H10664

NOAA FORM 76-35/

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

DESCRIPTIVE REPORT

| Type of Survey Hydrographic |
|-------------------------------------|
| Field NoAHP-10-2-96 |
| Registry NoH-10664 |
| |
| LOCALITY |
| State Texas |
| General Locality Galveston Bay |
| Sublocality Dollar Point to |
| Dickinson Bayou |
| 19 96 |
| CHIEF OF PARTY LT K. N. Harbison |
| LIBRARY & ARCHIVES |
| DATE JAN 2.2 1998 |
| DATE |

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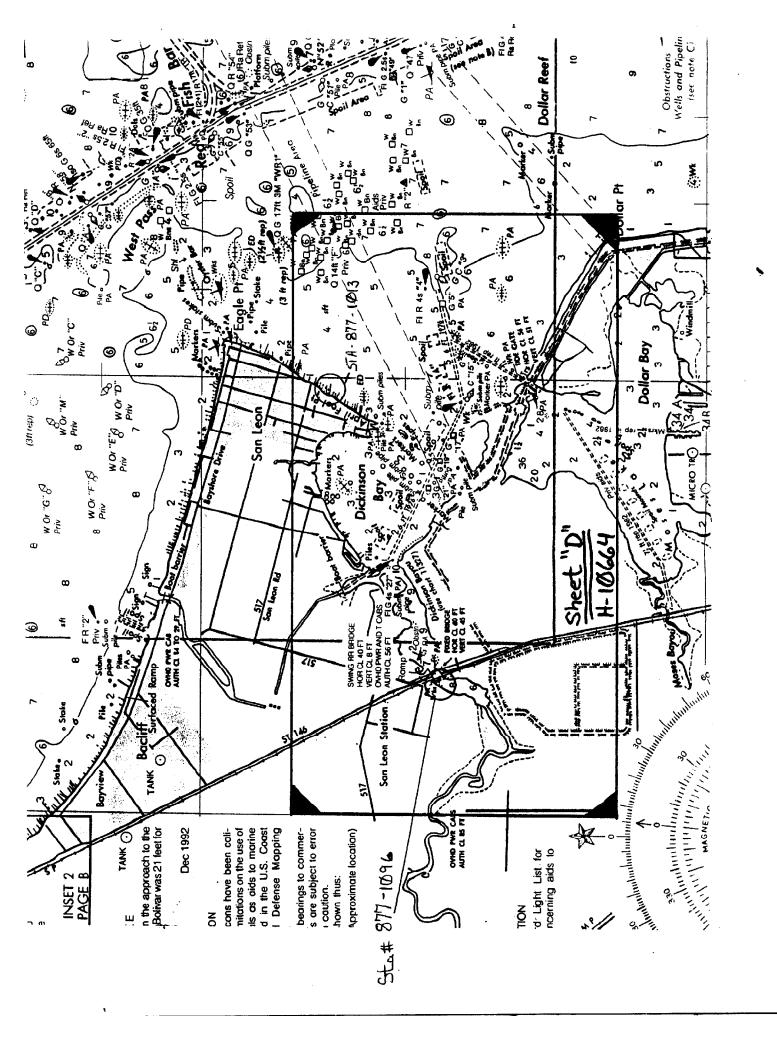
Substitute for NOAA Form 77-28 Register No.: H-10664 Hydrographic Title Sheet Field No. :AHP-10-02-96 State: Texas General locality: GalvestonBay_____ Locality: Dollar Point to Dickinson Bayou Scale_____1:10,000________Dates of Survey:_01/18/96--02/07/96_ Instruction dated: September 16,1994 *_____ Vessel: 0519 Chief of Party: Lt. Kevin N Harbison_____ Surveyed by: RWR, PW_** Soundings taken by echo sounder, leadline: Innerspace Fatho ss#186_____ Graphic record scaled by: RWR, DBE, PW, JG ** Graphic record checked by RWR, DBE, PW, JG ** Protracted: _____Automated plot by: HDAPS/Zeta ploter (FIZLI) ATLANTIC HYDROGRAPHIC Verification by: Atlantic Marine Center BRANCH FREONNEL FEET Soundings in: Meters at MLLW

Remarks: *=changeNo.1datea_0/0/30

**= Robert W. Ramsey Jr., David B. Elliott, Phillip Wolf, John Gaskins

Notes IN Rep Made During OFFice Processing

Awois/SuiRF 12/8/97



DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY H-10664 FIELD NO. AHP-10-2-96

SCALE: 1:10,000 1996

ATLANTIC HYDROGRAPHIC PARTY TWO 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.

The purpose of project OPR-K204-AHP is to respond 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 "D" as specified by the Project Instructions.

B. AREA SURVEYED

The area surveyed for H-10664 covers Galveston Bay, from Dollar Point to Dickinson Bayou. The approximate survey limits are:

North: 29° 29' 00"N South: 29° 25' 30"N East : 094° 53' 00"W West : 095° 00' 00W

This survey was conducted from January 18, 1996 (DN 018) through February 07, 1996 (DN 038).

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. <u>AUTOMATED DATA ACQUISITION AND PROCESSING</u> JEE ALSO THE EVALUATION REPORT

Coastal Oceanographic, Inc. HYPACK version 5.9 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. 6.1) were also used during this survey.

E. SONAR EQUIPMENT

Not applicable to this survey.

F. SOUNDING EQUIPMENT

An Innerspace model 448 depth sounder, S/N 186, was used to collect all echo soundings on this survey. A standard lead line calibrated in meters, S/N 0519, was used during this survey for comparison readings with the echo sounder. A 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:

| Cast No. | Table No. | Deepest <u>Depth(m)</u> | Applicable <u>DN(s)</u> | Cast Position | <u>1</u> | Day <u>Taken</u> |
|----------|--------------|-------------------------|----------------------------|---------------|-------------|---------------------|
| 1 | 1 | 4.4 | 018-019 | 29°27'18"N | 094°58'25"W | 018 |
| 2 | 2 | 3.8 | 022-026 | 29°28'00"N | 094°55'10"W | 025 |
| 3 | 3 | 2.7 | 029-038 | 29°29'25"N | 094°53'07"W | 037 |

The instrument used for determining corrections for the speed of sound through the water column was a Seabird-Seacat Velocity Profiler, model 19-03, s/n 198671-1477, which was calibrated by the manufacturer on December 22, 1998. Data quality assurance tests were performed after 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 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 2, 1994. No corrections were necessary. A copy of the calibration form is in the "Survey Separates."

* FILED WITH THE ORIGINAL FIELD DATA.

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 taken 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 "D" were used as designated by the project instructions. The zones were numbered and are defined by the following geographic locations and correctors:

Zone # 5 - This zone was applied to part of the hydrography acquired on plotter sheet No. 1, defined as "DE".

Zone # 7 - This zone was applied to part of the hydrography acquired on plotter sheet No.1 and all of the hydrography acquired on plotter sheet 2, defined as "DW".

| Time (min.) | | | | | | | |
|-------------|--------|--------------|-------|--------------|-------------|--|--|
| | High V | <u>Vater</u> | Low Y | <u>Water</u> | Range Ratio | | |
| Zone # 5 | | 2 hr | | 4 hr | x 0.64 | | |
| Zone # 7 | 2 hr | 30min | 4 hг | 30min | x 0.64 | | |

There were periods of extreme water levels noted during hydrography that were weather induced, causing sounding differences between DN 024 and DN 025 for instance that were as much as 0.5 meter variance. These variances will be corrected with smooth tides applied from gages at the Dickinson Bayou and Eagle Point sites.

All elevations and soundings on survey H-10664 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 February 28, 1996. A copy is appended to this report. Approved Tides and Zonne Have Been Apposed Ovenes of Processing

Because this project is expected to be completed in less than six months and closing levels will be run at all applicable tide gauge stations upon project completion, bracketing levels were not necessary.

* DATA FILED WITH THE ORIGINAL FIZED RECORDS

H. CONTROL STATIONS FOR ALSO THE 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 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.

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. *FILED WITH THE ORNGINAL FIELD WITH THE ORNGINAL

J. SHORELINE JEE ALSO THE EVALUATION REPORT

This project was team processed with the Atlantic Hydrographic Branch. Shoreline shown on the sounding plot was created by digital shoreline data from DM-10236. Shoreline verification was accomplished during inshore hydrographic data acquisition and by visual inspection. Reference numbers, 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. Note that shoreline from DM-10236 is not utilized on the current chart editions. Charted shoreline should be superseded by shoreline data from DM-10236. The digital shoreline provided was exceptionally accurate.

See Section O for more information regarding shoreline changes.

K. CROSSLINES

A total of 36.5 linear nautical miles of crosslines were run, which is approximately 29% of the main scheme hydrography mileage. Crossline soundings agree with the main scheme soundings within 0.2 meter, with the exception of some 0.5 meter differences caused by weather influences on the tides. The application of smooth tides will create a closer agreement in sounding comparison.

L. JUNCTIONS JEE ALSO THE EVALVATION REPORT

This survey junctions with the following:

| Survey No. / Sheet | <u>Year</u> | <u>Scale</u> | Junction Area |
|--------------------|-----------------------------|--------------|---------------|
| H-10588 / J | 1995-96 | 1:10,000 | North |
| H-10614 / E | 19 95-96 1881 | 1:10,000 | East |

Junction soundings between the present survey and the junction surveys are in good agreement, with differences of 0.2 meters or less.

M. COMPARISON WITH PRIOR SURVEYS

See the Atlantic Hydrographic Branch's "Evaluation Report for H-10664."

N. ITEM INVESTIGATION REPORTS JEE ALSO THE EVALVATION ASPART.

There were a total of 30 AWOIS items addressed on this survey. All AWOIS reports are appended to this report.

The positions for the AWOIS items were obtained directly off the AWOIS printout received as part of the project support data and entered into a HYPACK Target File for positioning purposes.

Note that the wreck graveyard positioned along the southern shoreline of Dickinson Bayou (See *positions 19 and 20, with photograph) has numerous abandoned wrecks in the area defined, and most can be considered to be reported AWOIS items that have been moved to this location for salvage. This accounts for many of the negative finding reports of some items searched for during OPR-K204-AHP. *VICINITY OF 29-26-58N, 94-58-58W. CHART AREA FOUL (WRECKAGE)

O. COMPARISON WITH THE CHART SEE ALSO THE EVALUATION REPORT.

Comparison was made with the following charts:

| Chart No. | <u>Edition</u> | Edition Date |
|-----------|----------------|--------------|
| 11326SC | 26th | Jan 1/94 |
| 11327 | 26th | Oct 16/93 |
| 11324 | 28th | Jan 22/94 |

Because the features along shore in Dickinson Bay and Dickinson Bayou lie within normally non-navigable waters, detached positions were not taken, in order to reduce both the data collection time and AHB office processing time for this survey. Point position checks were obtained on

some features at random and compared with the digital shoreline provided to verify the photogrammetry, which was found to be very accurate.

No dangers to navigation were identified on this survey.

In general soundings both inside Dickinson Bay and Bayou and those offshore at the approaches to them, were found to be one to two feet deeper than those currently charted.

Numerous white beacons (WBn) are charted in the northeast section of this survey. These beacons no longer exist, however, numerous markers composed of stakes, tree limbs, and small poles with black and white flags attached, were found to exist in this area. Contact was made with the commercial fisherman working the area who said that the charted beacons had been replaced over the years with the more temporary markers mentioned above. These are private markers delineating boundary limits for commercial oyster bed leases. These markers are set to allow the fishing vessels to pass over top of them while working the oyster beds. The markers were not positioned because of their temporary nature. The hydrographer recommends that the currently charted markers be removed from the charts and that a general remark or special note be added in the area of 29°28'30"N, 094°53'00"W, stating "Oyster Beds, numerous private markers, use caution transiting this area." Cencer

The following table lists uncharted features found on this survey:

| Day No. | <u>Fix</u> | Latitude N | Longitude W | Description/Depth |
|---------|------------|-------------|--------------|--|
| , | | | | 1. 27 |
| 018 | 24 | 29-27-12.37 | 094-59-36.36 | pile awash $(-0.3m)-3FT$ |
| 018 | 35 | 29-27-41.64 | 094-58-16.31 | pile awash $(-0.2m)-3FT$ wreck $(-2.8m)-10FT$ |
| 037 | 6178 | 29-27-26.11 | 094-55-36.47 | pipe (-1m) -3 FT SHOWN ON |
| 038 | 6202 | 29-28-20.10 | | pile (-1.8m) -627 (THE PRESENT |
| 038 | 6203 | 29-28-18.99 | | pile (-1.2m)-6F1) JURVEY |
| 038 | 6204 | 29-28-17.53 | | pile (-2.1/m)-877 |
| 038 | 6208 | 29-28-41.91 | | pipeline sign, W(-2m) |
| 038 | 6211 | 29-27-33.49 | | pipeline sign, S(-2m) DO NOT |
| 038 | 6213 | 29-27-39.51 | 094-58-28.26 | pipeline sign,N(-2m) |

None of the above features are dangers to navigation because they lie in shallow water, close to shore, or both.

P. ADEQUACY OF SURVEY SEE ALSO THE 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 SEE ALSO THE EVALLATION 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. All aids to navigation were positioned by DGPS during hydrographic operations. Equipment and personnel 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:

| the mod ands | Name and | 15 5110 1111 111 1111 | 70.10 (1.11.9 0.10.10) | Distance/Bearing |
|--------------|--------------------------|--------------------------------|---------------------------------|-----------------------|
| Pos. No. | USCGLL# | LL Position | Survey Pos. | from Charted Position |
| 3 | LT "27" (24980) | None | 29°28'05.80"N 094°57'03.36"W | On Station |
| 4 | Dbn "29" (24985) | None | 29°27'58.09"N 094°57'13.36"W | On Station |
| 5 | Dbn ruin "33" (24995) | None | 29°27'48.75"N 094°57'36.32"W | On Station |
| 6 | Dbn "35" (25000) | None | 29°27'46.17"N 094°57'46.13"W | On Station |
| 9 | Dbn "37" (25005) | None | 29°27'40.74"N 094°58'00.51"W | On Station |
| 2020 | Dbn "17" (24955) | None | 29°27'30.06"N 094°55'38.68"W | On Station |
| 2021 | Dbn "21" (24965) | None | 29°27'45.85"N 094°56'16.00"W | On Station |
| 2046 | LT "14" ruins (24945) | None | 29°27'25.17"N 094°55'16.39"W | On Station |
| 2050 | Dbn "8" (24925) | None | 29°27'35.55"N 094°54'32.92"W | On Station |
| 2052 | LT "4" (24910) | 29°27.7'N 09 4 54.0W | 29°27'44.74"N 094°53'59.74"W | On Station |

There were two buoys found to be missing, GC "5" and GC "15." The later was requested by the field unit to be re-deployed by the USCG Galveston Group ATON Team on 20 February 1996, as it lies in a turn and has a shoal sounding lying just outside the channel in the turn (position number 4409+1, depth 0.9m). The USCG ATON Team Galveston notified AHP that they had reestablished GC "15" by 22 February 1996, after this survey was completed. No position was available from USCG. The buoy should remain as charted.

WICINITY OF 29-27-21N, 94-55-17W

R. STATISTICS

| Description | Quantity |
|--|----------|
| Total Number of Positions | 6221 |
| Total Lineal Nautical Miles of Hydrography | 157 |
| Total Lineal Nautical Miles of Cross Lines | 36 |
| Square Nautical Miles of Hydrography | 5,5 |
| Days of Production | 11 |
| Detached Positions | 92 |
| Bottom Samples | 21 |
| Velocity Casts | 3 |

S. MISCELLANEOUS JEE ALTO THE EVALUATION REPORT

Bottom samples were taken as directed in Section 6.7 of the Project Instructions. Bottom sample positions and descriptions can be found on the DP editor printout appended to this report. The Oceanographic Log Sheet-M, NOAA Form 75-44, is included in the "Survey Separates." Bottom sample density was reduced to sampling at charted characteristic sites at their scaled positions. There was no evidence of major change. Therefore, the standard six- to tencentimeter spacing was not required on this survey.

Secchi disk observations were not acquired on this survey due to the continually poor water clarity.

No anomalous tidal currents were observed within the survey limits, with exception to those found at the tidal flood gate, located at Miller Point, which at various times was visually observed to be in the 4-7 knot range.

There are two charted pipeline crossings within the survey area. These crossings are charted correctly. There were two uncharted pipeline crossings located within the survey limits. The southern position of one pipeline crossing is represented by position 6611; the northern crossing point is marked by position 6613 (photographed southern signs). The other pipeline crossing currently uncharted was only marked by an eastern crossing sign located at position 6208 (photographed). These uncharted pipeline crossings pose no danger to navigation.

(photographed). These uncharted pipeline crossings pose no danger to navigation.

POS 661/66/3: VICINITY OF 29-27-36 N, 94-58-27W

POS 6208: VICINITY OF 29-28-43 N, 94-57-30W

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 Reports for Atlantic Hydrographic Section

H-10588 and H-10589 N/CG244, Norfolk, VA (Winter 1996)

User Evaluation Report Atlantic Hydrographic Section

N/CG244, Norfolk, VA (Spring 1996)

Coast Pilot Report Atlantic Hydrographic Section

N/CG244, Norfolk, VA (Spring 1996)

Submitted by: Robert W. Ramsey

Hydrographer in charge Launch 0519.

Atlantic Hydrographic Party

Item Description: F/V Misty Blue

Source: LNM26/82----USCGD 8th

AWOIS Position: Lat - 29/27/00.83N Lon - 094/54/00.72W

Investigation Techniques: VS, ES, BD, SD, DI, ## -- 300m radius

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/07/96 (DN:038)

Position Numbers: 6221 Launch Number: 0519

Investigation Used: VS, ES, DI Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: Conducted an extensive echosounder search at 20-meter line spacing throughout the 300-meter area resulting in no contacts. The data was not recorded. A 100-meter radius diver circle search was conducted as well around the center position, also with no contact. No evidence of the wreck was noted during these searches or on the main scheme hydrography in this area, that would verify the presence of this wreck.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wreck be removed from the chart. Concor

Recommended Position: Lat - Lon -

Recommended Least Depth: N/A

COMPILATION NOTES

DELETE JUBB WRECK PA

Item Description: 45' Sunken Boat

Source: CL1241/80--USPS

AWOIS Position: Lat - 29/26/45.83N Lon - 094/55/02.72W

Investigation Techniques: VS, ES, BD, SD, DI, ## -- 25-75m swath

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6184 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: This item does not exist at the reported position. The reported position does not match the written description supplied on the AWOIS print out as "Sunken boat on south side to Moses Lake". The reported position was located at the north side of Moses Lake at the Tide Flood Gate. Because of the extreme current at this site, it was deemed unsafe for conducting dive operations. No echosounder contact was evident in the deep hole located at this position.

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/00/00.0N Lon - 094/00/00.0W

Recommended Least Depth: N/A

COMPILATION NOTES

DELETE NOTATION WY PA

Item Description: Obstruction, pile

Source: CL590/82---USPS

AWOIS Position: Lat - 29/26/54.50N Lon - 094/54/52.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6186 Launch Number: 0519

Investigation Used: VS, ES, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A visual and echosounder search was conducted for this feature with no contacts encountered. A 100-meter radius diver circle search was also conducted with no contacts made.

CHARTING RECOMMENDATION

The hydrographer recommends that the pile be removed from the chart. Concure

Recommended Position: Lat - Lon -

Recommended Least Depth: N/A

Item Description: TX-7801-WS, 30' F/V

Source: LNM42/85---8th USCGD

AWOIS Position: Lat - 29/27/00.83N Lon - 094/55/06.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/26/96 (DN:026), 02/06/96 (DN:037)

Position Numbers: 4724-4730; 6183 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: This item was visually identified as the vessel described in the AWOIS printout, during mainscheme hydrography on DN:026. Position numbers 4724 through 4730 delineate the "foul limit" line surrounding this wreck. Position number 6183 marks the eastern baring point of the main wreckage. The wreckage lies due south of the reported position.

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/26/51.9N Lon - 094/55/06.5W

Recommended Least Depth: 1 meter above the water surface @ MLLW (predicted tides)

COMPILATION NOTES

DELETE SUBM WRECK, PA

Item Description: Obstruction, pile

Source: CL1241/80--USPS

AWOIS Position: Lat - 29/27/00.00N Lon - 094/55/00.00W

Investigation Techniques: VS, BD, DI, -- 150m radius

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6181; 6182 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: No pile was found at the AWOIS position by visual inspection of the area. A pile was found which matches the AWOIS description, 291 meters west of the AWOIS location.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted pile be removed from the charts and that a pile awash be charted the following location:

Recommended Position: Lat - 29/26/57.4N Lon - 094/55/10.4W

Recommended Least Depth: (0.2m) MLLW (predicted tides)

COMPILATION NOTES

DELETE PILMS PA.
ADD PILE THAT BARES ITS TO MILIN

ADD PIECO

Item Description: Obstruction, green daybeaon

Source: CL1241/80--USPS

AWOIS Position: Lat - 29/27/11.00N Lon - 094/54/52.20W

Investigation Techniques: VS, SD, DI, ## -- 100m radius

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/07/96 (DN:038)

Launch Number: 0519 Position Numbers: 6219; 6220

Water Visibility: 2m Investigation Used: VS, ES, DI

Position Determined By: DGPS

Investigation Summary: A 100-meter radius diver circle search was conducted in addition to visual and echosounder searches. No contact was made with the reported marker. This area was found to be a spoil area with the least depth taken at position number 6220.

CHARTING RECOMMENDATION

The hydrographer recommends that the marker be removed from the chart and a 0.9m sounding be charted at the position below.

Recommended Position: Lat - 29/27/08.6N Lon - 094/54/54.8W

Recommended Least Depth: 0.9 meter @ MLLW (predicted tides)

REVISE Sport NOTE TO SHOW & FT JODNDING DELETE SHOAL LINITS

Item Description: Grounded Barge

Source: CL699/85---USPS

AWOIS Position: Lat - 29/27/17.50N Lon - 094/54/52.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/07/96 (DN:038)

Position Numbers: 6217-18 Launch Number: 0519

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 reported location. The remains of an old steel and wood deck barge were found to have formed a bottom mound, with no remarkable relief off the bottom. This mound covers an approximate 20 meter radius area from position number 6218.

CHARTING RECOMMENDATION

The hydrographer recommends that a charted submerged wreck be retained at the following location: CCNCUE, WITH CLARIFICATION: DELETE CHARTED WREEK PA. CHART A 4 WK AS SHOW ON THE PRESENT SURVEY

Recommended Position: Lat - 29/27/17.5N Lon - 094/54/53.3W

Recommended Least Depth: 1.4m @ MLLW (predicted tides)

Item Description: 26' F/V charted as subm wreck

Source: NM33/64

AWOIS Position: Lat - 29/27/24.83N Lon - 094/54/40.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6199-6200 Launch Number: 0519

Investigation Used: VS, ES, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 50-meter radius diver circle search was conducted around position number 6199. The dive located a small oyster mound of approximately 5-meter radius developed over the old wreck site. No significant debris other than oysters was found on this site.

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/27/26.3N Lon - 094/54/40.9W

Recommended Least Depth: 1.6m @ MLLW (predicted tides)

COMPILATION NOTES

CHART A 5 OBSTA AND DELETE Sport NOTATION
AND LIMITS

Item Description: Sounding, 7.5' controlling depth Moses Lake Approach Channel

Source: CL590/82--USPS

AWOIS Position: Lat - 29/27/20.00N Lon - 094/54/41.00W

Investigation Techniques: VS, ES

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025), 02/05/96 (DN:036)

Investigation Used: VS, ES, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: Sounding lines were run along the approach axis at 20-meter line spacing. The controlling depth to the flood gate was found to be 2.1 meters (position # 1962, on a mainscheme sounding line).

CHARTING RECOMMENDATION

The hydrographer recommends that the charted controlling depth be revised to reflect the depth found by this survey at the following location:

Recommended Position: Lat - 29/27/055.3N Lon - 094/54/49.7W

Recommended Least Depth: 2.1m @ MLLW (6.8 FT) (predicted tides)

COMPILATION NOTES

REVISE NOTE TO "GET by SOFT rep 1496"

| Item Description: | TX-6412-AR, F/V |
|--------------------------|-----------------|
|--------------------------|-----------------|

Source: LNM37/73--8th USCGD

AWOIS Position: Lat - 29/27/30.83N Lon - 094/54/30.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/07/96 (DN:038)

Launch Number: 0519 Position Numbers: 6215-6216

Investigation Used: VS, ES, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius diver circle search was conducted about the reported primary position (fix 6215) and a 20-meter radius diver circle search was conducted about the secondary position (fix 6216) of the AWOIS report. No contacts were encountered during either search with the reported wreck. This area lies adjacent to the channel along its southern side. The edges of the channel are slightly jagged with dredge spoil along the edges.

CHARTING RECOMMENDATION

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

Recommended Position: Lat -Lon -

Recommended Least Depth:

COMPILATION NOTES

Item Description: Submerged Wreck, Keel only, Least Depth=3.0'

Source: H8693/62

AWOIS Position: Lat - 29/27/16.33N Lon - 094/55/21.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6179 Launch Number: 0519

Investigation Used: VS, ES, DI Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A preliminary echosounder search revealed a small rise of approximately 0.2 meters within the area. A diver circle search was conducted around this small rise which was found to be the keel remains as reported. No significant bottom profile relief greater than 0.1 meter was found to exist, therefore this item is not a danger to navigation.

CHARTING RECOMMENDATION

The hydrographer recommends that the sunken wreck be removed from the chart and a 1.4 meter sounding be applied at the position below. Cancel. Chart A5 4 WK

Recommended Position: Lat - 29/27/16.26N Lon - 094/55/21.79W

Recommended Least Depth: lead line of 1.4m @ MLLW (predicted tides)

COMBIL ATION NOTES

COMPILATION NOTES

Item Description: F/V Mary Jannie, ED

Source: NM27/66

AWOIS Position: Lat - 29/28/24.83N Lon - 094/55/12.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 02/06/96 (DN:037)

Position Numbers: 6201

Launch Number: 0519

Investigation Used: VS, ES

Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: Extensive visual and non-recorded echosounder searches were conducted throughout the search area with no contacts encountered. The reported position of this wreck lies in water depths of less than 1.5 meters. No dive search was conducted for this feature because of the shallow depths of the surrounding water and the proximity to piers in the area.

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/00/00.0N Lon - 094/00/00.0W

Recommended Least Depth: N/A

Item Description: 27' Shrimp boat reported sunk

Source: LNM39/81--USCGD 8

AWOIS Position: Lat - 29/28/10.83N Lon - 094/55/32.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025), 01/31/96 (DN:031)

Position Numbers: 2042-2043; 2361 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: This wreck was visually identified to have been moved and grounded alongside of a wooden bulkhead (photographed). Position number 2043 marks the reported position and position 2361 marks the current position of this wreck. The positional data for position number 2042 did not record, requiring position 2361. Contact with the owner of Misho's Oyster Co (713-339-1435), stated that all wrecks currently charted in the vicinity had been removed.

CHARTING RECOMMENDATION

The hydrographer recommends that the wreck symbol be removed from the currently charted location and that a visible wreck be applied at the recommended position below.

Recommended Position: Lat - 29/28/16.26N Lon - 094/55/36.54W

Recommended Least Depth: 4.9 meters above the surface @ MLLW (predicted tides)

AWOIS NO: 9588/9589

Item Description: 40' P/C wreckage, charted as submerged wreck

Source: LNM8/81--USCGD 8

AWOIS Position: Lat - 29/28/12.83N Lon - 094/55/36.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2044 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A visual and echosounder search revealed no evidence of this wreck, duplicated in AWOIS 9588 and 9589 reports. Contact with the owner of Misho's Oyster Co. (713-339-1435), stated that all currently charted wrecks in the vicinity had been removed. There is a shoal area of one meter depths that lies in this general area, on a parallel axis to April Fool Point. No other significant bottom profiles were observed.

CHARTING RECOMMENDATION

The hydrographer recommends that the wrecks be removed from the chart. Concure.

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

DELETE PILE PA IN 29-28-13 N 94-55-36 W

DELETE (IT) PA

Item Description: Obstruction, piling awash

Source: LNM41/82--USCGD 8

AWOIS Position: Lat - 29/27/24.83N Lon - 094/56/12.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2023 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A visual and echosounder search was conducted in the reported area with negative results. This is a near shore area with less than 1.5m surrounding depths. No dive search was conducted on this feature due too its near shore proximity and mean water depths in this area, which are considered to be a normally non-navigable waters.

CHARTING RECOMMENDATION

The hydrographer recommends that the pile awash be removed from the chart. Concert

Recommended Position: Lat - Lon -

Recommended Least Depth: N/A

Item Description: Obstruction, piling

Source: CL1241/80--USPS

AWOIS Position: Lat - 29/27/41.50N Lon - 094/56/11.50W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2022 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: A visual and echosounder search was conducted in the reported area with no contacts encountered. This area lies along the southern side of the channel in less than one meter of water. A visually identified charted marker was found approximately 285m WNW of the reported position. This pile was positioned, and most likely is the one that was originally reported.

CHARTING RECOMMENDATION

The hydrographer recommends that the pile be removed from the chart and the charted marker be retained at the following location:

Recommended Position: Lat - 29/27/46.49N Lon - 094/56/20.42W

Recommended Least Depth: 4.1 meters above the surface @ MLLW (predicted tides)

COMPILATION NOTES

ALSO DELETE PIE PA IN 29-27-48N 94-56-12W

Item Description: Obstruction, four private markers

Source: CL1472/84--USPS

AWOIS Position: Lat - 29/27/50.50N Lon - 094/56/09.5W

Investigation Techniques: VS, ES, BD, SD, DI, ## -- 30m sweep

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2024-2027 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: Extensive visual and echosounder searches were conducted throughout the search area with the following results:

position 2024.....ruins awash (<u>0.2</u>m) photographed

position 2025 priv marker (2m) position 2026 priv marker (2m)

position 2027....reported position for AWOIS 9592, nothing located at this

Position.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted private markers be retained at the following location with the exception of that at position number 2027 which should be removed:

Recommended Position: Lat - 29/27/49.89N Lon - 094/56/16.67W

29/27/52.84N 094/56/13.85W

29/27/54.00N 094/56/14.76W

SEE JECTION N.J. OF THE EVALUATION REDORT.

Recommended Least Depth: listed above at MLLW (predicted tides)

Item Description: Obstruction, submerged pipe visible at times

Source: CL1198/85--USPS

AWOIS Position: Lat - 29/27/57,50N Lon - 094/56/11.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2028 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: This item was visually identified and positioned. The pipe described refers to PVC pipes used as private channel markers. A single 12" diameter wood pile was found, which is at the same location as the reported pipe.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted private marker be retained at the following location: Concur, DELETE SUBM PIDE PA.

Recommended Position: Lat - 29/27/57.5 N Lon - 094/56/10.90W

Recommended Least Depth: (2½m) MLLW

| Item | Descri | ption: | Sounding, | NE o | quadrant | of Di | ckinson | Bayou |
|------|--------|--------|-----------|------|----------|-------|---------|-------|
|------|--------|--------|-----------|------|----------|-------|---------|-------|

Source: CL1275/77--USPS

Investigation Techniques: VS, ES, BD, SD, DI, ##

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/24/96 (DN:024)

Position Numbers: 955-1976 Launch Number: 0519

Investigation Used: ES Water Visibility: 1m

Position Determined By: DGPS

D. J. J. D. T. . 4

Investigation Summary: The hydrography acquired during survey H-10664, 1996, shows a general depth throughout this AWOIS area of less than one meter (3.3 ft) within 200 meters of shorelines and less than 1.3 meters (4.3 ft) throughout the remainder of the surveyed area in question.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted shoaling report be removed from the chart and that current survey soundings be applied throughout this area.

| Recommended Position: | Lat - | Lon - |
|------------------------|---------|-----------|
| Recommended Least Dept | h: | |
| ****** | ******* | ********* |

Item Description: Obstruction, six private markers

Source: CL1472/84--USPS

AWOIS Position: Lat - 29/28/10.00N Lon - 094/56/00.70W

Investigation Techniques: VS, ES, BD, SD, DI, ## -- 30m sweep

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/24/96 (DN:024)

Position Numbers: 955-1976 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: These items were found to be in water depths of less than 1.2m, with no significant signs or indications of their existence during normal hydrographic operation, with the exception of the private markers positioned to the west of the reported position (positions 2028; 2225-2232). It is believed that these private markers are the reported features. Therefore further investigations were not conducted.

CHARTING RECOMMENDATION A

The hydrographer recommends that the currently charted private markers be removed and that the markers positioned by this survey be charted at the positions below.

Recommended Position: Lat - 29/27/57.55N Lon - 094/56/10.90W(-2m) - SEE Awo/5 #9593

29/28/34.66N 094/56/19.09W (-1m)
29/28/32.41N 094/56/18.50W (-1m)
29/28/29.43N 094/56/18.04W (-0.3m)
29/28/25.93N 094/56/17.29W (awash)
29/28/17.39N 094/56/15.05W (-1m)
29/28/10.51N 094/56/13.52W (-1m)
29/28/06.34N 094/56/12.95W (-1.5m)

Recommended Least Depth: listed above @ MLLW (predicted tides)

| Item | Description: | Partially | submerged | wreck | 1984; | 1986 | reported | removed |
|------|--------------|-----------|-----------|-------|-------|------|----------|---------|
|------|--------------|-----------|-----------|-------|-------|------|----------|---------|

Source: CL1003/86---USPS

AWOIS Position: Lat - 29/28/35.83N Lon - 094/56/15.72W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/25/96 (DN:025)

Position Numbers: 2039 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: An extensive visual and echosounder search was conducted at 20-meter line spacing with no contacts encountered. The data was not recorded. The reported wreck site lies in 1 to 1.3m deep water in a little used area, therefore no dive search was conducted.

CHARTING RECOMMENDATION

The hydrographer recommends the wreck, be removed from the chart. Concur

Recommended Position: Lat - Lon -

Recommended Least Depth:

Item Description: Shoal, 5' Bar between daybeacon 27 & 29

Source: CL1088/79--USPS

AWOIS Position: Lat - 29/28/04.83N Lon - 094/57/08.73W

Investigation Techniques: VS, ES, BD, SD, DI, ##

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/23/96 (DN:023), 01/31/96 (DN:031)

Launch Number: 0519 **Position Numbers:** 552-552+1,650, 820, 836, 2255+1

Water Visibility: 1m Investigation Used: VS, ES

Position Determined By: DGPS

Investigation Summary: Sounding data acquired throughout this area showed no shoal bar crossing the channel. The channel is very narrow throughout Dickinson Bay and Bayou. There are hard shoal areas lying due north and due south of the reported position, outside the channel. The closest shoal sounding to the report was that of position 2255+1 with a sounding of one meter lying along the south edge of the channel. The shoalest sounding on the north side of the channel is at position 836 with a sounding of 0.6 meters.

CHARTING RECOMMENDATION

yep 1979 The hydrographer recommends that the charted should be removed from the chart, and that current soundings supersede this report, with the notation that this is an very narrow and confined channel Concur

Recommended Position: Lat - 29/28/03.57N Lon - 094/57/07.90W

Recommended Least Depth: 1.0m @ MLLW (predicted tides)

COMPILATION NOTES

REVISE TO CHAINEL NARROWS

Item Description: Sounding, controlling depth reported 8', approach channel to Salt Lake

Source: CL1242/82--USPS

AWOIS Position: Lat - 29/28/24.00N Lon - 094/57/18.00W

Investigation Techniques: VS, ES, BD, SD, DI, ## --

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/23/96 (DN:023)

Position Numbers: 589-616, 624 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: Sounding lines throughout the approach area to Salt Lake, were run with the controlling depth found to lie along the east side of the approach at position 624 with a depth of 0.9 meter (2.9 ft).

CHARTING RECOMMENDATION

The hydrographer recommends that the charted 8 foot controlling depth be removed from the chart, and a 2.9 ft controlling depth be added at the following location: SEE SECTION N. 3 OF THE EMILIATION SEPORT

Recommended Position: Lat - 29/28/14.23N Lon - 094/57/07.98W

Recommended Least Depth: 0.9m (2.3 ft) @ MLLW (predicted tides)

| Item Description: M/V Big Orange VIII, Agrou | nd and being scrapped |
|---|--|
| Source: LNM40/85USCGD 8 | |
| AWOIS Position: Lat - 29/27/52.83N Lon - | 094/57/43.73W |
| Investigation Techniques: VS, ES, BD, SD, DI, ## 75m radius | |
| Charts Affected: 11327 | |
| INVESTI | |
| Date(s)/DN(s): 01/23/96 (DN:023) | |
| Position Numbers: none | Launch Number: 0519 |
| Investigation Used: VS | Water Visibility: 2m |
| Position Determined By: DGPS | |
| Investigation Summary: This area is shoal and repairs (photographed). No visual sighting could conducted. This wreck was most likely salvaged area. | d be made and no echosounder search could be |
| CHARTING REC | |
| The hydrographer recommends that the wreck be | removed from the chart. Concur |
| Recommended Position: Lat - | Lon - |
| Recommended Least Depth: | |
| ********** | *********** |
| COMPILAT | TON NOTES |
| | ADD NOTE WRECKS" |

Item Description: Obstruction PA, debris

Source: CL1088/79--USPS

AWOIS Position: Lat - 29/27/51.70N Lon - 094/57/49.50W

Investigation Techniques: VS, ES, BD, SD, DI, ## -- 20m radius

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/18/96 (DN:018)

Position Numbers: 7-8 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: This area lies inside of a barge salvage yard, however there was one wreck in the near vicinity that matched the original description of a shrimp boat. This wreck was positioned and photographed (F/V Sandra, position numbers 7, and 8).

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/27/47.16N Lon - 094/57/50.89W stern 29/27/47.35N 094/57/51.70W bow

Recommended Least Depth: stern=(6.9 m) bow=(1.9 m) @ MLLW (predicted tides)

COMPILATION NOTES

DELETE OBJER PA

Item Description: Visible Wreck, shrimp boat

Source: CL1088/79--USPS

AWOIS Position: Lat - 29/27/43.50N Lon - 094/58/11.70W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/18/96 (DN:018)

Position Numbers: 10, 11 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: This reported wreck was visually identified in the vicinity of the shoal bank on the north side of the channel. It now consists of the keel line and associated debris lying in a foul area between positions 10 and 11, with a width of approximately 5 meters. A photograph was taken and the remains constitute no danger to navigation due to the shoal bank that they lie on.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wreckage be retained at the following location:

CONCUR WITH CLARIFICATION

Recommended Position: Lat - 29/27/43.21N Lon - 094/58/06.00W SE Pt - 29/27/43.39N - 094/58/06.98W NW Pt

Recommended Least Depth: (0.4m) @ MLLW (predicted tides)

COMPILATION NOTES

DELETE CHARTED VISIBLE WRECK PA, CHART VISIBLE WRECK AS SHOWN ON THE PRESENT EXPERT

Item Description: Wreck awash

Source: CL1249/69--USPS; CL351/74--USPS

AWOIS Position: Lat - 29/27/40.00N Lon - 094/58/19.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/23/96 (DN:023)

Launch Number: 0519 **Position Numbers: 887**

Water Visibility: 1m Investigation Used: VS, ES

Position Determined By: DGPS

Investigation Summary: This wreck was visually identified in the vicinity, photographed, and

positioned.

CHARTING RECOMMENDATION

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

Recommended Position: Lat - 29/27/39.65N Lon - 094/58/19.66W

Recommended Least Depth: (0.3 m) @ MLLW (predicted tides) *******************

COMPILATION NOTES

ALSO DELETE DANGEROUS SUBH WRECK AND THE NOTATION

Item Description: Reported submerged wreck, position scaled

Source: CL991/77--USPS; CL351/74--USPS

AWOIS Position: Lat - 29/27/40.50N Lon - 094/58/24.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/18/96 (DN:018)

Position Numbers: 12-15 Launch Number: 0519

Investigation Used: VS, ES Water Visibility: 1m

Position Determined By: DGPS

Investigation Summary: This wreck was visually identified, photographed, and positioned. Note that this wreck has broken into two sections, one on the north side of the channel and one on the south side of the channel. This is a narrow channel area transiting two bridges, and should be charted foul outside of the channel, between these bridges.

CHARTING RECOMMENDATION

The hydrographer recommends that the eharted wreckage be retained in the following locations:

Recommended Position: Lat - 29/27/40.49N Lon - 094/58/22.52W SE end Sec.-1 (0.7m)

Awo15 960329/27/40.24N 094/58/22.70W NW end Sec.-1 (1.2m) - \cancel{A} - \cancel{A} - \cancel{A}

11 PW - 29/27/37.00N 094/58/24.56W S end Sec.-2 (0.3m) -3FT

Recommended Least Depth: Listed above @ MLLW (predicted tides)

COMPILATION NOTES

CHART 2 VISIBLE WEELKS. DELETE DAUGEROUS JUBIN WARCK AD.

Item Description: Numerous abandoned wrecks awash and grounded on shoreline

Source: CL1249/69---USPS

AWOIS Position: Lat - 29/27/39.50N Lon - 094/58/29.00W

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

Charts Affected: 11327

INVESTIGATION

Date(s)/DN(s): 01/18/96 (DN:018)

Position Numbers: 16

Investigation Used: VS, ES Water Visibility: 2m

Position Determined By: DGPS

Investigation Summary: These wrecks were visually identified, photographed, and positioned.

The wrecks lie along shore and are used as shoreline fill.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wrecks be retained at the following location:

Recommended Position: Lat - 29/27/39.48N Lon - 094/58/28.19W

Recommended Least Depth: (0.9 m) @ MLLW (predicted tides)

COMPILATION NOTES

DELETE NOTATION WRECKS PA ADD NOTE WRECKS

Launch Number: 0519

APPROVAL SHEET Basic Hydrographic Survey

OPR-K204-AHP AHP-10-2-96 H-10664 1996

This basic hydrographic survey was conducted in accordance with the Project Instructions for OPR-K204-AHP, the <u>Hydrographic Manual</u>, the <u>Hydrographic Survey Guidelines</u>, and the <u>Field Procedures Manual</u>. All reports, records, and survey sheets were reviewed by Mr. Robert W. Ramsey, hydrographer in charge of daily operations. The descriptive report was reviewed and approved by Mr. Brian A. Link, Chief of Party (acting). The survey sheets and records were also periodically reviewed during the course of acquisition by Brian Link. The chief of party did not directly supervise any part of this survey. LT Kevin N. Harbison was chief of party at the time this survey was conducted, but transferred before the survey was submitted.

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

Brian A. Link

Chief, Atlantic Hydrographic Party (acting)

Robert W. Ramsey

Hydrographer-in-charge of dai/1y operations

CONTROL SCATLONS as of 15 Feb 1996

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| NOAA FORM 76-155 (11-72) | U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION | | | | SURVEY NUMBER | | | | |
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| DICKINSON BAYOU | Х | Х | | | | | | | 5 |
| FACTORY BAYOU | Х | Х | | | | | | | 6 |
| GALVESTON BAY | Х | Х | | | | : | | | 7 |
| MILLER POINT | Х | Х | | | | | | | 8 |
| SALT LAKE | Х | х | | | | | | | 9 |
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NOAA FORM 76-155 SUPERSEDES C&GS 197



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: July 26, 1996

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-K204-AHP

HYDROGRAPHIC SHEET: H-10664

LOCALITY: Galveston Bay, Dollar Point to Dickinson Bayou, Texas

TIME PERIOD: January 18 - February 7, 1996

TIDE STATION USED: 877-1013 Eagle Point, Tx.

Lat. 29° 28.8′N Lon. 94° 55.1′W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.39 ft.

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

TIDE STATION USED: 877-1096 Dickinson Bayou, Tx.

Lat. 29° 27.6'N Lon. 94° 58.5'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 4.13 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.2 ft.

page 1 of 4 pages for H-10664



11/25/97

HYDROGRAPHIC SURVEY STATISTICS REGISTRY NUMBER: H-10664

| NUMBER OF CONTROL STATIONS | | 2 |
|---------------------------------|------------|----------------|
| NUMBER OF POSITIONS | | 6221 |
| NUMBER OF SOUNDINGS | | 6221 |
| | TIME-HOURS | DATE COMPLETED |
| PREPROCESSING EXAMINATION | 21 | 08/13/96 |
| VERIFICATION OF FIELD DATA | 136 | 02/06/97 |
| QUALITY CONTROL CHECKS | 0 | |
| EVALUATION AND ANALYSIS | 91 | |
| FINAL INSPECTION | 35 | 10/03/97 |
| COMPILATION | 93 | 11/01/97 |
| TOTAL TIME | 376 | |
| ATLANTIC HYDROGRAPHIC BRANCH AP | PROVAL | 10/07/97 |

ATLANTIC HYDROGRAPHIC SECTION EVALUATION REPORT FOR H-10664 (1996)

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 QUICKSURF, version 5.1 NADCON, version 2.10 MicroStation, version 5.0 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 this survey on the NAD 27 datum, move the projection lines 0.832 seconds (25.646 meters or 2.56 mm at the scale of the survey) north in latitude and .729 seconds (19.641 meters or 1.96 mm at the scale of the survey) west in longitude.

J. SHORELINE

The shoreline originates with unreviewed photogrammetric manuscript DM-10236 (1992). Digital data files were provided by Photogrammetry Division. Digital files were inserted into the survey drawing file. Attention should be directed to the following:

Two uncharted <u>obstructions</u> shown on the shoreline manuscript were neither verified nor disproved by the field unit. It is recommended that the following <u>obstructions</u> be charted at the positions listed below.

| <u>Feature</u> | Latitude (N) | Longitude (W) |
|----------------|--------------------|---------------|
| obstr | 29°27 ' 03" | 94°54'50" |
| obstr | 29°28'16" | 94°55'34" |

L. JUNCTIONS

H-10588 (1995) 1:10,000 to the northeast H-10614 (1995) 1:10,000 to the east

A standard junction was effected between the present survey and surveys H-10588 (1995) and H-10614 (1995). Depths are in adequate agreement.

There are no junctional surveys to the northwest, south or west. Present survey depths are in harmony with the charted hydrography to the northeast and east.

M. COMPARISON WITH PRIOR SURVEYS

Hydrography

H-8693 (1962) 1:10,000

The prior survey listed above covers the present survey area in its entirety. Present survey depths display a general deepening trend, depths are generally 1 to 2 feet (0³ to 06 m) deeper than prior survey depths. The three foot curve from Latitude 29°26'00"N, Longitude 94°53'20"W to Latitude 29°27'00"N, Longitude 94°55'15"W has migrated in a southward direction closer to shore. The six foot curve now follows the three foot curve along the shoreline in this same area. North of the Dickinson Bayou Channel, in the vicinity from Longitude 94°53'30"W to Longitude 94°54'15"W, the six foot curve has migrated westward 400-900 meters. The differences between the present and prior survey can be attributed to natural changes in the bottom configuration, cultural changes and improved hydrographic surveying methods. The following should be noted:

- 1. Several significant shoreline changes have taken place in the area between Latitude 29°27'30"N, Longitude 94°56'30"W and Latitude 29°26'30"N, Longitude 94°54'30"W. These changes can be contributed to major cultural changes in the area and should remain as charted.
- 2. The following charted features originate with the prior survey. These features were neither verified nor disproved by the present survey and have been brought forward from the prior survey to supplement the present survey.

| <u>Feature</u> | <u>Latitude (N)</u> | Longitude (W | |
|----------------|---------------------|--------------|--|
| subm pile | 29°27'15.7" | 94°55'19.2" | |
| subm pipe | 29°27'54.5" | 94°57'35.4" | |

| Oyster bed | 29°27'42.0" | 94°55'55.0" |
|------------|-------------|--------------|
| Oyster bed | 29°27'44.5" | 94°56'18.07" |

It is recommended that these features be retained as charted.

3. The following charted <u>features</u> originate with the prior survey. These features were neither verified nor disproved by the present survey and have been brought forward from the prior survey to supplement the present survey. The features are shown as submerged on the present survey.

| Feature | Latitude (N) | Longitude (W) |
|---------------|--------------|---------------|
| Piles (2) | 29°28'15.0" | 94°57'04.0" |
| Platform | 29°28'31.5" | 94°56'49.0" |
| Platform | 29°28'33.3" | 94°56'45.4" |
| Concrete slab | 29°28'18.3" | 94°55'27.1" |
| Marker | 29°27'39.0" | 94°55'29.4" |
| Pipes | 29°27'52.3" | 94°55'44.5" |

It is recommended that these features be revised to submerged features as shown on the present survey.

- 4. Six charted <u>markers</u> in the vicinity of Latitude 29°28'42.0"N, Longitude 94°56'21"W originate with the prior survey. The markers were neither verified nor disproved by the present survey and have been brought forward from the prior survey to supplement the present survey. The markers are shown as submerged on the present survey. It is recommended that the markers be revised to <u>submerged markers</u> as shown on the present survey.
- 5. Two charted <u>markers</u> originating with the prior survey were located by the field unit. It is recommended that the notations <u>marker</u> be deleted from the chart and a <u>pile</u> be charted at the positions listed below:

| <u>Feature</u> | <u>Latitude (N)</u> | Longitude (W) |
|----------------|---------------------|---------------|
| pile | 29°27'49.18" | 94°55'56.97" |
| pile | 29°27'41.73" | 94°55'41.93" |

- 6. The charted <u>marker</u> in Latitude 29°27'44.32"N, Longitude 94°55'54.49"W originates with the prior survey. The marker was located by the field unit. It is recommended that the marker be charted as shown on the present survey.
- 7. Seven charted <u>markers</u> in the vicinity of Latitude 29°28'14.0"N, Longitude 94°55'30.0"W originate with the prior

survey. These markers are also charted with the notation <u>subm</u> <u>piles</u> that originates with an unknown source. These markers (subm piles) were neither investigated nor discussed by the hydrographer. The markers have been brought forward from the prior survey to supplement the present survey. The markers are shown as submerged piles on the present survey. It is recommended that the <u>submerged piles</u> be retained as charted and the notation <u>markers</u> be removed from the chart.

The prior survey is in good agreement with the present survey. The differences between the present and prior survey can be attributed to the results of Hurricane Andrew and other natural changes in the bottom configuration, cultural changes and/or improved hydrographic surveying methods.

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

N. ITEM INVESTIGATION REPORTS

- 1. Automated Wreck and Obstruction Information System (AWOIS) Item #9256, a charted <u>dangerous submerged wreck PA</u>, in Latitude 29°27'00.83"N, Longitude 94°53'30.72"W, originates with Local Notice to Mariners 7/1978 (LNM7/78). The AWOIS item was neither verified nor disproved by the hydrographer. No change in charting status is recommended.
- 2. AWOIS item #9592 is <u>four charted markers PA</u> in Latitude 29°27'50.5"N, Longitude 94°56'09.5'W originating with CL1472/84. These items were investigated by the hydrographer. It is recommended that the <u>four markers PA</u> be deleted from the chart. The following should be noted:

During the investigation of AWOIS item #9592 two markers and one pile that bares 2 feet at MLLW were located by the hydrographer. These features are also discussed in the AWOIS item investigation report appended to the Descriptive Report.

The uncharted <u>pile</u> located in Latitude 29°27'49.89"N, Longitude 94°56'16.67 is in the immediate vicinity of a charted <u>submerged pile</u> in Latitude 29°27'50.7"N, Longitude 94°56'17.0"W. From discussions and photographs of the area it is believed that the pile located by the hydrographer and the submerged pile are two separate items. It is recommended that the <u>pile</u> be charted as shown on the present survey and the <u>submerged pile</u> be retained as charted. It is also recommended that the two markers located by the present survey be charted as shown on the present survey.

3. AWOIS item #9598 is a reported controlling depth of 8 feet in the approach channel to Salt Lake in Latitude 29°28'24"N, Longitude 94°57'18"W. The channel is presently charted as 13ft centerline rep May 1994 on chart 11327 (27th ED., Mar 15/97). Present survey depths are 8 to 10 feet. It is recommended that the notation 13ft centerline rep May 1994 be revised to 8ft rep 1996 unless other information indicates otherwise.

O. <u>COMPARISON WITH CHARTS 11326SC (26th Edition, Jan 1/94)</u> 11327 (26th Edition, Oct 16/93) 11324 (28th Edition, Jan 22/93)

The charted hydrography originates with previously discussed prior surveys and other miscellaneous sources and requires no further consideration. The hydrographer makes adequate chart comparisons in sections N. and O. of the Descriptive Report.

The standard depth curves are drawn in their entirety. The zero (0) foot curve was not drawn because of its proximity to shore. The charted supplemental three (3) foot curve was drawn. Attention is directed to the following:

1. The following charted <u>submerged piles</u> originate from shoreline manuscript T9800 (1962). These piles were neither verified nor disproved by the field unit and should be retained as charted.

| <u>Feature</u> | <u>Latitude (N)</u> | Longitude (W) |
|----------------|---------------------|---------------|
| subm pile | 29°27'27.0" | 94°55'59.5" |
| subm pile | 29°27'43.5" | 94°55'24.5" |

- 2. An uncharted <u>private marker</u> was located by the hydrographer in Latitude 29°28'43.39"N, Longitude 94°56'27.99"W. It is recommended that the <u>private marker</u> be charted as shown on the present survey.
- 3. Numerous charted <u>pier ruins</u> were neither verified nor disproved by the field unit. It is recommended that the <u>pier ruins</u> in the following areas be retained as charted.

| Fre | om. | To | | | |
|------------|------------|------------|------------|--|--|
| Latitude | Longitude | Latitude | Longitude | | |
| 29°28'20"N | | | 94°55'00"W | | |
| 29°28'41"N | 94°56'36"W | 29°28'21"N | 94°57'06"W | | |

4. Two charted dolphins PA in Latitude 29°26'49"N,

Longitude 94°55'03"W, and Latitude 29°26'47"N, Longitude 94°55'00"W are shown on chart 11326SC, but not on charts 11324 and 11327. These features were neither verified nor disproved by the field unit. It is recommended that these <u>dolphins</u> remain as charted on chart 11326SC, and be added to charts 11327 and 11324 unless other information indicates otherwise.

- 5. The charted <u>boat barrier</u> in Latitude 29°28'34"N, Longitude 94°57'27"W was located by the hydrographer in Latitude 29°28'45"N, Longitude 94°57'31"W. The barrier is charted as ruins at the new location on the latest edition of the chart. It is recommended that the prior charted <u>boat barrier</u> be deleted from the chart and charted as a Boat Barrier as shown on the present survey.
- 6. A charted visible <u>wreck PA</u> in Latitude 29°27'18.3"N, Longitude 94°56'18.3"W was not investigated by the field unit. The wreck has been charted subsequent to the present survey. No change in charting is recommended

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

P. ADEOUACY OF SURVEY

This is an adequate hydrographic survey. Additional work is recommended in sections J., M., N., and O. of this report.

O. AIDS TO NAVIGATION

The hydrographer located 41 floating aids to navigation and private markers on the present survey. These aids appear adequate to serve their intended purposes. Attention is directed to the following:

1. The following charted Fixed Aids to Navigation were located by the field unit and are presently charted as Position Approximate (PA):

| Aid to Navigation | Latitude (N) | Longitude (W) |
|---|--------------|---------------|
| Dickinson Bayou Channel Daybeacon "17" | 29°27'45.86" | 94°56'16.00" |
| Dickinson Bayou Channel Daybeacon "21" | 29°27'46.50" | 94°56'20.42" |
| Dickinson Bayou Channel Light "27" | 29°28'05.80" | 94°57'03.36" |

2. The following uncharted <u>buoys</u> were located by the field unit. It is recommended that the <u>buoys</u> be charted as shown on the present survey.

| Type of Buoy | <u>Latitude (N)</u> | Longitude (W) |
|--------------|---------------------|---------------|
| mooring | 29°28'03.43" | 94°56'26.50" |
| priv maintd | 29°28'22.81" | 94°55'56.09" |
| priv maintd | 29°28'39.16" | 94°56'20.27" |

3. Ten uncharted <u>private markers</u> were located by the field unit in Dickinson Bayou between Longitudes 94°59'00"W and 94°59'35"W. These markers are private maintained PVC pipe markers. It is recommended that the private markers be charted as shown on the present survey.

S. MISCELLANEOUS

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

Maxine Fetterly
Cartographer
Verification of Field Data
Evaluation and Analysis

APPROVAL SHEET H-10664

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 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.

| Sectal | d. | Z. | W | ha | hel | d |
|---------|----|----|---|----|-----|---|
| Richard | | | | | | |

Date: 0270822 7,1497

Richard H. Whitf Yell 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, CDR, NOAA

Date: 90000 / 1971

Chief, Atlantic Hydrographic Branch

Final Approval:

Approved: Mndwn

Andrew A. Armstrong,

Captain, NOAA

Chief, Hydrographic Surveys Division

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

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- 1. Letter all information.
- In "Remarks" column cross out words that do not apply.
 Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

| CHART | DATE | CARTOGRAPHER | REMARKS |
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