

H10619

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-10-4-95.....
Registry No.	H-10619.....
LOCALITY	
State	TEXAS.....
General Locality ..	SAN JACINTO RIVER.....
Sublocality	LYNCHBURG LANDING TO.....
	MULESHOE LAKE.....
	<u>19 95</u>
	CHIEF OF PARTY
	LT. K. HARBISON, NOAA
LIBRARY & ARCHIVES	
DATE	

NOAA FORM 77-28

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

REGISTER NO. H-10619

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO. AHP-10-4-95

State: Texas

General Locality: San Jacinto River

Locality: Lynchburg Landing to Muleshoe Lake

Scale: 1:10,000

Date of Survey: June 13, 1995 to September 13, 1995

Instructions Dated: June 6, 1995

Project No.: OPR-K204EXT

Vessel: 770

Chief of Party: LT Kevin Harbison, N.O.A.A. Corps

Surveyed By: CEP, BAL, PMW, JBG, DBE, RWR

Soundings taken by echo sounder, hand lead, sounding pole: All

Graphic record scaled by: CEP

Graphic record checked by: CEP

Protracted by: N/A

ENCAD NOVA JET III Plotter (AHB)
Automated plot by: Zeta Bruning Model No. 824 (Field)

Verification by: Atlantic Hydrographic Branch Personnel

Soundings in ~~meters~~ at: MLLW Predicted Tides
Feet

REMARKS: Notes in The Descriptive Report were made in Red During Office processing.

AWOL/SURF 4/2/98
MLR

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10619
FIELD NO. AHP-10-4-95
SCALE: 1:10,000
1995
ATLANTIC HYDROGRAPHIC PARTY
CHIEF OF PARTY: LT Kevin Harbison, NOAA

A. PROJECT

This survey was conducted according to Hydrographic Project Instructions OPR-K204EXT-AHP, San Jacinto River, Texas, Lynchburg Landing to Muleshoe Lake, dated June 13, 1995.

This project is in response to requests from the U.S. Coast Guard, Hollywood Marine, Inc., Houston Pilot's Association, as well as local boating associations, for updated hydrographic and bathymetric data of this area for use in replacing navigation aids and in the construction of new charts after the recent catastrophic floods of October, 1994. A prior survey in this area was conducted in 1983-84.

The sheet letter is "X" as specified by the Project Instructions.

B. AREA SURVEYED

The area surveyed for H-10619 covers the San Jacinto River, including Old River, from Lynchburg Ferry Landing and the Houston Ship Channel northward to Muleshoe Lake. The approximate survey limits are as follows:

North: 29°51'30"N
South: 29°45'30"N
East: 095°03'00"W
West: 095°06'30"W

This survey was conducted from June 13, 1995 (DN 164) to September 13, 1995 (DN 256).

C. SURVEY VESSELS

Vessel 770, a 21-foot MonArk, was used to collect all survey data. No problems were encountered during basic hydrographic data acquisition. There were problems with vessel configuration encountered while running side scan sonar. The EG&G side scan is not interfaced properly. When interfaced through the Hyflex the side scan irregularly marks selected intervals. At times the side scan would not annotate the position numbers. Other times the side scan caused the Innerspace depth sounder to irregularly mark its selected intervals. When the selected interval is set for 10 seconds, the units configuration through the Hyflex causes intervals to vary from 8 seconds to 12 seconds indiscriminately.

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

Version 5.01 of the PC-DAS programs was used for on-line data acquisition. A list of all HP-DPS programs and versions used for data processing can be found in the Appendix of this report* The NOS program VELOCITY (Ver. 2.10) and WordPerfect for Windows (Ver. 6.1)* were also used during this survey.

E. SONAR EQUIPMENT

Side Scan Sonar was used on August 16, 1995, DN 228 as required by the Project Instruction. The side scan was an EG&G unit, model 260 recorder, serial number 1443 and towfish model 272-7, serial number 10696. The side scan was bow deployed using the 75 meter scale. Two lines were run, one up bound and the other down bound. Both lines were run just to the right of the river's centerline yielding 200% coverage. No significant contacts were encountered. Side scan was run up river to 095°06'15"W, just east of Heads Bend. At this point the river becomes too shallow for safe side scan operation. All side scan data was designated as Not for Smooth Plot (NSP). A side scan track plot is included with the field sheets.

* DATA filed with Field Records.

F. SOUNDING EQUIPMENT

Innerspace depth sounder model 448, serial number 283, was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, S/N 770, was used during this survey for comparison readings with the echo sounder. The lead line was calibrated using a steel tape on January 25, 1995 for Launch 770. In addition, 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

Corrections for the speed of sound through the water column were computed from data obtained with a Odom Digibar, Model DB-1100, s/n 155. This instrument was calibrated by the manufacturer on May 22, 1995. 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 tables and support documentation are in the "Survey Separates."* Correctors for the velocity of sound through water were determined from the casts listed below:

Velocity Table No.	Cast No.	Deepest Depth (m)	Applicable DN	Cast Position	Day
=====	=====	=====	=====	=====	=====
1	1	13.0	164-166	29°47'30"N 095°04'19"W	165
2	2	16.9	170-171	29°45'50"N 095°04'49"W	171
3	3	18.2	177	29°45'50"N 095°04'51"W	177
4	4	11.7	186-188	29°50'16"N 095°06'06"W	187
5	5	16.9	194-195	29°50'17"N 095°06'05"W	195
6	6	18.2	200-201	29°45'49"N 095°04'51"W	200
7	7	16.9	215-216	29°45'49"N 095°04'51"W	215
8	8	16.9	219-223	29°45'49"N 095°04'53"W	219
9	9	18.2	226-228	29°45'49"N 095°04'53"W	226
10	10	18.2	236&256	29°45'49"N 095°04'53"W	236

* DATA filed with Field Records.

Lead line comparisons were taken when weather permitted to determine echo sounder error. Innerspace echo sounder s/n 283 appeared to have instrument error that fluctuated throughout the duration of the survey. It should be noted that there were inconsistencies with the lead line comparisons. There were two days with -0.2m instrument corrector, nine days with -0.1m instrument corrector, and ten days with 0.0m instrument corrector. Because of the inconsistencies in the day to day readings and the margin for error in the taking of measurements, no instrument error should be applied. 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 using the HDAPS program REAPPLY. The draft was measured by subtracting the difference from a punch mark on the side of Launch 770, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for Launch 770 were determined on January 9, 1995 (DN 009). These measurements were conducted in Clear Lake, Texas using the level method. Data from this test are included in the "Survey Separates.*" Settlement and squat correctors were applied online to the soundings by the PC-DAS offset table.*

Predicted tides for this project were provided on diskette by N/OES334 for the Lynchburg Landing, Texas, Tide Station #877-0733. Correctors for this survey were used as designated in the project instructions. The correctors are as follows: *Approved Tides & ZONES were Applied During Office Processing.*

	Time Correction		Range Ratio
	High Water	Low Water	
Zone #13	Direct	Direct	Direct
Zone #14	+00:15	+00:15	Direct
Zone #15	+00:20	+00:20	X 1.06

All elevations and soundings on survey H-10619 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 September 25, 1995. A copy is appended to this report.

* DATA Filed With Field Records.

No bracketing levels were run at the completion of this survey because closing levels for the project were conducted within an acceptable time frame to acquire smooth tides for processing.

H. CONTROL STATIONS *See also Evaluation Report.*

The horizontal control datum for this project is the North American Datum of 1983. The Galveston, Texas DGPS Beacon was used for control throughout this survey with the exception of Day Number 256 when the Port Aransas, Texas DGPS Beacon was used due to Galveston beacon maintenance by the U.S. Coast Guard at the Galveston station. The beacons' geographic positions are listed on the Control Station List included in "Survey Separates". *

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. An Ashtech sensor serial number 700417B1070 with antenna serial number 700391A0504 was used as the remote station on launch 770. The corrector data link between the reference station receiver and the launch sensor was a Communications Systems International, Inc., MBX-1 Beacon Data Receiver, model 1/02, serial number X-1251.

Daily DGPS performance checks were conducted in accordance with FPM 3.4.4, by comparing the DGPS position of the vessel to a horizontal control station. Station "BBC, 1983", used during prior survey H-10119 was recovered on this survey for use as a daily calibration check point. To obtain a performance check, the launch was brought alongside the checkpoint. The easting and northing values, number of SVs, HDOP, and time of observation were noted on the echogram. These values were then entered into a Lotus spreadsheet table which computes the acceptable error margin based on the HDOP and also the observed difference between our 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 Field Records.

J. SHORELINE

This project was team processed with the Atlantic Hydrographic Branch. Shoreline shown on the final sounding plot in brown ink was transferred by hand from prior survey H-10119 for orientation purposes only. Shoreline shown on the prior survey was inspected for changes by comparing the hydrographic data and by visual inspection. Areas with changes are shown on the final sounding plot in red, since it constitutes a change when compared with the prior survey H-10119 shoreline shown in brown ink.

Prior survey H-10119 has no shoreline on the north shore of Mule-shoe Lake. The shoreline on survey H-10619 is shown in red and is based upon the sounding lines acquired on DN 194, PN 1613-1623.

The hydrographer recommends updating the shoreline with new aerial photography when available. *CONCUR*

The foul area on prior survey H-10119 located at 29°51'00.18"N, 095°05'25.14"W, has changed. Sounding data was acquired in this area. The new foul limit lines are shown by black dashed lines. The actual shoreline will need to be revised with new aerial photography. *CONCUR*

The island shown on prior survey H-10119 located at 29°50'58.1"N, 095°05'39.5"W is no longer present. Sounding data was collected at this location. *Recommend CHARTING AS SHOWN ON PRESENT SURVEY.*

The shoreline from survey H-10119 located at 29°50'38.4"N, 097°05'55.8"W to 29°50'31.6"N 095°06'02.3"W, has changed. The survey launch was not able to depict the change accurately due to deposition of flood sediment, dead heads, and snags. A black dashed line designates a foul limit in this area. *CONCUR*

New shoreline has been formed at 29°49'48.4"N, 095°05'29.3"W. This area was eroded during the flood of October, 1994. Hydrographic data depicts the general change. New aerial photos should supersede the shoreline indicated on the final field sheet. *CONCUR*

Cove Marina located at 29°47'55"N, 095°04'54"W, was burned during the October, 1994 flood and pipeline rupture. Cove Marina does

not exist nor operate as a marina. The piers associated with Cove Marina are still present and referenced as R-#43, DN 228.

Riverside Inn Marina located at 29°47'56.4"N, 095°04'46.8"W, is now operating as a marina. The marina was referenced as R-#44, and consists of many finger piers. Six finger piers exist west of PN 3244, and three finger piers east of PN 3244. A concrete ramp exists 30 meters due south of PN 3244. The ramp is open to the public for a fee and the marina sells food and fuel.

Prior survey H-10119 shows three peninsulas at 29°47'40.7"N, 095°03'40.6"W, extending from shore in a southeasterly direction creating a small basin. Sounding data was collected in this area on this survey. New shoreline is depicted in red on the final sounding plot. This area should be revised with new aerial photography.

The reference number descriptions, field notes, and explanations of new shoreline features are located on the graphic record and on the boat sheet. Photographs are included with the survey data as well.

Foul limit lines were acquired on this survey, as per the Hydrographic Manual, section 7.3.6, in near-shore areas that delineate non-navigable areas of water due to numerous obstructions or snags. These limits have been transferred to the final sounding plot as black dashed lines.

K. CROSSLINES

A total of 15.6 linear nautical miles of crosslines were run, which represents approximately 22% of the main scheme hydrography. Crossline soundings agree with the main scheme soundings within 0.0 to 0.4 meters, with the exception of areas where the bottom is irregular.

L. JUNCTIONS

None. H-10663 (1996)

M. COMPARISON WITH PRIOR SURVEYS See also Evaluation Report.

See the Atlantic Hydrographic Section's Evaluation Report for H-10619, for a discussion of the comparison with prior survey. Prior survey H-10119 is the only source for use in comparison. All of the AWOIS items investigated originated from prior survey H-10119.

No dangers to navigation were identified on this survey.

The hydrographer recommends that all charted snags, stumps, and obstructions (trees) on prior survey H-10119 be retained as shown, for compilation of the proposed inset of the San Jacinto River. CONCUR

The following are new features found on this survey:

DN	PN	N Latitude	W Longitude	Item Description
177	1072	29°48'11.68"	095°05'21.22"	Submerged Stump CHART Obstr (0) Stump ⁴
215	2009	29°51'01.12"	095°05'24.32"	Wreck CHART wk (0) barge +
215	2010	29°51'02.92"	095°05'26.40"	Wreck CHART wk (0) barge - AWOIS # 7128 +
215	2011	29°51'07.23"	095°05'27.85"	Wreck CHART wk (6) barge - AWOIS # 7128 +
215	2012	29°51'07.09"	095°05'26.48"	*Wreck CHART wk (3) barge - AWOIS # 7128
215	2013	29°51'10.90"	095°05'38.50"	Snag CHART obstr (0) Stump ↓
215	2014	29°51'14.10"	095°05'41.79"	Snag CHART obstr (0) Stump ↓
215	2015	29°51'00.34"	095°05'48.71"	Mooring Buoy CHART buoy - SEE ALSO SECTION 0.12 OF EVAL. RPT
215	2016	29°51'06.31"	095°05'58.65"	*Wreck CHART wk (6) barge - AWOIS # 7128 +
215	2017	29°51'07.39"	095°05'59.44"	*Wreck CHART wk (0) barge " "
215	2018	29°51'05.57"	095°06'00.41"	*Wreck CHART wk (0) barge " "
215	2019	29°50'54.35"	095°06'08.06"	*Wreck CHART wk (6) barge " "
215	2020	29°50'55.56"	095°06'09.31"	*Wreck CHART wk (6) barge " "
215	2021	29°50'56.45"	095°05'42.29"	Wreck CHART wk (7) barge " " 4
215	2022	29°50'58.66"	095°05'41.99"	Wreck - Rejected
215	2023	29°50'52.11"	095°05'34.01"	*Wreck - Rejected CONCUR - AWOIS # 7128 ✓
220	2533	29°47'33.21"	095°03'42.91"	Bridge Fender CHART
220	2534	29°47'32.12"	095°03'40.64"	Bridge Fender CHART
220	2535	29°47'32.77"	095°03'44.65"	✓ Dolphin/Pipeline X'ing CHART Dol (9)
220	2536	29°47'32.55"	095°03'38.48"	✓ Dolphin/Pipeline X'ing
220	2537	29°47'34.40"	095°03'40.94"	✓ Dolphin/Bridge Fender CHART
220	2549	29°47'38.08"	095°03'23.89"	Dolphin CHART Dol (15)
220	2550	29°47'38.48"	095°03'26.60"	Dolphin CHART Dol (15)
220	2551	29°47'38.39"	095°03'26.72"	✓ Pier CHART
220	2596	29°48'49.58"	095°05'07.94"	Snag CHART obstr (25) Tree Stump ⁴

* DO NOT CHART DUE TO CHART SCALE

DN	PN	N Latitude	W Longitude	Item Description
220	2597	29°48'48.18 ⁷ "	095°05'11.84 ³ "	Snag CHART obstr (3) STUMP 4
220	2598	29°48'50.42"	095°05'12.19"	Snag CHART obstr (2) STUMP 4
220	2599	29°48'39.47"	095°05'06.14 ⁴ "	Wreck CHART WK (12) 4
220	2600	29°48'38.34"	095°05'34.50"	Wreck-Rejected
220	2601	29°48'36.94"	095°05'36.57"	Wreck-Rejected
221	2638	29°49'10.36"	095°04'39.36"	Wreck CHART WK (5) barge 4
221	2639	29°48'58.68"	095°04'55.90"	Wreck CHART WK (4) barge 4
221	2722	29°48'07.25"	095°04'15.07"	Snag CHART obstr (2) STUMP 4
221	2723	29°48'07.43"	095°04'13.81"	Snag CHART obstr (3) STUMP 4
221	2724	29°47'55.76 ⁵ "	095°04'05.04 ³ "	Wreck CHART WK (2) barge
221	2725	29°47'55.91"	095°04'06.18"	Wreck CHART WK (4) barge
221	2726	29°47'55.94"	095°04'06.70"	Dolphin CHART Dol (13) 4
221	2727	29°47'55.60 ⁵⁹ "	095°04'07.29"	Dolphin CHART Dol (13) 4
221	2728	29°47'55.17"	095°04'07.92"	Dolphin CHART Dol (13) 4
221	2729	29°47'51.39 ⁸ "	095°04'00.78 ⁷ "	Dolphin CHART Dol (16) 4
221	2730	29°47'50.31"	095°04'02.46 ⁵ "	Dolphin CHART Dol (13) 4
221	2731	29°47'50.64 ^{ok} "	095°04'01.84"	Dolphin CHART Dol (13) 4
221	2732	29°47'50.57 ^{ok} "	095°04'02.10"	Dolphin CHART Dol (13) 4
221	2733	29°47'51.73"	095°04'04.71"	Dolphin CHART Dol (13) 4
221	2734	29°47'52.07 ⁶ "	095°04'04.68"	Dolphin CHART Dol (6) 4
221	2735	29°47'51.07"	095°04'04.89"	Dolphin CHART Dol (16) 4
221	2736	29°48'03.98"	095°03'55.14"	Snag CHART obstr (4) Tree SNAG 4
221	2737	29°47'58.17 ⁹ "	095°03'52.54"	Snag CHART obstr (3) STUMP 4
222	2739	29°47'05.56"	095°05'53.56"	? Wreck Barge } CHART WK (8) barge 4
222	2740	29°47'04.41"	095°05'52.81"	Wreck Barge } See AWOIS # 7115 for CHARTING 4
222	2741	29°46'11.46"	095°06'08.40 ³⁹ "	Moored Barge w/Pier CHART WK (9) 4 Ruins barge moored To Pier Ruins
222	2742	29°46'09.82"	095°06'08.05"	*Pier Ruins
222	2743	29°46'09.16"	095°06'08.27 ⁶ "	*Pier Ruins
222	2744	29°46'08.55"	095°06'07.88"	*Pier Ruins
222	2745	29°46'07.23"	095°06'07.82"	*Pier Ruins
222	2746	29°46'06.74"	095°06'08.06"	*Pier Ruins
222	2747	29°46'06.13"	095°06'08.39 ⁸ "	*Pier Ruins
222	2750	29°45'47.80"	095°05'38.43"	Wreck } CHART WK (8) barge
222	2751	29°45'48.60"	095°05'37.84"	Wreck }
222	2902	29°47'10.76"	095°04'22.94 ³ "	Wreck CHART WK (11) barge - see AWOIS # 7119
223	3005	29°45'56.00 ⁹⁹ "	095°04'43.32 ¹ "	Pile CHART Pile (4)
226	3094	29°46'10.37"	095°04'32.41"	Wreck CHART WK (3) barge - AWOIS # 7111
226	3098	29°46'04.95"	095°04'39.34"	*Pier CHART
228	3131	29°50'34.79 ⁸ "	095°06'04.10 ⁰⁹ "	*Boat House
228	3132	29°50'32.30"	095°06'04.76"	*Boat House
228	3133	29°50'32.59"	095°06'05.14"	*Boat House

Recommendation

* Do NOT CHART Due To CHART scale. 9

DN	PN	N Latitude	W Longitude	Item Description
228	3134	29°50'33.29 ⁴ "	095°06'06.05 ⁴ "	*Pier
228	3135	29°50'40.28"	095°06'11.87 ⁴ "	*Pier
228	3136	29°50'42.16"	095°06'17.42 ⁴ "	*Pier Ruins
228	3137	29°50'40.46"	095°06'21.88"	*Pier
228	3138	29°50'39.26"	095°06'21.78 ⁴ "	*Boat House
228	3139	29°50'37.63 ⁴ "	095°06'20.72 ⁴ "	*Boat House
228	3140	29°50'36.78 ⁴ "	095°06'20.25 ⁴ "	*Boat House
228	3141	29°50'35.34 ⁴ "	095°06'19.53"	*Pier
228	3142	29°50'34.55 ⁴ "	095°06'19.04"	*Pier
228	3143	29°50'34.43 ⁴ "	095°06'18.91 ⁴ "	*Pier
228	3144	29°50'33.15 ⁴ "	095°06'18.34 ⁴ "	*Pier
228	3145	29°50'31.31 ⁴ "	095°06'17.10 ⁴ "	*Pier Ruins
228	3146	29°50'30.93"	095°06'16.87"	*Boat House
228	3147	29°50'30.10"	095°06'16.36 ⁵ "	Piles (2) CHART Piles (1)
228	3148	29°50'29.58"	095°06'15.86 ⁵ "	*Boat House
228	3149	29°50'28.98"	095°06'15.51"	*Boat House
228	3150	29°50'28.15"	095°06'15.14"	*Boat House
228	3151	29°50'24.20"	095°06'18.05"	*Drainage Culvert - Rejected
228	3152	29°50'23.46 ⁵ "	095°06'15.24 ³ "	*Piles } CHART Obstr (O) Row of Piles
228	3153	29°50'22.57"	095°06'14.56 ⁵ "	*Piles }
228	3154	29°50'14.76"	095°06'02.97"	*Pier CHART
228	3155	29°50'14.21 ⁰ "	095°06'02.19 ⁶ "	*Piles (2) CHART Obstr (L) Piles
228	3156	29°50'13.74 ³ "	095°06'01.54 ³ "	*Concrete Ramp CHART
228	3157	29°50'10.96 ⁵ "	095°05'57.95 ⁴ "	*Pile CHART Obstr (O) Pile
228	3158	29°50'08.51 ⁴ "	095°05'54.26"	*Pier
228	3159	29°50'07.21"	095°05'52.09"	*Pier
228	3160	29°49'59.96 ⁵ "	095°05'40.09 ⁴ "	*Pier
228	3161	29°49'48.05"	095°05'14.36 ⁵ "	*Boat House
228	3162	29°49'45.73"	095°05'06.41"	*Pier Ruins
228	3163	29°49'45.53"	095°05'05.06 ⁵ "	*Pier Ruins
228	3164	29°49'44.86"	095°05'01.77 ⁴ "	*Pile CHART Obstr (L) Pile
228	3165	29°49'45.01"	095°05'01.18"	*Pile CHART Obstr (L) Pile
228	3166	29°49'44.77"	095°05'00.13 ² "	*Boat House
228	3167	29°49'44.35"	095°04'58.22"	*Pier/Boat House Ruins
228	3168	29°49'44.14"	095°04'57.75"	*Pier
228	3170	29°49'44.28"	095°04'48.34 ³ "	*Boat House Ruins
228	3171	29°49'44.52 ¹ "	095°04'46.25"	*Pier
228	3172	29°49'44.58 ⁷ "	095°04'45.96"	*Boat House
228	3173	29°49'46.45 ⁴ "	095°04'31.00"	*Boat House
228	3174	29°49'46.57"	095°04'30.66"	*Boat House
228	3175	29°49'46.76"	095°04'30.06 ³ "	*Boat House
228	3176	29°49'46.82 ¹ "	095°04'29.50"	*Boat House

* Do NOT CHART Due To CHART scale

DN	PN	N Latitude	W Longitude	Item Description
228	3177	29°49'46.88"	095°04'28.47"	*Boat House
228	3178	29°49'47.02"	095°04'28.01"	*Pier
228	3179	29°49'47.24"	095°04'26.90"	*Pier
228	3180	29°49'47.87"	095°04'24.59"	*Pier Ruins
228	3182	29°49'50.44"	095°04'16.55"	*Boat House Ruins
228	3183	29°49'51.40"	095°04'13.55"	*Pier
228	3184	29°49'51.84"	095°04'11.90"	*Pier Ruins
228	3185	29°49'52.33"	095°04'10.90"	*Boat House
228	3186	29°49'54.21"	095°04'06.92"	*Boat House
228	3187	29°49'55.13"	095°04'05.26"	*Boat House
228	3188	29°49'56.50"	095°04'00.69"	*Pier
228	3189	29°49'56.58"	095°04'00.08"	*Boat House
228	3190	29°49'56.65"	095°03'59.42"	*Boat House
228	3191	29°49'56.74"	095°03'58.58"	*Boat House
228	3192	29°49'56.56"	095°03'54.32"	*Pier
228	3193	29°49'55.86"	095°03'51.12"	*Boat House
228	3194	29°49'54.36"	095°03'49.08"	*Boat House
228	3195	29°49'53.46"	095°03'47.91"	*Boat House
228	3196	29°49'52.68"	095°03'47.15"	*Pier
228	3197	29°49'52.31"	095°03'46.74"	*Boat House
228	3198	29°49'52.06"	095°03'46.47"	*Boat House
228	3199	29°49'51.50"	095°03'45.93"	*Boat House
228	3200	29°49'50.85"	095°03'45.28"	*Boat House
228	3201	29°49'50.24"	095°03'44.83"	*Boat House
228	3202	29°49'49.28"	095°03'44.24"	*Boat House Ruins
228	3203	29°49'48.05"	095°03'43.55"	*Piers
228	3204	29°49'47.30"	095°03'43.18"	*Pier Ruins
228	3205	29°49'46.75"	095°03'42.91"	*Pier
228	3206	29°49'46.47"	095°03'42.76"	*Boat House Ruins
228	3207	29°49'45.99"	095°03'42.55"	*Pier
228	3208	29°49'43.33"	095°03'42.10"	*Boat House
228	3209	29°49'40.79"	095°03'42.76"	*Pier
228	3210	29°49'40.15"	095°03'42.78"	*Pier
228	3211	29°49'40.28"	095°03'38.89"	*Drainage Culvert
228	3212	29°49'37.75"	095°03'40.20"	*Pier
228	3213	29°49'25.21"	095°03'56.51"	*Boat House Ruins
228	3214	29°49'35.99"	095°04'31.44"	*Pier
228	3215	29°49'35.98"	095°04'32.08"	*Boat House
228	3216	29°49'35.91"	095°04'32.95"	*Boat House
228	3217	29°49'35.20"	095°04'38.59"	*Pier
228	3218	29°49'35.20"	095°04'39.12"	*Boat House
228	3219	29°49'33.99"	095°04'42.38"	*Pier

*Chart **

* Do not Chart Due To Chart Scale ¹¹

DN	PN	N Latitude	W Longitude	Item Description
228	3220	29°49'07.48 ⁷ "	095°04'43.35 ⁵ "	*Pier Ruins
228	3221	29°49'06.89 ⁸ "	095°04'43.86 ⁵ "	*Pier Ruins
228	3222	29°49'06.48 ⁷ "	095°04'44.11 ⁰ "	*Pier Ruins
228	3223	29°49'05.96 ⁷ "	095°04'44.53 ⁷ "	*Pier Ruins
228	3224	29°49'05.13 ⁷ "	095°04'45.09 ⁷ "	*Boat House
228	3225	29°48'07.47 ⁷ "	095°05'36.68 ⁷ "	*Pier
228	3226	29°48'06.50 ⁷ "	095°05'35.19 ⁸ "	*Pier
228	3227	29°48'05.91 ⁷ "	095°05'34.87 ⁷ "	*Boat House Ruins
228	3228	29°48'05.15 ⁷ "	095°05'34.24 ⁷ "	*Boat House
228	3230	29°48'02.24 ⁷ "	095°05'31.22 ⁷ "	*Boat House Ruins
228	3231	29°47'44.58 ⁷ "	095°05'19.89 ⁷ "	✓File <i>CHART obstr (4) pile</i>
228	3232	29°47'53.64 ³ "	095°05'16.51 ⁰ "	*Pier
228	3235	29°47'52.81 ⁷ "	095°05'08.23 ⁷ "	*Boat House Ruins
228	3236	29°47'52.86 ⁷ "	095°05'07.05 ⁴ "	*Boat House Ruins
228	3237	29°47'53.66 ⁵ "	095°05'02.73 ⁷ "	*Pier
228	3239	29°47'53.73 ⁷ "	095°05'01.45 ⁴ "	*Boat House Ruins
228	3241	29°47'54.22 ⁷ "	095°04'59.68 ⁷ "	*Pier Ruins
228	3242	29°47'54.39 ⁷ "	095°04'58.74 ⁷ "	*Pier
228	3243	29°47'54.80 ⁷ "	095°04'57.38 ⁷ "	*Pier Ruins
228	3244	29°47'56.39 ⁷ "	095°04'46.82 ⁷ "	*Pier/Ramp
228	3245	29°48'05.15 ⁷ "	095°03'28.89 ⁷ "	*Boat House
228	3246	29°48'06.60 ⁷ "	095°03'30.13 ⁷ "	*Pier Ruins
228	3247	29°47'54.09 ⁸ "	095°03'23.72 ⁷ "	*Drainage Culvert
228	3248	29°47'48.98 ⁷ "	095°03'22.93 ⁷ "	*Pier
228	3249	29°47'46.95 ⁷ "	095°03'23.00 ⁷ "	*Pier
236	3352	29°47'34.68 ⁷ "	095°03'40.61 ⁷ "	*Bridge Fender
236	3372	29°46'20.52 ⁷ "	095°06'06.89 ⁷ "	*Pier
236	3373	29°46'23.41 ⁷ "	095°06'06.41 ⁷ "	*Pier
236	3374	29°46'24.73 ⁷ "	095°06'06.40 ⁷ "	*Pier
236	3375	29°46'38.65 ⁴ "	095°05'59.62 ⁴ "	✓Snag <i>Stamp</i>
236	3376	29°46'44.20 ¹⁹ "	095°06'04.13 ⁷ "	*Pier
236	3377	29°46'48.30 ⁷ "	095°06'02.38 ⁷ "	*Pier Ruins
236	3378	29°47'01.11 ⁷ "	095°06'00.39 ⁷ "	*Pier
236	3379	29°47'01.76 ⁷ "	095°05'58.77 ⁷ "	✓Pile <i>CHART obstr (3) pile</i>
236	3380	29°47'07.64 ⁷ "	095°05'35.41 ⁷ "	*Pier <i>CHART</i>
236	3381	29°47'07.50 ⁷ "	095°05'25.91 ⁷ "	✓Dolphin <i>CHART Dol (4)</i>
236	3382	29°47'08.69 ⁷ "	095°05'19.43 ⁷ "	✓Wreck <i>CHART wk (15) barge</i>
236	3383	29°47'08.91 ⁰ "	095°05'17.37 ⁷ "	✓Wreck <i>CHART wk (15) barge</i>
236	3384	29°47'09.59 ⁷ "	095°05'13.54 ³ "	✓Wreck <i>CHART wk (5) barge</i>
256	3388	29°45'50.05 ¹¹ "	095°05'22.20 ⁷ "	✓Mooring Dolphin <i>CHART Dol (12)</i>
256	3389	29°47'05.07 ⁷ "	095°05'54.76 ⁷ "	Obstruction/ Oil Boom <i>CHART obstr (2) oil boom see AWOIS# 7115 For CHARTING Recommendation</i>

* Do NOT CHART Due To CHART Scale,

The hydrographer recommends the above features be charted on the planned inset of the San Jacinto River. Because these items exist near-shore, the features are not considered dangers to navigation. *CONCUR*

Dolphins located on this survey at 29°47'37.46"N, 095°03'27.44"W. and 29°47'38.48"N, 095°03'26.60"W, are shown on the prior survey as lighted private markers. These two features exist, although they are not lighted. The hydrographer recommends revising the feature to dolphins (dols) for compilation of the planned inset. *CONCUR*

The controlling depth of the Lyondell Chemical Plant (shown on the prior survey as the N L Nearing Chemical Plant) channel was found to be 4.2m (13.77ft) MLLW Predicted Tides. The prior survey has this channel shown as 13 to 15 feet. Soundings from this survey range from 4.2m to 5.0m (13.7ft to 16.4ft). Soundings from this survey should supersede the prior survey soundings for compilation of the proposed San Jacinto River inset.

N. ITEM INVESTIGATION REPORTS

All AWOIS reports are appended to this report. There were a total of 40 AWOIS items addressed on this survey.

O. COMPARISON WITH THE CHART *See Also Evaluation Report.*

No chart exists for comparison. Prior survey H-10119 was the source document used for the comparison discussed in section M.

P. ADEQUACY OF SURVEY *See Also Evaluation Report.*

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

Q. AIDS TO NAVIGATION

The following aids to navigation are maintained by the U.S. Coast Guard and lie within the survey area. All of the aids serve

their intended purpose. Aids to navigation were positioned by DGPS during hydrographic operations. Resources were not available for 3rd order positions of all the non-floating navigational aids. Existing navigational aids were not compared to prior survey navigational aids, as all aids were found off station due to the flood in October, 1994.

FIXED AIDS:

<u>PN</u>	<u>Name and USCGLL#</u>	<u>LL Position</u>	<u>Survey Position</u>
3385	San Jacinto Junction Light No. 24305	29°45.9'N 095°04.9'W	29°45'57.68"N 095°04'53.60"W
3386	Lynchburg Inbound Range Front Light No.24275	29°45.9'N 095°05.0'W	29°45'56.90"N 095°04'59.71"W
3387	Light 128 NO.24410	Not Listed	29°45'54.73"N 095°05'05.22"W

FLOATING AIDS:

<u>PN</u>	<u>Name and USCGLL#</u>	<u>Survey Position</u>	
		<u>Latitude N</u>	<u>Longitude W</u>
3250	Green Can "25"	29°49'07.55"	095°05'00.82"
3306	Green Can "29"	29°48'38.47"	095°05'27.17"
3307	Green Can "31"	29°48'47.16"	095°05'28.40"
3308	Red Nun "26"	29°48'30.07"	095°05'23.24"
3309	Green Can "27"	29°48'10.44"	095°05'26.44"
3310	Red Nun "24"	29°48'11.84"	095°05'21.75"
3311	Green Can "25"	29°48'03.24"	095°05'26.24"
3312	Red Nun"22"	29°47'55.47"	095°05'09.29"
3323	Green Can "23"	29°47'55.50"	095°04'55.93"
3324	Red Nun "20A"	29°47'59.81"	095°04'52.54"
3325	Green Can "21"	29°47'58.00"	095°04'41.98"
3326	Green Can "19"	29°48'03.57"	095°04'34.20"
3327	Red Nun "20"	29°48'08.08"	095°04'33.64"
3345	Red Nun "18"	29°48'11.56"	095°04'22.62"
3346	Green Can "17" Lighted	29°48'09.72"	095°04'20.01"
3347	Red Nun"16"	29°48'14.33"	095°04'04.79"

PN	Name and USCGLL#	Survey Position	
		Latitude N	Longitude W
3348	Green Can "15" Lighted	29°48'06.46"	095°03'52.08"
3349	Red Nun"14"	29°48'02.67"	095°03'31.97"
3350	Green Can "13"	29°47'51.15"	095°03'27.18"
3351	Green Can "11"	29°47'40.29"	095°03'31.28"
3353	Red Nun "10"	29°47'04.81"	095°04'10.07"
3354	Red Nun "8"	29°46'58.80"	095°04'18.79"
3355	Red Nun "6"	29°46'43.60"	095°04'27.82"
3356	Red Nun "4"	29°46'28.42"	095°04'37.46"
3357	Red Nun "2"	29°46'21.23"	095°04'37.12"

All cable and pipeline crossing areas shown on the prior survey were verified and referenced on this survey.

All bridge clearances were measured using a steel measuring tape since no vertical clearances were shown on the prior survey. The following list shows the bridge clearances found within the survey limits.

DN	PN	POSITION	CLEARANCE	BRIDGE NAME
220	2532	29°47'32.857"N 095°03'41.491"W	7.0m (22.96ft) MLLW (Predicted) (Tides)	I-10 Bridge ✓
220	2605	29°47'59.345"N 095°05'23.162"W	5.7m (18.69ft) MLLW (Predicted) (Tides)	Missouri/ Pacific Railroad Bridge ✓

R. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	3267
Total Lineal Nautical Miles of Hydrography	133.9
Square Nautical Miles of Hydrography	7.2
Days of Production	23
Detached Positions	252
Bottom Samples	42
Tide Stations	3
Velocity Casts	10

S. MISCELLANEOUS See also 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, which is appended to this report. The Oceanographic Log Sheet-M, NOAA Form 75-44, is included in the "Survey Separates."* Sampling indicated some evidence of change. The hydrographer recommends updating bottom characteristics to those found by this survey when compiling the proposed San Jacinto River inset. Comparisons are listed below.

PN	Geographic Position		Charted	Survey
	Latitude N	Longitude W	Characteristic	Characteristic
1680	29°51'02.54"	095°05'19.38"	S	fne br S
1681	29°50'45.87"	095°05'36.51"	S	br S
1682	29°50'35.26"	095°06'01.24"	M	br S
1683	29°50'43.69"	095°06'21.47"	S-Cl	br S, br M
1684	29°50'26.87"	095°06'15.05"	Cl	br S
1685	29°50'04.08"	095°05'49.46"	S	br s, gy M
1686	29°49'46.62"	095°05'03.27"	S	br S
1687	29°49'46.59"	095°04'38.13"	S	br S
1688	29°49'52.53"	095°04'14.53"	S	br S
1689	29°49'43.38"	095°03'40.65"	M	br S, Sh
1761	29°49'27.11"	095°04'04.01"	M	br S
1762	29°49'33.57"	095°04'37.74"	M	br S
1763	29°49'12.87"	095°04'46.24"	M	br M, fne br S
1764	29°49'08.73"	095°04'57.08"	M	gy/br M, br S
1765	29°48'46.10"	095°05'13.84"	M	br M, fne br S
1793	29°48'49.66"	095°05'23.18"	M	br M, fne br S
1794	29°48'19.60"	095°05'26.00"	M	br M, fne br S
1795	29°47'58.22"	095°05'20.34"	M	dk gy M
1796	29°48'54.92"	095°05'00.10"	M	bk M, G
1797	29°48'07.80"	095°04'30.70"	M	dk gy M
1798	29°48'19.90"	095°04'12.48"	M	br M, fne br S
1799	29°48'11.21"	095°04'04.64"	M	br S
1800	29°48'03.38"	095°03'37.78"	M	dk gy M
1801	29°47'37.76"	095°03'31.42"	M	dk gy M
1802	29°47'24.90"	095°03'49.14"	M	gy M, crs S
1803	29°47'12.69"	095°04'07.13"	S	br S
1804	29°46'57.69"	095°04'23.60"	S	br S, Sh
1805	29°46'39.25"	095°04'37.64"	S	br S
1806	29°46'10.16"	095°04'40.58"	M	br S

* DATA Filed with Field Records. 16

PN	Geographic Position		Charted	Survey
	Latitude N	Longitude W	Characteristic	Characteristic
1807	29°45'53.59"	095°04'56.66"	S	gy, br S
1808	29°45'55.8 ⁶ "	095°05'21.7 ⁵ "	M	gy M, gy S
1809	29°45'55.34"	095°05'55.3 ¹ "	M	gy S, Sh
1810	29°46'26.4 ⁷ "	095°06'03.99"	M	gy M
1811	29°46'45.2 ⁸ "	095°05'59.56"	M	gy M
1812	29°46'58.8 ² "	095°05'48.26"	M	gy M
1813	29°47'03.30"	095°05'21.0 ⁶ "	M	gy M
1814	29°47'08.9 ³ "	095°04'59.63"	M	gy S
1815	29°47'18.0 ⁹ "	095°04'41.0 ⁹ "	M	gy M
1816	29°47'18.42"	095°04'14.25"	M	gy M
1817	29°50'52.4 ¹ "	095°05'35.82"	N/A	br S
1818	29°50'52.7 ⁸ "	095°05'56.3 ² "	N/A	br M
1819	29°51'02.19"	095°05'30.4 ¹ "	N/A	br S


No tidal anomalies were observed during this survey.

T. RECOMMENDATIONS *See also Evaluation Report. Section P*

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 Q of this report.

U. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10119	Atlantic Hydrographic Division N/CS33, Norfolk, VA (1984)

Respectfully Submitted,

 Castle Eugene Parker
 Hydrographer-In-Charge
 Atlantic Hydrographic Party

AWOIS NO: 3032

Item Description: OBSTRUCTION/PIER RUINS

Source: T9915(1951-54, 55), H10119/83-84

AWOIS Position: Lat - 29°45'48.81"N Lon - 095°04'40.74"W

Required Investigation: VS, ES, S2

Charts Affected: 11326

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 2904-2951

Launch Number: 770

Investigation Used: VS, ES

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: AWOIS #3032 was investigated by means of visual and echo sounder search at 10-meter line spacing. No visual ruins were identified. The graphic record indicates some type of submerged object at 29°45'49.78"N, 095°04'38.89"W (the near shore position), extending toward the offshore position located at 29°45'49.17"N, 095°04'39.05"W (Position Number 2919+2 through 2919+5). A least depth of 1.5m at MLLW using predicted tides was located at 29°04'49.02"N, 095°04'39.05"W (Position Number 2919+6). This position bears 081°46'48" with a range of 45.8 meters from the AWOIS position. Because of the steep bottom slope, water depth, and ship traffic, bottom drag or side scan sonar was not feasible.

CHARTING RECOMMENDATION

The hydrographer recommends that the pier ruins be charted on the planned inset of the San Jacinto River. *concur*

Recommended Position: Lat - 29°45'⁴⁸~~8.81~~" Lon - 095°04'40.7"W ✓

Recommended Least Depth: NONE

COMPILATION NOTES

Retain on Chart 11329, 31 st ED. 10 may 97, side A

AWOIS NO: 3033

Item Description: OBSTRUCTION/PIER

Source: T4618(1030-31), BP98462(1961-62), H10119 (1983-84)

AWOIS Position: Lat - 29°45'49.81"N Lon - 095°04'42.74"W

Required Investigation: VS, ES, S2

Charts Affected: 11326

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 2952-2975

Launch Number: 770

Investigation Used: ES

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record indicated nothing that displays characteristics of submerged pier ruins. Henry Jackson, Assistant Superintendent of Ferries at the Lynchburg Ferry Landing (713-424-3521 or 713-424-3522) indicated that an old ferry pier was cut off, broken up, and partially submerged. Mr. Jackson indicated that it does exist but poses no threat to ferry operation or a hazard to navigation. Bottom drag nor side scan sonar were feasible to conduct due to vessel traffic and the close proximity of the ferry landing and the Houston Ship Channel.

CHARTING RECOMMENDATION

The hydrographer recommends that the submerged pier ruins be charted on the planned inset of the San Jacinto River. *concur*

Recommended Position: Lat- 29°45'49.81"N Lon- 095°04'42.74"W ✓

Recommended Least Depth: NONE

Compilation Notes

Retain on Chart 11329, 31st Ed., 10 May 97 - Side A

AWOIS NO: 3034

Item Description: OBSTRUCTION/MOORING PILES

Source: CL304/58, CL1224/74, BP89523, H10119/83-84

AWOIS Position: Lat - 29°45'56.38N Lon - 095°04'43.5"W

Required Investigation: ##

Charts Affected: 11326

INVESTIGATION

Date(s)/DN(s): 08/11/94 (DN:223)

Position Numbers: 2976-3004

Launch Number: 770

Investigation Used: ES

Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search using 10-meter line spacing was conducted. Graphic records indicate a spike located at 29°45'56.36"N, 095°04'43.83"W (Position Number 2991+1). This feature bears 266°03'43" with a range of 8.967 meters from the AWOIS target. Least depth is 3.5m MLLW Predicted Tides.
3.0

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction be charted on the planned inset of the San Jacinto River at the revised position below. *CONCERN*

55.99 *31*
Recommended Position: Lat- 29°45'56.36"N Lon- 095°04'43.83"W

Recommended Least Depth: 3.5m MLLW Predicted Tides

3.0 *Approved*

COMPILATION NOTES

RETAIN AS CHARTED

(X)

AWOIS NO: 3035

Item Description: OBSTRUCTION/PIER

Source: T9915(51-55), BP104841, H10119(83-84)

AWOIS Position: Lat - 29°45'56.81"N Lon - 095°04'43.74"W

Required Investigation: BD, ES

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 2976-3005

Launch Number: 770

Investigation Used: ES,VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search using 10-meter line spacing was conducted. Graphic records showed no positive evidence of a submerged pier. Due to the steep slope along the shore and vessel traffic, a bottom drag was not feasible.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction be charted on the planned inset of the San Jacinto River. *Con Cur, with Clarification*

Recommended Position: Lat- 29°45'56.81"N Lon- 095°04'43.74"W

Recommended Least Depth: ~~NONE~~ 1.2 m
3.9 ft.

COMPILATION NOTES

Pile within Soul Limit - Do NOT Chart

(X)

AWOIS NO: 3036

Item Description: SOUNDING 13 FT

Source: H5125(1931), H10119(1983-84)

AWOIS Position: Lat - 29°46'00.81"N Lon - 095°04'44.74"W

Required Investigation: ##

Charts Affected:

INVESTIGATION

Date(s)/DN(s): 08/14/94 (DN:226)
08/16/95 (DN:228)

Position Numbers: 3102-3130

Launch Number: 770

Investigation Used: ES

Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search using 10-meter line spacing was conducted. There were no 3 to 4 meter soundings acquired near the AWOIS target. Soundings in the 13 foot range (3.96m) were found closer to shore in the area of moored barges at the Channel Shipyard on the east side of the San Jacinto River.

CHARTING RECOMMENDATION

The hydrographer recommends that the 13 ft sounding on the prior survey be superseded by data from this survey for charting on the planned inset of the San Jacinto River. *concur*

Recommended Position: Lat - Lon -

Recommended Least Depth: NONE

COMPILATION NOTES

Item NOT Charted ✓

AWOIS NO: 3037

Item Description: OBSTRUCTION/BARED RUINS

Source: T9915(1951-55), BP98272 (1961-62), H10119(1983-84)

AWOIS Position: Lat - 29°46'04.81"N Lon - 095°04'39.74"W

REQUIRED INVESTIGATION: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3098

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: Visual identification of baring ruins was positive, however, they do not exist as a single item. The AWOIS item, bared ruins, now serves as a bulkhead with a steel pier extending offshore over the bared ruins. (See Photograph in the Separates for H-10619) Channel Shipyard converted the bared ruins into a steel bulkhead and built a steel pier extending from shore over the ruins. Contact point is Alan Bonds of Channel Shipyard (713-424-1581), P.O. Box 926 M, Highlands, Texas 77562. Position Number 3098 is located 11.6127 meters and bears 067°43'04.29" from AWOIS #3037.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction (bared ruins) not be charted on the planned inset of the San Jacinto River, but the pier and bulkhead should be charted on the inset. *Concur*

Recommended Position: Lat - 00/00/00.0N Lon - 000/00/00.0W

Recommended Least Depth: NONE

COMPILATION NOTES

AWOIS NO: 3038

Item Description: OBSTRUCTION/ PIER RUINS

Source: T9915(1951-55), BP98272(1961-62), H10119(1983-84)

AWOIS Position: Lat - 29°46'05.81"N Lon - 095°04'37.74W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3097

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A visual search was conducted. The AWOIS position was inaccessible due to moored barges at the Channel Shipyard. (See Photo) Contact was made with Alan Bonds, Cleaning Plant Superintendent at Channel Shipyard, P.O. Box 926, Highlands, Texas 77562, 713-424-1581. Mr. Bonds informed the hydrographer that the item does exist. Shipyard personnel occasionally bring up debris similar to pier ruins (piles, wood pieces, etc.). Hydrographer identified debris as pier piles. Ruins pose no hazard to navigation as shipyard operates a floating drydock and moors barges in this area.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'05.81"N Lon- 095°04'37.74"W

Recommended Least Depth: NONE

COMPILATION NOTES

Shown on Chart 11329 31st ED, 10 may 97

No change in charting

Item was disproved
on prior survey H-10119
and assigned to this project
as informational only
MCR 4/2/98

⊕

AWOIS NO: 3039

Item Description: UNKNOWN/WK

Source: T9915(1951-55), BP98462(1967), H10119(1983-84)

AWOIS Position: Lat - 29°46'07.51"N Lon - 095°04'37.64"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3096

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: Position number 3096 marks the closest point to the AWOIS item that the survey vessel could reach. A floating dry dock and moored barge operated by Channel Shipyard lies over the target. Contact person was Alan Bonds of Channel Shipyard, P.O. Box 926, Highlands, Texas 77562, 713-424-1581, who stated that the ruins exist. Dock workers occasionally pull up debris from the ruins. Mr. Bonds stated that the wreck ruins pose no threat to navigation or shipyard activities.

CHARTING RECOMMENDATION

The hydrographer recommends that the submerged wreck be charted on the planned inset of the San Jacinto River. *Do NOT Chart*

Recommended Position: Lat- 29°46'07.51"N Lon- 095°04.37.64"W

Recommended Least Depth: NONE

COMPILATION NOTES

Inadequate investigation, within foul limit, Do NOT chart.

AWOIS NO: 3040

Item Description: UNKNOWN/VIS WK

Source: H5125(1931), T-4618(1930-631), H10119(1983-84)

AWOIS Position: Lat - 29°45'58.81"N Lon - 095°05'24.75"W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2789-2824

Launch Number: 770

Investigation Used: ES, VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The search provided negative results. The graphic record showed no evidence of a visible or submerged wreck. This area is used by the Old River Fleet and Hollywood Marine River Fleet as a staging area for tugs moving barges in and around the Houston Ship Channel. Most of the barges are liquid carriers. Some of the tugs and tows are temporarily moored for several days, while others remain just overnight. Traffic in this area is often heavy. For these reasons bottom drag was not performed.

CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck not be charted on the planned inset of the San Jacinto River. *Do NOT CONCUR*

Recommended Position: Lat -

Lon -

Recommended Least Depth: NONE

COMPILATION NOTES

SAME AS AWOIS #6967, See AWOIS# 6967 for Charting Recommendation

*Item was disproved on
prior survey H-10119
and assigned to this
project as informational
only*

MCR 4/2/98

AWOIS NO: 3041

Item Description: UNKNOWN/ VIS WK

Source: H5125(1931), T4618(1930-31), H10119(1983-84)

AWOIS Position: Lat - 29°45'59.81"N Lon - 095°05'25.75"W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2789-2824

Launch Number: 770

Investigation Used: VS,ES

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The search provided negative results. The graphic record showed no evidence of a visible or submerged wreck. This area is used by the Old River Fleet and Hollywood Marine River Fleet as a staging area for tugs moving barges in and around the Houston Ship Channel. Most of the barges are liquid carriers. Some of the tugs and tows are temporarily moored for several days, while others remain just overnight. Traffic in this area is often heavy. For these reasons a bottom drag was not performed.

CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck not be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- N Lon - W

Recommended Least Depth: NONE

COMPILATION NOTES

Delete (##)

AWOIS NO: 3049

Item Description: UNKNOWN/ VIS WK

Source: H5125(1931, T4618(1930-31), H10119(1983-84)

AWOIS Position: Lat - 29°45'49.81N Lon - 095°05'57.75"W

Required Investigation: ES, BD, SD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2748,2749

Launch Number: 770

Investigation Used: SD

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: Position number 2748 and 2749 were as close to the AWOIS position that the survey vessel could reach. There are numerous moored barges in the area belonging to the Old River Fleet Company and Hollywood Marine River Fleet. The area was inaccessible for conducting an echo sounder search. The hydrographer contacted LeRoy Standley, of the Old River Fleet Company, phone 713-452-0848. Mr. Standley stated "there are no barge wrecks in the area of this item. There wouldn't be barges that carry benzene moored over a wreck!" Mr. Standley also stated that if there were any wrecks in this area, they've been removed.

CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck not be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- N LON- W

Recommended Least Depth: NONE

COMPILATION NOTES

*Charted as Subm wreck on Chart 11329, 31st ED, 10 May 97
It is recommended that the Subm wreck be Deleted.*

AWOIS NO: 3050

Item Description: OBSTRUCTION/PIER RUINS

Source: T9915 (1951-55), BP98462 (1961-62), H10119 (1983-84)

AWOIS Position: Lat - 29°46'07.81"N Lon - 095°06'07.75"W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2745

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A visual search was conducted. A piece of metal re-enforcement rod was found exposed 0.2m above the water surface, at 29°46'07.23"N, 095°06'07.82"W (Position Number 2745). The hydrographer pulled up pieces of wood or what appeared to be remnants of pier ruins with a boat hook. Position 2745 bears 186°12'08" and 17.9 meters from the AWOIS position.

CHARTING RECOMMENDATION

The hydrographer recommends that the pier ruins be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'07.23"N Lon-095°06'07.82"W

Recommended Least Depth: ^{-1.0 m}
~~-0.6m~~ MLLW Predicted Tides
^{-3.3 FT. *Approved*}

COMPILATION NOTES

Shown on Chart 11329, 31st. ED., May 10, 97
No change in Charting Recommended

⑧

AWOIS NO: 3051

Item Description: OBSTRUCTION/PIER RUINS

Source: T9915(1951-55), BP98462(1961-62), H10119(1983-84)

AWOIS Position: Lat - 29°46'08.81N Lon - 095°06'07.75"W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2744

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A visual search identified pier ruins at 29°46'08.55"N, 095°06'07.88"W (Position Number 2744). The ruins include 12-inch diameter piles, exposed 3.4m above MLLW corrected by Predicted Tides. Position 2744 bears 203°48'38" at a range of 8.71m from the AWOIS position.

CHARTING RECOMMENDATION

The hydrographer recommends that the pier ruins be charted on the planned inset of the San Jacinto River at the revised position listed below. *Low cur*

Recommended Position: Lat- 29°46'08.55"N Lon- 095°06'07.88"W

Recommended Least Depth: ~~-3.4m~~ MLLW Predicted Tides

-3.8m *Approved*

-12.4 FT

COMPILATION NOTES

*Shown on CHART 11329, 31ST. ED, May 10, 97
No change in CHARTING Recommended*

AWOIS NO: 3052

Item Description: OBSTRUCTION/PIER RUINS

Source: T9915(1951-55), BP98462(1961-62), H10119(1983-84)

AWOIS Position: Lat - 29°46'09.81"N Lon - 095°06'07.75W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2742

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A visual search identified pier ruins at 29°46'09.82"N, 095°06'08.05"W. The ruins include 12-inch diameter piles exposed 1.4m above MLLW corrected by Predicted Tides. Position Number 2742 bears 272°22'58" at a range of 8.14m from the AWOIS position.

CHARTING RECOMMENDATION

The hydrographer recommends that the pier ruins be charted on the planned inset of the San Jacinto River at the revised position listed below. *CONCUR*

Recommended Position: Lat- 29°46'09.82"N Lon- 095°06'08.05"W

Recommended Least Depth: ^{-1.8m}~~1.4m~~ MLLW Predicted Tides
^{-5.9 FT} *APPROVED*

COMPILATION NOTES

*Shown on Chart 11389 31ST. ED., MAY 10, 97
NO change in Charting Recommended*

AWOIS NO: 3053

Item Description: OBSTRUCTION/PIER RUINS

Source: T9915(1951-55),BP115992(1981), H10119(1983-84)

AWOIS Position: Lat - 29°46'11.81"N Lon - 095°06'07.75"W

Required Investigation: ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2741

Launch Number: 770

Investigation Used: VS

Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: A visual search identified pier ruins between a moored barge and shore. (See Photo in the Separates for H-10619.) Position Number 2741 was acquired on the center offshore side of the moored barge. The survey vessel was unable to reach the AWOIS location due to shallow water along the shoreline. Position Number 2741 bears 236°02'47" at a range of 19.7m from the AWOIS position. Pier ruins are visible on the north and south end of the moored barge.

CHARTING RECOMMENDATION

The hydrographer recommends that the pier ruins be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'11.81N Lon- 095°06'07.75"W

Recommended Least Depth: NONE

COMPILATION NOTES

*Shown on Chart 11329, 31 ST. ED., MAY 10, 97
No change in Charting Recommended*

AWOIS NO: 6966

Item Description: OBSTRUCTION/ LD 12 FT

Source: H10119(1983-84)

AWOIS Position: Lat - 29°45'50.01"N Lon - 095°04'43.7"W

Required Investigation: S2, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 2904-2975

Launch Number: 770

Investigation Used: ES

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record indicated a sounding of 3.4m (corrected depth) at 29°45'50.44"N, 095°04'43.38"W (Position Number 2951). This position is located 15.6 meters and bears 32°59'36" from the AWOIS position. Another sounding at 29°45'49.91"N, 095°04'42.98"W, (Position Number 2932+1) also has a corrected depth of 3.4m. This position bears 99°06'25" and a range of 19.4m from the AWOIS position. A bottom drag and side scan sonar was impractical to conduct due to the ferry, ship, and barge traffic in the immediate area. Graphic records indicate 4.8m to 7.3m soundings nearest the AWOIS position. It should be noted that this area is on the sloping channel edge of the Houston Ship Channel.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction be charted on the planned inset of the San Jacinto River at the revised position listed below. *Do NOT Concur*

Recommended Position: Lat- 29°45'50.44"N Lon- 095°04'43.38"W

Recommended Least Depth: ^{3.4m} ~~3.4m~~ MLLW Predicted Tides (11.152ft)

Approved

COMPILATION NOTES

Shown on Chart 11329, 31ST. ED., May 10, 97

Item NOT Adequately Investigated, Retain as Charted

AWOIS NO: 6967

Item Description: OBSTRUCTION/ SNAG

Source: H10119(1983-84)

AWOIS Position: Lat - 29°45'58.4"N Lon - 095°05'24.64W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2789-2824

Launch Number: 0770

Investigation Used: ES

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record showed negative results. There was no evidence of a 3-foot snag within the sounding area. There are numerous barges moored in this location. Old River Fleet and Hollywood Marine River Fleet use this area as a staging area for barges in tow, loading, and off loading. Often times there is heavy vessel traffic. A bottom drag was not feasible due to the moored barges and traffic.

CHARTING RECOMMENDATION

The snag obstruction is not recommended for charting on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- N Lon- W
Recommended Least Depth: NONE

COMPILATION NOTES

Delete : : obstN

X

AWOIS NO: 6968

Item Description: OBSTRUCTION/LD 10FT

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'07.3"N Lon - 095°04'38.04"W

Required Investigation: ES, BD, ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3095

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: The search for AWOIS 6968 could not be properly conducted. Moored barges were situated over the target location. Barges were also moored to the north and south of Position Number 3095, less than 20 meters away. This item is in the area of Channel Shipyard. There are barges moored at this location frequently for shipyard work.

CHARTING RECOMMENDATION

The hydrographer recommends this obstruction be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'07.30"N Lon- 095°04'38.04

Recommended Least Depth: NONE

COMPILATION NOTES

The charted obstn falls within a charted foul limit area, no change in charting is recommended. The 10 obstn was brought forward from the prior survey to supplement the present survey

X

AWOIS NO: 6969

Item Description: FAY/ WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'00.81"N Lon - 095°04'33.94"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2903

Launch Number: 770

Investigation Used: VS

Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: The wreck "FAY" was visually identified. Position number 2903 was as close to the location of the wreck as the survey vessel could reach due to shallow water depths. (See Photo)

CHARTING RECOMMENDATION

The hydrographer recommends the wreck be charted on the planned inset of the San Jacinto River. *COJOLIF*

Recommended Position: Lat- ~~29°47'00.81"N~~ Lon- ~~095°04'33.94"W~~

Recommended Least Depth: NONE

COMPILATION NOTES

AWOIS NO: 7110

Item Description: UNKNOWN/ WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°45'48.81"N Lon - 095°05'48.75"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2757-2788

Launch Number: 770

Investigation Used: ES,SD

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic records showed negative results. The hydrographer spoke with LeRoy Standley of "Old River Fleet Company" (713-452-0848). Mr. Standley stated that the wreck had been removed.

CHARTING RECOMMENDATION

The hydrographer recommends that the wreck not be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat - Lon -

Recommended Least Depth:

COMPILATION NOTES

No change in charting is recommended.

AWOIS NO: 7111

Item Description: UNKNOWN/ WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'09.81"N Lon - 095°04'34.74"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3094

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: Wreckage was visually identified and located by position number 3094. The area is filled with wreckage toward the south and east toward shore. To the west is a moored barge. Wreckage was exposed 0.6m above MLLW corrected for predicted tides. The AWOIS position is located 64.8 meters away and bearing 254°35'07" from Position Number 3094. This is the northern limit of Channel Shipyard.

CHARTING RECOMMENDATION

The hydrographer recommends the wreck be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'10.37"N Lon- 095°04'32.41"W

Recommended Least Depth: ^{0 m} ~~-0.6m~~ MLLW ~~Predicted~~ Tides
-2.9 FT. Approved

COMPILATION NOTES

Shown on Chart 11329, 31st. ED., May 10, 97

No change in Charting is Recommended

AWOIS NO: 7112

Item Description: OBSTRUCTION/ AWASH

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'26.81"N Lon - 095°04'24.84"W

Required Investigation: VS, ES, BD, ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3006-3029

Launch Number: 770

Investigation Used: ES

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic records indicated a submerged obstruction. A least depth of ^{0.6m} MLLW ^{Approved} Predicted Tides was acquired at position number 3026+4, at 29°46'26.88"N, 095°04'24.98"W, which bears 298°25'34" with a range of 4.39m from the AWOIS position.

CHARTING RECOMMENDATION

The hydrographer recommends that a submerged obstruction be charted on the planned inset of the San Jacinto River. *Do not Chart*

Recommended Position: Lat- 29°46'26.88"N Lon- 095°04'24.98"W

Recommended Least Depth: ^{0.6m} MLLW ^{Approved} Predicted Tides

0.5 FT

COMPILATION NOTES

Obstr Falls within Charted Foul Limits Area.

Do not Chart

x

AWOIS NO: 7113

Item Description: UNKNOWN/VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'31.01"N Lon - 095°04'22.44"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3030

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A wreck was visually identified and located by position number 3030. The wreck is exposed 4.4m above MLLW Predicted Tides.

CHARTING RECOMMENDATION

The hydrographer recommends the wreck be charted on the planned inset of the San Jacinto River. *CONCUR*

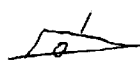
Recommended Position: Lat- 29°46'30.98"N Lon- 095°04'22.52"W

Recommended Least Depth: -4 [?] M MLLW Predicted Tides

-16 FT *Approved*

COMPILATION NOTES

Chart



*Falls within charted
foul limits area
not charted*

X

AWOIS NO: 7114

Item Description: UNKNOWN/VIS WK

Source: H10119 (1983-84)

AWOIS Position: Lat - 29°46'37.81"N Lon - 095°04'19.54"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3031

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: A wreck was visually identified and located at position number 3031. The wreck is exposed 1.3m above MLLW corrected by predicted tides.

Approved

CHARTING RECOMMENDATION

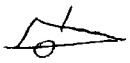
The hydrographer recommends the visible wreck be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'37.55"N Lon- 095°04'19.89"W

Recommended Least Depth: -1.3m MLLW Predicted Tides

-6 FT *Approved*

COMPILATION NOTES

Chart  falls within charted spot limits area not charted

AWOIS NO: 7115

Item Description: CHIPPY/WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'04.81"N Lon - 095°04'54.85"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2739-2740

Launch Number: 770

Investigation Used: VS

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: The investigation for tug wreck "Chippy" on DN 222, visually identified a barge wreck, not a tug wreck. The barge wreck is located approximately 50 meters to the east of the AWOIS position. Re-investigation for AWOIS 7115 on DN 256, found an obstruction (oil boom) exposed 0.2m above the water surface. The boom is buried in soft mud at each end with the middle exposed above the water surface. The hydrographer probed the bottom sediment with a sounding pole for evidence of a metal wreck with negative results.

CHARTING RECOMMENDATION

The hydrographer recommends that the visible wreck "Chippy" not be charted on the planned inset of the San Jacinto River. Instead, the barge wreck and the oil boom obstruction should be charted on the planned inset. *CONCUR*

Recommended Position: Wreck - 29°47'04.41"N, 095°05'52.81"W

~~*Obstr - 29°47'05.07"N, 095°05'54.76"W~~

Recommended Least Depth: Wreck - (PN 2739) ~~2m above MLLW~~ - 2.5m - 8.2 FT

(PN 2740) ~~0.7m below MLLW~~ 0.2m - 0.5 FT

Obstr - 0.3m above MLLW

(Depths corrected using predicted tides.)

Approved

COMPILATION NOTES

Chart 

** Do NOT Chart, OBSTN falls within Foul Limit Area.*

X

AWOIS NO: 7116

Item Description: UNKNOWN/ WK

Source: H10119(83-84)

AWOIS Position: Lat - 29°46'45.81"N Lon - 095°04'13.74"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3032-3033

Launch Number: 770

Investigation Used: VS

Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: A barge wreck was visually identified at the AWOIS position. Position number 3032 was taken on the southern limit of the barge wreck and position number 3033 was taken on the northern limit of the wreck. The wreck axis was 060° (PN 3033) to 240° (PN 3032), with a length of 160 meters. The wreck was exposed 0.8m above the water surface at position number 3032 and exposed 0.7m above at position number 3033.

CHARTING RECOMMENDATION

The hydrographer recommends the wreck be charted on the planned inset of the San Jacinto River. *Concur*

Recommended Position: Lat- 29°46'45.81"N Lon- 095°04'13.74"W

Recommended Least Depth: ^{-1.2m}
~~-0.8m~~ MLLW Predicted Tides
^{3.9 FT} *Approved*

COMPILATION NOTES

Chart  *WK*

X

AWOIS NO: 7117

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'50.81"N Lon - 095°04'14.94"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 07/20/95 (DN:201)
08/11/95 (DN:223)

Position Numbers: 1957-1961; 3035-3063 Launch Number: 770

Investigation Used: VS, ES Water Visibility: .5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing (position number 3035-3063) along with main scheme splits at 50 meter line spacing. Position number 1959+1 had a least depth of 0.6m corrected. The graphic record shows a definite feature in this area, but not a visible barge baring 10 ft at MLLW, as the item indicates.

CHARTING RECOMMENDATION

The hydrographer recommends that a submerged wreck be charted on the planned inset of the San Jacinto River. *CONDOR*

Recommended Position: Lat- ^{29° 46' 50.27"} ~~29°46'50.31"~~ N Lon- ^{95° 04' 16.54"} ~~095°04'13.65"~~ W

Recommended Least Depth: ^{0.5m} ~~0.6m~~ MLLW ^{4.6 FT} ~~Predicted~~ Tides

***** ^{APPROVED} *****

COMPILATION NOTES

Chart 1 WK

AWOIS NO: 7118

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°46'59.31"N Lon - 095°04'02.74"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3034

Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5M

Position Determined By: DGPS

Investigation Summary: A wreck was visually identified and located by position number 3034. The observed geographic position was 17.43 meter from the AWOIS position, with a bearing of 200°00'08". The wreck was exposed 0.5m above the water surface at the time of survey.


CHARTING RECOMMENDATION

The hydrographer recommends that the wreck be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat- 29°46'^{58.76}59.31"N Lon- 095°04'⁹⁶02.74"W
- 1.4 m

Recommended Least Depth: ~~-0.9m~~ MLLW Predicted Tides
- 4.6 FT *Approved*

COMPILATION NOTES

Chart  *falls within charted
four limits area
not charted*

X

AWOIS NO: 7119

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'12.81"N Lon - 095°04'20.74"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2902

Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: A visual search found numerous moored barges surrounding several barge wrecks. Bottom drag search was impractical due to all the moored barges and barge traffic in the immediate search area.

CHARTING RECOMMENDATION

The hydrographer recommends that the barge wrecks be charted on the planned inset of the San Jacinto River. *Concur*

Recommended Position: Lat- 29°47'12.81"N Lon- 095°04'20.74"W

Recommended Least Depth: NONE

COMPILATION NOTES

*Shown on Chart 11329 31st. ED., May 10, 97
No change in Charting Recommended*

AWOIS NO: 7120

Item Description: OBSTRUCTION/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'27.81"N Lon - 095°04'23.24"W

Required Investigation: VS, ES

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/11/95 (DN:223)

Position Numbers: 3064

Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5M

Position Determined By: DGPS

Investigation Summary: A visual search of the AWOIS area identified a wreck lying partially onshore and awash at the offshore position. The survey vessel was unable to obtain an accurate position due to shallow water depths. Vessel offsets were applied to the acquired detached position. The track plot of PN 3064 shows excellent agreement with the charted wreck on Prior Survey H10119.

CHARTING RECOMMENDATION

The hydrographer recommends that the wreck be charted on the planned inset of the San Jacinto River. *Concur*

Recommended Position: Lat- 29°47'27.⁷⁰81"N Lon- 095°04'23.¹⁴24"W

Recommended Least Depth: NONE

COMPILATION NOTES

chart 

X

AWOIS NO: 7121

Item Description: OBSTRUCTION/ LD 18 FT

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'45.6"N Lon - 095°03'25.21W

Required Investigation: S2, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2867-2901

Launch Number: 770

Investigation Used: ES, S2

Water Visibility: .5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search using 10-meter line spacing was conducted. The graphic record showed an unusual profile or hump appearing near mid-channel. A least depth of 5.9m (19.3ft) was positioned at 29°47'45.34"N, 095°03'25.75"W. This position bears 241°14'14" and a 16.5m range from the AWOIS target. Side scan data indicated no hard contacts in this area.

CHARTING RECOMMENDATION

The hydrographer recommends that the unknown obstruction be charted on the planned inset of the San Jacinto River. *Do not concern*
Side scan sonargrams & Graphic Records show rise in bottom, but no obstruction.

Recommended Position: Lat- 29°47'45.34"N Lon- 095°03'25.75"W

Recommended Least Depth: 5.5m MLLW Predicted Tides (18 FT)
(19.3ft)

Approved

COMPILATION NOTES

Recommend no obstruction be charted

Chart 18 Depth

x

AWOIS NO: 7122

Item Description: OBSTRUCTION/ LD 11FT

Source: H10119(1983-84)

AWOIS Position: Lat - 29°48'06.74"N Lon - 095°03'44.95"W

Required Investigation: S2, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/10/95 (DN:222)

Position Numbers: 2827-2866

Launch Number: 770

Investigation Used: ES

Water Visibility: 0.5M

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record showed an obstruction at position number 2827+4, with an uncorrected least depth of 3.9m (12.7 ft). Position number 2827+4 bears 358°20'05" with a range of 0.9241 meters from the AWOIS target.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction be charted on the planned inset of the San Jacinto River. *Concur*

Recommended Position: Lat- 29°48'06.⁷⁷"N Lon- 095°03'44.95"W

Recommended Least Depth: 3.⁵9m MLLW Predicted Tides

11 FT Approved

COMPILATION NOTES

Chart (11) Obstr

X

AWOIS NO: 7123

Item Description: UNKNOWN/ WKS

Source: H10119(1983-84)

AWOIS Position: Lat - 29°48'08.31"N Lon - 095°04'14.24"W

Required Investigation: VS, ES, BD ##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/09/95 (DN:221)

Position Numbers: 2686-2720

Launch Number: 770

Investigation Used: VS, ES

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: A visual and an echo sounder search were conducted using 10-meter line spacing. The graphic record indicated a shoal within the search limits, with a least depth of 0.8m (corrected) at position number 2686+7 (29°48'08.03"N, 095°04'14.01"W). This position lies 9.4 meters and bears 155°54'53" from the AWOIS position and does not appear to be a wreck, but rather a sand bar formed at the end of the nearby islands in the area. This AWOIS position is located within a foul limit area charted with snags, stumps, and trees. The graphic record showed no patterns of submerged metal objects and no magnetic anomalies were observed using the compass, in the search area. There were several stumps and snags found within the search area (Position number 2722 and 2723).

CHARTING RECOMMENDATION

The hydrographer recommends wrecks not be charted on the planned inset of the San Jacinto River. *Concur*

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

Recommended Least Depth: NONE

COMPILATION NOTES

X

AWOIS NO: 7124

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°48'39.81"N Lon - 095°05'05.74"W

Required Investigation: VS, ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/08/95 (DN:220)

Position Numbers: 2599

Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: A visual search identified a barge wreck with spud, exposed 3.0m above at survey time. Position number 2599 is located 15m away with a bearing of 227°41'10" from the AWOIS position. The wreck is foul within a 10-meter radius of position number 2599. The wreck appears to be approximately 5m wide by 10m long. (See Photo)

CHARTING RECOMMENDATION

The hydrographer recommends the wreck be charted on the planned inset of the San Jacinto River. *concur*

Recommended Position: Lat- 29°48'39.47"N Lon- 095°05'06.1⁶7"W

Recommended Least Depth: -3.4⁸m MLLW Predicted Tides

12 FT *Approved*

COMPILATION NOTES

x

AWOIS NO: 7125

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°48'53.81"N Lon - 095°05'13.74"W

Required Investigation: ES, BD

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/09/95 (DN:221)

Position Numbers: 2643-2685

Launch Number: 770

Investigation Used: ES

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record indicated a submerged object with a least depth of 0.6m (corrected) at 29°48'53.35"N, 095°05'13.78"W. Magnetic anomalies were observed every time the survey vessel passed over the object. The boat's compass started spinning when over the item and then returned to its normal position after passing over the submerged object. The least depth, position 2677+5, is located 14.25 meters away and bears 183°53'14" from the AWOIS position.

CHARTING RECOMMENDATION


The hydrographer recommends that a submerged wreck be charted on the planned inset of the San Jacinto River, instead of the visible wreck shown on the prior survey.

Recommended Position: Lat- 29°48'53.35"N Lon- 095°05'13.78"W

Recommended Least Depth: 0.6m MLLW Predicted Tides

0.3 FT APPROVED

COMPILATION NOTES

Chart 

~~Charted as visible wreck~~
Charted as submerged wreck

X

AWOIS NO: 7126

Item Description: UNKNOWN/ VIS & SUBM WKS

Source: H10119(1983-84)

AWOIS Position: Lat - 29°48'57.81N Lon - 095°04'55.74"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/09/95 (DN:221)

Position Numbers: 2639, 2640, 2641

Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: A visual search identified several visible wrecks in and near the AWOIS position. Detached positions were taken at 29°48'58.68"N, 095°04'55.90"W, PN 2639, exposed 1.0m above MLLW; at 29°48'55.68"N, 095°04'57.20"W, PN 2640, exposed 0.7m above MLLW; and at 29°48'54.46"N, 095°04'57.24"W, PN 2641, exposed 0.6m above MLLW.

CHARTING RECOMMENDATION

The hydrographer recommends that the wrecks shown on the prior survey be charted on the planned inset of the San Jacinto River. *CONOUR*

Recommended Position: * Lat- 29°48'58.68"N Lon- 095°04'55.90"W

Recommended Least Depth: -1.0m MLLW Predicted Tides
-4.9 FT *Approved*







Recommended Position: * Lat- 29°48'55.68"N Lon- 095°04'57.20"W

Recommended Least Depth: -0.7m MLLW Predicted Tides
-3.9 FT *Approved*

Recommended Position: * Lat- 29°48'54.46"N Lon- 095°04'57.24"W

Recommended Least Depth: -0.6m MLLW Predicted Tides
-3.6 FT *Approved*

COMPILATION NOTES

* chart  
* chart  
* chart  

AWOIS NO: 7127

Item Description: UNKNOWN/ VIS WK

Source: H10119(1983-84)

AWOIS Position: Lat - 29°49'12.3"N Lon - 095°04'42.94W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/09/95 (DN:221)

Position Numbers: 2609-2636

Launch Number: 770

Investigation Used: VS, ES

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line spacing. The graphic record showed no evidence of a wreck in the area. The graphic record did show spikes where the hydrographer observed dead heads and snags. This immediate area is charted as numerous snags within a foul area on the prior survey H10119. An exposed wreck was visually identified 113 meters away, bearing 121°55'59" from the AWOIS position. The offshore point of this wreck was located by position number 2638.

CHARTING RECOMMENDATION

The hydrographer recommends the wreck shown on the prior survey be charted on the planned inset of the San Jacinto River at the revised position found by this survey. *CONCUR*

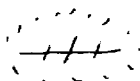
Recommended Position: Lat- 29°49'10.36"N Lon- 095°04'39.36"W

Recommended Least Depth: -1.4m MLLW Predicted Tides

6
-5.3 FT *APPROVED*

COMPILATION NOTES

Deleted
Delete



Chart



AWOIS NO: 7128

Item Description: UNKNOWN/ WKS

Source: H10119(1983-84)

AWOIS Position: Lat - 29°50'57.8"N Lon - 095Z24805'45.74"W

Required Investigation:

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/03/95 (DN:215)

Position Numbers: 2009-2012, 2016-2023 Launch Number: 770

Investigation Used: VS

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: A visual search of Muleshoe Lake provided identification of seven wrecks.

CHARTING RECOMMENDATION

The hydrographer recommends that the wrecks be charted on the planned inset of the San Jacinto River. *Concur*

Wreck #1 PN 2010:

Recommended Position: * Lat- 29°51'02.92⁰"N Lon- 095°05'26.40"W

Recommended Least Depth: ~~1.4~~^{0.5}m MLLW Predicted Tides

-1.6 FT Approved

Wreck #2 PN 2011

Recommended Position: * Lat- 29°51'07.23"N Lon- 095°05'27.85"W

Recommended Least Depth: ~~2.4~~^{1.5}m MLLW Predicted Tides

-4.9 FT Approved

Wreck #2 PN 2012

Recommended Position: * Lat- 29°51'07.09"N Lon- 095°05'26.48"W

Recommended Least Depth: ~~0.3~~^{1.3}m MLLW Predicted Tides

4.0 FT. Approved

Wreck #3 PN 2016

Recommended Position: * Lat- 29°51'06.31"N Lon- 095°05'58.65"W

Recommended Least Depth: ~~3.4~~^{2.5}m MLLW Predicted Tides

-8.2 FT Approved

Wreck #4 PN 2017

Recommended Position: * Lat- 29°51'07.39"N Lon- 095°05'59.44"W

Recommended Least Depth: ~~1.1~~^{0.1}m MLLW Predicted Tides

-0.6 FT. Approved

* chart visible wks

Wreck #4 PN 2018

Recommended Position: * Lat- 29°51'05.57"N Lon- 095°06'00.42"W *

Recommended Least Depth: ^{0.8}-1.7m MLLW Predicted Tides
_{-2.6 FT} *Approved*

Wreck #5 PN 2019

Recommended Position: * Lat- 29°50'54.35"N Lon- 095°06'08.06"W *

Recommended Least Depth: ^{1.5}-2.4m MLLW Predicted Tides
_{-4.9 FT} *Approved*

Wreck #6 PN 2021

Recommended Position: * Lat- 29°50'56.45"N Lon- 095°05'42.29"W *

Recommended Least Depth: ^{2.6}-3.4m MLLW Predicted Tides
_{-8.5 FT} *Approved*

Wreck #6 PN 2022

Recommended Position: Lat- 29°50'58.66"N Lon- 095°05'41.99"W

Recommended Least Depth: ^{4.6}-2.4m MLLW Predicted Tides *Do not Chart*
_{-5.2 FT} *Approved*

Wreck #7 PN 2023

Recommended Position: Lat- 29°50'52.11"N Lon- 095°05'34.01"W

Recommended Least Depth: ^{0.3}-1.1m MLLW Predicted Tides *Do Not Chart*
_{-6.0 FT} *Approved*

COMPILATION NOTES

* chart visible wks

AWOIS NO: 9429

Item Description: OBSTRUCTION

Source: H10119(1983-84)

AWOIS Position: Lat - 29°47'31.09"N Lon - 095°03'43.02"W

Required Investigation: S2,ES,##

Charts Affected: NONE

INVESTIGATION

Date(s)/DN(s): 08/14/95 (DN:226)

Position Numbers: 3065-3093

Launch Number: 770

Investigation Used: ES

Water Visibility: 0.5m

Position Determined By: DGPS

Investigation Summary: An echo sounder search was conducted using 10-meter line separation. The area south of the I-10 Bridge is currently under going construction. The south side of the bridge (east bound lanes of the interstate highway) has been under repair since a barge struck the bridge. There are barges loaded with cranes and various building supplies working both the east and west side of the river. The graphic records shows one sounding less than 7.62m (25 ft) that lies 39.7 meters from the AWOIS position. This 6.6m sounding was found at 29°47'60.5"N, 095°03'41.7"W, 39.7m range bearing 116°46'35" from the AWOIS position. Naturally, soundings near the shoreline fall within the specified target depth. The graphic record showed no evidence of a bridge bent or truss near the target area. The AWOIS area soundings range from 8.6m to 12.1m. The side scan record also showed no evidence of an obstruction in this area.

CHARTING RECOMMENDATION

The hydrographer recommends that the obstruction not be charted on the planned inset of the San Jacinto River. *CONCUR*

Recommended Position: Lat - 00/00/00.0N Lon - 000/00/00.0W

Recommended Least Depth: NONE

COMPILATION NOTES

Delete (25) OBSTN


CONTROL STATIONS as of 15 Sep 1995

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	MM/DD/YY	Station Name
001		029:19:45.092	094:44:10.484	0	0	0.0	0.0	06/13/95	GALVESTON, TX DGPS BEACON
002		029:49:02.202	095:04:46.918	0	0	0.0	0.0	06/13/95	CAL POINT/ BBC, 1983
003		027:50:18.150	097:03:32.640	0	0	0.0	0.0	03/01/92	PORT ARANSAS, TX DGPS BEACON

Approval Letter
Basic Hydrographic Survey
OPR-K204-AHP
AHP-10-4-95
H-10619

This 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. The survey data and reports were completed and reviewed in their entirety and all supporting records were also checked.

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



Kevin Harbison
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
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: January 31, 1996

MARINE CENTER: Atlantic

HYDROGRAPHIC PROJECT: OPR-K204EXT-AHP2

HYDROGRAPHIC SHEET: H-10619

LOCALITY: San Jacinto River, Texas, Lynchburg Landing to Muleshoe Lake

TIME PERIOD: June 13 - September 13, 1995

TIDE STATION USED: 877-0501 Annie's Landing, Tx.
Lat. $29^{\circ} 49.8'N$ Lon. $95^{\circ} 04.7'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.64 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.5 ft.

TIDE STATION USED: 877-0653 Cypress, Tx.
Lat. $29^{\circ} 50.8'N$ Lon. $94^{\circ} 05.3'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): -0.39 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.5 ft.

TIDE STATION USED: 877-0733 Lynchburg Landing, Tx.
Lat. $29^{\circ} 45.9'N$ Lon. $95^{\circ} 04.7'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 4.03 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.3 ft.

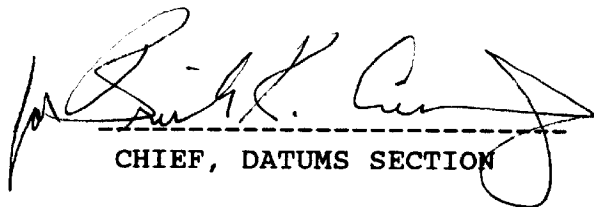


REMARKS: RECOMMENDED ZONING

1. North of 29° 49.5'N times and heights are direct on Cypress, Tx. (877-0653).
2. North of the Interstate route 10 bridge, and south of 29° 49.5'N, times and heights are direct on Annie's Landing, Tx. (877-0501).
3. South of the Interstate route 10 bridge, times and heights are direct using Lynchburg Landing, Tx. (877-0733). Where data are not available for Lynchburg Landing, Tx., apply a -25 minute time correction, and a X0.94 range ratio to heights using Annie's Landing, Tx. (877-0501).

Note: Relative sea level trends show that the Galveston Bay, Texas area is undergoing substantial land subsidence. The relative sea level trend observed at 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 change, the 1960 to 78 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 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 navigation purposes.

- Notes:**
1. Times are tabulated in Greenwich Mean Time.
 2. The data for Lynchburg Landing, Tx. (877-0733) are stored in Next Generation Water Level Measurement System temporary files #677-0733.


CHIEF, DATUMS SECTION

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 11326, 11329 B ON PREVIOUS SURVEY C CON 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									
BEAR LAKE			X							1
BUFFALO BAYOU	X		X							2
CHANNELVIEW (pp1)			X							3
CLEAR LAKE			X							4
GILBERT LANDING			X							5
GRENNEL SLOUGH			X							6
HEADS BEND			X							7
LYNCHBURG	X		X							8
LYNCHBURG LANDING	X		X							9
MANTU (pp1)			X							10
MULESHOE LAKE			X							11
OLD RIVER	X		X							12
SAN JACINTO RIVER	X		X							13
TEXAS (title)	X		X							14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

Approved

Charles G. ...

Chief Geographer

AUG 15 1996

03/30/98

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10619

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	3267
NUMBER OF SOUNDINGS	14288

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	41	05/06/96
VERIFICATION OF FIELD DATA	119	03/18/98
EVALUATION AND ANALYSIS	45	
FINAL INSPECTION	66	07/11/97
COMPILATION	255	03/27/98
TOTAL TIME	526	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		09/24/97

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H-10619 (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
NADCON, version 2.10
AutoCAD, Release 12
QUICKSURF, version 5.1
MicroStation 95, version 5.05
I/RAS B, version 5.01

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

H. CONTROL STATIONS

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

To place this survey on the NAD 27, move the projection lines 0.812 seconds (24.998 meters or 2.50 mm at the scale of the survey) north in latitude, and 0.748 seconds (20.092 meters or 2.01 mm at the scale of the survey) west in longitude.

J. SHORELINE

No photogrammetric shoreline data was available for this project. Shoreline for the present survey originates with prior survey H-10119 (1983). Shoreline is shown in brown and is for orientation purposes only. Shoreline revisions originating with present survey data are shown in red on the smooth sheet.

L. JUNCTIONSH-10663 (1996)

A standard junction was effected between H-10663 (1996) and the present survey.

M. COMPARISON WITH PRIOR SURVEYSH-10119 (1983) 1:10,000

Prior survey depths compare favorably with present survey depths and show a general trend of varying plus or minus (\pm) 1 foot (0^3 m) to the 18 foot curve. Present survey depths in the channels are generally 2 to 4 feet (0^6 - 1^2 m) deeper than prior survey depths. The following should be noted:

1) An island, in Latitude $29^{\circ}46'41''$ N, Longitude $95^{\circ}04'26''$ W, originating with the prior survey, is no longer present. Present survey depths range from 1 to 4 feet (0^3 - 1^2 m) in this area. It is recommended that the area be charted as shown on the present survey.

2) A spit, from Latitude $29^{\circ}50'45''$ N, Longitude $95^{\circ}05'30''$ W to Latitude $29^{\circ}51'10''$ N, Longitude $95^{\circ}05'20''$ W, originating with the prior survey, is now a small island and three small shoals. It is recommended that this area be charted as shown on present survey.

3) All wrecks that were not located by the field unit in the vicinity of Muleshoe Lake, Latitude $29^{\circ}51'00''$ N, Longitude $95^{\circ}05'45''$ W, originating with the prior survey are no longer present. Present survey depths range from 1 to 18 feet (0^3 - 5^5 m) in this area. It is recommended that the area be charted as shown on the present survey.

4) A boathouse, in Latitude $29^{\circ}49'49.28''$ N, Longitude $95^{\circ}03'44.23''$ W, originating with the prior survey no longer exists. The field unit located a boathouse in ruins. It is recommended that the charted feature be revised to a boathouse in ruins.

5) A pier in Latitude $29^{\circ}49'47.30''$ N, Longitude $95^{\circ}03'43.17''$ W, originating with the prior survey no longer exists. Pier ruins are shown on the present survey. It is recommended that the area be charted as shown on the present survey.

- 6) A pier in Latitude 29°49'46.47"N, Longitude 95°03'42.75"W, originating with the prior survey no longer exists. Boathouse ruins are shown on the present survey. It is recommended that the area be charted as shown on the present survey.
- 7) Pier ruins, in Latitude 29°49'40.79"N, Longitude 95°03'42.75"W, originating with the prior survey is longer exist. A pier is shown on the present survey. It is recommended that the area be charted as shown on the present survey.
- 8) A pier, in Latitude 29°49'06.47"N, Longitude 95°04'44.10"W, originating with the prior survey no longer exists. Pier ruins are shown on the present survey. It is recommended that the area be charted as shown on the present survey.
- 9) Pier ruins, in Latitude 29°48'06.50"N, Longitude 95°05'35.18"W, originating with the prior survey no longer exist. Present survey shows this feature to be a pier. It is recommended that the present survey supersede the prior survey in this area.
- 10) A pier/boathouse, in Latitude 29°48'05.91"N, Longitude 95°05'34.87"W, originating with the prior survey no longer exists. Present survey shows this feature to be a boathouse ruins. It is recommended that the present survey supersede the prior survey in this area.
- 11) A boathouse, in Latitude 29°47'52.81"N, Longitude 95°05'08.22"W, originating with the prior survey no longer exists. Present survey shows this feature to be a boathouse ruins. It is recommended that the present survey supersede the prior survey in this area.
- 12) Pier ruins in Latitude 29°47'01.76"N, Longitude 95°05'58.76"W, originating with the prior survey no longer exist. Present survey shows this feature to be a pile. It is recommended that the present survey supersede the prior survey in this area.
- 13) Pier ruins, in Latitude 29°47'01.11"N, Longitude 95°06'00.39"W, originating with the prior survey no longer exist. Present survey shows this feature to be a pier. It is recommended that the present survey supersede the prior survey in this area.

14) Pier ruins, in Latitude 29°46'48.30"N, Longitude 95°06'02.37"W, originating with the prior survey no longer exist. It is recommended that the area be charted as shown on the present survey.

15) Piles and ruins, in Latitude 29°46'44.19"N, Longitude 95°06'04.12"W, originating with the prior survey no longer exist. A pier is shown on the present survey. It is recommended that the area be charted as shown on the present survey.

16) A pile in Latitude 29°46'24.73"N, Longitude 95°06'06.39"W, originating with the prior survey no longer exists. Piers are shown on the present survey. It is recommended that the present survey supersede the prior survey in this area.

17) Wrecks and trees, in the vicinity of Latitude 29°48'07"N, Longitude 95°04'15"W, originating with the prior survey no longer exist. The present survey shows stumps. This area is within a charted foul limit area. No change in charting is recommended.

18) The following charted features were neither verified nor disproved by the present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Obstn	29°46'53.00"	95°06'03.25" X not carried
Obstn	29°45'53.00"	95°05'48.00" X forward to present
Obstn	29°45'52.00"	95°05'45.25" X Survey.
Stake	29°47'07.50"	95°05'29.00" X
Obstn	29°46'56.50"	95°05'18.00" X
Obstn	29°47'13.50"	95°05'06.00" X
Stake	29°47'18.50"	95°04'35.50" X
Stake	29°47'20.50"	95°04'30.50" X
Obstn	29°47'59.00"	95°04'28.50" X

It is recommended that all items discussed above be revised to submerged.

19) A charted obstruction in Latitude 29°49'50.5"N, Longitude 95°05'26.0"W, originating with the prior survey, no longer exists. An extensive shoreline change has occurred in the area of the obstruction. It is recommended that the charted obstruction be deleted.

20) Dolphins in the vicinity of Latitude 29°45'59.0"N, Longitude 95°05'41.0"W, originating with the prior survey, were neither verified nor disproved. The dolphins are charted as submerged dolphins. The dolphins have been brought forward from the prior survey to supplement the present survey and are shown as submerged dolphins. No change in charting is recommended.

21) A charted obstruction with a depth of 12 ft in Latitude 29°46'02"N, Longitude 95°04'41.0"W, originating with the prior survey, was disproved during a present survey fathometer investigation. Present survey depths range from 19 to 20 ft in this area. It is recommended that the charted obstruction with a depth of 12 ft be deleted.

22) The following charted features were verified by the present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
pile	29°50'48.00"	95°05'17.00" ✓
pile	29°50'43.00"	95°05'33.00" ✓
pile	29°50'43.00"	95°05'46.00" ✓
piles (3)	29°50'03.00"	95°05'52.00" ✓
pile	29°49'06.00"	95°04'45.00" ✓
Subm pile	29°47'18.50"	95°04'22.00" ✓
10 Obstn	29°45'56.57"	95°04'43.64" ✓

No change in charting is recommended.

23) A charted obstruction in Latitude 29°50'15"N Longitude 95°06'06"W, originating with the prior survey as a stump no longer exists. It is recommended that the charted obstruction be deleted.

24) Charted wrecks in the vicinity of Latitude 29°45'50"N, Longitude 95°05'48"W, originating with the prior survey were verified by the present survey. A foul area limit was determined. It is recommended that the charted wrecks be deleted and a foul limit area be charted with the notation foul with wrecks.

25) A charted submerged stake in Latitude 29°46'58.5"N Longitude 95°05'29.0"W, originating with the prior survey was neither verified nor disproved. It is recommended that the charted submerged stake be retained as charted.

26) An uncharted wreck in Latitude 29°47'15" Longitude 95°05'06"W, and a charted obstruction in Latitude 29°47'13.5" Longitude 95°05'06.5"W, originating with the prior survey were neither verified nor disproved by the present survey. It is recommended that the wreck not be charted due to chart scale. It is also recommended that the charted obstruction be revised to submerged obstruction and retained in charted location.

27) The following uncharted features originating with the prior survey were neither verified nor disproved by the present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
piles (3)	29°46'16.50	95°06'08.00" ✓
pile	29°46'19.50"	95°06'05.80" ✓
pile	29°46'22.50"	95°06'06.10" ✓
Obstn	29°46'52.50"	95°04'14.30" ✓
snag	29°46'43.50"	95°05'55.50" ✓
Obstn	29°46'48.50"	95°05'46.50" ✓
Obstn	29°46'49.00"	95°05'38.00" ✓
pile	29°47'04.00"	95°05'52.50" ✓
pile	29°47'05.00"	95°06'46.50" ✓
pile	29°47'07.50"	95°06'41.00" ✓
pile	29°47'07.50"	95°05'43.00" ✓
wrecks (2)	29°47'06.00	95°03'57.00" ✓
wrecks (3)	29°48'58.00	95°04'51.00" ✓
piles (3)	29°49'30.00	95°04'30.00" ✓

The uncharted features fall within charted foul limit areas and no change in charting is recommended.

28) The following uncharted features originating with the prior survey were neither verified nor disproved by the present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Wreck	29°47'24.00"	95°05'01.00" ✓
Obstn	29°46'52.50"	95°04'14.00" ✓

It is recommended that the above discussed items be charted.

29) The following uncharted features originating with the prior survey were neither verified nor disproved by the present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Obstns (5)	29°49'47.00"	95°04'55.00" ✓
Obstns (3)	29°49'52.00"	95°05'19.00" ✓
Obstn	29°49'47.00"	95°04'45.00" ✓

As discussed in the Descriptive Report for prior survey H-10119 (1983) subsidence has caused several problems peculiar to this area. Because of the subsidence cypress trees are now in the water. These trees eventually rot off at the water line. All of the obstructions discussed in this section are trees. No change in charting is recommended.

30) The following charted items originating with the prior survey were neither verified nor disproved by the present survey:

<u>Items</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Obstn	29°47'47.00"	95°03'23.00" ✓
Obstn	29°47'05.00"	95°05'54.50" ✓
Obstns (2)	29°49'47.00"	95°03'39.00" ✓
Obstn	29°49'47.00"	95°03'43.00" ✓
Obstn	29°49'30.50"	95°04'11.00" ✓
Stump	29°49'28.00"	95°03'59.00" ✓
Stump	29°49'29.00"	95°04'06.00" ✓
Stump	29°49'25.00"	95°04'45.00" ✓
Obstn	29°49'30.00"	95°04'22.50" ✓
Stump	29°49'33.00"	95°04'20.00" ✓
Stump	29°49'25.50"	95°04'07.00" ✓
Stump	29°48'26.00"	95°05'19.00" ✓
Snag	29°48'38.00"	95°05'06.50" ✓
Obstn	29°49'47.50"	95°05'12.00" ✓
Obstn	29°49'45.00"	95°05'03.00" ✓
Obstn	29°49'45.00"	95°04'41.00" ✓
Obstns (2)	29°49'59.00"	95°03'52.00" ✓
Obstn	29°50'41.00"	95°06'25.00" ✓

As discussed in prior survey H-10119 (1983) subsidence has caused several problems peculiar to this area. Because of the subsidence cypress trees are now in the water.

These trees eventually rot off at the water line. All of the items discussed here are a form of these trees. It is recommended that the charted items discussed above be deleted from the chart.

31) Numerous uncharted obstructions and stumps in the vicinity of Latitude 29°46'29"N, Longitude 95°04'35"W, and Latitude 29°46'52"N, Longitude 95°04'20"W originating with the prior survey have been disproved by the present survey. No change in charting is recommended.

O. COMPARISON WITH CHART 11329 (30th Edition, May 13/95)

Hydrography

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

1) A island in the vicinity of Latitude 29°46'41"N, Longitude 95°04'26"W, named HOG ISLAND, no longer exist. This information was verified by the Chief Geographer, of the Marine Chart Branch. It is recommended that the geoname HOG ISLAND be deleted from the chart.

2) A charted subm pile in Latitude 29°45'55.75"N, Longitude 95°04'44.00"W, originating with unknown source was disproved by the present survey. It is recommended that the subm pile be deleted.

3) The following items were located during present survey operations:

<u>Items</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Obstn	29°47'05.00"	95°05'54.50"
Obstns (2)	29°48'07.50"	95°04'14.50"

The above discussed items fall within charted foul limit areas. These items are not recommended for charting.

4) A charted obstruction in Latitude 29°45'49.25"N, Longitude 95°04'39.75"W, originating with unknown source was neither verified nor disproved by the present survey. It is recommended that the obstruction be retained as charted.

5) Charted dolphins in the vicinity of Latitude 29°45'52.25"N, Longitude 95°04'44.00"W, originating with unknown source were neither verified nor disproved by the present survey. It is recommended that the dolphins be retained as charted.

6) A charted row of piles in the vicinity of Latitude 29°45'51.0"N, Longitude 95°04'41.0"W, originating with unknown source were neither verified nor disproved by the present survey. It is recommended that the row of piles be retained as charted.

7) A charted dolphin in Latitude 29°45'47.5"N, Longitude 95°05'24.0"W, originating with unknown source was neither verified nor disproved by the present survey. It is recommended that the dolphin be retained as charted.

8) A charted pile in Latitude 29°45'55"N, Longitude 95°04'44"W, originating with unknown source was verified by the present survey. It is recommended that the pile be retained.

9) Charted ruins in the vicinity of Latitude 29°45'47.5"N, Longitude 95°05'40.5"W, originating with unknown source were neither verified nor disproved by the present survey. It is recommended that the ruins be retained as charted.

10) An uncharted obstruction with a depth of 3 ft in Latitude 29°49'01.34"N, Longitude 95°05'12.69"W, was located by the field unit. It is recommended that the obstruction with a depth of 3 ft (3 *Obstn*) be charted.

11) An uncharted obstruction, covered by 0.5 ft, in Latitude 29°46'26.87"N, Longitude 95°04'24.98"W, was located by the field unit. The obstruction falls within a foul limit area. It is recommended that the obstruction not be charted.

12) An uncharted mooring buoy, in Latitude 29°51'00.33"N, Longitude 95°05'48.71"W, was located by the field unit. It is recommended that the mooring buoy be charted in present survey location.

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

P. ADEQUACY OF SURVEY

H-10619

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

S. MISCELLANEOUS

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

WHITING Processing Team

Robert Snow

Robert Snow
Cartographic Technician
Verification of Field Data
Evaluation and Analysis

APPROVAL SHEET
H-10619

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 disapproval 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.

Robert G. Roberson Date: SEPTEMBER 24, 1997
Robert G. Roberson
Chief, Cartographic Section

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Nicholas E. Perugini Date: September 24, 1997
Nicholas E. Perugini
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Final Approval:

Approved: Jack L. Wallace Date: April 13, 1998
ACTG FOR
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-10619

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
11329	1/29/98	<i>[Signature]</i> MORRIS A. WILK	Full Part Before After Marine Center Approval Signed Via <u>FULL APPLICATION</u> Drawing No. <u>OF SOUNDINGS AND CURVES</u>
11329A	3/12/98	<i>[Signature]</i> MORRIS A. WILK	Full Part Before After Marine Center Approval Signed Via <u>FULL APPLICATION</u> Drawing No. <u>OF SOUNDINGS AND CURVES THRU 11329</u>
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			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED