No systematic errors were discovered.
- f. and g. All survey offsets were applied on-line using the HDAPS Offset Table 1.

J. SHORELINE

Not applicable as per project instructions.

K. CROSSLINES

- 1. 51.0 miles of crosslines were run on this survey, representing 5.2% of all hydrography.
- 2. Comparison to mainscheme soundings showed good agreement with random differences of ± 0.3 meters.
- 3. No significant discrepancies were noted.
- 4. When sounding equipment changes were made, the new echosounder was returned and adjusted as required.

L. JUNCTIONS See Evaluation Report Section 5.

Not applicable as per Project Instructions (section 6.9), but survey H-10436 (20-2-93) junctions to the North with the present survey.

M. COMPARISON WITH PRIOR SURVEYS See Evaluation Report section 6

- 1. Comparisons were made to the following prior surveys:

<u>SURVEY</u>	<u>DATE</u>	<u>SCALE</u>
H-6491	1939	1:20,000
H-6493	1939	1:10,000
H-6496	1939	1:40,000

- 2. No AWOIS items originated from prior surveys.
- * 3. Comparison with 1939 surveys H-6491, H-6493, H-6496 showed poor agreement. Randomly chosen soundings showed current depths consistently deeper than the prior surveys. The magnitude of the difference depended on the area. Near shore depths at the north and south extremes of the survey area showed differences as great as 3 meters. Near shore around 26° North showed agreement within 0.5 meters. Offshore depths showed better agreement with differences between 0.5 and 2 meters. *
- * 4. The general trend showed increased depths ranging from 0.5 to 3 meters in comparison to the prior surveys. *
- 5. Significant features found during the survey are

* SEE EVALUATION REPORT SECTION 7.a.21

discussed in section N, parts 2 and 3 of this report.

6. No significant features were found on the prior surveys.

7. No comparisons were made with non-NOS surveys.

N. COMPARISON WITH THE CHART

1. Comparison of surveyed soundings were made with current editions of the following NOS charts:

<u>CHART</u>	<u>EDITION</u>	<u>DATE</u>	<u>SCALE</u>
11301	19th	SEP 92	1:80,000
11302 SC	22nd	JAN 92	1:40,000

2. AWOIS #106 This item is listed as the fishing vessel "South Sea", a trawler reported sunk in 1954, ^{at Lat 26°00'26.28", Lon 97°04'44.80"} HECK was required to perform 200% side scan coverage. The investigation revealed five contacts within the 1500 meter search radius. ^{IN NM 42/54} All of these items were investigated on DOY 211 using the side scan sonar on the 75 meter range scale. Nothing was found during these investigations.

Recommendation: This item was not found and should be removed from the chart. *concur*.

AWOIS #5821 ^{at Lat 25°58'01.28", Lon 97°04'00.8"} This item is listed as the fishing vessel "Juana Francisca II" a trawler reported sunk in 1983. ^{IN LNM 13/83} HECK was required to perform 200% side scan coverage of this item if it was outside of the artificial reef area (AWOIS 8151). The investigation revealed no clearly defined artificial reef area and no fishing vessel in the area.

Recommendation: This item was not found and should be removed from the chart. ^{Evaluation report Section 7.9.1.} *Concur, see also

AWOIS #5862 ²² This item is listed as the sailing vessel "Sailbad the Sinner" reported sunk in 1985 near the wreck of the drilling rig "Trans World 45". HECK was required to perform 200% side scan coverage, which was accomplished during normal mainscheme hydrography. Conversation with local diver Rick Ekstrom informed us that the remains of this sail boat were now entangled amidst the wreckage of the drilling rig AWOIS 5823. Sonar coverage of the area revealed on scattered debris in the area but no indications of the wrecked sailboat. Diver investigation of

See Previous * AWOIS 5823 could neither confirm or disprove Mr. Ekstrom's claims due to poor visibility near the bottom.

PAGE

* Recommendation: This item remains unresolved at the completion of the 1992 field season. If the wreck exists, it is amid the debris of the Trans World 45. Further investigation by ship's divers is planned during the 1993 field season. The results of that investigation will be included in the descriptive report for H-10436.

AWOIS #5823 This item is listed as the Trans World 45, a submersible drilling rig, with a reported least depth of 2 meters* HECK was required to perform 200% side scan coverage, which was accomplished during normal mainscheme hydrography. A large contact was observed at target #439.01⁰⁴ (DP #3036) with a height off the bottom of 2.8 meters in 15.2⁰ meters of water. This contact was further investigated by ship's divers on DOY 205. Divers found the remains of a drill structure with a least depth of 8.5³ meters as measured by leadline.

* Sunk in Lat 24°01'19.28 Lon 97°07'18.09 IN LNM 83

POSITION #3036 4001
LAT 26°01'54" LON 097°07'36"
E: 6686.1 N:11620.0

83 bstr
* at Lat 24/02/17.50
LONG 97/07/41.06

Recommendation: This item is significant and should be charted as "Obstruction Least Depth 8.5³ meters". The six foot *shoal shown on the current chart should be deleted and the temporary lighted buoy "WR 1" should be moved to mark the obstruction at the above position. SEE also SECTION 7.0 of the Evaluation Report
CONCUR

* SOUNDING ON a WK (PA)

AWOIS #5827 This item is listed as the fishing vessel "Hook-em" a 28-foot sportfishing boat * at reported destroyed by fire and sunk in 1985. HECK was required to perform 200% side scan coverage of this item. The investigation revealed no contacts within the half of the 3000-meter search circle that is on this sheet.

* at Lat 26/04/01.28 Lon 97/02/00.87 IN LNM 19/85

Recommendation: This item was not found on this sheet. It should be removed from the chart if not located as part of H-10436. CONCUR

3. No danger to navigation reports were submitted as a

result of this survey.

4. a. The charted soundings are consistently shallower than the surveyed depths, with variations from 0.5 to 3 meters. See ALSO SECTION 7.a. of the Evaluation Report.
- b. The survey shows greater depths throughout the survey area.
- c. The depths from this survey should replace all prior depths in the area.
- d. Two hundred ninety-one (291) contacts were identified during this survey. Sixty-two (62) targets warranted additional investigation based on either height off the bottom (≥ 1 meters in < 20 meters of water or $\geq 10\%$ of the depth in > 20 meters of water), appearance, or relation to an assigned AWOIS item. All such contacts were investigated with additional side scan coverage and in some cases with ships divers. Duplicate contacts from adjacent swaths or development work are cross referenced in the "Status/Same as" column of the Side Scan Sonar Abstract located in separates section V.

The following list of contacts were initially calculated to be significant. Many initial target "hits" were consistent with the return profile of schools of fish which could either appear to be a hard target or mask an area of a real feature. Further review of the target profile, adjacent swath coverage and coverage by a second side scan sonar pass indicate no significant target exists. Further investigation was determined to be unnecessary.

<u>TARGET</u>	<u>NARRATIVE</u>
92.62	Nothing found on 2nd 100% SSS trace.
264.16	Nothing found on 2nd 100% SSS trace.
1039.65	Nothing found on 2nd 100% SSS trace.
1047.70	Nothing found on 2nd 100% SSS trace.
1180.70	Nothing found on 2nd 100% SSS trace.
1180.74	Nothing found on 2nd 100% SSS trace.
1180.75	Nothing found on 2nd 100% SSS trace.
1183.62	Nothing found on 2nd 100% SSS trace.
1358.47	Nothing found on 2nd 100% SSS trace.

1451.38	Nothing found on 2nd 100% SSS trace.
1516.77	Nothing found on 2nd 100% SSS trace.
1517.00	Nothing found on 2nd 100% SSS trace.
1708.02	Nothing found on 2nd 100% SSS trace.
1798.06	Nothing found on 2nd 100% SSS trace.
1893.27	Nothing found on 2nd 100% SSS trace.
2240.05	Nothing found on 2nd 100% SSS trace.
2242.10	Nothing found on 2nd 100% SSS trace.
2389.08	Nothing found on 1st 100% SSS trace.
2477.53	Nothing found on 1st 100% SSS trace.
2497.15	Nothing found on 1st 100% SSS trace.
2505.49	Nothing found on 1st 100% SSS trace.
2590.25	Nothing found on 1st 100% SSS trace.
2591.24	Nothing found on 1st 100% SSS trace.

The following list of contacts were initially determined to be significant and warranted further investigation by additional passes with side scan sonar using either the 75-meter or 50-meter range scale or by ship's divers. Diver Item Investigation Reports for all dives can be found in separates section VI.

TARGET

NARRATIVE

40.54	This target is listed in contact table #1 with a computed height of 3.5 meters in 13.7 meters of water. The contact was further investigated on DOY 211 between positions 3226-3227 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. <i>CONCUR</i>
40.55	This target is listed in contact table #1 with a computed height of 4.1 meters in 13.7 meters of water. The contact was further investigated on DOY 211 between positions 3228-3229 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. <i>concur</i>
68.16	This target is listed in contact table #2

with a computed height of 1.3 meters in 31.7 meters of water. The contact was further investigated on DOY 210 between positions 3166-3169 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR

91.49 This target is listed in contact table #2 with a computed height of 1.5 meters in 20.4 meters of water. The contact was further investigated on DOY 210 between positions 3118-3121 with the 75 meter range scale and on DOY 217 between the positions 3316-3319 with the 50 meter range scale. Diver investigation on DOY 217 found a 3 meter long by 1.5 meter diameter hard rubber fender rising 1.5 meters off the bottom. This item was positioned at DP ~~3321~~⁴⁰⁸⁰ with a least depth of 18.6 meters, IN 20m of water *diver

POSITION #~~3321~~⁴⁰⁰⁰
LAT 26°03.28⁴²' LON 097°07.34⁰⁴' 38.31"
E: ~~11682.7~~^{11767.0} N: ~~13778.7~~^{13800.4}
W: 11189.1 X: 23454.3 Y: 46556.8 Z: 64078.4

Recommendation: This item is insignificant due to the height to depth ratio and should not be charted. It is recommended that an 18' (61ft) depth be charted in the above present survey location to show least depth found in the vicinity.

94.77 This target is listed in contact table #2 with a computed height of 1.7 meters in 18.4 meters of water. The contact was further investigated on DOY 211 between positions 3224-3225 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR

259.65 This target is listed in contact table #2 with a computed height of 1.6 meters in 23.0 meters of water. The contact was further investigated on DOY 210 between positions 3122-3125 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR

416.72 This target is listed in contact table #3 with a computed height of 1.2 meters in 28.4 meters of water. The contact was further investigated on DOY 210 between positions 3170-3175 with the side scan sonar on the 75 meter range scale. The item was found and computed to have a height of 1.5^{0.7} meters in 27.5 meters of water. This item is insignificant due to the height to depth

28.4

ratio and further investigation was deemed unnecessary. CONCUR

542.39 This target is listed in contact table #4 with a computed height of 1.3 meters in 21.3 meters of water. The contact was further investigated on DOY 210 between positions 3126-3127 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR

650.39 This target is listed in contact table #5 with a computed height of 1.4 meters in 15.8 meters of water. The contact was further investigated on DOY 211 between positions 3214-3215 with the side scan sonar on the 75 meter range scale. The item was found and computed to have a height of 0.1 meters in 16.6 meters of water. This item is insignificant due to the height to depth ratio and further investigation was deemed unnecessary. CONCUR

771.07 This target is listed in contact table #6 with a computed height of 1.8 meters in 23.3 meters of water. The contact was further investigated on DOY 210 between positions 3128-3129 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR

775.73 This *target is listed in contact table #6 with a computed height of 0.8 meters in 19.9 meters of water. Due to the proximity to AWOIS 106 the contact was further investigated on DOY 211 between positions 3184-3185^{and 3208-3209} with the side scan sonar on the 75 meter range scale. No feature was observed, *further investigation was deemed unnecessary. *A fathometer depth of 18m (61ft) should be charted at Lat 26°01'09.31"N, Lon 97°04'59.55"W. FF show shallowest depth in the area.

797.36 This target is listed in contact table #6 with a computed height of 1.4 meters in 28.1 meters of water. The contact was further investigated on DOY 238 between positions 3347-3352 with the side scan sonar on the 75 meter scale. Diver investigation on DOY 238 found the inverted steel hull of a boat. The hull was 20.4 meters long from the bow to where the stern was buried in the bottom. The least depth was at the bow rising 2.7 meters out of a large scour. This item was positioned at DP ~~3355~~⁴⁰⁰² with a least depth of 27.4 meters (88 ft) at Lat 26°01'01.90N, Lon 96°59'28.05W. It is recommended that the above present survey depth be charted in the above location.

803.68 - Dive at Fix 3324 (changed to 4003). Wreckage was found in lat 26°00'57.35N, Lon 96°57'45.28W with a corrected dive depth of 26m (85ft). Chart a 26 WK at the above present survey location.

Chart

- 910.44 This target is listed in contact table #7 with a computed height of 2.1 meters in 20.5 meters of water. The contact was further investigated on DOY 211 between positions 3178-3179 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 969.53 This target is listed in contact table #8 with a computed height of 2.9 meters in 20.9 meters of water. The contact was further investigated on DOY 209 between positions 3090-3091 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1032.49 This target is listed in contact table #8 with a computed height of 3.6 meters in 24.0 meters of water. The contact was further investigated on DOY 210 between positions 3138-3139 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1042.63 This target is listed in contact table #9 with a computed height of 1.6 meters in 18.0 meters of water. The contact was further investigated on DOY 209 between positions 3092-3093 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1150.59 This target is listed in contact table #9 with a computed height of 1.2 meters in 26.4 meters of water. The contact was further investigated on DOY 210 between positions 3146-3149 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1198.43 This target is listed in contact table #10 with a computed height of 3.9 meters in 15.3 meters of water. The contact was further investigated on DOY 209 between positions 3105-3106 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1212.20 This target is listed in contact table #10 with a computed height of 1.5 meters in 21.3 meters of water. The contact was further investigated on DOY 209 between positions 3088-3089 on the 75 meter range scale and on DOY 216 between the positions 3308-3309 with

the 50 meter range scale. Diver investigation on DOY 216 found a 2 meter by 2 meter box rising 1.5 meters off the bottom. This item was positioned at DP ~~3314~~⁴⁰⁰⁴ with a ^{diver} least depth of 20.3² meters.

POSITION #3314 4004
LAT 28° 58' 26" LON 097° 04' 15" 14.99"
E: 12413.5^{25.87} N: 4489.5
W: 11195.6 X: 23462.1 Y: 46545.9 Z: 64079.0

Recommendation: This item is insignificant due to the height to depth ratio and should not be charted. CONCUR

- 1215.79 This target is listed in contact table #10 with a computed height of 1.4 meters in 23.9 meters of water. The contact was further investigated on DOY 210 between positions 3136-3137 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR
- 1261.37 This target is listed in contact table #11 with a computed height of 1.2 meters in 16.3 meters of water. The contact was further investigated on DOY 238 between positions 3356-3357 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR
- 1264.32 This target is listed in contact table #11 with a computed height of 1.4 meters in 18.0 meters of water. The contact was further investigated on DOY 211 between positions 3188-3189 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR
- 1274.39 This target is listed in contact table #11 with a computed height of 0.9 meters in 26.2 meters of water. The contact was further investigated on DOY 210 between positions 3140-3145 with the side scan sonar on the 75 meter range scale. The item was found and computed to have a height of 1.6 meters in 26.5 meters of water. This item is insignificant due to the height to depth ratio and further investigation was unnecessary. CONCUR
- 1301.66 This target is listed in contact table #11 with a computed height of 1.6 meters in 18.6 meters of water. The contact was further

* 1381.45

✓ A Dive at Fix 3345 changed to 4005 was
conducted on JD 226. The dive boat depth
of 11m (36 ft) on an obstr (metal box) was
found at Lat 25/58/52.15N Lon 97/07/13.80W.
Chart ~~ON~~ 11obstr at the above present
Survey location

investigated on DOY 209 between positions 3116-3117 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*

1368.03 This target is listed in contact table #12 with a computed height of 0.5 meters in 14.8 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3238-3241 with the side scan sonar on the 50 meter range scale. *The item was found and determined to be insignificant due to the height to depth ratio. Further investigation was unnecessary. *CONCUR*
** No feature was observed*

1374.04 This target is listed in contact table #12 with a computed height of 0.0 meters in 14.4 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3248-3249 with the side scan sonar on the 50 meter range scale. The item was found and determined to be insignificant due to the height to depth ratio. Further investigation was unnecessary. *CONCUR*

*Q ← **

1399.22 This target is listed in contact table #13 with a computed height of 2.7 meters in 13.1 meters of water. The contact was further investigated on DOY 211 between positions 3256-3257 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*

1438.15 This target is listed in contact table #13 with a computed height of 0.0 meters in 12.6 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3254-3255 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
SEE ALSO CONTACT 2766.48

1470.66 This target is listed in contact table #13 with a computed height of 0.4 meters in 11.5 meters of water. Due to the proximity to AWOIS 5823 the contact was further investigated on DOY 216 between positions 3300-3301 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*

1473.51 This target is listed in contact table #13

with a computed height of 1.4 meters in 12.9 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3244-3245 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. *Concur*

1502.29 This target is listed in contact table #13 with a computed height of 0.0 meters in 11.8³ meters of water. Due to the proximity to AWOIS 5823 the contact was further investigated on DOY 216 between positions 3298-3299 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. *Concur*

1503.68 This target is listed in contact table #13 with a computed height of 0.0 meters in 11.5 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3251-3253 and on DOY 216 between positions 3280-3285 with the side scan sonar on the 50 meter range scale. Diver investigation on DOY 224 found a jack-up rig leg 13.2 meters long rising 1.3 meters off the bottom. This item was positioned at DP ~~3339~~⁴⁰⁸⁶ with a ^{DIVER} least depth of 9.6³ meters. (31 feet)

26/02/08-26 → POSITION #3339
LAT 26°01.74' LON 097°07.75' 49.15
E: 6475.7^{02/08.26} N: 11306.4 11335.7
W: 11188.3 X: 23425.4 Y: 46556.0 Z: 64079.1

✓ Recommendation: This item is significant and should be charted as "Obstruction, least depth 9.6³ meters". *Concur*. Chart a ^{9³} obstr in the above Present Survey location.

1516.33 This target is listed in contact table #13 with a computed height of 1.2 meters in 10.6 meters of water. The contact was further investigated on DOY 211 between positions 3258-3259 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *Concur*

1644.45 This target is listed in contact table #15 with a computed height of 1.0 meters in 29.8 meters of water. The contact was further investigated on DOY 210 between positions 3150-3153 with the side scan sonar on the 75 meter range scale. No feature was

observed, further investigation was deemed unnecessary. *concur*

- 1691.62 This target is listed in contact table #15 with a computed height of 1.4 meters in 28.8 meters of water. The contact was further investigated on DOY 210 between positions 3154-3157 with the side scan sonar on the 75 meter range scale. The item was found and computed to have a height of 1.4 meters in ^{29²} ~~28.7~~ meters of water. This item is insignificant due to the height to depth ratio and further investigation was unnecessary. *concur*
- 1847.21 This target is listed in contact table #15 with a computed height of 1.8 meters in 17.4 meters of water. The contact was further investigated on DOY 209 between positions 3112-3113 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1854.15 This target is listed in contact table #15 with a computed height of 2.5 meters in 23.6 meters of water. The contact was further investigated on DOY 210 between positions 3132-3133 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1878.07 This target is listed in contact table #16 with a computed height of 2.6 meters in 23.7 meters of water. The contact was further investigated on DOY 210 between positions 3134-3135 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 1881.41 This target is listed in contact table #16 with a computed height of 0.9 meters in 21.3 meters of water. The contact was further investigated on DOY 211 between positions 3260-3267 on the 75 meter range scale and on DOY 216 between the positions 3310-3313 with the 50 meter range scale. Diver investigation on DOY 216 found the remains of a shrimp boat scattered over a 11 by 17 meter area. The least depth is to one of the blades of a propeller rising 1.3 meters off the bottom. This item was positioned at DP 4007 ~~3315~~ with a ^{DP 4007} least depth of 20.8⁷ meters. (68 feet) in 21⁵ m (70ft) of water

POSITION #2315 4007
LAT 25°58'48.97" LON 097°04'17.35"
12347.9 ← E: 12360.9 47.97 N: 5155.3 5169.4
W:11195.1 X:23461.3 Y:46546.8 Z:64079.3

✓ Recommendation: This item is insignificant due to the height to depth ratio but should be charted as "Non-dangerous Wreck" at the above position. Concur. Chart 207WK

- 1883.78 This target is listed in contact table #16 with a computed height of 2.6 meters in 18.3 meters of water. The contact was further investigated on DOY 209 between positions 3107-3111 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. Concur
- 2120.66 This target is listed in contact table #17 with a computed height of 1.5 meters in 29.1 meters of water. The contact was further investigated on DOY 210 between positions 3158-3159 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. Concur
- 2139.75 This target is listed in contact table #17 with a computed height of 0.0 meters in 21.4 meters of water. Due to the proximity to AWOIS 106 the contact was further investigated on DOY 211 between positions 3176-3177 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. Concur
- 2143.59 This target is listed in contact table #17 with a computed height of 0.0 meters in 19.6 meters of water. Due to the proximity to AWOIS 106 the contact was further investigated on DOY 211 between positions 3186-3187 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. Concur
- 2202.07 This target is listed in contact table #17 with a computed height of 1.4 meters in 17.0 meters of water. The contact was further investigated on DOY 211 between positions 3230-3233 and on DOY 211 between positions 3290-3291 with the side scan sonar on the 75 meter range scale and on DOY 217 between the positions 3292-3293 with the 50 meter range scale. Diver investigation on DOY 217 found a 2 meter long metal cylinder 1.25 meters in

diameter with a 0.3 meter diameter extension sticking into the bottom. The cylinder rises 1.5 meters off the bottom. This item was positioned at DP 3331 with a least depth of 15.8 meters (50 Feet)

POSITION #3331⁴⁰⁰⁸
LAT 26°03.0' LON 097°06.6' 40.92"
E: 8359.1³⁰⁶⁵ N: 13870.1
W:11187.6 X:23434.8 Y:46558.2 Z:64078.2

- Recommendation: This item is significant and should be charted as "Obstruction, least depth 15.8 meters". Chart A16 obstr at Lat 26/03/30.74N Lon 97/06/42.38" W. SEE Evaluation Report Section 7.9.3.
- 2228.00 This target is listed in contact table #17 with a computed height of 1.0 meters in 17.3 meters of water. The contact was further investigated on DOY 211 between positions 3202-3205 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 2247.25 This target is listed in contact table #17 with a computed height of 1.0 meters in 14.6 meters of water. The contact was further investigated on DOY 211 between positions 3212-3213 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 2247.72 This target is listed in contact table #17 with a computed height of 1.2 meters in 15.7 meters of water. The contact was further investigated on DOY 211 between positions 3210-3211 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 2367.14 This target is listed in contact table #18 with a computed height of 2.0 meters in 19.2 meters of water. The contact was further investigated on DOY 209 between positions 3114-3115 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*
- 2569.34 This target is listed in contact table #20 with a computed height of 4.7 meters in 16.4 meters of water. The contact was further investigated on DOY 211 between positions 3206-3209 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *concur*

- 2584.54 This target is listed in contact table #20 with a computed height of 3.1 meters in 15.8 meters of water. The contact was further investigated on DOY 211 between positions 3200-3201 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
- 2589.13 This target is listed in contact table #20 with a computed height of 5.8 meters in 16.8 meters of water. The contact was further investigated on DOY 211 between positions 3222-3223 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
- 2592.38 This target is listed in contact table #20 with a computed height of 6.2 meters in 18.0 meters of water. The contact was further investigated on DOY 211 between positions 3234-3235 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
- 2592.59 This target is listed in contact table #20 with a computed height of 4.3 meters in 17.3 meters of water. The contact was further investigated on DOY 211 between positions 3236-3237 with the side scan sonar on the 75 meter range scale. The item was found and computed to have a height of 0.4 meters in 18.1 meters of water. This item is insignificant due to the height to depth ratio and further investigation was unnecessary. *CONCUR*
- 2598.07 This target is listed in contact table #20 with a computed height of 5.9 meters in 16.2 meters of water. The contact was further investigated on DOY 211 between positions 3220-3221 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
- 2707.65 This target is listed in contact table #21 with a computed height of 0.0 meters in 15.6 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3216-3219 with the side scan sonar on the 75 meter range scale. No feature was observed, further investigation was deemed unnecessary. *CONCUR*
- 2745.02 This target is listed in contact table #22

* Recommendation: This item is insignificant because the bottom is 13.1m to 13.7m (43-45 ft). The blocks are in a hole on the bottom which is why they are 1.6m off the bottom, but are still the same depth as the surrounding water. It is recommended that this area be charted as found in the present survey.

with a computed height of 0.3 meters in 14.7 meters of water. The contact was further investigated on DOY 211 between positions 3242-3243 and on DOY 216 between positions 3286-3289 with the side scan sonar on the 50 meter range scale. Diver investigation on DOY 224 found several sections of metal pipe 0.25 to 0.33 meters in diameter. One section of the pipe is projecting 1.9 meters high at an angle out of the bottom. This item was positioned at DP ~~3332~~⁴⁰⁰⁹ with a ~~least~~^{DIVER} depth of 10.9⁵ meters (34 ft)

POSITION #3332⁴⁰⁰⁹
LAT 26°02' ~~43"~~^{42.54"} LON 097°07' ~~18"~~^{17.79"}
E: 7333.5 N: 12390.2
W:11188.0 X:23429.6 Y:46556.8 Z:64078.1

✓ Recommendation: This item is significant and should be charted as "Obstruction, least depth 10.9⁵ meters". Chart 105 obstr

2766.48 This target is listed in contact table #22 with a computed height of 0.3 meters in 14.7 meters of water. The contact was further investigated on DOY ~~211~~²⁰⁵ between positions ~~3242-3243~~ and on DOY 216 between positions 3286-3289] with the side scan sonar on the 50 meter range scale. ²²⁶Diver investigation on DOY 205 and DOY ~~217~~ found a large area of concrete debris. One section of the concrete is projecting off the bottom 1.6 meters. This item was positioned at DP ~~3346~~ with a ~~least~~^{DIVER} depth of 13.6¹ meters (43 feet)¹¹ *3032-3035

POSITION #3346⁴¹¹³
LAT ~~27°06'03"~~ LON ~~097°06'03"~~ Lat 26/01/57.8, Lon 97/07/19.96
E: 7272.3 N: 11013.4
W:11188.9 X:23430.0 Y:46565.3 Z:64146.2

✓ * Recommendation: This item is significant and should be charted as "Obstruction, least depth 13.6 meters". Do NOT CONCUR

2804.67 This target is listed in contact table #22 with a computed height of 0.0 meters in 12.7 meters of water. Due to the proximity to AWOIS 5822 the contact was further investigated on DOY 211 between positions 3246-3247 with the side scan sonar on the 50 meter range scale. No feature was observed, further investigation was deemed unnecessary. CONCUR
See Also Item 5823.

- e. No special investigations other than those mentioned above were made. ✓
 - f. No significant hydrographic features other than those mentioned above were noted. ✓
 - g. There were no maintained channels within the survey area. ✓
 - h. Fairway soundings were compared to the chart and prior surveys. For specific details see section M part 3 and section N part 4. ✓
- 5.
- a. The charted fish haven, AWOIS 8151, was not found during survey operations. Comparisons of other non-sounding items from the chart are discussed in section N part 2 or section P part 2 of this report. *SEE ALSO EVALUATION REPORT SECTION 7.a.i.*
 - b. PA, ED, and PD features were investigated as assigned and their existence and position evaluated in section N part 2 above.
 - c. No wrecks or obstructions other than those previously mentioned were observed.
 - d. No other significant features were noted.

O. ADEQUACY OF SURVEY

- 1. This survey meets or exceeds 1:20,000 specifications, and is adequate to supersede all prior surveys for the purposes of charting the depths and hazards to navigation within the survey area.
- 2. No portion of this survey has been identified as substandard or incomplete.

P. AIDS TO NAVIGATION *SEE ALSO SECTION 7.c. OF THE EVALUATION REPORT*

- 1. No correspondence was initiated with the Coast Guard regarding floating aids to navigation.
- 2. One floating aid to navigation fell within the limits of the survey area. Buoy "WR 1" was established to mark the wreck of the drilling structure Trans World 45. It was positioned on line at DP 3358. The current position agrees with the charted position. The buoy should be repositioned to better mark the Trans World 45 wreck.

POSITION #3358
 LAT 26°01'31" *42* " LON 097°07'39" *06*
 E: 6740.7 N: 10195.5

3. Buoy "WR1" mentioned above is not contained in the Light List. *^{Is maintained by the U.S. Coast Guard. It is a green lighted buoy with a radar reflector and is listed in the light list at # 1550 (1993).}
4. No bridges, overhead cables or pipelines were observed.
5. No submarine cables, submarine pipelines, or ferry routes were noted.
6. There are no uncharted ferry terminals within this survey area.

Q. STATISTICS

ITEM	for... NOAA Ship HECK	AMOUNT
1.	Total No. of Positions	3358 Fixes
2.	Lineal NM of Soundings	1016.0 NMI
3.	Square NM Hydrography	63.5 NMI ²
4.	Days of Production	36 Days
5.	Bottom Samples	67
6.	Tide Stations Established	None
7.	Current Stations Established	None
8.	Velocity Casts Performed	5 Casts
9.	Magnetic Stations Established	None
10.	Detached Positions	87

R. MISCELLANEOUS

1.
 - a. The mouth of the Rio Grande River has moved significantly since the prior survey. There does not seem to be any evidence of silting from the river.
 - b. No unusual submarine features were noted.
 - c. No anomalies in either tide or current were noted.
 - d. No current observations were made.
 - e. No magnetic anomalies were noted.
2. Sixty-seven bottom samples were taken and recorded on Log Sheet M. The log sheet was submitted to the Smithsonian Institution; a copy is included in section II of the separates. The bottom samples were sent to the Smithsonian Institute^{ION} as per project instructions.

S. RECOMMENDATIONS

1. No additional field work, other than the resolution of AWOIS 5822 mentioned above, is recommended.
^{Item 5827}
2. No dredging operations currently in progress will affect this survey area.

3. No further investigation of unusual features or sea conditions is recommended.

T. REFERRAL TO REPORTS

1. User Evaluation information is found in section M.

Coast Pilot Report will be submitted by June 1993.

2. Electronic Control Report and Horizontal Control Report for OPR-K470/K370 will be submitted with the descriptive report for the final sheet in the project.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'J. Davis-Martin', written in a cursive style.

James E. Davis-Martin, LT(jg), NOAA
Operations Officer
NOAA Ship HECK

CONTROL STATIONS as of 15 Jan 1983

No	Type	Latitude	Longitude	H Cart	Freq	Vel Code	MM/DD/YY	Station Name
101	F	025:57:00.740 ⁷¹⁰	097:08:49.821 ⁰⁹¹	229	250	0.0	0 03/01/91	RIO BRAVO LIGHT, 1992
102	F	026:00:43.000 ⁰⁹¹	097:09:12.002 ⁰⁹¹	125	250	0.0	2 03/01/91	VISTA DEL MAR, 1939
103	F	026:05:06.000 ⁰⁹¹	097:09:41.098 ⁰⁹¹	208	250	0.0	4 03/01/91	BRIDGEPOINT CONDO NUTS, 1992
104	F	026:07:42.000 ⁰⁹¹	097:10:03.070 ⁰⁹¹	403	250	0.0	1 03/01/91	INVERNESS CONDO INVE 92, 1992
105	F	026:11:11.400	097:10:37.572	222	250	0.0	7 03/01/91	BEACH, 1939
206	GPS	27:50:18.156	97:03:32.646			O 250 H cart		PORT ARANSAS TX, GPS, 1992

DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS

DOY: 217

NOAA SHIP HECK S591

DATE: 04 AUG 1992

TGT # 91.49

DIVE PLAN: CIRCLE SEARCH/ITEM INVESTIGATION
 SEARCH RADIUS: 40 M

MAX DEPTH : 68 FT
 MAX TIME : 25 MIN
 LEAST DEPTH: 18.65 M
 L/D TIME : 1935 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 08
 SEAS: DIR _____ FT 1-2
 CURRENT: KTS _____

VISIBILITY: _____
 AIR TEMP : 28.0C
 WATER TEMP: 28.0C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>1417</u>		
XO	<u>3000 / 1540</u>			25	68
OPS	____ / ____		U: <u>1442</u>		
JO	<u>3000 / 400</u>			25	68

DETACHED POSITION NUMBER: 3321 4000

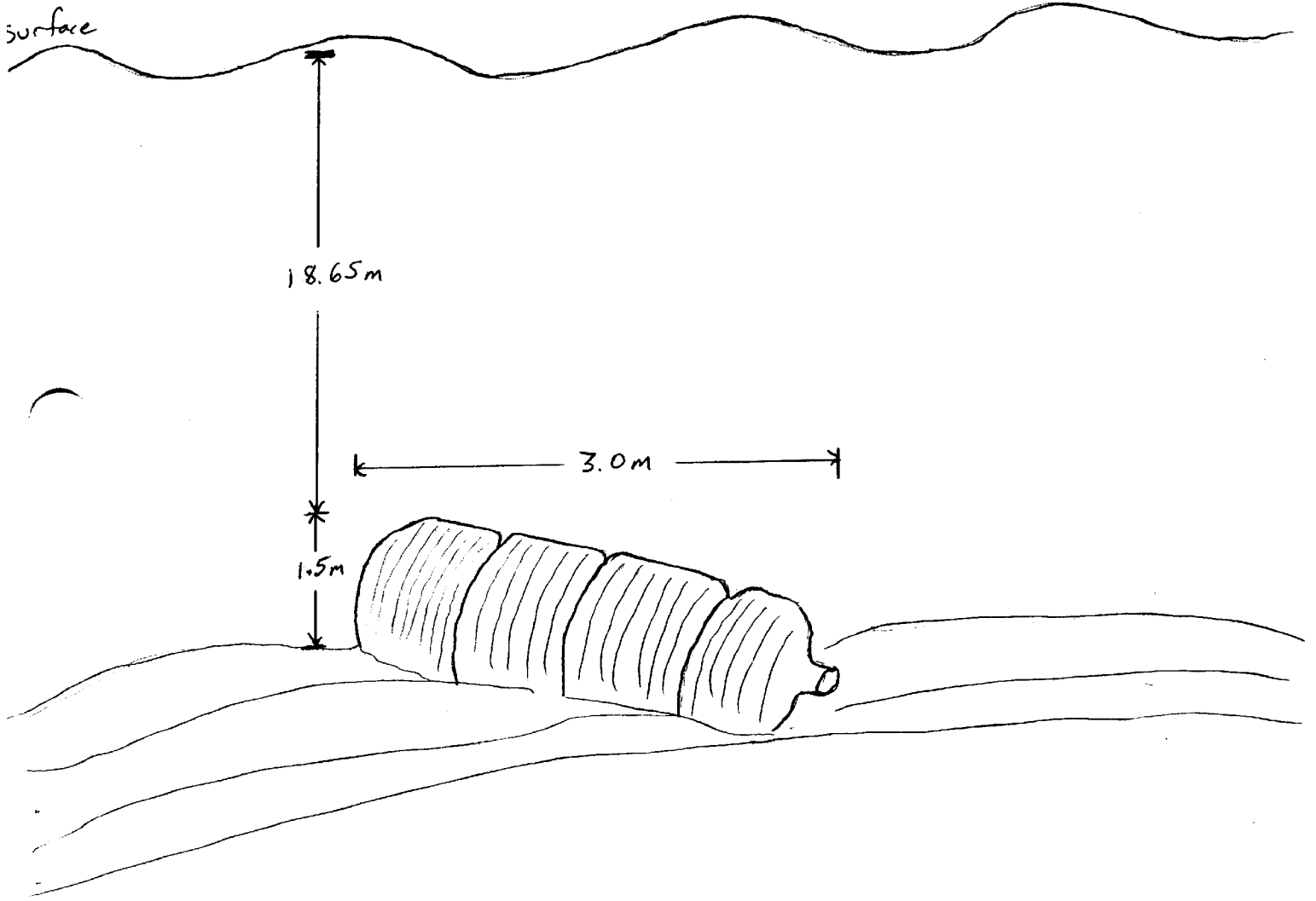
LAT: 26°03'28.42" LON: 097°07'34"
 E: 11767.0 N: 13800.4
 E: 11882.7 N: 13776.7

LORAN RATES W: 11189.1 X: 23454.3 Y: 46556.8 Z: 64078.4

LEAST DEPTH: 18.65 M

DIVER COMMENTS: ITEM IS CYLINDRICAL IN SHAPE, LAYING ON ITS SIDE ON THE BOTTOM. IT IS HARD RUBBER, ENCLOSED ON BOTH ENDS. 1" DEEP GROOVES RUN AROUND IT. CYLINDRICAL DIAMETER AND HEIGHT OFF BOTTOM IS 1.5m. LENGTH IS 3.0m. SEE ATTACHED SKETCH. 18° obstr (fender)

Target # 91.49



**DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS**

DOY: 205

NOAA SHIP HECK 5591

DATE: 23 JUL 1992

TGT # 439.01

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
SEARCH RADIUS: 40 M

LEAST DEPTH: 8.5 M
L/D TIME : 1845 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
S/N 8607004N (SHALLOW)
S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR ESE KTS 09
SEAS: DIR _____ FT 2-4
CURRENT: KTS _____

VISIBILITY: 10 FT
AIR TEMP : 30.1 °C
WATER TEMP: 27.5 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>1324</u> U: <u>1351</u>		
XO	<u>3000</u> / <u>1500</u>				
OPS	____ / ____				
JO	<u>2700</u> / <u>700</u>				

DETACHED POSITION NUMBER: ~~30364001~~

LAT: ^{02' 17.50"} 26° 01.88' LON: ^{41.06"} 097° 07' 61'

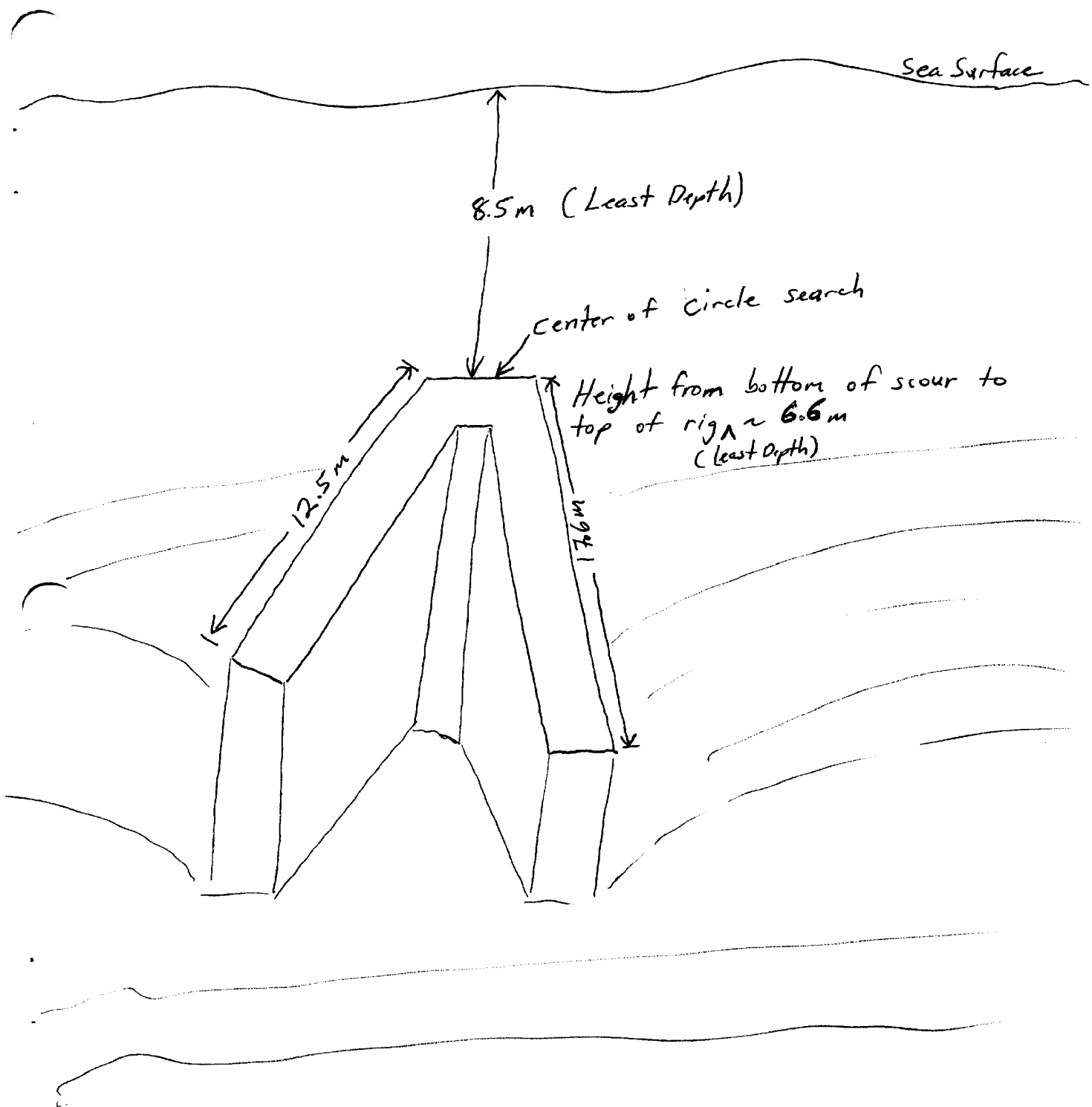
E: 6686.1 N: 11620.0

LORAN RATES W: 11188.3 X: 23426.5 Y: 46556.4 Z: 64088.0
(cycling)

LEAST DEPTH: 8.5¹³ M

DIVER COMMENTS: ITEM INVESTIGATED WAS A METAL WELL PLATFORM WHICH HAS SETTLED ON ITS SIDE ON THE OCEAN FLOOR. METAL DEBRIS AND APPENDAGES WERE NOTED NEAR THE OCEAN FLOOR AROUND THE MAIN STRUCTURE, HOWEVER POOR VISIBILITY AT THIS DEPTH (about 1ft visibility at the bottom) PREVENTED FURTHER INVESTIGATION. VISIBILITY AT THE LEAST DEPTH AND CIRCLE SEARCH AREA WAS 10ft.

83 obstr



**DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS**

DOY: 238

NOAA SHIP HECK S591

DATE: 25 AUG 1992

TGT # 797.36

DIVE PLAN: CIRCLE SEARCH/ITEM INVESTIGATION
SEARCH RADIUS: 40 M

LEAST DEPTH: 27.4 M
L/D TIME : 1825 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
S/N 8607004N (SHALLOW)
S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 08
SEAS: DIR _____ FT 2-4
CURRENT: KTS _____

VISIBILITY: 20 FT
AIR TEMP : 28.0 °C
WATER TEMP: 29.7 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>1810</u>		
XO	____ / ____				
OPS	<u>2900 / 500</u>		U: <u>1829</u>	19	100
JO	<u>2900 / 200</u>			19	100

DETACHED POSITION NUMBER: ~~33554002~~

LAT: 26° 01' 01.90" LON: 096° 59' 28"

E: 20393.1 N: 9291.8

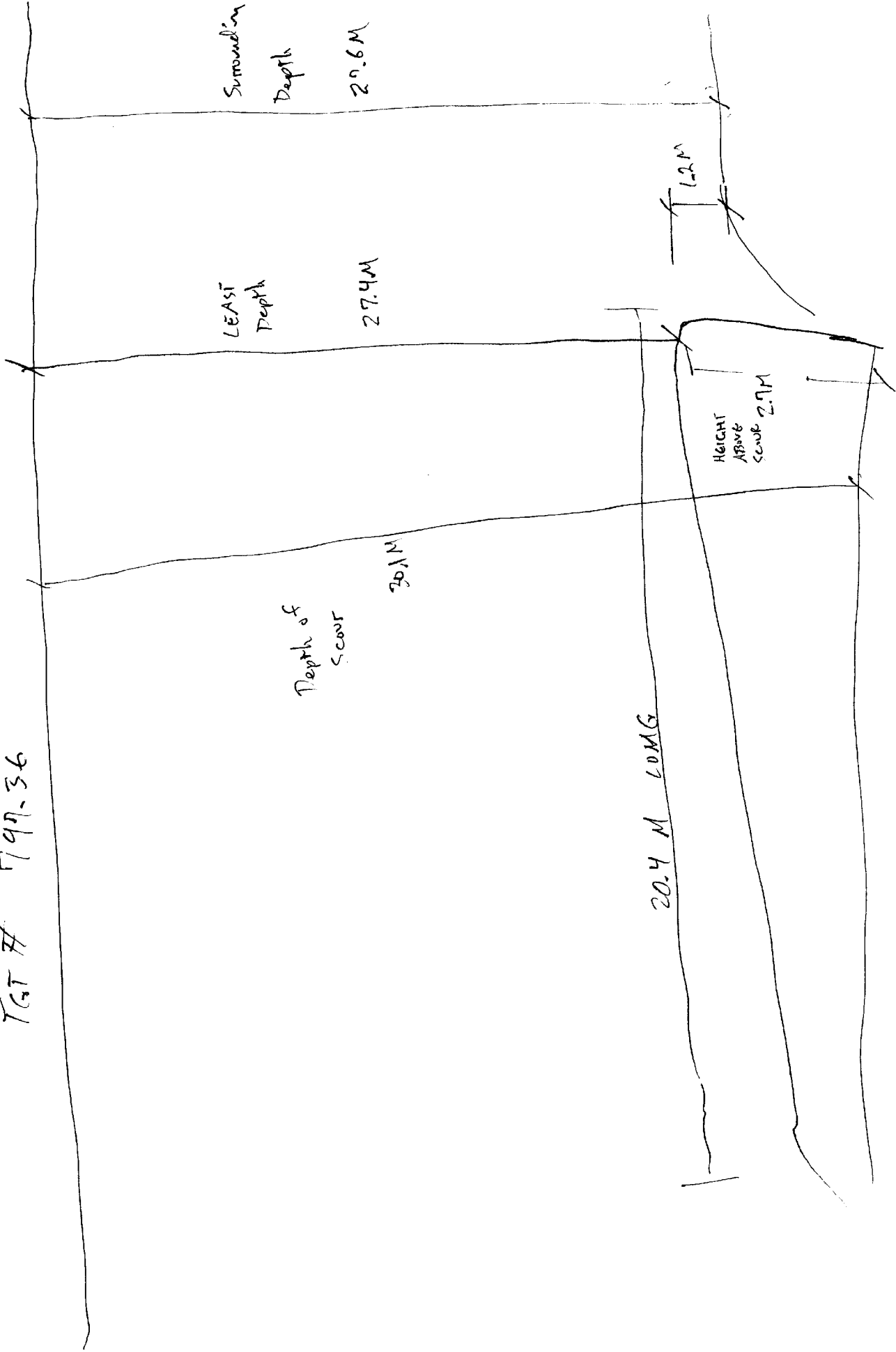
LORAN RATES W: 11196.1 X: 23504.8 Y: 46548.6 Z: 64079.4

LEAST DEPTH: ^{26.8}27.4 M

DIVER COMMENTS: INVERTED HULL, LEAST DEPTH AT BOW. STERN IN MUD. LEAST DEPTH IS 27.4m. 20.4m OF HULL WAS EXPOSED.

268 wk

TGT # 797-36



DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS

DOY: 217

NOAA SHIP HECK S591

DATE: 04 AUG 1992

TGT # 803.68

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
 SEARCH RADIUS: 40 M

MAX DEPTH : 100 FT
 MAX TIME : 23 MIN
 LEAST DEPTH: 26.1 M
 L/D TIME : 2152 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 12
 SEAS: DIR _____ FT 2-4
 CURRENT: KTS _____

VISIBILITY: 15 FT
 AIR TEMP : 28.0C
 WATER TEMP: 24.0C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	<u>3300 / 900</u>		D: <u>2133</u>	23	100
XO	<u> / </u>				
OPS	<u>2800 / 400</u>		U: <u>2156</u>	23	100
JO	<u> / </u>				

DETACHED POSITION NUMBER: 33244003

LAT: 26^{57.35}00⁵⁸ LON: 096^{45.28}57⁴⁴
 E: 232^{50.7}86⁶ N: 915^{3.6}9¹

LORAN RATES W: 11197.8 X: 23521.4 Y: 46547.6 Z: 64079.6

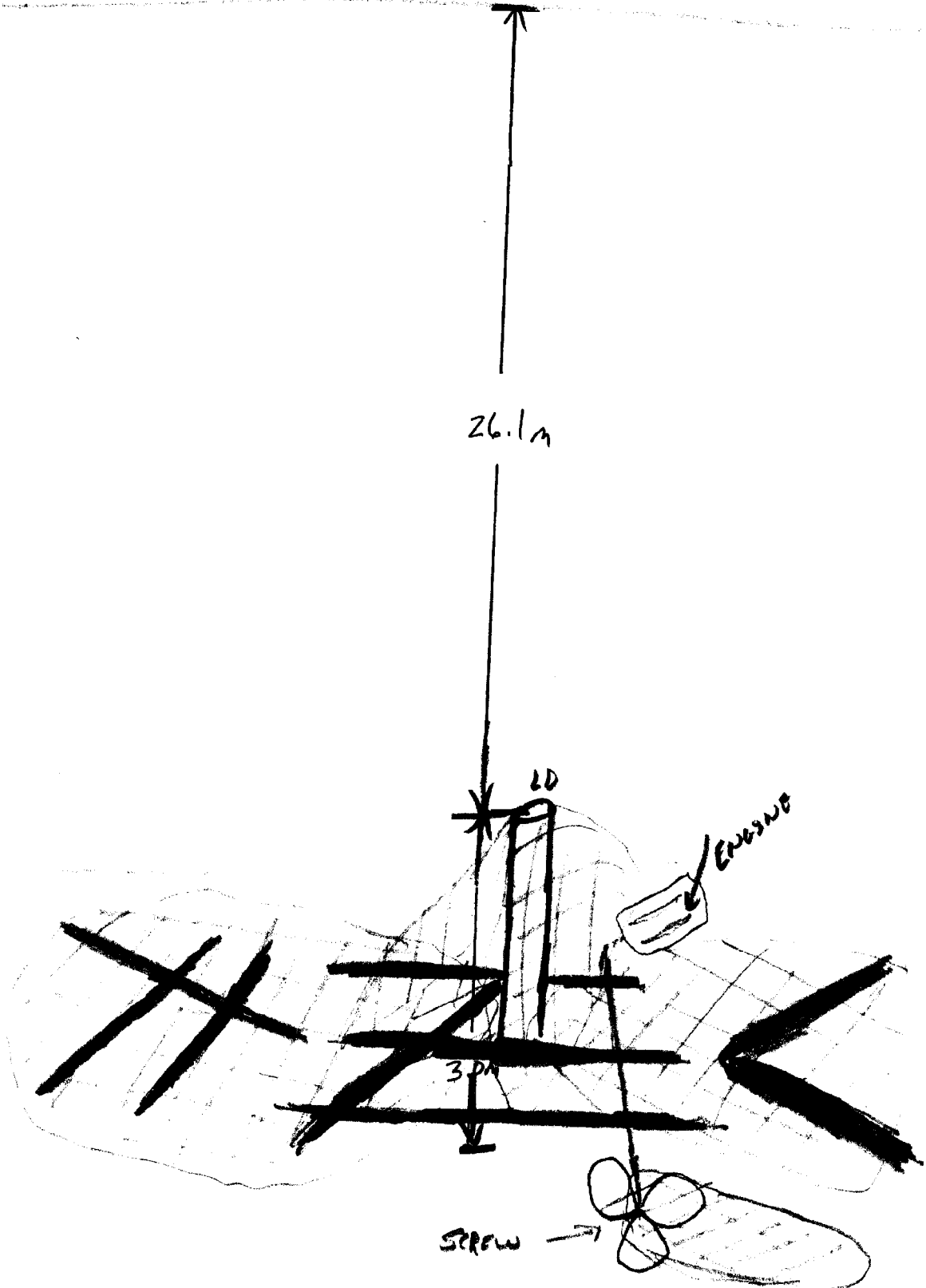
LEAST DEPTH: 26.1⁰ M

DIVER COMMENTS: DIVERS FOUND REMAINS OF AN OLD SHRIMP BOAT. WOOD HULL WAS GONE. METAL DEBRIS AND NETS REMAIN. METAL DEBRIS INCLUDES ENGINE, SCREW, AND STRENGTH MEMBERS FROM HULL. LEAST DEPTH TO METAL POST STICKING OUT OF BOTTOM IS 26.1m. 43.0m OFF BOTTOM.

26 WK

TGT 803.68

D.P. 3324



DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS

DOY: 216

NOAA SHIP HECK S591

DATE: 03 AUG 1992

TGT # 1212.20

DIVE PLAN: CIRCLE SEARCH/ITEM INVESTIGATION
 SEARCH RADIUS: 40 M

LEAST DEPTH: 20.3 M
 L/D TIME : 1519 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 12
 SEAS: DIR _____ FT 1-2
 CURRENT: KTS _____

VISIBILITY: _____ FT
 AIR TEMP : 28.2 °C
 WATER TEMP: 27.2 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>1502</u>		
XO	<u>3000 / 1300</u>			22	72
OPS	____ / ____		U: <u>1524</u>		
JO	<u>3000 / 600</u>			22	72

DETACHED POSITION NUMBER: ~~3314~~ 4004

LAT: 25°58'^{25.87"}26' LON: 097°04'^{14.99"}15'

E: 12413.5 N: 4489.5

LORAN RATES W: 11195.6 X: 23462.1 Y: 46545.9 Z: 64079.0

LEAST DEPTH: 20.3²M

DIVER COMMENTS: METAL BOX APPROXIMATELY 2m x 2m. THE HEIGHT IS 1.5m
FROM THE BOTTOM. THE BOX IS DIVIDED INTO THREE SECTIONS OR CHANNELS.
SEE ATTACHED DRAWING. ONE SIDE OF BOX IS OPEN. THE LEAST DEPTH IS
20.3m.

20' obstr

TGT #

121220

SURFACE

DEPTH
= 21.8 M

LEAST DEPTH
= 20.3 M

20.3 M

(lead line measurement 21.64 meters)

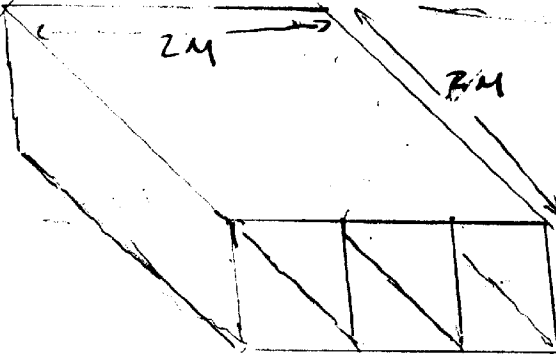
21.8 M

HIGHEST CORNER

↑
1.5 M
↓

2 M

2 M



**DIVING OPERATIONS
 OPR-K470-HE-92
 GULF OF MEXICO
 PORT ISABEL, TEXAS**

DOY: 226

NOAA SHIP HECK S591

DATE: 13 AUG 1992

TGT # 1381.45

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
 SEARCH RADIUS: 40 M

LEAST DEPTH: 11.4 M
 L/D TIME : 1515 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR WSW KTS 08
 SEAS: DIR _____ FT 1
 CURRENT: KTS _____

VISIBILITY: _____ FT
 AIR TEMP : 29.2 °C
 WATER TEMP: 28.3 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>1455</u> U: <u>1520</u>		
XO	____ / ____				
OPS	<u>3000 / 900</u>			<u>25</u>	
JO	<u>2900 / 800</u>			<u>25</u>	

DETACHED POSITION NUMBER: ~~3345~~ 4005

LAT: ^{29/58/52.15} ~~26°04.03'~~ LON: ^{107/13.80"} ~~097°61.61'~~

E: 7440.1 N: 5300.0

LORAN RATES W: 11192.7 X: 23434.1 Y: 46558.9 Z: 64147.5

LEAST DEPTH: 11.4^D M

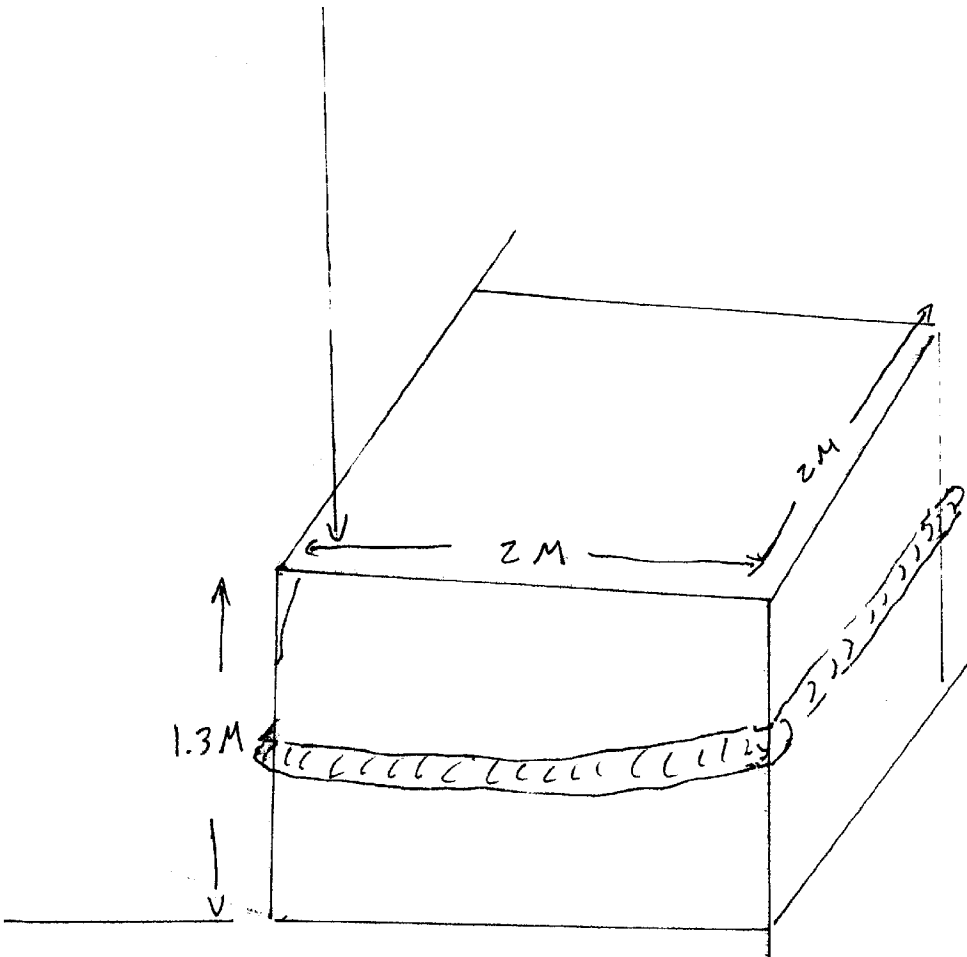
DIVER COMMENTS: DIVER FOUND A 2m x 2m METAL BOX. IT WAS 1.3m OFF THE BOTTOM. LEAST DEPTH WAS 11.4m.

 _____ 11 obstr _____

DOY 226 D.P# 3345

TGT 1381.45

11.4M lead line



**DIVING OPERATIONS
 OPR-K470-HE-92
 GULF OF MEXICO
 PORT ISABEL, TEXAS**

DOY: 224

NOAA SHIP HECK S591

DATE: 11 AUG 1992

TGT # 1503.68

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
 SEARCH RADIUS: 40 M

LEAST DEPTH: 9.65 M
 L/D TIME : 2100 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 08
 SEAS: DIR _____ FT 1
 CURRENT: KTS _____

VISIBILITY: _____ FT
 AIR TEMP : 28.2 °C
 WATER TEMP: _____ °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____ / ____		D: <u>2100</u>		
XO	____ / ____				
OPS	<u>3000</u> / <u>600</u>		U: <u>2127</u>	27	50
JO	<u>2900</u> / <u>600</u>			27	50

DETACHED POSITION NUMBER: ~~0000~~ 4006

LAT: ^{02/08.26} ~~26°01.74'~~ LON: ^{49.15} ~~097°07.75'~~
^{6460.9} E: ~~6475.7~~ N: ^{11335.1} ~~11306.4~~

LORAN RATES W: 11188.3 X: 23425.4 Y: 46556.0 Z: 64079.1

LEAST DEPTH: ³ 9.65 M

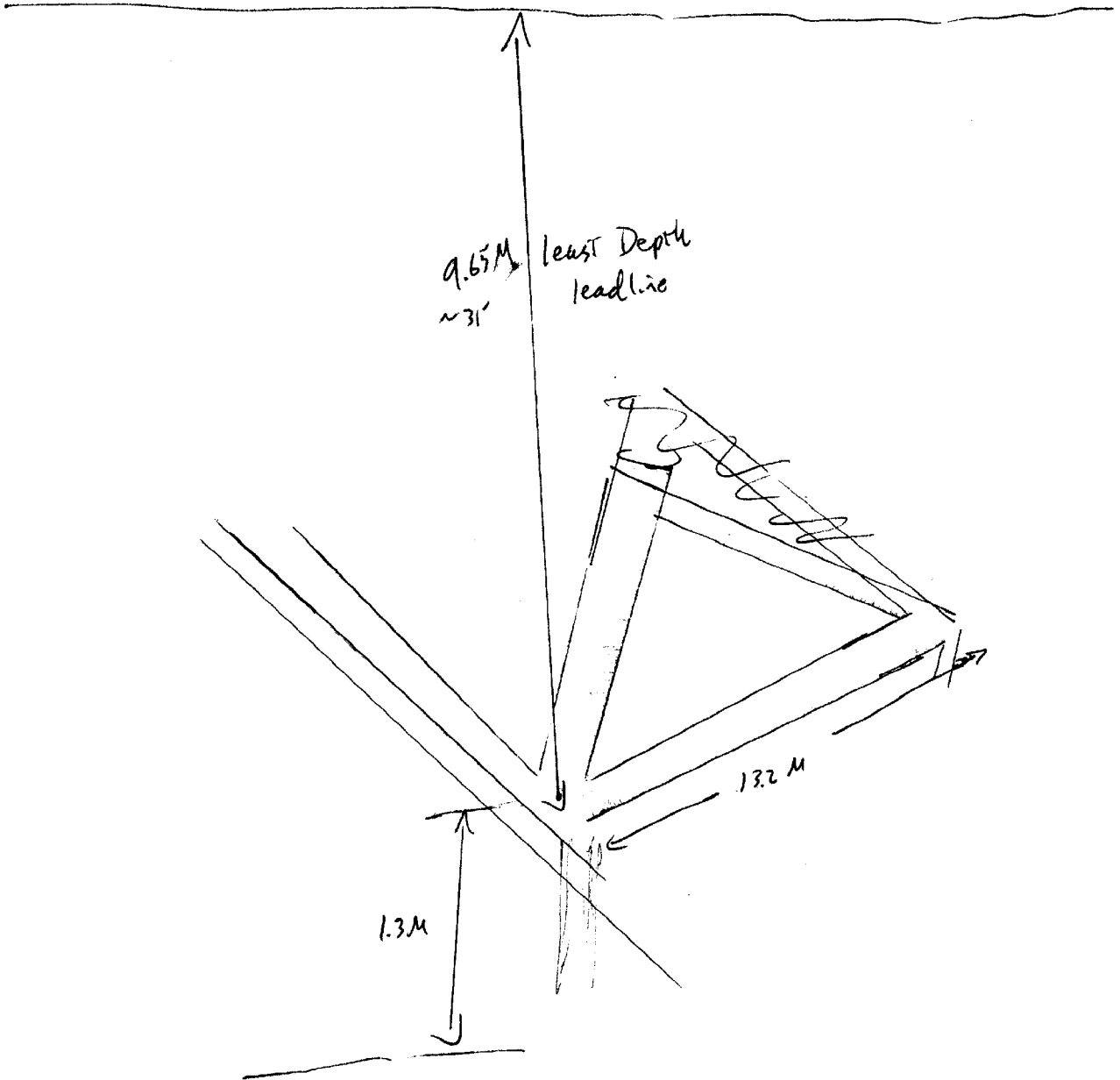
DIVER COMMENTS: HEIGHT OF JACK-UP LEGS OFF BOTTOM IS 1.3m. DISTANCE OF ONE LEG IS 13.2m. LEAST DEPTH IS 9.65m.

93 obstr

DOY 224

TGT # 1503.68

POS 3339



DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS

DOY: 216

NOAA SHIP HECK S591

DATE: 03 AUG 1992

TGT # 1881.41

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
 SEARCH RADIUS: 40 M

MAX DEPTH : 70 FT
 MAX TIME : 26 MIN
 LEAST DEPTH: 20.8 M
 L/D TIME : 2120 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 10
 SEAS: DIR SE FT 2-4
 CURRENT: KTS _____

VISIBILITY: 2-4 FT
 AIR TEMP : 28.0 C
 WATER TEMP: 26.0 C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH
CO	<u>3200 / 800</u>		D1558 LMT	<u>26</u>	<u>70</u>
XO	<u> / </u>				
OPS	<u>3000 / 400</u>		U1624 LMT	<u>26</u>	<u>70</u>
JO	<u> / </u>				

DETACHED POSITION NUMBER: 3315407

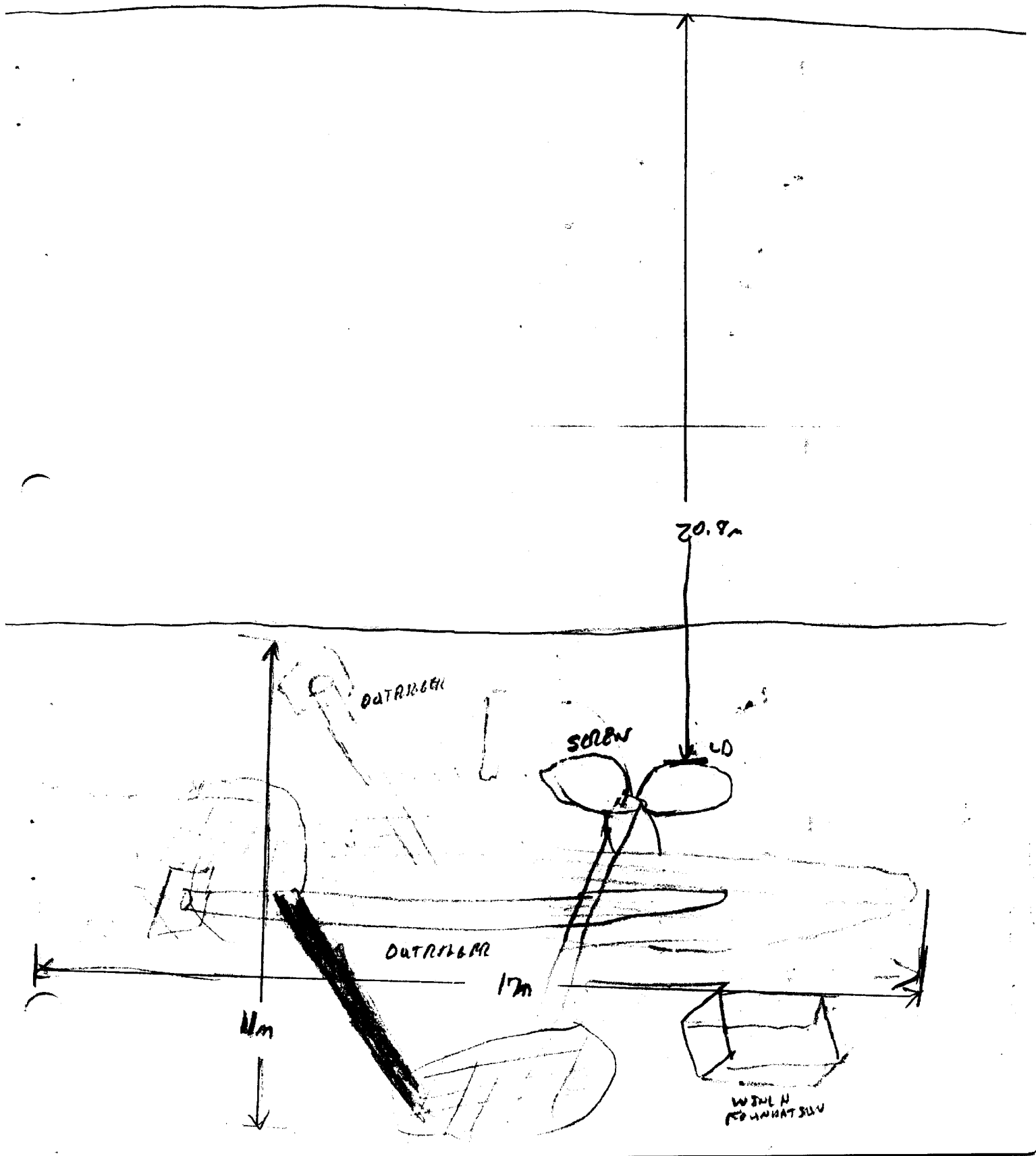
LAT: 2558^{47.97}48 LON: 09704^{17.35}17
 E: 12347.9 N: 5169.4
 E: 12360.9 N: 5155.3

LORAN RATES W: 11195.1 X: 23461.3 Y: 46546.8 Z: 64079.3

LEAST DEPTH: 20.87 M

DIVER COMMENTS: DIVERS FOUND REMAINS OF AN OLD SHRIMP BOAT. WOOD HULL WAS GONE, METAL DEBRIS AND NETS REMAIN. METAL DEBRIS INCLUDES SHAFT, SCREW, AND OUTRIGGERS. DEBRIS FIELD APPROXIMATELY 11m x 17m. MAXIMUM HEIGHT OFF BOTTOM WAS 1.3m. LEAST DEPTH WAS 20.8m.

20' wk



**DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS**

DOY: 224

NOAA SHIP HECK S591

DATE: 11 AUG 1992

TGT # 270267
~~2022-07~~

DIVE PLAN: CIRCLE SEARCH/ITEM INVESTIGATION
SEARCH RADIUS: 40 M

MAX DEPTH : 58 FT
MAX TIME : 29 MIN
LEAST DEPTH: 15.8 M
L/D TIME : 1620 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
S/N 8607004N (SHALLOW)
S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 08
SEAS: DIR _____ FT 1-2
CURRENT: KTS _____

VISIBILITY: _____
AIR TEMP : 27.0 C
WATER TEMP: 27.5 C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH
CO	_____/____		D: <u>1555</u>		
XO	<u>3000</u> / <u>1200</u>				<u>29</u>
OPS	_____/____		U: <u>1624</u>		
JO	<u>3000</u> / <u>300</u>				<u>29</u>

DETACHED POSITION NUMBER: ~~3331~~ 4008

LAT: 2603/030⁰⁵ LON: 09706/540⁹²

E: 8359.1 N: 13870.1

LORAN RATES W: 11187.6 X: 23434.8 Y: 46558.2 Z: 64078.2

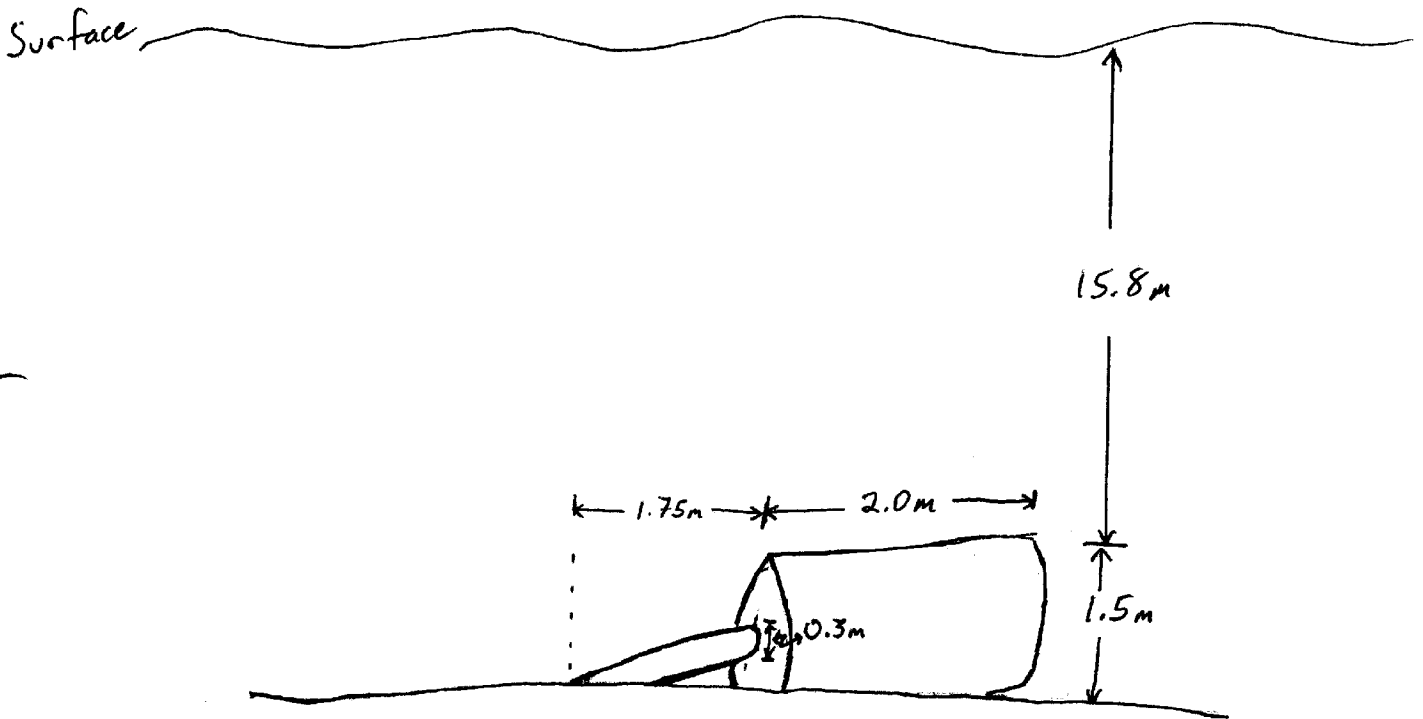
LEAST DEPTH: 15.8⁴ M

DIVER COMMENTS: ITEM FOUND WAS A CYLINDRICAL METEL OBJECT 1.25m IN DIAMETER, AND 2.0m IN LENGTH. A 0.3m DIAMETER LEG EXTENDED FROM ONE END OF THE ITEM AND WAS BURIED IN THE MUD (see attached item). THE ITEM HAS A 1.5m HEIGHT OFF THE BOTTOM AND A LEAST DEPTH OF 15.8m.

15⁴ obstr DO NOT use
use DP(16 obstr) and
depth from H-10436:
See E+A Report Sect 7.a.3i

H-10429

Target # ^{2207.07?} 2022.07
DP # 3331



DIVING OPERATIONS
 OPR-K470-HE-92
 GULF OF MEXICO
 PORT ISABEL, TEXAS

DOY: 224

NOAA SHIP HECK S591

DATE: 11 AUG 1992

TGT # 2745.02

DIVE PLAN: CIRCLE SEARCH/ITEM INVESTIGATION
 SEARCH RADIUS: 40 M

MAX DEPTH : 65 FT
 MAX TIME : 35 MIN
 LEAST DEPTH: 10.9 M
 L/D TIME : 1825 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 5-10
 SEAS: DIR SE FT 1-2
 CURRENT: KTS SLACK

VISIBILITY: 3ft
 AIR TEMP : 29.0c
 WATER TEMP: 26.0c

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH
CO	<u>3100 / 400</u>		D: <u>1755</u>	35	60
XO	<u> / </u>				
OPS	<u>3000 / 500</u>		U: <u>1830</u>	35	60
JO	<u> / </u>				

DETACHED POSITION NUMBER: ~~3332~~ ⁴⁰⁰⁹

LAT: 26^{42.54}02^{17.79}43 LON: 0970718

E: 7333.5 N: 12390.2

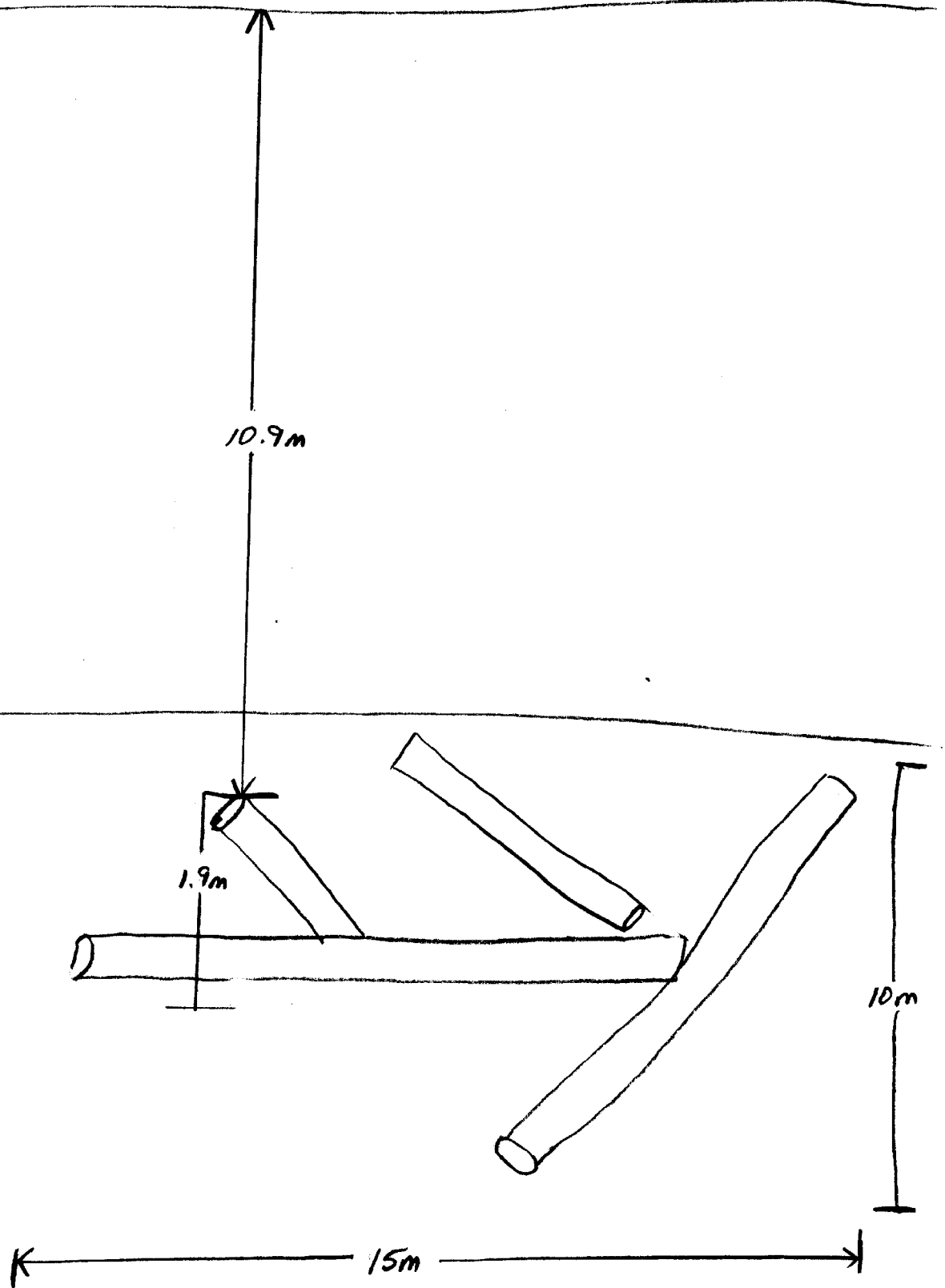
LORAN RATES W: 11188.0 X: 23429.6 Y: 46556.8 Z: 64078.1

LEAST DEPTH: 10.9⁵ M

DIVER COMMENTS: DIVERS FOUND SEVERAL SECTIONS OF PIPE 8" - 12" IN DIAMETER. THE LEAST WAS A SECTION OF PIPE THAT WAS STICKING OUT OF THE BOTTOM. HEIGHT WAS 1.9m OFF BOTTOM.

10⁵ OBSTR

TGT 2745.02



DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS

DOY: 205

NOAA SHIP HECK S591

DATE: 23 JULY 1992

TGT # 2766.48

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
 SEARCH RADIUS: 40 M

LEAST DEPTH: 13.7 M
 L/D TIME : 1955 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
 S/N 8607004N (SHALLOW)
 S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR SE KTS 10
 SEAS: DIR SE FT 2-3
 CURRENT: KTS _____

VISIBILITY: 2-4 FT
 AIR TEMP : 30.1 °C
 WATER TEMP: 27.5 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	<u>3200 / 800</u>		D: <u>1435</u>	33	50
XO	____ / ____				
OPS	____ / ____		U: <u>1508</u>		
JO	<u>3000 / 600</u>			33	50

DETACHED POSITION NUMBER: 30374110

LAT: 26°01'54" ^{58.23"} LON: 097°07'26" ^{20.41"}

E: 7259.5 N: 11026.6

LORAN RATES W: 11188.9 X: 23430.0 Y: 46555.2 Z: 64088.0

LEAST DEPTH: 13.7 M

DIVER COMMENTS: VISIBILITY WAS POOR NEAR BOTTOM. ITEM WAS A LONG SECTION OF CONCRETE LYING EAST TO WEST. SPURS OFF ALONG NNE DIRECTION. LEAST DEPTH WAS 13.7m. A SECOND DIVE IS NECESSARY TO FULLY DEFINE ALL SECTIONS OF THIS STEM.

DO NOT USE

**DIVING OPERATIONS
OPR-K470-HE-92
GULF OF MEXICO
PORT ISABEL, TEXAS**

DOY: 226

NOAA SHIP HECK S591

DATE: 13 AUG 1992

TGT # 2766.48

DIVE PLAN: **CIRCLE SEARCH/ITEM INVESTIGATION**
SEARCH RADIUS: 40 M

LEAST DEPTH: 13.6 M
L/D TIME : 1720 GMT

DEPTH FROM: PNEUMO/LEAD LINE

EQUIPMENT USED: OPEN CIRCUIT SCUBA

PNEUMOFATHOMETER:
S/N 8607004N (SHALLOW)
S/N 8704986 (DEEP)

CONDITIONS:

WIND: DIR 0 KTS 0
SEAS: DIR _____ FT 1-2
CURRENT: KTS _____

VISIBILITY: 3.0 FT
AIR TEMP : 28.0 °C
WATER TEMP: 26.0 °C

DIVERS NAME	TNK PRESSURE IN / OUT	PRESSURE CHANGE	DIVE TIMES DOWN / UP	BOTTOM TIME	DEPTH (FT)
CO	____/____		D: <u>1706</u> U: <u>1725</u>		
XO	____/____				
OPS	<u>2900 / 1800</u>			19	
JO	<u>2900 / 1200</u>			19	

DETACHED POSITION NUMBER: ~~3346~~ 4111

^{26/01/57.8}
LAT: ~~27°06.03'~~ LON: ~~097°06.03'~~ ^{07/19.96}

E: 7272.3 N: 11013.4

LORAN RATES W: 11188.9 X: 23430.0 Y: 46565.3 Z: 64146.2

LEAST DEPTH: 13.6 M

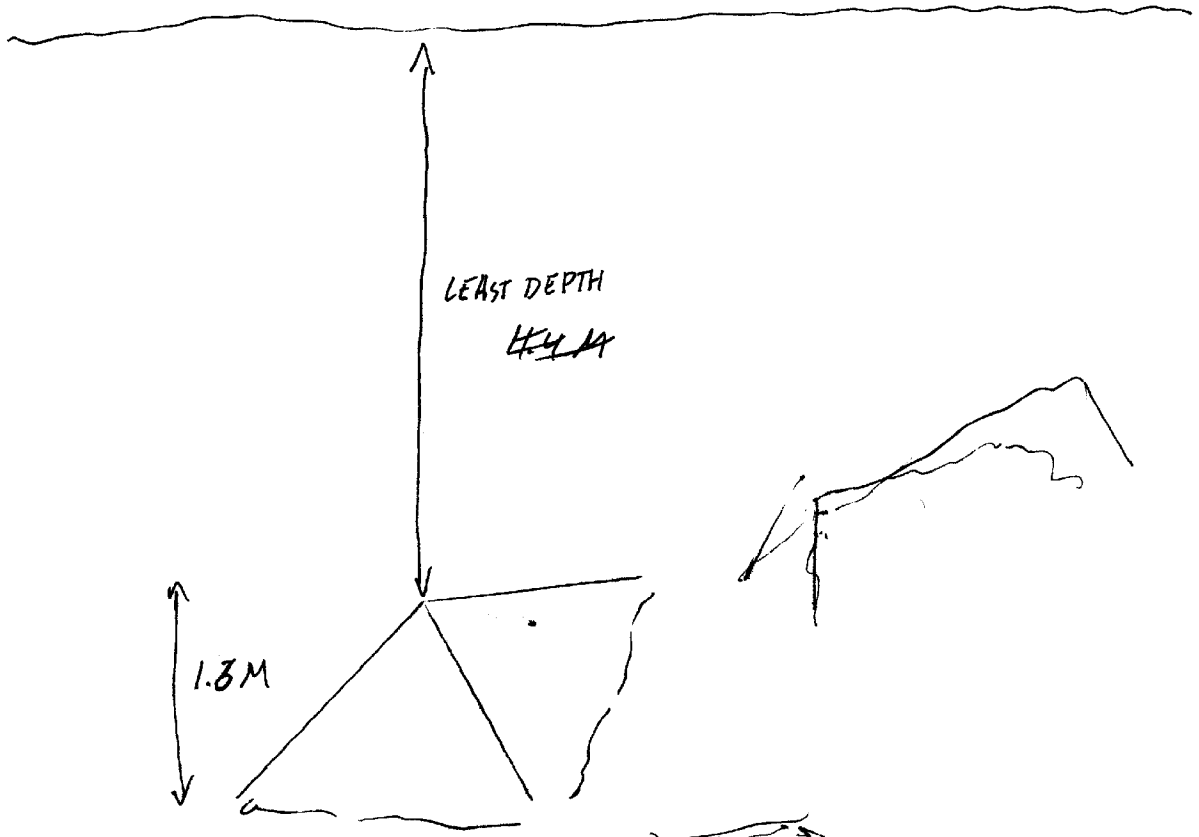
DIVER COMMENTS: DEBRIS FIELD MAXIMUM HEIGHT OFF BOTTOM IS 1.6m. LEAST DEPTH IS 13.6m.

13' obstr

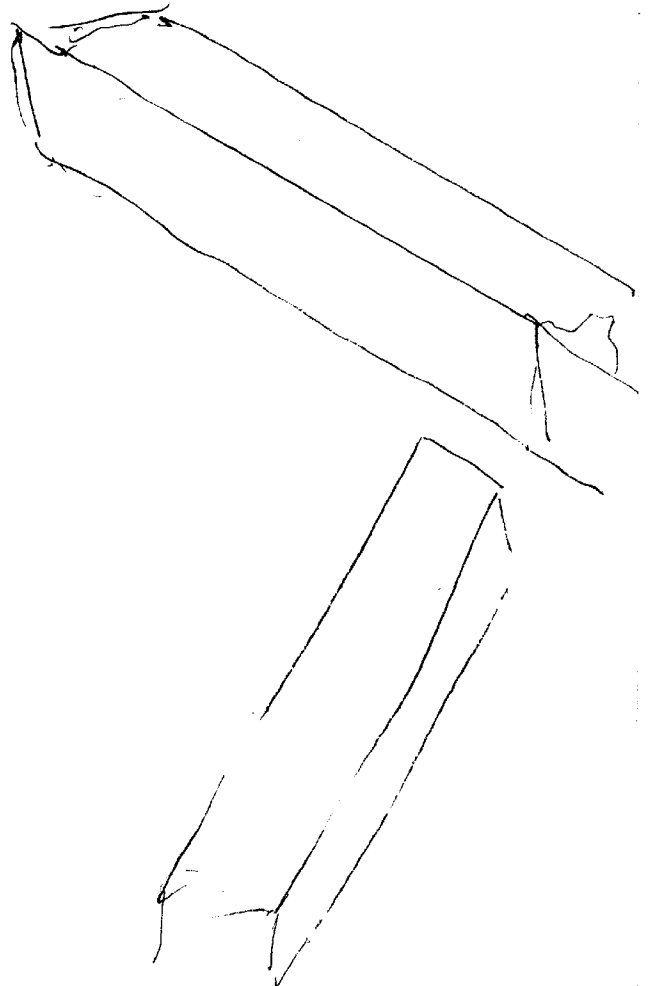
DOY 226

D.P. 3346

2766.48



DEBRIS FIELD



VII. LETTER OF APPROVAL

Field operations contributing to the accomplishment of this survey were conducted under my direct supervision with frequent personal checks of progress and data quality. This report, field sheets, and data records have been closely reviewed and are complete and adequate for charting.

A handwritten signature in cursive script, appearing to read "John W. Blackwell". The signature is written in black ink and is positioned above the typed name.

John W. Blackwell, LCDR, NOAA
Commanding Officer
NOAA Ship HECK



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Rockville, Maryland 20852

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 23, 1992

MARINE CENTER: Atlantic

HYDROGRAPHIC PROJECT: OPR-K470-HE-92

HYDROGRAPHIC SHEET: H-10429

LOCALITY: Texas, Gulf of Mexico, Southeast Approach to
Brazos Santiago Pass

TIME PERIOD: June 1 - October 6, 1992

TIDE STATION USED: 877-9751 South Padre Island, Texas
Lat. 26° 04.1'N Lon. 97° 09.4'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 1.55 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.5 ft.

REMARKS: RECOMMENDED ZONING

In the vicinity of the approaches to Brazos Santiago Pass, use
South Padre Island 877-9751, times and heights direct.

Note: Times are tabulated in Central Standard Time.


CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	ON CHART NO. 11301										
	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										
	A	B	C	D	E	F	G	H	K		

BRAZOS SANTIAGO PASS (title)	X											1
MEXICO, GULF OF	X											2
TEXAS (title)	X											3
												4
												5
												6
												7
												8
												9
												10
												11
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												18
												19
												20
												21
												22
												23
												24
												25

Approved:

Charles R. Harrington
Chief Geographer - W/CG 2x5

JUN 28 1993

REFERENCE NO.

N/CG244-23-94

LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU
BY (Check):

- ORDINARY MAIL
- AIR MAIL
- REGISTERED MAIL
- EXPRESS
- GBL (Give number) _____

TO:

Chief, Data Control Section, N/CG243
 NOAA/National Ocean Service
 SSMC3, Station 6815
 Silver Spring, Maryland 20910

L

DATE FORWARDED

23 May 1994

NUMBER OF PACKAGES

3 boxes, 1 tube

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

H-10429

Texas, Gulf of Mexico, Southeast Approach to Brazos Santiago Pass

1 Tube containing:

- 1 Final Smooth Sheet
- 1 **Original Descriptive Report for H-10429**

1 Box containing:

- 1 9-Track Magnetic tape for H-10429
- 1 Envelope containing Separates for H-10429
- 1 Envelope containing Miscellaneous Data removed from the original Descriptive Report
- 2 Folders containing, fathograms, and daily printouts for VESNO 9140 for JDs: 153-156, 160-164, 169-170, 174-177, 189-191, 195, 197, 203-205, 209-211, 216-217, 224, 226, 238, 241, 267, and 280.

1 Box containing:

- 1 Cahier with final control, sounding, and line file listings
- 18 Envelopes containing sidescan sonargrams for Vesno 9140 for JD's 153-156, 160-164, 169-170, 174 and 175.

1 Box containing:

- 25 Envelopes containing sidescan sonargrams for Vesno 9140 for JD's 176-177, 189-191, 195, 197, 203-205, 209-211, 216-217, 224, 226, 238, 267, and 280.

FROM: (Signature)

Deborah A. Bland



RECEIVED THE ABOVE

(Name, Division, Date)

Return receipted copy to:

Atlantic Hydrographic Section, N/CG244
 439 W. York Street
 Norfolk, VA 23510-1114

L

J

05/20/94

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10429

NUMBER OF CONTROL STATIONS		9
NUMBER OF POSITIONS		3243
NUMBER OF SOUNDINGS		21317
	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	392	08/19/93
VERIFICATION OF FIELD DATA	180	05/10/94
ELECTRONIC DATA PROCESSING	107	
QUALITY CONTROL CHECKS	138	
EVALUATION AND ANALYSIS	58	04/26/94
FINAL INSPECTION	5	05/09/94
TOTAL TIME	880	
ATLANTIC HYROGRAPHIC SECTION APPROVAL		05/20/94

1.97 mm at the scale of the survey) north in latitude, and 0.879 seconds (24.437 meters or 1.22 mm at the scale of the survey) west in longitude.

All geographic positions listed in this report are on NAD 83 datum unless otherwise specified.

b. There is no shoreline within the limits of this survey.

3. HYDROGRAPHY

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

b. The standard depth curves were drawn in their entirety.

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

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports conform to the requirements of the HYDROGRAPHIC MANUAL, SIDE SCAN SONAR MANUAL, FIELD PROCEDURES MANUAL, and the Project Instructions.

5. JUNCTIONS

H-10436 (1992-93) to the north

There are no junctional requirements in the Project Instructions but this survey junctions to the north with the above listed survey. An adequate junction was effected between the present survey and the junctional survey listed above. Present survey debts are in harmony with the charted hydrography to the south, east, and west.

6. COMPARISON WITH PRIOR SURVEYS

a. Hydrographic

H-6491 (1939) 1:20,000
H-6493 (1939) 1:10,000
H-6496 (1939) 1:40,000

1. Prior hydrography shown on H-6491 (1939) compares favorably with present hydrography in the common area. Scattered prior depths throughout the common area of the surveys are from 0 to 4 meters (0 to 16 feet) shoaler than found on the present survey with the greatest differences being found in the nearshore areas. The 10 meter (30 foot) curve has migrated west.

2. Prior hydrography shown on H-6493 (1939) also compares favorably with present hydrography in the common area. Scattered prior depths throughout the common area of the surveys are from 0 to 3 meters (0 to 9 feet) shoaler than found on the present survey.

3. Prior hydrography shown on H-6496 (1939) compares favorably with present hydrography in the common area as well. Scattered prior depths throughout the common area of the surveys are from 0 to 1 meter (0 to 3 feet) shoaler than found on the present survey in depths greater than 18 meters (60 feet) and from 0 to 3⁹ meters (0 to 13 feet) shoaler than found on the present survey in depths less than 18 meters (60 feet).

The present survey is adequate to supersede the above prior surveys in the common areas.

7. COMPARISON WITH CHART 11301 (19th Ed., 5 Sept 1992)
11302SC (22nd Ed., Jan 1992)

a. Hydrography

The charted hydrography originates with the previously addressed prior surveys and requires no further discussion. An adequate chart comparison is discussed in Section N. of the Descriptive Report. The following should be noted:

1. The charted *fish haven*, AWOIS Item 8151, was not found during survey operations. Present survey depths in the area of the charted fish haven ranged from 21² to 23² meters (69 to 76 feet). There is no conflict with the charted authorized minimum depth in the fish haven. No change in charting is recommended.

2. AWOIS Item 5822 a charted *submerged wreck (PA)* with a danger curve in Latitude 26°02'13.28" Longitude 97°07'18.89" is listed as the sailing vessel "SAILBAD THE SINNER". The

field accomplished the required 200% side scan sonar coverage within the search radius of the item, finding scattered insignificant debris, but no indication of the wrecked sailboat. A dive investigation in the area was inconclusive due to the lack of visibility near the bottom. It has been reported by local divers that the sailboat is trapped in the wreckage of AWOIS Item 5833. The field intended to dive on this item again while working on survey H-10236 (1992-93) to ← H-10436? the north but they did not. The wreck has been fully investigated by the field and though the second dive was not performed, data obtained proves that the item is not in the charted position, and if it exists, it is part of AWOIS Item 5833, which was dived on and a least depth obtained. It is recommended that the submerged wreck PA symbol and the danger curve be removed from the chart.

3. An uncharted obstruction investigated as contact 2202.07 was found to have a diver least depth of 15⁴ meters in Latitude 26°03'30.65" Longitude 97°06'40.92" on the present survey. The same obstruction investigated as contact 27.55 was found and dived on by the field during hydrographic investigations on junctioning survey H-10436. On this survey, which was completed a year after the present survey, a diver least depth of 16 meters in Latitude 26°03'30.74" Longitude 97°06'42.38" was found. Since the most recent information was found on survey H-10436, the present survey was changed to reflect the findings of the junctioning survey so that both surveys would show the same findings. A 16 meter obstruction (ship fender) is being shown on both surveys. APPD 7 FEBRU H-10436

The present survey is adequate to supersede the charted hydrography within the common areas.

b. Dangers to Navigation

There were no dangers to navigation submitted by the field unit. No dangers were discovered during office processing.

c. Aids to Navigation

There are no fixed aids to navigation within the limits of this survey. One floating aid to navigation was located on the present survey. The aid, buoy "WR1" was established to mark the wreck of the drilling structure "TRANS WORLD 45". Buoy "WR1" was positioned during the present survey and was found to be correctly charted. The present survey found the wreck of the drilling structure 1425 meters


north of where it is presently charted. It is recommended that the buoy be repositioned by the Coast Guard to mark the present survey location of the wreck. No change in charting is recommended until the buoy has been moved.

8. COMPLIANCE WITH INSTRUCTIONS

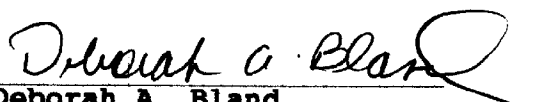
This survey adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is an adequate basic hydrographic/side scan sonar.



Douglas V. Mason
Cartographic Technician
Verification of Field Data



Deborah A. Bland
Cartographer
Evaluation and Analysis

APPROVAL SHEET
H-10429

Initial Approvals:

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 records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Leroy G. Cram Date: 05/20/94
Leroy G. Cram
Cartographer, Atlantic Hydrographic Section

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Nicholas E. Perugini Date: 5/20/94
Nicholas E. Perugini, LCDR, NOAA
Chief, Atlantic Hydrographic Section

Final Approval:

Approved: J. Austin Yeager Date: 7/18/94
J. Austin Yeager
Rear Admiral, NOAA
Director, Coast and Geodetic Survey