

10417

10417

Diagram No. 1284-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey ..... Hydrographic  
Field No. .... AHP2-10-4-92  
Office No..... H-10417

LOCALITY

State ..... Texas  
General Locality .. Matagorda Bay  
Locality ..... Sand Point

1992

CHIEF OF PARTY  
LT T.R. Waddington

LIBRARY & ARCHIVES

DATE ..... February 17, 1993

HYDROGRAPHIC TITLE SHEET

H-10417

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.

AHP2-10-04-92

State Texas

General locality Matagorda Bay

Locality Sand Point

Scale 1:10,000

Date of survey March 14-25, 1992

Instructions dated March 1, 1991

Project No. OPR-K228

Vessel Launch 0770

Chief of party LT Thomas R. Waddington, NOAA

Surveyed by Glenn Hendrix, Thomas Waddington, Tim Madsen, Nestor Yruegas and Cory Miller

Soundings taken by echo sounder, ~~hand lead, code~~ DE719-B S/N 8652

Graphic record scaled by Nestor Yruegas, Cory Miller

Graphic record checked by Glen Hendrix

Verification by: G.E. Kay

Automated plot by PHS Xynetics Plotter

Evaluation by: G.E. Kay

Soundings in ~~fathoms~~ ~~feet~~ at ~~MHW~~ MLLW Meters and decimeters

REMARKS: Time in 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.

*ADVIS/SURPV 2/23/93, SJV*

*KWW 9/30/93*



DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10417  
(Field No. AHP2-10-04-92)  
Scale 1:10,000  
1992

Atlantic Hydrographic Party Two  
Chief of Party: Lt. Thomas R. Waddington, NOAA

A. PROJECT

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K228-AHP2, Matagorda and Lavaca Bays, Texas, 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 and Change No. 4, dated January 16, 1992. ✓

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

The purpose of this project is to provide contemporary hydrography for the maintenance of existing nautical charts of Matagorda and Lavaca Bays. ✓

B. AREA SURVEYED

The area surveyed for H-10417 is in the northwest portion of Matagorda Bay, east of Sand Point. The area is bounded by the following approximate geographic limits: ✓

North - 28°35'<sup>57.5"</sup>57"N  
South - 28°33'18"N  
East - 096°25'06"W  
West - 096°28'54"W

This survey was conducted from March 14, 1992 (day 074) to March 25, 1992 (day 085). ✓

C. SOUNDING VESSELS

Vessel 770 (EDP No. 770) a 21-foot MonArk, was the sounding vessel used to collect all survey data. There were no unusual vessel configurations nor problems encountered. ✓

D. AUTOMATED DATA ACQUISITION AND PROCESSING

The Hydrographic Data Acquisition and Processing System (HDAPS) was used to process all hydrographic data for this survey. Version 3.6 of the PC-DAS suite of programs was used for on-line data acquisition on the survey vessel. Listings of version numbers for the various HP-DPS programs used for all data processing are provided in the Appendix VI. In addition to the HDAPS, the following non-HDAPS computer programs were used:

VELOCITY (IBM PC)	Ver. 1.11 (3/9/90)
MTEN 3 with enhancements (IBM PC)	Ver. 6/88
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 5.1

E. SONAR EQUIPMENT

No sonar equipment was used during this survey.

F. SOUNDING EQUIPMENT

A Raytheon Fathometer model DE-719B, s/n 8652, modified with Odom Hydrographic Systems, Inc. Digitrace, was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 0770, 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.

A minor problem was experienced when using the F7 key to change the sounding interval on line. The Raytheon Fathometer and the TMI computer sometimes process this action differently. On several occasions when using this function, either an in-between sounding was omitted on the fathogram or the fix number was duplicated. This caused the position numbers to be on a different selected sounding throughout the rest of the line. To correct this problem, the fix numbers were manually written on the graphic record to correspond with the correct interval line on the fathogram.

Depths on this survey range from 0.5 to 3.9 meters.

### G. CORRECTIONS TO SOUNDINGS

When using the Raytheon Model DE-719B Fathometer, calibration checks were made frequently on each day of hydrography. The Digitrace readings were closely monitored for agreement with the analog trace. The digitized soundings matched the fathometer's trace to plus or minus 0.1 meter. Any necessary corrections were made during scanning of the fathograms. Any required adjustments of the tide and draft, speed of sound, and sensitivity were made and noted on the fathogram. Any departures from the initial zero were corrected during scanning of the fathogram.

Soundings were recorded in meters. The Raytheon DE-719B fathometer is adjusted for an assumed speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water were computed from data obtained with ODOM DIGIBAR speed of sound profiler, s/n 154. NOS Program "Velocity" was used for the speed of sound correction computations. Copies of cast forms can be found in the Survey Separates, ~~section IV~~ *Filed with the survey records*

The following speed of sound casts were taken during the course of the survey:

<u>Table Applied</u>	<u>Day</u>	<u>EXTENDED Cast Depth Meters</u>	<u>Location NAD 1983</u>	<u>Days Used</u>
11	072	3.9*	28°35'45"N 096°34'00"W	074
12	079	13.0	28°35'48"N 096°33'00"W	076-080
13	084	3.9*	28°35'50"N 096°34'00"W	085

\* 14 meters was entered on HDAPS Velocity Corrector Table to cover any survey depths greater than the extended cast depth.

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

<u>Table No.</u>	<u>Use for Days</u>
11	074
12	076, 079, 080
13	085

A data quality assurance test (DQA) was performed prior to each speed of sound cast to assure proper working condition of the probe. Velocity tables are included in the Survey Separates.\*  
~~section IV.~~

Weather permitting, lead line comparisons were conducted on each day of hydrography to determine an instrument corrector. The observed corrector was negligible, (less than 3 cm.); no corrector was applied. Lead line comparison forms can be found in the Survey Separates.\*~~section IV.~~

Settlement and squat measurements for vessel 770 were performed on May 23, 1991 (DN 143) at the Harbor Refuge in Port Lavaca, Texas, using the NOS prescribed level rod method (Zeiss Level S/N 08765). Settlement and squat correctors and the static draft corrector of 0.32m for vessel 770 were applied on-line through the offset tables. Copies of the field data, the graphs of the settlement and squat correctors vs. RPM, and the offset tables are included in the survey Separates.\*~~section IV.~~

The final field sheet was plotted with predicted tides using Port O'Connor as the reference station and the correctors designated in the project instructions. Approved tides were requested from the Sea and Lake Levels Branch, N/OMA1212, in a letter dated April 24, 1992. Copies of the field tide level note and request for approved tides are included in Appendix V\* of this report. 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.

Survey records were scanned by AHP-2 employees. Significant peaks and deeps which occurred between selected soundings, missed depths, incorrectly digitized soundings, and the effects of sea and swell action were corrected while scanning the echograms.

#### H. CONTROL STATIONS

The horizontal control datum for this project is the North American Datum of 1983.

Three monumented control stations (stations 005, 016 and 017), and Port O'Connor water tank (station 038), were used to control this survey. There were no stations located seaward of the high water line. A copy of the HDAPS Control Station Table is in Appendix III of this report (*attached*).

\* Filed with the Survey records.

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, *AND SAN ANTONIO AND LACAVCA BAYS, GPS SURVEY, dated October 1990.*

#### I. HYDROGRAPHIC POSITION CONTROL

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

The following Falcon Mini-Ranger equipment was used:

<u>Equipment</u>	<u>S/N</u>
RPU	F0241
R/T	E2919 (days 074-085)
R/S	F3293
R/S	C2059
R/S	G3572
R/S	E2911

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.

An occasional problem was encountered when an apparently good position plotted un-realistically on the raw track plot. This problem is attributable to the survey computer's inability to immediately compute an accurate position after an extended period of questionable Falcon data. These positions were rejected, smoothed, or recomputed using the point computation routine.

Baseline calibrations were performed on August 29, 1991 (S/N G3572), September 19, 1991 (S/N F3293), January 8, 1992 (S/N E2911) and March 12, 1992 (S/N E2919). Baseline correctors were incorporated into the Comflex C-0 table number six, and applied directly to all on-line data. During final field office review of this survey, we discovered that the corrector for station 038 was erroneously entered as -10.8 instead of -11.0. This error is negligible and does not adversely affect the positional accuracy of this survey. This error applies to all data obtained on this *CONCUR*



survey. 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.

#### J. SHORELINE

Shoreline details shown on the final field sheet were manually transferred from TP-01648. The shoreline manuscripts were compiled at 1:20,000 scale and photographically enlarged to 1:10,000 scale.

Shoreline verification was accomplished by visual inspection. While main scheme hydrography rarely approached closer than 200 meters from shore, no obvious change from that shown on the shoreline manuscripts was noted. 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-01648. *CONCUR*

Field notes are located on the final field sheet and the graphic records included as part of this survey.

#### K. CROSSLINES

A total of 11.3 linear nautical miles of crosslines were run on H-10417 which equals 10% of the linear nautical miles of hydrography run. Crossline and mainscheme soundings agree to within 0.2m.

#### L. JUNCTIONS

This sheet junctions with H-10381 to the west, H-10415 to the east and H-10379 to the south. These are all 1:10,000 scale surveys completed in 1991 and 1992.

Junction soundings between H-10381 and the present survey agree to within .3 meter. Junction soundings between H-10379, H-10415 and the present survey differ from 0.2m to 0.6m. There were predicted tide anomalies observed during the project, as mentioned in section G of this report. The hydrographer believes that when smooth tides are applied the difference in the junction soundings will be negligible. *CONCUR with the application of actual tides differences are minor.*

M. COMPARISON WITH PRIOR SURVEYS *see Evaluation Report section 6*

This survey was compared with prior survey H-5857, a 1:20,000 scale survey from 1934-1935. ✓

One item was addressed as part of this survey. The item did not originate from the prior survey. ✓

The soundings between the present and the prior survey agree to within 0.4 meter, with the present survey soundings being deeper. The hydrographer recommends that the present survey soundings supersede the prior in all common areas. *CONCUR*

The hydrographer could not compare the present survey with prior survey H-5866, dated 1935, at a 1:20,000 scale because the prior survey was previously submitted with another survey. Time constraints to have the survey returned were deemed unpractical. *See Evaluation Report section 6* ✓

With consideration for the above statements, the present survey is adequate to supersede the prior surveys within the common areas. *CONCUR*

N. COMPARISON WITH THE CHART

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

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11317 ✓	20th ✓	March 23, 1991 ✓

One AWOIS item was addressed as part of this survey. An AWOIS Item Investigation Report is ~~included in Appendix VI of this report.~~ <sup>attached.</sup> ✓

Nine uncharted shoals located within the survey area were developed at 25 meter line spacing. A Danger To Navigation Report was submitted for these shoals. The locations and least depths for these shoals can be found on the copy of the Danger to Navigation letter ~~included in Appendix I of this report.~~ <sup>attached.</sup> Least depth soundings over these shoals are recommended for charting. *CONCUR*

The charted soundings agree within 0.<sup>2</sup>/<sub>3</sub> meter of the survey soundings. The hydrographer recommends that the soundings from this survey be charted. *CONCUR*

A "pipe rep" <sup>AWOIS ITEM 5350</sup> charted at latitude 28°35'<sup>40.98"</sup>42"N, longitude 096°25'<sup>14.10"</sup>15"W at the eastern limit of this survey, was addressed as part of survey H-10415. ✓

O. ADEQUACY OF SURVEY

This survey is a complete basic hydrographic survey and is adequate to supersede all prior surveys within the common areas. *CBNCOF*

P. AIDS TO NAVIGATION

There are no floating or non-floating aids to navigation located in the survey area. ✓

No landmarks were located within the survey area. ✓

No overhead cables, pipelines or bridges exist within the survey limits. No submerged pipeline or cable crossing signs existed within the survey area. ✓

Q. STATISTICS

<u>Description</u>	<u>Quantity</u>
Number of Positions	113 <sup>12</sup> 0.0
Total Linear Nautical Miles of Hydrography	134.0
Square Nautical Miles of Hydrography	5.8
Days of Production	5.0 ✓
Detached Positions	1.0
Bottom Samples	23.0
Tide Stations	0.0
Speed of Sound Casts	3.0
Duplicated Positions	1

R. MISCELLANEOUS

Twenty-three bottom samples were taken and submitted to the Smithsonian Institution on March 12, 1992, as directed in Section 6.7 of the project instructions. Bottom sample positions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which may be found in the separates of this report, *filed with the survey records.* ✓

No anomalous currents were observed in the survey area. ✓

S. RECOMMENDATIONS

Specific recommendations concerning this survey are made in sections "J", "M", "N" and "O" of this report. ✓

T. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>	
Descriptive Report to Accompany Surveys H-10381, H-10415 and H-10379	Pacific Hydrographic Section N/CG245 Seattle, WA, 1991	✓
<i>Matagorda and Vicinity, Texas, GRS Survey</i> Horizontal Control Report for OPR-K228-AHP2 * <i>dated, March 1991 for OPR-K228-AHP</i>	Field Photogrammetry Section N/CG23322 Norfolk, VA, 1991	
Chart Sales Agent Report	Chart Distribution Branch N/CG33 Rockville, MD, 1991	✓
User Evaluation Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA, 1991	✓
Chart Inspection Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA, 1991	✓
Coast Pilot Report	Pacific Hydrographic Section N/CG245 Seattle, WA, 1991	✓

Submitted by:

Glenn D. Hendrix  
Surveying Technician, Atlantic Hydrographic Party Two

\* *San Antonio and Lacavera Bays GRS Survey dated October 1990*



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.

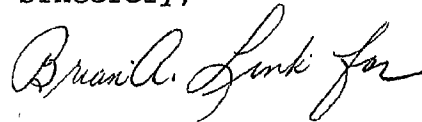
The geographic positions are North American 1983 Datum. Depths reported are corrected for predicted tides for Port O'Connor, Texas. These features were located by four lines of position from Motorola Falcon Mini-Ranger electronic positioning system units set up on third order, class 1, ground control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

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

**ADVANCE  
INFORMATION**

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

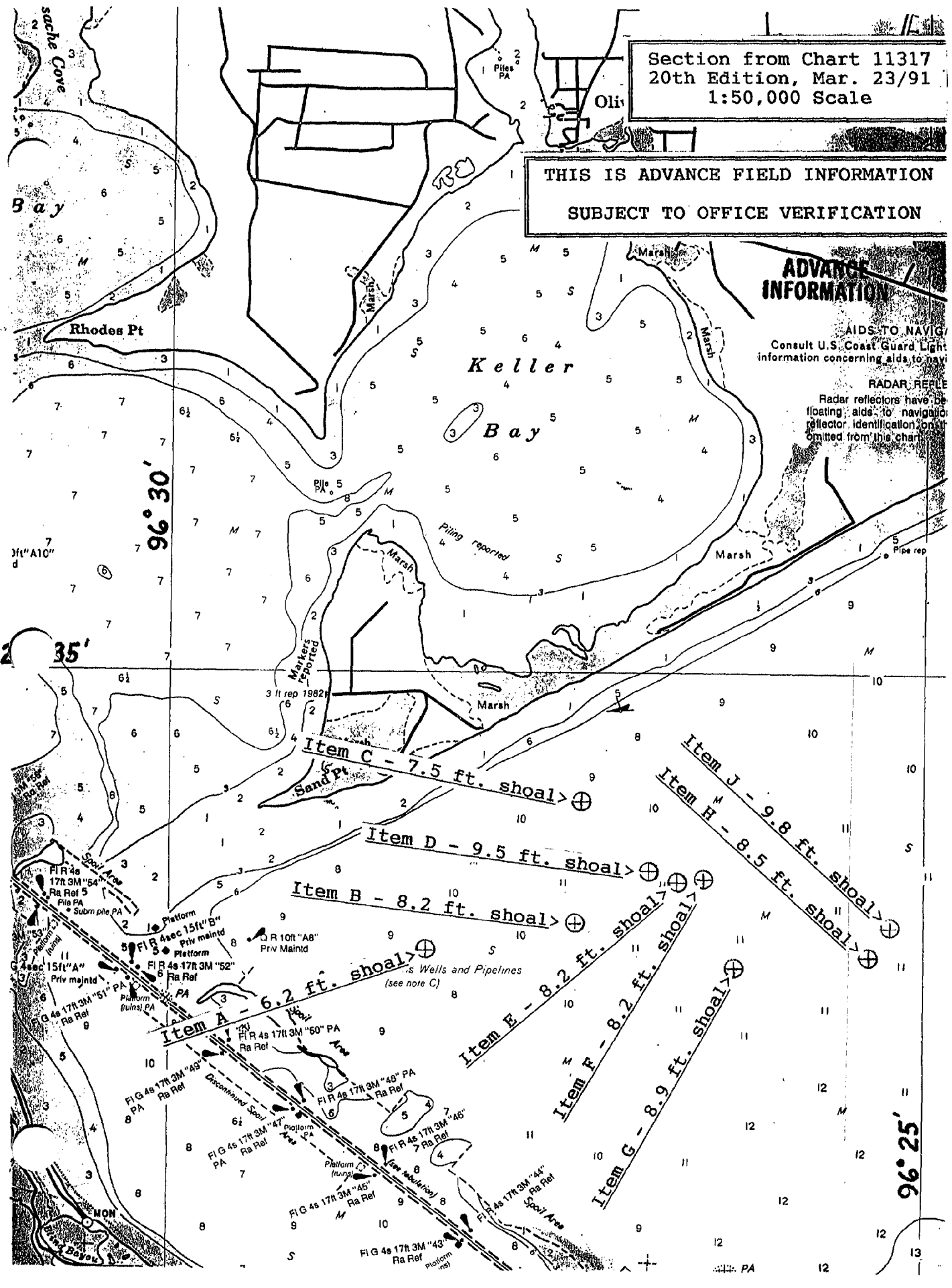
Section from Chart 11317  
20th Edition, Mar. 23/91  
1:50,000 Scale

THIS IS ADVANCE FIELD INFORMATION  
SUBJECT TO OFFICE VERIFICATION

ADVANCE  
INFORMATION

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

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







CONTRL STATIONS as of 22 Apr 1992

No	Type	Latitude	Longitude	#	Cart	Freq	Vel	Code	MM/DD/YY	Station Name
001	F	028:39:08.751	096:33:48.617	37	250	0.0	0.0	4	05/08/91	ALCOA 1990
002	F	028:40:17.831	096:38:14.547	6	250	0.0	0.0	1	05/08/91	BLUF 1990
003	F	028:39:44.601	096:34:56.482	0	139	0.0	0.0		05/08/91	CAUS 1990
004	F	028:34:59.694	096:36:29.910	0	139	0.0	0.0		05/08/91	CHGC 1990
005	F	028:33:23.435	096:31:27.214	6	250	0.0	0.0	C	05/08/91	INDI 1990
006	F	028:30:25.466	096:28:47.523	6	250	0.0	0.0		05/08/91	IOLA 1990
007	F	028:41:53.224	096:34:34.009	0	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	0.0		05/08/91	MAGNOLIA 1934
009	F	028:35:58.914	096:34:14.621	0	139	0.0	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	0.0	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	0.0		05/08/91	MATAGORDA SHIP CH RNG D FRT LT
012	F	028:35:26.693	096:34:02.932	15	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH RNG D R LT
013	F	028:38:45.466	096:33:40.337	0	139	0.0	0.0		05/08/91	MITCHELL 2 1956
014	F	028:38:23.410	096:36:38.092	5	250	0.0	0.0	5	05/08/91	NGLE 1990
015	F	028:39:26.181	096:35:09.366	0	139	0.0	0.0		05/08/91	PIER PK 1990
016	F	028:36:57.750	096:30:48.191	6	250	0.0	0.0	2	05/08/91	RHOD 1990
017	F	028:34:12.754	096:29:19.105	11	250	0.0	0.0	D	05/08/91	SAND 1990
018	F	028:43:17.941	096:36:36.066	6	250	0.0	0.0	6	05/08/91	VEDO 1990
019	F	028:38:37.047	096:33:47.871	0	139	0.0	0.0		05/08/91	ZEPP 1989
020	F	028:26:10.961	096:20:01.576	0	250	0.0	0.0		05/08/91	TEMP 01
021	F	028:27:39.775	096:17:46.171	0	250	0.0	0.0		05/08/91	OSGOOD 2 1906
022	F	028:35:28.457	096:11:22.074	0	250	0.0	0.0		05/08/91	LAKE 2 1906
023	F	028:40:34.424	096:16:14.008	0	250	0.0	0.0		05/08/91	TURT 1991
024	F	028:36:26.852	096:24:20.045	0	250	0.0	0.0		05/08/91	BUNG 1991
025	F	028:35:13.034	096:26:49.244	0	139	0.0	0.0		05/08/91	VACA 1991
026	F	028:23:56.881	096:24:25.772	0	250	0.0	0.0		05/08/91	RUIN 1991
027	F	028:32:20.570	096:18:44.040	0	250	0.0	0.0		05/08/91	PLAT PK 1991
028	F	028:41:52.040	096:12:37.978	0	250	0.0	0.0		05/08/91	PALA 1991
029	F	028:38:33.081	096:14:06.706	0	250	0.0	0.0		05/08/91	INDY 1991
030	F	028:35:08.621	096:17:11.587	10	250	0.0	0.0		05/08/91	CRAN PK 1991
031	F	028:34:45.981	096:13:33.884	0	250	0.0	0.0		05/08/91	EROD 1991
032	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	BUJL 1991
033	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	EARL 1991
034	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	3701 E 1989
035	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	IW MB PORT O CONNOR LT 2
036	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA SHIP CH N DREDGE LT
037	F	000:00:00.000	000:00:00.000	0	250	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	FORT O CONNOR MUN TANK
039	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE L REAR LT
040	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE L FRONT LT
041	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE K FRONT LT
042	F	000:00:00.000	000:00:00.000	20	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE K REAR LT
043	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE A REAR LT
044	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE A FRONT LT
045	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	PORT O CONNOR CABLE TV MAST
046	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE B REAR LT
047	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATA 1934
048	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE B FRONT LT
049	F	000:00:00.000	000:00:00.000	20	250	0.0	0.0		05/08/91	MATAGORDA BAY RANGE H REAR LT
050	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	TRULL SAT
051	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	PALAPORT
052	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	SMYTH SAT
053	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/08/91	PDE 1934
054	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		05/24/91	COON 1991
088	F	000:00:00.000	000:00:00.000	0	250	0.0	0.0		07/29/91	

AWOIS NO: 5349

Item Description: visible wreck

Source: LNM 44/75 (11/5/75)--8th CGD

AWOIS Position: Lat - 28°34'45.9<sup>9</sup>8"N Lon - 96°27'00.90"W

Required Investigation: VS, BD, DI, SD Radius: 100 meters

Charts Affected: 11316, 11317

INVESTIGATION

Date(s): March 25, 1992

DN(s): 085

Position Numbers: 942

Launch Number: 770

*Latitude 28°34'46.06"N, Longitude 96°27'00.91"W*

Investigation Used: BD

Dive Report No:

Position Determined By: Falcon Multiple Range

Investigation Summary: A 100 meter circle drag was performed over the required area and nothing was found.

CHARTING RECOMMENDATION

The Hydrographer recommends that the item be removed from the chart. *CONCUR*

Recommended Position: Lat - Lon -

Recommended Least Depth: m

\*\*\*\*\*

COMPILATION NOTES

Chart

Applied As

APPROVAL SHEET  
BASIC HYDROGRAPHIC SURVEY

OPR-K228-AHP2  
AHP2-10-4-92  
H-10417  
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

ORIGINAL



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: May 13, 1992

MARINE CENTER: Pacific

OPR: K228

HYDROGRAPHIC SHEET: H-10417

LOCALITY: Matagorda Bay, Sand Point, TX

TIME PERIOD: March 14 - 25, 1992

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

\*877-3701 Port O'Connor, TX  
Lat. 28° 27.2'N Lon. 96° 24.3'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 877-3259 = 1.82 ft.  
\*877-3701 = 2.16 ft.

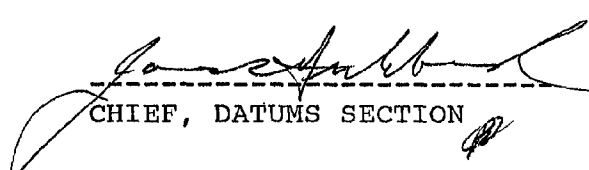
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 877-3259 = 1.0 ft.  
\*877-3701 = 0.9 ft.

REMARKS: RECOMMENDED ZONING

1. Northwest of a line between Indian Point and Sand Point, heights are direct, and apply -01 hr 00 min time correction to 877-3259.
2. Southeast of a line between Indian Point and Sand Point, zone direct on 877-3701.

NOTE: Hourly heights are tabulated on Central Standard Time.

\*Survey area falls entirely in Zone 2

  
CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

Name on Survey	<div style="display: flex; justify-content: space-between;"> <span>A ON CHART NO. 11317</span> <span>B ON PREVIOUS SURVEY NO.</span> <span>C ON U.S. QUADRANGLE MAPS</span> <span>D FROM LOCAL INFORMATION</span> <span>E ON LOCAL MAPS</span> <span>F P.O. GUIDE OR MAP</span> <span>G RAND MCNALLY ATLAS</span> <span>H U.S. LIGHT LIST</span> <span>K</span> </div>										
	MATAGORDA BAY	X									
SAND POINT	X										2
TEXAS (title)	X										3
											4
											5
											6
											7
											8
											9
											10
											11
											12
											13
											14
											15
										Approved:	16
										<i>Charles P. Harrington</i>	17
										Chief Geographer - NCG 2x5	18
											19
										SEP - 1 1992	20
											21
											22
											23
											24
											25

**HYDROGRAPHIC SURVEY STATISTICS**

H-10417

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT
SMOOTH SHEET		1	SMOOTH OVERLAYS: POS., ARC, EXCESS		7
DESCRIPTIVE REPORT		1	FIELD SHEETS AND OTHER OVERLAYS		2
DESCRIP-TION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/SOURCE DOCUMENTS
ACCORDION FILES	1				
ENVELOPES					
VOLUMES					
CAHIERS					
BOXES					

SHORELINE DATA	
SHORELINE MAPS (List):	TP-01648
PHOTOBATHYMETRIC MAPS (List):	N/A
NOTES TO THE HYDROGRAPHER (List):	N/A
SPECIAL REPORTS (List):	N/A
NAUTICAL CHARTS (List):	Chart 11317, 20th Ed., dated 3/28/91, scale 1:50,000, NAD83

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			1112
POSITIONS REVISED			
SOUNDINGS REVISED			16
CONTROL STATIONS REVISED			
TIME-HOURS			
	VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	5		5
VERIFICATION OF SOUNDINGS	2		2
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	7		7
COMPARISON WITH PRIOR SURVEYS AND CHARTS		11	11
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		10	10
GEOGRAPHIC NAMES			
OTHER* Digitization			
USE OTHER SIDE OF FORM FOR REMARKS	TOTALS	14	21
			35

Pre-processing Examination by <b>J. Griffin</b>	Beginning Date 7/9/92	Ending Date 7/9/92
Verification of Field Data by <b>G.E. Kay</b>	Time (Hours) 8/19/92	Ending Date 9/30/92
Verification Check by <b>J.S. Green</b>	Time (Hours) 7	Ending Date 10/6/92
Evaluation and Analysis by <b>G.E. Kay</b>	Time (Hours) 21	Ending Date 10/6/92
Inspection by <b>D.J. Hill</b>	Time (Hours) 4	Ending Date 2/3/93

# EVALUATION REPORT H-10417

## 1. INTRODUCTION

Survey H-10417 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2, under the following Project Instructions.

OPR-K229-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  
CHANGE NO. 4, dated January 16, 1992

This survey covers an area in Matagorda Bay, Texas. The surveyed area extends north from latitude 28/33/13N to the coast at Sand Point, where the survey continues along the shore northeast to latitude 28/35/57.5N. The eastern limit is longitude 96/25/06W; the western limit is longitude 96/28/54W. The bottom consists of gray mud and shells. Depths range from 0.5 meters along the shore to 3.9 meters in the bay.

Predicted tides for Port O'Connor, Texas, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Port O'Connor, Texas, gage 877-3701, 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 computations. The TRA and electronic correctors are adequate. Velocity tables 11 and 13 were extended beyond the 10% permitted to include the maximum depth on this survey (Field Procedures Manual, section 2.1.3). This extension was accomplished since the extrapolation does not result in a velocity correction error in excess of the .25% specification contained in section 4.9.5. of the Hydrographic Manual. 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 feature 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 contains adequate discussions of horizontal control and hydrographic positioning. More detailed information on horizontal control is found in the following.

San Antonio and Lacavca Bays, GPS Survey dated October 1990  
Matagorda Bay and Vicinity, Texas, GPS Survey dated March 1991

Positions of horizontal control stations used during hydrography are 1989 and 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 the NGS program NADCON. Geographic



positions based on NAD 27 may be plotted on the smooth sheet using the NAD 83 projection by applying the following correction.

Latitude: 0.992 seconds (30.549 meters)  
Longitude: 0.906 seconds (24.609 meters)

The year of establishment of control stations shown on the smooth sheet originates with the previously listed horizontal control reports.

The quality of eighty positions exceeds specifications in terms of error circle radius and residual, or these positions have angles of intersection less than 30 degrees or more than 150 degrees. A review of the data shows that none of these fixes are used to position dangers to navigation. The soundings positioned by these fixes are consistent with the surrounding depths. These fixes are considered acceptable.

Class III shoreline map TP-01648 applies to this survey. The shoreline map was compiled at a scale of 1:20,000 on NAD 83, from photography dated February-March 1989.

### 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.

### 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-10365 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10379	1990	1:10,000	South
H-10381	1990	1:10,000	West
H-10415	1991	1:10,000	East

The junction with surveys H-10379 and H-10415 are complete.

The junction with survey H-10381 has not been formally completed since this survey was previously processed and forwarded for charting. The junction comparison was made using a copy. Depth curves are in agreement.

## 6. COMPARISON WITH PRIOR SURVEYS

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

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

Survey H-5857 covers the entire present survey area. Survey H-5866 covers the southeastern part of the present survey. Differences of between 0.1 to 0.4 meters can be detected, with the present survey having deeper depths. Considering the difference in the scales of the surveys and the methods of surveying, comparison with these prior surveys is satisfactory.

There are no AWOIS items originating from surveys H-5857 and H-5866 that apply to the present survey.

Survey H-10417 is adequate to supersede prior surveys H-5857 and H-5866 within the common area.

## 7. COMPARISON WITH CHART

Chart 11317, 20th edition, dated March 23, 1991; scale 1:50,000, NAD 83

### a. Hydrography

Charted hydrography originates with the prior surveys discussed above and miscellaneous sources and requires no further discussion.

With the following exception, survey H-10417 is adequate to supersede charted hydrography within the common area. The charted magenta note "*Obstructions Wells and Pipelines (see note C)*" should continue to be charted for the area of common coverage.

### b. AWOIS

AWOIS item 5349 originates with a miscellaneous source, <sup>LNM SJV 2/23/93</sup> ~~CL~~ 44/1975. The disposition of this wreck is adequately discussed by the hydrographer in the item investigation report that follows the descriptive report.

### c. Controlling Depths

There are no controlling depths within the limits of this survey.

### d. Aids to Navigation

There are no fixed or floating aids located within the area of this survey.

### 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 uncharted shoals to the U.S. Eighth Coast Guard District, New Orleans, Louisiana, and N/CG222. A copy of the report is attached.

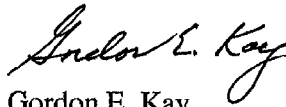
No additional dangers were discovered during office processing.

**8. COMPLIANCE WITH INSTRUCTIONS**

Survey H-10417 adequately complies with the Project Instructions.

**9. ADDITIONAL FIELD WORK**

This is a good hydrographic survey. No additional field work is recommended.

  
Gordon E. Kay  
Cartographer

APPROVAL SHEET  
H-10417

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: 2/3/93

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: 2/4/93

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

\*\*\*\*\*

Final Approval

Approved:

*J. Austin Yeager*

Date: 9/28/93

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

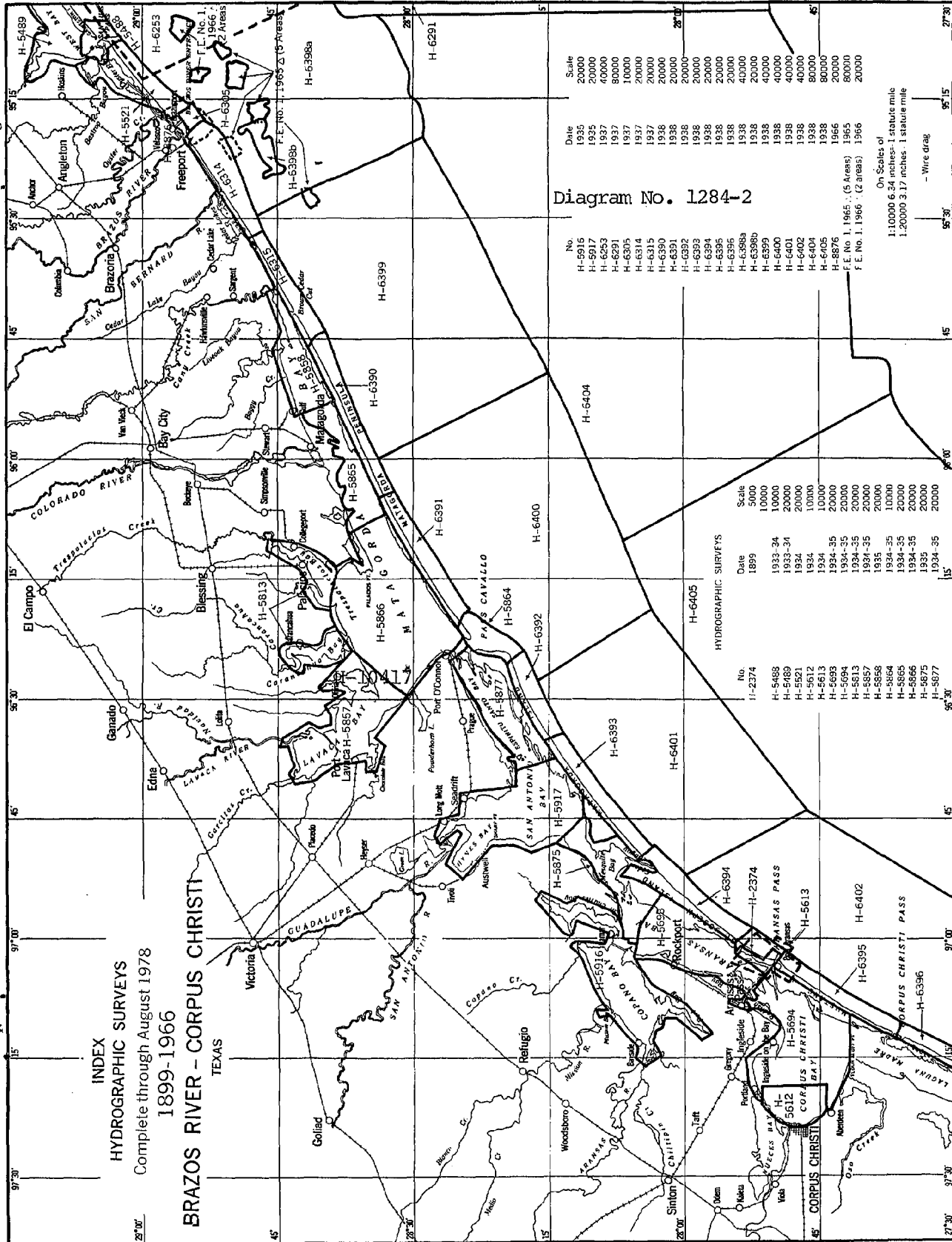


Diagram No. 1284-2

No.	Date	Scale
H-5916	1935	20000
H-5917	1935	20000
H-6253	1937	40000
H-6291	1937	80000
H-6305	1937	10000
H-6314	1937	20000
H-6315	1937	20000
H-6390	1938	20000
H-6391	1938	20000
H-6392	1938	20000
H-6393	1938	20000
H-6394	1938	20000
H-6395	1938	20000
H-6396	1938	20000
H-6398a	1938	40000
H-6398b	1938	20000
H-6400	1938	40000
H-6401	1938	40000
H-6402	1938	40000
H-6404	1938	80000
H-6405	1938	80000
H-5876	1966	20000
F. E. No. 1, 1965 (G Areas)	1965	80000
F. E. No. 1, 1966 (G Areas)	1966	20000

HYDROGRAPHIC SURVEYS

No.	Date	Scale
H-2374	1899	5000
H-5488	1933-34	10000
H-5969	1933-34	20000
H-5921	1934	20000
H-5912	1934	10000
H-5933	1934-35	20000
H-5934	1934-35	20000
H-5935	1934-35	20000
H-5936	1934-35	20000
H-5937	1935	20000
H-5854	1934-35	10000
H-5855	1934-35	20000
H-5856	1934-35	20000
H-5875	1935	20000
H-5877	1934-35	20000

On Scales of  
1:10000 6.24 inches = 1 statute mile  
1:20000 3.12 inches = 1 statute mile  
- Wire drag

