10324

Diagram No. 1286

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. ... AHP-10-16-89

Registery No. ... H-10324

LOCALITY

State ... Texas

General Locality ... Corpus Christi Bay

Sublocality ... Vicinity of Shamrock Island

1989-90

CHIEF OF PARTY
LCDR V.D. Ross

LIBRARY & ARCHIVES

DATE ... October 16, 1990

☆U.S. GOV. PRINTING OFFICE: 1985—566-054

10324

Ed

CHTS

11312
11309
11308 'A'

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10324

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.

AHP-10-16-89

State Texas

General locality Gulf of Mexico - Corpus Christi Bay

Locality Vicinity of Shamrock Island

Scale 1:10,000 Date of survey 11/20/89 - 02/23/90

Instructions dated September 14, 1989 Project No. OPR-K229

Vessel Launch 0519

Chief of party LCDR V. Dale Ross

Surveyed by Robert W. Ramsey, Jr.

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

Graphic record scaled by R.W. Ramsey, J. Budlong, B. Wright, W.B. Segars

Graphic record checked by R.W. Ramsey, J. Budlong, B. Wright, W.B. Segars

Verification by: A.A. Luceno Automated plot by PHS Xynetics Plotter

Evaluation by: A.A. Luceno

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW

REMARKS: Revisions and marginal notes in black generated during office processing.

Separates are filed with the hydrographic data.

AWOIS/SURF ✓ 11/15/90 SJT

KWH

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

U.S. GOVERNMENT PRINTING OFFICE: 1986 - 652-007/41215

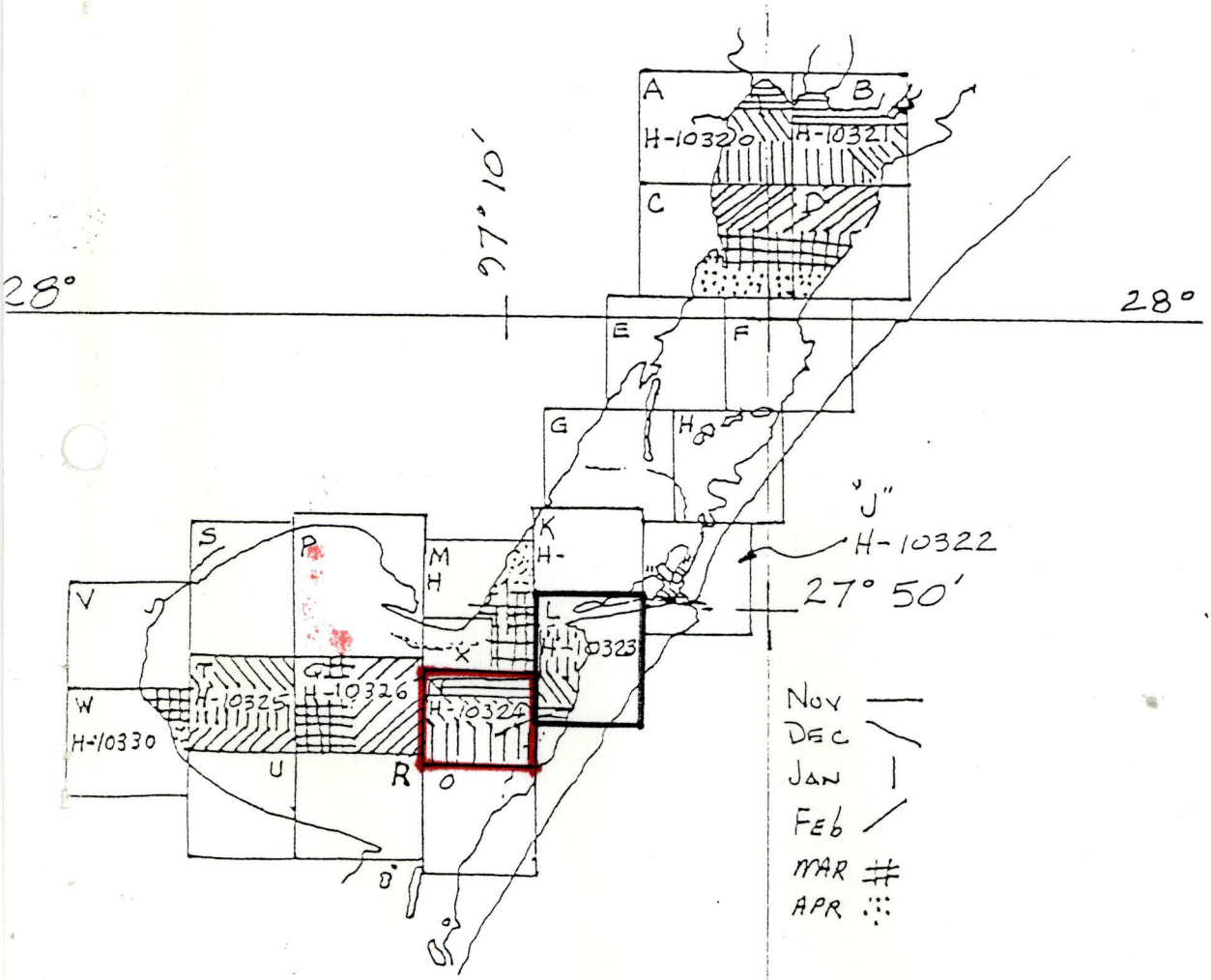
Progress Sketch

OPR-K229-AHP2-89
Corpus Christi
Texas

Atlantic Hydrographic Party Two
V. Dale Ross
Lieutenant Commander, NOAA
Chief of Party

LEGEND

	OCT	NOV	DEC	JAN	FEB	MAR	APR
SQ NMi SDG	0	13	13	21	21	27	8
LNMi SDG	0	309	712	674	495	528	176
LNMi TO/FRM	0	258	422	527	326	342	183
LNMi MISC	0	129	259	350	293	248	183
DP/BS	0	88	177	455	107	190	290
TIDE STA	6	0	0	0	0	0	0
CONTROL	18	0	0	0	5	4	0



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10324
(Field No. AHP-10-16-89)
Scale:1:10,000
1989-90
Atlantic Hydrographic Party Two
Chief of Party: Dale Ross

A. PROJECT

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K229-AHP2, Corpus Christi and Aransas bays, Texas, dated September 14, 1989, Change No. 1 dated ~~October~~ December 19, 1989, and Change No. 2 dated January 10, 1990.

The purpose of project OPR-K229-AHP2 is to provide contemporary hydrography for the maintenance of existing charts and the construction of a new chart for the naval base at Ingleside, Texas.

This survey is designated sheet 'N' in the project sheet instructions.

B. AREA SURVEYED

The area surveyed for H-10324 covered the east-northeast quadrant of Corpus Christi Bay, Texas in the area of Shamrock Island. The approximate limits are, 097° ~~14'~~ 12.2"W on the west, 27°48'40"N on the north, 27°44'12"N on the south, and by Mustang Island on the east.

Per Section 1.8 of the project instructions, main scheme lines were run to the 2-foot depth curve.

This survey was conducted from November 20, 1989 (DN 324) to February 23, 1990 (DN 054).

C. SOUNDING VESSEL

Vessel 0519 (EDP No. 0519), a 21-foot MonArk, was the only sounding vessel used during this survey. Sounding lines were run at 100-meter spacing, per Section 4.3 of the hydrographic manual.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

1. SOUNDING EQUIPMENT

The following Raytheon DE-719-C fathometer was used for this survey:

EDP #	S/N	Days
0519	8652	324,325,331,333,335,338,339 345,347,353,354,008,009,010 016,018,024,032,035,036,037 038,040,044,046,053,054.

Soundings were recorded in feet using the Raytheon DE-719-C fathometer with an assumed speed of sound through water of 4800ft/sec. Depths encountered in the survey area range from 2 foot to 14 feet.

The digitized soundings matched the fathometer's trace to plus or minus 0.2 foot through constant observation and adjustment of the tide and draft knob. High sensitivity settings were required to maintain reliable digital and analogue data comparisons.

2. CORRECTIONS TO ECHO SOUNDINGS

Corrections for the speed of sound through the water column were computed from data obtained with a Digibar speed of sound probe, serial numbers (s/n) 154, 155, and 169. Also used was an Applied Microsystems Laboratory (AML), Model SVP-16 speed of sound profiler S/N 03003. Program 'Velocity' was used for determining the speed of sound correctors.

After graphic comparison of velocity cast corrector data, the following speed of sound correctors were applied during semi-smooth and final plotting on the HDAPS.

Table Applied	Cast	Day	Depth(m)	Location	Days
1	1	324	3	27°48'30" N 097°09'00" W	324
2	2	325	3	27°47'12" N 097°11'45" W	325-338
4	4	339	3.4	27°43'12" N 097°08'06" W	339-010
7	7	016	3.0	27°46'42" N 097°11'48" W	016-054

See sect. 1 of Eval. Report

A data quality assurance test was performed prior to each speed of sound cast to assure proper working condition of the probe. Speed of sound tables are included in the Separates Following Text.

Lead line comparisons were performed daily, excluding days of harsh weather, to determine instrument error and to verify static draft. The instrument errors computed varied from +0.4 to +0.1 foot. These instrument corrections were not applied to the final field sheet soundings, but are included in the *Separates Following Text. *correction to instrument error insignificant.*

A static draft correction was determined by measurements performed at Redfish Bay Terminal on November 13, 1989 (DN 317). These data were applied to all soundings acquired with the Raytheon DE-719-C echo sounders. The 1.1 foot static draft correction was applied to all sounding data. *The offset table (table #2), is included with the Separates Following Text.

Settlement and squat measurements for vessel 0519 were performed on November 13, 1989 (DN 317), at Redfish Bay Terminal, using the NOS prescribed level rod method (Zeiss level S/N 59972). Settlement and squat correctors were determined and applied to all survey data. *correctors combined with the vessel's static draft in the TRA task.*

Predicted tides, MLLW datum, were applied to all soundings using the reference station and correctors designated in the project instructions. The tides in the project area are strongly influenced by weather, ie. strong sustained winds. Unverified water level correctors were determined from the gauges maintained by AHP-2 and compared to the predicted correctors to identify periods when actual and predicted tides were not in agreement. These differences were monitored and used to determine if sounding disagreements were due to tidal errors.

Actual tides from Port Ingleside Texas, gage 877-5283 used in smooth sheet.

Weather conditions during this survey produced anomalously low tides at times. These conditions prevented the required two foot depth curves from being reached at the inshore termini of most survey lines.

Approved water levels were requested from the Sea and Lake Levels Branch in a letter dated February 27, 1990. *A copy of the letter is included in the Separates Following Text.

** Filed with the hydrographic data.*

E. HYDROGRAPHIC SHEETS

The survey scale is 1:10,000. This survey required two sheets due to the present limit constraints on the plotter sheet sizes. The sheets are listed as sheets number 17 and number 18. All sheets were produced by AHP-2 employees with the HDAPS on the

Bruning ZETA 824 plotter. A list of sheets submitted for H-10324 follows. (Note: Quantities of "2" indicate 1 for PS#17 and 1 for PS#18):

Sheet	Scale	Quantity
Field Sheet	1:10,000	2
Edited Trackline	1:10,000	2
Final Field Sheet	1:10,000	2
Overlay	1:10,000	2

Main scheme hydrography, crosslines, and horizontal control stations used during the survey are plotted on the final field sheet. Developments, channel lines, detached positions, bottom samples, and horizontal control stations are plotted on the overlay. All soundings on the final field sheet are corrected for draft, water levels, settlement and squat, and speed of sound through water.

All survey sheets were submitted with the descriptive report and a journal to the Pacific Hydrograhpic Section in Seattle, Washington. The journal, labeled '0519,' includes photographs.

Journal filed with the hydrographic data.

F. CONTROL STATIONS

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

All horizontal control stations used on this survey were stations set by the Coastal Surveys Unit using third order, class I traverse and intersection methods. The horizontal control report was written within the Coastal Surveys Unit and was forwarded to the Atlantic Hydrographic Section in Norfolk, Virginia.

Geographic positions for all control stations used on this survey are underlined and included with the station list. ~~in the Separates Following Text~~

G. HYDROGRAPHIC POSITION CONTROL

Survey Methods

Hydrographic position control was accomplished using the Mini-Ranger Falcon 484 system which provided accuracy to meet 1:10,000 scale survey requirements. Range/range positioning, was used during this project. A survey network was set up to allow four reference stations to be accessed simultaneously by the HDAPS. However, due to the long distances between stations and

the low signal strength as a direct result of these long distances, a large part of the data acquisition phase was subject to the use of three and sometimes two LOP's in lieu of the desired four. The following onboard Falcon Mini-Ranger equipment was used:

VESNO	Equipment	S/N
0519	RPU	E0160
	R/T	F3389

Positions which had erratic lines of position, indicated by high residuals on the 'raw' listing, were 'smoothed' during processing. Positions were 'smoothed' by dead reckoning between two accurate positions. If more than five consecutive positions had high residuals with an erratic track plot, the data were rejected and later rerun. In areas where only two lines of position were received, the 'raw' listing would indicate the angle of intersection between these lines enclosed by brackets. If more than five consecutive positions were outside of the 30 to 150 degree intersection margin, the data were normally rejected and later rerun. If less than five positions were outside the 30 to 150 degree margin, the positions were smoothed. Occasionally, the residual values were greater than 5 meters, yet the trackline plot showed that the position of the survey vessel was accurate. In those instances, the data were considered adequate and were plotted with the other data on the final field sheet.

Critical System Checks

Fixed point system checks were performed for Mini-Ranger reference units installed on control stations being used for this survey, and when relocating reference stations to new locations. All fixed point check values were less than 5 meters which is within the required limits stated in the field procedures manual. Results of these fixed point checks are included in the Separates Following Text.

Mini-Ranger Falcon Calibrations

Baseline calibrations were performed to the standards of Section 3.1.2.1 of the field procedures manual. The baseline values were incorporated into the Comflex 'C-O' table and applied directly to all 'on-line' data. All records of these calibrations are included in the Separates Following Text. (Filed with the hydrographic data)

A closing baseline calibration was not performed since the survey was conducted in less than a six month period.

H. SHORELINE

Shoreline drawn on the final field sheet originates with a 1:10,000 scale photographic enlargement of topographic maps TP-01199, TP-01198, and TP-01613. These shoreline manuscripts were compiled on NAD 1927 while this survey was run using the NAD 1983. Comparisons of hydrography to shoreline was accomplished using approximate datum shift values provided by N/CG2441.

TP-01613 compiled on NAD 83.

Shoreline was verified by its junction with hydrographic data and by visual inspection when possible. The shallow water close to shore usually prevented approaching closer than 100 meters. The majority of shoreline appeared to conform to the general characteristics depicted on the photographic and topographic enlargements previously mentioned. Changes in shoreline are shown in red ink on the final field sheet. Verified shoreline is shown in black ink on the final field sheet. Shoreline not verified is shown in blue ink.

No shoreline is shown in red and blue on the field sheet.

All offshore items depicted on the shoreline manuscripts were transferred to the field sheets and were entered into the Comflex 'target' function for direct verification. These items were then sought out and labeled on the field sheets as either 'existing' or 'nonexisting.' All items within the survey area that were not found on the shoreline manuscripts, were assigned a 'reference number' and were described. See sect. 2 of Eval. Report.

I. CROSSLINES

A total of 41 linear nautical miles of crosslines were run on H-10324 which equals 12% of the main scheme hydrography. These soundings agree within one foot of the main scheme soundings.

J. JUNCTIONS

This sheet junctions with H-10323 (1989) to the east, and H-10326 (1989) to the west. The soundings between this survey, H-10323, and H-10326 agree to within 1 foot. The depth curves between the three surveys junction smoothly. See sect. 5 of Eval. Report

K. COMPARISON WITH PRIOR SURVEYS

The present survey was compared to the following prior survey:

SURVEY	DATE	SCALE
H-5694	1934-35	1:20,000

Comparison between this survey's soundings and soundings from survey H-5694 agree to within two feet, with the new soundings tending to be deeper. Depth curves on the two surveys generally agree. Bottom samples from the current and prior surveys tend to agree. Dredging has taken place in the surveyed area establishing new channels, spoil islands, and spoil areas. These changes are depicted on the shoreline manuscripts.

The present survey was also compared to the following prior topographic map:

MAP	DATE	SCALE
T-9184	1948-51	1:20,000

Most offshore features on this topographic map are nonexistent. Major changes to onshore items were noted. The hydrographer recommends that T-9184 not be used for Pre-Survey Review nor shoreline features for future surveys. *See sect. 6 of Eval. Report.*

L. COMPARISON WITH THE CHART

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

Chart No.	Edition	Edition Date
11308	15th	July 9, 1988
11309	29th	November 15, 1986

In general, the soundings from this survey compared to within 2 feet of the charted soundings from charts 11308 and 11309. These variances reflect deeper depth values and were attributed to wind and tidal conditions. Chart 11308 shows 'Obstructions Wells and Pipelines,' in the area north of Shamrock Island. The surveying hydrographer recommends that this charting remark also be noted in the general area of latitude 27°46'N, longitude 097°12'W. *Do not concur. charted note should be in general area of lat. 27°46'30"N, long. 97°10'15"W.*

Shoaling was noted in the following areas: Along the eastern shoreline of Shamrock Cove in the vicinity of Glenn Cove; at latitude 27°45'55.2"N, longitude 097°09'15.0"W; along the northwestern shoreline of Shamrock Island; at the southwestern end of Shamrock Island. In the opinion of the surveying hydrographer this shoaling does not constitute a danger to navigation. *concur*

27°44'39.0"N, 97°09'19.0"W

AWOIS Item 4830 originates from CL1195/75-USPS as a channel with a controlling depth of 5 feet. The present survey soundings shows least depths of 3 feet around latitude 27°44'~~33~~ 28"N,

longitude 097°08'~~03.1~~48"W. The hydrographer recommends that the present survey soundings be charted. concur
Delete charted note "5 ft. rep. 1974."

27°44'59.0"N, 97°09'25.0"W
AWOIS Item 4831 originates from CL172/86-USPS as a channel with a controlling depth of 8 feet. The present survey soundings show least depths of 3 feet around latitude 27°45'00.6"N, longitude 097°09'10.4"W. The hydrographer recommends that the present survey soundings be charted. concur
Delete charted note "8 ft rep. 1986"

27°45'52.0"N, 97°09'09.0"W
AWOIS Item 4833 originates from CL1439/84-USPS as shoaling reported. Shoaling was noted in this area. A center line was run into the associated channel. A least depth of 3 feet was located at latitude 27°45'51.8"N, longitude 097°09'06.9"W. The hydrographer recommends that the present survey sounding be charted with the remark 'shoaling' charted at the same location. concur
Delete charted note "shl rep".

27°48'37.0"N, 97°10'34.0"W
AWOIS Item 6027 originates from NM11/68-LNM13/15(2/68) as a "pile with a quick flashing light 'B'," which 'marks a gas pipeline.' The item was located at latitude 27°48'38.1"N, longitude 097°10'35.1"W. The item was found to be a lighted gas and oil platform, 3-meters by 4-meters, and baring 5 meters. The hydrographer recommends charting this item as a platform with a red light, baring five meters. Pos. 3261 see sect. 7b of Eval. Report

27°48'25.0"N, 97°09'54.0"W
AWOIS Item 4870 originates from CL494/76-USPS as platform ruins. A fathometer search of the area revealed nothing. A diver investigation, with a 200-meter radius circle search from the reported location, revealed nothing. The hydrographer recommends removal of the platform ruins from the chart. Pos. 3262 concur

27°48'25.0"N, 97°10'25.0"W
AWOIS Item 4869 originates from LNM4/79-8th CGD as an obstruction, position doubtful. A fathometer search of the area revealed nothing. Divers performed a 200-meter radius circle search and found no signs of the reported obstruction. The hydrographer recommends removal of 'obstr PD' from the chart. Pos. 3263 concur

27°47'35.0"N, 97°11'26.5"W
AWOIS Item 4821 originates from LNM26/84(6/13/84)-8th CGD as a submerged obstruction, position approximate. A fathometer search of the area revealed a shoal. Divers performed a 200-meter radius circle search and found spoil-like debris in the area with a least depth of ~~6~~5 feet (by lead line) at latitude 27°47'~~38.4~~35.4"N, longitude 097°11'29.~~1~~6"W. The hydrographer recommends charting an obstruction with a least depth of ~~6~~5 feet. Pos. 3264 see sect. 7b of Eval. Report do not concur

27°44'50.0"N, 97°11'03.0"W
AWOIS Item 4825 originates from CL129/82-USPS as a submerged wreck, position approximate. A fathometer search of the area revealed a rise. Divers performed a 200-meter radius circle search and found evidence of wreck debris, in minor amounts, with a least depth of ~~8~~9 feet (by lead line) at latitude 27°44'51.9~~0~~4"N, longitude 097°11'06.5~~0~~"W. The hydrographer recommends charting a submerged wreck with a least depth of ~~8~~9 feet at the above location. Pos. 3265 concur

27°44'45.0"N, 97°11'08.0"W

AWOIS Item 4824 originates from LNM39/75(10/1/75)-8th CGD as a submerged pipe, existence doubtful. A fathometer search of the area revealed nothing. Divers performed a 200-meter radius circle search and found nothing. The hydrographer recommends removal of this item from the charts. Pos. 3266 concur

27°44'30.0"N, 97°10'30.5"W

AWOIS Item 4823 originates from NM49/65 as a dangerous submerged wreck with a depth of 3 feet, position approximate. A fathometer search of the area revealed nothing. Divers peformed a 200-meter radius circle search and found nothing. The hydrographer recommends this item be removed from the charts. Pos. 3267 concur

27°44'35.0"N, 97°10'06.0"W

AWOIS Item 4826 originates from LNM16/79(4/11/79)-8th CGD as a submerged pipe, 6" in diameter, 1.5ft below the surface, ~~position approximate~~. A fathometer search of the area revealed nothing. Divers performed a 200-meter radius circle search and found nothing. The hydrographer recommends removal of this item from the charts. Pos. 3269 concur

27°44'15.5"N, 97°09'55.5"W

AWOIS Item 4827 originates from CL83/71-USPS as a pipe, position approximate. A fathometer search of the location revealed nothing. Divers performed a 200-meter radius circle search which revealed nothing. The hydrographer recommends removal of this item from the charts. Pos. 3268 concur

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27°45'04.5"N, 97°09'50.5"W

AWOIS Item 4828 originates from CL83/71-USPS as a pipe, position approximate, 2" in diameter. A fathometer search of the area revealed nothing. A diver investigation of the reported area revealed nothing. The hydrographer recommends removal of this item from the charts. Divers performed a 200-meter radius search. Pos. 3270 concur

27°44'59.0"N, 97°12'56.0"W

AWOIS Item 4814 originates from CL645/85-USPS as a platform, position approximate. This item was visually identified on day number 044 at latitude 27°45'03.2"N, longitude 097°13'04.7" W. The hydrographer recommends that this item be charted at the ~~above~~ from this survey position as an oil and gas platform. Pos. 3256 concur

27°45'12.0"N, 97°12'44.0"W

AWOIS Item 4815 originates from LNM18/79(4/25/79)-8th CGD as a submerged obstruction, position approximate. A fathometer search of the area revealed nothing. Divers performed a 100-meter radius circle search which revealed nothing. The hydrographer recommends removal of this item from the charts. Pos. 3274 concur

27°47'16.0"N, 97°12'36.0"W

AWOIS Item 4820 originates from BP99795-96-2/76 COE as a 'visible pile.' A visual search revealed nothing. A fathometer search of the area revealed nothing. Divers performed a 100-meter radius circle search and found nothing. The hydrographer recommends removal of this item from the charts. Pos. 3273 concur

27°47'23.0"N, 97°12'36.0"W

AWOIS Item 4819 originates from CL1439/84-USPS, as a platform, position approximate. A fathometer search of the area revealed nothing. Divers performed a 100-meter radius circle Pos. 3272

search which revealed nothing. The hydrographer recommends removal of this item from the charts. concur

AWOIS Item 4818 originates from CL1439/84-USPS, as a submerged pile. A visual search revealed nothing. A fathometer search revealed nothing. Divers performed a 50-meter circle search which revealed nothing. The hydrographer recommends removal of this item from the charts.

27°47'40.0"N, 97°12'29.0"W
✓ pos. 3271
concur

M. ADEQUACY OF SURVEY

This survey is a complete basic hydrographic survey and is adequate to supersede all prior surveys within the common area. see sect. 9 of Eval. Report

N. AIDS TO NAVIGATION

One floating aid to navigation is located in the survey area. Buoy #36023 "66 A" Red nun w/yellow band 27°48'54.36"N 97°11'41.35"W ✓ pos.# 3250

There were 14 (5) non-floating aids to navigation located within the survey area. Two of the non-floating aids are range lights. Twelve of the non-floating aids are daymarks for the Intracoastal Waterway (four) with radar reflectors installed. The surveyed positions of these ~~lights are~~ aids listed below are hydrographic positions of less than 3rd order accuracy.

Non-Floating Aid	Survey Position	Light List Position	survey pos. #
36080 Daybeacon 78 Red triangle	27°44'45.(15)2"N 097°12'56.6"W	No published position	2845
36075 Daybeacon 77 Green square	27°45'08.(76)8"N 097°12'48.9½"W	No published position	2846
36070 Light 76 Red triangle, lighted	27°45'42.2½"N 097°12'49.5"W	No published position	2847
36065 Daybeacon 75 Green square	27°46'07.7⅓"N 097°12'41.3⅓"W	No published position	2848
36060 Daybeacon 74 Red triangle	27°46'3(4)5.(96)0"N 097°12'46.5⅓"W	No published position	2849
36055 Daybeacon 73 Green square	27°46'49.8½"N 097°12'35.(75)8"W	No published position	2850
36050 Daybeacon 72 Red triangle	27°47'1(0.96).0"N 097°12'38.8⅓"W	No published position	2851

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9 ON ORIGINAL DOCUMENT

Non-Floating Aid	Survey Position	Light List Position	survey Pos. #
36045 Light 71 Green square, lighted	27°47'28.1"N 097°12'30.1"W	No published position	2852
36040 Daybeacon 70 Red triangle	27°47'52.2"N 097°12'22.7"W	No published position	2853
36035 Daybeacon 69 Green square	27°48'10.6"N 097°12'06.0"W	No published position	2854
36030 Daybeacon 68 Red triangle	27°48'31.1"N 097°11'57.5"W	No published position	2855
36025 Daybeacon 67 Green square	27°48'50.7"N 097°11'40.3"W	No published position	2856
27290 Corpus Christi Chan. Cut B E Rge. R Lt.	27°48'39.2"N 097°11'41.4"W	No published position	control sta. 051
27540 La Quinta Channel Outer Range Rear Light	27°48"20.5"N 097°13'00.0"W	No published position	control sta. 049
27725 Pipeline Light B	27° 48' 38.08"N 97° 10' 35.07"W	see sect. 7b of Eval. Report	

There were no charted submarine cables, pipelines nor overhead cables in this survey area.

9 ON ORIGINAL DOCUMENT

O. STATISTICS

Description	VESNO 0519
Total Positions	~~2941~~ ~~3274~~
Detached Positions	~~124~~ 139
Total Nautical Miles of Hydrography	340
Sq. Nautical Miles of Hydrography	14
Bottom Samples	52
AML and Digibar casts	9
Tide Stations	~~8~~ 1
Days of Production	27

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P. MISCELLANEOUS

Bottom samples were taken and submitted to the Smithsonian Institution as directed in Section 6.7 of the project instructions. Fifty-two bottom samples were transmitted on February 12, 1989. 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 Following Text.

Center lines were run in canals and the parts of the Intracoastal Waterway within the survey limits. Channel edges were likewise run in the Intracoastal Waterway section.

Eddie currents were observed throughout the areas covered by plotter sheet 'N-East' and the northwest quadrant of plotter sheet 'N-West' south of Intracoastal Waterway nun buoy number '66A.' The predominant axis of these currents appeared to be north-south with a velocity of approximately 1 to 2 knots.

Q. RECOMMENDATIONS

Not applicable.

R. AUTOMATED DATA PROCESSING

The HDAPS utilizing software provided by N/CG24, was the only system used to acquire and process sounding data for this survey.

The following non-HDAPS computer programs were also used:

Program		Version	Date
VELOCITY	Velocity Computations (IBM PC)	1.0 extended	9/89
MTEN3 with enhancements	Geodetic Computations (IBM PC)		6/88

S. REFERRAL TO REPORTS

Title	Transmittal Information
Descriptive Report To Accompany Survey H-10323	Pacific Hydrographic Section N/CG245 Seattle, WA
Descriptive Report To Accompany Survey H-10326	Pacific Hydrographic Section N/CG245 Seattle, WA
Horizontal Control Report for OPR-K299-AHP2	Field Photogrammetry Section N/CG233 Norfolk, VA
Chart Sales Agent Report	Chart Distribution Branch N/CG33 Rockville, MD

CM-8716 Geodetic Control Report

Job-HC-9901 Geodetic Control Report

Title	Transmittal Information
User Evaluation Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA
Chart Inspection Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA
Coast Pilot Report	Coast Pilot Section Mapping and Charting Branch N/CG223 Rockville, MD

Submitted by:

Robert W. Ramsey, Jr., Launch Hydrographer in Charge

Station #	Station Name
1	ALLYN
2	TALLEY
3	LIGHT 13
4	TRACK 1934
5	TRAYLOR
6	SKIFF 2
*7	SAM
8	CONN
9	ARANSAS PASS WATER TANK
10	DRAW
11	LIGHT 83
12	LYDIA
13	BULB
14	ARANSAS PASS LIGHTHOUSE
15	BASE
*16	SALT 1934
17	NEED
*18	TANG
19	HARBOR ID R RNG LT
20	HARBOR ID F RNG LT
21	JUNCTION
22	CORPUS CHR CHAN AE RNG FT LT
23	CORPUS CHR CHAN AE RNG R LT
24	TIDAL 7
25	25 USE
26	GUN USE 1948
27	GUN ECC (DO NOT USE!!!)
28	PORT ARANSAS CG LT TOWER
29	PORT ARANSAS TANK
*30	KNOLL 1934
31	PORT ARANSAS MUSTANG TANK
32	PIPER 1933
33	WALBOLT 1968
*34	FLAT 2
35	CRANE 1933
36	DEMIT 1912
37	CORPUS CHRISTI NAS WATER TANK
*38	CALLO 2 1963
39	SWATNER
40	DODDRIDGE
41	SPOIL LIMIT 1 USE AZ MK
42	SPOIL LIMIT 1 USE
43	CORPUS CHR CHAN CUT BW RNG F
44	CORPUS CHR HARBOR CUT F RNG LT
*45	CORPUS CHR HARBOR CUT R RNG LT
46	CORPUS CHR CHAN CUT AW RNG R
47	CORPUS CHR CHAN CUT AW RNG F
48	CORPUS CHR CHAN BE RNG F LT
* 49	LA QUINTA CHAN OUTER RNG R LT
50	LA QUINTA CHAN OUTER RNG F LT
* 51	CORPUS CHR CHAN BE RNG R LT
52	PORT SAT

Station #	Station Name
53	DONNEL 1933
54	LA QUINTA CHAN INNER RNG F LT
55	LA QUINTA CHAN INNER RNG R LT
56	QUINTANA
* 57	WILCUT
*58	SHAM
59	INDIAN
60	PORTLAND 2 1973
61	TURTLE
62	COVE
63	WAREHOUSE

* stations used in the survey.

CONTROL STATIONS

	No	Type	Latitude	Longitude	H Cart	Freq	Vel Code	MM/DD/YY
	001	F	027:59:23.706	096:58:52.815	0 250	0.0	0.0	11/09/89
	002	F	027:58:29.535	097:04:10.149	0 250	0.0	0.0	11/09/89
	003	F	027:58:04.172	097:05:17.395	0 250	0.0	0.0	11/09/89
	004	F	027:57:04.646	097:06:32.476	0 250	0.0	0.0	11/09/89
	005	F	027:57:07.493	097:04:21.062	0 250	0.0	0.0	11/09/89
	006	F	027:55:59.444	097:02:35.781	0 250	0.0	0.0	11/09/89
	007	F	027:55:28.634	097:07:27.771	0 250	0.0	0.0	11/09/89
	008	F	027:54:28.873	097:07:57.049	0 250	0.0	0.0	11/09/89
	009	F	027:54:07.962	097:08:37.958	0 250	0.0	0.0	11/09/89
	010	F	027:53:27.057	097:06:40.209	0 250	0.0	0.0	11/09/89
	011	F	027:54:00.350	097:02:58.382	0 250	0.0	0.0	11/09/89
	012	F	027:53:35.460	097:02:36.464	0 250	0.0	0.0	11/09/89
	013	F	027:52:53.534	097:02:59.352	0 250	0.0	0.0	11/09/89
	014	F	027:51:50.992	097:03:22.978	0 250	0.0	0.0	11/09/89
	015	F	027:51:57.536	097:08:03.817	0 250	0.0	0.0	11/09/89
	016	F	027:52:13.989	097:09:38.108	0 250	0.0	0.0	11/09/89
	017	F	027:50:14.295	097:07:24.517	0 250	0.0	0.0	11/09/89
*	018	F	027:49:51.528	097:06:18.582	0 250	0.0	0.0	11/09/89
	019	F	027:50:53.636	097:03:56.573	0 250	0.0	0.0	11/09/89
	020	F	027:50:45.343	097:03:41.174	0 250	0.0	0.0	11/09/89
	021	F	027:50:46.290	097:03:17.424	0 250	0.0	0.0	11/09/89
	022	F	027:50:41.222	097:03:16.971	0 250	0.0	0.0	11/09/89
	023	F	027:50:46.351	097:02:49.217	0 250	0.0	0.0	11/09/89
	024	F	027:50:18.364	097:03:05.660	0 250	0.0	0.0	11/09/89
	025	F	027:50:05.552	097:02:42.749	0 250	0.0	0.0	11/09/89
	026	F	027:50:05.288	097:03:12.941	0 250	0.0	0.0	11/09/89
	028	F	027:50:18.234	097:03:32.884	0 250	0.0	0.0	11/09/89
	029	F	027:49:47.749	097:03:49.421	0 250	0.0	0.0	11/09/89
*	030	F	027:47:33.070	097:05:14.862	0 250	0.0	0.0	11/09/89
	031	F	027:45:06.747	097:07:29.192	0 250	0.0	0.0	11/09/89
	032	F	027:43:11.688	097:08:24.994	0 250	0.0	0.0	11/09/89
	033	F	027:41:34.291	097:09:46.274	0 250	0.0	0.0	11/09/89
*	034	F	027:41:41.796	097:11:01.545	0 250	0.0	0.0	11/09/89
	035	F	027:39:15.663	097:10:57.432	0 250	0.0	0.0	11/09/89
	036	F	027:41:37.285	097:15:02.810	0 250	0.0	0.0	11/09/89
	037	F	027:41:38.941	097:16:06.724	0 250	0.0	0.0	11/09/89
*	038	F	027:42:40.782	097:18:48.182	0 250	0.0	0.0	11/09/89
	039	F	027:43:43.325	097:21:08.634	0 250	0.0	0.0	11/09/89
	040	F	027:44:42.927	097:22:21.160	0 250	0.0	0.0	11/09/89
	041	F	027:48:00.368	097:23:27.629	0 250	0.0	0.0	11/09/89
	042	F	027:48:18.952	097:23:31.350	0 250	0.0	0.0	11/09/89
	043	F	027:48:37.012	097:23:33.859	0 250	0.0	0.0	11/09/89
*	044	F	027:48:28.020	097:22:03.321	0 250	0.0	0.0	11/09/89
	045	F	027:48:26.106	097:21:52.434	0 250	0.0	0.0	11/09/89
	046	F	027:48:18.064	097:16:05.640	0 250	0.0	0.0	11/09/89
	047	F	027:48:30.168	097:15:00.922	0 250	0.0	0.0	11/09/89
	048	F	027:48:38.784	097:13:40.998	0 250	0.0	0.0	11/09/89
*	049	F	027:48:20.498	097:13:00.008	0 250	0.0	0.0	11/09/89
	050	F	027:48:44.552	097:13:11.552	0 250	0.0	0.0	11/09/89
*	051	F	027:48:39.235	097:11:41.427	0 250	0.0	0.0	11/09/89
	052	F	027:49:19.865	097:12:56.768	0 250	0.0	0.0	11/09/89
	053	F	027:51:33.800	097:14:28.383	0 250	0.0	0.0	11/09/89
	054	F	027:52:31.870	097:15:00.964	0 250	0.0	0.0	11/09/89
	055	F	027:53:30.187	097:15:29.076	0 250	0.0	0.0	11/09/89
	056	F	027:52:55.315	097:16:57.522	0 250	0.0	0.0	11/09/89
*	057	F	027:44:18.951	097:08:19.954	0 250	0.0	0.0	11/13/89
*	058	F	027:45:14.605	097:10:27.938	0 250	0.0	0.0	11/13/89
	059	F	027:51:02.658	097:21:17.960	0 250	0.0	0.0	11/13/89
	060	F	027:53:23.367	097:20:09.429	0 250	0.0	0.0	11/13/89
	061	F	027:59:24.830	097:04:00.780	0 250	0.0	0.0	11/14/89
	062	F	027:59:13.578	097:04:23.910	0 250	0.0	0.0	11/14/89

* stations used in survey.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
[illegible]

Pacific Hydrographic Section
BIN C15700, Bldg. 3
7600 Sand Point Way NE
Seattle, WA 98115-0070

June 11, 1990

Commander (OAN)
Eight Coast Guard District
Hale Boggs Federal Building
500 Camp Street
New Orleans, LA 70130-3396

Dear Sir:

During office review of hydrographic survey H-10324, Texas, Corpus Christi Bay, two dangers to navigation affecting chart 11308 (15th ed., July 9, 1988: NAD 27) and chart 11309 (30th ed., December 2, 1989: NAD 83) were found.

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

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

Sincerely,

for Pamela R. Chelgren-Koterba
Commander, NOAA
Chief, Pacific Hydrographic Section

Enclosure

cc: DMA/TC
N/CG221

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10324
Survey Title: State: Texas
Locality: Corpus Christi Bay
Project Number: OPR-K229-AHP2, Atlantic Hydrographic Party Two

The following items were discovered during office processing of hydrographic survey H-10324.

Objects discovered: Accurate positions and least depths have been determined for a charted sunken wreck (PA) and an obstruction (PA).

Affected nautical charts:

CHART NUMBER	EDITION NO.	EDITION DATE	CHARTED DEPTH	HORIZ DATUM	GEOGRAPHIC POSITION LATITUDE (N)	LONGITUDE (W)
11308	15th	7/9/88	5 ft Obstr	NAD 27	27°47'37.25"	97°11'28.11"
11308	15th	7/9/88	8 ft Wk	NAD 27	27°44'50.84"	97°11'05.54"
11309	30th	12/2/89	5 ft Obstr	NAD 83	27°47'38.35"	97°11'29.07"
11309	30th	12/2/89	8 ft WK	NAD 83	27°44'51.94"	97°11'06.50"

AWOIS #4821

AWOIS #4825

LNM 26/90

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

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-K229-AHP
AHP-10-16-89
H-10324
1989

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K229-AHP, 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 M of this report.

V. Dale Ross
Lt. Cdr. NOAA
Chief, Atlantic Hydrographic Party Two

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 9, 1990

MARINE CENTER: Pacific

OPR: K229

HYDROGRAPHIC SHEETS: H-10320, 10321, 10322, 10323, and 10324

REMARKS: The above tide notes of April 12 and 14, 1990 are final.

for

CHIEF, TIDAL DATUM QUALITY ASSURANCE SECTION

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: April 14, 1990

MARINE CENTER: Pacific

OPR: K229

HYDROGRAPHIC SHEET: H-10324

LOCALITY: Corpus Christi Bay, TX

TIME PERIOD: Nov 20, 1989 - January 23, 1990

TIDE STATION USED: 888-5283 Port Ingleside

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.46 feet

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.6 foot

REMARKS: RECOMMENDED ZONING **PRELIMINARY**
Zone direct

James R Hubbard

CHIEF, TIDAL DATUM QUALITY
ASSURANCE SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10324

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
CORPUS CHRISTI BAY	11308 11309									1
GLENN COVE	11308 11309									2
GREEN SHACK COVE	11308 11309									3
LONG COVE	11308 11309									4
LITTLE SHAMROCK COVE	11308 11309									5
PINK SHACK COVE	11308 11309									6
SHAMROCK COVE	11308 11309									7
SHAMROCK ISLAND	11308 11309									8
SHAMROCK POINT	11308 11309									9
SINCLAIR CUT	11308 11309									10
TEXAS (title)	11308 11309									11
WILSONS CUT	11308									12
*MUSTANG ISLAND	11308									13
										14
*Added per telecon C. Harrington				BA						15
										16
										17
					Approved:					18
										19
					Charles C. Harrington					20
					Chief Geographer - N/CG2x5					21
					JUN 20 1990					22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 567

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

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER: H-10324

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	4
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	8

DESCRIPTION	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 - 01198, 01199 & 01613

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List): 11308 15th Ed., 11309 29th & 30th Ed.

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS VERIFICATION	AMOUNTS EVALUATION	AMOUNTS TOTALS
POSITIONS ON SHEET			2941
POSITIONS REVISED			
SOUNDINGS REVISED			93
CONTROL STATIONS REVISED			
TIME-HOURS	VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	64		64
VERIFICATION OF SOUNDINGS	97		97
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	55		55
COMPARISON WITH PRIOR SURVEYS AND CHARTS		17	17
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		116	116
GEOGRAPHIC NAMES			
OTHER*			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	216	133	349

Pre-processing Examination by M. Brown	*Beginning Date*	*Ending Date* 4/27/90
Verification of Field Data by A. Luceno, G. Kay	*Time (Hours)* 151	*Ending Date* 6/7/90
Verification Check by J. Green	*Time (Hours)* 21	*Ending Date* 8/1/90
Evaluation and Analysis by A. Luceno	*Time (Hours)* 129	*Ending Date* 9/26/90
Inspection by D. Hill	*Time (Hours)* 4	*Ending Date* 9/28/90

EVALUATION REPORT

H-10324

1. INTRODUCTION

Survey H-10324 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party Two, under the following Project Instructions.

OPR-K229-AHP2, dated September 14, 1989
CHANGE NO. 1, dated December 21, 1989
CHANGE NO. 2, dated January 10, 1990

This survey occurred in Texas and covers the northeast portion of Corpus Christi Bay in the vicinity of Shamrock Island. The surveyed area extends from latitude 27°44'12"N to latitude 27°48'40"N and from longitude 97°08'22"W to longitude 97°13'21"W. The bottom consists of sand, mud and broken shells. Depths range from 2 to 14 feet.

Section 1.8 of the Project Instructions specifies that the inshore limit of sounding will be the two-foot depth curve. However, the final field sheets and the smooth sheet show most inshore limits of sounding to be 3 to 4 feet.

The overall width of the combined final field sheets exceeds the standard width by 7 centimeters, resulting in an oversized smooth sheet.

Predicted tides for Galveston Channel, Texas, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Port Ingleside, Texas, gage 877-5283, 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. Nine observations to calculate sound velocity correctors using the program "Velocity" resulted in two groups of closely related correctors. The averages of the corrections in each group were used in the preparation of two velocity tables during office processing. The electronic control correctors are adequate and required no revision. 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. The file, however, is incomplete. Certain feature descriptive information, all line type data and miscellaneous isolated features are not in the digital record due to the present lack of digitizing resources. The user should refer to the smooth sheet for complete depiction of survey data.

2. CONTROL AND SHORELINE

Sections F and G of the hydrographer's report and the Horizontal Control Reports contain adequate discussions of horizontal control and hydrographic positioning.

Positions of horizontal control stations used during hydrography are 1989 field values and published values based on NAD 83. These values were used during office processing. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined by N/CG121. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude:	+1.100 seconds (+33.9 meters)
Longitude:	+0.965 seconds (+26.4 meters)

The year of establishment of control stations shown on the smooth sheet originates with the hydrographer's signal list.

The quality of several positions exceeds limits in terms of error circle radius and residuals. A review of the data indicates that there is no significant plotting difference between these fixes and adjacent positions. The review also indicates that the located features or soundings are consistent with surroundings. None of the fixes is used to position dangers to navigation. These fixes are considered acceptable.

The following shoreline maps apply to this survey.

	Photo Dates	Class
TP-01198 (NAD 27)	12/82, 11/83	III
TP-01199 (NAD 27)	12/82, 11/83, 3/84	III
TP-01613 (NAD 83)	2/89	III

The shoreline and topographic features on the smooth sheet originate from TP-01198, TP-01199 and TP-01613 maps. Numerous offshore wells and platforms shown on these maps were transferred to the smooth sheet in black. The wells and platforms shown on the maps that were not visible to the hydrographer and not specifically investigated during the present survey are depicted on the smooth sheet as submerged features.

3. HYDROGRAPHY

With the exceptions noted here and elsewhere in this report, 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 zero curve was not developed.

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, except for the following.

AWOIS item 4832, a 5-ft depth reported in 1974 and shown on the charts at latitude 27°45'23"N, longitude 97°08'53"W was not investigated during this survey.

There are no NOAA Form 76-40 submitted with the hydrographer's report.

There is no signature affixed in the report that was submitted by the hydrographer.

5. JUNCTIONS

Survey H-10324 junctions with the following surveys.

Survey	Year	Scale	Area
H-10323	1989	1:10,000	east
H-10326	1989	1:10,000	west
H-10332	1990	1:10,000	north

The junctions with surveys H-10323 and H-10332 have been completed. Soundings are in good agreement. Some soundings from surveys H-10323 and H-10332 have been transferred to survey H-10324 to better portray the bottom in the common area.

The junction with survey H-10326 has not been accomplished because the survey is in a preliminary stage of processing. Discussion of junctional agreement will be noted in the evaluation report of that survey.

The junction survey to the south will be with sheet O as shown on the sheet layout for OPR-K229-HFP. Field work on that survey has not yet been started. The junctional agreement will be discussed in the evaluation report of that survey.

6. COMPARISON WITH PRIOR SURVEYS

H-5694 (1934-35) 1:20,000

Survey H-5694 covers the whole area of the present survey. Depths from the present survey are generally 1/2 to 1 1/2 feet deeper.

There are no AWOIS items originating from this prior survey applicable to the present survey.

Survey H-10324 is adequate to supersede the prior survey within the common area.

T-9184 (1948-51)

The field investigation and the current topographic map TP-01199 indicates that major changes to topographic and offshore features occurred since map T-9184 was compiled. Some offshore oil wells, platforms and dolphins shown on map T-9184 were not verified by map TP-01199 or specifically investigated during the field investigation as submerged features. Since these features are no longer charted, they were not carried forward to the smooth sheet.

Survey H-10324 is adequate to supersede the offshore features on map T-9184 within the common area.

7. COMPARISON WITH CHART

Chart 11308, 15th ed., dated July 9, 1988 ; scale 1:40,000
Chart 11309, 29th ed., dated November 15, 1986 ; scale 1:40,000
Chart 11309, 30th ed., dated December 2, 1989; scale 1:40,000

a. Hydrography

Charted hydrography originates with survey H-5694 and from miscellaneous sources. The data on the charts are in good agreement with data from the present survey except:

The three reported charted obstructions centered at latitude 27°48'45"N, longitude 97°11'27"W, were not investigated and resolved during the present survey. These obstructions should be retained as charted.

With the exception of these features and the note "5 ft reported 1974" at latitude 27°45'23"N, longitude 97°08'53"W (AWOIS item 4832), survey H-10324 is adequate to supersede charted hydrography within the common area.

b. AWOIS

All AWOIS items originate with miscellaneous sources. AWOIS items are adequately discussed in section L of the hydrographer's report, supplemented as follows:

AWOIS item 4821 is a submerged obstruction with a PA qualifier charted at latitude 27°47'35.0"N, longitude 97°11'26.5"W. Map TP-01199 depicts a well at the same position. The debris found by the divers at that location with a least depth of 5 feet is a portion of the well shown on map 01199. This feature should be charted as a submerged well with a least depth of 5 feet.

AWOIS item 4832 is a note "5 ft reported 1974" shown on the charts at latitude 27°45'23.0"N, longitude 97°08'53.0"W. There is no indication that this item was investigated during the present survey. The note should be retained as shown on the charts.

AWOIS item 6027 is presently charted as a privately maintained quick flashing red light (light list #27725). The hydrographer has recommended that this feature be charted as a platform with a red light at latitude 27°48'38.08"N, longitude 97°10'35.07"W. This aid is depicted on the smooth sheet as a lighted platform. We recommend that N/CG221 coordinate with the US Coast Guard to determine the appropriate charting symbology for this feature.

If this feature is to continue to be charted as a light and listed in the light list, the "On dolphin" remark under the structure column in the list should be changed to "On platform."

AWOIS item 6041 is an obstruction charted at latitude 27°48'36.5"N, longitude 97°12'02.0"W. A fathometer investigation with a search radius of 200 meters disproved the existence of this obstruction. The obstruction should be removed from the charts.

c. Controlling Depths

The channel depths within the Intracoastal Waterway equal or exceed the 12-foot project depth except the 9 to 11-foot depths between latitudes 27°48'40.2"N and 27°48'51.0"W.

Other charted controlling depths are discussed as AWOIS items 4830, 4831, 4832 and 4833.

d. Aids to Navigation

There are twelve daybeacons and one nun buoy marking the Intracoastal Waterway located within the area of this survey. Two range lights and a pipeline line light (refer to section 7.b) are also located within the area of the present survey. These fixed aids and the floating aid are listed in volume IV of the 1990 Gulf of Mexico Light List without published positions, except for the pipeline light. The charted positions of these aids differ from the positions obtained in the present survey ranging from 0 to 220 meters. The charted position of the aids should be revised in accordance with the positions listed in section N of the hydrographer's report.

Red daybeacon 74 seems to be displaced 90 meters to the west of the line marked by red daybeacons 72, 78 and light 76.

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

Although there are numerous obstructions, wells and platforms in the surveyed area, no dangers to navigation from this survey were reported by the hydrographer to the USCG, DMAHTC and N/CG222. General notes on the existence of these features are shown on the smooth sheet. Accurate positions and least depths based on observed tides on a charted wreck PA and an obstruction PA obtained during office processing were reported to USCG, DMAHTC and N/CG222 (copy attached).

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10324 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is an adequate hydrographic survey. Additional field work to resolve AWOIS item 4832, and to locate or disprove the three charted obstructions, noted in section 7 of this report is recommended.

Arsenio A. Luceno
Cartographer

APPROVAL SHEET
H-10324

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.

Dennis Hill Date: 10-1-90

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.

Date: 10/2/90

Commander Pamela Chelgren-Koterba, NOAA
Chief, Pacific Hydrographic Section

****

Final Approval

Approved: Wesley Hull Date: 11/2/90

Wesley V. Hull
Rear Admiral, NOAA
Director, Charting and Geodetic Services

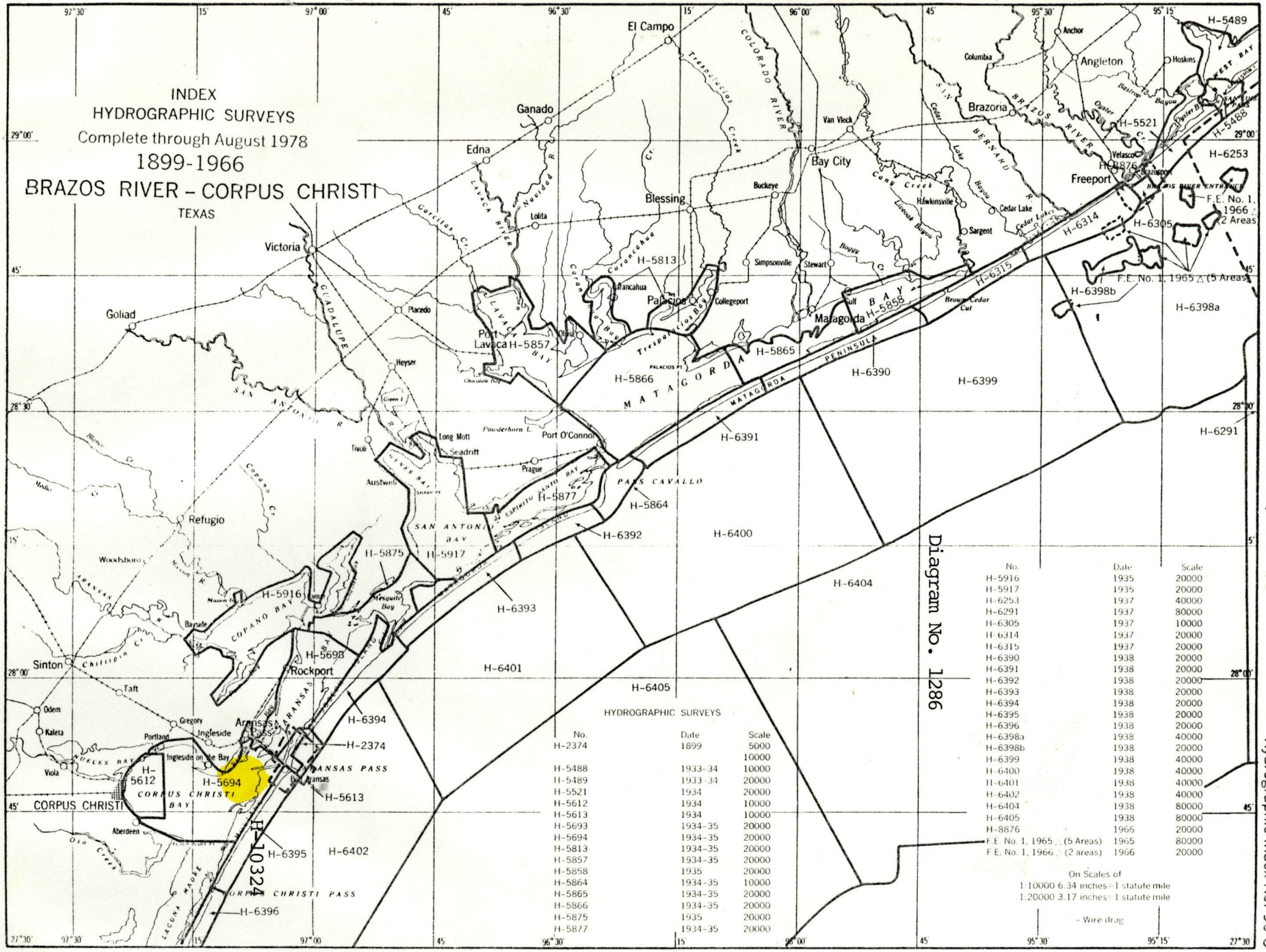

Diagram No. 1286

HYDROGRAPHIC SURVEYS

No.	Date	Scale
H-2374	1899	5000
		10000
H-5488	1933-34	10000
H-5489	1933-34	20000
H-5521	1934	20000
H-5612	1934	10000
H-5613	1934	10000
H-5693	1934-35	20000
H-5694	1934-35	20000
H-5813	1934-35	20000
H-5857	1934-35	20000
H-5858	1935	20000
H-5864	1934-35	10000
H-5865	1934-35	20000
H-5866	1934-35	20000
H-5875	1935	20000
H-5877	1934-35	20000
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-6399	1938	40000
H-6400	1938	40000
H-6401	1938	40000
H-6402	1938	40000
H-6404	1938	80000
H-6405	1938	80000
H-8876	1966	20000
F.E. No. 1, 1965 △ (5 Areas)	1965	80000
F.E. No. 1, 1966 △ (2 areas)	1966	20000

On Scales of
1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile

△ Wire drag

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

Hydrographic Index No. 90 C

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-10324

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
11309	10/25/90	R.N. Mihailov	~~Full~~ Part ~~Before~~ After Marine Center Approval Signed Via Partial application
			Drawing No. of sndgs. from SS
11307	11/15/90	R.N. Mihailov	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via Full application
			Drawing No. thru 11309, NO sndgs. applied
11314	9/7/90	R.N. Mihailov	Full ~~Part~~ ~~Before~~ ~~After~~ Marine Center Approval Signed Via ~~Partial~~ Full application 7/12/91 SMC
			Drawing No. of Sndgs ~~from~~ thru ~~field~~ ~~sheet~~ chart 11309 & Smooth Sheet. falls completely off chart
11300	6-10-91	[illegible]	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via Examined, No sndgs.
			Drawing No. or corrns. applied.
11312	8-27-91	R.N. MIHAILOV	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via FULL APPLICATION
			Drawing No. OF SOUNDINGS FROM SMOOTH SHEET.
11308	2-21-92	DAN BLACK	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 17A
11300	6-10-92	K.R. Foster	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 45 Exam-n/c-no Coverage.
11309	6-18-92	L. ALKENA	~~Full (Part)~~ Before ~~After~~ Marine Center Approval Signed Via
			Drawing No. 51 APPD. THRU 11308
11312	11-11-96	Travis Newman	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 2
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

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CHART	DATE	CARTOGRAPHER	REMARKS
			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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			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

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