

10416

Diagram No. 1284-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic
Field No. AHP2-10-3-92
Registry No. H-10416

LOCALITY

State Texas
General Locality Lavaca Bay
Sublocality Point Comfort to
..... Lavaca River
.....
..... 1992
.....
CHIEF OF PARTY
LT T.R. Waddington

LIBRARY & ARCHIVES

DATE August 10, 1993

10416

A/G
CP-5
11316
11317

★ U.S. GOV. PRINTING OFFICE: 1987-758-980

HYDROGRAPHIC TITLE SHEET

H-10416

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.

AHP2-10-3-92

State Texas

General locality Lavaca Bay

Locality Point Comfort to Lavaca River

Scale 1:10,000 Date of survey February 7, - April 6, 1992

Instructions dated March 1, 1991* Project No. OPR-K228-AHP2

Vessel Atlantic Hydrographic Party Two Launch 1292

Chief of party LT Thomas R. Waddington

Surveyed by T. Rybarski

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

Graphic record scaled by TMR, LAM, GDH

Graphic record checked by TMR, LAM, GDH

Verification by: Robert N. Mihailov Automated plot by PHS Xynetics Plotter

Evaluation by: Robert N. Mihailov

Soundings in ~~fathoms~~ meters & decimeters at ~~MLLW~~ MLLW

REMARKS: * Change No. 1 dated June 4, 1991, Change No. 2 dated June 11, 1991
Change No. 3 dated August 15, 1991, and Change No. 4 dated January 16, 1992.

Time meridian used was UTC. Revisions and marginal notes in black were
generated during office processing. All separates are filed with the
hydrographic data, as a result page numbering may be interrupted or
non-sequential.

NOOS/SUREV 8/27/93, SJV

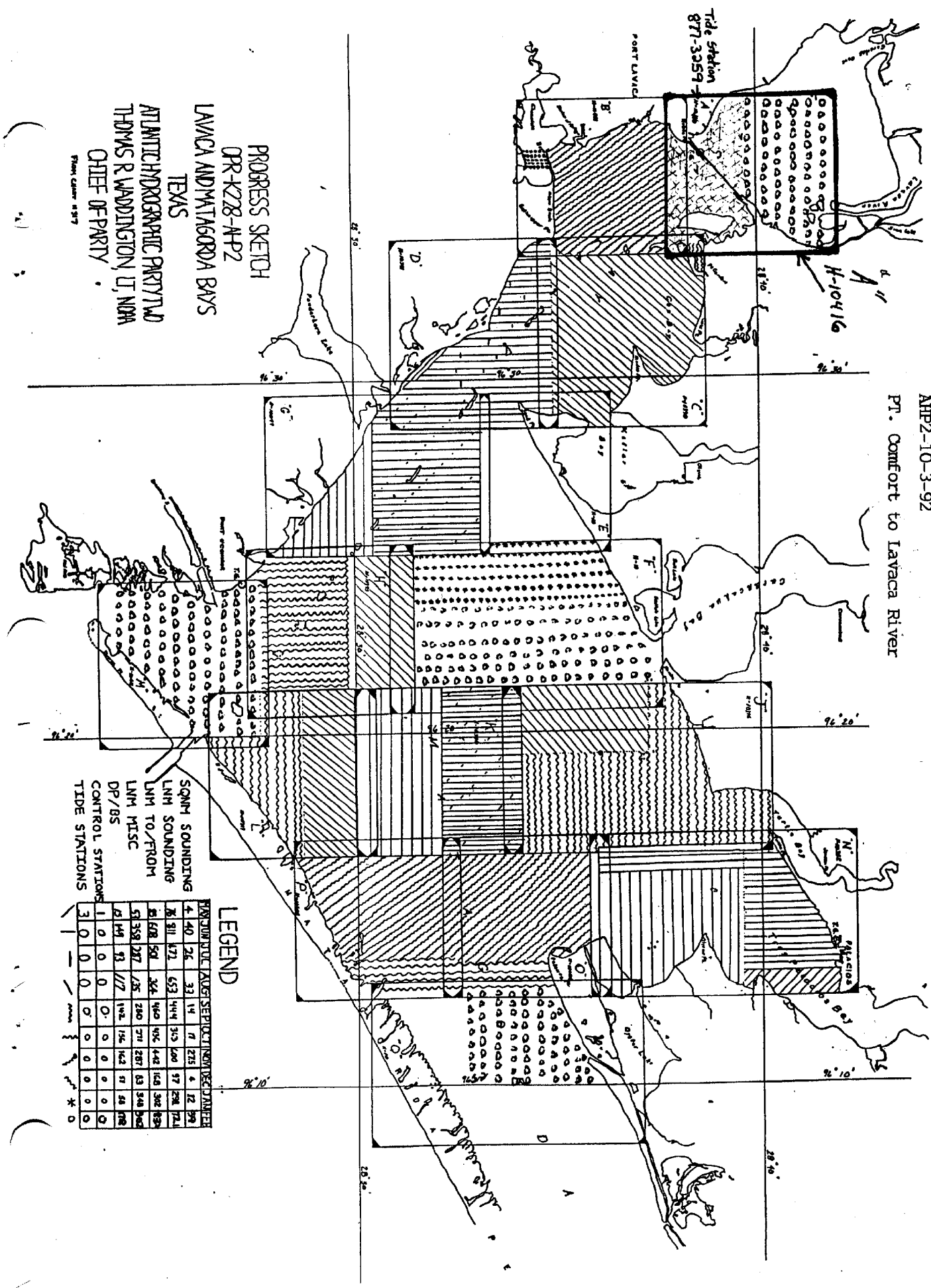
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XW/K 8/2/94

H-10416

AHP2-10-3-92

PT. Comfort to Lavaca River



PROGRESS SKETCH
 DR-K228-APP2
 LAVACA AND MATAGORDA BAYS
 TEXAS
 ATLANTIC HYDROGRAPHIC PARTY TWO
 THOMAS R. WADDINGTON, U.S. NAVAL
 CHIEF OF PARTY
 Sheet Number 10416

SONN'S SOUNDING
 LHM SOUNDING
 LHM TO/FROM
 LHM MISC
 DP/BS
 CONTROL STATIONS
 TIDE STATIONS

LEGEND

NO.	DATE	NAME	DATE
1	40	26	31
2	31	14	7
3	27	5	12
4	11	17	5
5	17	53	14
6	17	35	16
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8	17	16	17
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100	17	16	17

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10416
Field No. AHP2-10-3-92
Scale:1:10,000
Atlantic Hydrographic Party
Chief of Party: Lt. Thomas R. Waddington, NOAA
1992

A. PROJECT ✓

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K228-AHP2, Matagorda and Lavaca Bays, Texas dated March 1, 1991; these were amended by change No. 1 dated June 4, 1991, change No. 2 dated July 11, 1991, change No. 3 dated August 15, 1991, and change No. 4 dated January 16, 1992.

This survey is designated as sheet "A" in the project instructions.

The purpose of project OPR-K228-AHP is to provide contemporary hydrography for the maintenance of existing nautical charts. Considerable oil development, fishing, shrimping and oyster industries exist in Matagorda Bay and its main tributaries, Tres Palacios and Lavaca Bays.

B. AREA SURVEYED ✓

The area surveyed for H-10416 is Lavaca Bay, from Point Comfort to the Lavaca River. The geographic limits are as follows:

North - Latitude 28°42'03"N
South - Latitude 28°37'56"N
East - Longitude 096°33'21"W
West - Longitude 096°38'00"W

This survey was conducted from February 7, 1992 (DN 038) to April 6, 1992 (DN 097).

C. SURVEY VESSELS ✓

NOAA launch 1292 (EDP No. 1292), a 21-foot Mon Ark, was used to collect all data on this survey. No problems were encountered with this vessel. NOAA launch 770 (EDP No. 0770) was used on DN 086 and 092 for a two boat, 75 meter swath chain drag for AWOIS No. 5270 and 5269. No sounding data was obtained with this vessel.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

A list of all Hewlett-Packard HDAPS Programs used can be found in Appendix VI. *

Version 4.0 of the PC-DAS suite of programs was used for on line data acquisition on the survey vessel. In addition to the HDAPS, the following non-HDAPS computer programs were used:

VELOCITY (IBM PC) Vers.	dated:	3/9/90
MTEN3 with enhancements (IBM PC)	dated:	6/88

E. SONAR EQUIPMENT ✓

Not applicable. -SIDE SCAN SONAR NOT USED ON THIS SURVEY.

F. SOUNDING EQUIPMENT ✓

An Innerspace model 448 echo sounder, serial number 188 and a Raytheon model 719-B, serial number 7727, echo sounder were used to obtain all echo sounding data. A standard lead line calibrated in meters, serial number 1292, was used during this survey for comparison readings with the echo sounder. A 5 meter long, wooden sounding pole, constructed according to HSG. No. 69, was used to obtain all pole soundings.

Due to a defective power supply, the Innerspace echo sounder failed on DN 050; it was temporarily replaced with the Raytheon echo sounder. After repair by the manufacturer, the Innerspace echo sounder was re-installed on DN 068. The data was not affected by this failure and no other problems were encountered.

Depths encountered in the survey area range from 0.5 meter to 13.4 meters.

G. CORRECTIONS TO ECHO SOUNDINGS ✓

Corrections for the speed of sound through the water column were computed from data obtained with an Odom Hydrographic Systems Inc., Digibar Model DB1100 speed of sound probe, serial number 154. This instrument was calibrated by the manufacturer on May 14, 1991. A copy of this calibration may be found in the Survey Separates, section IV. *

Program "Velocity" was used for computing the speed of sound correctors. Speed of sound corrections were applied to the final field sheet soundings using the HDAPS "Reapply Depth Correctors" function as required by the Field Procedures Manual. Copies of

the tables and support documentation are in the Survey Separates, section IV. *

The following speed of sound casts were taken on this survey:

No.	DN	DATE	Latitude	Longitude	Depth
					Actual/Extended
7	037	2/6/92	28°35.8'N	096°34.0'W	6m/7.8m
8	043	2/12/92	28°36.8'N	096°34.0'W	13m/16.9m
9	050	2/19/92	28°35.8'N	096°34.0'W	13m/16.9m
10	062	3/2/92	28°24.0'N	096°24.3'W	10m/13.0m
11	072	3/12/92	28°35.7'N	096°34.0'W	4m/3.9m
12	079	3/19/92	28°35.8'N	096°34.0'W	10m/13.0m
13	085	3/25/92	28°37.0'N	096°36.8'W	4m/3.9m

The following table shows the recommended Velocity Tables to be used for final processing at the Pacific Marine Center:

Cast No.	Table No.	Use for Days	HDAPS TABLES
7	7	38	WERE CHANGED
8	8	41-42, 44	TO REFLECT THESE
9	9	45, 49, 50	RECOMMENDATIONS
10	10	58, 59, 62, 64, 66	AND RE-APPLY WAS RAN DURING
12	12	71-73, 77-80, 84-86, 91-93, 97	OFFICE PROCESSING.

Survey records were scanned by AHP-2 employees in accordance with the Hydrographic Manual. With the digital reading taking precedence over the analog trace, significant peaks and deeps which occurred between selected soundings, missed depths, incorrectly digitized soundings, and effects of sea and swell action were inserted or corrected, as appropriate, while scanning.

Lead line comparisons were taken to determine instrument error. No instrument error was observed for either depth sounder used on this survey. The lead line comparison log is included in the Survey Separates, section IV. The lead line was calibrated and re-marked on February 6, 1992 with a steel tape. A copy of the calibration form can be found in the Survey Separates, section IV. *

* Filed with the hydrographic data.

A static draft of 0.3 meter was applied to the final field sheet soundings using the HDAPS "Reapply Depth Correctors" function. The draft was measured by subtracting the difference from a punch mark on the side of launch 1292, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for vessel 1292 were performed on July 11, 1991 using the level method. Settlement and squat correctors were applied to the final field sheet soundings using the HDAPS "Reapply Depth Correctors" function. Data from the settlement and squat test are included in the Survey Separates, section IV. * *Settlement and squat corrector were reapplied using values determined during office processing.*

The final field sheet was plotted using predicted tides determined from Port O'Connor, Texas and correctors designated in zone "III" from section 5.9 of the project instructions. The values were applied direct in accordance with these instructions. The weather conditions encountered during this survey had a great effect on the true water levels. Frequent strong winds resulted in high water levels on windward shores and low water levels on lee shores. There was also an unusually large amount of rainfall during the period of this survey which may also have impacted the water levels.

Approved water levels were requested from the Sea and Lake Levels Branch, N/OMA12, in a letter dated May 14, 1992. A copy is included in Appendix V. *

H. CONTROL STATIONS ✓

The horizontal control datum for this project is the North American Datum of 1983. A copy of the HDAPS Control Station Table is ~~included in Appendix III.~~ *attached.*

The Coastal Surveys Unit from Norfolk, Virginia used the Global Positioning System (GPS) to establish horizontal control for this project. The horizontal control report titled "Matagorda Bay and Approaches, Texas, GPS Survey, R. W. Daniel, Chief of Party. March 1991", was written and submitted by the Coastal Surveys Unit for OPR-K228-AHP.

I. HYDROGRAPHIC POSITION CONTROL ✓

Survey Methods

Hydrographic position control was accomplished using the Motorola Mini-Ranger Falcon 484 system which provided accuracy to meet 1:10,000 scale survey requirements. Range/range positioning with multiple lines of position were used during this project.

The following Falcon Mini-Ranger equipment was used:

<u>VESNO</u>	<u>EQUIPMENT</u>	<u>S/N</u>	<u>CODE</u>
1292	RPU	E0154	
	R/T	E2931	
	R/S	G3571	1
	R/S	C2059	2
	R/S	E2977	3
	R/S	E2890	4
	R/S	F3180	5
	R/S	E2922	6

Critical System Checks

When using three or four lines of position (LOP), a critical system check is being obtained each second by observing the error circle radius and residual values which are computed by the survey computer. For a 1:10,000 scale survey, the critical residual value is 5.0 meters and the critical error circle radius value is 15.0 meters. Position data exceeding these values were edited.

Mini-Ranger Falcon Calibrations

Baseline calibrations were performed on November 6, 1991 (DN 310), and January 31, 1992 (DN 031); baseline correctors were incorporated into the Comflex C-0 table number five and applied directly to all on-line data. All records of these calibrations and the Daily Header Abstracts are included in the Survey Separates, section III.* A closing baseline calibration was not performed since the survey was conducted in less than a six month period from the opening baseline.

J. SHORELINE ✓

Shoreline shown on the final field sheet was transferred by hand from TP-01650. This shoreline manuscript was compiled on NAD 1983. The shoreline manuscripts ^{and was} were compiled at 1:20,000 scale, ~~They were~~ enlarged to 1:10,000 scale for use with this survey. Shoreline details have been verified and are shown on the final field sheet. Shoreline verification was accomplished by comparison of the mainscheme hydrography which junctions at shore, detached positions, or by visual inspection. Several changes to the shoreline shown on TP-01650 were noted during this survey, and are shown in red as follows:

- ▶ A change to the island located at latitude 28°38'51"N, longitude 96°36'08"W is shown on the final field sheet in

* Filed with hydrographic survey data.

dashed red ink. The northeastern tip has eroded slightly. Shown as dashed red on the smooth sheet.

- ▶ A change to the bulkhead in the basin located at latitude 28°39'39"N, longitude 96°33'59"W is shown on the final field sheet in red ink. The hydrographer believes there is slight error on TP-01650 with regard to this feature. This bulkhead is used to unload barges loaded primarily with stone. The appendage at the bulkhead shown on TP-01650 is actually a barge or barges with a ramp lowered onto it for unloading and was not transferred to the final field sheet. A pier, position 757, with a ramp extends out to the barges to allow heavy equipment onto them to unload the stone. Area is shown as solid red line.
- ▶ A change to the large T-shaped pier at the Alcoa Aluminum Plant is shown on the final field sheet in red ink. This feature is discussed further as Awois 5290 and 5292. A change to the orientation of the pier when compared to TP-01650 was noted. The pier is actually longer than shown on TP-01650 and is straight and parallel to the shoreline. Area of pier that runs parallel to shore is shown as a solid red line on smooth sheet at latitude 28/39/09.7
- ▶ An uncharted high voltage tower was located at latitude 28°40'09.4"N, longitude 96°34'19.4"W and is shown in red ink on the final field sheet. This feature was not shown on TP-01650. Tower is shown in black on the smooth sheet. ^{longitude 96/33/49.1}

Charted shoreline except as noted above should be superseded by shoreline from TP-01650. - CONCUR

Field notes are located on the field sheets, the graphic records,*and in the Daily Log (NOAA Form 77-44, Sounding Volume, was used) all are included as part of this survey. A complete list of all detached positions by day number, generated through the HDAPS Detached Position Editor is included in the cahier.

K. CROSSLINES ✓

A total of 36.0 linear nautical miles of cross lines were run on H-10416. This is equivalent to 13.1% of the mainscheme hydrography. Agreement is ≤ 0.3 meter when compared with the mainscheme soundings, with occasional 0.5 meter variances noted; water level variances driven by the winds and excessive rainfall and differences between actual and predicted tides, as noted in section "G" of this report are probable causes. Good agreement is noted with the application of smooth tides.

* Filed with the hydrographic records.

L. JUNCTIONS ✓ See Evaluation Report, Section 5.

This survey junctions with survey H-10411, 1991 (Sheet B from OPR-K228) to the south and H-10390, 1991 (sheet C from OPR - K288) to the southeast, both 1:10,000 scale surveys from 1991-1992. This survey also junctions with prior survey H-5857, a 1:20,000 scale survey from 1934-35, to the north.

The sounding agreement between this survey and H-10411 agreed well, within 0.1-0.2 meters, with few exceptions. Sounding agreement at the southeast corner of survey H-10416 between Longitudes 96°33'30"W, and 96°34'30"W was between 0.2-0.4 meters. These differences should be eliminated by applying smooth tide correctors. With the application of smooth tides sounding agreement overall is between 0.1-0.2 meters

The sounding agreement between this survey and H-10390 were difficult to compare because of almost continuous dredging being conducted within the common areas. Dredging operations were being conducted in the Matagorda Ship Channel and the turning basin throughout the duration of survey H-10411 and H-10416. The junction with H-5887 is described in section M. See Evaluation Report Section 5

M. COMPARISON WITH PRIOR SURVEYS ✓

The present survey was compared to the following prior survey:

<u>Survey NO.</u>	<u>Scale</u>	<u>Year</u>
H-5857	1:20,000	1934-35

There was good sounding agreement between this survey and H-5857, generally between ~~0.2-0.6~~ meters (1-2 feet), with the prior survey showing the shallower depths.

All charted soundings (chart 11317) within the limits of survey H-10416 originate from prior survey H-5857 with the exception of some soundings along the reach, on both sides of the Lavaca Bay Channel, which originate from miscellaneous sources presumably charted from U.S. Army Corps of Engineers surveys prior to 1978. Survey H-10416 should take precedent over prior survey H-5857. - CONCUR

The following was also noted during comparison:

- ▶ There are no AWOIS items on this survey originating from the prior survey.
- ▶ Bottom samples acquired on this survey agreed well with the prior survey. - CONCUR

- ▶ Neither the Matagorda Ship Channel, Point Comfort Inner Channel nor the Lavaca Bay Channel existed on H-5857.
- ▶ Some changes to the shoreline shown on H-5857 are apparent, most notably on the east central side of the sheet, in the general area of latitude $28^{\circ}39.0'N$, longitude $096^{\circ}34.0'W$, due to the construction of a large industrial plant near the inshore terminus of the Matagorda Ship Channel. The dredging of the ship channel has created a large spoil island centered at latitude $28^{\circ}38.8'N$, longitude $096^{\circ}34.3'W$. (From latitude $28/38/07$, longitude $96/34/15$ to latitude $28/39/25$, longitude $96/34/15$)
- ▶ The wooden bridge spanning the bay from Noble Point to Point Comfort has been replaced by a new concrete and steel bridge paralleling the remains of the old bridge which is now used as fishing piers at each side of the bay. CONCUR

N. COMPARISON WITH THE CHART ✓

Comparisons were made with the following largest scale charts covering the present survey area:

Chart No.	Edition	Date
11317	21 st	JULY 4, 1992
11317	20th	March 23, 1991
11316	33rd 22nd	January 19, 1991
11316	34th	June 6, 1992

Twenty-eight AWOIS items were investigated as part of this survey. The items are discussed on item investigation forms in ~~Appendix VI~~ of this report. attached to

The following uncharted features were located and reported as dangers to navigation:

- ▶ An obstruction (3 ft. diameter steel wreckage) was found, bearing 34.6° feet (1.4m) at ^{MHW}MLLW at latitude $28^{\circ}38'39.76''N$, longitude $096^{\circ}34'04.09''W$. Chart as an obstn (MHW) at the survey location.
- ▶ Unlighted pipeline crossing signs were found on both sides of the Lavaca Bay channel; on the east side at latitude $28^{\circ}40'07.11''N$, longitude $096^{\circ}35'35.02''W$, and on the west side at latitude $28^{\circ}40'12.52''N$, longitude $096^{\circ}35'42.59''W$. The sign on the east side of the channel bears 16.7 feet (5.1m) at ^{MHW}MLLW. The sign on the west side of the channel bears 15 feet (4.6m) at ^{MHW}MLLW.
14.4 4 MHW.

Chart as markers at locations shown on the smooth sheet.

- ▶ An obstruction comprised of a 15 ft. by 2 ft. square wooden timber was found at latitude 28°39'17.8⁰N, longitude 096°35'23.83"W. This obstruction bares 1.3 feet (0.4m) at MLLW. Chart obstr (MLLW) at ^{uncovers} survey location ^{7.2} 2
- ▶ A 12 inch diameter wood pile baring 8.5 feet (2.6m) at ^{MHW} MLLW was found at latitude 28°39'14.3"N, longitude 096°35'26.6"W. Chart pile (MHW) at survey location
- ▶ A 12 inch diameter wood pile baring 6.8 feet (2.1m) at ^{MHW} MLLW was found at latitude 28°39'06.19"N, longitude 096°37'00.25"W. Chart pile (MHW) at ²⁰ survey location
- ▶ The position of a platform charted at latitude 28°39'49.7"N, longitude 096°35'58.79"W, should be revised to platform ruins at latitude 28°39'46.7⁰N, longitude 096°36'01.63⁴W. The charted location was investigated by bottom drag and nothing was found; the charted platform should be deleted. The platform ruins bare 7.5 feet (2.3m) at ^{MHW} MLLW. ^{concur} Remove platform and chart ruins (MHW) as shown on smooth sheet
- ▶ An uncharted, disused pipeline extends from the east shore at the Alcoa Aluminum facility, Latitude 28°38'56.05⁸N, Longitude 96°33'50.08⁴W, west-northwest across the Point Comfort Inner Channel to approximately 200 feet east of the large spoil island, Latitude 28°38'58.58"N, Longitude 96°33'55.66"W. A group of fifteen piles exist at this position. Two more piles exist inshore of this group of piles, at equal spacing, extending 290° magnetic bearing, to shore. The piling are the ruins of a wooden pipeline support structure. These piling constitute the danger to navigation. The piling were found baring 8.2 feet (2.5m) at MLLW. Chart area as shown on smooth ^{7.0} sheet. Refer to AWOIS item 5285
- ▶ A wreck (AWOIS No. 5273) charted as position approximate at latitude 28°39'56.98"N, longitude 096°34'47.91"W should be revised to the position where the wreck was found at latitude 28°40'02.56⁷N, longitude 096°34'50.64⁴W. The wreck uncovers 1.3⁰ feet (0.4m) at MLLW. A 150m circle drag was conducted at the center AWOIS position with negative results. The wreck at the charted location should be deleted. ^{concur} Chart wreck at survey location
- ▶ A ^{8.0} 9.2 foot (2.8m) sounding at MLLW, was found inside the charted channel limits while investigating AWOIS 5279 and 5280. This sounding is located at the north end of Point Comfort Inner Channel at Latitude 28°39'32.3⁴N, Longitude 96°34'09.4⁷W. AWOIS 5279 and 5280 are discussed in detail Appendix VI of this report. A 1:2,500 scale plot of the channel and basin is included with the survey field sheets.

Four small charted shoals along the reach and on both sides of Lavaca Bay Channel were not investigated with reduced line spacing at:

1. Latitude 28°40'46"N, Longitude 096°35'19"W
2. Latitude 28°40'49"N, Longitude 096°35'13"W
3. Latitude 28°40'23"N, Longitude 096°34'28"W
4. Latitude 28°40'21"N, Longitude 096°34'20"W

The hydrographer recommends retaining these charted shoals. - concur, See Evaluation Report, Section 7.a.

The charted shoal centered at latitude 28°39'37"N, 96°34'18"W shows some enlargement and is shown in dashed black ink on the final field sheet. Enlarged charted shoal is shown in black ink on the smooth sheet.

A ^{0.9} meter sounding was found on survey H-10416 at Latitude 28°38'01.6"N, Longitude 96°34'15.8"W. There was no evidence of a shoal in this area on survey H-10411. This sounding was not developed. The hydrographer recommends that this sounding be charted. - concur

The legends containing the tabulated depths for Port Lavaca Channel and Lavaca Bay Channel⁺ on charts 11316 and 11317 should be changed to list each channel separately. The legend should include depths and read: "Port Lavaca Channel to the basin at Lynn Bayou.", and "Lavaca Bay Channel⁺ to the mouth of the Lavaca River." Port Lavaca Channel was dredged during the course of survey H-10411 and should reflect deeper depths than that of the Lavaca Bay Channel. The controlling depth of Lavaca Bay Channel⁺ as determined by the hydrography on survey H-10416 is 1.9 meters (6.2 feet). See Evaluation Report, Section 7.c.

Bottom samples agreed well with the charted bottom characteristics.

Sounding comparison is the same as described in section M. There are no common depth curves used for comparison as this survey was acquired in meters and the present charts are produced with soundings in feet. The descriptions of all positioned items can be found in the Daily Log, which is included with the survey data; it summarizes daily activity and includes other useful information. Photographs were also taken and are included in the ~~chart~~. *
accordian file

O. ADEQUACY OF SURVEY ✓

This survey is a complete basic hydrographic survey and is adequate to supersede all prior surveys within the common area. - concur
⁺ Lavaca Bay Channel is the channel between Port Lavaca Channel and the mouth of the Lavaca River.
THIS IS AN UNAPPROVED NAME. SEE E.P. 7.C,

* Filed with survey records.

P. AIDS TO NAVIGATION ✓

The hydrographer notified the U.S. Coast Guard Aids to Navigation Team (ANT Team), Port O'Connor, Texas, that Lavaca River Light "3" had been destroyed. The ANT Team established a temporary lighted buoy the following day which was located by detached position on DN 091. Per a phone conversation with Chief Petty Officer Gary Heater, officer in Charge, ANT Port O'Connor, the U.S.C.G. Cutter Anvil replaced the destroyed light and removed the temporary buoy in April, 1992, after AHP-2 had departed the area. No position is available for Lavaca River Light 3 and is not shown on the smooth sheet.

One floating aid to navigation is charted within the limits of this survey. Point Comfort Inner Channel Lighted Buoy 2, was located by detached position. Excellent agreement was noted when comparing the detached position of the buoy to the charted position. This buoy adequately serves its intended purpose.

Nineteen non-floating aids were located by detached position and compared to chart 11317 and the U.S. Coast Guard Light List, volume IV, 1992. All positions agreed well with the chart and the light list with the following exceptions:

Lavaca Bay Channel

DBN "8"	LLN 26740	Located approx. 135m SW of charted position.
DBN "9"	LLN 26745	Located approx. 105m WNW of charted position.
DBN "11"	LLN 26750	Located approx. 50m NW of charted position.
DBN "12"	LLN 26755	Located approx. 50m NW of charted position.
DBN "22"	LLN 26780	Located approx. 180m NE of charted position.

Five uncharted non-floating aids to navigation were established in Lavaca Bay Channel and located by detached position. These aids as well as the aids with revised positions listed above were noted on NOAA Form 76-40, and can be found in ~~Appendix II of the descriptive report.~~ All of these aids are maintained by the U.S. Coast Guard.

Photogrammetric positions were not given for aids in Lavaca Bay Channel, with the exception of Lavaca River Light Three, discussed earlier in this section and Lavaca River Light Two, which agreed well with the aero-triangulated position.

Photogrammetric positions were given for all non-floating aids in Point Comfort Inner Channel with the exception of light 6. All agreed well with surveyed positions.

Unadjusted, 3rd order, class I positions and azimuths were obtained for Point Comfort Inner Channel Ranges A and B, and Matagorda Ship Channel Range E. These positions are included on NOAA Form 76-40 which can be found in ~~Appendix II of the~~ this report.

Positions could not be obtained on range C, due to a dangerous chemical and electrical hazard at the Alcoa Aluminum plant. These lights were not identified by photogrammetric methods either, and should remain as charted.

Positions and descriptions agreed with the light list with the following exceptions:

- ▶The light list shows Matagorda Ship Channel Range E Rear Light being 002° azimuth, 800 yards (755 meters) from the front light versus 001.5° azimuth, 776 yards (710 meters) from an inverse computation using the unadjusted GPS positions.
- ▶Positions were not published for Range E Rear Light and Range A Front Light.
- ▶Azimuths were not shown in the light list for ranges A and B.

All aids to navigation in Point Comfort Inner Channel are privately maintained. Matagorda Ship Channel Range E is maintained by the U.S. Coast Guard.

All aids appear to serve their intended purpose. ~~CONCUR~~

The Lavaca Bay Causeway Bridge is the only bridge existing within the limits of the survey.

Two overhead power cables exist in the survey area. The cables are located just north of the causeway bridge extending from east to west. The southern-most line of cables are supported by steel skeleton towers. The northern-most line of cables are supported by wooden, three pile towers. Vertical clearance of the bridge and the overhead power cables over the Lavaca Bay Channel appeared accurate and therefore were not measured per Hydrographic Survey Guideline No. 29.

Two uncharted and unlighted submerged pipeline crossing signs were located on both sides of Lavaca Bay Channel on DN 049, at Latitude 28°40'07"N, Longitude 96°35'35"W, and Latitude 28°40'12"N, Longitude 96°35'42"W. The signs were extremely

weathered and the posted telephone number was unreadable. Verification of its use or disuse could not be established. As discussed in section N, a danger notice was issued for these signs.

Another uncharted, disused submerged pipeline exists in the same area. A description of this item, AWOIS No. 5285, can be found in section VI of the Appendix of this report. There were no crossing signs found on either shore associated with these submerged pipelines. (attached to this report)

Q. STATISTICS ✓

<u>Description</u>	<u>Quantities</u>
Total Positions	2716
Total Nautical Miles of Hydrography	299
Days of Production	26
Detached Positions	163
Bottom Samples	37
Tide Stations	3
Velocity Casts	7

R. MISCELLANEOUS ✓

Soundings shown on the final field sheet were excessed using the HDAPS "Graphedit" program. Depth curves shown on the final field sheet reflect all acquired sounding data.

Bottom samples were taken and submitted to the Smithsonian Institution as directed in section 6.7 of the project instructions. Thirty-seven bottom samples were transmitted on March 31, 1992. Bottom sample positions and descriptions are plotted on the final field sheets submitted with this survey, and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which is included in section II of the Survey Separates.*

It should be noted that the sounding vessel used for this survey is limited by draft to approximately 0.6 meters on the keel line and is therefore limited in its ability to acquire sounding data in areas shallower than 0.6 meters.

At the completion of this survey, construction had begun by the city of Port Lavaca on a beach enhancement project starting at the inshore end of the city fishing pier at Noble Point. Work had started on extending the existing groin and the establishment of two new groins approximately 400 meters southwest of the existing groin. Work was also underway on creating a sandy beach thus extending the current shoreline

* Filed with hydrographic data.

offshore. Plans for this project were unavailable to the hydrographer.

S. RECOMMENDATIONS ✓

Specific recommendations concerning this survey are made in sections "G", "J", "M", "N", and "P" of this report. No inadequacies, additional work, nor further investigations were identified after field work was completed. — CONCUR

T. REFERRAL TO REPORTS ✓

<u>Titles</u>	<u>Transmittal Information</u>
Horizontal Control Report for OPR-K228-AHP2	Field Photogrammetry Section Norfolk, VA, N/CG233 (1991)
Descriptive Report to Accompany Survey H-10411	Pacific Hydrographic Section N/CG245 Seattle, WA, (1991)
Descriptive Report to Accompany Survey H-10390	Pacific Hydrographic Section N/CG245 Seattle, WA, (1991)
Chart Sales Agent Report for OPR-K228-AHP2	Chart Distribution Branch (N/CG33) Rockville, MD (1992)
User Evaluation Report OPR-K228-AHP2	Atlantic Hydrographic Section (N/CG244) Norfolk, VA (1992)
Chart Inspection Report OPR-K228-AHP2	Atlantic Hydrographic Section (N/CG244) Norfolk, VA (1992)
Coast Pilot Report	Pacific Hydrographic Section N/CG245 Seattle, WA (1992)

Submitted By: Thomas M. Rybarski, Launch Chief

AWOIS NO: 5269

Item Description: Piles (charted as subm piles)

Source: CL82/58--BPS56220-21, COE

AWOIS Position: Lat 28°39'42"N Lon 96°36'04"W To
Lat 28°39'30"N Lon 96°36'05"W

Required Investigation: VS, BD, SD, ##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/26/92, 4/2/92 DN(s): 086, 093

Position Numbers: 2533-2561, 2702-2715 Launch Number: 1292

Investigation Used: Bottom drag Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: On DN 086 a two boat chain drag was conducted with launch 1292 as the primary vessel and launch 770 as the secondary vessel. The drag consisted of 230 feet (70 meters) of chain attached to a 50 foot length of line attached to each boat. Both vessels acquired on-line survey data during the search. Launch 770 always steered reference lines 75 meters to the port of launch 1292. The data diskette and echogram for 770 are contained in the ~~cabier~~ ^{according to} for DN 086. The drag was performed parallel to the west side of the channel within the required search area.

On DN 093, fourteen, 50 meter circle drags were conducted at the center scaled positions of the charted submerged piles from the reach starting at the mouth of the Lavaca River, southwest to the first turn north of the bridge. One circle drag was conducted at each of the channel turns which the two boat drag did not cover. Circle drags were the preferred method in this area because there were many crab pots and bamboo markers. This method only required 2 men and one vessel.

No hangs were found on either day.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the submerged piles (total of 21 symbols) and related notations from the chart. - CONCUR

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5270

Item Description: Uncharted channel that intersects the Lavaca River channel, at the beach is marked on the south edge by piles set 100 yards apart. Markers rep 1975
Source: CL1252/75--USPS

AWOIS Position: Lat 28°39'22"N Lon 96°36'03"W to
Lat 28°40'25"N Lon 96°34'12"W

Required Investigation: VS,BD,##

Charts Affected: 11316. 11317

INVESTIGATION

Date(s):4/1/92 DN(s): 092

Position Numbers: 2666-2681, 2692-2693 Launch Number:1292

Investigation Used: BD, VS Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A two boat chain drag was conducted with launch 1292 as the primary vessel and launch 770 as the secondary vessel. The drag consisted of 230 feet (70 meters) of chain attached to a 50 foot length of line from the stern of each boat. Both vessels acquired on-line survey data during the search. Launch 770 always steered reference lines 75 meters to the port of launch 1292. A twenty-five meter overlap between lines was used to ensure 100% bottom coverage. A trackline plot is included to show area of coverage. A data diskette and echogram is contained in the cahier for DN 086.

Detached positions were taken at the inshore and offshore end of a row of 5 evenly spaced, 2 inch diameter markers at the northwestern end of the drag area. These markers are not those described in the AWOIS listing, nor was any attempt made to drag in the vicinity of these markers. The drag would have certainly pulled the markers. These markers serve the crab fisherman who put them in, marking the slightly deeper water to the south.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the notation "Markers Reported 1975" from the chart and charting ~~5 markers~~ ^{row of stakes} between the following positions: - ~~CONCUR~~

Recommended Position: Latitude 28°40'07.94"N, Longitude 96°34'47.75"W
to Latitude 28°40'18.19"N, Longitude 96°34'31.33"W

Recommended Least Depth: Found uncovered 0.8m and awash at 2224Z and 2228Z, corrected to uncover ~~0.9 and awash~~ ^{1.0 m} at MLLW based on ~~predicted~~ ^{Spring} tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5271

Item Description: Charted wreckage (sunken barges) wks rep

Source: C11252/75--USPS

AWOIS Position: Lat 28°40'25"N, Lon 96°34'12"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/11/92

DN(s): 042

Position Numbers: 215-219,220,222-223

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: Detached positions were taken delimiting an area afoul with sunken derelict barges. Two groups consisting of several wrecks each lie on both sides of an uncharted channel.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the areas foul with wrecks as shown on TP-01650.

Recommended Position:

Recommended Least Depth: The wrecks bares to a maximum of 1.5 meters at 1749Z, corrected to bares 1.2 meters at ^{MHW}MLLW based on ^{smooth}predicted tides. Remove wks rep and limit lines and show area as wreckage (MHW) as shown on smooth sheet

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5272

Item Description: Pile bares at high water.

Source: UNKNOWN

AWOIS Position: Lat 28°40'23"N Lon 96°34'22"W

Required Investigation: VS,BD,DI,SD

Charts Affected:11316, 11317

INVESTIGATION

Date(s): 3/20/92

DN(s): 080

Position Numbers: 2392

Launch Number:1292

latitude 28/40/23.47, longitude 96/34/22.44

Investigation Used: VS

Dive Report No:N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken on a 10 inch diameter steel pile approximately 1 meter away from the steel barge wreckage described in AWOIS #5271. The pile is laying at an angle toward the wrecks and is within the delimited area of the wrecks positioned on DN 042.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the pile from the chart. The pile is within the delimited area of the wrecks and should now be considered as part of the wreckage. This pile does not constitute a separate navigational hazard. -CONCUR

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5273

Item Description: VISIBLE WRECK, PA

Source: UNKNOWN

AWOIS Position: Lat 28°39'57"N Lon 96°34'48"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/27/92, 3/31/92

DN(s): 058,091

Position Numbers: 737,2632

Launch Number: 1292

Investigation Used: VS, BD

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: On DN 058 a detached position was taken on some metal wreckage, possibly an engine block, and a steel pipe. This obstruction lies approximately 35-40 meters outside the 150 meter search radius for AWOIS 5273. On DN 091 a 150 meter circle drag was conducted at the center position for AWOIS 5273. No hangs were found.

CHARTING RECOMMENDATION

The Hydrographer recommends revising the charted wreck to the surveyed position below.

Recommended Position: Lat 28°40'02.⁵⁶/₅₇"N, Lon 96°34'50.⁶⁴/₅"W
cancel delete visible wreck, chart visible wreck at survey position

Recommended Least Depth: The wreck was found uncovered 0.4 meters at 1511Z, corrected to uncovers 0.⁴/₃ meters at MLLW based on ~~predicted~~ tides.
smooth

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5274

Item Description: Row of piling. (Piling)

Source: UNKNOWN

AWOIS Position: Lat 28°38'55"N Lon 96°37'18"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/2/92

DN(s): 062

Position Numbers: 798

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A row of piling was found extending from the detached position west to a point near the inshore end of AWOIS 5275. The row of piling were charted accurately with the exception that they extend all the way to the inshore end of the southernmost pier like structure (AWOIS 5275).

CHARTING RECOMMENDATION

The Hydrographer recommends revising the charted row of piling to extend between the following positions: - CONCUR

Recommended Position: Pos. No. 798 - Latitude 28°38'54.48"N, Longitude 96°37'17.18"W to inshore scaled position - Latitude 28°38'55.77"N, Longitude 96°37'23.66"W.

Recommended Least Depth: The piles were found baring 2.0 meters at 1727Z, corrected to bares ~~2.0~~ 1.7 meters at ~~MLLW~~ MLLW based on ~~predicted~~ smooth tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5275-5276

Item Description: Two pier like structures appeared on chart 11317 prior to 1980.

Source: UNKNOWN

AWOIS Position: 5275> Lat 28°38'56"N Lon 96°37'24"W
5276> Lat 28°38'57"N Lon 96°37'23"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/2/92

DN(s): 062

Position Numbers: 800

Launch Number: 1292

latitude 28/38/57.660, longitude

Investigation Used: VS

96/37/21.84

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken 25 meters from the center offshore end of two concrete pier-like structures, because shallow water prevented approaching closer. The two structures each have concrete piles and wood dolphins extending another 15-20 meters from their offshore ends. The 25 meter range and 240° magnetic bearing offset was not applied to the raw data.

CHARTING RECOMMENDATION

The hydrographer recommends that these features remain as charted. The notation "Piles" is adequate. The chart and the shoreline manuscript accurately portray the pier-like structures. The piles and dolphins were not depicted on the shoreline manuscript but they were charted correctly. The piles and dolphins should have shown up on the shoreline manuscript. Do not concur, remove pile symbols and chart piers with attached pile limit lines (MHW) as shown on smooth sheet. Recommended Least Depth: The structure was found baring 4.0 meters, piles/dolphins bare 3.0 meters at 1738Z, corrected to bare the same at MHW based on predicted tides. 3.7 meters
MHW Smooth

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5279-5280

Item Description: AWOIS 5279: "12 Ft. Rep. 1982" depth note in dredged channel in north part of Point Comfort facility from Coast Pilot Report; Awois 5280: "12 FT. Rep." depth note appeared on chart 11317 prior to the 1980 edition.

Source: 5279: CL1249/82--CPR5
5280: UNKNOWN

AWOIS Position: 5279: Lat 28°39'21"N Lon 96°34'03"W
5280: Lat 28°39'37"N Lon 96°33'53"W

Required Investigation: Determined controlling depth (ES)

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/2/92, 3/4/92, 3/11/92 DN(s): 062, 064, 071

Position Numbers: Launch Number: 1292

Investigation Used: ES Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A ^{7.8}2.8 meter (9.2 Ft.) sounding was found inside the charted channel limits at the north end of Point Comfort Inner Channel on DN 062, (Pos. No. 881+3). Center lines were run inside the basin on DN 064 (Pos. No's. 923-926). A range line and channel lines were run steering on Point Comfort Inner Channel Range "A" on DN 071. The charted center line of range "A" also appears to favor the eastern edge of the charted channel. It is evident from the hydrography, that the dredged channel leading to the northernmost end lies to the east of the charted channel demarcation lines as shown by the enlargement of the inset of chart 11317. Due to these incongruities, the hydrographer expresses doubt as to whether the lines delimiting the channel are charted correctly, and as to whether the 2.8 meter sounding is actually inside the channel limits.

latitude 28/39/32.29 longitude 96/34/09.42

The charted channel demarcation lines were scaled from the chart and transferred to a 1:2,500 scale plot of the area. All sounding data with tracklines, detached positions, along with other pertinent information are shown on the large scale plot. After review, the dredged channel appears approximately 34 meters east of the charted channel. The middle of the channel is centered on the axis of range "A". A depth of 3.7 meters (12.1 Ft.), as determined by the hydrography, continues to be the controlling depth for both the channel and the basin. A Danger to Navigation letter was submitted for the 2.8 meter (9.2 Ft.) sounding inside the charted channel.

CHARTING RECOMMENDATION

The Hydrographer recommends the following:

Revise the charted "12 ft rep 1982" notes to read "12 ft 1992". Do not concur, revise "12 ft rep 1982" notes to read "8 ft 1992"

Chart a ^{7.8}2.8 meter (9.2 Ft.) sounding corrected to MLLW, based on predicted tides inside the channel at Lat 28°39'32.29"N, Lon 96°34'09.42"W. Do not concur, chart Note.

Chart the presently demarked channel limits to be centered on the axis line of Point Comfort Inner Channel Range "A" (an approx. shift of 34 meters east) between Lat 28°39'33.5"N, Lon 96°34'08.7"W. The bend on the south side of the channel centered at Lat 28°39'32.3"N, Lon 96°34'06.4"W, should also shift southeast approx. 34 meters. Concur

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5285

Item Description: Small pier appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°38'55"N Lon 96°33'49"W

Required Investigation: VS, BD, DI, SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 763,773

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position (Pos. No. 763) was taken at the offshore end of a pipeline walkway in ruins. The wooden ruins extends 3.0 meters from and perpendicular to shore.

A disused pipeline extends from Pos. No. 763, west-northwest across the channel to Pos. No. 773. Ruins consisting of a group of fifteen piles exist at position 773. Two more piles exist inshore of the group of piling, evenly spaced to shore, bearing 290° magnetic.

CHARTING RECOMMENDATION

The Hydrographer recommends revising the charted pier to ruins. Chart a disused pipeline from position No. 763 to position No. 773.

Recommended Position: Ruins> Pos. No. 763 Latitude 28°38'56.0⁶5"N
Longitude 96°33'50.0⁸8"W

Disused pipeline from> Pos. No. 763 Latitude 28°38'56.0⁶8"N
Longitude 96°33'50.0⁸8"W
To

Pos. No. 773 Latitude 28°38'58.5⁶⁰8"N
Longitude 96°33'55.66"W

Recommended Least Depth: The ruins were found baring 3.0 meters at 1903Z, corrected to bare 3.0 meters at ^{MHW}MLLW, the piling ^{uncovered} bare 2.5 meters at 2011Z, corrected to bare 2.5 meters at ^{MHW}MLLW, based on predicted tides. - ^{concur} chart area as shown on ^{MHW}smooth sheet.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5286

Item Description: Pile appeared on chart 11317 prior to 1980.

Source: UNKNOWN

AWOIS Position: Lat 28°38'57"N, Lon 96°33'47"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11316. 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 765, 767

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position (No. 765) was taken on a multi-pile dolphin. The item was described as a pile in the AWOIS file. This dolphin is the west-southwestern most of a row of four dolphins which extends to position No. 767.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the charted pile and chart a row of four dolphins as shown on TP-01650, between the following positions.-CONCUR, chart area as shown on smooth sheet.

Recommended Position: Position No. 765: Latitude 28°38'57.⁸⁰~~79~~"N
Longitude 96°33'47.86"W

767 Latitude 28°38'58.⁴²~~40~~"N
Longitude 96°33'44.⁸³~~82~~"W

Recommended Least Depth: The dolphins were found ^{bare}~~baring~~ 3.5 meters at 1931Z, corrected to bare 3.⁵~~5~~ meters at ^{MHW}~~MHW~~ based on ^{smooth}~~predicted~~ tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5287

Item Description: PIER

Source: UNKNOWN

AWOIS Position: Lat 28°38'56.5"N Lon 96°33'45"W

Required Investigation: VS, BD, DI, SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 766
latitude 28/38/57.89, longitude 96/33/45.6
Investigation Used: VS

Launch Number: 1292

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: Per conversation with Mr. Gene Thurmond, Unit Supervisor (512-987-2651), Alcoa Aluminum, the pier was an unloading pier for salt, and was removed about 1975. A detached position was taken at the AWOIS position for disapproval.

CHARTING RECOMMENDATION

The Hydrographer recommends the deletion of the charted pier. - CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5288

Item Description: Two piles appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°38'59"N Lon 96°33'45"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 768-769

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: Detached positions were taken at the offshore (pos. 768) and inshore ends (pos. 769) of a row of four evenly spaced dolphins. (See position GP's listed below)

Per conversation with Mr. Gene Thurmond, Unit Supervisor, Alcoa Aluminum (512-987-2651) the piles existing in the area were removed and replaced with dolphins.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the charted piles and notation and charting a row of four evenly spaced dolphins between the following positions. -cancel

Recommended Position:	Pos. No. 768 -	Latitude	28°38'59. ⁶⁰ 58"N
		Longitude	96°33'46. ²⁴ / ₂₅ "W
	Pos. No. 769 -	Latitude	28°39'00. ⁵ 00"N
		Longitude	96°33'44. ⁴⁸ / ₅ "W

Recommended Least Depth: The dolphins were found baring 4.0 meters at 1944Z, corrected to bare ^{3.6}4.0 meters at ~~MLLW~~ ^{MHW} based on ~~predicted~~ ^{with smooth} tides applied.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5289

Item Description: Pile appeared on chart prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°39'02"N Lon 96°33'46"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 770.
latitude 28/39/02.02, longitude 96/33/46.29

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A visual search was conducted in the area with negative results. Per conversation with Mr. Gene Thurmond, Unit Supervisor, Alcoa Aluminum (512-987-2651), this item was a dolphin and not a pile. The dolphin was struck by a barge and was damaged. The dolphin was removed in December 1991, by a floating crane. A detached position was taken at the center AWOIS position for disproval. -CONCUR

CHARTING RECOMMENDATION

The Hydrographer recommends the deletion of the charted pile. -CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5290, 5292

Item Description: Pier appeared on chart 11317 prior to 1980 ed.,
5 piles in line with turning basin appeared prior to 1980 ed.
Source: UNKNOWN

AWOIS Position: Lat 28°39'08"N Lon 96°33'48"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/27/92

DN(s): 058

Position Numbers: 748-749,751

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: The pier described as AWOIS 5290 exists and was located by position No. 751. AWOIS 5292 a row of (piles) dolphins also exists, on both sides, perpendicular to the pier and parallel to the shore. Per conversation with Mr. Gene Thurmond, Unit Supervisor, Alcoa Aluminum (512-987-2651), in October 1991, four steel dolphins, two at each end, were added to the row of existing concrete and wood dolphins, at equal spacing. Catwalks were also built connecting the entire row of dolphins to the aluminite loader located at the center, thus creating a large "T" shaped pier. Detached positions were taken at the north, south, and center offshore ends of the "T" shaped aluminite loading pier.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the row of piles (AWOIS 5292) and charting a large "T" shaped pier delimited by the following positions: -cancel, chart pier as shown in red on the smooth sheet.

North end of pier (Pos No.749): Latitude 28°39'12.42⁴²"N
Longitude 96°33'50.54⁵⁴"W

South end of pier (Pos No.748): Latitude 28°39'04.75⁷⁵"N
Longitude 96°33'47.37³⁷"W

Center of pier (Pos No.751): Latitude 28°39'08.75⁷⁵"N
Longitude 96°33'49.12¹²"W

Recommended Least Depth: The pier was found baring 3.0 meters at 1749Z, corrected to bare 3.0 meters at ~~MLLW~~ ^{MHW} based on ~~predicted~~ ^{smooth} tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5291

Item Description: Pier appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°39'09.98"N Lon 96°33'48.91"W

Required Investigation: VS,BD,DI,SD

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/27/92

DN(s): 058

Position Numbers: 750

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken at the offshore end of wooden pier ruins. The pier ruins were located behind a large "T" shaped aluminite loading pier (AWOIS 5290,5292) at the Alcoa aluminum plant.

CHARTING RECOMMENDATION

The Hydrographer recommends revising the charted pier to pier ruins. *Concur, remove pier and chart ruins as shown on smooth sheet.*

Recommended Position: Lat 28°39'10.30"N, Lon 96°33'^{49.00}~~48.99~~"W

Recommended Least Depth: The pier ruins were found bearing 5.0 meters at 1744Z, corrected to bares ^{4.6}~~5.0~~ meters at ^{MLLW}~~MLLW~~ based on ^{smooth}~~predicted~~ tides. ^{MHW}

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5293

Item Description: Row of piling appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°39'09"N Lon 96°33'55"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11317

INVESTIGATION

Date(s): 2/27/92

DN(s): 058

Position Numbers: 744, 746-747

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: Detached positions were taken at the north and south ends of a row of piling. A position was also taken at the near center dog leg of the row. The piles are tied together with heavy steel cable. Point Comfort Inner Channel Light "7" (private aid to navigation) is atop the southern-most pile of the row. The piling are used to berth loaded and empty barges from the adjacent "T" shaped aluminite loading pier.

CHARTING RECOMMENDATION

Delete and chart the row of dols
Revise the charted row of piling delimited by the following:

Recommended Position: North end (Pos. 744) Latitude 28°39'13.⁶⁰~~59~~"N
Longitude 96°33'58.¹⁵~~17~~"W

Center dog leg (Pos. 746) Latitude 28°39'09.⁵⁴~~53~~"N
Longitude 96°33'55.52"W

South end (Pos. 747) Latitude 28°39'04.³³~~32~~"N
with Lt. "7" Longitude 96°33'53.⁸¹~~82~~"W

Recommended Least Depth: The row of piling were found baring 4.0 meters at 1719Z, corrected to bare 4.0 meters at MLLW based on predicted tides.
3.6 MHW

COMPILATION NOTES

Chart

Applied As

Awois No. 5294

Item Description: "Rubble reported along pier" appeared on chart 11317 prior to 1980.

Source: UNKNOWN

AWOIS Position: Lat 28°38'35"N Lon 96°36'25"W

Required Investigation: VS, BD, DI, SD, ##

Charts Affected: 11316. 11317

INVESTIGATION

Date(s): 3/2/92

DN(s): 062

Position Numbers: 789-790

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken on bridge rubble near the center north side of the fishing pier (PN 790) as well as the northern tip of the rubbles L-shape (PN 789) at the eastern end of the charted pier. The rubble is part of the remains of the wooden bridge which spanned Lavaca Bay from the northeast at Point Comfort, to the southwest at Port Lavaca. Most of the bridge was removed except for ~~an~~ approximately 975 meter section from the west shore, and a 425 meter causeway section from the east shore, which are now employed as fishing piers. The longest section of the old bridge, extending from the west shore, was cut in half along its entire length. The remains were dumped in the bay along the north side of the "fishing pier". The rubble extends ≤ 15 meters, north of and parallel to the entire length of the pier.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the "Rubble reported along pier" notation and charting ruins parallel to and 15m north of the entire length of charted fishing pier on the 1:20,000 scale inset on chart 11317 and amending the "Rubble rep along pier" notation to read "Rubble along pier" on the affected 1:50,000 scale portion of chart 11317. Do not concur chart ruin limits as shown on smooth sheet.

Recommended Position: PN 789> Latitude 28°38'44.²⁸"N
Longitude 96°36'11.14"W

PN 790> Latitude 28°38'34.⁹⁹"N
Longitude 96°36'22.⁸⁸"W

Recommended Least Depth: The rubble was found baring 3.5 meters at 1633Z, corrected to bares ^{3.5} meters at ~~MHW~~ based on ~~predicted~~ tides.

*****^{3.5}*****^{MHW}*****^{smooth}*****

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5295

Item Description: Ruins appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°38'21"N Lon 96°36'38"W

Required Investigation: VS, BD, DI, SD, ##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/25/92

DN(s): 085

Position Numbers: 2530

Launch Number: 1292

latitude 28/38/21.25, longitude 96/36/38.83

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken approximately 40 meters, bearing 285° magnetic, from the center position of charted ruins. The launch was aground and an offset was not applied. The ruins were not seen visually while in very shallow water. An approximately 300 meter long stretch of the shoreline from the base of the fishing pier at the concrete groin, running southwest is under construction. Two new groins will be constructed and the shoreline will be altered by the construction of a sandy beach.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the charted ruins. -CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5298

Item Description: Platform ruins bare at MHW.

Source: CL1592/81--USPS

AWOIS Position: Lat 28°39'22"N Lon 96°35'55"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/25/92

DN(s): 085

Position Numbers: 2518

Launch Number: 1292

latitude 28/39/22.04, longitude 96/35/55.04

Investigation Used: BD

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A 25 meter radius circle drag was conducted. No hangs were found. A detached position was taken at the center AWOIS position.

CHARTING RECOMMENDATION

The Hydrographer recommends deleting the charted platform ruins. -CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5299

Item Description: Platform ruins bare at MHW.

Source: CL723/79--USPS

AWOIS Position: Lat 28°38'45"N Lon 96°35'22"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/18/92

DN(s): 049

Position Numbers: 605

Launch Number: 1292

latitude 28/38/44.95, longitude 96/35/21.54

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken at the center of platform ruins. Four piles remain, in a 2 meter square area.

CHARTING RECOMMENDATION

The Hydrographer recommends the charted platform ruins remain as charted. Revise platform ruins to the position as found on this survey.

Recommended Position: Latitude 28°38'44.9⁵N, Longitude 96°35'21.54W

Recommended Least Depth: Bares ^{2.4}~~2.6~~m at 154447Z, corrected by predicted tides to ~~MLLW~~
^{smooth} MHW.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5301

Item Description: Marker bare at MHW appeared on chart 11317 prior to 1980 edition.

Source: UNKNOWN

AWOIS Position: Lat 28°38'51"N Lon 96°35'01"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 3/25/92

DN(s): 085

Position Numbers: 2522

Launch Number: 1292

latitude 28/38/50.950, longitude 96/35/00.97

Investigation Used: BD

Dive Report No: 1292

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken at the center position of a 50 meter circle drag for a charted marker. Nothing was found, no hangs.

CHARTING RECOMMENDATION

The Hydrographer recommends the deletion of the charted marker. — CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5365

Item Description: Small T-shaped pier.

Source: Unknown

AWOIS Position: Lat - 28°39'41"N Lon - 96°33'58"W

Required Investigation: VS, BD, DI, SD - 25m radius

Charts Affected: 11317

INVESTIGATION

Date(s): February 28, 1992

DN(s): 059

Position Numbers: 754

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A small T-shaped pier was located on DN 059, Position No. 754.

CHARTING RECOMMENDATION

The Hydrographer recommends the pier be charted at the following position baring the following amount: *-cancel, delete charted pier, and revise to location found on this survey.*

Recommended Position: Lat - 28°39'41.3" Lon - 96°33'59.3"

Recommended Least Depth: The pier was found *baring* 2.5m at 1557Z corrected to bare *2.1* at ~~MLLW~~ *MHW* based on ~~predicted~~ *smooth* tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5366

Item Description: Three small piers appeared on first edition of chart.

Source: UNKNOWN

AWOIS Position: Lat 28°39'35.98"N Lon 96°33'55.91"W

Required Investigation: VS,BD,DI,SD,##

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): 2/28/92

DN(s): 059

Position Numbers: 927-928

Launch Number: 1292

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: Detached positions were taken at the center offshore end of two of the charted piers. The remaining pier was not located visually. A bottom drag was not possible due to the fact that the area was congested with barges and dolphins. Launch 1292 had to maneuver between the barges and row of dolphins in order to acquire positions on these shoreline features. The remaining pier that was not visible has probably been removed, however this was not verified. A row of dolphins was located offshore of the charted piers and are the most significant feature in this area. The towboats and barges cannot move beyond these dolphins.

CHARTING RECOMMENDATION

The Hydrographer recommends ^{charting} ~~retaining only~~ the two located piers and removing the third pier in this area, from the chart. -CONCUR

Recommended Position: PN 927> Lat 28°39'36.¹⁴~~13~~"N, Lon 96°33'55.⁸⁴~~83~~"W
PN 928> Lat 28°39'37.⁸⁶~~85~~"N, Lon 96°33'56.⁶²~~61~~"W

Recommended Least Depth: Both piers were found baring 2.5 meters at 2125Z, corrected to bare 2.6 meters at ^{MHW} ~~MLLW~~ based on ^{smooth} ~~predicted~~ tides.

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5367

Item Description: L-shaped pier.

Source: Unknown

AWOIS Position: Lat - 28°39'33."N Lon - 96°33'56."W

Required Investigation: VS, BD, DI, SD - 25m radius

Charts Affected: 11317

INVESTIGATION

Date(s): February 28, 1992

DN(s): 059

Position Numbers: 758

Launch Number: 1292

latitude 28/39/34.26, longitude 96/33/56.80

Investigation Used: VS

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: An L-shaped pier approximately 20 meters long was located on DN 059, Position No. 758.

CHARTING RECOMMENDATION

The Hydrographer recommends the pier be charted at the following position. ~~and bearing the following amount: - CONCUR~~

Recommended Position: Lat - 28°39'34.2" Lon - 96°33'56.8"

Recommended Least Depth: The pier was found bearing 3.0m at 1633Z corrected to bare ~~3.0m~~ at ~~MHW~~ ^{2.6} based on ~~predicted~~ ^{MHW} tides. ^{smooth}

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 5506

Item Description: Piling reported as debris of old destroyed light (Lavaca River Approach Channel Range B Rear Light).

Source: LNM7/88(2/19/88)--8TH CGD

AWOIS Position: Lat 28°39'12"N Lon 96°36'30"W

Required Investigation: VS, BD, DI, SD

Charts Affected: None

INVESTIGATION

Date(s): 3/25/92

DN(s): 085

Position Numbers: 2514

Launch Number: 2514

latitude 28/39/11.870, longitude 96/36/29.94

Investigation Used: BD

Dive Report No: N/A

Position Determined By: Falcon Multiple Range

Investigation Summary: A detached position was taken at the center position of a 50 meter circle drag. Nothing was found, no hangs.

CHARTING RECOMMENDATION

This item was not charted on either chart 11316 or 11317. The Hydrographer does not recommend charting the destroyed range light. - CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

Station No ?		Lat	Lon	H	Cart	Freq	Vel	Code	MM/DD/YY	Station Name
No	Type									
001	F	028:39:08.751	096:33:48.617	37	250	0.0	0	4	05/08/91	ALCOA 1990
002	F	028:40:17.831	096:38:14.547	6	250	0.0	0	1	05/08/91	BLUF 1990
003	F	028:39:44.601	096:34:56.482	0	139	0.0	0		05/08/91	CAUS 1990
004	F	028:34:59.694	096:36:29.910	0	139	0.0	0		05/08/91	CHOC 1990
005	F	028:33:23.435	096:31:27.214	6	250	0.0	0	C	05/08/91	INDI 1990
006	F	028:30:25.466	096:28:47.523	6	250	0.0	0		05/08/91	IOLA 1990
007	F	028:41:53.224	096:34:34.009	0	0	0.0	0		05/08/91	LAVACA RIVER LIGHT 3
008	F	028:34:07.669	096:33:55.899	0	250	0.0	0		05/08/91	MAGNOLIA 1934
009	F	028:35:58.914	096:34:14.621	0	139	0.0	0		05/08/91	MATAGORDA SHIP CH RNG C FRT LT
010	F	028:36:35.747	096:35:07.085	18	250	0.0	0	3	05/08/91	MATAGORDA SHIP CH RNG C R LT
011	F	028:35:46.233	096:34:02.389	0	139	0.0	0		05/08/91	MATAGORDA SHIP CH RNG D FRT LT
012	F	028:35:26.693	096:34:02.932	15	250	0.0	0		05/08/91	MATAGORDA SHIP CH RNG D R LT
013	F	028:38:45.466	096:33:40.337	0	139	0.0	0		05/08/91	MITCHELL 2 1956
014	F	028:38:23.410	096:36:38.092	5	250	0.0	0	5	05/08/91	NOLE 1990
015	F	028:39:26.191	096:35:09.366	0	139	0.0	0		05/08/91	PIER PK 1990
016	F	028:36:57.750	096:30:48.191	6	250	0.0	0	2	05/08/91	RHOD 1990
017	F	028:34:12.754	096:29:19.105	11	250	0.0	0	D	05/08/91	SAND 1990
018	F	028:43:17.941	096:36:36.066	6	250	0.0	0	6	05/08/91	VEDO 1990
019	F	028:38:37.047	096:33:47.871	0	139	0.0	0		05/08/91	ZEPP 1989
020	F	028:26:10.961	096:20:01.576	0	250	0.0	0		05/08/91	TEMP 01
021	F	028:27:39.775	096:17:46.171	0	250	0.0	0		05/08/91	OSSOED 2 1906
022	F	028:35:28.457	096:11:22.074	0	250	0.0	0	C	05/08/91	LAKE 2 1906
023	F	028:40:34.424	096:16:14.008	0	250	0.0	0		05/08/91	TURT 1991
024	F	028:36:26.852	096:24:20.045	0	250	0.0	0		05/08/91	DUNG 1991
025	F	028:35:13.034	096:26:49.244	0	139	0.0	0		05/08/91	VACA 1991
026	F	028:23:56.881	096:24:25.772	0	250	0.0	0		05/08/91	RUIN 1991
027	F	028:32:20.570	096:18:44.040	0	250	0.0	0		05/08/91	PLAT PK 1991
028	F	028:41:52.040	096:12:37.979	0	250	0.0	0		05/08/91	PALA 1991
029	F	028:38:33.081	096:14:06.706	0	250	0.0	0		05/08/91	INDY 1991
030	F	028:35:08.621	096:17:11.587	10	250	0.0	0		05/08/91	CHAN PK 1991
031	F	028:34:45.981	096:13:33.884	0	250	0.0	0		05/08/91	EROD 1991

RESPONSIBLE PERSONNEL		ORIGINATOR
TYPE OF ACTION	NAME	<input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
OBJECTS INSPECTED FROM SEAWARD	THOMAS M. RYBARSKI	FIELD ACTIVITY REPRESENTATIVE
POSITIONS DETERMINED AND/OR VERIFIED	BRIAN A. LINK	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.)		
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982	
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field Identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.	

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

TO BE CHARTED
 TO BE REVISED
 TO BE DELETED

REPORTING UNIT
(Field Party, Ship or Office)

AHP2

HAVE HAVE NOT

STATE
TEXAS

LOCALITY
LAVACA BAY

DATE
4/92

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
 HYDROGRAPHIC PARTY
 GEODETIC PARTY
 PHOTO FIELD PARTY
 COMPILATION ACTIVITY
 FINAL REVIEWER
 QUALITY CONTROL & REVIEW GRP.
 COAST PILOT BRANCH
(See reverse for responsible personnel)

CHARTS AFFECTED
11316
11317
11316
11317
11316
11317
11316
11317
11316
11317
11316
11317

METHOD AND DATE OF LOCATION
(See instructions on reverse side)

OFFICE

FIELD
HYDROGRAPHIC DETACHED
POSITION
HYDROGRAPHIC DETACHED
POSITION
HYDROGRAPHIC DETACHED
POSITION
HYDROGRAPHIC DETACHED
POSITION
HYDROGRAPHIC DETACHED
POSITION
HYDROGRAPHIC DETACHED
POSITION

DATUM
N.A.D. 1983

POSITION

LATITUDE
D.M. Meters
0 1
28 38
28 38
28 38
28 38
28 40

LONGITUDE
D.P. Meters
0 1
096 35
096 35
096 35
096 35
096 34

DESCRIPTION
(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses.)

SURVEY NUMBER
H-10416

DAYBEACON
LLN 26740
LAVACA BAY CHANNEL DAYBEACON 8
LLN 26745
LAVACA BAY CHANNEL DAYBEACON 9
LLN 26750
LAVACA BAY CHANNEL DAYBEACON 11
LLN 26755
LAVACA BAY CHANNEL DAYBEACON 12
LLH 26780
LAVACA BAY CHANNEL DAYBEACON 2-2

USCG LIGHT LIST, VOL IV, 1992

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	THOMAS M. RYBARSKI
POSITIONS DETERMINED AND/OR VERIFIED	BRIAN A. LINK
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'
(Consult Photogrammetric Instructions No. 64.)

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:
F - Field
L - Located
V - Verified
1 - Triangulation
2 - Traverse
3 - Intersection
4 - Resection
5 - Field Identified
6 - Theodolite
7 - Planetable
8 - Sextant

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION			ORIGINATING ACTIVITY		
NONFLOATING AIDS OR LANDMARKS FOR CHARTS		LOCALITY		DATE		<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)	
REPORTING UNIT (Field Party, Ship or Office)		STATE		DATE			
<input type="checkbox"/> TO BE CHARTED <input checked="" type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		AHP2 TEXAS LAVACA BAY 5/92					
The following objects HAVE <input type="checkbox"/> HAVE NOT <input type="checkbox"/> been inspected from seaward to determine their value as landmarks.		SURVEY NUMBER H-10416 DATUM N.A.D. 1983					
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	LATITUDE		LONGITUDE		METHOD AND DATE OF LOCATION (See instructions on reverse side)	CHARTS AFFECTED
		D.M. Meters	S	D.P. Meters	W		
RANGE A	POINT COMFORT INNER CHANNEL	28 39	096 34	14.807		GPS	11316
FRONT LT.	RANGE A FRONT LIGHT LUN26635					4/92	11317
RANGE A	POINT COMFORT INNER CHANNEL	28 39	096 34	16.041		GPS	11316
REAR LT.	RANGE A REAR LIGHT LUN 26640					4/92	11317
RANGE B	POINT COMFORT INNER CHANNEL	28 38	096 34	04.21	08	GPS	11316
FRONT LT.	RANGE B FRONT LIGHT LUN26605					4/92	11317
RANGE B	POINT COMFORT INNER CHANNEL	28 38	096 34	34.18	48	GPS	11316
REAR LT.	RANGE B REAR LIGHT LUN26610					4/92	11317
RANGE E	MATAGORDA SHIP CHANNEL	28 39	096 33	56.281		GPS	11316
FRONT LT.	RANGE E FRONT LIGHT LUN 26470					4/92	11317
RANGE E	MATAGORDA SHIP CHANNEL	28 39	096 33	55.61	01	GPS	11316
REAR LT.	RANGE E REAR LIGHT LUN 26475					4/92	11317
USSC LIGHT LIST, VOL. IV, 1992							
* There are 3rd order positions							
Pre-v app'd							
L-1090 (93)							

RESPONSIBLE PERSONNEL

RESPONSIBLE PERSONNEL		ORIGINATOR
TYPE OF ACTION	NAME	<input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
OBJECTS INSPECTED FROM SEAWARD	THOMAS M. RYBARSKI	FIELD ACTIVITY REPRESENTATIVE OFFICE ACTIVITY REPRESENTATIVE <input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
POSITIONS DETERMINED AND/OR VERIFIED	BRYAN A. LINK	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'
 (Consult Photogrammetric Instructions No. 64.)

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
 Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
 EXAMPLE: 75E(C)6042
 8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
 Enter the applicable data by symbols as follows:
 F - Field
 L - Located
 V - Verified
 1 - Triangulation
 2 - Traverse
 3 - Intersection
 4 - Resection

A. Field positions* require entry of method of location and date of field work.
 EXAMPLE: F-2-6-L
 8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.**
 EXAMPLE: P-8-V
 8-12-75
 74L(C)2982

II. TRIANGULATION STATION RECOVERED
 When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
 EXAMPLE: Triang. Rec.
 8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
 Enter 'V-Vis.' and date.
 EXAMPLE: V-Vis.
 8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
439 West York St.
Norfolk, VA 23510-1114

April 9, 1992

**ADVANCE
INFORMATION**

Commander, (OAN)
Eighth U. S. Coast Guard District
Hale Boggs Federal Building
501 Magazine Street
New Orleans, LA 70130-3396

Dear Sir,

While conducting basic hydrographic surveys H-10416 and H-10417, to update nautical charts of Matagorda and Lavaca Bays, Texas, the following uncharted items, considered dangers to navigation, were identified.

From Survey H-10416

► An obstruction comprised of 3 ft. diameter steel wreckage was found, baring 4.6 feet at MLLW at latitude $28^{\circ}38'39.76''N$, longitude $096^{\circ}34'04.09''W$. Item K on attached chart section.

► Pipeline crossing signs were found on both sides of the Lavaca Bay channel; on the east side at latitude $28^{\circ}40'07.11''N$, longitude $096^{\circ}35'35.02''W$, and on the west side at latitude $28^{\circ}40'12.52''N$, longitude $096^{\circ}35'42.59''W$. The sign on the east side of the channel bares 16 feet at MLLW. The sign on the west side of the channel bares 15 feet at MLLW. Item L on attached chart section.

► An obstruction comprised of a 15 ft. by 2 ft. square wooden timber was found at latitude $28^{\circ}39'17.84''N$, longitude $096^{\circ}35'23.83''W$. This obstruction bares 1.3 feet at MLLW. Item M on attached chart section.

► A 12 inch diameter wood pile baring 8.5 feet at MLLW was found at latitude $28^{\circ}39'14.3''N$, longitude $096^{\circ}35'26.6''W$. Item N on attached chart section.

► A 12 inch diameter wood pile baring 11 feet at MLLW was found at latitude $28^{\circ}39'06.19''N$, longitude $096^{\circ}37'00.25''W$. Item P on attached chart section.



ADVANCE INFORMATION

► The position of a platform charted at latitude 28°39'49.7"N, longitude 096°35'58.79"W, should be revised to platform ruins at latitude 28°39'46.77"N, longitude 096°36'01.63"W. The charted location was investigated by bottom drag and nothing was found. The platform ruins bare 7.5 feet at MLLW. Item Q on attached chart section.

► A wreck charted as position approximate at latitude 28°39'56.98"N, longitude 096°34'47.91"W should be revised to the position where the wreck was found at latitude 28°40'02.56"N, longitude 096°34'50.64"W. The wreck uncovers 1.3 feet at MLLW. Item R on attached chart section.

From Survey H-10417

The following uncharted shoals were found:

<u>Latitude</u>	<u>Longitude</u>	<u>Least Depth</u>
28°33'21.0"N Item A on attached chart section.	096°28'16.0"W	6.2 ft.
28°33'31.5"N Item B on attached chart section.	096°27'17.5"W	8.2 ft.
28°34'14.0"N Item C on attached chart section.	096°27'15.0"W	7.5 ft.
28°33'49.0"N Item D on attached chart section.	096°26'49.0"W	9.5 ft.
28°33'46.0"N Item E on attached chart section.	096°26'38.0"W	8.2 ft.
28°33'46.5"N Item F on attached chart section.	096°26'27.0"W	8.2 ft.
28°33'15.0"N Item G on attached chart section.	096°26'15.0"W	8.9 ft.
28°33'20.0"N Item H on attached chart section.	096°25'21.0"W	8.5 ft.
28°33'29.0"N Item J on attached chart section.	096°25'13.0"W	9.8 ft.

The geographic positions are North American 1983 Datum. Depths reported are corrected for predicted tides for Port O'Connor, Texas. These features were located by four lines of position from Motorola Falcon Mini-Ranger electronic positioning system units set up on third order, class 1, ground control stations.

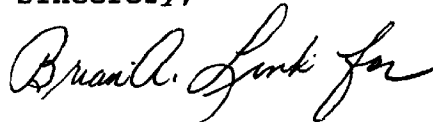
**ADVANCE
INFORMATION**

This report constitutes a correction to information shown on Chart 11317, 20th ed., Mar 23/91, and 11319, 22th ed., Feb 10/90, and should be included in the Local Notice to Mariners.

Chart sections of these areas, showing the locations of these dangers, are attached.

Questions concerning this report should be directed to me at (804) 441-6746 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, Washington, at (206) 526-6853.

Sincerely,



Thomas R. Waddington, LT, NOAA
Chief, Atlantic Hydrographic Party

Attachments

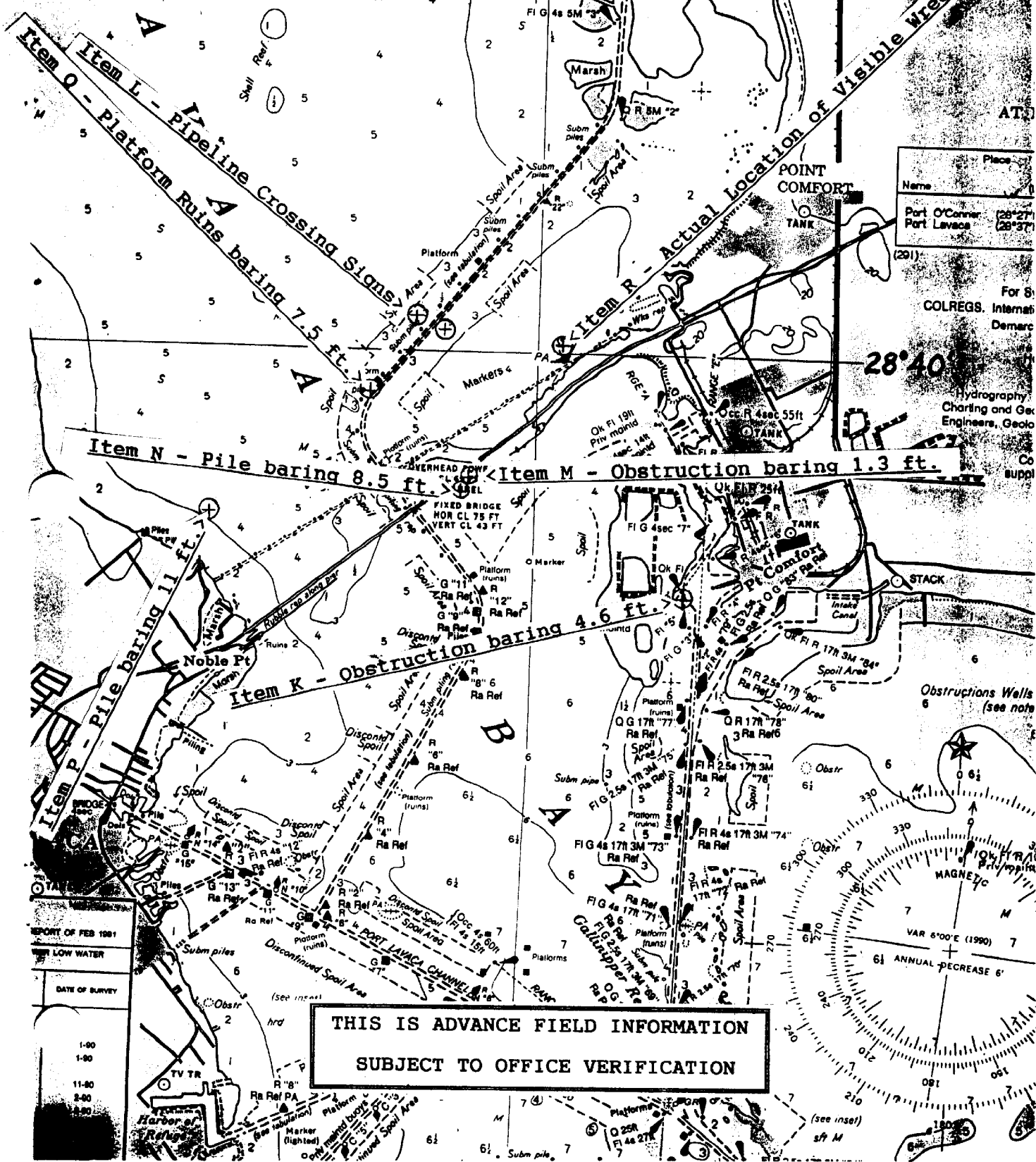
cc: N/CG221
N/CG2451
DMAHTC

THIS IS ADVANCE FIELD INFORMATION
SUBJECT TO OFFICE VERIFICATION

Section from Chart 11317
20th Edition, Mar. 23/91
1:50,000 Scale

**ADVANCE
INFORMATION**

TRES



Place	Name	Coordinates
Port O'Conner		(28°27')
Port Lavaca		(29°37')
		(291)

For S:
COLREGS. Internat
Demarc
Hydrography/
Charting and Ge
Engineers, Geolo
Co
suppl

REPORT OF FEB 1981

HIGH LOW WATER

DATE OF SURVEY

1-00
1-00
11-80
2-80
2-80

TV TR

Harbor of Refuge

**THIS IS ADVANCE FIELD INFORMATION
SUBJECT TO OFFICE VERIFICATION**

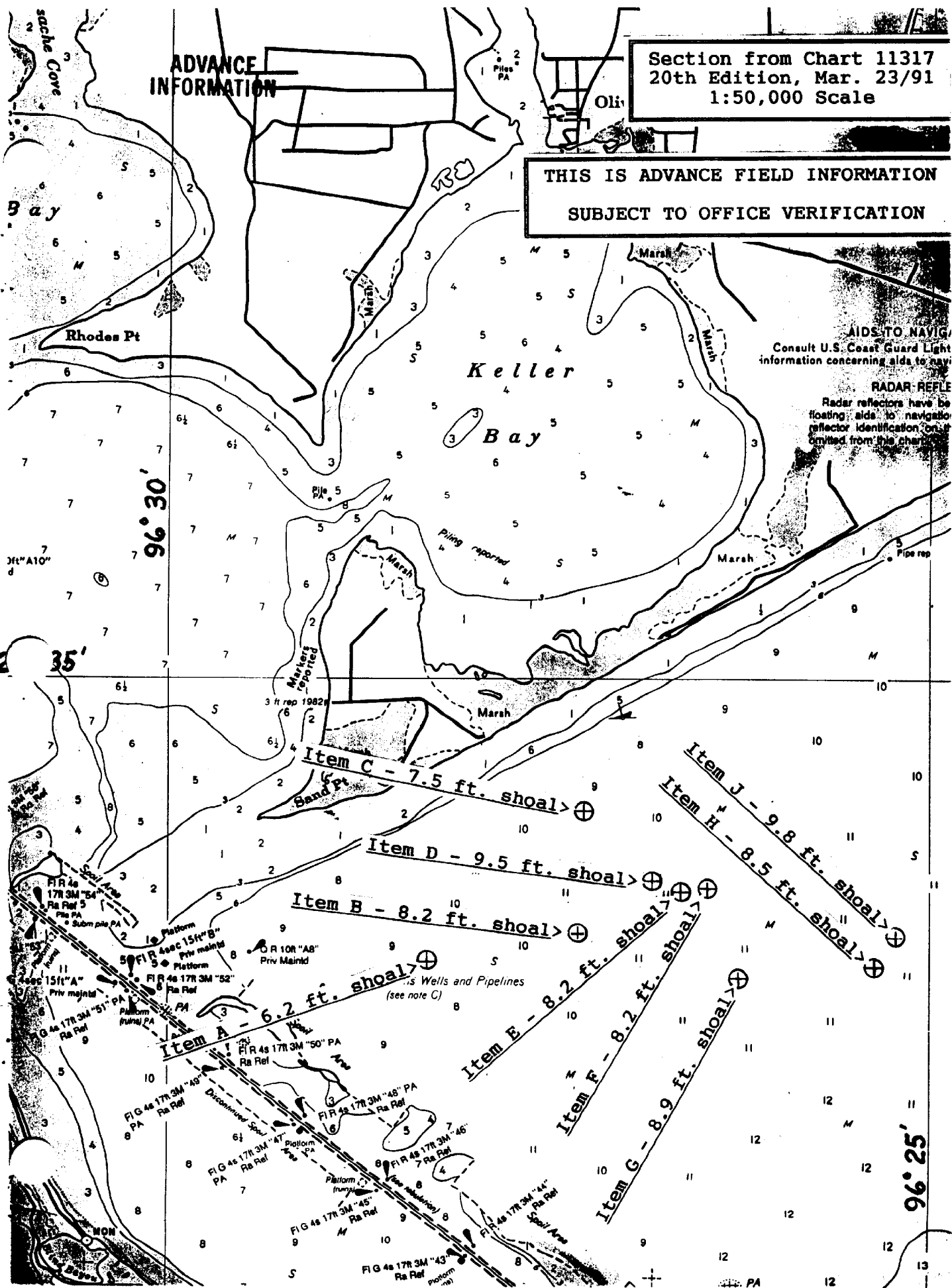
ADVANCE INFORMATION

Section from Chart 11317
20th Edition, Mar. 23/91
1:50,000 Scale

**THIS IS ADVANCE FIELD INFORMATION
SUBJECT TO OFFICE VERIFICATION**

AIDS TO NAVIGATION
Consult U.S. Coast Guard Light
information concerning aids to navigation

RADAR REFLECTOR
Radar reflectors have been
floating aids to navigation
reflector identification omitted from this chart



3ft "A10"

96° 30'

35'

96° 25'

Wells and Pipelines
(see note C)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
439 West York St.
Norfolk, VA 23510-1114

May 13, 1992

**ADVANCE
INFORMATION**

Commander, (OAN)
Eighth U. S. Coast Guard District
Hale Boggs Federal Building
501 Magazine Street
New Orleans, LA 70130-3396

Dear Sir,

While conducting basic hydrographic survey H-10416, to update the nautical charts of Matagorda and Lavaca Bays, Texas, the Atlantic Hydrographic Party identified the following uncharted items, considered dangers to navigation.

Lavaca Bay
Point Comfort Inner Channel

►An uncharted, disused pipeline extends from the east shore at the Alcoa Aluminum facility, Latitude 28°38'56.05"N, Longitude 96°33'50.08"W, west-northwest across the Point Comfort Inner Channel to approximately 200 feet east of the large spoil island, Latitude 28°38'58.58"N, Longitude 96°33'55.66"W. A group of fifteen pilings exist at this position with two more piles inshore of this group, at equal spacing, extending 290° magnetic bearing, to shore. The pilings are the ruins of a wooden pipeline support structure and constitute the danger to navigation. The pilings bare 2.5 meters (8.2 feet) at MLLW. Item A on attached chart section.

►A 2.8 meter (9.2 foot) sounding at MLLW, was found inside the charted channel limits at the north end of Point Comfort Inner Channel at Latitude 28°39'32.3"N, Longitude 96°34'09.4"W. Item B on attached chart section.

The geographic positions are North American 1983 Datum. Depths reported are corrected for predicted tides for Port O'Connor, Texas. These features were located by three to four lines of position from Motorola Falcon Mini-Ranger electronic positioning system units set up on third order, class 1, ground control stations.



**ADVANCE
INFORMATION**

This report constitutes a correction to information shown on Chart 11317, 20th ed., Mar 23/91, and 11316, 33rd ed., Jan 19/91, and should be included in the Local Notice to Mariners.

Also, an error was noted in the Danger to Navigation letter from the Atlantic Hydrographic Party, dated April 9, 1992. Chart 11319 was incorrectly reported as one of the affected charts. Chart 11316 should replace chart 11319 as one of the affected charts.

Chart sections of these areas, showing the locations of these dangers, are attached.

Questions concerning this report should be directed to me at (804) 441-6746 or Mr. Dennis Hill at the Pacific Hydrographic Section, Seattle, Washington, at (206) 526-6853.

Sincerely,

Thomas R. Waddington
Thomas R. Waddington, LT, NOAA
Chief, Atlantic Hydrographic Party

Attachments

cc: N/CG221
N/CG2451
DMAHTC

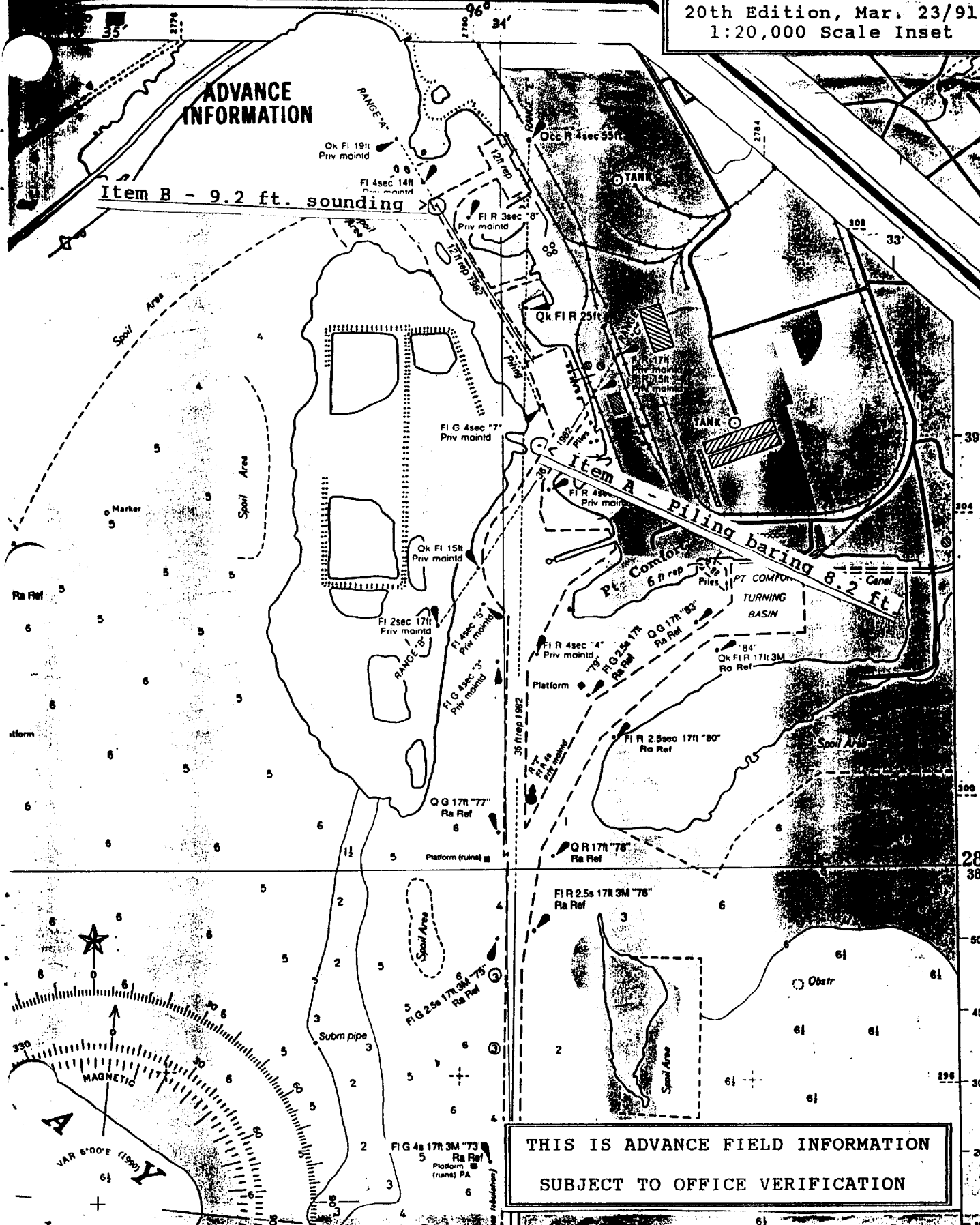
THIS IS ADVANCE FIELD INFORMATION
SUBJECT TO OFFICE VERIFICATION

Section from Chart 11317
 20th Edition, Mar. 23/91
 1:20,000 Scale Inset

**ADVANCE
 INFORMATION**

Item B - 9.2 ft. sounding

Item A - Piling baring 8.2 ft.



**THIS IS ADVANCE FIELD INFORMATION
 SUBJECT TO OFFICE VERIFICATION**

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

**ADVANCE
INFORMATION**

March 5, 1993

Commander (OAN)
Eighth Coast Guard District
Hale Boggs Federal Building
501 Magazine Street
New Orleans, LA 70130-3396

Dear Sir:

During office processing of hydrographic survey H-10416, Texas, Lavaca Bay, Point Comfort to Lavaca River, shoal soundings within charted channels were found that are considered potential dangers to navigation affecting the following chart.

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11317	21st 7/04/92	NAD 83

It is recommended that the enclosed Report of Dangers to Navigation be included in the Local Notice to Mariners.

Questions concerning this report should be directed to the Pacific Hydrographic Section at (206) 526-6853.

Sincerely,

Douglas G. Hennick
Commander, NOAA
Chief, Pacific Hydrographic Section

Enclosure

cc: DMA/TC
N/CG221

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DATE
H/CG247	Green / Lon	3/5			
CH2457	Hill	3/5			
NK3245	Hennick	3/5			

**ADVANCE
INFORMATION**

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10416
Survey Title: State: Texas
Locality: Lavaca Bay
Sublocality: Point Comfort to Lavaca River
Project Number: OPR-K228-AHP, Atlantic Hydrographic Party 2

The following items were discovered during office processing of hydrographic survey H-10416.

Objects discovered: Shoaler depths than previously reported were found inside the charted channel limits in the area of Point Comfort.

Affected nautical chart: 11317 (21st Edition, 07/04/92, NAD 83)

<u>CHARTED NOTE</u>	<u>CHANGE TO</u>	<u>GEOGRAPHIC POSITION</u>	
		<u>LATITUDE(N)</u>	<u>LONGITUDE(W)</u>
12 ft rep 1982	8 ft 1992	28°39'23.5"	96°34'05.5"
36 ft rep 1982	26 ft 1992	28°38'58.0"	96°33'52.7"
36 ft rep 1982	29 ft 1992	28°38'19.0"	96°33'58.2"

Questions concerning this report should be directed to the Pacific Hydrographic Section at (206) 526-6853.

APPROVAL SHEET
BASIC HYDROGRAPHIC SURVEY

OPR-K228-AHP2
AHP2-10-3-92
H-10416
1992

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K229-AHP2, the Hydrographic Manual, the Hydrographic Survey Guidelines, and the Field Procedures Manual. The survey data and reports were completed under frequent supervision. All boat sheets and final field sheets were reviewed in their entirety and all supporting records were also checked.

This survey is a complete basic hydrographic survey for the area described in Section B of this report.

Thomas R. Waddington
Thomas R. Waddington
LT., NOAA
Chief, Atlantic Hydrographic Party Two



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

ORIGINAL

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: May 19, 1992

MARINE CENTER: Pacific

OPR: K228

HYDROGRAPHIC SHEET: H-10416

LOCALITY: Lavaca Bay, Point Comfort to Lavaca River, TX

TIME PERIOD: February 7 - April 6, 1992

TIDE STATIONS USED: 877-3259 Port Lavaca, TX
Lat. 28° 38.5'N Lon. 96° 36.5'W

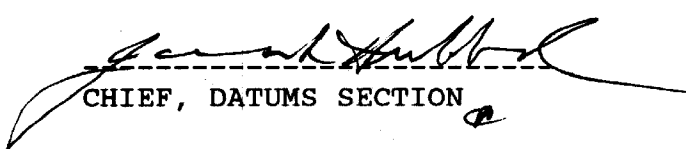
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 1.82 feet

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.0 foot

REMARKS: RECOMMENDED ZONING

Zone direct

NOTE: Hourly heights are tabulated on Central Standard Time.


CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

H-10416

Name on Survey	A ON CHART NO. 11317 B ON PREVIOUS SURVEY NO. H-5857 C ON U.S. QUADRANGLE MAPS D FROM LOCAL INFORMATION E ON LOCAL MAPS F P.O. GUIDE OR MAP G GRAND MCNALLY ATLAS H U.S. LIGHT LIST 11316									
	A	B	C	D	E	F	G	H	I	J
CATFISH BAYOU	X			X	X	X				1
COMFORT, POINT	X			X	X		X		X	2
LAVACA BAY	X	X		X	X	X	X	X	X	3
LAVACA BAY CHANNEL	X			X	X			X	X	4
LAVACA RIVER	X	X		X	X		X	X	X	5
MATAGORDA SHIP CHANNEL	X			X				X	X	6
NOBLE POINT	X			X	X	X			X	7
POINT COMFORT (locale)	X			X	X	X	X			8
POINT COMFORT INNER CHANNEL				X	X			X		9
PORT LAVACA (locale)	X	X		X	X	X	X	X	X	10
TEXAS	X	X							X	11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

Approved:

Charles Harrington
Chief Geographer - N/CG 2x5

SEP 21 1992

* Deleted per telecom Green/Harrington 7/21/93

NOAA FORM 77-27(H) (9-83)		U.S. DEPARTMENT OF COMMERCE		REGISTRY NUMBER		
HYDROGRAPHIC SURVEY STATISTICS				H-10416		
RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.						
RECORD DESCRIPTION		AMOUNT		RECORD DESCRIPTION		
SMOOTH SHEET		1		SMOOTH OVERLAYS: POS., ARC, EXCESS		
DESCRIPTIVE REPORT		1		FIELD SHEETS AND OTHER OVERLAYS		
DESCRIP- TION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR- GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES						
ENVELOPES						
VOLUMES	1					
CAHIERS	2					
BOXES				1		
SHORELINE DATA						
SHORELINE MAPS (List):		TP-01650				
PHOTOBATHYMETRIC MAPS (List):						
NOTES TO THE HYDROGRAPHER (List):						
SPECIAL REPORTS (List):						
NAUTICAL CHARTS (List):		11317, 11316				
OFFICE PROCESSING ACTIVITIES						
<i>The following statistics will be submitted with the cartographer's report on the survey</i>						
PROCESSING ACTIVITY				AMOUNTS		
				VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET						2461
POSITIONS REVISED						
SOUNDINGS REVISED						
CONTROL STATIONS REVISED						
				TIME-HOURS		
				VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION						
VERIFICATION OF CONTROL						
VERIFICATION OF POSITIONS				89		89
VERIFICATION OF SOUNDINGS				70		70
VERIFICATION OF JUNCTIONS						
APPLICATION OF PHOTOBATHYMETRY						
SHORELINE APPLICATION/VERIFICATION						
COMPILATION OF SMOOTH SHEET				41		41
COMPARISON WITH PRIOR SURVEYS AND CHARTS					3	3
EVALUATION OF SIDE SCAN SONAR RECORDS						
EVALUATION OF WIRE DRAGS AND SWEEPS						
EVALUATION REPORT					55	55
GEOGRAPHIC NAMES						
OTHER* Verification Check (inspection not included)						24
*USE OTHER SIDE OF FORM FOR REMARKS			TOTALS	200	58	282
Pre-processing Examination by LT John Griffin				Beginning Date 4/6/92	Ending Date 8/31/92	
Verification of Field Data by R. Mihailov, J. Stringham				Time (Hours) 200	Ending Date 3/26/93	
Verification Check by J. Green				Time (Hours) 24	Ending Date 6/21/93	
Evaluation and Analysis by R. N. Mihailov				Time (Hours) 58	Ending Date 6/23/93	
Inspection by D. Hill				Time (Hours) 4	Ending Date 7/23/93	

EVALUATION REPORT

H-10416

1. INTRODUCTION

Survey H-10416 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2, under the following Project Instructions.

OPR-K228-AHP, dated March 1, 1991
CHANGE NO. 1, dated June 4, 1991
CHANGE NO. 2, dated July 11, 1991
CHANGE NO. 3, dated August 15, 1991
CHANGE NO. 4, dated January 16, 1992

This survey was conducted in Texas and covers the central portion of Lavaca Bay, from Point Comfort to Port Lavaca. The surveyed area is bounded by latitude 28/37/56N to the south, latitude 28/42/03N to the north, longitude 96/33/30W to the east and longitude 96/38/00W to the west. The shoreline consists of developed and undeveloped beaches. The bottom is generally made up of mud. Depths generally range from 0 meters to 13.4 meters.

Predicted tides for Port O'Connor, Texas, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Port Lavaca, Texas, gage 877-3259, were used during office processing.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. NAD 83 is used as the horizontal datum for plotting and position computation. The TRA, velocity and electronic control correctors are adequate. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey that includes categories of information required to comply with Hydrographic Survey Guideline No. 52, Standard Digital Data Exchange Format, April 15, 1986. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

2. CONTROL AND SHORELINE

Sections H and I of the hydrographer's report contain adequate discussions of horizontal control and hydrographic positioning.

More detailed information on horizontal control is found in the following:

GPS Hydrographic Support Survey, Matagorda Bay and Vicinity, Texas, March 1991;

GPS and Terrestrial Survey, San Antonio and Lavaca Bays, Texas, October 1990;

Fixed Aids to Navigation and Landmark Features, Photogrammetric Survey CM-8715, Matagorda Bay and Vicinity;

Third-Order NAVAID Positions for OPR-K228-AHP, Matagorda and Lavaca Bays, Texas.

Positions of horizontal control stations used during hydrography are 1990 field values based on NAD 83. These values were used during office processing for the computation of positions. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined with NGS program NADCON. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude: 1.100 seconds (33.856 meters)
Longitude: 0.886 seconds (24.259 meters)

The year of establishment of control stations shown on the smooth sheet originates with the above mentioned horizontal control reports and the hydrographer's signal list.

The quality of several positions exceeds limits in terms of error circle radius and residual or have angles of intersection less than 30 degrees or more than 150 degrees. A review of the data, however, indicates that none of these fixes are used to position dangers to navigation. The features or soundings located by these fixes are consistent with the surrounding information. These fixes are considered acceptable.

The following shoreline map was compiled on NAD 83 and applies to this survey.

	<u>Photo Date</u>	<u>Class</u>	<u>Scale</u>
TP-01650	Feb., Mar. 1989	III	1:20,000

Shoreline drawn on the smooth sheet originates from 1:10,000 scale photographic enlargements of the shoreline map.

The following shoreline changes are depicted in solid red on the smooth sheet. These changes are supported by adequate positional information.

<u>Feature</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
bulkhead	28/39/39	96/33/58
pier	28/39/08	96/33/49
bridge fenders	28/39/08	96/35/45

The high water line at latitude 28/38/51N, longitude 96/36/03W, was transferred from the final field sheet in dashed red, without supporting positional information.

These features are adequate to supersede the common photogrammetrically delineated shoreline.

3. HYDROGRAPHY

Except for the delineation of the zero curve, which could not be delineated because of the flat bottom and small tide range, hydrography is adequate to:

- a. delineate the bottom configuration, determine least depths, and draw the standard depth curves;

b. reveal there are no significant discrepancies or anomalies requiring further investigation; and

c. show the survey was properly controlled and soundings are correctly plotted.

4. CONDITION OF SURVEY

The hydrographic records and reports received for processing are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3, the Hydrographic Survey Guidelines, and the Field Procedures Manual, March 1991 Edition, except as follows.

AWOIS item 5278 was not addressed by the hydrographer.

Three charted landmarks were not investigated or discussed by the hydrographer in Section P, Aids to Navigation, of the hydrographer's report.

Two aids to navigation which fall within the survey area were not mentioned by the hydrographer. These aids do fall within the junction area of survey H-10411, which was previously processed and forwarded for charting. These aids were transferred to this survey from positions on the junction survey and are listed in section 7d of this report.

The hydrographer employed bottom drags to investigate features. This technique should be mentioned and appropriately discussed in section F of his report.

The Abstract of Positions does not accurately document which positions are associated with drag operations. The simple identification of selected positions as detached positions is not adequate.

5. JUNCTIONS

Survey H-10416 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10411	1991	1:10,000	South
H-10390	1991	1:10,000	Southeast

The junction with surveys H-10390 and H-10411 could not be formally completed since these surveys were previously processed and forwarded for charting. The junction comparisons were made using office copies. The soundings are in good agreement.

There are no contemporary surveys to the north and west. A sounding comparison with the chart and this survey reveals good agreement.

6. COMPARISON WITH PRIOR SURVEYS

H-5857 (1934-35) 1:20,000

Prior survey H-5857 covers the entire area of survey H-10416. A comparison with prior survey H-5857 reveals that the present depths are generally deeper between 0.2 meters (1ft) and 0.6 meters (2ft). Shoreline changes are primarily due to cultural activity. In addition, shoreline and sounding differences are attributed to a general subsidence of the region caused by the pumping of oil and fresh water from underlying reservoirs. To a

lesser extent, frequent storm activity over the last fifty years has also contributed to accretion and erosion of the shoreline throughout Matagorda Bay.

Survey H-10416 is adequate to supersede prior survey H-5857 within the common area.

7. COMPARISON WITH CHART

<u>Chart</u>	<u>Edition</u>	<u>Date</u>	<u>Scale</u>	<u>Datum</u>
11317	21st edition	July 4, 1992	1:50,000	NAD83

The hydrographer compared with the 20th edition of chart 11317. The 20th and 21st editions of chart 11317 are identical except for a few shoreline revisions.

a. Hydrography

Charted hydrography originates with prior survey H-5857 and miscellaneous sources and merits no further discussion.

Except for the four small charted shoals noted in section N of the hydrographer's report (page 10) which should be retained as charted, survey H-10416 is adequate to supersede charted hydrography.

b. AWOIS

All AWOIS items within the survey area originate with miscellaneous sources. Refer to the hydrographer's report and as follows for the discussion and disposition of these features.

AWOIS item 5278, two notes "36 ft rep 1982" originating from CL1249/1982, centered at latitude 28/38/40, longitude 96/33/56, are not discussed in the hydrographer's report. Two soundings less than 36 feet were located in the charted channel, a 7.9 meter (26ft) sounding at latitude 28/38/52.7N, longitude 96/33/58.0W, and a 8.8 meter (29ft) sounding at latitude 28/38/18.0N, longitude 96/33/58.2W. Both of these soundings are contained in a danger to navigation letter generated during office processing. Refer to section 7c of this report for charting recommendations.

c. Controlling Depths

A channel between Port Lavaca Channel and the mouth of the Lavaca River crosses through the survey area. The hydrographer refers to this channel as Lavaca Bay Channel. However, this name is not shown on the referenced charts nor is it an approved geographic name. The disposition of the hydrographer's recommendation to use this name in the chart tabulation of controlling depths is left to the discretion of the chart compiler. The depths found during this survey for this channel are consistent with or deeper than the charted controlling depth.

Matagorda Ship Channel located within the survey area is a federally maintained channel. Depths found during this survey are shoaler than the charted controlling depths as follows.

A note, "36 ft rep 1992", charted at latitude 28/38/19.0N, longitude 96/33/58.2W, should be revised to, "29 ft 1992". Depths in the survey area range from 8.8 meters to 13.4 meters (29 ft to 44 ft).

A note, "36 ft rep 1992", charted at latitude 28/38/58.0N, longitude 96/33/52.7W, should be revised to, "26 ft 1992". Depths in the survey area range from 7.9 meters to 9.6 meters (26 ft to 31 ft).

A note, "12 ft rep 1992", charted at latitude 28/39/23.5N, longitude 96/34/05.5W, should be revised to, "8 ft 1992". Depths in the survey area range from 2.6 meters to 8.3 meters (8 ft to 14 ft).

d. Aids to Navigation

There were 23 fixed aids and one floating aid to navigation located during this survey. The positions for these fixed aids to navigation that differ from charted, are not presently charted, or for which updated third order positions have been obtained are shown in the Form 76-40s attached to the hydrographer's report.

The position for the floating aid to navigation follows.

<u>Light List Name</u>	<u>1993 LL#</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
Point Comfort Inner Channel Lighted Buoy 2	26270	28/38/09.68	96/33/55.56

The following additional fixed aids to navigation fall within the survey area but were not positioned during survey H-10416. These aids were transferred from junction survey H-10411.

<u>Light List Name</u>	<u>1993 LL#</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
Matagorda Ship Channel Light 77	26235	28/38/05.20	96/34/01.15
Matagorda Ship Channel Light 78	26240	28/38/03.01	96/33/53.02

The above aids to navigation serve their intended purpose.

Three landmarks are located within the survey area that were not verified by the hydrographer. These landmarks were transferred from shoreline map TP-01650 and should remain as charted.

e. Geographic Names

Names appearing on the smooth sheet and in the survey title have been approved by the Chief Geographer.

f. Dangers to Navigation

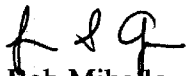
The hydrographer reported nine features and one isolated shoal sounding as dangers to navigation to the USCG and DMAHTC. Three additional shoal soundings were discovered and reported during office processing. Copies of these reports are attached.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10416 adequately complies with the Project Instructions except where noted in this report.

9. ADDITIONAL FIELD WORK

This is an adequate hydrographic survey. No additional field work is recommended.

for 
Bob Mihailov
Cartographer

APPROVAL SHEET
H-10416

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproof of charted data. The digital data have been completed and all revisions and processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts have been made and are included with the survey records. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Dennis Hill

Date: 7-23-93

Dennis J. Hill
Chief, Hydrographic Processing Unit
Pacific 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.

Douglas G. Hennick

Date: 7/28/93

Commander Douglas G. Hennick, NOAA
Chief, Pacific Hydrographic Section

Final Approval

Approved:

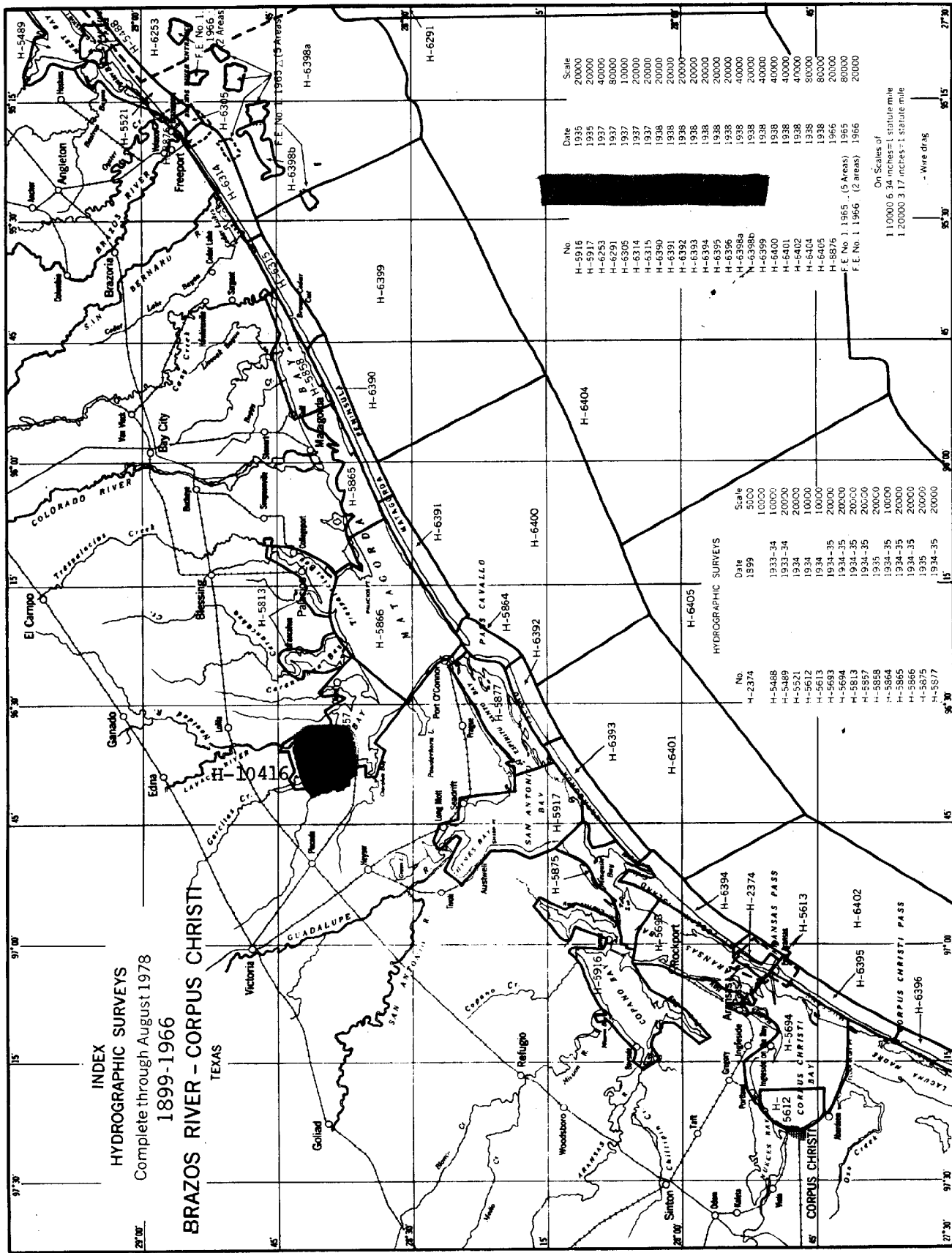
J. Austin Yeager

Date: 8/8/94

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

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

Hydrographic Index No. 90 C



MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10416

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11317	9-15-93	<i>John Barber</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>22 before signature</i>
11316	9-17-93	<i>John Barber</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>5.0 before signature , App'd thro cht 11317</i>
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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