

H10584

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE	
DESCRIPTIVE REPORT	
Type of Survey	HYDROGRAPHIC/ SIDE SCAN
Field No.	AHP 10-12-94
Registry No.	H-10584
LOCALITY	
State	TEXAS
General Locality	GULF OF MEXICO
Sublocality	GALVESTON BAY ENTRANCE
19 94	
CHIEF OF PARTY	
LCDR. J. E. WADDELL JR., NOAA	
LIBRARY & ARCHIVES	
DATE	FEB 25 1997

**HYDROGRAPHIC TITLE SHEET**

H-10584

**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\_10-12-94

State Texas

General locality Gulf of Mexico, ~~Galveston Bay~~

Locality Galveston<sup>Bay</sup> Entrance and Approaches

Scale 1:10,000 Date of survey 12-14-94-----05-03-95

Instructions dated 09-16-94 Project No. OPR-K204-AHP

Vessel Survey Launch 0519

Chief of party LCDR James Waddell

Surveyed by RWR , DBE , PMW \*

Soundings taken by echo sounder, hand lead, ~~pot~~ Innerspace Model 448 ss# 186

Graphic record scaled by RWR, DBE, PMW \*

Graphic record checked by RWR, BDE, PMW \*

Protracted by \_\_\_\_\_ Automated plot by ENCAD NOVA JET III Plotter (AHB) HDAPS / Brunning (field)

Verification by ATLANTIC Hydrographic Branch Personnel

Soundings in meters ~~feet~~ at ~~XXXX~~ MLLW

REMARKS: \* RWR = Robert W. Ramsey Jr.

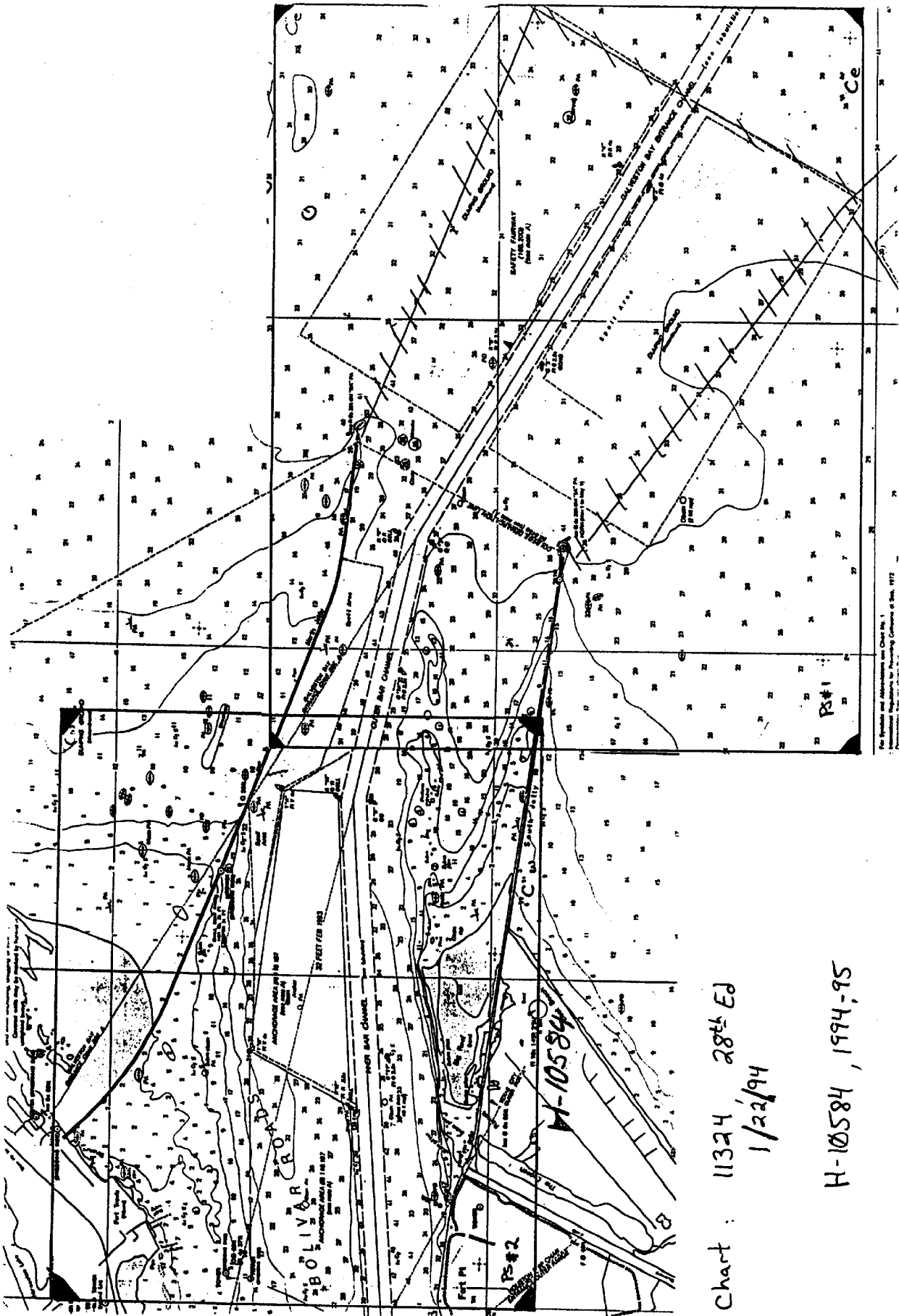
DBE = David B. Elliott

PMW = Philip M Wolf

Note in The Descriptive Report were made in Red during Office Processing.

AWOL/SURE 2/21/97  
MCB

SC 2-26-97



Source Chart : 11324 28th Ed  
 1/22/94

H-10584, 1994-95

For Symbols and Abbreviations see Chart No. 1  
 For Information on the Surveying Columns of this Chart

**DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10584  
FIELD NO. AHP-10-12-94  
SCALE: 1:10,000  
1994-95  
ATLANTIC HYDROGRAPHIC PARTY TWO  
CHIEF OF PARTY: LCDR James E. Waddell, Jr., NOAA**

**A. PROJECT**

This survey was conducted according to Hydrographic Project Instructions OPR-K204-AHP, Galveston Bay, Texas; dated September 16, 1994.

The purpose of project OPR-K204-AHP is in response to requests from the Houston Pilots Association, the Houston/Galveston Navigation Safety Advisory Committee, West Gulf Maritime Association, the Houston Safe Boating Council, Inc., and the U. S. Coast Guard, to update hydrographic and bathymetric data of this area for use in proposed studies and in the construction of new charts. The most recent prior surveys in this area were conducted from 1962-1965.

The sheet letter is "C" as specified by the project instructions.

**B. AREA SURVEYED**

The area surveyed for H-10584 covers the approaches to Galveston Bay. The approximate survey limits are as follows:

North: 29° 22' 18"N  
South: 29° 18' 06"N  
East : 094° 38' 06"W  
West : 094° 45' 30"W

This survey was conducted from December 14, 1994 (DN 348) to May 3, 1995 (DN 123).

**C. SURVEY VESSELS**

NOAA launch 0519, a 21-foot MonArk, was used to collect all survey data. There were no unusual vessel configurations or problems encountered with the vessel.

#### D. AUTOMATED DATA ACQUISITION AND PROCESSING *See Also Evaluation Report.*

Version 5.01 of the PC-DAS programs was used for on-line data acquisition. A list of all HP-DPS programs and versions used for data processing can be found in the appendix of this report. \* The NOS programs VELOCITY (Ver. 2.10) and WordPerfect (Ver. 6.0) were also used during this survey. \* *DATA Filed with Field Records.*

#### E. SONAR EQUIPMENT

An E.G.&G. model 260-TH image correcting Side Scan Sonar, S/N 76508, with a model 272-T towfish, S/N 16698, was used to conduct a portion of AWOIS item investigations using launch 0519. The vertical beam width was not manipulated. The down angle was 10° for water depths of less than seven meters and 20° for depths over seven meters. The system frequency used was 100 kHz. The recorder was set on a 75-meter range scale. This scale provided a 25-meter overlap for the 50-meter line spacing used during data acquisition. There were no water depths greater than fifteen meters. The confidence checks were performed daily on existing buoys in the Galveston Bay entrance channel at 100 kHz. A coverage of 100% was obtained unless otherwise specified by the AWOIS report. The towfish was very stable with the bow tow, but some periods of strong current blanked out the image. Under these circumstances the search lines were run in one direction against the current. All contacts and shadows were manually scaled and entered into an HDAPS contact table to determine the height off the bottom. Any major contacts were diver verified and smaller insignificant contacts of less than one meter in depths less than 20 meters were ignored as allowed by section 7.3.3 of the FPM. All items investigated were track line plotted to insure the reported geographic locations had been covered.

#### F. SOUNDING EQUIPMENT

An Innerspace model 448 depth sounder was used to collect all echo soundings on this survey. Depth sounder S/N 186 was used on launch 0519. A standard lead line calibrated in meters, S/N 0519, was used during this survey for comparison readings with the echo sounder. A five-meter long, wooden sounding pole, constructed according to HSG No. 69, was used to obtain all pole soundings. No problems were encountered with any of the sounding equipment.

## G. CORRECTIONS TO ECHO SOUNDINGS

Correctors for the velocity of sound through water were determined from the casts listed below:

<u>Cast No.</u>	<u>Table No.</u>	<u>Deepest Depth(m)</u>	<u>Applicable DN(s)</u>	<u>Cast Position</u>		<u>Day Taken</u>
1	1	20.8	024	29°20'20"N	094°42'30"W	019
2	2	18.2	032-033	29°20'20"N	094°42'30"W	032
3	3	20.8	038-041	29°20'20"N	094°42'30"W	038
4	4	18.2	052-061	29°20'30"N	094°46'24"W	053
5	5	11.5	074-075	29°20'13"N	094°47'44"W	075
6	6	21.8	081-082	29°22'19"N	094°43'28"W	081
7	7	19.7	093-096	29°22'12"N	094°42'36"W	096
8	8	20.7	107-109	29°22'42"N	094°44'24"W	109
9	9	19.3	115-123	29°22'36"N	094°44'18"W	115

There were two instruments used for determining corrections for the speed of sound through the water column. These corrections were computed from data obtained with a Digibar Velocity Profiler and a Seabird Seacat Velocity Profiler. The Seabird-Seacat Velocity Profiler, model 19-03, s/n 198671-1477, was calibrated by the manufacturer on February 8, 1995 and data quality assurance tests were performed after each cast. A replacement velocity sensor was not available while the probe was to be calibrated, and therefore calibration was delayed until the unit could be spared. Program VELOCITY was used for computing the speed of sound correctors. Speed of sound corrections were applied to the sounding plot using the HDAPS REAPPLY program. Copies of the velocity tables and support documentation are in the "Survey Separates." \*

The lead line for launch 519 was calibrated using a steel tape on December 6, 1994. No corrections were necessary. A copy of the calibration form is in the "Survey Separates." \*

A static draft of 0.3 meters was applied to the final sounding plot by the HDAPS REAPPLY program. The draft was measured by subtracting the difference from a punch mark on the side of launch 0519, 0.6 meter above the transducer, to the water surface.

Settlement and squat measurements for launch 0519 were made on December 6, 1994 (DN 340). These measurements were conducted in the Galveston Ship Channel, Texas using the level method. The data from this test is included in the "Survey Separates." \* Settlement and squat correctors were applied to the final sounding sheet using the HDAPS REAPPLY program. Data from the settlement and squat test are in the "Survey Separates." \*

Predicted tides for this project were provided on diskette by N/OES231 for the Galveston Pier 21 reference station (877-1450). Correctors for two tidal zones on sheet "C" were used as designated by the project instructions. The zones were numbered and are defined by the  
\* DATA Filed with Field Records.

following geographic locations and correctors:

Zone # 1 = In Galveston Ship Channel from 094°42'20"W due East to the offshore limits of this survey.

Zone # 2 = In Galveston Ship Channel from 094°42'20"W due West to the western limits of this survey.

	<u>Time (min.)</u>		<u>Range Ratio</u>
	<u>High Water</u>	<u>Low Water</u>	
Zone # 1	-1 hr 30 min	-1 hr	x 1.42
Zone # 2	-50 min	+10 min	Direct

All elevations and soundings on survey H-10548 are based on MLLW unless otherwise specified.

Approved tide levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated May 15, 1995. A copy is appended to this report. *Approved Tides and Zoning were Applied during Office Processing.*

Bracketing levels were run at the completion of this survey at all applicable tide gauge stations.

#### H. CONTROL STATIONS *See ALSO Evaluation Report.*

The horizontal control datum for this project is the North American Datum of 1983. The control reference station used for this survey was the USCG Galveston DGPS beacon, located at 29°19'45.092"N, 094°44'10.484"W. The position for this station is shown in the Control Station List is appended to this report.

#### I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. An Ashtech Sensor (S/N 700417B1207) and antenna (S/N 700378A0232) were used as the remote station on launch 0519.

Daily DGPS performance checks were conducted in accordance with FPM 3.4.4, by comparing the DGPS position of the vessel to the third-order position of station CG 16, 1974. To obtain a performance check, the launch was brought alongside the checkpoint and the Easting, Northing, number of SVs, HDOP, and time of observation were noted on the echogram. These values were then entered into a Lotus spreadsheet table which would compute the acceptable error margin (based on the HDOP) and also our observed difference between the known and observed position. The table of these comparisons is included in the "Survey Separates." \*All of our

\* DATA Filed with Field Records.

observed differences fell well within the allowable limit.

**J. SHORELINE** *See Also Evaluation Report.*

This project was Team Processed through the Atlantic Hydrographic Section. Shoreline shown on the sounding plot was transferred from DM-10237. Shoreline verification was accomplished during inshore hydrographic data acquisition and by visual inspection. The reference number, descriptions, field notes, and explanations of new shoreline features are located on the graphic record, or on the boat sheet. Photographs are included with the survey data as well. Charted shoreline should be superseded by shoreline data from DM-10237. *CONCUR*

The small boat passage through the north jetty does not appear on the shoreline manuscript but does appear on the current charts of the area. This feature was located by position numbers 71-72, to determine the width of the passage at 14 meters. The controlling depth was <sup>6</sup>foot (position number <sup>2174.4</sup>~~2174.4~~) at <sup>29°21'26"N</sup> <sup>094°43'25"W</sup>. This passage should be transited with caution as tidal currents were estimated to be in the 4-6 knot range.

There were shoreline changes noted within the survey limits along Big Reef. These changes were transferred to the boat sheet, and to the final sounding plot, in red ink. See Section O for more information regarding this shoreline change..

**K. CROSSLINES**

A total of 42.7 linear nautical miles of crosslines were run, which represents approximately 24% of the main scheme hydrography. Crossline soundings agree with the main scheme soundings within 0.2 meter. The application of smooth tides will create a closer agreement in sounding comparison.

**L. JUNCTIONS** *See Also Evaluation Report.*

This survey junctions with H-10589, 1995, a 1:10,000 scale survey to the west. Junction soundings between the present survey and H-10589 are in good agreement, with differences of 0.2 meters or less.

**M. COMPARISON WITH PRIOR SURVEYS**

See the Atlantic Hydrographic Section's "Evaluation Report for H-10584."



## N. ITEM INVESTIGATION REPORTS

All AWOIS reports are appended to the Descriptive Report. There were a total of 37 AWOIS items addressed on this survey.

## O. COMPARISON WITH THE CHART *See ALSO Evaluation Report.*

Comparison was made with the following charts:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>	
11323	54th	Aug. 6/94	80,000
11324	28th	Jan/22,1994	25,000
11326SC	26th	Jan/1,1994	80,000

No dangers to navigation were identified by this survey.

Sounding data acquired on this survey shows agreement within 0.2 meters, east of longitude 094°40'W. Sounding data acquired west of 094°40' W, shows a deepening trend, believed to be the result of extremely strong tidal current flow within and adjacent to the passage between the entrance jetties, and throughout Bolivar Roads. These areas were found 5- to 20-feet deeper than currently charted depths. Areas of significant discrepancies that were shallower than currently charted and that could not be attributed to tides or other weather phenomena were developed. All comparisons of depth curves and soundings were made using predicted tides.

*Approved*

Anchorage area "A" was found to have a depth range from 36 feet in the northwest corner to 50 feet in the southeast corner, with an average depth near 44 feet throughout. Anchorage area "B" was found to be less uniform, with depths ranging along the north section from 25 feet, to 36 feet along the southern section.

The southern shoreline in the vicinity of Big Reef and The Lagoon, was found to have receded and the access to the body of water south of Big Reef was found to be permanently closed. This area of shoreline was found to have a steep sloping bottom up to the hard sand beach. *IT IS RECOMMEND THAT THE AREA BE CHARTED AS SHOWN ON PRESENT SURVEY.*

The following table lists new features found on this survey:

<u>Day No.</u>	<u>Fix</u>	<u>Latitude N</u>	<u>Longitude W</u>	<u>Description/Depth</u>
010	58	29°22'10.10"	094°45'01.87"	Dbn "Caution" (3m)
010	59	29°22'10.35"	094°45'02.32"	Dbn "Caution" (3m)
011	63	29°22'12.08"	094°44'59.48"	Power pole (7m)**

*\*\* See Section O. of The Evaluation Report.*

The following shoal soundings were searched for and not found, and should be superseded by the surveyed depths: *CUNCUP*

<u>Charted</u>	<u>Surveyed (position No.)</u>	<u>Latitude</u>	<u>Longitude</u>
6 foot	<i>23 25</i> foot (2326.4)	29°20'24"N	094°43'03"W
5 foot	<i>23 24</i> foot (2274.5)	29°20'23"N	094°42'58"W
3 foot	<i>4 7</i> foot (2630.1)	29°21'42"N	094°44'29"W
3 foot	<i>4 5</i> foot (2930.5)	29°21'31"N	094°45'28"W

APPROPRIATE SOUNDINGS WERE USED DURING COMPELATION

P. ADEQUACY OF SURVEY *see also Evaluation Report.*

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

#### Q. AIDS TO NAVIGATION

The following aids to navigation are maintained by the U.S. Coast Guard and lie within the survey area. All of the aids serve their intended purpose. All aids to navigation were positioned by DGPS during hydrographic operations. Equipment and resources were not available for 3rd-order positions of all the non-floating navigational aids.

A comparison of the positions of the fixed aids located on this survey is shown in the following table:

<u>Pos. No.</u>	<u>Name and USCGLL#</u>	<u>LL Position</u>	<u>Survey Pos.</u>	<u>Distance/Bearing from Charted Position</u>
1 **	Light 5a (22725)	None	29°19'39.79"N 094°41'20.49"W	On Station
6 **	Light 6a (22730)	None	29°20'42.22"N 094°40'41.30"W	75m/180°
57	Wk LT 2 (22695)	None	29°21'50.80"N 094°44'38.70"W	Not Charted on # 11324, 28th Ed
480	Texas City Cut A outer Front RNG LT (24560)	29°20.2'N 094°45.3'W	29°20'11.30"N 094°45'19.04"W	On Station

\*\* *see also Section 0.5 of The Evaluation Report.*



**T. RECOMMENDATIONS** *See Also Section P. of The Evaluation Report.*

No additional field work was identified after field processing was completed. Specific recommendations are made on the Item Investigation Reports appended, and in sections J. and O. of this report.

**U. REFERRAL TO REPORTS**

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10589	Atlantic Hydrographic Section N/CG244, Norfolk, VA (Projected Fall 1995)
Chart Sales Agent Report	Chart Distribution Branch N/CG33, Rockville, MD (Projected Spring 1996)
User Evaluation Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA (Projected Fall 1995)
Chart Inspection Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA (Projected Fall 1995)
Coast Pilot Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA (Projected Spring 1996)

Submitted by: Robert W. Ramsey /Hydrographer in charge Launch 0519.  
Atlantic Hydrographic Party

**AWOIS NO: 382**

**Item Description:** Wreck "POLLY D" (80 ft x 20 ft Exploration boat)

**Source:** NM49/60

**AWOIS Position:** Lat - 29/19/39.85N Lon - 094/41/23.69W

**Required Investigation:** ES, VS, BD, SD, ##-- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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### INVESTIGATION

**Date(s)/DN(s):** 02/21/95 (DN:052)

**Position Numbers:** 443-457

**Launch Number:** 0519

**Investigation Used:** VS, ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted using fifty-meter line spacing at this geographic location. There were no contacts identified in this area. The jetty which was in close proximity to the reported wreck was easily identified, but there was no wreckage among the rocks. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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### CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

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### COMPILATION NOTES

AWOIS NO: 383

Item Description: Wreck "BAMA" (F/V - 41 FT L X 15 FT W)

Source: LNM49/60

AWOIS Position: Lat - 29/19/50.85N Lon - 094/42/52.69W

Required Investigation: VS, ES, BD -- 100m radius

Charts Affected: 11323, 11324, 11326, 11331.

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### INVESTIGATION

Date(s)/DN(s): 01/12/95 (DN:012)

Position Numbers: 67

Launch Number: 0519

Investigation Used: ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A 100-meter diameter dive circle search using a bottom drag line was conducted at this geographic location. No snags or contacts were encountered.

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### CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck PA be removed from the chart. *CONCUR*

Recommended Position: Lat - / / N Lon - / / W

Recommended Least Depth: N/A

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### COMPILATION NOTES

**AWOIS NO: 9013**

**Item Description:** Wreck "DUBHE" PA (78 foot F/V)

**Source:** NM19/68

**AWOIS Position:** Lat - 29/19/35.85N Lon - 094/38/35.69W

**Required Investigation:** S2, ES, BD, SD, DI -- 250m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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### INVESTIGATION

**Date(s)/DN(s):** 02/07/95 (DN:038)

**Position Numbers:** 343-388

**Launch Number:** 0519

**Investigation Used:** ES, S2,

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The search radius was expanded to 450 meters to include AWOIS item number 9014 which is charted in close proximity. There were two small contacts noted during the investigation. These contacts were deemed insignificant as they only projected 1.5 ft off the bottom. The result of this search was negative with regards to a submerged wreck. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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### CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck PA be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

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### COMPILATION NOTES

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**AWOIS NO: 9014**

**Item Description:** Wreck "D3" PA (Cleared by 33ft 1965)

**Source:** NM2/59, FE198WD/64--OPR450, FE203WD/65--OPR450

**AWOIS Position:** Lat - 29/19/38.65N Lon - 094/38/46.89W

**Required Investigation:** S2, ES, SD, BD -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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**INVESTIGATION**

**Date(s)/DN(s):** 02/07/95 (DN:038)

**Position Numbers:** 343-388

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The search radius was expanded to 450 meters to include AWOIS item number 9013 which is charted in close proximity. There were no contacts noted during this investigation. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

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**COMPILATION NOTES**

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**AWOIS NO: 9015**

**Item Description:** Wreck (57 ft Pleasure Craft)

**Source:** LNM10/92--8TH CGD

**AWOIS Position:** Lat - 29/20/01.00N Lon - 094/40/15.00W

**Required Investigation:** S2, ES, SD, BD, ##-- 300m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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**INVESTIGATION**

**Date(s)/DN(s):** 02/07/95 (DN:038)

**Position Numbers:** 389-425

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were no contacts noted during this investigation. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck PD be removed from the chart. *concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

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**COMPILATION NOTES**

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**AWOIS NO: 9016**

**Item Description:** Obstruction (Unidentified Subm. Object)

**Source:** LNM40/88--8TH CGD

**AWOIS Position:** Lat - 29/20/11.84N Lon - 094/41/06.69W

**Required Investigation:** S2, ES, BD, ## -- 200m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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**INVESTIGATION**

**Date(s)/DN(s):** 02/07/95 (DN:038)

**Position Numbers:** 426-442

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were three small contacts noted during the investigation. These contacts were deemed insignificant as they only projected 1.5 ft off the bottom. They were not considered to be the reported item. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged obstruction be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

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**COMPILATION NOTES**

**AWOIS NO: 9017**

**Item Description:** Wreck "Broken Promise" (32ft Inboard)

**Source:** LNM43/74--8TH CGD

**AWOIS Position:** Lat - 29/20/18.84N Lon - 094/41/30.69W

**Required Investigation:** S2, ES, BD, SD -- 150m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

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**INVESTIGATION**

**Date(s)/DN(s):** 02/21/95 (DN:052)

**Position Numbers:** 458-476

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were no contacts noted during this investigation. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck PA be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:**

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO: 9018

Item Description: Wreck (subm. barge "Galveston")

Source: CL112/50, FE198WD/1964--OPR-450.

AWOIS Position: Lat - 29/20/26.64N Lon - 094/40/46.89W

Required Investigation: VS, SD, DI -- 100m radius

Charts Affected: 11323, 11324, 11326, 11331.

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**INVESTIGATION**

Date(s)/DN(s): 02/03/95 (DN:033); 02/21/95(DN:052)

Position Numbers: 259-328, 477

Launch Number: 0519

Investigation Used: ES, S2

Water Visibility: 2m

Position Determined By: DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The search radius was expanded to 250 meters to include AWOIS item numbers 9019 and 9020 which are charted in close proximity. The barge "Galveston" was found at the charted location along with a debris field fitting the description of AWOIS 9019 and 9020. The barge wreckage overlaps into the search radius of item 9019 and item 9020. The debris field is within the search radius of this item, and is described as an anchor and three inch diameter steel bar among other wreckage. The barge is approximately 85-meters long, 20-meters wide, and lies on a north to south axis. The bow faces south. A Leadline least depth at position 477 of 5.7m (18.7ft) was taken on the highest point, with predicted tides applied. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted 16 ft sounding be replaced by a submerged wreck on a north/south axis charted at the following location: *Concur*

**Recommended Position:** Lat - 29/20/28.69N Lon - 094/40/45.16W

**Recommended Least Depth:** 5.7m w/ predicted tides @ MLLW.

*Chart as shown on Present Survey*

\*\*\*\*\*

*17.7 FT. APPROVED*

**COMPILATION NOTES**

**AWOIS NO: 9019**

**Item Description:** Obstruction (anchor & debris)

**Source:** FE198/64--OPR-450, H8748/62-65--OPR-428.

**AWOIS Position:** Lat - 29/20/28.44N Lon - 094/40/52.29W

**Required Investigation:** S2, ES, BD, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 02/03/95 (DN:033)

**Position Numbers:** 259-328

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**/Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The search radius was expanded to 250 meters to include AWOIS item numbers 9018 and 9020 which are charted in close proximity to this item. The anchor and debris were found within the search area required for item 9018. Nothing was found to lie within the search radius for item 9019. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted 26 ft sounding obstruction be removed from the chart and be replaced by soundings from H-10584. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9020**

**Item Description:** Unknown (Three inch dia. steel pipe)

**Source:** FE198/1964--OPR-450.

**AWOIS Position:** Lat - 29/20/30.84N Lon - 094/40/44.49W

**Required Investigation:** S2, ES, BD, DI -- 50m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 02/03/95 (DN:033)

**Position Numbers:** 259-328

**Launch Number:** 0519

**Investigation Used:** ES, S2

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A fifty meter line spacing side scan sonar investigation was conducted at this geographic location. The search radius was expanded to 250 meters to include AWOIS item numbers 9018 and 9019 which are charted in close proximity. The debris was found inside the search radius of AWOIS #9018. The debris field consists of metal wreckage, anchor and rigging. The description for features 9019 and 9020 are closely related and are believed to be the same. The submerged barge "Galveston" (AWOIS #9018) lies east of the debris field. The hurricane Elisha may have moved items #s 9019 and 9020 to the current position which is west of the starboard bow of the barge "Galveston". (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted 10 ft sounding Obstruction be removed from the chart and be replaced by soundings for H-10584: *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO: 9021

Item Description: Unknown

Source: Unknown (Appears on 1950 ED of chart 1282)

AWOIS Position: Lat - 29/20/44.00N Lon - 094/40/39.00W

Required Investigation: ES, S2, BD, DI -- 50m radius

Charts Affected: 11323, 11324, 11326, 11331.

-----  
**INVESTIGATION**

Date(s)/DN(s): 02/03/95 (DN:033)  
03/02/95 (DN:061)

Position Numbers: 329-332; 483-485. Launch Number: 0519

Investigation Used: ES, S2 Water Visibility: 2m

Position Determined By: DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. Three contacts were found at the charted location in the vicinity of light "6A," on the south side of the north Galveston entrance jetty. This item is believed to be the one described as item 9022, the submerged wreck "Dixie Queen", which is broken into three pieces, and lies on an east/west axis represented by survey positions 483-485. There were visible ribs of the wreck on the side scan image. Position 483 appears on the side scan record to be the prominent remaining portion. It is about 12m x 4m in size, with a least depth of 4.7m (15.4 ft). The two other contacts were located by positions 484 and 485, with least depths of 5.8m and 5.5m respectively. Due to the close proximity of these features to Light "6A", they are not deemed a danger to navigation. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

-----  
**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted submerged wreck be revised to the following location: *CONCUR*

Recommended Position: Lat - 29/20/42.5N Lon - 094/40/42.3W *Chart 15 wk*  
Recommended Least Depth: 4.7 meters MLLW (predicted tides)

\*\*\*\*\*  
*4.7 15.4 FT APPROVED*  
COMPILATION NOTES

**AWOIS NO: 9022**

**Item Description:** Wreck (F/V "Dixie Queen")

**Source:** LNM98/70--8th CGD

**AWOIS Position:** Lat - 29/20/44.64N Lon - 094/40/54.69W

**Required Investigation:** ES, VS, SD, ##, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 02/03/95 (DN:033)

**Position Numbers:** 333-342

**Launch Number:** 0519

**Investigation Used:** ES, DI

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were no contacts in this area. According to the AWOIS printout the wreck had not been located. That is because it does not exist at this charted location. A submerged wreck was found at the reported location of AWOIS 9021, which is listed on the AWOIS printout as unknown, but which is believed to be the same feature as item 9022. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**



**AWOIS NO: 9023**

**Item Description:** Submerged Wreck (38ft Pleasure Craft)

**Source:** LNM7/91--8th CGD

**AWOIS Position:** Lat - 29/20/48.84N Lon - 094/42/00.69W

**Required Investigation:** ES, BD, SD, S2, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/25/95 (DN:025)

**Position Numbers:** 158-165

**Launch Number:** 0519

**Investigation Used:** S2, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The result of this investigation was negative. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9024**

**Item Description:** Visible Wreck (F/V "Capt. Mitchell")

**Source:** LNM19/93--8th CGD

**AWOIS Position:** Lat - 29/20/54.00N Lon - 094/42/00.00W

**Required Investigation:** SD, VS, ES, BD, DI, S2-- 150m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/25/95 (DN:025)

**Position Numbers:** 144-157

**Launch Number:** 0519

**Investigation Used:** S2, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. The result of this investigation was negative.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the visible wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9025**

**Item Description:** Wreck (55ft Pleasure Craft "Sea Hawk")

**Source:** LNM40/91--8th CGD

**AWOIS Position:** Lat - 29/21/00.80N Lon - 094/42/30.60W

**Required Investigation:** SD, ES, S2, BD, DI -- 150m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/25/95 (DN:025)

**Position Numbers:** 122-143

**Launch Number:** 0519

**Investigation Used:** S2, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were no obstructions or wrecks found within the search limits of this item. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

---

**AWOIS NO: 9026**

**Item Description:** Visible wreck (15 ft Pleasure Craft) , *PA*

**Source:** LNM28/92

**AWOIS Position:** Lat - 29/21/12.80N Lon - 094/43/00.70W

**Required Investigation:** VS, ES, SD, BD, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

### **INVESTIGATION**

**Date(s)/DN(s):** 01/11/95 (DN:011)

**Position Numbers:** 65

**Launch Number:** 0519

**Investigation Used:** VS, DI

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A 100-meter diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found.

---

### **CHARTING RECOMMENDATION**

The hydrographer recommends that the visible wreck PA be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

### **COMPILATION NOTES**

**AWOIS NO: 9027**

**Item Description:** Submerged Wreck (38 ft F/V), *PA*

**Source:** LNM23/86

**AWOIS Position:** Lat - 29/21/15.84N Lon - 094/42/58.69W

**Required Investigation:** ES, SD, BD, DI -- 75m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/12/95 (DN:012)

**Position Numbers:** 66

**Launch Number:** 0519

**Investigation Used:** VS

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A 75-meter radius diver circle search was conducted with a bottom drag line, at this geographic location. No snags or contacts were encountered. This features search radius overlaps with the search radius for item 9026, which was also negative.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9028**

**Item Description:** Visible wreck PA (28 ft Pleasure Craft) , *PA*

**Source:** LNM51/92

**AWOIS Position:** Lat - 29/19/52.00N Lon - 094/43/03.30W

**Required Investigation:** ES, VS, SD, BD, DI, ## -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

### INVESTIGATION

**Date(s)/DN(s):** 01/12/95 (DN:012)

**Position Numbers:** 68

**Launch Number:** 0519

**Investigation Used:** VS

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A 100-meter diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found. The search was limited to the north side of the jetty.

---

### CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck PA be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

### COMPILATION NOTES

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**AWOIS NO: 9029**

**Item Description:** Piles.

**Source:** BP66608--COE, CL1340'65--COE, CL1225/73--R/H.

**AWOIS Position:** Lat - 29/20/17.00N Lon - 094/42/43.50W

**Required Investigation:** VS, BD, ##, DI -- 50m AXIS

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/18/95 (DN:018)

**Position Numbers:** None

**Launch Number:** N/A

**Investigation Used:** VS, ES, ##, COE. **Water Visibility:** N/A

**Position Determined By:** DGPS

**Investigation Summary:** A representative of the Atlantic Hydrographic Party, Mr. David Elliott, met with Mr. Richard Whitmire on January 18, 1995 at the Army Corps of Engineers office. Mr. Whitmire is the USCOE project engineer for the Galveston ship channel and Fort Point region. The detailed conversation on this day included many charted items and features within the confines of the Galveston Ship channel entrance. The main topics were AWOIS item numbers 9029, 9030, 9031 and 9032. These items were established in 1964-65 and according to Mr. Whitmire they no longer exist. Some of the piles were removed by hurricane Elisha and others were removed by the COE. Mr. Whitmire has had survey crews in this area and is confident no piles exist in these locations. AHP conducted extensive visual and echo sounder searches in these areas with negative results prior to the meeting with Mr. Whitmire.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the piles be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9030**

**Item Description:** Piles.

**Source:** BP66608--COE, CL1340/65--COE, CL1225/73--R/H

**AWOIS Position:** Lat - 29/20/18.50N Lon - 094/43/02.00W

**Required Investigation:** VS, BD, ##, DI -- 50m axis

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/18/95 (DN:018)

**Position Numbers:** None

**Launch Number:** N/A

**Investigation Used:** VS, ES, ##, COE. **Water Visibility:** N/A

**Position Determined By:** DGPS

**Investigation Summary:** A representative of the Atlantic Hydrographic Party, Mr. David Elliott, met with Mr. Richard Whitmire on January 18, 1995 at the Army Corps of Engineers office. Mr. Whitmire is the USCOE project engineer for the Galveston ship channel and Fort Point region. The detailed conversation on this day included many charted items and features within the confines of the Galveston Ship channel entrance. The main topics were AWOIS item numbers 9029, 9030, 9031 and 9032. These items were established in 1964-65 and according to Mr. Whitmire they no longer exist. Some of the piles were removed by hurricane Elisha and others were removed by the COE. Mr. Whitmire has had survey crews in this area and is confident no piles exist in these locations. AHP conducted extensive visual and echo sounder searches in these areas with negative results prior to the meeting with Mr. Whitmire.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the piles be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**



**AWOIS NO: 9031**

**Item Description:** Piles.

**Source:** BP66608--COE, CL1340/65, CL1225/73--RH, H-8748/62-65.

**AWOIS Position:** Lat - 29/20/15.50N Lon - 094/44/22.00W

**Required Investigation:** VS, BD, ##, DI -- 50m AXIS

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/18/95 (DN:018)

**Position Numbers:** None

**Launch Number:** N/A

**Investigation Used:** VS, ES, ##, COE. **Water Visibility:** N/A

**Position Determined By:** DGPS

**Investigation Summary:** A representative of the Atlantic Hydrographic Party, Mr. David Elliott, met with Mr. Richard Whitmire on January 18, 1995 at the Army Corps of Engineers office. Mr. Whitmire is the USCOE project engineer for the Galveston ship channel and Fort Point region. The detailed conversation on this day included many charted items and features within the confines of the Galveston Ship channel entrance. The main topics were AWOIS item numbers 9029, 9030, 9031 and 9032. These items were established in 1964-65 and according to Mr. Whitmire they no longer exist. Some of the piles were removed by hurricane Elisha and others were removed by the COE. Mr. Whitmire has had survey crews in this area and is confident no piles exist in these locations. AHP conducted extensive visual and echo sounder searches in these areas with negative results prior to the meeting with Mr. Whitmire.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the piles be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9032**

**Item Description:** Platform ruins.

**Source:** Unknown

**AWOIS Position:** Lat - 29/20/19.00N Lon - 094/42/55.00W

**Required Investigation:** VS, BD, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/18/95 (DN:018)

**Position Numbers:** None

**Launch Number:** N/A

**Investigation Used:** VS, ES, ##, COE. **Water Visibility:** N/A

**Position Determined By:** DGPS

**Investigation Summary:** A representative of the Atlantic Hydrographic Party, Mr. David Elliott, met with Mr. Richard Whitmire on January 18, 1995 at the Army Corps of Engineers office. Mr. Whitmire is the USCOE project engineer for the Galveston ship channel and Fort Point region. The detailed conversation on this day included many charted items and features within the confines of the Galveston Ship channel entrance. The main topics were AWOIS item numbers 9029, 9030, 9031 and 9032. These items were established in 1964-65 and according to Mr. Whitmire they no longer exist. These items of piles, and platform, and platform ruins were removed by hurricane Elisha or were removed by the COE. Mr. Whitmire has had survey crews in this area and is confident no piles, or platform ruins, or platform exist in these locations. AHP conducted extensive visual and echo sounder searches in these areas with negative results prior to the meeting with Mr. Whitmire.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the <sup>2</sup>platform ruins be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO: 9033

Item Description: Obstruction (Subm. Pipe)

Source: H-8748/62-65OPR-428-ECFP

AWOIS Position: Lat - 29/20/18.34N Lon - 094/43/18.39W

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

Charts Affected: 11323, 11324, 11326, 11331.

INVESTIGATION

Date(s)/DN(s): 01/13/95 (DN:013)

Position Numbers: 74

Launch Number: 0519

Investigation Used: DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A fifty-meter radius diver circle search with a bottom drag line was conducted at this geographic location. A submerged dredge pipe was found lying on the bottom at a forty five degree angle. The pipe is one foot in diameter and rises off the bottom 0.7 meter (2.3ft). The Leadline least depth was 5.3 meters (17.4ft) at MLLW using predicted tides.

*approved*

CHARTING RECOMMENDATION

The hydrographer recommends that the submerged pipe be retained on the chart at the revised position below. *Do NOT CORRECT*

Recommended Position: Lat - 29/20/18.25N Lon - 094/43/19.08<sup>9</sup>W

Recommended Least Depth: 5.3m @ MLLW.

*4.7*

*15.4 FT*

*CHART 15 OBSTR*

\*\*\*\*\*

COMPILATION NOTES

*IT is Recommend THAT The Subm pipe be deleted AND AN 15 OBSTR be CHARTED IN Above Position.*

AWOIS NO: 9034

Item Description: Visible wreck (Shrimp boat)

Source: CL755--USPS

AWOIS Position: Lat - 29/20/17.84N Lon - 094/43/29.69W

Required Investigation: VS, ES, BD, SD, DI -- 150m radius

Charts Affected: 11323, 11324, 11326, 11331.

---

### INVESTIGATION

Date(s)/DN(s): 01/13/95 (DN:013)

Position Numbers: 75

Launch Number: 0519

Investigation Used: ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 150-meter radius diver circle search with a bottom drag line was conducted at this geographic location. A submerged wreck was found near the reported location. The wreckage was predominantly metal rigging. The wreck is approximately 10-meters long and 3-meters wide and lies in breaking surf in an east to west orientation. This feature is effected by strong currents. The Leadline least depth was 2.3 meters (7.5ft) at the time of survey.

---

### CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck be removed from the chart and a submerged wreck be charted at the following location: *CONCUR*

Recommended Position: Lat - 29/20/15.57N Lon - 094/43/29.39W

Recommended Least Depth: <sup>1.6</sup>~~2.2~~m @ MLLW corrected for predicted tides. *CHART 5 WK*  
(5.2 FT.) *APPROVED*

\*\*\*\*\*

### COMPILATION NOTES

**AWOIS NO: 9035**

**Item Description:** Visible wreck PA "Velma 1" (77Ft)

**Source:** LNM26/88--8th CGD

**AWOIS Position:** Lat - 29/20/04.34N Lon - 094/43/35.89W

**Required Investigation:** VS, ES, BD, SD, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/12/95 (DN:012)

**Position Numbers:** 69

**Launch Number:** 0519

**Investigation Used:** VS

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A 100-meter radius wading circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found. The water was extremely shallow in the vicinity of this reported position. There is no 77 foot vessel in this region, visible or submerged.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the visible wreck PA be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9036**

**Item Description:** Submerged Obstruction ( A frame and winch)

**Source:** NM26/65

**AWOIS Position:** Lat - 29/20/12.84N Lon - 094/43/48.69W

**Required Investigation:** VS, BD, ES, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/12/95 (DN:012)

**Position Numbers:** 70

**Launch Number:** 0519

**Investigation Used:** VS, DI

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A 100-meter radius diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found. The water was extremely shallow in the vicinity of the reported position.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the reported obstruction be removed from the chart. *Concur*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9037**

**Item Description:** Piles.

**Source:** Unknown

**AWOIS Position:** Lat - 29/20/05.00N Lon - 094/44/37.50W

**Required Investigation:** VS, BD, ##, DI -- 30m Axis

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/19/95 (DN:019)

**Position Numbers:** 81

**Launch Number:** 0519

**Investigation Used:** VS

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A visual search was conducted at the geographic location of this item. The search revealed that a shoreline change in this area has closed off the access to a small cove. This cove is on the south side of a region known as "Big Reef". Detached position number 81, was taken with survey launch bow aground, as close as possible to the charted entrance. This position is approximately 570 meters from the reported location. A further visual investigation walking along the beach revealed no piles existing in this proximity. The shoreline change will be depicted by Mainscheme hydrography run on survey H-10584.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the piles be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO: 9038

Item Description: Obstruction (Anchor PA)

Source: LNM15/93--8th CGD

AWOIS Position: Lat - 29/21/00.00N Lon - 094/44/12.00W

Required Investigation: S2, BD, ES, DI -- 200m radius

Charts Affected: 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

Date(s)/DN(s): 01/25/95 (DN:025)

Position Numbers: 189-239

Launch Number: 0519

Investigation Used: ES, S2

Water Visibility: 2m

Position Determined By: DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were no contacts identified during this investigation. A local salvage company working close by, informed AHP that they were searching for a lost anchor in this location (anchorage "A") and for one in anchorage "B" (AWOIS #9047). Mr. Leo Ohlemacher, with South Texas Underwater Divers Inc., was notified of our negative results at the conclusion of our investigation. Mr. Ohlemacher was towing a magnetometer and had no contacts within his 250-meter search radius. Mr. Ohlemacher contacted the survey launch by radio to inform us that the reported anchor did not exist at the AWOIS location. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the "obstruction anchor PA" be removed from the chart. *Concur*

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

Recommended Least Depth: N/A

\*\*\*\*\*

**COMPILATION NOTES**



**AWOIS NO: 9039**

**Item Description:** Obstruction

**Source:** LNM34/92--8th CGD

**AWOIS Position:** Lat - 29/20/33.00N Lon - 094/44/45.00W

**Required Investigation:** S2,ES, BD, ##, DI -- 200m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/25/95 (DN:025)

**Position Numbers:** 108-121

**Launch Number:** 0519

**Investigation Used:** S2, ES

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There was no requirement to search inside the maintained channel limits. The results of this investigation were negative. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the obstruction be removed from the chart. *Concur*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9040**

**Item Description:** Barge (submerged)

**Source:** NM40/65

**AWOIS Position:** Lat - 29/20/13.00N Lon - 094/45/19.00W

**Required Investigation:** VS, ES, BD, SD, DI -- 50m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/13/95 (DN:013)

**Position Numbers:** 76

**Launch Number:** 0519

**Investigation Used:** ES, DI

**Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A 50-meter radius diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart at the following location: *CONCUR*

**Recommended Position:** Lat - 29/20/12.99N Lon - 094/45/19.04W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

AWOIS NO: 9041

Item Description: Wreck (15ft submerged pleasure craft)

Source: LNM17/79--8th CGD

AWOIS Position: Lat - 29/20/16.84N Lon - 094/45/18.70W

Required Investigation: S2, ES, VS, BD, SD, DI -- 100m radius

Charts Affected: 11323, 11324, 11326, 11331.

---

### INVESTIGATION

Date(s)/DN(s): 01/13/95 (DN:013)

Position Numbers: 78

Launch Number: 0519

Investigation Used: ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 100-meter radius diver circle search was conducted with a bottom drag line at this geographic location. A small mound eight-meters in diameter was found. There was some metal debris at the base of the mound that posed no danger to navigation. The Leadline least depth was 11.0 meters (36.1ft) at the time of survey, which equates to 10.8<sup>4</sup>meters with ~~predicted~~ tides at MLLW.

---

*Approved*

### CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck be retained on the charted at the following revised location: *Do NOT Concur, Delete subm wk, PD*

Recommended Position: Lat - 29/20/16.87N Lon - 094/45/17.93W

Recommended Least Depth: 10.8<sup>4</sup>m @ MLLW corrected for ~~predicted~~ tides..

*(34 FT)*

*Approved*

\*\*\*\*\*

### COMPILATION NOTES

*Chart appropriate soundings in area.*

AWOIS NO: 9042

Item Description: Obstruction (shoal report)

Source: LNM34/92--8th CGD

AWOIS Position: Lat - 29/20/41.00N Lon - 094/44/48.00W

Required Investigation: ES, ##

Charts Affected: 11323, 11324, 11326, 11331.

INVESTIGATION

Date(s)/DN(s): 04/28/95 (DN:118)

Position Numbers: None

Launch Number: 0519

Investigation Used: Phone

Water Visibility: N/A

Position Determined By: DGPS

Investigation Summary: The Mainscheme hydrography conducted during H-10584 showed depths of 11.2m to 12.8m. The reported location of this 36 foot Shoaling report is within the "Inner Bar Channel" , having a published controlling depth of 34 feet, on the Right outer quarter. This in itself is conflicting. Contact was made with the A.C.E. project coordinator for this region with the following information provided:

- ▶ GE 503.E18.....Feb 95.....Survey
- ▶ GE 403.E2.....Nov 94.....Survey

Survey depths ranged from 36 feet to 42 feet with no depths less than 36 foot.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted shoal report be removed from the chart and that sounding data acquired from H-10584 be applied within this area. *Concur*

Recommended Position: Lat - / / N Lon - / / W

Recommended Least Depth:

\*\*\*\*\*

COMPILATION NOTES

AWOIS NO: 9043

Item Description: Obstruction PA

Source: LNM43/93--8th CGD

AWOIS Position: Lat - 29/21/30.00N Lon - 094/44/36.00W

Required Investigation: ES, BD, DI -- 250m radius

Charts Affected: 11323, 11324, 11326, 11331.

INVESTIGATION

Date(s)/DN(s): 01/19/95 (DN:019)

Position Numbers: 79

Launch Number: 0519

Investigation Used: ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted at this geographic location using ten-meter line spacing. Numerous passes were made which revealed a large scour approximately 125 meters from the center and bearing 260° from the reported position. A 50-meter radius diver circle search found debris of a wreck lying on an east to west axis. The wreck consists of steel and rigging covering an area of the bottom 10-meters long and 5-meters wide, and rising off the bottom one meter. The least depth was 1.8m (5.9ft) by Leadline which equates to 1.9m (6.2ft) with predicted tides at MLLW.

33 x 14 FT.

2.3 7.5 APPROVED

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction PA be removed from the chart and a submerged wreck be charted at the following location: CONCUR

Recommended Position: Lat - 29/21/29.29N Lon - 094/44/40.56W

Recommended Least Depth: 1.9m @ MLLW.

2.3 (7.5 FT)

Chart 7 WK

\*\*\*\*\*

COMPILATION NOTES

AWOIS NO: 9044

Item Description: Submerged Wreck

Source: TP00229/77--CM7702

AWOIS Position: Lat - 29/21/51.34N Lon - 094/44/38.70W

Required Investigation: ES, VS, BD, DI -- 50m radius

Charts Affected: 11323, 11324, 11326, 11331.

---

### INVESTIGATION

Date(s)/DN(s): 01/11/95 (DN:011)

Position Numbers: 64

Launch Number: 0519

Investigation Used: VS

Water Visibility: 1m

Position Determined By: DGPS

**Investigation Summary:** The submerged wreck was found visually at the charted geographic location. The wreck is marked by a lighted Daybeacon numbered WR2. A dive investigation was conducted which revealed wood and steel wreckage approximately four-meters long and 2- meters wide. The wreck is lying in an east to west orientation and the area is considered foul within a 6-meter radius from position number 64.

---

### CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck be removed from the chart and a wreck awash be charted at the following location: *CONCUR*

Recommended Position: Lat - 29/21/50.9N Lon - 094/44/38.2W

Recommended Least Depth: ~~awash to 0.4m~~ @ MLLW corrected by *predicted tides..*  
*- 2.0 FT* *Approved*

\*\*\*\*\*

### COMPILATION NOTES

**AWOIS NO: 9045**

**Item Description:** Wreck PA (18 ft Pleasure Craft)

**Source:** LNM29/86

**AWOIS Position:** Lat - 29/22/09.84N Lon - 094/45/00.70W

**Required Investigation:** ES, VS, SD, BD, DI -- 50m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/11/95 (DN:011)

**Position Numbers:** 61

**Launch Number:** 0519

**Investigation Used:** VS, DI

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A 50-meter radius diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found with the exception of the rock rip-rap from the jetty at the entrance to a small boat basin.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged wreck be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

**AWOIS NO: 9046**

**Item Description:** Wreck PA (40 ft F/V) and Pipe

**Source:** LNM24/86

**AWOIS Position:** Lat - 29/21/54.84<sup>0</sup>N Lon - 094/45/12.70W

**Required Investigation:** ES, VS, SD, BD, DI -- 100m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/11/95 (DN:011)

**Position Numbers:** 60

**Launch Number:** 0519

**Investigation Used:** VS, DI

**Water Visibility:** 1m

**Position Determined By:** DGPS

**Investigation Summary:** A 100-meter radius diver circle search was conducted with a bottom drag line at this geographic location. No snags or debris were found.

---

**CHARTING RECOMMENDATION**

The hydrographer recommends that the wreck and pipe be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / N Lon - / / W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**



AWOIS NO: 9047

**Item Description:** Submerged Obstruction PA (Anchor)

**Source:** LNM15/91--8th CGD

**AWOIS Position:** Lat - 29/20/58.00N Lon - 094/45/23.00W

**Required Investigation:** S2, BD, ES, SD, DI -- 200m radius

**Charts Affected:** 11323, 11324, 11326, 11331.

---

**INVESTIGATION**

**Date(s)/DN(s):** 01/25/95 (DN:025)  
02/02/95 (DN:032)

**Position Numbers:** 82-107, 178-188      **Launch Number:** 0519

**Investigation Used:** ES, S2      **Water Visibility:** 2m

**Position Determined By:** DGPS

**Investigation Summary:** A side scan sonar investigation was conducted at fifty-meter line spacing at this geographic location. There were two days involved in the search due to vessel traffic. During the investigation a small contact was encountered at the edge of the search radius. A salvage company working in close proximity had informed AHP that they were searching for a lost anchor at this location (anchorage "B") and one in anchorage "A" (AWOIS #9038). Mr. Leo Ohlemacher with South Texas Underwater Divers Inc. was notified of our results at the conclusion of our investigation. Mr. Ohlemacher was towing a magnetometer and was given our contact position to continue his search. Mr. Ohlemacher later contacted launch 0519 via radio to inform us the anchor had been located by his divers and removed. (Refer to section E of the Descriptive Report for H-10584, for a description of how the side scan sonar unit was set and operated on this investigation.)

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the submerged obstruction PA be removed from the chart. *CONCUR*

**Recommended Position:** Lat - / / . N Lon - / / . W

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES**

CONTROL STATIONS as of 4 May 1995

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	MM/DD/YY	Station Name
001	0	029:19:45.092	094:44:10.484	0	250	0.0	0.0	12/01/94	USCG BEACON, GALVESTON TX
002	0	029:19:58.727	094:46:22.784	3	243	0.0	0.0	12/01/94	CG 16, 1974 (OGPS CAL POINT)



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

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY  
OPR-K204-AHP  
AHP2-10-1294  
H-10584  
1994

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K204-AHP2, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. All boat sheets and 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.

*James E. Waddell Jr.*

for  
James E. Waddell Jr.  
LCDR, NOAA  
Chief, Atlantic Hydrographic Party





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Office of Ocean and Earth Sciences  
Silver Spring, Maryland 20910

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE:** September 20, 1995

**HYDROGRAPHIC BRANCH:** Atlantic

**HYDROGRAPHIC PROJECT:** OPR-K204-AHP

**HYDROGRAPHIC SHEET:** H-10584

**LOCALITY:** Galveston Bay, Galveston Bay Entrance

**TIME PERIOD:** December 14, 1994 - May 4, 1995

**TIDE STATION USED:** 877-1450 Galveston Pier 21, TX  
Lat. 29° 18.8'N Lon. 94° 47.6'W

**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 3.74 ft.  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 1.3 ft.

**TIDE STATION USED:** 877-1510 Galveston Pleasure Pier, TX  
Lat. 29° 17.1'N Lon. 94° 47.3'W

**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 2.71 ft.  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 1.9 ft.

**REMARKS:** RECOMMENDED ZONING

1. Inside the north and south jetties east of 94° 42.0'W and all areas outside the north and south jetties, times are direct and apply a X0.95 range ratio to heights using Galveston Pleasure Pier, TX (877-1510).
2. West of 94° 42.0'W, and east of 94° 44.0'W, apply a -36 minute time correction and a X1.28 range ratio for heights using Galveston Pier 21, TX (877-1450).
3. West of 94° 44.0'W, and east of 94° 46.0'W, apply a -18 minute time correction and a X1.14 range ratio for heights using Galveston Pier 21, TX (877-1450).



GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11324, 11326, 11328 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										
	BIG REEF	X		X							
BOLIVAR PENINSULA	X		X								2
BOLIVAR ROADS	X		X								3
GALVESTON (ppl)	X		X								4
GALVESTON BAY (title)	X		X								5
GALVESTON BAY ENTRANCE											6
CHANNEL	X		X								7
INNER BAR CHANNEL	X		X								8
MEXICO, GULF OF	X		X								9
NORTH JETTY	X		X								10
OUTER BAR CHANNEL	X		X								11
SMALL BOAT PASS	X										12
SOUTH JETTY	X		X								13
TEXAS (title)	X		X								14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Approved

*Christa C. Long*  
Chief Geographer

DEC 6 1995

02/03/97

HYDROGRAPHIC SURVEY STATISTICS  
REGISTRY NUMBER: H-10584

NUMBER OF CONTROL STATIONS		2
NUMBER OF POSITIONS		2690
NUMBER OF SOUNDINGS		17434
	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	25	10/20/95
VERIFICATION OF FIELD DATA	134	01/06/97
QUALITY CONTROL CHECKS	11	
EVALUATION AND ANALYSIS	23	
FINAL INSPECTION	18	12/18/96
COMPILATION	50	01/16/97
TOTAL TIME	261	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		12/24/96

**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR H-10584 (1994-95)**

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

**D. AUTOMATED DATA ACQUISITION AND PROCESSING**

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System  
NADCON, version 2.10  
AUTOCAD, Release 12  
QUICKSURF, version 5.1  
MicroStation 95, version 5.05  
I/RAS B, version 5.01

The smooth sheet was plotted using an ENCAD NovaJet III plotter.

**H. CONTROL STATIONS**

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values. The smooth sheet has been annotated with ticks showing the computed mean shift between the NAD 83 and the North American Datum of 1927 (NAD 27).

To place this survey on the NAD 27, move the projection lines 0.850 seconds (26.157 meters or 2.61 mm at the scale of the survey) north in latitude, and 0.697 seconds (18.809 meters or 1.88 mm at the scale of the survey) east in longitude.

**J. SHORELINE**

Shoreline on the smooth sheet originates with unreviewed, preliminary photogrammetric digital manuscript DM-#10237 (1994). A shoreline revision originating with the digital manuscript is apparent near Latitude 29°20'12"N, Longitude 94°44'00"W. Shoreline revisions originating with the present survey are shown in red on the smooth sheet. It is recommended that the preliminary photogrammetric digital manuscript DM #10237 (1994) supersede the currently charted shoreline within the common area.

**L. JUNCTIONS****H-10589 (1995-96) to the west**

Standard junction was effected between the present survey and survey H-10589 (1995). There are no junctional surveys to the east, north or south. Present survey depths are in harmony with the charted hydrography to the east, north and south.

**M. COMPARISON WITH PRIOR SURVEYS****Hydrographic**

H-8748 (1962-65) 1:10,000  
 H-8751 (1962-65) 1:20,000  
H-8752 (1962-65) 1:20,000

Prior survey depths from H-8748 (1962-65) compare favorably and show a general trend of being 2 to 4 ft (0<sup>6</sup> to 1<sup>2</sup>m) shoaler than the present survey sounding. There are some depths from the prior survey that are 8 to 15 ft (2<sup>7</sup>-4<sup>5</sup> m) shoaler than present survey soundings. The following should be noted:

1) A shoreline change is apparent near Latitude 29°20'12"N, Longitude 94°44'00"W. Due to the shoreline change the following features are considered disproved:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
visible Wk	29°20'12.0"	94°44'22.5"
platform	29°20'16.0"	94°44'07.0"
pile	29°20'16.0"	94°44'03.0"
pile	29°20'16.5"	94°43'58.0"
pile	29°20'16.5"	94°43'53.5"

It is recommended that the features not be charted.

2) A shoal to 10 ft (3m) near Latitude 29°20'16.5"N, Longitude 94°43'53.5"W was disproved by the present survey. Present survey depths range from 32 to 35 ft (9<sup>7</sup> to 10<sup>6</sup>m).



The bottom change may be due to extensive dredging or extremely strong tidal currents in the area. It is recommended that the area be charted as shown on present survey.

3) A charted subm pile near Latitude 29°21'28"N, Longitude 94°43'50"W, is shown on the prior survey as Bolivar Roads Outer Range Front Light. The subm pile was disproved by diver investigation during the present survey operation. It is recommended that the subm pile be deleted from the chart.

Prior survey depths from H-8751 (1962-65) compare favorably and show a general trend of being 1 to 3ft (0<sup>3</sup> to 0<sup>9</sup> m) shoaler than present survey soundings. There are some scattered depths from the prior survey that are 5 to 8ft (1<sup>5</sup> to 2<sup>7</sup> m) shoaler than present survey soundings.

Prior survey depths from H-8752 (1962-65) compare favorably and show a general trend of being 1 to 2 feet (0<sup>3</sup> to 0<sup>6</sup>m) shoaler than present survey soundings. There are some scattered depths from the prior survey that are 5 to 10 ft (1<sup>5</sup> to 3m) shoaler than present survey soundings.

The differences between the prior surveys and the present survey can be attributed to natural changes, dredging operations, cultural development, and improved hydrographic surveying methods and equipment.

The present survey is adequate to supersede the above prior surveys within the common area.

#### Wire Drag

FE-198WD	(1965)	1:40,000
FE-203WD	(1966)	1:40,000

There are 2 hangs that originate with FE-198WD (1965) and fall within the area common to the present survey. Automated Wreck and Obstruction Information System (AWOIS) # 9018 and 9014 were investigated by the present survey. See AWOIS reports for discussion and charting recommendation.

There are conflicts between the prior survey effective clearance depth and the present survey soundings, near Latitude 29°19'45"N, Longitude 94°39'15"W. These conflicts may be attributed to natural changes in the bottom configuration; these conflicts can be disregarded.

One hang from FE-203WD (1966) falls within the area common to the present survey. Automated Wreck and Obstruction Information System (AWOIS) # 9014 was investigated by the present survey. See AWOIS report for discussion and charting recommendation.

There are conflicts between the prior survey effective clearance depth and the present survey soundings, near Latitude 29°19'45"N, Longitude 94°39'15"W. These conflicts may be attributed to natural changes in the bottom configuration; these conflicts can be disregarded.

The present survey is adequate to supersede the prior wire drag surveys within the common area.

- O. COMPARISON WITH CHARTS 11323 (54<sup>th</sup> Edition, Aug. 6/94)  
11324 (28<sup>th</sup> Edition, Jan. 22/94)  
11326sc (26<sup>th</sup> Edition, Jan. 1/94)

### Hydrography

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section O. of the Descriptive Report. The following should be noted:

1) An uncharted obstruction (pole), in Latitude 29°22'12.08"N, Longitude 94°44'59.48"W, was located by the present survey. It is recommended that an obstruction be charted in the above discussed position.

2) An uncharted obstruction with a depth of 10 ft (3<sup>2</sup> m) in Latitude 29°21'23.89"N, Longitude 94°45'02.25"W, originating with the present survey was neither verified nor disproved. It is recommended that an obstruction (10 Obstr) be charted in the above discussed position.

3) The following uncharted dolphins were located by the present survey:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
dol	29°22'04.80"	94°44'50.52"
dol	29°22'05.48"	94°44'51.30"
dol	29°22'06.18"	94°44'52.10"

It is recommended that the dols be charted in the above discussed position.

4) An uncharted pile in Latitude 29°20'08.99"N, Longitude 94°45'07.53"W, was located by the present survey. It is recommended that a pile be charted in the above discussed position.

5) The following fixed or floating aids to navigation were verified by the field unit:

<u>Aid to Navigation</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Galveston North Jetty Light "6A"	29°20'42.22"	94°40'41.29"
Galveston South Jetty Light "5A"	29°19'39.79"	94°41'20.49"

These aids to navigation are presently charted as Position Approximately (PA). It is recommended that the notation PA be removed from the chart.

6) Charted subm piling near Latitude 29°21'45"N, Longitude 94°45'30"W, was disproved by diver investigation during the present survey operation. It is recommended that the subm piling be deleted from the chart.

7) Charted piling, pile, and pipe near Latitude 29°20'06"N, Longitude 94°45'03"W, were not investigated by the field unit. No change in charting is recommended.

8) A charted pile, and structure near Latitude 29°20'06"N, Longitude 94°45'06"W, were not investigated by the field unit. No change in charting is recommended.

9) A charted pile near Latitude 29°20'03.0"N, Longitude 94°44'37.5"W, was not investigated by the field unit. No change in charting is recommended.

10) Charted piers near Latitude 29°22'10"N, Longitude 94°44'57"W, were not investigated by the field unit. No change in charting is recommended.

11) A charted pier near Latitude 29°22'11.0"N, Longitude 94°45'01.5"W, were not investigated by the field unit. No change in charting is recommended.

The present survey is adequate to supersede the charted hydrography within the common area.

**P. ADEQUACY OF SURVEY**

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

**S. MISCELLANEOUS**

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

**WHITING Processing Team**

*Robert Snow*


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**Robert Snow**  
Cartographic Technician  
Verification of Field Data  
Evaluation and Analysis

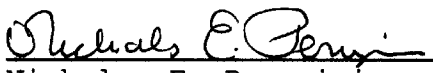
APPROVAL SHEET  
H-10584

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

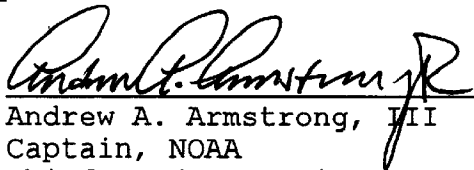
  
Date: 24 DEC 96  
Norris A. Wike  
Cartographer  
Atlantic Hydrographic Branch

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: December 24, 1996  
Nicholas E. Perugini  
Commander, NOAA  
Chief, Atlantic Hydrographic Branch

\*\*\*\*\*

Final Approval:

Approved:   
Date: Feb 25, 1987  
Andrew A. Armstrong, III  
Captain, NOAA  
Chief, Hydrographic Surveys Division

