

H10638

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-10-06-95
Registry No. H-10638

LOCALITY

State Texas.....
General Locality Galveston Bay.....
Sublocality ... Virginia Point to Texas City...
.....

19 95

CHIEF OF PARTY

LT. K. Harbison.....

LIBRARY & ARCHIVES

DATE NOV 7 1997

Substitute for NOAA Form 77-28

Hydrographic Title Sheet

Register No. : H-10638

Field No. : AHP-10-6-95

State: Texas

General locality: Galveston Bay

Locality: Virginia Point to Texas City

Scale: 1: 10,000 Date of Survey: 28 Aug,95 - 17 Oct. 95

Instruction dated: 16 September 1994

Vessel: Launch 0518

Chief of Party: Lt. Kevin Harbison, NOAA

Surveyed by: CP David Elliott, ST B. RAMSEY, ST J. GASKIN, ST P. WOLF

Soundings taken by echo sounder, leadline: in meters, INNERSPACE MODEL 448

Graphic record scaled by: ^{JG PW DE}
John Gaskin, Phil Wolf and D. Elliott

Graphic record checked by: ^{DE BR}
D. Elliott, B. Ramsey

Protracted: _____ Automated plot by: ENCAD NOVAJET III (AHB)
HDAPS/Zeta ploter

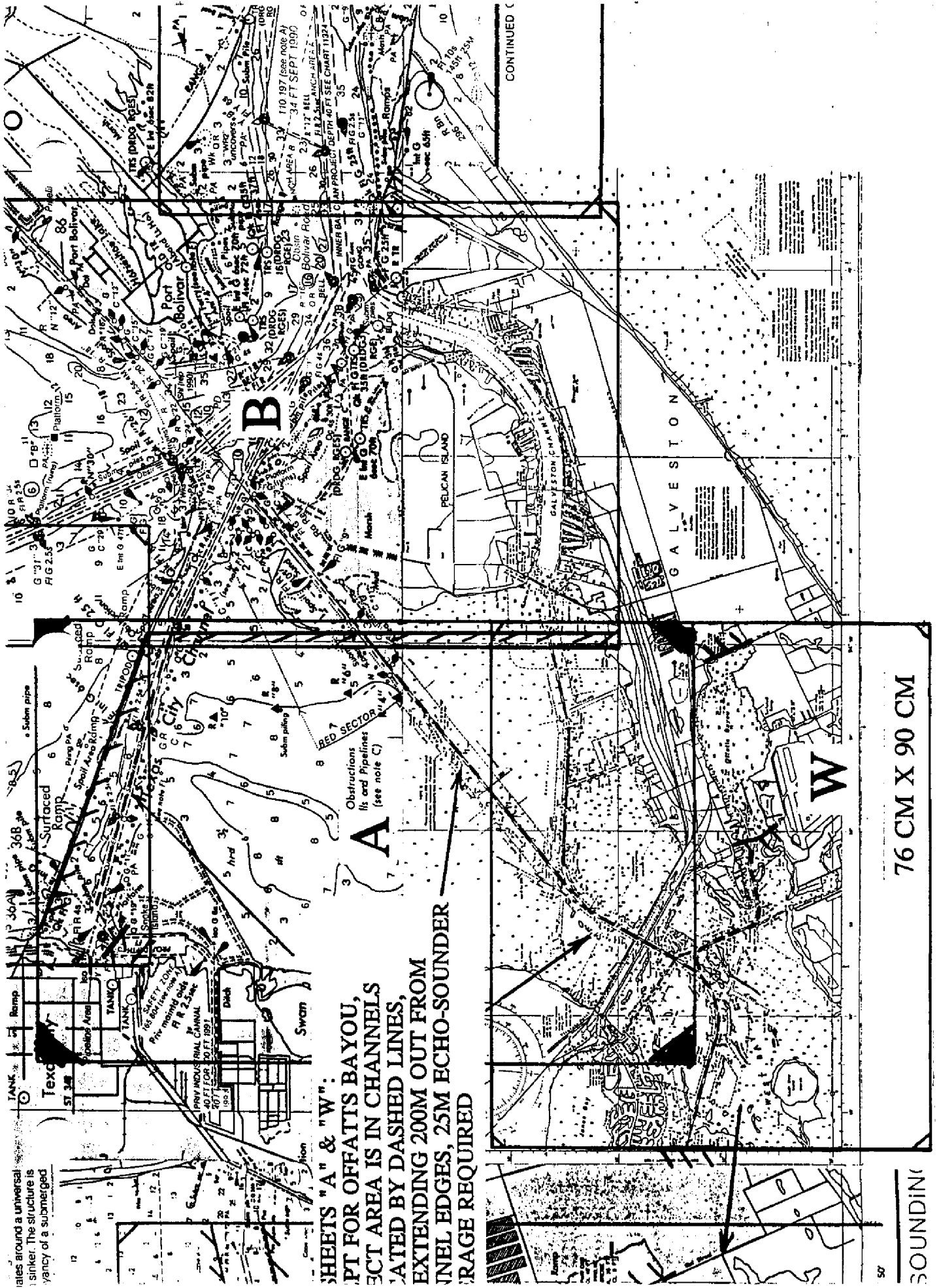
Verification by: ATLANTIC HYDROGRAPHIC BRANCH PERSONNEL

Soundings in : ^{FEET}
Meters at MLLW

Remarks: Change No. 1 dated 6 June, 1995.

NOTES IN THE DESCRIPTIVE REPORT WERE MADE IN RED
DURING OFFICE PROCESSING.

SURE & ALGOS 10/16/97 mkr



ates around a universal
sinker. The structure is
vancy of a submerged

SHEETS "A" & "W":
PT FOR OFFATTS BAYOU,
ECT AREA IS IN CHANNELS
ATED BY DASHED LINES,
EXTENDING 200M OUT FROM
INEL EDGES, 25M ECHO-SOUNDER
ORAGE REQUIRED

CONTINUED C

76 CM X 90 CM

SOUNDING

Hydrographic Sheets and Parameters

OPR-K204-AHP
AHP-10-06-95
H-10638
Sheet "A"

All plotter sheets were created by AHP personnel, on the HDAPS office computer, and Bruning plotter, at the Field site located at USCG Base Galveston, Texas.

There were two plotter sheets created to conduct this survey; plotter sheet number one covers the southern section of this survey ("A"s), and plotter sheet number two covers the northern section of this survey ("A"n).

There were eight sheets submitted with this survey. They ^{RE} were two Field Sheets (boat), two paper Track Plots, two DP Plots, and two Excessed Edited Sounding Plots. The survey data was excessed at 360° @ 1.4 mm, and was plotted at 360° @ 1.8 mm. All projections are at 1:10,000 scale.

There were two Chart Blow-up submitted with this survey covering the respective Field Sheets.

All survey data will be sent to the Atlantic Hydrographic ^{BRANCH} Section for verification.

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10638
FIELD NO. AHP-10-6-95
SCALE: 1:10,000
1995
ATLANTIC HYDROGRAPHIC PARTY
CHIEF OF PARTY: LT Kevin N. Harbison, NOAA

A. PROJECT

This survey was conducted according to Hydrographic Project Instructions OPR-K204-AHP, Galveston Bay, Texas, Dated September 16, 1994, and change No. 1, dated June 6, 1995.

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

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

B. AREA SURVEYED

The area surveyed for H-10638 covers Galveston Bay from Virginia Point to Texas City, Texas. The survey was limited to a 200-meter swath on each side of the Texas City Channel and the Intra-coastal Waterway. The approximate survey limits are as follows:

North: 29°23.5'N
South: 29°17.7'N
East: 094°50.0'W
West: 094°53.5'W

This survey was conducted from August 28, 1995 (DN 240) to October 17, 1995 (DN 290).

C. SURVEY VESSELS

NOAA launch 0518, a 21-foot MonArk, was used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

D. AUTOMATED DATA ACQUISITION AND PROCESSING - SEE ALSO THE 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 program VELOCITY (Ver. 2.10) and WordPerfect (Ver. 6.0) were also used during this survey.

E. SONAR EQUIPMENT

Non-Applicable.

F. SOUNDING EQUIPMENT

An Innerspace model 448 depth sounder, S/N 175, was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 0518, 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>Velocity</u> <u>Table No.</u>	<u>Cast</u> <u>No.</u>	<u>Deepest</u> <u>Depth(m)</u>	<u>Applicable DN</u>	<u>Cast</u> <u>Position</u>	<u>Day</u>
1	1	19.7	240-242	29°48'00"N 094°22'00"W	241
2	2	19.6	257	29°22'00"N 094°48'12"W	257
3	3	5.5	269-272	29°18'30"N 094°53'00"W	270
4	4	7.5	275-278	29°18'30"N 094°53'00"W	277
5	5	5.5	283-290	29°19'30"N 094°51'30"W	290

These casts were taken with a Seabird Seacat Velocity Profiler. The Seabird Seacat Velocity Profiler, Model 19-03, S/N 198671-

1477. This instrument was calibrated by the manufacturer on February 8, 1995 and data quality assurance tests were performed prior to each cast. Program VELOCITY was used for computing the speed of sound correctors. Speed of sound corrections were applied to the sounding plot using the HDAPS program REAPPLY. Copies of the velocity tables and support documentation are in the "Survey Separates." *

Lead line comparisons were taken daily to determine echo sounder error. No echo sounder error was observed. The lead line comparison logs are in the "Survey Separates." The lead lines were calibrated using a steel tape on December 7, 1994 for launch 0518. 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 program REAPPLY. The draft was measured by subtracting the difference from a punch mark on the side of launch 0518, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for launch 0518 were determined on December 6, 1994 (DN 340). These measurements were conducted in the Galveston Ship Channel in Galveston, TX, 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 plot using the HDAPS program REAPPLY.

Predicted tides for this project were provided on diskette by N/OES231 for the Galveston Pier 21, Texas, reference station number 877-1450. Correctors for one tidal zone on sheet "A" were used as designated by the Project Instructions. The zone was numbered and is defined by the following geographic location:

Zone # 4 = In Galveston Bay north ~~and west~~ of Zone #2 and south of Dollar Point (approx. 29°26.0'N); and in Galveston Bay west of Texas City Channel, between Snake Island and Pelican Island, east of Interstate 45 (Galveston Causeway).

	<u>Time (min.)</u>		
	<u>High Water</u>	<u>Low Water</u>	<u>Range Ratio</u>
zone # 4	+1:00	+2:00	x0.64

* DATA FILED WITH ORIGINAL FIELD RECORDS.

All elevations and soundings on survey H-10638 are at the sounding datum of MLLW unless otherwise specified.

Approved water levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated December 8, 1995. A copy is included in the Appendix of this report.

APPROVED TIDES AND ZONING WERE APPLIED DURING OFFICE PROCESSING.

H. CONTROL STATIONS - *SEE ALSO THE EVALUATION REPORT.*

The horizontal control datum for this project is the North American Datum of 1983. The control base station used for this survey was the USCG Galveston Radio Beacon, at position 029°19'45.092"N, 094°44'10.484"W. The Control Station List is included in the Appendix of this report.

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used for all positioning of hydrographic data acquired on this survey. An Ashtech Sensor (S/N 700417A1065) and antenna were used as the remote station on launch 0518.

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 observed differences fell well within the allowable limit.

** DATA FILED WITH ORIGINAL FIELD RECORDS.*

J. SHORELINE - *SEE ALSO THE EVALUATION REPORT.*

There was no final field sheet for H-10638, as this project was team processed with the Atlantic Hydrographic Branch. The shoreline source for this survey is digital shoreline manuscripts DM-10237, DM-10238 and DM-10239. Shoreline verification was accomplished during inshore hydrographic data acquisition and by

visual inspection. No shoreline changes were found on this survey. 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.

K. CROSSLINES

A total of 39.2 linear nautical miles of crosslines were run, which equals approximately 20% of the main scheme hydrography mileage. Crossline soundings agree with the main scheme soundings within 0.2 to 0.6 meters. The application of smooth tides will create a closer agreement in sounding comparison.

L. JUNCTIONS - *SEE ALSO THE EVALUATION REPORT.*

This survey junctions with H-10589, 1995 to the east, a 1:10,000 scale survey. 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 ALSO THE EVALUATION REPORT.*

See the Atlantic Hydrographic Branch's Evaluation Report for H-10638.

N. ITEM INVESTIGATION REPORTS - *SEE ALSO THE EVALUATION REPORT.*

All AWOIS reports are filed in the Descriptive Report ~~Appendices, Supplemental Correspondence section.~~ There were a total of 19 AWOIS items addressed on this survey.

O. COMPARISON WITH THE CHART

Comparison was made with the following charts:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11322SC	23rd	Aug 6/94
11324	28th	Jan 22/94
11326SC	26th	Jan 1/94

No Dangers to Navigation were identified by this survey.

A single pile was found awash during a dive on nine charted piles 200-meters northeast of the Galveston causeway. This feature was not an AWOIS. ^{ITEM} A fifty-meter diver circle search encompassed this region and position number 1285 at $29^{\circ}17'49.7^{\circ}N$, $094^{\circ}53'00.7^{\circ}W$ is the location of the only remaining pile of nine charted. A single pile should be charted and the remaining eight piles removed from the chart. *Concur ✓*

An 8-inch diameter steel pipe was found and positioned where a symbol for piles PA is charted. This feature was located by position number 1772 at $29^{\circ}18'36.1^{\circ}N$, $094^{\circ}52'00.1^{\circ}W$. The piles PA should be removed from the chart and a pipe should be charted at the position above. *Concur ✓*

Sounding data acquired on H-10638 agrees within 0.2-0.4m with charted soundings. Minor inconsistencies attributed to predicted tides usage during field plotting are evident in some areas. Areas of significant discrepancies that could not be attributed to tides or other weather phenomena were developed with reduced line-spaced hydrography.

P. ADEQUACY OF SURVEY - SEE ALSO THE EVALUATION REPORT.

This survey is a complete basic hydrographic survey of the Texas City and Intra-coastal waterway channels and is adequate to supersede all prior surveys within the common area.

Q. AIDS TO NAVIGATION - SEE ALSO THE EVALUATION REPORT.

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.

Fixed Aids:

<u>Pos. No.</u>	<u>Name and USCGLL#</u>	<u>LL Position</u>	<u>Survey Pos.</u>	<u>Distance/Bearing from Charted Pos.</u>
<i>Texas City Channel</i>				
01	Inner Range Front Lt "A" #24715	29°22.3 94°50.2	29°22'19.08"N 94°50'14.88"W	On Station
02	Inner Range Rear Lt "A" #24720	none	29°22'34.47"N 94°50'50.50"W 3	On Station
07	Fl Green # 17 single pile #24805	29°22.8 94°52.7	29°22'45.51"N 94°52'41.34"W 5	On Station
08	Cut "C" Range Front Lt. #24795	29°23.0 94°52.7	29°23'02.31"N 94°52'41.90"W 1	On Station
09	Cut "C" Range Rear Lt. #24800	none	29°23'08.08"N 94°52'34.61"W	On Station
10	Cut "B" Inner Rng Front Lt #24765	29°22.9 94°53.1	29°22'54.27"N 94°53'02.29"W .30	On Station
11	Cut "B" Inner Rng Rear Lt. #24770	none	29°22'57.98"N 94°53'18.09"W	On Station
13	Fl Green #19 single pile #24810	29°26.6 94°53.1	29°22'37.96"N 94°53'06.43"W	On Station

Galveston-Freeport Cut Off Channel and Pelican Island West Channel

1316	Red DBN "4" single pile #24875	none	29°20'03.68"N 94°50'33.44"W	On Station
1327	Fl Red Fr Rng "B" #34475	29°18.5 94°52.7	29°18'32.12"N 94°52'41.43"W 4	On Station

Floating Aids:

There are 33 floating aids to navigation within the limits of H-10638. All aids serve their intended purpose.

There are three charted cable/pipeline crossing areas verified within the survey limits. There are two overhead cable crossings at the I-45 bridge to Galveston Island. All of these crossings are properly marked with signs and are charted correctly.

All bridge clearances were evaluated for accuracy and found to be charted correctly.

R. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	1987
Total Lineal Nautical Miles of Hydrography	176.3 173.1
Total Lineal Nautical Miles of Cross Lines	39.2 42.37
Square Nautical Miles of Hydrography	5.0
Days of Production	15
Detached Positions	1021
Bottom Samples	5
Tide Stations	2
Velocity Casts	5

S. MISCELLANEOUS

Bottom samples were taken as directed in Section 6.7 of the Project Instructions. Bottom samples were initially taken in the Texas City Channel. These samples were consistently black mud, and because of this, no samples were taken in the Intra-Coastal Waterway. Bottom sample positions and descriptions can be found on the DP editor printout in the Appendix of this survey. The Oceanographic Log Sheet-M, NOAA Form 75-44, is included in the "Survey Separates."

No predicted tidal anomalies were observed during this survey.

T. RECOMMENDATIONS

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 Branch N/CS33, Norfolk, VA (8/95)
Chart Sales Agent Report	Chart Distribution Branch N/CG33, Riverdale, MD Spring 1996
User Evaluation Report	Atlantic Hydrographic Branch N/CS33, Norfolk, VA Spring 1996
Chart Inspection Report	Atlantic Hydrographic Branch N/CS33, Norfolk, VA Spring 1996
Coast Pilot Report	Atlantic Hydrographic Section N/CS33, Norfolk, VA Spring 1996

Submitted by: David B. Elliott
Atlantic Hydrographic Party
Hydrographer in charge - Launch 0518.

AWOIS NO: 9124

Item Description: Obstruction (PILE)

Source: CL1240/80--USPS,

AWOIS Position: Lat - 29/22/55.50N Lon - 094/51/04.50W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 25

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 50-meter radius diver circle search was conducted at the geographic location of this item. There were no snags encountered.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the pile be deleted from the chart.

Recommended Position:

CONCUR

Recommended Least Depth: N/A

COMPILATION NOTES

AWOIS NO: 9125

Item Description: Obstruction (two visible piles)

Source: CL1240/80--USPS

AWOIS Position: Lat - 29/23/00.09N Lon - 094/51/08³.00W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 26

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 100-meter radius diver circle search was conducted at the geographic location of this item to encompass the reported location of these features. There were no snags or contacts encountered.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the visible piles be removed from the chart.

CONCUR

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9459

Item Description: TX 2846 XP, (17 ft P/C)

Source: LNM19/84--8th CGD

AWOIS Position: Lat - 29/17/48.85N Lon - 094/53/12.71W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1271

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A fifty-meter radius diver circle search was conducted at the geographic location of this item. There were no snags or contacts encountered.

CHARTING RECOMMENDATION

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

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9460

Item Description: Obstruction (Tower)

Source: H-8750/63-66

AWOIS Position: Lat - 29/17/49.05N Lon - 094/53/08.21W

Required Investigation: VS, ES, SD, BD, DI -- 30m radius

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1272

Launch Number: 0518

Investigation Used: VS, ES

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A tower was visually verified at this location fitting the description of the AWOIS report. The tower is for an overhead power cable that runs parallel to the Galveston causeway bridge. A ten-meter line spacing echo sounder search was conducted to search for any submerged obstructions in this area. None were found.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the charted obstruction be removed from the chart and a tower be charted at the following location:

Recommended Position: Lat - 29/17/^{48.9}~~89.5~~N Lon - 094/53/07.7W

Recommended Least Depth: N/A

CONCUR

COMPILATION NOTES

AWOIS NO: 9461

Item Description: Obstruction (Dredging Piles)

Source: BP72922/67--COE

AWOIS Position: Lat - 29/17/58.50N Lon - 094/⁵22/55.00W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 10/02/95 (DN:275), 10/3/95 (DN:276)

Position Numbers: 1286-1295, 1296-1302

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: There were 17 dives conducted at the scaled geographic locations of the dredging piles. All of the dives were 50-meter radius circle searches on soft muddy bottoms with times ranging from 10 to 15 minutes each. Of the 17 investigations only one contact related to the piles was found. The only pile found was at position number 1289 and was an 8-inch diameter pile, broken off and submerged. The pile projected off the bottom 0.5m (1.6ft) and had a least depth of 2.5m (8.2ft) by lead line which reduced to ^{1.6}2.3m (^{5.3}7.5ft) with ^{APPROVED} predicted tides. The pile is not a danger and is deteriorating rapidly. This feature should be charted as submerged.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted piles be removed from the chart and a submerged pile be charted at the following location: *CONCUR CHART AN OBSTRUCTION*

Recommended Position: Lat - 29/18/19.9N Lon - 094/52/37.7W

Recommended Least Depth: ^{1.6}2.3m @ MLLW with ^{APPROVED} predicted tides.

COMPILATION NOTES

AWOIS NO: 9462

Item Description: Obstruction (Platform)

Source: BP72922--COE

AWOIS Position: Lat - 29/18/25.00N Lon - 094/52/14.50W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 10/04/95 (DN:277)

Position Numbers: 1306

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius diver circle search was conducted at the geographic location of this item. The bottom was soft and muddy with a lot of debris on the bottom, but no contacts that could have been a platform were found. The dive lasted 20 minutes and the result of the search was negative.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction (platform) be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth: N/A

COMPILATION NOTES

AWOIS NO: 9463

Item Description: Obstruction, (Deadhead-heavy timber)

Source: CL1363/81--USPS

AWOIS Position: Lat - 29/18/11.70N Lon - 094/51/26.00W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 10/04/95 (DN:277)

Position Numbers: 1305

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius diver circle search was conducted at the geographic location of this item. The bottom was soft and muddy. The dive lasted 22 minutes and the result of this search was negative.

CHARTING RECOMMENDATION ✓

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

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9464

Item Description: Obstruction (Platform ruins)

Source: BP72922--COE, CL531/84--USPS

AWOIS Position: Lat - 29/18/21.50N Lon - 094/50/54.00W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 10/04/95 (DN:277)

Position Numbers: 1304

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A 50-meter radius diver circle search was conducted at the geographic location of this item. The bottom was soft and muddy with a lot of debris on bottom, but no contacts that could have been a platform were found. The dive lasted 15 minutes and the result of this search was negative.

CHARTING RECOMMENDATION

The hydrographer recommends that the platform ruins be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth: N/A

COMPILATION NOTES

AWOIS NO: 9465

Item Description: Obstruction (Platform)

Source: BP72922--COE, H-8750/63-66

AWOIS Position: Lat - 29/18/41.85N Lon - 094/52/27.91W

Required Investigation: VS, ES, SD, BD, DI -- 30m radius

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1273

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A 30-meter radius diver circle search was conducted at the geographic location of this item. There were no snags or contacts encountered.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the platform be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9466

Item Description: Obstruction (Submerged piles)

Source: BP72922--COE, CL531/84

AWOIS Position: Lat - 29/18/48.00N Lon - 094/52/19.50W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271), 09/29/95 (DN:272)

Position Numbers: 1277-1280, 1281-1284

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: There were 8 dives conducted at the scaled geographic locations of all piles related to this item. All of the dives were 50-meter radius circle searches on soft muddy bottoms with times ranging from 10 to 15 minutes each. No contacts were encountered on any of the dives.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that all of the piles be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9467

Item Description: Obstruction (platform ruins)

Source: BP72922--COE, CL531/84--USPS

AWOIS Position: Lat - 29/19/31.50N Lon - 094/51/16.50W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1274

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: A fifty-meter radius diver circle search was conducted at the geographic location of this item. There were no snags or contacts encountered.

CHARTING RECOMMENDATION

The hydrographer recommends that the platform ruins be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9468

Item Description: Shoaling

Source: LNM19/82--8th CGD

AWOIS Position: Lat - 29/19/37.84N Lon - 094/50/57.71W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/27/95 (DN:270)

Position Numbers: 1094-1137

Launch Number: 0518

Investigation Used: VS, ES

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: The shoaling report between buoys 18 and 20 in the Galveston Freeport Cutoff channel was investigated during main scheme hydrography. The line spacing was reduced to 25 meters for the entire channel. According to the AWOIS report, the geographic location was adjusted to the center of the channel. This was noted because the cartographers position was outside of the channel. The 8th CGD had no record of this report and could not confirm the actual position of the alleged shoaling. There was no evidence of shoaling in this vicinity of the ICW.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the shoal report 1982 be removed from the chart.

Remove charted note "Shl rep 1982"

Concur

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9469

Item Description: Unknown (Subm. wreck PA)

Source: CL1401/82--USPS, CL531/84--USPS

AWOIS Position: Lat - 29/19/45.54N Lon - 094/50/48.71W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1275

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius diver circle search was conducted at the geographic location of this item. There were no snags or contacts encountered.

CHARTING RECOMMENDATION

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

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9470

Item Description: Obstruction (Platform ruins)

Source: BP72922--COE, H-8750/63-66, CL859/82--USPS

AWOIS Position: Lat - 29/19/55.70N Lon - 094/50/43.20W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 09/28/95 (DN:271)

Position Numbers: 1276

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 75- meter radius diver circle search was conducted at the geographic location of this item. There were no snags or contacts encountered.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the platform ruins be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9471

Item Description: Obstruction

Source: H8750/63-67, unidentified objects found on survey.

AWOIS Position: Lat - 29/22/14.34N Lon - 094/50/05.71W

Required Investigation: VS, ES, SD, BD, DI -- 30m radius

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 19-20

Launch Number: 0518

Investigation Used: ES

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: Echo sounder passes were made at the targeted location. A twelve-meter diameter obstruction was found at the charted location where two detached positions were taken. The feature fit the description of the AWOIS report and no further investigation was conducted. The least depth by lead line was 4.5 meters (14.7ft), which equates to 4.3m (14.1ft) corrected with ^{APPROVED} predicted tides. The alleged six foot at MLW obstruction could not be found.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the charted submerged obstruction be retained at the following location: Delete obstn symbol and note "subm Obstns"
Chart 13 Obstn at Lat. 29°22'14.95"N, Long 94°50'05.85"W

Recommended Position: Lat - 29/22/14.9N Lon - 094/50/05.8W
29/22/14.5N 094/50/05.6W

DO NOT CONCUR

Recommended Least Depth: 4.3m @ MLLW with ^{APPROVED} predicted tides.

COMPILATION NOTES

AWOIS NO: 9472

Item Description: Obstruction

Source: BP72922/67--COE, CL1731/78--USPS PLATFORM RUINS

AWOIS Position: Lat - 29/22/23.50N Lon - 094/51/23.50W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 21

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: While visually inspecting this geographic location, milk jug floats were found approximately 8 meters from the charted location. A submerged platform in ruins was positioned at this location. The least depth by pole was one meter (3.2ft) which equates to 0.9m (2.9ft) corrected with ^{APPROVED} predicted tides.
1.9

CHARTING RECOMMENDATION

The hydrographer recommends that the charted platform's position be revised to the following location:

*CONCUR DELETE CHARTED PLATFORM RUINS AND CHART
2 FT OBSTN AT LAT 29° 22' 23.37" N, LONG 94° 51' 23.82" W*

Recommended Position: Lat - 29/22/23.37N Lon - 094/51/23.82W

Recommended Least Depth: 0.⁶9m @ MLLW with ^{APPROVED} predicted tides.

COMPILATION NOTES

AWOIS NO: 9473

Item Description: Outbound (17 ft P/C)

Source: LNM16/92--8th CGD, LNM19/92--Search for P/C failed.

AWOIS Position: Lat - 29/22/37.00N Lon - 094/51/36.70W

Required Investigation: VS, ES, SD, BD, DI -- 150~~0~~m radius

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 2²~~3~~

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 100-meter radius diver circle search was conducted at this geographic location. The search was outside of the maintained channel limits which provided the full coverage requested. According to the AWOIS report, this item was searched for on 5/5/92 and not found. During this investigation no snags were encountered and the result of this search was also negative.

CHARTING RECOMMENDATION ✓

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

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9474

Item Description: Obstruction

Source: H8746/62-65, H-5462/1932-33

AWOIS Position: Lat - 29/22/52.34N Lon - 094/52/56.91W

Required Investigation: VS, ES, SD, BD, DI -- 30m radius

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 23

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 30-meter radius diver circle search was conducted at this geographic location. The bottom was very irregular with limited visibility. There were no snags and the result of this search was negative.

CHARTING RECOMMENDATION ✓

The hydrographer recommends that the ~~obstruction~~ ^{or} (submerged pile) be removed from the chart.

Recommended Position:

CONCUR

Recommended Least Depth:

COMPILATION NOTES

AWOIS NO: 9475

Item Description: Unknown

Source: LNM4/62--BARGE 120ft by 42 ft

AWOIS Position: Lat - 29/22/42.84N Lon - 094/53/18.71W

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

Charts Affected: 11324, 11325, 11326

INVESTIGATION

Date(s)/DN(s): 08/28/95 (DN:240)

Position Numbers: 24

Launch Number: 0518

Investigation Used: VS, ES, DI

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A buoy was deployed at the charted location of this wreck. Although visibility was limited, divers were able to identify a submerged barge that fit the AWOIS description. The barge was approximately 40 meters long and 13 meters wide. The least depth was 3.5 meters (11.5FT) which equates to 3.4m (11.1ft) corrected with ^{APPROVED} predicted tides.

CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck be retained at the following location:

DO NOT CONCUR DELETE SUBMERGED WRECK SYMBOL AND NOTE "4 FT LEP PA" AND CHART 10 WK W/DANGER CURVE AT LAT 29° 22' 43.4" N LONG. 94° 53' 18.7" W

Recommended Position: Lat - 29/22/43.4N Lon - 094/53/18.6W

Recommended Least Depth: 3.4m @ MLLW corrected with ^{APPROVED} predicted tides.

COMPILATION NOTES

CONTROL STATIONS as of 14 Dec 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	01/01/95	REFSTA ANTENNA USCG BEACON, GALVESTON TX
002	0	029:19:58.727	094:46:22.784	0	243	0.0	0.0	01/01/95	CG 16,1974 (calibration Pt.)

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY

OPR-K204-AHP

AHP-10-6-95

H-10638

1995

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K204-AHP, the Hydrographic Manual, the Hydrographic Survey Guidelines, and the Field Procedures Manual. All reports were reviewed and approved by LT Kevin N. Harbison, NOAA, Chief of Party. All supporting data and records were approved through Team Processing with the Atlantic Hydrographic Branch in Norfolk, Virginia.

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



Kevin N. Harbison, NOAA

Lieutenant, NOAA

Chief, Atlantic Hydrographic Party



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: August 14, 1996

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-K204-AHP

HYDROGRAPHIC SHEET: H-10638

LOCALITY: Galveston Bay, Virginia Point to Texas City, Texas

TIME PERIOD: September 26 - October 17, 1995

TIDE STATION USED: 877-1328 Port Bolivar, Tx.
Lat. 29° 21.9'N Lon. 94° 46.8'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.37 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.4 ft.

TIDE STATION USED: 877-1450 Galveston Pier 21, Tx.
Lat. 29° 18.6'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: 877-1481 Tiki Island, Tx.
Lat. 29° 18.0'N Lon. 94° 54.3'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 1.71 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.1 ft.



page 2 of 6 for H-10638

TIDE STATION USED: 877-1516 Offatts Bayou, Tx.
Lat. 29° 17.1'N Lon. 94° 51.4'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.10 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.1 ft.

REMARKS: RECOMMENDED ZONING

Galveston Bay Zone GB9 - bounded by the MapInfo polygon points:

-94.825688 29.298403
-94.844462 29.295242
-94.851858 29.314145
-94.837558 29.331329
-94.820793 29.334336
-94.820301 29.315622
-94.826444 29.303934
-94.825688 29.298403

Apply a +18 minute high water, a +18 minute low water,
(average +18 minute time correction), and a X0.95 range ratio to
heights using Galveston Pier 21, Tx. (877-1450).

Galveston Bay Zone GB10 - bounded by the MapInfo polygon points:

-94.860241 29.291376
-94.874541 29.327033
-94.876514 29.348942
-94.868131 29.370852
-94.859824 29.382127
-94.841959 29.376332
-94.821278 29.368403
-94.824738 29.352379
-94.817341 29.343787
-94.820793 29.334336
-94.837558 29.331329
-94.851858 29.314145
-94.844462 29.295242
-94.860241 29.291376

Apply a +36 minute high water, a +36 minute low water,
(average +36 minute time correction), and a X0.90 range ratio to
heights using Galveston Pier 21, Tx. (877-1450).

Galveston Bay Zone GB11 - bounded by the MapInfo polygon points:

-94.860241 29.291376
-94.877993 29.280636
-94.901662 29.305123
-94.923607 29.361286
-94.887112 29.387509
-94.887295 29.391006
-94.879185 29.388585
-94.859824 29.382127
-94.868131 29.370852
-94.876514 29.348942
-94.874541 29.327033
-94.860241 29.291376

Apply a +54 minute high water, a +54 minute low water,
(average +54 minute time correction), and a X0.85 range ratio to
heights using Galveston Pier 21, Tx. (877-1450).

Galveston Bay Zone GB12 - bounded by the MapInfo polygon points:

-94.901662 29.305123
-94.913653 29.292746
-94.889378 29.269298
-94.881938 29.270325
-94.877993 29.280636
-94.901662 29.305123

Times and heights are direct using Tiki Island, Tx. (877-1481).

Galveston Bay Zone GB13 - bounded by the MapInfo polygon points:

-94.877993 29.280636
-94.860241 29.291376
-94.82671 29.288798
-94.828189 29.277199
-94.881938 29.270325
-94.877993 29.280636

Times and heights are direct using Offatts Bayou, Tx. (877-1516).

Galveston Bay Zone GB14 - bounded by the MapInfo polygon points:

-94.898293 29.260366
-94.94227 29.288276
-94.913653 29.292746
-94.889378 29.269298
-94.898293 29.260366

High water times are direct, apply a +12 minute correction to low
waters, (average +6 minute time correction), and a X0.96 range
ratio to heights using Tiki Island, Tx. (877-1481).

page 4 of 6 for H-10638

Galveston Bay Zone GB15 - bounded by the MapInfo polygon points:

-94.969606 29.283806
-94.941932 29.313899
-94.936256 29.314827
-94.907162 29.310805
-94.901662 29.305123
-94.913653 29.292746
-94.942227 29.288276
-94.960637 29.285296
-94.969606 29.283806

High water times are direct, apply a +30 minute correction to low waters, (**average +12 minute time correction**), and a X0.96 range ratio to heights using Tiki Island, Tx. (877-1481).

Galveston Bay Zone GB31 - bounded by the MapInfo polygon points:

-94.821278 29.368403
-94.841959 29.376332
-94.832626 29.38842
-94.817348 29.398358
-94.801511 29.404677
-94.786576 29.404677
-94.787821 29.387336
-94.802756 29.384807
-94.814372 29.377943
-94.821278 29.368403

Apply a +18 minute high water, a +48 minute low water, (**average +36 minute time correction**), and a X0.96 range ratio to heights using Port Bolivar, Tx. (877-1328).
When data are not available for Port Bolivar, apply a +30 minute high water, a +48 minute low water, (**average +36 minute time correction**), and a X0.96 range ratio to heights using Galveston Pier 21, TX. (877-1450).

Galveston Bay Zone GB33 - bounded by the MapInfo polygon points:

-94.841959 29.376332
-94.859824 29.382127
-94.84994 29.397048
-94.827727 29.414026
-94.804 29.422379
-94.784917 29.42274
-94.786576 29.404677
-94.801511 29.404677
-94.817348 29.398358
-94.832626 29.38842
-94.841959 29.376332

Apply a +30 minute high water, a +66 minute low water, (average +48 minute time correction), and a X0.94 range ratio to heights using Port Bolivar, Tx. (877-1328).
When data are not available for Port Bolivar, apply a +42 minute high water, a +66 minute low water, (average +54 minute time correction), and a X0.94 range ratio to heights using Galveston Pier 21, TX. (877-1450).

Galveston Bay Zone GB35 - bounded by the MapInfo polygon points:

-94.859824 29.382127
-94.879185 29.388585
-94.865122 29.410208
-94.848391 29.425269
-94.824744 29.435746
-94.80556 29.441201
-94.784087 29.441526
-94.784917 29.42274
-94.804 29.422379
-94.827727 29.414026
-94.84994 29.397048
-94.859824 29.382127

Apply a +36 minute high water, a +84 minute low water, (average +60 minute time correction), and a X0.92 range ratio to heights using Port Bolivar, Tx. (877-1328).
When data are not available for Port Bolivar, apply a +48 minute high water, a +84 minute low water, (average +66 minute time correction), and a X0.92 range ratio to heights using Galveston Pier 21, TX. (877-1450).

Note: Relative sea level trends show that the Galveston Bay, Texas area is undergoing substantial land subsidence. The relative sea level trend observed at the site for the control station for datum computation, Galveston, Pier 21, for the time period 1950 through 1993 is +0.025 ft./yr. with a standard error of 0.002 ft./yr. As a result of high rate of sea level change, the 1960 to 1978 Tidal Epoch value of Mean Lower Low Water (MLLW) used as chart datum and reference datum for NOS tidal predictions does not reflect present conditions. The data are now under review to determine an updated value of MLLW. Even though the 1960-78 Epoch value of MLLW is not the most current, the change is in the direction that is safe for navigational purposes.

- Notes:**
1. Times are tabulated in Greenwich Mean Time.
 2. The data for Port Bolivar (877-1328) and Galveston Pier 21 (877-1450) are stored in Next Generation Water Level Measurement System temporary files preceded by 677 instead of 877.

Note: Tidal phase progressions are inconsistent in this tidal regime. The best available time corrections are provided for both high and low water times. An average of the high and low water time corrections are provided for each zone for survey applications.


CHIEF, DATUMS SECTION

GEOGRAPHIC NAMES

H-10638

Name on Survey	A ON CHART NO. 11324, 11326 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									
	A	B	C	D	E	F	G	H	K	
CAMPBELL BAYOU	X		X							1
GALVESTON	X		X							2
GALVESTON BAY	X		X							3
PELICAN ISLAND	X		X							4
SHOAL POINT	X		X							5
SNAKE ISLAND	X		X							6
SWAN LAKE	X		X							7
TEXAS (title)	X		X							8
TEXAS CITY	X		X							9
TEXAS CITY DIKE	X		X							10
VIRGINIA POINT	X		X							11
WEST BAY	X		X							12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

Approved:

Charles C. Long

Chief Geographer

OCT 15 1996

09/29/97

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10638

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	1987
NUMBER OF SOUNDINGS	9324

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	8	05/07/96
VERIFICATION OF FIELD DATA	299	11/01/96
QUALITY CONTROL CHECKS	0	
EVALUATION AND ANALYSIS	254.50	
FINAL INSPECTION	29	03/10/97
COMPILATION	140	09/26/97
TOTAL TIME	731	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		03/07/97

N/CS33-56-97

LETTER TRANSMITTING DATA

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY
(Check):

ORDINARY MAIL AIR MAIL

REGISTERED MAIL EXPRESS

GBL (Give number) _____

TO:

Chief, Data Control Group, N/CS3x1
NOAA/National Ocean Service
Station 6815, SSMC3
1315 East-West Highway
Silver Spring, Maryland 20910-3282

DATE FORWARDED

30 SEPT. 1997

NUMBER OF PACKAGES

ONE TUBE

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H-10638

TEXAS, GALVESTON BAY, VIRGINIA POINT TO TEXAS CITY

- 1 (ONE) Tube containing the following:
 - 1 SMOOTH SHEET (H-10638)
 - 2 Composite Drawing for chart #11324
 - 1 H-Drawing for chart #11324
 - 1 Descriptive Report for H-10638
 - 2 Drawing History Form #76-71 for chart #11324

FROM: (Signature)

Robert R. Hill Jr.

RECEIVED THE ABOVE

(Name, Division, Date)

Return receipted copy to:

Atlantic Hydrographic Branch
N/CS33
439 West York Street
Norfolk, VA 23510-1114

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H-10638 (1995)**

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
AutoCAD, Release 12
NADCON, version 2.10
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). The smooth sheet has been annotated with ticks showing the computed mean shift between the North American Datum of 1983 (NAD 83) and the North American Datum of 1927 (NAD 27).

To place the survey on the NAD 27, move the projection lines 0.847 seconds (26.089 meters or 2.61 mm at the scale of the survey) north in latitude and 0.714 seconds (19.265 meters or 1.93 mm at the scale of the survey) west in longitude.

J. SHORELINE

The shoreline originates with unreviewed photogrammetric manuscripts DM-10236, DM-10237, and DM-10239 of 1994. Digital data files were provided and were inserted into the survey drawing file. There are several unverified features from these manuscripts that fall outside the limits of the present survey which are not shown on the smooth sheet.

L. JUNCTIONS

H-10589 (1995-96)	1:10,000 to the east
<u>H-10660 (1995)</u>	<u>1:10,000 to the south</u>

A standard junction was effected between the present survey and the junctional surveys.

There are no junctional surveys to the north and west of the present survey. Present survey depths are in harmony with charted depths.

M. COMPARISON WITH PRIOR SURVEYSHydrographic

H-8746	(1962-65)	1:5,000
H-8747	(1963-65)	1:10,000
<u>H-8750</u>	<u>(1963-65)</u>	<u>1:10,000</u>

The prior surveys cover the present survey in its entirety.

1. H-8746 (1962-65) is common to the northwest corner of the present survey in the vicinity of Texas City Channel. Prior survey depths are in good general agreement with the present survey depths. In areas shoaler than 6 feet on the prior survey, present survey depths are 1 to 3 feet (0³ to 0⁹ m) deeper. In areas common to the dredged channel, prior survey depths are generally 12 feet (3⁶ m) shoaler. Also, along the north shore of Snake Island, significant high water line changes are apparent. These differences may be attributed in part to improved hydrographic surveying methods and in part to natural changes in the bottom configuration, dredging in or near some areas and to the withdrawal of oil and gas in the area. Attention is directed to the following:

a. The following charted features originated with the prior survey and are not considered disproved by the present survey:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
pipe	29°22'40.7"	94°53'02.3"
pile	29°22'41.0"	94°53'01.8"
pile	29°22'43.7"	94°52'57.6"

These features have been brought forward from the prior survey to supplement the present survey. It is recommended that these features should be revised on the chart to submerged.

b. The following charted features are shown on the prior survey, but are described as originating with H-5462 (1933-34). These features are not considered disproved by the present survey.

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
subm pier ruins	29°22'46.3"	94°52'55.3"
subm pier ruins	29°22'46.4"	94°52'46.7"

These features have been brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted.

c. A charted pile, in Latitude 29°22'43.2"N, Longitude 94°52'52.1"W, originates with H-8746 (1962-65). This feature was not addressed by the present survey. The digital shoreline data applied to the smooth sheet in the above noted area, shows northerly accretion of the high water line (HWL). The present survey show the high water line approximately 10 meters northeast of the charted pile, which would place it inside the HWL. It is recommended the pile be removed from the chart.

2. H-8747 (1963-65) covers an area common to the present survey east of Longitude 94°52'48.1"W and mainly in the vicinity of Texas City Channel. Prior survey depths are generally 6 feet (1⁸ m) shoaler in the dredged channel. These differences may be attributed to dredging and the withdrawal of oil and gas in the area. Attention is directed to the following:

The following charted features originate with the prior survey and are not considered disproved:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
pile	29°22'38.6"	94°52'29.15"
pile	29°22'36.3"	94°52'18.1"
pile	29°22'33.4"	94°52'07.2"
pile	29°22'30.8"	94°51'56.1"
pile	29°22'28.8"	94°51'45.3"
pile	29°22'26.1"	94°51'34.5"
pile	29°22'21.1"	94°51'12.9"

pile	29°22'17.8"	94°51'01.9"
pile	29°22'15.6"	94°50'50.9"
pile	29°22'13.1"	94°50'40.1"
pile	29°22'10.4"	94°50'29.2"
pile	29°22'08.0"	94°50'17.9"
pile	29°22'05.1"	94°50'07.5"

These features have been brought forward from the prior survey to supplement the present survey. It is recommended that these features be revised on the chart to submerged piles.

3. H-8750 (1963-65) covers the southern half of the present survey. This prior survey is in general agreement with the present survey, with the prior and present survey depths varying plus or minus (\pm) 1 to 2 feet (0³ to 0⁶ m). These differences may be attributed in part to improved hydrographic surveying methods and in part to natural changes in the bottom configuration, to the withdrawal of oil and gas in the area. Attention is directed to the following:

a. The following charted features originate with the prior survey and are not considered disproved:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
subm pile	29°17'56.1"	94°53'09.7"
subm pile	29°17'57.0"	94°53'09.2"
subm pile	29°17'57.5"	94°53'09.0"
subm pile	29°17'58.5"	94°53'08.2"
subm pile	29°18'36.9"	94°52'18.7"

These features have been brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted.

b. A charted sign, in Latitude 29°17'56.1"N, Longitude 94°53'12.2"W, originates with H-8750 (1963-65) and is not considered disproved. This feature is shown as a visible sign on the prior survey. It is recommended that this feature be retained at its presently charted location and revised to a submerged obstruction.

c. The following charted features originate with the prior survey. These features are considered disproved:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
----------------	---------------------	----------------------

pipe	29°18'36.2"	94°50'41.1"
subm pile	29°18'53.8"	94°52'10.6"
pile	29°18'53.7"	94°52'10.6"
pile	29°18'59.6"	94°52'02.1"
pile	29°19'06.4"	94°51'53.5"
pile	29°19'24.6"	94°51'27.2"
pile	29°19'43.1"	94°51'01.1"
pile	29°20'08.2"	94°50'25.7"

It is recommended that these features be removed from the chart.

The present survey is considered adequate to supersede the prior surveys within the common area, except as noted in this report.

O. COMPARISON WITH CHARTS 11322SC (23rd Edition, Aug. 6/94)
11324 (28th Edition, Jan. 22/94)
11326SC (26th Edition, Jan. 1/94)

1. Hydrography

The charted hydrography within the common area originates with the previously discussed prior surveys and from sources not readily available. Attention is directed to the following:

a. A charted submerged pile, in Latitude 29°18'35.4"N, Longitude 94°52'37.1"W, originates with an unknown source. This feature was investigated by the present survey and was disproved. It is recommended that the charted submerged pile be removed from the chart.

b. The following charted features originate with an unknown sources and are not considered disproved:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
pile	29°22'06"	94°50'23"
pile	29°22'07"	94°50'25"
pile	29°22'13"	94°50'44"
pile	29°22'17"	94°50'48"
pile	29°22'14"	94°50'56"
pile	29°22'24"	94°51'16"
pile	29°22'24"	94°51'27"
pile	29°22'26"	94°51'27.5"
pile	29°22'32.5"	94°51'53"

pile	29°22'37"	94°52'07"
pile	29°22'36"	94°52'10"
pile	29°22'33.5"	94°52'09.5"
pile	29°22'38"	94°52'22"
pile	29°22'44"	94°52'39"
platform	29°22'41"	94°52'18"
3 piles	29°22'56"	94°53'06"
sign	29°18'01.64"	94°53'08.2"
pile	29°18'30.85"	94°50'02.7"

It is recommended that these features be revised to submerged.

c. The charted note, 12 ft rep 1978, in the vicinity of Latitude 29°18'20"N, Longitude 94°50'37"W, originates with an unknown source and is shown on NOS chart 11324. It is recommended that the charted note 12 ft rep 1978 be removed from the chart and the present survey depths be charted.

d. Automated Wreck and Obstruction Information System (AWOIS) Item #9077, a charted dangerous sunken wreck, PA, with danger curve, in Latitude 29°18'30.85"N, Longitude 94°50'06.7"W, originates with Local Notice to Mariners 29/1987 (LNM29/87). This AWOIS item was investigated by the field unit and is discussed in the Descriptive report for H-10589 (1995) and is considered disproved. It is recommended that the dangerous sunken wreck, PA, with a danger curve be removed from the chart.

e. Charted ruins, in Latitude 29°22'41"N, Longitude 94°53'03"W, originate with an unknown source. These ruins were not addressed by the present survey; however, the present survey shows no indication of ruins at this location. It is recommended that this feature be removed from the chart.

2. Controlling Depths

Conflicts exists with the charted controlling depths in the vicinity of Texas City Channel along the south outside quarter of the channel. Present survey depths range from 38 to 40 feet (11⁶ - 12² m) with a controlling depth of 41 feet (12⁵ m). A telephone conversation with Mr. Richard Whitmire, area engineer for the Port Point office, U. S. Army Corps of Engineers, confirmed that dredging operations were conducted in this portion of Texas City Channel in 1996. After dredging

drawings should be consulted for any changes to the charted controlling depths for this channel.

The present survey is adequate to supersede the charted hydrography in the common area, except where noted in this report.

P. ADEQUACY OF SURVEY

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

S. MISCELLANEOUS

Chart compilation using the present survey data was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compiled data will be forwarded to Hydrographic Survey Division, Silver Springs, Maryland upon completion of the project.

RUDE Processing Team

Richard W. Blevins
Richard W. Blevins
Cartographer
Verification of Field Data
Evaluation and Analysis

**APPROVAL SHEET
H-10638**

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 disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing and 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.

Robert R. Hill Date: 3/4/97
Robert R. Hill Jr.
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.

Nicholas E. Perugini Date: 3/6/97
Nicholas E. Perugini,
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Final Approval:

Approved: Andrew A. Armstrong III Dated: Nov 7, 1997
Andrew A. Armstrong, III
Captain, NOAA
Chief, Hydrographic Surveys Division

MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10638

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
11324	3/17/97	Robert Hill	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
			Drawing No.
			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
			Drawing No.
			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
			Drawing No.
			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
			Drawing No.
			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
			Drawing No.

