10414

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. AHP2-10-1-92

Registry No. H-10414

LOCALITY

State Texas

General Locality Matagorda Bay

Sublocality 3 NM SE of Palacios Point

1992

CHIEF OF PARTY
LT T.R. Waddington

LIBRARY & ARCHIVES

DATE July 23, 1993

☆U.S. GOV. PRINTING OFFICE: 1987—756-980

10414

CP-5,
11514B
11317
11316

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-10414

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. AHP2-10-1-92

State: Texas

General locality: Matagorda Bay

Locality: 3 NM SE of Palacios Point

Scale: 1:10,000 Date of survey: January 21 - March 12, 1992

Instructions dated: March 1, 1991 Project No.:

Vessel: NOAA Launch 0519

Chief of party: Thomas R. Waddington, LT, NOAA

Surveyed by: R. Ramsey, Jr.

Soundings taken by echo sounder, hand lead, ~~pole~~ Innerspace Model 448

Graphic record scaled by: R. Ramsey, R. Rogers, N. Yruegas, L. Martinez

Graphic record checked by: R. Ramsey, Jr.

Verification by: ~~Protracted by~~ I. Almacen Automated plot by: PHS Xynetics Plotter

Evaluation by: ~~Verification by~~ I. Almacen

Soundings in ~~fathoms~~ meters ~~feet~~ at ~~MLW~~ MLLW and decimeters

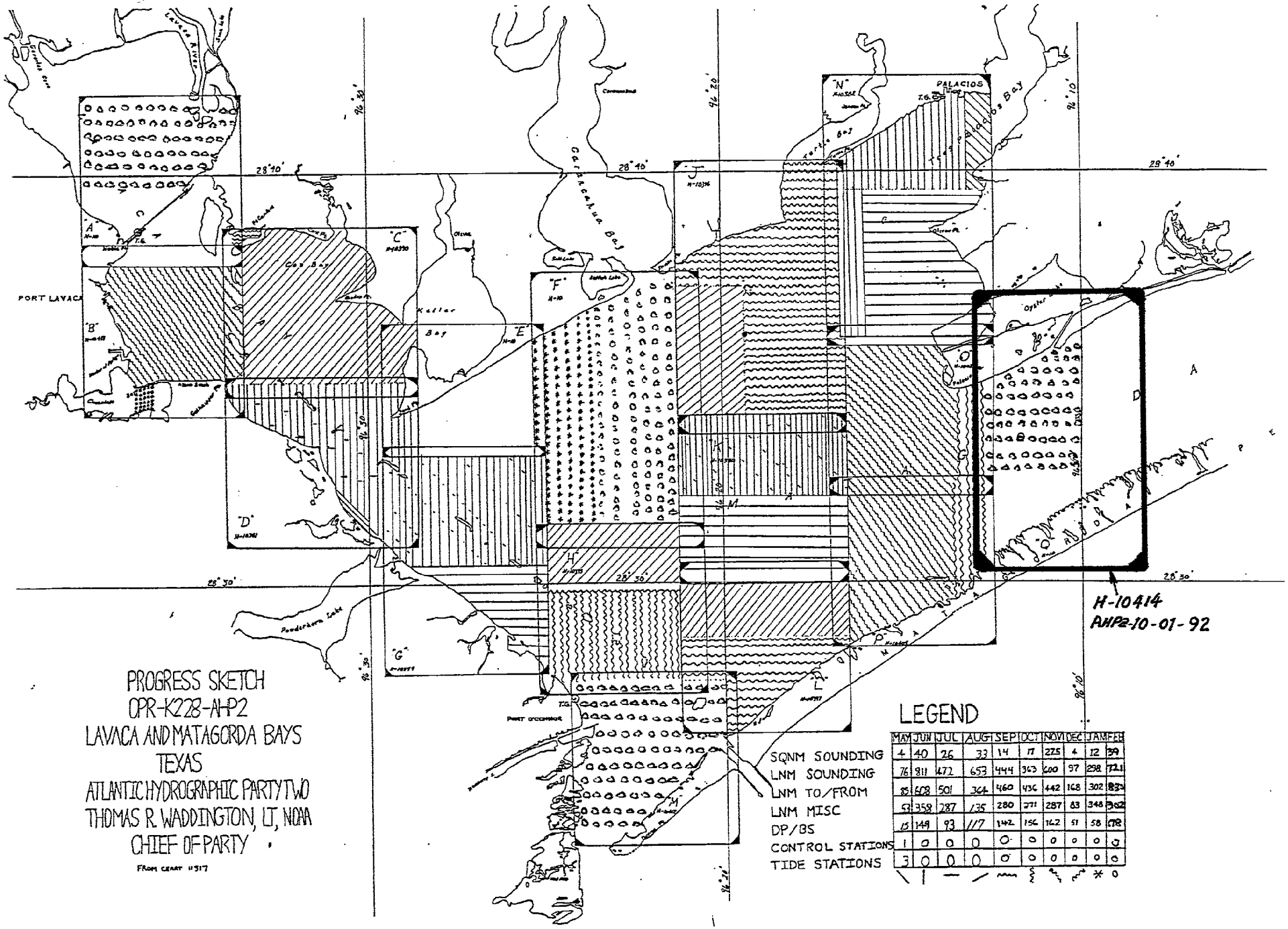
REMARKS: Time in UTC. Revisions and marginal notes in black were generated during office processing. Some separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.

AWOIS/SURP ✓ 8/3/93, SJV

KWW 10/4/93

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

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-665-010-1174



PROGRESS SKETCH
OPR-K228-AHP2
LAVACA AND MATAGORDA BAYS
TEXAS
ATLANTIC HYDROGRAPHIC PARTY TWO
THOMAS R. WADDINGTON, LT, NOAA
CHIEF OF PARTY

FROM CHART 11317

LEGEND

	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
SQNM SOUNDING	4	40	26	33	14	17	275	4	12	39
LNM SOUNDING	76	811	472	653	444	363	600	97	298	721
LNM TO/FROM	85	608	501	364	460	436	442	168	302	832
LNM MISC	53	358	287	135	280	271	287	83	348	362
DP/BS	15	149	93	117	142	156	142	51	58	178
CONTROL STATIONS	1	0	0	0	0	0	0	0	0	0
TIDE STATIONS	3	0	0	0	0	0	0	0	0	0

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10414
Field No. AHP2-10-01-92
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 ~~June~~ July 11, 1991, and change No. 3 dated August 15, 1991, and change No. 4 dated January 16, 1992.

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

The purpose of project OPR-K228-AHP2 is to provide contemporary hydrographic data to revise the existing nautical charts. Considerable oil development, fishing and oyster industries exist in Matagorda Bay and its main tributaries.

B. AREA SURVEYED (See EVAL RPT., Sec. 1)

The area surveyed for H-10414 is Matagorda Bay, 3nm S.E. of Palacios Point. The geographic limits are as follows:

North	- Latitude	28°36'04"N
South	- Latitude	28°30'30"N
East	- Longitude	096°09'30"W
West	- Longitude	096°13'05"W

This survey was conducted from January 21, 1992 (DN 021) to March 12, 1992 (DN 072).

C. SOUNDING VESSEL

NOAA launch 0519 (EDP No. 0519), a 21-foot Mon Ark, was used to collect all data on this survey. No problems were encountered 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 3.6 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) 1.11	3/9/90
MTEN3 with enhancements (IBM PC)	6/88
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 5.1

E. SONAR EQUIPMENT

Not applicable.

F. SOUNDING EQUIPMENT

An Innerspace model 448 depth sounder, S/N 186 was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 0519, 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. There were no pole soundings taken during this survey.

No problems were encountered with any of the sounding equipment. Depths encountered in the survey area range from 0.~~0~~3 meter to 6.~~3~~6 meters.

G. CORRECTIONS TO ECHO SOUNDINGS (See EVAL RPT., Sec. 1)

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, S/N 155. This instrument was calibrated by the manufacturer on January 27, 1992. A copy of this calibration may be found in the 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 of the "Post-Survey" program as required by the "Field Procedures Manual". Copies of the tables and support documentation are in the Separates, section VI. *

* Filed with the hydrographic data.

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

Cast #	DATE(DN)	Latitude	Longitude	Depth
1	2/10/92(041)	28°33.8'N	096°12.2'W	5m
2	2/27/92(058)	28°35.7'N	096°10.8'W	5m
3	3/02/92(062)	28°35.8'N	096°10.8'W	6m

The following table shows the recommended tables to be used for final processing at the Pacific Hydrographic Section:

Cast No.	Table No.	Use for Days
1	11	41 - ~~49~~ 52
2	12	51 - 59
3	13	62 - 72

Lead line comparisons were taken daily to determine instrument error. No instrument error was observed. The lead line comparison log is included in the Separates, section IV.* The lead line was calibrated on May 14, 1991 with a steel tape. No corrections were necessary. A copy of the calibration form can be found in the Separates, section IV. *

A static draft of 0.3 meters was applied to the final field sheet soundings using the HDAPS "Reapply Depth Correctors" function of the "Post-Survey" program as required by the "Field Procedures Manual". The draft was measured by subtracting the difference from a punch mark on the side of launch 0519, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for vessel 0519 were performed on November 8, 1990. The level method was used. Settlement and squat correctors were applied to the final field sheet soundings using the HDAPS "Reapply Depth Correctors" function of the "Post-Survey" program as required by the "Field Procedures Manual". Data from the settlement and squat test are included in the "Separates to Be Included in With Survey Data". *

The final field sheet was plotted using predicted tides determined from Port O'Connor, Texas and correctors designated in zone "II" from section 5.9 of the project instructions. The values were applied direct in accordance with these instructions. Wind conditions during this survey (i.e., speed and direction), had a far greater affect on the true water levels than did normal tidal action. This resulted in higher water levels on down-wind shores and lower water levels on lee shores.

Approved water levels were requested from the Sea and Lake Levels Branch, N/OMA12, in a letter March 18, 1992. A copy is included in Appendix V of this report. *

* Filed with hydrographic data.

H. CONTROL STATIONS (See EVAL RPT., Sec. 2)

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 of this report. *

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-AHP2.

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 three and four lines of position were used during this project.

The following Falcon Mini-Ranger equipment was used:

VESNO	EQUIPMENT	S/N	CODE
0519	RPU	E0146	
	RPU	H0375	
	R/T	E2951	
	R/S	C2067	0
	R/S	E2911	7
	R/S	F3237	8
	R/S	F3298	9
	R/S	C2075	A
	R/S	E2959	E

Critical System Checks

When using three or four lines of position, the error circle radius (ECR) and the residual values computed by the survey computer provide a critical system check each second. When the ECR is greater than 15 meters (1.5m at the survey scale) or the residuals are greater than 5 meters (0.5m at the survey scale) for extended time periods, survey operations are suspended in the area until the problem can be resolved. Position data exceeding the 1:10,000 scale specifications were edited.

* Filed with the hydrographic data.

Mini-Ranger Falcon Calibrations

Baseline calibrations were performed on January 14, 1992(DN 014), January 15, 1992 (DN 015), and January 24, 1992 (DN 024); baseline correctors were incorporated into the Comflex C-O table numbers two and four, and applied directly to all on-line data. Two tables were used during this survey as a result of an RPU failure (s/n E 0146) on January 24, 1992. During final field office review of this survey, we discovered that the corrector for station 022 was erroneously entered as 4.1 instead of 4.5, (data recomputed using 4.5) for C-O Table 4. This error is negligible and does not adversely affect the positional accuracy of this survey. This error applies to all data obtained on this survey, except day 021. All records of these calibrations and the "Daily Header Abstracts" are included in the "Separates to Be Included With Survey Data". * 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 (See EVAL RPT., Sec. 2)

Shoreline shown on the final field sheet was transferred by hand from TP-01646, and TP-01645. These shoreline manuscripts were compiled on NAD 1983. The shoreline manuscripts were compiled at 1:20,000 scale. They were enlarged to 1:10,000 scale for use with this survey.

Shoreline verification was accomplished by visual inspection. While main scheme hydrography rarely approached closer than 200 meters from shore, only one obvious change from that shown on the shoreline manuscripts was noted. This change was verified by detached position. A more intense method of shoreline verification was deemed uneconomical. Verified shoreline is shown in black ink on the final field sheet. Charted shoreline should be superseded by shoreline from TP-01645 and TP-01646. Shoreline was drawn in dashed red ink where the change was noted. This change is described below.

► The shoreline at latitude 028°35'28"N, longitude 096°11'16"W, east of Palacios Point, shows a notable extension of the offshore point of land presently depicted on the shoreline manuscript. This change may be due to a recent dredge operation in the Intra-coastal Waterway in this vicinity, resulting in spoil discharge around this point.

Field notes are located on the field sheet, the graphic records, and in the Daily Log, included as part of this survey.

* Filed with the hydrographic data.

K. CROSSLINES

A total of 19 linear nautical miles of cross-lines were run on H-10414; this is more than 10 % of the main scheme hydrography. Cross-line and main scheme soundings agree within 0.2 meters. Concur

L. JUNCTIONS (See EVAL RPT., Sec. 5)

This survey junctions with surveys H-10406 to the northwest and H-10405 to the southwest, both 1:10,000 scale surveys from OPR-K228-AHP2 completed in 1991-1992. Shoreline borders the north and south sides of the sheet, while the project limit forms the east border. The depth curves between these surveys were found to agree well, with the exception of the two meter contour junction in the northwest section of this survey. This contour differed slightly with that depicted on sheet "O", which was more offshore than the two meter curve on this survey. The application of actual tides should allow a smooth curve to be drawn from one sheet to the other. Application of approved tides improved comparison in the junction area of the survey.

M. COMPARISON WITH PRIOR SURVEYS (See EVAL RPT., Sec. 6)

This survey was compared to the following prior survey:

Survey No.	Scale	Year
H-5866	1:20,000	1934-35

None of the AWOIS items addressed as part of this survey originated from the prior survey.

The following was noted during comparison:

- Bottom samples acquired on this survey agreed well with the prior survey, with exception of the samples acquired within spoil areas.
- In general soundings acquired during H-10414 were found to be 0.3 to 0.5 meters deeper than the prior survey.
- As H-5866 was surveyed in feet and H-10414 was surveyed in meters there were no common depth curves for comparison.
- The Intra-coastal Waterway did not exist on H-5866. This is the primary factor associated with the depth variances in the area of its construction and maintenance.

- Shoreline shown on H-5866 is notably different than that presently existing; the shoreline depicted on TP-01646 and TP-01645 accurately represents existing shoreline, with the exception of the change noted in section "J" of this report.

- H-10414 shows large shoal areas along the northern shoreline of Matagorda Peninsula, throughout the survey limits. These shoal areas are not evident on the prior survey.

N. COMPARISON WITH THE CHART (See EVAL RPT., Sec. 7)

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

Chart No.	Scale	Edition	Date
11317	1:50,000	20th	March 23, 1991
11319SC	1:40,000	22nd	February 10, 1990
11319 SC	1: 40,000	24th	October 17, 1992
11317	1: 50,000	21st	July 4, 1992

Chart 11317 was enlarged to 1:10,000 scale for use with this survey.

Fifteen AWOIS items fall within the limits of this survey. Three of these items, numbers 5495, 5498, and 5499, were addressed on survey H-10406, 1991. The remaining 12 AWOIS items, numbers 5487, 5488, 5489, 5490, 5491, 5492, 5493, 5494, 5496, 5497, 5500, and 5501 were addressed on this survey.

With the exception of AWOIS numbers 5500, and 5501, all items originate from Corp of Engineers "Blue Prints" (BP88630--11/73). The original search requirements for the majority of the AWOIS items were changed from swath drags of 100m widths parallel to the axis of the Intra-coastal Waterway, to 50m radius searches of individual items that were previously grouped together. These changes were received by telephone conversation with N/CG241, and were forwarded to the Pacific Hydrographic Section, N/CG245. All item investigation information can be found on the "Final Field Sheet", in the daily record log,* and on Item Investigation Forms ~~in Appendix VI of~~ attached to this report; it is recommended that all three of these documents be used when addressing any AWOIS investigation.

An orange over white privately maintained horizontally banded buoy, was found marking an uncharted obstruction, with a lead line least depth of 2.4m. The buoy was located at latitude 28°33'46.7"N, longitude 096°10'26.5"W, position number 497. A "Danger to Navigation Letter" was submitted. A copy of the letter ~~can be found in Appendix I.~~ is attached.

* Filed with the hydrographic data.

The following two charted platforms were identified on TP-01645, and a survey position was obtained for verification. The presently charted positions should be revised as follows:

► The platform presently charted at position latitude 28°34'14.3"N, longitude 096°11'51.4"W, should be deleted, and platform ruins, baring ~~2~~ 1.8 meters @MLW, should be charted at latitude 28°34'13.~~1~~2"N, longitude 096°11'47.6"W, position number 26. concur.

► The platform presently charted at latitude 28°34'56.2"N, longitude 096°11'19.8"W, should be deleted and a platform should be charted at latitude 28°34'54.~~4~~5"N, longitude 096°11'16.6"W, concur. position number 18. (1.8 above MHW)

In general, charted soundings were found to be 0.5 meter shallower than this survey. Annotations of these comparisons may be found on the chart blowup that accompanies this survey.

The course of the Intracoastal Waterway as it crosses sheet "Q" is controlled by one range; this range, the Matagorda Bay Range H, is discussed in section "P" of this report. No depths shoaler than the controlling depth of 12 feet (3.7 m) were found while running this range line.

A channel leading to a barge loading ramp, position 1135, on Matagorda Peninsula, was found to have a controlling depth of ~~1~~ 0.9 meter at MLLW position 1140, latitude 28°31'24.9"N, longitude 096°11'23.0"W.

The "uncovers" area charted from latitude 28°35'39.1"N, longitude 096°10'46.8'W, extending 213°46'T to latitude 28°35'03.4"N, longitude 096°11'13.0"W was found to be an average 0.~~7~~3 to 0.8 meters deep throughout. Representative soundings should be charted in this area. Concur.

Six uncharted nun buoy's, numbers 4, 8, 10, 12, 14 and 16 have been established along the Intracoastal Waterway, from Light one southwest to the area opposite C"15". These buoys mark the western side of the Intracoastal Waterway. These navaids are discussed further in section "P" of this report.

The shoreline on the compared charts has not been updated to reflect the shoreline appearing on TP-01646 and TP-01645, which appears to represent a more accurate depiction of presently existing shoreline. (See section J. for details and recommendations).

Three discontinued spoil areas charted west of the Intracoastal Waterway between latitude 28°33'50.5"N and latitude 28°35'43.7"N, were developed with 50 meter line spacing. The charted spoil areas should be deleted, and representative soundings from this survey should be charted in these areas. Concur.
(See attached chartlet mark-up of spoil areas along the waterway.)

The coordinates and 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 photographs, and other useful information.

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.

P. AIDS TO NAVIGATION (See EVAL RPT., Sec. 7d)

Twelve floating aids to navigation are charted within the hydrography limits of this survey; eleven of these were located by detached position. One buoy, GC"3" charted at latitude 28°35'40"N, longitude 096°10'50"W has been removed, and replaced with a fixed aid discussed later. Six uncharted buoys were also located by detached position. All floating aids were found to serve the apparent purpose for which they were established. Geographic positions for the floating aids may be found in the Daily Log included as part of this survey.* A comparison of their relative position between charted and surveyed is shown in the following table:

NAVAID	USCG LL Number	Distance and Direction from Charted Location
GC"25"	34475	~~330~~ 325 meters northeast
GC"23"	34470	325 meters northeast
GC"21"	34465	320 meters northeast
GC"19"	34460	315 meters northeast
GC"17"	34455	265 meters northeast
GC"15"	34450	320 meters northeast
GC"13"	34445	~~300~~ 290 meters northeast
GC"11"	34440	240 meters northeast
GC"9"	34435	190 meters northeast
GC"7"	34430	210 meters northeast
GC"5"	34425	150 meters northeast
GC"3"	34420	Removed (LL No. reassigned) 80 meters northeast

None of the buoys found off-station pose a danger to navigation, as they are off-station parallel to the axis of the channel, and still adequately mark it. Concur

* Filed with the hydrographic data.

The following newly established navaids were located by detached position, and are not currently charted. Contact with the ATON Team at U.S.C.G. Station Port O'Connor, Texas, indicated that these aids, and the replacement of C"3", with daybeacon "3", occurred in August, 1991 (LNM 35/91--8th USCGD).

PN	NAVAID	USCG LL No.	Latitude	Longitude
002	RN"4"	34422	28°35'43.8"N	096°10'50.2"W
012	RN"8"	34432	28°35'28.9"N	096°11'01.0"W
013	RN"10"	34437	28°35'17.4"N	096°11'09.4"W
015	RN"12"	34442	28°35'06.4"N	096°11'17.7"W
019	RN"14"	34447	28°34'54.~~1~~2"N	096°11'27.2"W
022	RN"16"	34452	28°34'42.1"N	096°11'36.6"W

One non-floating aid was located within the survey area, daybeacon "3" (USCGLL No. 34420). This daybeacon retained the Light List number that was assigned to C"3", which was removed in August, 1991. Daybeacon "3" was located by detached position at latitude 28°35'42.3"N, longitude 096°10'47.9"W. A NOAA form 76-40 is submitted for this navaid, a copy of which is ~~included in the appendix of~~ attached to this report.

Matagorda Bay Light 1 (USCGLL No. 34415), which falls outside the limits of hydrography, was located to third order class I standards using Ashtech M XII receivers. The unadjusted field position for this navaid is latitude 28°35'48.11~~710~~246"N, longitude 096°10'40.81~~412~~234"W. Reference to this light is not made anywhere in the field records for this survey, nor is it plotted on the final field sheet. A 76-40 will be submitted for the aid located with GPS as part of the Horizontal Control Report for this additional work.

The light list shows Matagorda Range H Rear Light being 213.5° azimuth, 2935 yards (2684 meters) from the front light versus 213.5° azimuth, 2633 meters from an inverse computation using third order class I positions.

There were no bridges, overhead cables, overhead pipelines, or ferry routes within the limits of this survey. There was one gas pipeline crossing sign located, position 412. Information regarding this sign can be found in the Daily Log Record, and on the "Final Field Sheet". * (Also shown on the smooth sheet)

All of the above references made to the USCG Light List were made from Vol. IV, 1991 edition.

* Filed with the hydrographic data.

Q. STATISTICS

Description	Quantities
Total Positions	1923
Total Nautical Miles of Hydrography	181.5
Total Nautical Miles of Chain drag	25.6
Sq. Nautical Miles of Hydrography	8.4
Days of Production	14
Detached Positions	36
Bottom Samples	28
Tide Stations	3
Current Stations	0
Velocity Casts	3

R. MISCELLANEOUS

Bottom samples were taken and submitted to the Smithsonian Institution as directed in Section 6.7 of the project instructions. Twenty-eight bottom samples were transmitted on March 13, 1992. Bottom sample positions and descriptions are plotted on the overlay submitted with this survey, and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which is included in the Separates, section II.* A symbol resembling a grab sampler was used to show the location of the samples on the final field sheet overlay.

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.

Tidal currents of 3 to 4 knots were noted in the area where the Intracoastal Waterway enters the cut through land east of Palacios Point, at latitude 28°35'30"N, longitude 096°11'00"W.

S. RECOMMENDATIONS

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

* *Filed with the hydrographic data.*

T. REFERRAL TO REPORTS

Titles	Transmittal Information
(1991)Horizontal Control Report for OPR-K228-AHP2	Field Photogrammetry Section Norfolk, VA, N/CG233
(1991)Descriptive Report to Accompany Survey H-10405	Pacific Hydrographic Section N/CG 245, Seattle, WA
(1992)Descriptive Report to Accompany Survey H-10406	Pacific Hydrographic Section N/CG 245, Seattle, WA
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: ATLANTIC HYDROGRAPHIC PARTY

CONTROL STATIONS as of 6 Feb 1992

No	Type	Latitude	Longitude	H	Cart	Freq	Vel	Code	MM/DD/YY	Station Name
001	F	028:39:08.751	096:33:48.618	0	250	0.0	0.0		05/08/91	ALCOA 1990
002	F	028:40:17.832	096:38:14.547	0	250	0.0	0.0		05/08/91	BLUF 1990
003	F	028:39:44.602	096:34:56.482	0	250	0.0	0.0		05/08/91	CAUS 1990
004	F	028:34:59.695	096:36:29.911	0	250	0.0	0.0		05/08/91	CHOC 1990
005	F	028:33:23.435	096:31:27.214	0	250	0.0	0.0		05/08/91	INDI 1990
006	F	028:30:25.466	096:28:47.523	0	250	0.0	0.0		05/08/91	IOLA 1990
007	F	028:41:53.224	096:34:34.010	0	250	0.0	0.0		05/08/91	LAVACA RIVER LIGHT 3
008	F	028:34:07.670	096:33:55.900	0	250	0.0	0.0		05/08/91	MAGNOLIA 1934
009	F	028:35:58.915	096:34:14.622	0	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH RNG C FRT LT
010	F	028:36:35.748	096:35:07.087	0	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH RNG C R LT
011	F	028:35:46.234	096:34:02.389	0	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH RNG D FRT LT
012	F	028:35:26.693	096:34:02.933	0	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH RNG D R LT
013	F	028:38:45.468	096:33:40.338	0	250	0.0	0.0		05/08/91	MITCHELL 2 1956
014	F	028:38:23.410	096:36:38.092	0	250	0.0	0.0		05/08/91	NOLE 1990
015	F	028:39:26.181	096:35:09.366	0	250	0.0	0.0		05/08/91	PIER PK 1990
016	F	028:36:57.750	096:30:48.191	0	250	0.0	0.0		05/08/91	RHOD 1990
017	F	028:34:12.754	096:29:19.108	11	250	0.0	0.0		05/08/91	SAND 1990
018	F	028:43:17.941	096:36:36.068	0	250	0.0	0.0		05/08/91	VEDO 1990
019	F	028:38:37.046	096:33:47.871	0	250	0.0	0.0		05/08/91	ZEPP 1989
020	F	028:26:10.962	096:20:01.577	0	250	0.0	0.0		05/08/91	TEMP 01
021	F	028:27:39.776	096:17:46.172	0	250	0.0	0.0		05/08/91	OSGOOD 2 1906
022	F	028:35:28.459	096:11:22.074	2	250	0.0	0.0	0	10/04/91	LAKE 2 1906
023	F	028:40:34.424	096:16:14.007	0	250	0.0	0.0		05/08/91	TURT 1991
024	F	028:36:26.854	096:24:20.046	0	250	0.0	0.0		05/08/91	DUNG 1991
025	F	028:35:13.036	096:26:49.243	0	250	0.0	0.0		05/08/91	VACA 1991
026	F	028:23:56.880	096:24:25.771	10	250	0.0	0.0	D	05/08/91	RUIN 1991
027	F	028:32:20.572	096:18:44.039	0	250	0.0	0.0		05/08/91	PLAT PK 1991
028	F	028:41:52.040	096:12:37.980	0	250	0.0	0.0		05/08/91	PALA 1991
029	F	028:38:33.080	096:14:06.707	0	250	0.0	0.0		05/08/91	INDY 1991
030	F	028:35:08.620	096:17:11.588	10	250	0.0	0.0		05/08/91	CHAN PK 1991
031	F	028:34:45.983	096:13:33.884	2	250	0.0	0.0	A	05/08/91	EROD 1991
032	F	028:36:02.270	096:14:05.710	0	250	0.0	0.0		05/08/91	BULL 1991
033	F	028:26:58.573	096:24:12.879	0	250	0.0	0.0		05/08/91	EARL 1991
034	F	028:27:04.927	096:24:15.672	0	250	0.0	0.0		05/08/91	3701 E 1989
035	F	028:26:44.592	096:23:42.326	0	139	0.0	0.0		05/08/91	IW MB PORT O CONNOR LT 2
036	F	028:27:29.803	096:21:39.302	0	139	0.0	0.0		05/08/91	MATAGORDA SHIP CH N DREDGE LT
037	F	028:27:15.806	096:21:29.034	0	139	0.0	0.0		05/08/91	MATAGORDA SHIP CH S DREDGE LT
038	F	028:26:50.319	096:25:20.875	39	250	0.0	0.0	7	05/08/91	PORT O CONNOR MUN TANK
039	F	028:28:50.457	096:17:17.626	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE L REAR LT
040	F	028:28:23.779	096:18:36.611	8	250	0.0	0.0	D	05/08/91	MATAGORDA BAY RANGE L FRONT LT
041	F	028:27:50.192	096:19:46.084	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE K FRONT LT
042	F	028:27:02.189	096:21:02.811	20	250	0.0	0.0	9	05/08/91	MATAGORDA BAY RANGE K REAR LT
043	F	028:17:01.247	096:21:11.034	0	139	0.0	0.0		05/08/91	MATAGORDA BAY RANGE A REAR LT
044	F	028:26:33.966	096:20:41.968	0	139	0.0	0.0		05/08/91	MATAGORDA BAY RANGE A FRONT LT
045	F	028:26:27.481	096:26:34.784	0	250	0.0	0.0		05/08/91	PORT O CONNOR CABLE TV MAST
046	F	028:25:18.493	096:19:05.924	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE B REAR LT
047	F	028:25:50.351	096:20:07.986	0	250	0.0	0.0		05/08/91	MATA 1934
048	F	028:25:40.636	096:19:37.260	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE B FRONT LT
049	F	028:29:45.812	096:15:16.339	20	250	0.0	0.0	E	05/08/91	MATAGORDA BAY RANGE H REAR LT
050	F	028:38:33.045	096:19:19.991	0	250	0.0	0.0		05/08/91	TRULL SAT
051	F	028:43:28.301	096:15:09.749	0	250	0.0	0.0		05/08/91	PALAPORT
052	F	028:28:36.298	096:15:07.070	0	250	0.0	0.0		05/08/91	SMYTH SAT
053	F	028:30:56.831	096:10:21.410	0	250	0.0	0.0		05/08/91	POE 1934
054	F	028:39:16.000	096:13:41.526	0	250	0.0	0.0		05/24/91	COON 1991

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [x] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [x] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
AHP 2	TEXAS	MATAGORDA BAY	3/92

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
K228-AHP2		H-10414	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)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
DAYBEACON	MATAGORDA BAY DAYBEACON 3 (REPLACES BUOY 3, U.S.C.G., 1991 L.L. # 34420)	28 35	42.3	096 10	47.9		HYDROGRAPHIC DETACHED POSITION	11317 11319
	prev rep L-273 (91)							

AWOIS NO:5487

Item Description: piles(3)

Source: BP82389--8/71,COE

AWOIS Position: Lat - 28/35/28.98N Lon - 096/10/55.88W

Required Investigation: 50m radius; BD, DI, SD, ##, VS

INVESTIGATION

Date(s)/DN(s):3/12/92(072)

Position Numbers:1912-1923 Launch Number: 0519

Investigation Used:BD, VS Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encountered~~made~~ within the reported area. One bottom drag was conducted centered around lat. 28/35/22.14N, lon.096/11/01.81W. The area around the two other piles was found by hydrography to be too shoal to conduct a bottom drag. A visual search was made centered around the following two locations.

lat. 28/35/28.1N lon. 096/10/55.9W
lat. 28/34/38.0N lon. 096/10/48.8W

Nothing was evident at either of these locations.

CHARTING RECOMMENDATION

The hydrographer recommends removal of the southern most pile of the three. The hydrographer further recommends that the center and northern pile of the three be retained at the presently charted positions. Do not concur. There were no evidence of the piles found by the hydrographer in the area. The three single piles located along the shallow edge of the channel since 1988, should be deleted from the chart.

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart Applied As

AWOIS NO:5488

Item Description:submerged piles (2)

Source:BP88630--11/73,COE

AWOIS Position: Lat - 28/35/12.98N Lon - 096/11/06.88W

Required Investigation: 50m radius; BD, DI, SD, ##

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):3/12/92(072)

Position Numbers:1868-1911 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encountered while conducting bottom drags centered around the following positions:

lat. 28/35/12.993N lon. 096/11/06.873W
lat. 28/35/04.623N lon. 096/11/13.256W

CHARTING RECOMMENDATION

The hydrographer recommends removal of both piles from the affected charts. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5489

Item Description:submerged piles (3)

Source: BP88630--11/73,COE

AWOIS Position: Lat - 28/34/38.98N Lon - 096/11/32.88W

Required Investigation: 50m radius; BD, SD, DI, ##

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):3/12/92(072)

Position Numbers: 1800-1823, 1848-1867 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encounterd while conducting bottom drags centered at the following positions:

lat. 28/34/47.687N lon. 096/11/26.354W
lat. 28/34/38.991N lon. 096/11/32.884W
lat. 28/34/31.561N lon. 096/11/38.345W

CHARTING RECOMMENDATION

The hydrographer recommends removal of all three submerged piles from the affected charts. *Do not concur. Delete the north & center subm piles and plot revised location of south pile (obstr, subm pile)*

Recommended Position: Lat - *28/34/32.27N* Lon - *96/11/37.67W*

Recommended Least Depth: *1.7 meters (5.6 feet)*

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5490

Item Description: submerged ruins

Source:BP88630--11/73,COE

AWOIS Position: Lat - 28/34/22.98N Lon - 096/11/43.88W

Required Investigation: 50m radius;BD, DI, SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):3/12/92(072)

Position Numbers: 1795 thru 1799 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: A Hard snag was encountered during the drag. A detached position and leadline least depth of 1.9m was obtained.

CHARTING RECOMMENDATION

The hydrographer recommends retaining the presently charted submerged ruins at the position below. *Do not concur. Revise charted ruins according to the present survey. - "5 Obstr (ruins)"*

Recommended Position: Lat - 28/34/24.~~4~~5N Lon - 096/11/43.~~7~~8W *(pos # 1793)*

Recommended Least Depth: 1.~~9~~7 m *(5.6 feet)* *(based on actual tides)*

****

COMPILATION NOTES

Chart Applied As

AWOIS NO: 5491

Item Description: submerged piles (2)

Source:BP88630--11/73,COE

AWOIS Position: Lat - 28/34/06.98N Lon - 096/11/56.88W

Required Investigation:50m radius:BD,DI,SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):3/9&12/92(069;072)

Position Numbers:1696-1719,1751-1768 Launch Number: 0519

Investigation Used: BD(10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encountered while conducting two drags were centered at the following positions:

lat. 28/34/06.96N lon. 096/11/56.86W
lat. 28/33/57.68N lon. 096/12/03.61W

CHARTING RECOMMENDATION

The hydrographer recommends removal of the two charted submerged piles from the affected charts. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5492

Item Description: submerged ruins

Source: BP88630--11/73,COE

AWOIS Position: Lat - 28/33/50.98N Lon - 096/12/08.88W

Required Investigation: 50m radius;BD, DI, SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):2/20/92(051)

Position Numbers: 861 thru 878 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encountered while conducting the bottom drag.

CHARTING RECOMMENDATION

The hydrographer recommends removal of the submerged ruins from the affected charts. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5493

Item Description: Submerged pile.

Source: BP88630--11/73,COE

AWOIS Position: Lat - 28/33/41.98N Lon - 096/12/15.88W

Required Investigation: 50m radius;BD,DI,SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s):2/20/92(051)

Position Numbers:797 - 816 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contacts were encountered while conducting the bottom drag.

CHARTING RECOMMENDATION

The hydrographer recommends removal of the submerged pile from the affected charts. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5494

Item Description: Submerged ruins

Source: BP82389--8/71,COE

AWOIS Position: Lat - 28/33/33.98N Lon - 096/12/21.88W

Required Investigation: 50m radius,BD,DI,SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s): 2/20/92(051)

Position Numbers: 775 - 796 Launch Number: 0519

Investigation Used: BD(10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple LOP

Investigation Summary: No snags or other contacts were encountered while conducting the bottom drag.

CHARTING RECOMMENDATION

The hydrographer recommends removal of the charted ruins. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart Applied As

AWOIS NO:5496

Item Description: piles (2)

Source:BP88630--11/73,COE

AWOIS Position: Lat - 28/34/37.98N Lon - 096/11/29.88W

Required Investigation:50m radius:BD, DI, SD, VS

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s): 1/21/92(021), 3/19/92(072)

Position Numbers: 23;1824-1847 Launch Number: 0519

Investigation Used: BD,VS Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: A baring pile was positioned on DN:021 which was determined to be the southern pile of the reported two piles. A BD with 10 meter line spacing was conducted on DN 072 for the northern reported pile. No snags or other contacts were encountered during the drag.

CHARTING RECOMMENDATION

The hydrographer recommends the following: 1) ~~removal~~ deletion of the charted northern pile at lat. 28/34/37.98N, lon. 096/11/29.86W. 2) ~~retain~~ charted southern pile at the below position. Concur.

Recommended Position: Lat - 28/34/29.6N Lon - 096/11/35.2W

Recommended Least Depth: bares ~~1.2~~ 0.8 (2.6 feet)m at ~~MLLW~~ MHW (~~predicted tides~~ actual tides)

****

COMPILATION NOTES

Chart Applied As

AWOIS NO:5497

Item Description: submerged piles (4)

Source: BP88630--11/73,COE

AWOIS Position: Lat - 28/34/04.98N Lon - 096/11/52.88W

Required Investigation: 50m radius;BD, DI, SD

Charts Affected: 11317, 11319

INVESTIGATION

Date(s)/DN(s): 2/20/92;3/9&12/92(051;069;072)

Position Numbers:817-838,839-860, 1672-1695,1769-1794 Launch Number: 0519

Investigation Used: BD (10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple Range LOP

Investigation Summary: No snags or other contact were encountered while conducting any of the four 50 meter radius drags centered at the following positions:

lat. 028/34/04.97N lon. 096/11/52.89W
lat. 028/33/56.09N lon. 096/12/00.85W
lat. 028/33/48.49N lon. 096/12/06.79W
lat. 028/33/40.12N lon. 096/12/13.10W

CHARTING RECOMMENDATION

The hydrographer recommends removal of all four charted submerged piles from the affected charts. *Concur.*

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart Applied As

AWOIS NO:5500

Item Description: Wreck,partially salvaged. (PA)

Source: LNM17/82(4/28/82)--8th CGD

AWOIS Position: Lat - 28/35/02.98N Lon - 096/10/06.88W

Required Investigation: 200m radius:BD,DI,SD

Charts Affected: 11319, 11317

INVESTIGATION

Date(s)/DN(s): 2/12/92(043)

Position Numbers: 157 - 267 Launch Number: 0519

Investigation Used: BD(10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple LOP

Investigation Summary: No snags or other contacts were encountered during this search.

CHARTING RECOMMENDATION

The hydrographer recommends removal of this submerged wreck symbol from the affected charts. Concur.

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart	Applied As

AWOIS NO:5501

Item Description:Wreck, sunken (PA)

Source: LNM47/84(11/7/84)--8th CGD

AWOIS Position: Lat - 28/33/42.98N Lon - 096/11/30.88W

Required Investigation: 200m radius : BD,DI,SD

Charts Affected: 11319, 11317

INVESTIGATION

Date(s)/DN(s): 2/10/92(041)

Position Numbers: 31 - 156 Launch Number: 0519

Investigation Used: BD(10m line spacing) Water Visibility:

Position Determined By: Falcon Multiple LOP

Investigation Summary: No snags or other contacts were encountered while conducting the bottom drag.

CHARTING RECOMMENDATION

The hydrographer recommends removal of presently charted submerged wreck symbol. Concur.

Recommended Position: Lat - / / . Lon - / / .

Recommended Least Depth:

****

COMPILATION NOTES

Chart Applied As

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

ADVANCE INFORMATION

March 23, 1992

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-10412 and H-10414, to update nautical charts of Matagorda Bay, Texas, the following uncharted items, considered dangers to navigation, were identified.

► A submerged obstruction was found, marked by a three inch diameter PVC pipe, protruding three feet, located at latitude 28°25'16.96" N, longitude 096°21'24.19" W. This position is along the northwest shore af Matagorda Penensula, midway between Pass Cavallo and Matagorda Ship Channel. The obstruction is a square metal container approximately ten feet square, awash at MLLW, in depths of two feet.

► A privately maintained W/Or buoy, marking an unknown obstruction, was found at latitude 28°33'46.7" N, longitude 096°10'26.5" W. This position is about 3.75 NM east southeast of Palacios Point, with a least depth obtained by leadline of 8 feet at MLLW, in depths of 10 feet.

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.

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

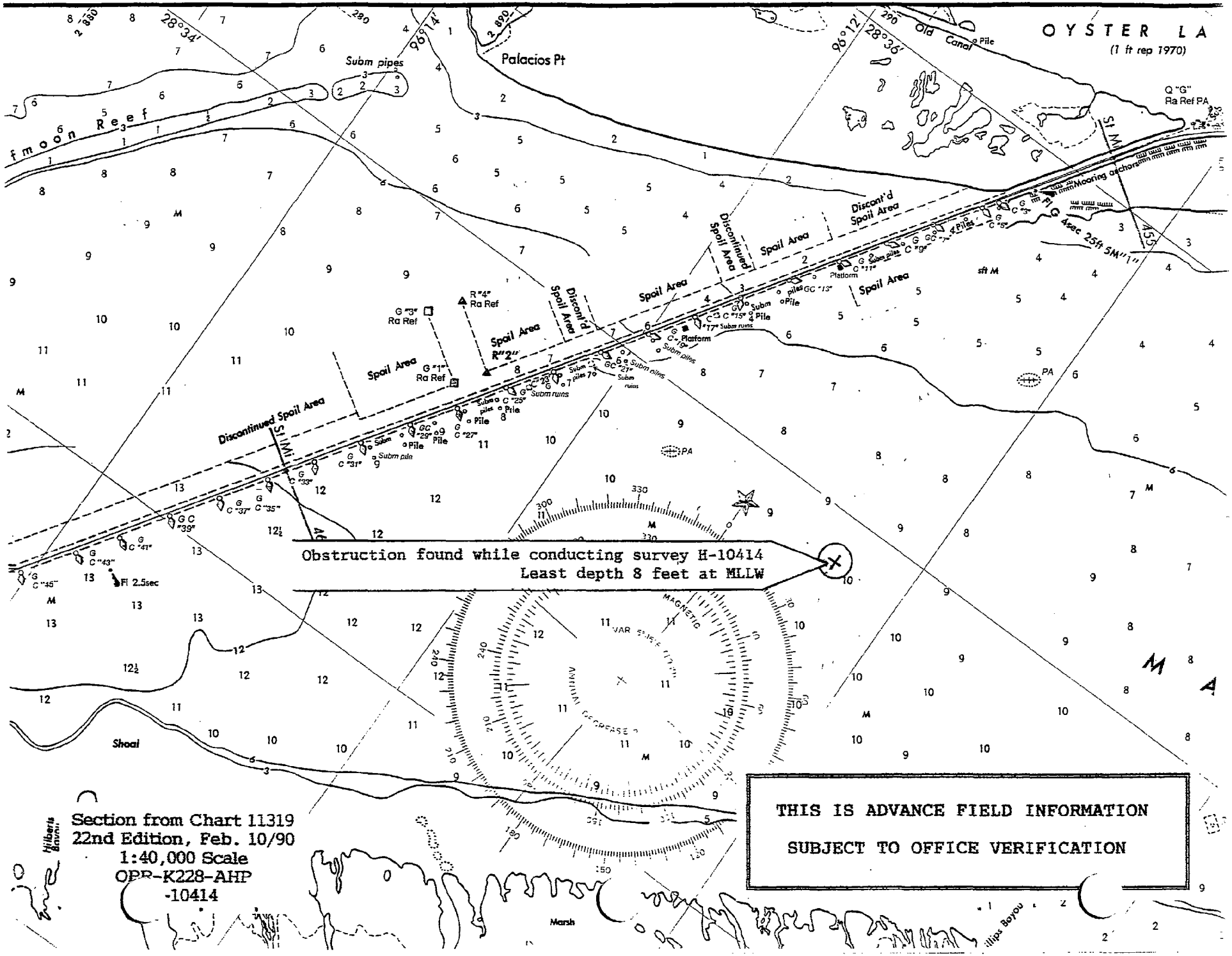
Thomas R. Waddington, LT, NOAA
Chief, Atlantic Hydrographic Party

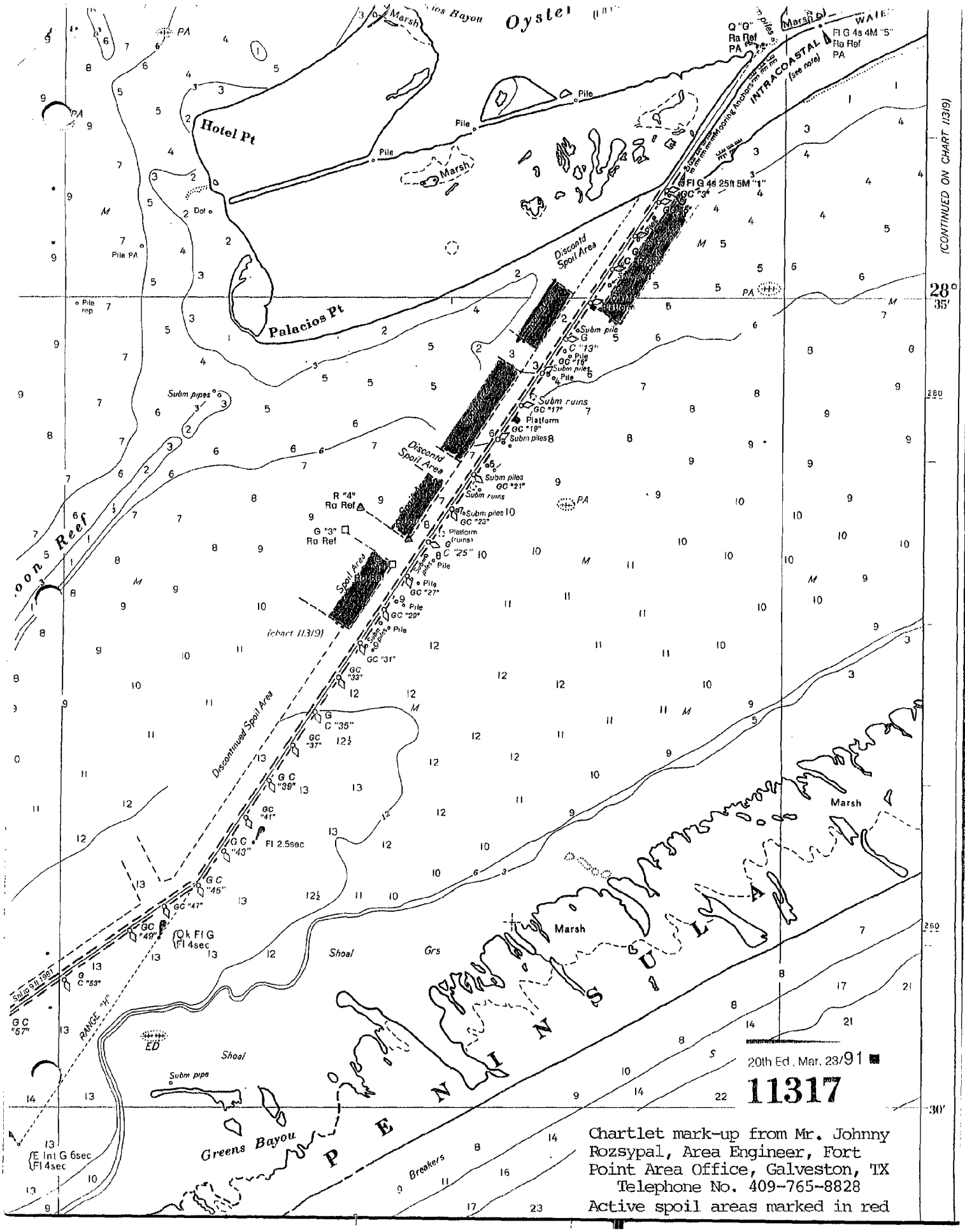
Attachments

cc: N/CG221
N/CG2451
DMAHTC

THIS IS ADVANCE FIELD INFORMATION

SUBJECT TO OFFICE VERIFICATION


OYSTER LA
(1 ft rep 1970)
Palacios Pt
Old Canal
Subm pipes
Discont'd Spoil Area
Discontinued Spoil Area
Spoil Area
Mooring anchors
Platform
Subm piles
Subm ruins
Pile
Shoal
Marsh
Hilberts Bayou
Obstruction found while conducting survey H-10414
Least depth 8 feet at MLLW
THIS IS ADVANCE FIELD INFORMATION
SUBJECT TO OFFICE VERIFICATION
Section from Chart 11319
22nd Edition, Feb. 10/90
1:40,000 Scale
OPR-K228-AHP
-10414



Chartlet mark-up from Mr. Johnny Rozsypal, Area Engineer, Fort Point Area Office, Galveston, TX Telephone No. 409-765-8828
Active spoil areas marked in red

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-K228/91-3
AHP2-10-1-92
H-10414
1992

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K228/91-3, 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
Lieutenant, 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 14, 1992

MARINE CENTER: Pacific

OPR: K228

HYDROGRAPHIC SHEET: H-10414

LOCALITY: Three nautical miles SE of Palacios Point, Matagorda Bay, TX

TIME PERIOD: January 21 - March 12, 1992

TIDE STATIONS USED: 877-3156 Palacios, TX
Lat. 28° 41.8'N Lon. 96° 13.9'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.44 feet

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.0 foot

REMARKS: RECOMMENDED ZONING

Times are direct, and apply a X0.84 range ratio to all heights on Palacios, TX.

NOTE: Hourly heights are tabulated on Central Standard Time.

CHIEF, DATUMS SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10414

Name on Survey	A ON CHART NO. 11319 SC	B ON PREVIOUS SURVEY NO. 11317 H-5866	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
FENCE BAYOU	X									1
INTRACOASTAL WATERWAY	X									2
MATAGORDA BAY	X	X								3
MATAGORDA PENINSULA	X	X								4
PALACIOS POINT (title)	X									5
TEXAS (title)	X									6
										7
										8
										9
										10
										11
										12
										13
										14
					Approved:					15
										16
					Charles E. Harrington					17
					Chief Geographer - N/CG2x5					18
					AUG 17 1992					19
										20
										21
										22
										23
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NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10414

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	6
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	2

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

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES
The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			1874
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	40.5		40.5
VERIFICATION OF SOUNDINGS	74.0		74.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	48.5		48.5
COMPARISON WITH PRIOR SURVEYS AND CHARTS		16.0	16.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		62.0	62.0
GEOGRAPHIC NAMES			
OTHER* Digitizing			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	163.0	78.0	

Pre-processing Examination by LT J. Griffin	*Beginning Date* 6/29/92	*Ending Date* 7/7/92
Verification of Field Data by I.Almacen	*Time (Hours)* 163.0	*Ending Date* 3/8/93
Verification Check by J. Green	*Time (Hours)* 32.0	*Ending Date* 6/7/93
Evaluation and Analysis by I. Almacen	*Time (Hours)* 78.0	*Ending Date* 6/11/93
Inspection by B. Olmstead	*Time (Hours)* 19.0	*Ending Date* 7/5/93

EVALUATION REPORT
H-10414

1. INTRODUCTION

Survey H-10414 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2 under the following Project Instructions.

OPR-K228-AHP2, 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

This survey was conducted in Texas, in the eastern portion of Matagorda Bay, about three nautical miles southeast of Palacios Point. The survey area extends across the northern and southern shores of the bay from longitude 96/09/54W to longitude 96/12/30W. The foreshore areas consists of shallow and muddy beaches. The bottom is generally made up of mud mixed with sand. Depths range from 0.3 to 6.6 meters.

Predicted tides for Port O'Connor, Texas, gage 877-3701, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Palacios, Texas, gage 877-3156, 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 and electronic control correctors are adequate. Sound velocity table 11 was updated to provide correctors for deeper soundings not covered by the correction tables generated in the field. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey as required by the specifications contained in 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 a complete depiction of the survey data.

2. CONTROL AND SHORELINE

Sections H and I of the hydrographer's report contain adequate discussions of horizontal control and hydrographic positioning. Additional detailed information on horizontal control is contained in the following reports.

Field Report, Matagorda Bay, Texas and vicinity, Third-Order, Class I Traverse, AMC Coastal Surveys Unit, January 23, 1989;

Project Report, Matagorda Bay and Vicinity, Texas, GPS Hydrographic Support Survey, March 4 to March 20, 1991.

In addition to the horizontal control reports mentioned above, refer to the memoranda, Third-Order NAVAID positions for OPR-K228-AHP, dated July 23, 1992 and October 21, 1992 (copies filed with the survey records), for positioning information of various aids to navigation around Matagorda Bay and Lavaca Bay, Texas. The computed geographic positions for these

aids submitted by the Atlantic field party have been reviewed at the Hydrographic Surveys Branch in Rockville and found to have met or exceeded the accuracy requirements for conventional Third-Order Class I positioning.

Positions of horizontal control stations used during hydrography are published and 1991 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 the 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: 0.986 seconds (30.360 meters)
Longitude: 0.885 seconds (24.054 meters)

The year of establishment of control stations shown on the smooth sheet originates with the NGS listing and the previously referenced horizontal control reports.

There are a few cases during the survey where the maximum allowable limits of error circle radius (ECR) and residual values of fixes have been exceeded or have angles of intersection less than 30 degrees or more than 150 degrees. However, a review of the data shows that the positioning of soundings located by these fixes were consistent with the surrounding areas and are considered acceptable. None of these survey positions are used to locate dangers to navigation.

The following shoreline maps apply to this survey.

	Photo Date	Class	Scale
TP-01645	Feb/Mar 1989	III	1:20,000
TP-01646	Feb. 1989	III	1:20,000

No significant changes to the shoreline were noted during this survey, except for a small point of land in the vicinity of latitude 28/35/28N, longitude 96/11/16W. This change was the result of spoil discharges from a recent dredging operation around this point and is depicted on the smooth sheet by a dashed red line.

3. HYDROGRAPHY

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.

The hydrographer was unable to define the zero depth curves during this survey. The inshore areas are too shallow for a safe approach by boat.

A supplemental 4-meter brown depth curve was drawn along the Intracoastal Waterway to show the present configuration of the channel.

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.

5. JUNCTIONS

Survey H-10414 junctions with the following surveys.

Survey	Year	Scale	Area
H-10405	1991	1:10,000	West
H-10406	1991-92	1:10,000	West

The junction with survey H-10406 is complete. Comparison is satisfactory, however some soundings within the adjoining area were transferred from this survey to effect an adequate junction.

The junction with survey H-10405 has not been formally completed because this survey was previously processed and forwarded for charting. However, comparison with the office copy of survey H-10405 shows satisfactory agreement with the present survey. A junction was accomplished.

There are no contemporary surveys to the east, however, comparison with the charted depths in the area reveals satisfactory agreement with survey H-10414.

6. COMPARISON WITH PRIOR SURVEYS

H-5866(1934-35), 1:20,000

Survey H-5866 provides the basic coverage of the entire area of this survey. Comparison with this prior survey is considered satisfactory. The present soundings are generally deeper by about 0.5 meters than the prior survey, except in the vicinity of the point of land mentioned in section 2 of this report. Here the soundings are presently shoaler as a result of the deposit of spoil from dredging operations in the area.

The Intracoastal Waterway system around Matagorda Bay did not exist during the 1934-35 survey. The present survey depths are noted to be deeper by about 1 to 2 meters (3-6 feet) within the channel areas.

Survey H-10414 is adequate to supersede prior survey H-5866 for the area of common coverage.

7. COMPARISON WITH CHART

Chart 11317, 20th edition, dated March 23, 1991;scale 1:50,000
Chart 11317, 21st edition, dated July 4, 1992;scale 1:50,000
Chart 11319, 22nd edition, dated February 10, 1990;scale 1:40,000.
Chart 11319, 24th edition, dated October 17, 1992;scale 1:40,000.

a. Hydrography

The charted hydrography on the 20th edition of chart 11317 and the 22nd edition of chart 11319 originates mostly with prior survey H-5866 and the rest from miscellaneous sources which requires no further discussion. The 21st edition of chart 11317 and the 24th edition of chart 11319 includes additional charted aids to navigation located along the channel and two additional features.

(1) An uncharted obstruction with a least depth of 2.1 meters (7.0 feet), based on actual tides, marked by a privately maintained orange over white horizontally banded buoy was located during this survey. This feature is presently charted on the latest editions of charts 11317 and 11319 as an obstruction (position approximate) with an 8-foot reported least depth, based on the danger to navigation report submitted by the hydrographer for this survey. It is recommended that this charted feature be revised to a 7-foot obstruction with a privately maintained marker buoy as depicted on the smooth sheet.

(2) A newly charted wreck (position approximate) at latitude 28/33/13N, longitude 96/11/50W, originating from miscellaneous source, was not investigated during this survey and, therefore, should be retained as charted.

With the exception of the wreck mentioned above, survey H-10414 is adequate to supersede charted hydrography within the common area.

b. AWOIS

There are twelve (12) AWOIS items on this survey area originating with miscellaneous sources. Discussion and disposition of each of these items are included in the hydrographer's report.

c. Controlling Depths

The Intracoastal Waterway is a federally maintained channel located within the area of this survey. The depths found along this channel are consistent with or deeper than the presently charted project depth.

d. Aids to Navigation

The following fixed and floating aids to navigation are located within the area of this survey. These aids were found to be in good condition and adequately serve their intended purpose.

Aid Name	Lt.List#	Latitude(N)	Longitude(W)
Matagorda Bay Lt.1	34415	28/35/48.112	96/10/40.812
Daybeacon 3	34420	28/35/42.35	96/10/47.88
Buoy 4	34422	28/35/43.80	96/10/50.19
Buoy 5	34425	28/35/39.60	96/10/50.04
Buoy 7	34430	28/35/28.36	96/10/58.17
Buoy 8	34432	28/35/28.89	96/11/00.96
Buoy 9	34435	28/35/15.49	96/11/07.53
Buoy 10	34437	28/35/17.42	96/11/09.42
Buoy 11	34440	28/35/04.25	96/11/16.01
Buoy 12	34442	28/35/06.40	96/11/17.70

Buoy 13	34445	28/34/52.44	96/11/24.87
Buoy 14	34447	28/34/54.16	96/11/27.19
Buoy 15	34450	28/34/40.27	96/11/33.99
Buoy 16	34452	28/34/42.13	96/11/36.55
Buoy 17	34455	28/34/27.03	96/11/44.15
Buoy 19	34460	28/34/15.81	96/11/52.66
Buoy 21	34465	28/34/02.94	96/12/02.36
Buoy 23	34470	28/33/50.56	96/12/11.78
Buoy 25	34475	28/33/38.32	96/12/20.96
Buoy (priv maintd)		28/33/46.78	96/10/26.25

During this survey the charted buoys were found to have been moved to new locations along the channel. According to the Coast Guard the above listed buoys with the exception of the privately maintained one located along the Intracoastal Waterway have often been repositioned during the past few years.

See section P of the hydrographer's report for additional information concerning the above listed aids to navigation.

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

A danger to navigation located within the area of the survey was reported to the USCG on March 23, 1992. A copy of this report is attached. No additional dangers were discovered during office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10414 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is an adequate hydrographic survey, however, additional field work is required to investigate the newly charted visible wreck mentioned in section 7(a) of this report.

Isagani A.Almacen
Cartographer

APPROVAL SHEET
H-10414

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 disproval 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.

for Bruce A. Olmstead Date: July 5, 1993
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: 7/13/93
Commander Douglas G. Hennick, NOAA
Chief, Pacific Hydrographic Section

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Final Approval

Approved:

J. Austin Yeager Date: 10/4/93
J. Austin Yeager
Rear Admiral, NOAA
Director, Coast and Geodetic Survey

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10414

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
11319-B	9-29-93	R. A. Lillis	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 24 Before signature
11317	9-30-93	John Barber	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 22 before signature
11316	9-30-93	John Barber	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 50 before signature
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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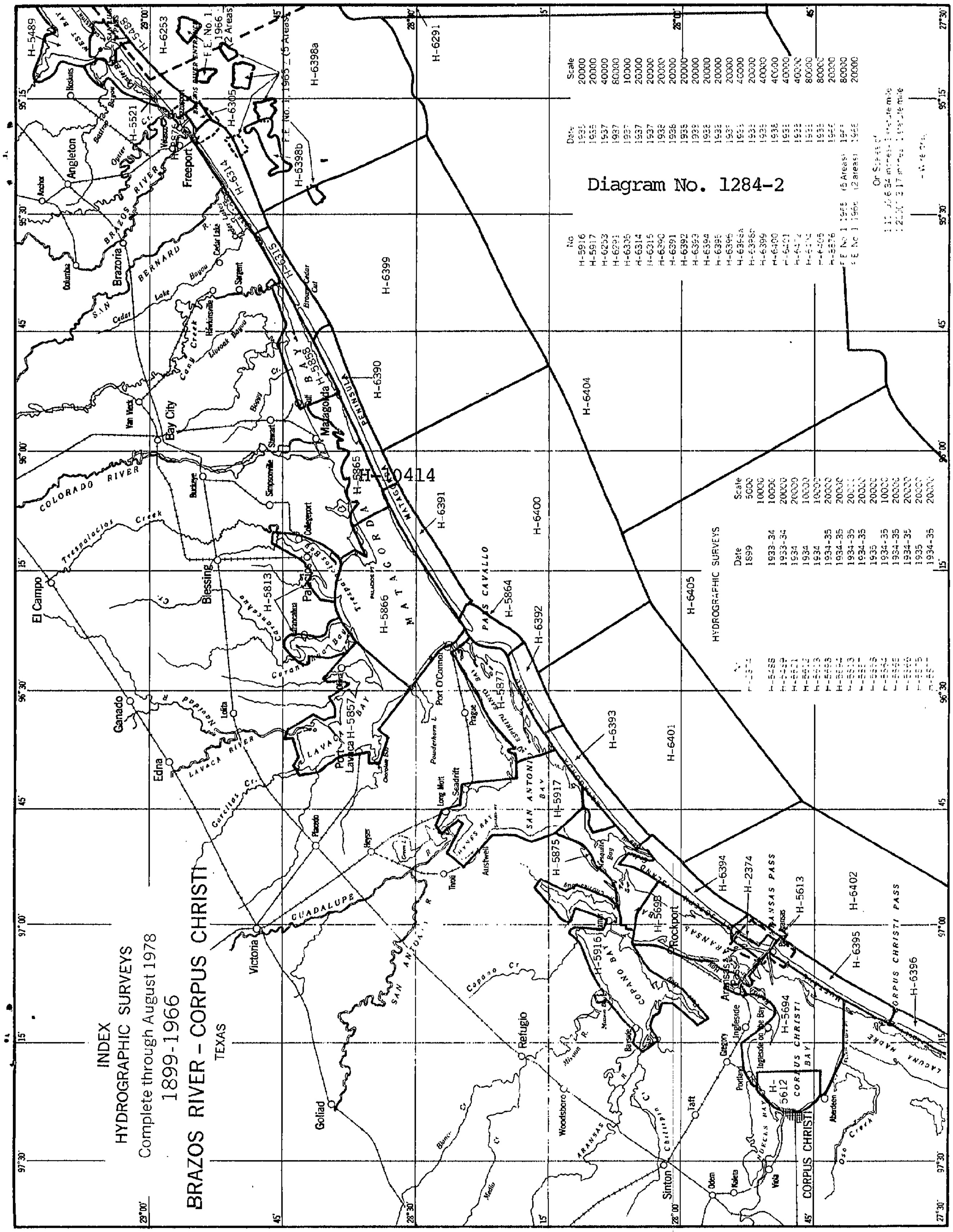
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED

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

Hydrographic Index No. 90 C