

10472

10472

NOAA FORM 76-85A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE	
DESCRIPTIVE REPORT	
<i>Type of Survey</i> Hydrographic/Side Scan Sonar	
<i>Field No.</i>	HE-20-1-92
<i>Registry No.</i>	H-10472
LOCALITY	
<i>State</i>	Texas
<i>General Locality</i>	Gulf of Mexico
<i>Sublocality</i>	Approaches to Port Isabel
.....	
19 93	
CHIEF OF PARTY	
LCDR J.W. Blackwell	
LIBRARY & ARCHIVES	
DATE	November 16, 1994

HYDROGRAPHIC TITLE SHEET

H-10472

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-20-1-93

State TEXAS

General locality GULF OF MEXICO

Locality APPROACHES TO PORT ISABEL

Scale 1:20,000

Date of survey 16 April 93-02 September 93

Instructions dated 02 April 92

Project No. OPR-K370-HE

Vessel NOAA SHIP HECK (EDP 9140)

Chief of party John W. Blackwell, LCDR, NOAA

Surveyed by LCDR. George E. White, LT. Gerd Glang, LT(jg) Michael Williamson,
ENS Larry Krepp, AST Kevin Shaver

Soundings taken by echo sounder, ~~XXX XXXX~~

Graphic record scaled by LT(jg) Michael Williamson, ENS Larry Krepp, AST Kevin Shaver

Graphic record checked by LT(jg) Michael Williamson

Protracted by N/A

Automated plot by HDAPS Xynetics 1201

Verification by Atlantic Hydrographic Section, N/CG244

D. Mason

Soundings in METERS

~~XXXXXX XXXX~~ at ~~XXXX~~ MLLW

REMARKS: Change #1 dated February 16, 1993

All times UTC

Data submitted to Atlantic Hydrographic Section, N/CG244

NOTES IN THE Descriptive Report were made in

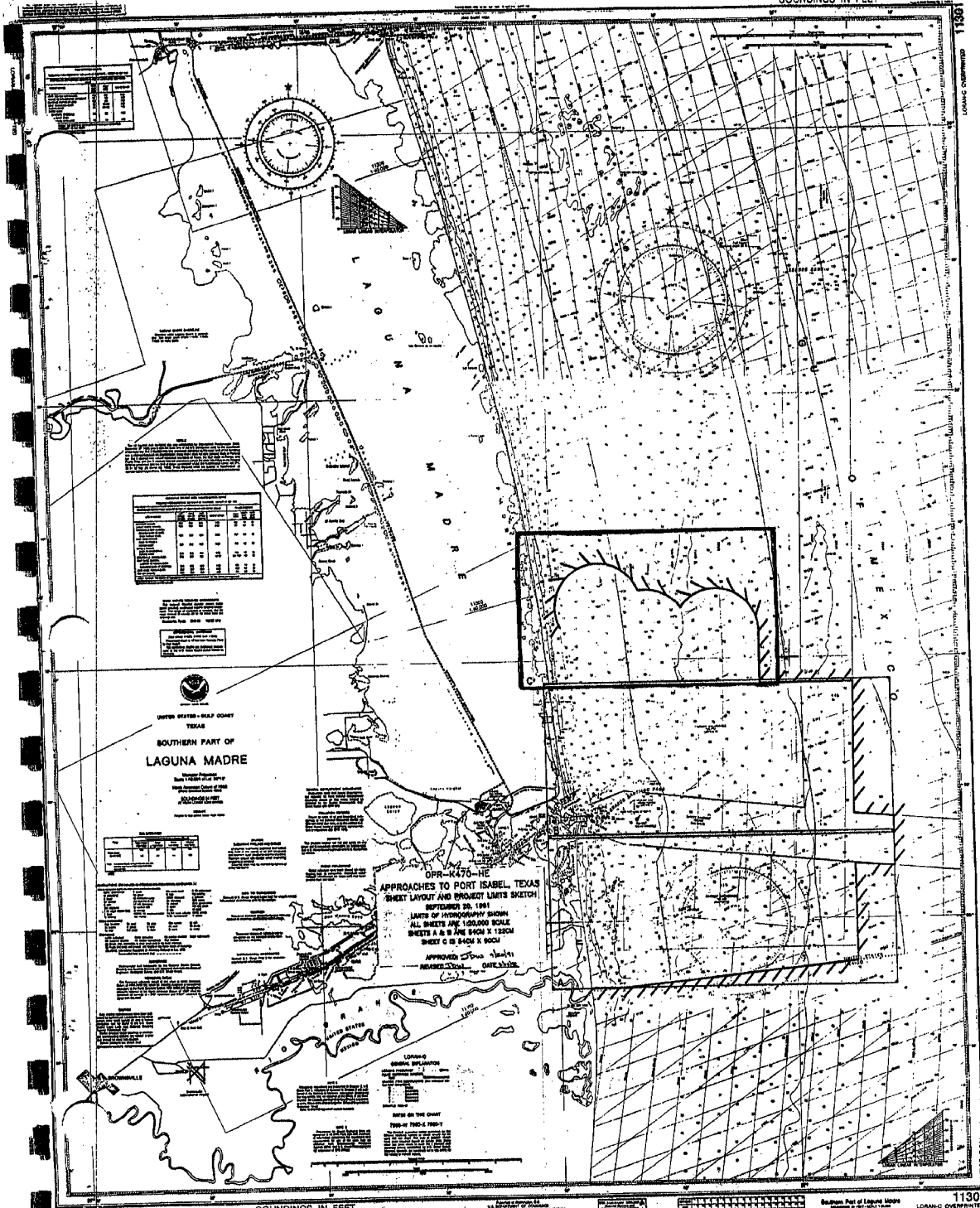
RED DURING OFFICE PROCESSING

Surf & Anvils check 11/7/94

MCR

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UNITED STATES NAVAL CHART
TEXAS
SOUTHERN PART OF
LAGUNA MADRE

OPR-4476-HE
APPROACHES TO PORT ISABEL, TEXAS
SHEET LAYOUT AND PROJECT LIMITS SKETCH
SEPTEMBER 20, 1981
LIMITS OF HYDROGRAPHY SHOWN
ALL SHEETS ARE 1:50,000 SCALE
SHEETS A & B ARE 8 1/2" X 11"
SHEET C IS 8 1/2" X 8 1/2"
APPROVED: [Signature] DATE: 10/1/81

DESCRIPTIVE REPORT TO ACCOMPANY
SURVEY H-10472
FIELD NUMBER HE-20-1-93
TEXAS
GULF OF MEXICO
APPROACHES TO PORT ISABEL
Scale 1:20,000
NOAA SHIP HECK S-591
LCDR George E. White, NOAA, CMDG.

A. PROJECT

1. This survey was conducted in accordance with Hydrographic Project Instructions OPR-K370-HE, Approaches to Port Isabel, Texas.
2. Original project Instructions are dated April 02, 1992.
3. Updated project Instructions are dated February 16, 1993. The project number has been changed from OPR-K470 to OPR-K370 according to the updated instructions.
4. This sheet has been designated as Sheet "C".
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 C in the Project Instructions, lies in the Gulf of Mexico, northeast of the entrance to Port Isabel, Texas.
2. The approximate survey sheet limits are formed as follows:
 - a. southern boundary: straight line connecting the following points: LAT 26° 08.8' N LON 097° 09.8' W SW
LAT 26° 08.8' N LON 097° 01.8' W SE
 - b. western boundary: straight line connecting the following points: ~~LAT 26° 08.8' N LON 097° 08.9' W~~
LAT 26° 13.5' N LON 097° 08.8' W NW
Lat 26° 00.6' N Lon 097° 09.6' W SW

c. eastern boundary: straight line connecting the following points: ~~LAT 26° 08.8'N LON 097° 01.2'W~~ ~~LAT 26° 08.6'N LON 097° 01.0'W SE~~
 LAT 26° 11.1'N LON 097° 01.2'W NE
 13.6' 0'

d. the northern boundary is defined by the arcs of three AWOIS circles with the following centers and search radii:

CENTER		RADIUS (M)
LAT 26° 12.0'N	LON 097° 09.0'W	3000
LAT 26° 11.0'N	LON 097° 06.0'W	3000
LAT 26° 11.0'N	LON 097° 03.0'W	3000

3. Survey operations began on April 16, 1993 (DOY 106), and were completed on September 2, 1993 (DOY 245).

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. On August 31, 1993 (DOY 243) all digital data was lost on target developments. However, swath plots shown on the boat sheet confirm adequate coverage of the targets. See enclosed memorandum in appendix VI.

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:

1993

Towfish	S/N 10823	DOY 106 - 139
Towfish	S/N 11908	DOY 139 - 190
Towfish	S/N 016697	DOY 190 - 245
Recorder	S/N 0012102	DOY 106 - 118
Recorder	S/N 016673	DOY 118 - 140
Recorder	S/N 016671	DOY 140 - 160
Recorder	S/N 0012102	DOY 160 - 193
Recorder	S/N 0012105	DOY 193 - 245

2. The vertical beam width and down angle are not adjustable on this unit. The grazing angle dip switch setting is usually set to 01.

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 adjacent line overlap as determined by the equation in Field Procedures Manual, section 7.3.2.2. An additional 10 meter overlap was added to allow for steering errors and towfish heights below 8% of range.

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 sonar coverage plots produced as HDAPS swath plots. Quality of bottom coverage to the outer edges of the sonargrams was assured during check scanning.

d. The muddy bottom type within the survey limits provides a weak sonar return. The bottom is also very flat with few bottom features, so a relatively drab sidescan record is produced, broken at times by a mottled record resulting from bottom where sand and mud are interspersed. Trawl scours from a large shrimp boat fleet are prevalent in most areas. The actual depth of these scours are typically less than 0.2 meters (witnessed by divers) but are detectable by the sidescan sonar system. Also, on some days when seas became relatively rough, some surface effects were observed on the sonargrams due to surface turbulence.

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 section IV.

Seven (7) 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.

Contacts with a calculated 0.8 meter height or greater were developed, as were contacts with a unique or unusual shape using a wagon wheel pattern with the side scan sonar on the 50 or 75 meter scale. After development, any contacts with a significant (>0.8) meter height or suspect shape were investigated by ship's divers and a least depth determined by pneumogauge.

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 B042N DOY 106 - 207
S/N A116N DOY 207 - 245

2. Two pneumoguages were used to determine all diver least depths during the 1993 field season. Shallow water (0-20M): SN 870498, deep water (0-40m): SN 8607004N. The lead line comparison sheet is appended.

3. A spare DSF-6000 was carried on board. If there were any problems with a particular unit, it was replaced by the spare until repairs could be made. This occurred on DOY 207 when the DSF locked-up and was not providing any digital information.

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

G. CORRECTIONS TO ECHOSOUNDINGS **See Also Section G.6.d. of the Evaluation Report*

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	4/16/93 (DOY 106)	26°09'00"N 096°57'12"W
2	5/11/93 (DOY 130)	26°09'05"N 096°57'10"W
3	6/15/93 (DOY 167)	26°09'00"N 096°59'36"W
4	7/13/93 (DOY 194)	26°09'06"N 097°01'00"W
5	8/11/93 (DOY 223)	26°05'42"N 096°58'36"W
6	9/07/93 (DOY 250)	26°10'11"N 096°57'46"W

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

The Digibar was checked on December 14, 1992, 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.

b. There are no variations in the instrument initial on the DSF-6000N.

c. No other instrument corrections are required on the DSF-6000N.

d. On DOY 115 (1992) a dual leadline comparison was conducted. A mean difference of 0.06 meter was obtained resulting in a corrector of 0.0 meter. Results are shown in separates section IV.

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, measured on April 24, 1992, was applied on line to all echosoundings via the HDAPS offset table. This is historical value and is kept on file at Atlantic Hydrographic Section, N/CG244.

g. Settlement and squat values for NOAAS HECK were determined on March 03, 1993 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 amidships 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. Both pneumatic depth gauges were calibrated on February 10, 1993. No gauge error was found during the course of the survey. System checks were performed in 1993 and can be found in Separates Section IV.

5. In some of the records, schools of fish and/or shrimp caused spikes in the low frequency trace, but no perturbation of the high frequency trace. These biological masses were also detected by the side scan sonar system at times. In cases where the high frequency trace was affected, those items were further investigated.
6.
 - a. The tidal datum for this survey was mean lower low water (MLLW). The tide station at South Padre Island, Texas (877-9750) 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.

H. CONTROL STATIONS *SEE ALSO SECTION H.7. of the Evaluation Report

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. The Port Aransas DGPS station was installed by personnel from N/CG24 in 1991.
4. All stations were established using NAD 83 and Third order, Class 1 methods.
5. The Horizontal Control Report for OPR-K470/K370 has been submitted to NOAA Atlantic Hydrographic Section, N/CG244.
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-O table. The GPS receivers on board are Ashtech OEM sensors. The serial numbers are listed in the HDAPS header printout for each days data. The differential receivers are Magnavox MX50R receivers. The serial number for receiver one is 079. The serial number for DGPS receiver two is 077.

The following DGPS fly-away equipment was used during the 1993 field season:

Receiver	S/N 700354B2502	106-187
Receiver	S/N 700354B2395	187-245
Antenna	S/N 700228D2316	106-187
Antenna	S/N 700228D2192	187-245

4. System checks were conducted in accordance with the Field Procedures Manual and appear as HDAPS screen dumps on the data printouts or as performance checks using the SHIPDIM program. The performance checks compare GPS positions using DGPS correctors from a VHF "Fly-Away" system with GPS positions using DGPS correctors from the Port Aransas and/or the Port Isabel DGPS beacons.

5. At no time during this project, while using miniranger control, did the maximum residual consistently exceed 0.5 mm at the survey scale (10 meters) nor did the 95% confidence ECR consistently exceed 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 4.0 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 of operating or calibrating electronic positioning equipment 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.
- c. Rain squalls and thunderstorms in the survey area and along the coast to Port Aransas, along with the normal diurnal atmospheric changes may be the cause of occasional loss of the reception of the DGPS beacon correctors from shore. Such effects cause signal loss only and do not affect the positioning accuracy of DGPS.
- d. The Coast Guard has recently determined, after the completion of this survey, that equipment problems at the Port Aransas beacon cause it to shut down and cease sending signals until it is reset. Again, this does not affect position accuracy, but did cause frequent manual shifting between the two available DGPS stations to maintain positioning while collecting data on line.
- 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. 43.3 miles of crosslines were run on this survey, representing 5.11% of all mainscheme.
2. Comparison to mainscheme soundings showed good agreement with maximum random differences of ± 0.2 meters.
0.0 - 0.3
3. No significant discrepancies were noted.
4. When sounding equipment changes were made, the new echosounder was returned and adjusted as required. Use of different DSF-6000 units during the survey did not cause any anomalous crossing agreements.

L. JUNCTIONS ** See Also SECTION L.1. and L.5. of the Evaluation Report*

- *1. Survey H-10436 a 1:20,000 scale survey begun in 1992 and completed in the 1993 field season joined this survey at its northern boundary.
- 2. All soundings showed good agreement throughout the junction.
- 3. No significant junction discrepancies were noted.
- 4. No adjustments to the soundings are recommended.

M. COMPARISON WITH PRIOR SURVEYS ** See Also SECTION M. of the Evaluation Report*

- 1. The prior surveys relevant to H-10472 are as follows:

<u>Registry Number</u>	<u>Scale</u>	<u>Year Surveyed</u>
H-6495	1:40,000	1939
H-6496	1:40,000	1939
H-6491	1:20,000	1939

- 2. A datum shift from NAD 83 to NAD 27 was applied to the present survey using the NADCON program to aid in comparison. The results of the datum shift are provided in section III of the separates. The present survey compares relatively well with the prior surveys. Some disparity between the soundings is to be expected due to the age of the prior surveys.
- *a. H-6495 is a 1:40,000 scale survey whose southernmost limits overlap the most northern areas of H-10472. A comparison of depths showed a relatively good correlation, with prior survey soundings an average of 0.2 meter shoaler than the modern soundings.
- *b. H-6496 is a 1:40,000 scale survey whose limits overlay practically the entire survey area and continue well to the south. A comparison between this survey and H-10472 revealed that most of the soundings from H-6496 were predominantly shoaler than those of the modern survey, with a range of difference from 0.0 to 0.9 meters. This deepening has most likely occurred due to erosion.

*

N. ITEM INVESTIGATION REPORTS *SEE ALSO SECTION N. OF THE Evaluation Report

1. Summary of assigned AWOIS items:

✓ AWOIS #120 *This item is listed as the fishing vessel "Columbia", sunk in 39 feet of water at approximate position 26°12'00"N, 097°09'00"W. 200% side scan sonar coverage is required over the 2000 meter search radius. The wreck is reportedly marked by a white painted 55 gallon drum. This item was found and is described in section N.2.c. (target 1100.31) below. (page 14)

AWOIS #121 *This item is listed as the fishing vessel "Stranger", reportedly sunk in 65 feet of water at approximate position 26°11'00"N, 097°06'00"W. 200% side scan sonar coverage is required over the 3000 meter search radius. An investigation of the area revealed no contact of this description. The hydrographer feels the item has been disproved and recommends the wreck be deleted from the chart. CONCUR

AWOIS #5835 *This item is listed as the 38ft wood hulled fishing vessel "Marantha" sunk at approximate location 26°11'00"N, 097°03'00"W. 200% side scan sonar coverage is required over the 3000 meter search radius. An investigation of the assigned area revealed no contact fitting this description. The hydrographer concludes that the item has been disproved and recommends the wreck be deleted from the chart. CONCUR

AWOIS #8137 *This item is listed as the 55 foot fishing vessel "Extreme" sunk at approximate location 26°12'00"N, 097°08'00"W. 200% side scan sonar coverage is required over the 3000 meter search radius. This item has been identified and is described in section N.2.c. below. (page 16, target 1617.64)

- 2a. One hundred five (105) contacts were identified during this survey. Forty-six (46) 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 ship's 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 separate section V.
- b. 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>
14.40	Nothing found upon development.
20.73	Nothing found upon development.
280.13	Nothing found upon development.
351.65	Nothing found upon development.
407.35	Nothing found upon development.
410.27	Nothing found upon development.
618.63	Nothing found upon development.
764.29	Nothing found upon development.
765.54	Nothing found upon development.
927.36	Nothing found upon development.
929.74	Nothing found upon development.
929.76	Nothing found upon development.
937.14	Nothing found upon development.
937.26	Nothing found upon development.

1349.26	Determined to be insignificant.
1362.09	Determined to be insignificant.
1370.37	Determined to be insignificant.
1372.09	Determined to be insignificant.
1375.05	Nothing found upon development.
1707.26	Nothing found upon development.
1707.30	Nothing found upon development.
1707.34	Nothing found upon development.
1707.45	Nothing found upon development.
1708.03	Nothing found upon development.
1764.52	Nothing found upon development.
1765.56	Nothing found upon development.
1873.74	Nothing found upon development.
1885.6	Nothing found upon development.
1886.2	Nothing found upon development.
1893.09	Nothing found upon development.
1917.14	Nothing found upon development.
1918.17	Nothing found upon development.
2267.46	Nothing found upon development.
2461.45	Nothing found upon development.
2470.18	Nothing found upon development.
2494.39	Nothing found upon development.
2853.37	Nothing found upon development.
2853.41	Nothing found upon development.
2894.41	Nothing found upon development.

c. 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

1100.31 This target is listed in contact table #4 with a computed height of 3.3 meters in 12.8 meters of water. The contact was further investigated on DOY 237 between positions 2638-2641 with the side scan sonar on the 75 meter range scale and DOY 242 with the side scan sonar on the 50 meter range scale. Divers investigated the item on DOY 242 during three separate dives in which buoys were positioned to achieve an effective sixty meter circle search radius over the area. The divers found nothing, but reported that the bottom in the area consisted of a deep silt and mud layer that was at least elbow deep in some areas of the search. The side scan sonar trace appeared to indicated the shape of a hull in two pieces with no discernable shadow. *The hydrographer concludes that the vessel is buried under the sediment and should not be charted. Also, due to the contact's close proximity to AWOIS #120 the hydrographer believes this item to be the buried remains of the fishing vessel "Columbia".

RECOMMENDATION: Delete the charted wreck. *CONCUR*

1687.64 This target is listed in contact table #5 with a computed height of 2.5 meters in 19.2 meters of water. The contact was further investigated on DOY 237 between positions 2704-2711 and DOY 243 between positions 3069-3074 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 243. The item appeared to be a 1.8 meter long by 1.8 meter wide by 1.3 meter high metal box with tattered netting around its base. The item was positioned at D.P. #3079 with a least depth of 17.9⁶ meters.

POSITION #3079

LAT: 26°09'16.⁰⁵ LON: 097°04'42."⁷¹
E: 11647.5 N: 24498.3
W:11182.0 X:23451.1 Y:46569.0 Z:64077.1

RECOMMENDATION: This item is significant and should be charted as an obstruction, least depth 17.9⁶ meters. CONCUR

807.16 This target is listed in contact table #4 with a computed height of 2.2 meters in 19.0 meters of water. The contact was further investigated on DOY 243 between positions 2979-2988 and on DOY 244 between positions 3116-3123 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 244 and found a 2.4 meter long by 0.9 meter diameter metal pipe with a steel bracket attached to the northernmost end and net debris scattered about the area. The item was positioned at D.P. #3182 with a least depth of 17.9⁶ meters.

POSITION #3182

LAT: 26°11'46.3" LON: 097°05'50.7⁷"
E: 9759.3 N: 29122.8
W:11178.2 X:23439.7 Y:46574.8 Z:64076.5

* RECOMMENDATION: This item is not significant but should be charted as an obstruction, least depth 17.9⁶ meters.

1617.64

This target is listed in contact table #5 with a computed height of 3.0 meters in 16.7 meters of water. The contact was further investigated on DOY 237 between positions 2620-2625 with the 75 meter range scale. Divers investigated the item on DOY 244 and found the remains of a fishing vessel 9.7 meters long by 2.5 meters high. The remains consisted of one main outrigger, several smaller masts or outriggers, several metal containers and several mostly buried wooden planks all surrounded by fishing nets. *The item was positioned at D.P. #3183 with a least depth of 14.8 meters. Due to the proximity to AWOIS item #8137, the hydrographer believes that this is the remains of the fishing vessel "Extreme".

POSITION #3183
LAT: 26°13'02.1" LON: 097°08'03.02"
E: 6089.1 N: 31457.5
W:11175.1 X:23417.9 Y:46578.8 Z:64075.8

RECOMMENDATION: This item is significant and should be charted as a dangerous wreck, least depth 14.8 meters. *Cmcur*

2692.18 This target is listed in contact table #6 with a computed height of 0.3 meters in 17.7 meters of water. The contact was further investigated on DOY 243 between positions 3075-3078 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 244 and found two separate metal cylinders, each with a diameter of 0.7 meters connected by a piece of metal channel. The total length of the item was 2.8 meters with a width of 3.1 meters. The item was positioned at D.P. #3184 with a least depth of 17.7 meters.

POSITION #3184
LAT: 26°09'09.79" LON: 097°05'40.3"
E: 10048.3 N: 24306.2
W:11181.4 X:23441.7 Y:46569.2 Z:64077.1

*RECOMMENDATION: This item is not significant but should be charted as an obstruction, least depth 17.7 meters.

2874.48

* This target is listed in contact table #6 with a computed height of 0.4 meters in 13.0 meters of water. The contact was further investigated on DOY 242 between positions 2925-2928 and on DOY 244 between positions 3158-3161 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 244 using a 40 meter search radius and found nothing. Divers did observe that the bottom was hard in spots and soft in others, with the soft spots being several feet deep. The hydrographer believes that the sonagram trace was caused by this change in bottom texture and no further investigation is deemed necessary.

* RECOMMENDATION: No information to be charted.

962.09

This target is listed in contact table #4 with a computed height of 1.1 meters in 15.3 meters of water. The contact was further investigated on DOY 237 between positions 2634-2637 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 238 and found two concentric metal pipes, rigidly attached end to end. The smaller of the two pipes having a diameter of 0.9 meters and the larger 1.4 meters and the total length being 4.3 meters. A position was not obtained on DOY 238 due to a HDAPS failure. A second dive was made on DOY 242 to buoy the item for positioning. The item was positioned at D.P. #2917 with a least depth of 14.7₃ meters.

POSITION #2917

LAT: 26°10'17.⁴" LON: 097°08'24.⁷²"
E: 5483.4 .87 N: 26388.0
W:11178.0 X:23414.6 Y:46573.1 Z:64086.0

RECOMMENDATION: This item is significant and should be charted as an obstruction, least depth 14.7₃ meters.

CONCUR

O. COMPARISON WITH THE CHART

1. Comparisons with the following charts were made. All charts were updated with notice to mariners, however, none of the updates required attention as an AWOIS item.

<u>CHART</u>	<u>EDITION</u>	<u>DATE</u>	<u>SCALE</u>
11300	31st	SEP 92	1:460,732
11301	19th	SEP 92	1:80,000
11302 SC	22nd	JAN 92	1:40,000

2. a. No danger to navigation reports were submitted during this survey
3. a. The charted soundings are consistently shoaler than the surveyed depths, with variations from 0.5 to 3 meters.
b. The survey shows greater depths throughout the survey area.
c. No special hydrographic findings were noted.
d. There were no maintained channels within the survey area.
e. No fairway soundings were made.
4. a. All non-sounding features are discussed in section N.
b. PA, ED, and PD features were investigated as assigned and their existence and position evaluated.
c. No wrecks or obstructions other than those previously mentioned were observed.
5. No changes to scale, coverage, or format of the charts are recommended.

P. ADEQUACY OF SURVEY * See Also Evaluation Report Section P.3.

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. All AWOIS items have been resolved.
2. No portion of this survey has been identified as substandard or incomplete.

*

Q. AIDS TO NAVIGATION

1. No correspondence was initiated with the Coast Guard regarding floating aids to navigation.
2. No floating aids to navigation fell within the limits of the survey area.
3. No aids pertinent to the Light List were observed.
4. No bridges, overhead cables or overhead pipelines fell within the limits of the survey area.
5. No submarine cables, submarine pipelines, or ferry routes exist in the survey area.
6. There are no uncharted ferry terminals within this survey area.

R. STATISTICS

ITEM	AMOUNT
1. Total No. of Positions	2917 Fixes
2. Lineal NM of Soundings	846.8 NM
3. Square NM Hydrography	71.39 NM ²
4. Days of Production	34 Days
5. Detached Positions	57
6. Bottom Samples	45
7. Tide Stations Established	None
8. Current Stations Established	None
9. Velocity Casts Performed	6 Casts
10. Magnetic Stations Established	None

S. MISCELLANEOUS

1. a. Waters of Lagune Madre carry a high sediment load out of the Brazos Santiagos Pass into the Gulf of Mexico adjacent to the pass. This high silt content accounts for the low visibility waters and muddy bottom type in the survey area.
 - 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. Forty-five bottom samples were taken and recorded on Log Sheet M. The log sheet was submitted to the Smithsonian Institution as per project instructions; a copy is included in section II of the separates.

T. RECOMMENDATIONS * See Also Section T.4. of the Evaluation Report

1. No additional field work is recommended.
2. No dredging operations were underway in the area at the time of this survey.
3. No further investigation of unusual features or sea conditions is recommended.

U. REFERRAL TO REPORTS**

1. Coast Pilot Report was transmitted to N/CG244 on December 10, 1993.
2. Loran-C chart verification was transmitted on September 9, 1993 to the commandant U.S.C.G. (see copy in separates section IV.

DIVING OPERATIONS
 OPR - K 320 - HE Isabel
 APPROACHES TO PORT ARANSAS, TX
 NOAA SHIP HECK S- 591

DOY: 238
 Date: 26 August 1993
 Target # 962.09
 DP # N/A

Max Depth (Ft): 50
 Max Time (min): 22
 Least Depth (Ft): 48
 Time (min): 1845 UTC

ATM. CONDITIONS

WIND DIR: North
 WIND SPD (KNTS): 16
 TEMP (C): 25.2

SEA CONDITIONS

DIRECTION: 050
 HEIGHT (Ft): 3-4
 TEMP (C): 25.8
 VISIBILITY: 3'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
Krepp	+ 12	N/A	N/A	2900/1500	1400	1838 1900	22	50	D
Williamson	+ 12	N/A	N/A	2800/900	1900	1838 1900	22	50	D

DP # N/A

Lat: 26 10'17.364" East: 5483.4
 Long: 097 08'24.702" North: 26388.0

LORAN Rates

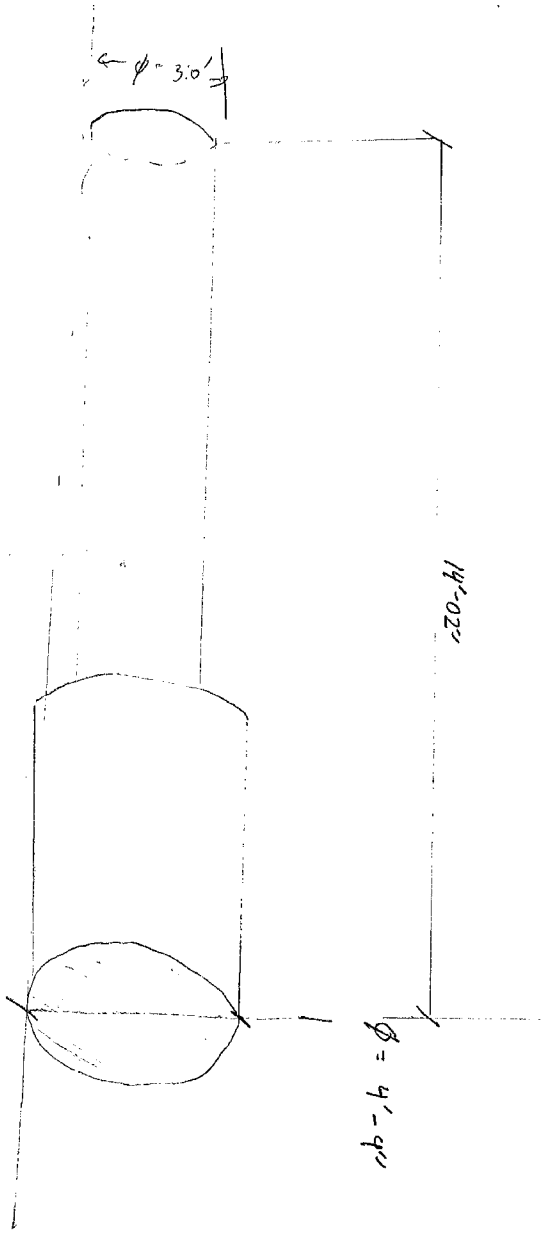
W: 11178.0 Y: 46573.1
 X: 23414.6 Z: 64086.0

Diver Comments: 2 concentric metal pipes rigidly attached D.P. was unavailable due to HDAPS failure. LAT and LONG were taken from GPS position from SHIPDIM program.

Pneumo Gauge Readings: 48.6'

*DONOT use
 see page 17
 of D.R.*

TGF # 462.09



1/2 Vn

Handwritten notes and markings along the left margin, including several 'C' characters and other illegible scribbles.

DIVING OPERATIONS
 OPR - K 320 - HE Isabel
 APPROACHES TO PORT-ARANSAS, TX
 NOAA SHIP HECK S- 591

DOY: 242
 Date: 30 August 1993
 Target # 962.09
 DP # 2917

Max Depth (Ft): 50
 Max Time (min): 19
 Least Depth (Ft): 48.3
 Time (min): 1813 UTC ✓

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 10
 TEMP (C): 28.6

SEA CONDITIONS

DIRECTION: 140
 HEIGHT (Ft): 3-5
 TEMP (C): 27.1
 VISIBILITY: 3'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr

DP # 2917

Lat: 26 10'17.4" ⁰¹
 East: 5483.42 9
 Long: 097 08'24.72
 North: 26388.079 .1

LORAN Rates

W: 11178.0 Y: 46573.1
 X: 23414.6 Z: 64086.0

Diver Comments:

Dive conducted to get D.P. This item was investigated on DOY 238.

Pneumo Gauge Readings: 52.0 (on bottom), 48.2', 48.4' = 48.3 or 14.7m

DIVING OPERATIONS
OPR - K 320 - HE
ESABEL
APPROACHES TO PORT ARANSAS, TX
NOAA SHIP HECK S- 591

DOY: 242
 Date: 30 August 1993
 Target # 1100.31
 DP # 2910

Max Depth (Ft): 42
 Max Time (min): 30
 Least Depth (Ft): N/A
 Time (min): N/A

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 10
 TEMP (C): 27.8

SEA CONDITIONS

DIRECTION: 140
 HEIGHT (Ft): 3-5
 TEMP (C): 27.1
 VISIBILITY: 3'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
C.O.				2900/1000	1900	1353 1423	30	42	G
Krepp				3000/1100	1900	1353 1423	30	42	G

DP # 2910

Lat: _____ East: _____
 Long: _____ North: _____

LORAN Rates

W: _____ Y: _____
 X: _____ Z: _____

Diver Comments:

Nothing found. Buoy drop A ✓

Pneumo Gauge Readings:

DIVING OPERATIONS
 OPR - K 310 - HE
 APPROACHES TO PORT ARANSAS, TX
 NOAA SHIP HECK S- 591

DOY: 242
 Date: 30 August 1993
 Target # 1100.31
 DP # 2918

Max Depth (Ft): 42
 Max Time (min): 21
 Least Depth (Ft): N/A
 Time (min): N/A

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 10
 TEMP (C): 27.8

SEA CONDITIONS

DIRECTION: 140
 HEIGHT (Ft): 3-5
 TEMP (C): 27.0
 VISIBILITY: 6nm

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
Krepp				2900/1300	1600	1450 1511	20	42	G
Williamson				2800/1300	1500	1450 1511	21	42	

DP # 2918

Lat: _____ East: _____
 Long: _____ North: _____

LORAN Rates

W: _____ Y: _____
 X: _____ Z: _____

Diver Comments:

Nothing found. Buoy drop B ✓

Pneumo Gauge Readings:

DIVING OPERATIONS
 OPR - K 320 - HE ^{ISABEL}
 APPROACHES TO PORT ARANSAS, TX
 NOAA SHIP HECK S- 591

DOY: 242
 Date: 30 August 1993
 Target # 1100.31
 DP # 2923

Max Depth (Ft): 42
 Max Time (min): 33
 Least Depth (Ft): N/A
 Time (min): N/A

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 06
 TEMP (C): 27.8

SEA CONDITIONS

DIRECTION: 140
 HEIGHT (Ft): 3-5
 TEMP (C): 27.0
 VISIBILITY: 6nm

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
White	1:15	E	:38	2800/700		1619 1653	33	42	
Krepp	:41	F	:47	2900/300		1619 1653	33	42	

DP # 2923

Lat: _____ East: _____
 Long: _____ North: _____

LORAN Rates

W: _____ Y: _____
 X: _____ Z: _____

Diver Comments:

Nothing found. Buoy drop C ✓

Pneumo Gauge Readings:

DIVING OPERATIONS
OPR - K 320 - HE-T SAKSEL
APPROACHES TO PORT ARANSAS, TX
NOAA SHIP HECK S- 591

DOY: 243
 Date: 31 August 1993
 Target # 1687.64
 DP # 3079

Max Depth (Ft): 62
 Max Time (min): 28
 Least Depth (Ft): 58.8 ✓ = 17.9 m
 Time (min): 2013 ✓

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 06
 TEMP (C): 28.9

SEA CONDITIONS

DIRECTION: 150
 HEIGHT (Ft): 2-4
 TEMP (C): 27.5
 VISIBILITY: 20+ ft

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
White				3000/900		1415 1436	22	60	
continued				3000/500		1529 1559	28	62	
Krepp				3000/1200		1415 1436	22	60	
continued				3000/500		1529 1559	28	62	

DP # 3079

Lat: 26 09'16" ₀₅ East: 11647.5 ✓
 Long: 097 04'42" ₇ North: 24498.3 ✓

LORAN Rates

W: 11182.0 Y: 46569.0
 X: 23451.1 Z: 64077.1

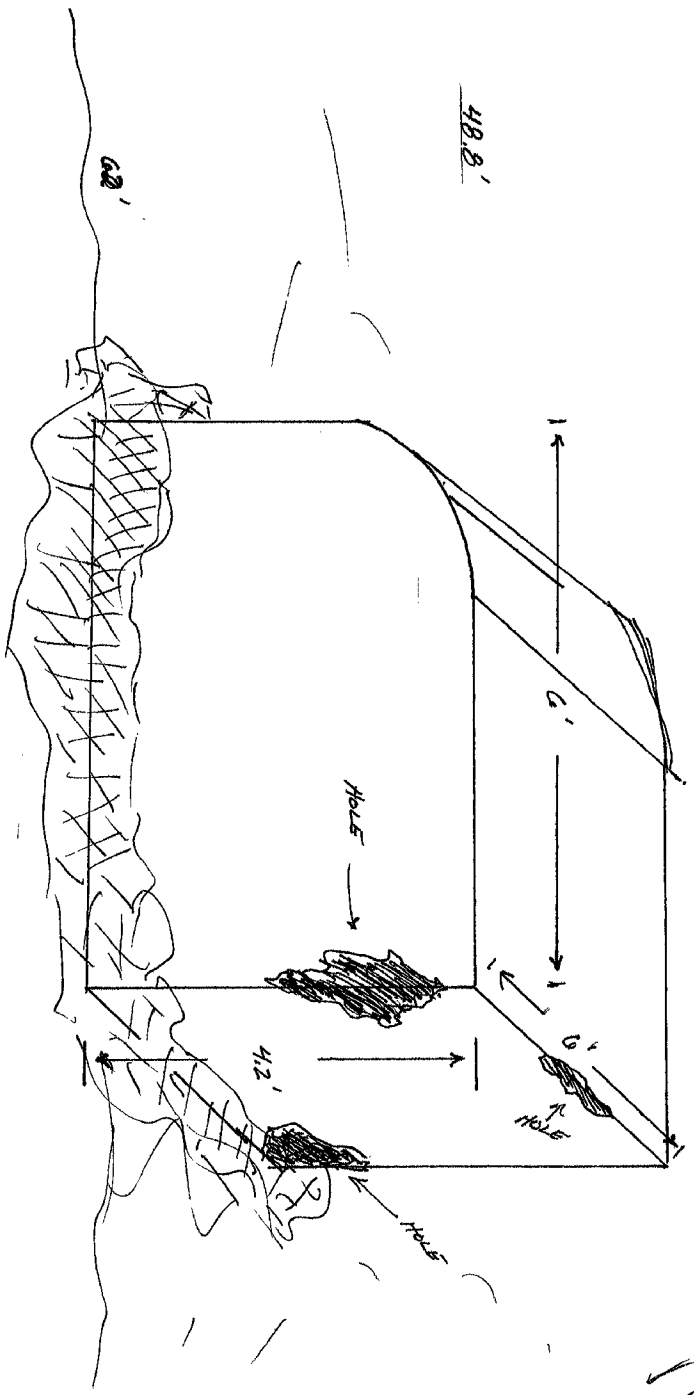
Diver Comments:

Metal box, facing 240 magnetic. had two hits on sonar trace. Performed a 40 meter circle search and line search from the original target and second target was not found. Believe it to be a double hit on the same target.

Pneumo Gauge Readings: 58.8', 58.8', 58.8' = 58.8'

TGT 1687.64

240° MAG. ↘



✓ P.V.

DIVING OPERATIONS
OPR - K 320 - HE T SABEL
APPROACHES TO PORT ARANGAS, TX
NOAA SHIP HECK S- 591

DOY: 244
 Date: 01 September 93
 Target # 807.16
 DP # 3182

Max Depth (Ft): 60
 Max Time (min): 11
 Least Depth (Ft): 59 ✓ 18.2m
 Time (min): 1951 ✓

ATM. CONDITIONS

WIND DIR: SE
 WIND SPD (KNTS): 06
 TEMP (C): 27.8

SEA CONDITIONS

DIRECTION: 130
 HEIGHT (Ft): 2-3
 TEMP (C): 28.2
 VISIBILITY: 25'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
White	+ 12	N/A	N/A	3000/1800		1448 1459	11	60	C
Williamson	+ 12	N/A	N/A	2700/1800		1448 1459	11	60	C

DP # 3182

Lat: 26 11'46.3" East: 9759.3 ✓
 Long: 097 05'50.76" North: 29122.8 ✓

LORAN Rates

W: 11178.2 Y: 46574.8
 X: 23439.7 Z: 64076.5

Diver Comments:
 Metal cylinder with steel bracket attached on north end. Rusted and corroded, with nut debris scattered about.

Pneumo Gauge Readings: 18.0m, 18.2m, 18.3m, 18.25m

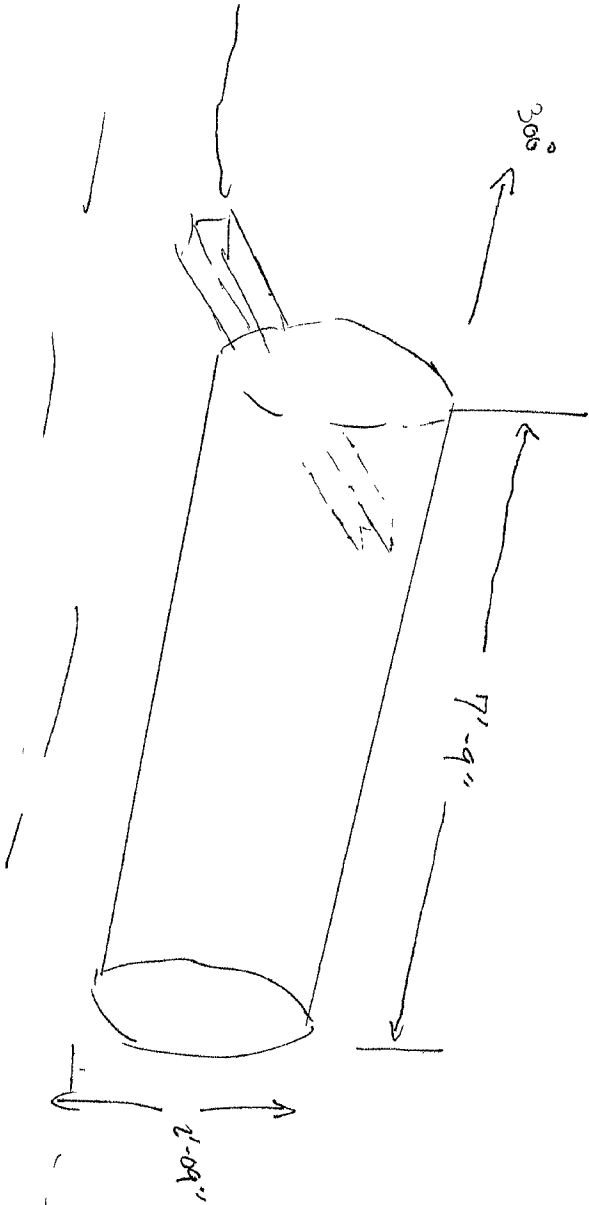
TGT # 809.16

Keel Depth

Pressure
hand held

18.0 METERS @ 1951 UTC on Day 294
59° 17' 00" N

10/11



Hand-drawn notes and markings along the left margin, including a large bracket and several small symbols.

DIVING OPERATIONS
OPR - K 320 - HE
TABLE
APPROACHES TO PORT ARANSAS, TX
NOAA SHIP HECK S- 591

DOY: 244

Date: 01 September 93

Target # 1617.64

DP # 3183

Max Depth (Ft): 57

Max Time (min): 25

Least Depth (Ft): 49 ✓ *14.5m*

Time (min): 2044 ✓

ATM. CONDITIONS

WIND DIR: SE

WIND SPD (KNTS): 06

TEMP (C): 27.8

SEA CONDITIONS

DIRECTION: 130

HEIGHT (Ft): 2-3

TEMP (C): 28.2

VISIBILITY: 25'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
Krepp	+ 12	N/A	N/A	2800/1200	1600	1530 1556	25		
Williamson	:49	Allow		2900/900	2000	1530 1556	25		

DP # 3183

Lat: 26 13'02.1" ✓ East: 6089.1 ✓

Long: 097 08'03".02" North: 31457.5 ✓

LORAN Rates

W: 11175.1 Y: 46578.8

X: 23417.9 Z: 64075.8

Diver Comments:

Wreck, 8'3" height; 32'0" long. One main mast at 45' and several other masts. Also lots of net.

Pneumo Gauge Readings: 14.5m, 14.5m, 14.5m at 2044 UTC

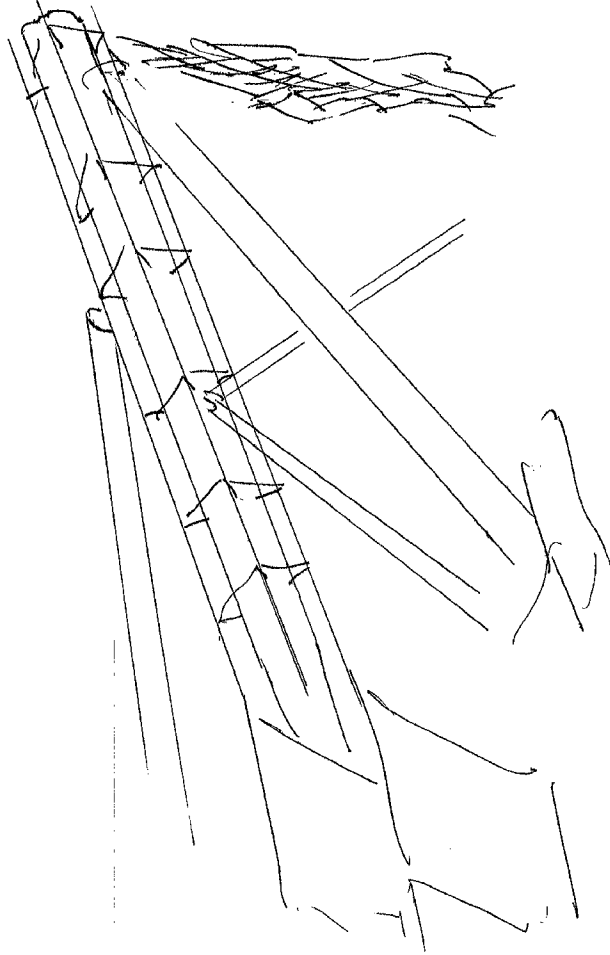
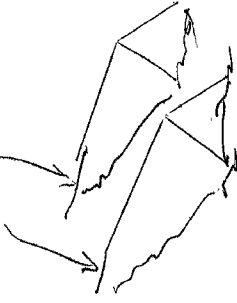
IT # 1617.64

LEAST DEPTH 14.87A PNEUMO @ 1544 UTC on DAY 244
49' DIVER GAUGE

WOOD PLANKS
NOT BURIED



METAL
CAMPANULES



2004

DIVING OPERATIONS
 OPR - K 320 - HE ISABEL
 APPROACHES TO PORT ARANSAS, TX
 NOAA SHIP HECK S- 591

DOY: 244
 Date: 01 September 1993
 Target # 2692.18
 DP # 3184

Max Depth (Ft): 60
 Max Time (min): 23
 Least Depth (Ft): 58.2 ✓ 17.7
 Time (min): 2300 ✓

ATM. CONDITIONS

WIND DIR: ESE
 WIND SPD (KNTS): 14
 TEMP (C): 27.9

SEA CONDITIONS

DIRECTION: 140
 HEIGHT (Ft): 2-3
 TEMP (C): 27.5
 VISIBILITY: 15'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
White		B	:11	2900 700	2200	1740 1804	23	60	G
Krepp		D	:24	2900 1000	1900	1740 1804	23	60	H

DP # 3184 ✓

Lat: 26 09'09.7"N East: 10048.3 ✓
 Long: 097 05'40.3" 29 North: 24306.2 ✓

LORAN Rates

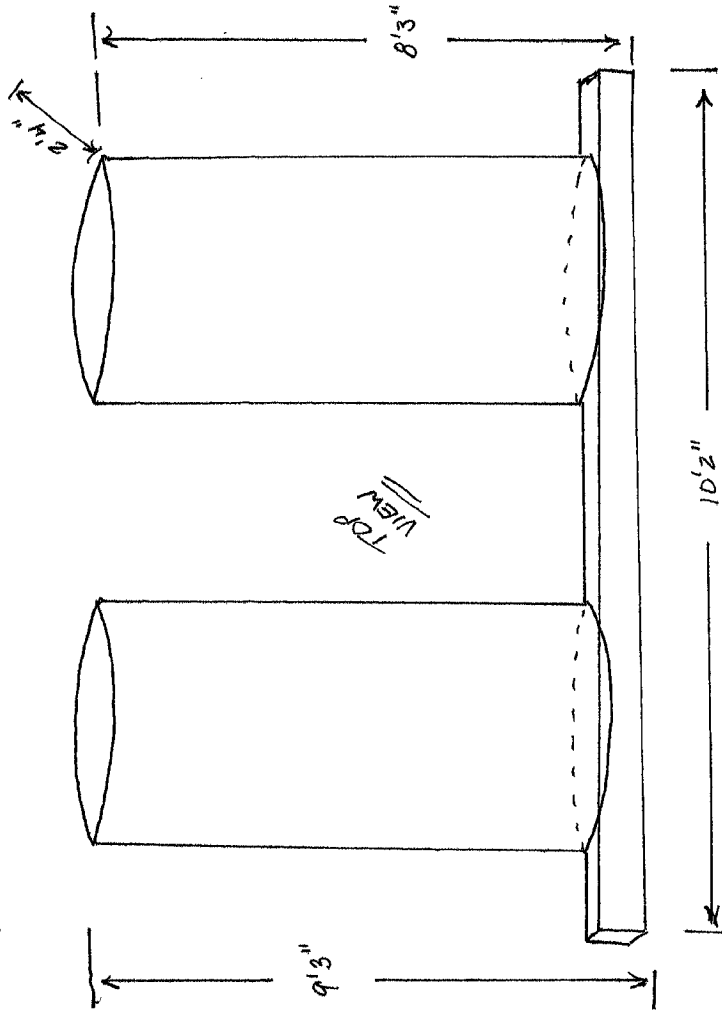
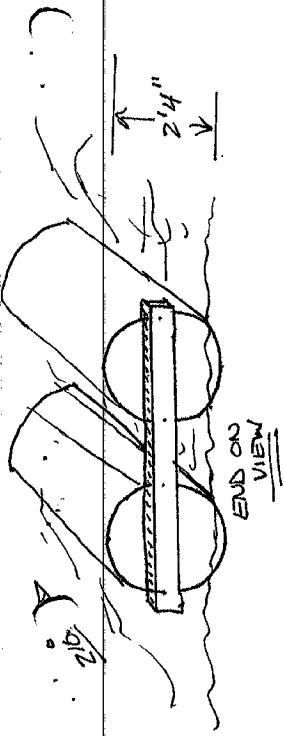
W: 11181.4 Y: 46569.2
 X: 23441.7 Z: 64077.1

Diver Comments:

Found two metal cylinders connected with a piece of metal channel. Oriented 210 magnetic. Found using a circle search of 40 meters.

Pneumo Gauge Readings: 58.0', 58.2', 58.2', 58.3' at 2300 UTC

TARGET #
2092.18



210 MAG

10/11

DIVING OPERATIONS
OPR - K 320 - HE-TSABEL
APPROACHES TO PORT ARANSAS, TX
NOAA SHIP HECK S- 591

DOY: 244

Date: 01 September 1993

Target # 2874.48

DP # 3185

Max Depth (Ft): 42

Max Time (min): 18

Least Depth (Ft): N/A

Time (min): N/A

ATM. CONDITIONS

WIND DIR: ESE

WIND SPD (KNTS): 14

TEMP (C): 27.9

SEA CONDITIONS

DIRECTION: 140

HEIGHT (Ft): 2-3

TEMP (C): 27.5

VISIBILITY: 0.5'

Diver Name	Surf Int	GP	RNT	TNK Pressure In/Out	dP	Dive Times Up/Down	Bottom Time	Depth	Gr
White	cont	:44 allow	at 50'	2700 1700	1000	1829 1847	18	42	
Williamson	2:00	D	:29	2600 1000	1600	1829 1847	18	42	

DP # 3185 ✓

Lat: _____ East: _____
Long: _____ North: _____

LORAN Rates

W: 11179.1 Y: 46570.9
X: 23410.8 Z: 64076.6

Diver Comments:

Nothing found. Bottom found to be hard in spots and soft in others. Soft spots are several feet deep.

Pneumo Gauge Readings: None Taken ✓

Reviewed by:

Michael Williamson
Michael Williamson, LT(jg), NOAA
Operations Officer
NOAA Ship HECK

Respectfully Submitted,

Lawrence T. Krepp
Lawrence T. Krepp, ENS, NOAA
Junior Officer
NOAA Ship HECK

APPROVAL SHEET

for

SURVEY H-10472

I have reviewed the Descriptive Report, Final Field Sheets, and accompanying records for accuracy, completeness, compliance with Project Instructions, and adherences to required standards and procedures. I have supervised all field work on a daily basis to ensure a quality survey is forwarded for verification. I have personally examined the Final Field Sheets and all records of this survey during field processing. These data are forwarded for final review and processing to N/CG244, Atlantic Hydrographic Section, Norfolk, VA.

Approved and forwarded,

 LCDR, NOAA

John W. Blackwell
Lieutenant Commander, 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
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 14, 1993

MARINE CENTER: Atlantic

HYDROGRAPHIC PROJECT: OPR-K370

HYDROGRAPHIC SHEET: H-10472

LOCALITY: Texas Gulf of Mexico, North-Eastern Approaches to
Brazos Santiago Pass

TIME PERIOD: April 16, 1993 - September 2, 1993

TIDE STATION USED: 877-9751 South Padre Island, Tx.
Lat. $26^{\circ} 4.1'N$ Lon. $97^{\circ} 9.4'W$

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

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

REMARKS: RECOMMENDED ZONING

Times and heights are direct on South Padre Island, Tx. (877-9751).

Note: Times are tabulated in Central Standard Time.

William M. Huber
CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11301 B ON PREVIOUS SURVEY NO. C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G RAND McNALLY ATLAS H U.S. LIGHT LIST K											
	MEXICO, GULF OF	X										
TEXAS (title)	X											2
PORT ISABEL (title)	X											3
												4
												5
												6
												7
												8
												9
												10
												11
												12
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												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25

Approved:

Charles P. Hammett
Chief Geographer - H/CG 283

SEP 3 1993

NOAA FORM 61-29 (12-71)	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION REFERENCE NO. N/CG244-40-94
LETTER TRANSMITTING DATA TO: CHIEF, DATA CONTROL SECTION, N/CG243 NOAA/National Ocean Service SSMC3, STATION 6815 1315 EAST-WEST HIGHWAY SILVER SPRING, MARYLAND 20910	DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check): <input type="checkbox"/> ORDINARY MAIL <input type="checkbox"/> AIR MAIL <input type="checkbox"/> REGISTERED MAIL <input checked="" type="checkbox"/> EXPRESS <input type="checkbox"/> GBL (Give number) _____
	DATE FORWARDED SEP 19, 1994
	NUMBER OF PACKAGES 1 (ONE) TUBE, 4 (FOUR) BOXES
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-10472 TEXAS, GULF OF MEXICO, APPROACHES TO PORT ISABEL (PART 1 OF 2) 1 TUBE CONTAINING: 1 FINAL SMOOTH SHEET 1 ORIGINAL DESCRIPTIVE REPORT FOR H-10472 1 BOX CONTAINING: 3 ACCORDIAN FILES CONTAINING FATHOGRAMS AND RAW DATA PRINTOUTS FOR VESNO 9140 FOR THE FOLLOWING DAYS: 106, 116-118, 123-124, 134, 167-168, 190, 194, 201-203, 208-210, 214-218, 223, 228-231, 236-238, AND 242-245 1 9-TRACK MAGNETIC TAPE FOR SURVEY H-10472 1 ENVELOPE CONTAINING APPENDICES AND SEPARATES TO ACCOMPANY H-10472 1 BOX CONTAINING: 1 ENVELOPE CONTAINING SOUNDING CORRECTOR PRINTOUT 1 CAHIER WITH FINAL CONTROL, SOUNDING, AND LINE FILE LISTINGS 16 ENVELOPES CONTAINING SONARGRAMS FOR DAYS 106, 116-118, 123-124, 134, 167(2)-168, 194, 201-203, AND 209(2) 1 BOX CONTAINING: 12 ENVELOPES CONTAINING SONARGRAMS FOR DAYS 208, 210(2), 214-215, 216(3), 217(2), AND 218(2)	
FROM: (Signature) DEBORAH A. BLAND	RECEIVED THE ABOVE (Name, Division, Date)
Return receipted copy to: ATLANTIC HYDROGRAPHIC SECTION N/CG244 439 WEST YORK STREET NORFOLK, VA 23510-1114	

LETTER TRANSMITTING DATA

N/CG244-40-94

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
 1315 EAST-WEST HIGHWAY
 SILVER SPRING, MARYLAND 20910

DATE FORWARDED

SEP 19, 1994

NUMBER OF PACKAGES

1 (ONE) TUBE, 4 (FOUR) BOXES

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-10472

TEXAS, GULF OF MEXICO, APPROACHES TO PORT ISABEL PART 2 OF 2

1 BOX CONTAINING:

24 ENVELOPES CONTAINING SONARGRAMS FOR DAYS 223(2), 228(2)-230(2), 231(3), 236-237(4),
 238(3), 242-243(2), AND 244(2)-245

FROM: (Signature)

DEBORAH A. BLAND

Deborah A. Bland

RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

ATLANTIC HYDROGRAPHIC SECTION
 N/CG244
 439 WEST YORK STREET
 NORFOLK, VA 23510-1114

09/16/94

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10472

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	2871
NUMBER OF SOUNDINGS	16928

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	317	02/17/94
VERIFICATION OF FIELD DATA	152	07/11/94
ELECTRONIC DATA PROCESSING	97	
QUALITY CONTROL CHECKS	86	
EVALUATION AND ANALYSIS	37	09/14/94
FINAL INSPECTION	5	09/15/94
TOTAL TIME	694	
ATLANTIC HYDROGRAPHIC SECTION APPROVAL		09/15/94

**COAST AND GEODETIC SURVEY
ATLANTIC HYDROGRAPHIC SECTION
EVALUATION REPORT FOR H-10472(1993)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

G. CORRECTIONS TO ECHOSOUNDINGS

6.d. Approved tides and zoning have been applied during office processing.

H. CONTROL STATIONS

7. Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83). Office processing of this survey is based on these values. The smooth sheet has been annotated with ticks showing the computed mean shift between the survey datum and the North American Datum of 1927 (NAD27).

To place this survey on the NAD27 datum move the projection lines 1.272 seconds (39.132 meters or 1.95 mm at the scale of the survey) north in latitude, and 0.889 seconds (24.685 meters or 1.23 mm at the scale of the survey) west in longitude.

All geographic positions listed in this report are on NAD83 datum unless otherwise specified.

L. JUNCTIONS

1. The Descriptive Report states that survey H-10436 joined survey H-10472 at its northern boundary, while H-10436 actually joins the southern boundary of H-10472.

5. There are no junctional surveys to the north, east or west of the present survey, however, the present survey soundings are in general harmony with the charted hydrography.

M. COMPARISON WITH PRIOR SURVEYS

2a. The Descriptive Report states that a comparison of depths showed a relatively good correlation between H-10472 and prior survey H-6495, with prior survey soundings an average of 0.2 meters shoaler than the modern soundings. During office verification it was found that prior survey soundings were from 0 to 0⁶ meters (0-2 feet) shoaler than present survey soundings.

2b. The Descriptive Report states that a comparison of

depths showed that most of the soundings from prior survey H-6496 were predominantly shoaler than those of the modern survey, with a range of difference from 0.0 to 0.9 meters. During office verification it was found that prior survey soundings were 0 to 1³ meters (0-5 feet) shoaler than present survey soundings.

2c. H-6491 is a 1:20,000 scale survey whose western limits overlap the eastern limits of H-10472. Scattered prior depths throughout the common area of the surveys are from 0 to 2¹ meters (0 to 7 feet) shoaler than depths found on the present survey. The 10 meter (30 foot) curve has migrated west.

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

N. ITEM INVESTIGATION REPORTS

1. **AWOIS #120** The Descriptive Report states "This item is listed as the fishing vessel 'Columbia', sunk in 39 feet of water at approximate position 26°12'00"N, 097°09'00"W." This statement should read, "This item is listed as the fishing vessel 'Columbia', charted in 39 feet of water at approximate position Latitude 26°10'01.27"N, Longitude 097°09'00.89"W, and originating with Notice to Mariners 25 of 1953 (NM 25/53)."

AWOIS #121 The Descriptive Report states "This item is listed as the fishing vessel 'Stranger', reportedly sunk in 65 feet of water at approximate position 26°11'00"N, 97°06'00W." This statement should read, "This item is listed as the fishing vessel 'Stranger', charted in 65 feet of water at approximate position Latitude 26°11'01.27"N, Longitude 97°06'00.89"W, and originating with Local Notice to Mariners 111 of 1970 (LNM 111/70)."

AWOIS #5835 The Descriptive Report states "This item is listed as the foot wood hulled fishing vessel 'Marantha' sunk at approximate location 26°11'00"N, 97°03'00"W. This statement should read, "This item is listed as the 38 foot wood hulled fishing vessel 'Marantha' charted at approximate position Latitude 26°11'01.27"N, Longitude 97°03'00.88"W, and originating with Local Notice to Mariners 27 of 1982 (LNM 27/82)."

AWOIS #8137 The Descriptive Report states "This item is listed as the 55 foot fishing vessel 'Extreme' sunk at approximate location 26°12'00"N, 97°08'00"W. 200% side scan sonar coverage is required over the 3000 meter search radius.

This item has been identified and is described in section N.2.c. below." This statement should read, "This item is listed as the 55 foot fishing vessel 'Extreme' charted at approximate position Latitude 26°12'01.27"N, Longitude 97°08'00.89"W, and originating with Local Notice to Mariners 31 of 1989 (LNM 31/89). 200% side scan sonar coverage is required over the 3000 meter search radius. This item has been identified and is described in section N.2.c. below as **Target 1617.64.**"

2.c. Target 1100.31 - The Descriptive Report states in the **NARRATIVE** "The hydrographer concludes that the vessel is buried under the sediment and should not be charted. Also, due to the contact's close proximity to AWOIS #120 the hydrographer believes this item to be the buried remains of the fishing vessel 'Columbia'." This statement should read, "The hydrographer concludes that the vessel is buried under the sediment, does not pose any threat to navigation, and should not be charted. Also, due to the contact's close proximity, (269 meters), to AWOIS Item #120 the hydrographer believes this item to be the buried remains of the fishing vessel 'Columbia'."

Target 807.16 - The Descriptive Report states in the **RECOMMENDATION** "This item is not significant but should be charted as an obstruction, least depth 17⁹ meters." This statement should read, "This item is significant and should be charted as an obstruction, diver least depth 17⁸ meters (58 feet)."

Target 1617.64 - The Descriptive Report states in the **NARRATIVE** "The item was positioned at D.P. #3183 with a least depth of 14⁹ meters. Due to the proximity to AWOIS item #8137, the hydrographer believes that this is the remains of the fishing vessel 'Extreme'". This statement should read, "The item was positioned at D.P. #3183 with a diver least depth of 14¹ meters (46 feet). Due to the proximity, (1872.99 meters), to AWOIS Item #8137, the hydrographer believes that this is the remains of the fishing vessel 'Extreme'".

Target 2692.18 - The Descriptive Report states in the **RECOMMENDATION** "This item is not significant but should be charted as an obstruction, least depth 17⁷ meters." This statement should read, "This item is significant and should be charted as an obstruction, diver least depth 17⁴ meters (57 feet)."

Target 2874.48 - The Descriptive Report states in the **NARRATIVE** "This target is listed in contact table #6 with a

computed height of 0.4 meters in 13.0 meters of water. The contact was further investigated on DOY 242 between positions 2925-2928 and on DOY 244 between positions 3158-3161 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 244 using a 40 meter search radius and found nothing." This statement should read, "This target is listed in contact table #6 with a computed height of 0.4 meters in 13.0 meters of water at Latitude 26°09'05.66"N Longitude 97°08'51.38"W. The contact was further investigated on DOY 242 between positions 2925-2928 and on DOY 244 between positions 3158-3161 with the side scan sonar on the 75 meter range scale. Divers investigated the item on DOY 244 at Fix 3185, in Latitude 26°09'06.64"N Longitude 97°08'51.56"W, using a 40 meter search radius and found nothing."

The Descriptive Report states in the **RECOMMENDATION** "No information to be charted." This statement should read, "This area should be charted to reflect soundings found on the present survey."

P. ADEQUACY OF SURVEY

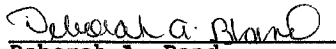
3. This survey adequately complies with the Project Instructions.

T. RECOMMENDATIONS

4. This is an adequate basic hydrographic/side scan sonar survey.

HECK PROCESSING TEAM

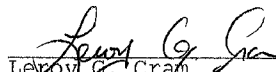

Douglas V. Mason
 Cartographic Technician


Deborah A. Band
 Cartographer

APPROVAL SHEET
H-10472

Initial Approvals:

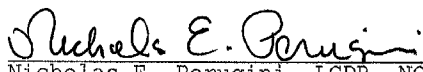
The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet 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. Cran
Cartographer, Atlantic Hydrographic Section

Date: 9/15/94

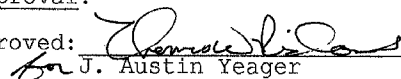
I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.



Nicholas E. Perugini, LCDR, NOAA
Chief, Atlantic Hydrographic Section

Date: 9-15-94

Final Approval:

Approved: 

for J. Austin Yeager
Rear Admiral, NOAA
Director, Coast and Geodetic Survey

Date: 12-9-94

