

H10381

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey ... Basic Hydrographic
Field No. AHP2-10-08-91
Registry No. H-10381

LOCALITY

State Texas
General Locality ... Matagorda & Lavaca Bays
Sublocality Indianola Isalnd to
..... Gallinipper Point

19 91

CHIEF OF PARTY

LT T.R. Waddington

LIBRARY & ARCHIVES

DATE April 20, 1992

DIAGRAM 1284-2

Charts

EC/G

Products

11317

11316

CP5

LIBRARY

PAID

HYDROGRAPHIC TITLE SHEET

H-10381

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.

AHP2 10-8-91

State Texas

General locality Matagorda and Lavaca Bays

Locality Indianola Island to Gallinipper Point

Scale 1:10,000 Date of survey May 28, 1991 - July 22, 1991

Instructions dated March 1, 1991 Project No. OPR-K228-AHP2

Vessel 0770;21' MonArk

Chief of party Lieutenant Thomas R. Waddington, NOAA

Surveyed by Glenn Hendrix, Larry Martinez, James Verlaque, Shorty Wideman

Soundings taken by echo sounder, hand lead, pole DE-719C

Graphic record scaled by GDH, LAM, JSV

Graphic record checked by GDH, LAM, JSV

Verification by: C.R. Davies Automated plot by PHS Xynetics Plotter

Evaluation by: C.R. Davies

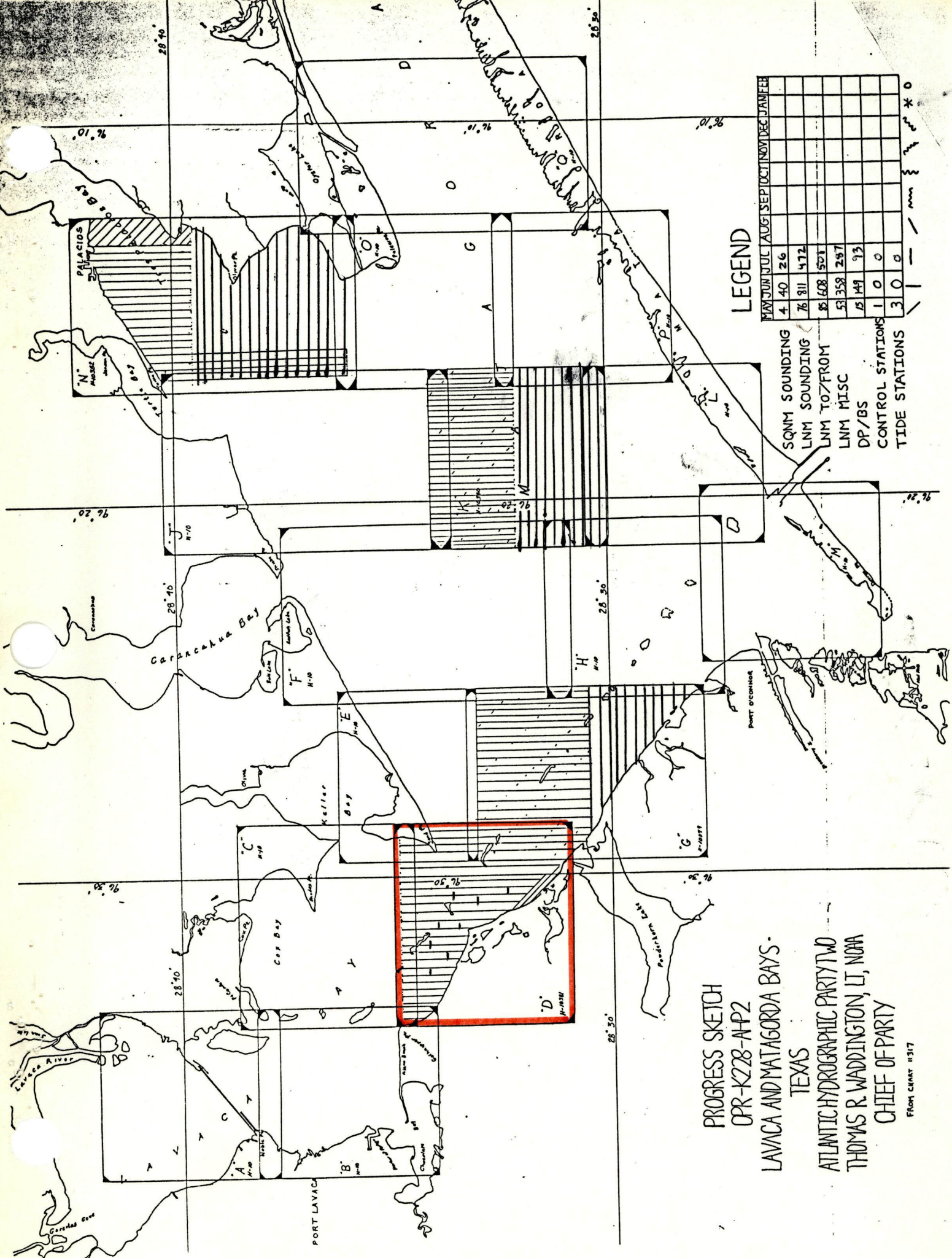
Soundings in ~~fathoms~~ ~~feet~~ at ~~MSL~~ MLLW Meters & Decimeters

REMARKS: Time in UTC. Revisions and marginal notes in black were generated during office processing. Some separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.

AWOIS/SURF ✓ 3/4/92 SJV

SJ JAN 29 1997

X.W.M.



LEGEND

	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN/FEB
SQNM SOUNDING	4	40	26						
LNM SOUNDING	76	911	472						
LNM TO/FROM	8	608	501						
LNM MISC	53	358	297						
DP/BS	15	49	93						
CONTROL STATIONS	1	0	0						
TIDE STATIONS	3	0	0						

PROGRESS SKETCH
 OPR-K228-AP2
 LAVACA AND MATAGORDA BAYS
 TEXAS
 ATLANTIC HYDROGRAPHIC PARTY TWO
 THOMAS R. WADDINGTON, LT, NOAA
 CHIEF OF PARTY
 FROM CHART 11317

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10381
(Field No. AHP2-10-8-91)
Scale: 1:10,000
1991

Atlantic Hydrographic Party Two
Chief of Party: Lt. Thomas R. Waddington, NOAA

A. PROJECT ✓

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K228-AHP2, Matagorda and Lavaca Bays, Texas, dated March 01, 1991. Change No. 1, dated June 4, 1991, Change No. 2, dated July 11, 1991.

This survey is designated as sheet "D" in the project instructions.

The purpose of this project is to provide contemporary hydrography for the maintenance of existing nautical charts of Matagorda and Lavaca Bays.

B. AREA SURVEYED ✓

The area surveyed for H-10381 encompasses the junction between southern Lavaca Bay, northern Matagorda Bay and is bounded by the following limits:

North - 28° 35' 0⁷"N
South - 28° 31' 00"N
East - 096° 28' 54"W
West - 097° 13' 24"W
96° 33' 58"

This survey was conducted from May 28, 1991 (day 148) to July 22, 1991 (day 203).

The bottom is composed of mostly gray mud and fine sand.

Depths in this survey range from 0.⁰/₈ to 13.⁸/₈ meters.

C. SOUNDING VESSELS ✓

Vessel 770 (EDP No. 770), a 21-foot MonArk, was the sounding vessel used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

The HDAPS, currently in use, consists of the following system components: A Hewlett Packard (HP) 9000 Model 300 computer, an HP 9153B Disk Drive with a hard disk storage capacity of 20 Mbytes, an HP 7959B hard disk with a storage capacity of 300 Mbytes, an HP 98785A Color Monitor, a Bruning ZETA 824 plotter, an HP Ruggedwriter 480 printer, and an HP Model 9145 tape drive. The system on the 21-foot MonArk consists of an IBM PC compatible system, using the Navitronic's Hyflex 1000 as the interface between the computer and the hydrographic sensors. Data are acquired and stored on vessel 770, using a Texas Microsystems computer. Data are written to 3.5-inch double sided micro-floppy diskettes. A Navitronic Path Guidance Unit (PGU) functions both as a remote steering display for the coxswain and as a remote control for the HDAPS. The office and launch systems are not compatible. The Oswego "Lif" utility program must be used to convert the raw data collected on-line to Hewlett-Packard format.

In addition to the HDAPS, the following non-HDAPS computer programs were used:

	<u>Version</u>	<u>Date</u>
VELOCITY - Velocity Computations (IBM PC)	1.01	1/90
MTEN3 with enhancements Geodetic Computations (IBM PC)		6/88
WORDPERFECT - Descriptive Report (IBM PC)	5.1	1/90

E. SONAR EQUIPMENT ✓

No sonar equipment was used during this survey.

F. SOUNDING EQUIPMENT ✓

The following Raytheon Fathometers (Model DE-719-C) with Odom Hydrographic Systems, Inc. Digitraces, were used on vessel 770.

<u>Vessel</u>	<u>S/N</u>	<u>Day</u>
770	Raytheon DE-719-C	6211 8652
		148 - 149 150 - 203

A minor problem was experienced when changing the sounding interval on line. The Raytheon Fathometer and the TMI computer process the selective sounding inserted by this action differently. On several occasions, when the hydrographer changes the selective sounding, either an inbetween sounding is omitted on the fathogram or the fix number is duplicated. This causes the position numbers to be on a different selective sounding throughout the rest of the line. Duplicated positions are indicated in the position abstracts in the separates of this report.

The Fathometer, S/N 6211, used on vessel 770 malfunctioned on day 148 due to a failure with the power supply and the take-up motor. The fathometer was sent to the Electronic Engineering Division (EED) in Norfolk, Va for repairs. Fathometer, S/N 8652, was used for the remainder of the survey with no problems encountered.

In general, comparisons between the digital and analog depths revealed the digital depth being 0.1-meter to 0.2-meter shallower than the analog trace and leadline depth.

G. CORRECTIONS TO SOUNDINGS ✓

When using the Raytheon Model DE-719-C Fathometers, calibration checks were made frequently on each day of hydrography. The Digitrace readings were closely monitored for agreement with the fathogram trace. The digitized soundings matched the fathometer's trace to plus or minus 0.2 meter. Any necessary corrections were made during scanning of the fathograms. Any required adjustments of the tide and draft, speed of sound, and sensitivity were made and noted on the fathogram. Any departures from the initial zero were corrected during scanning of the fathogram.

Soundings were recorded in meters. The Raythoen DE-719-C fathometer is adjusted for an assumed speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water were computed from data obtained with ODOM DIGIBAR speed of sound profilers (S/N 154 & 155). NOS Program "Velocity" was used for the speed of sound correction computations. Copies of casts forms can be found in the separates of this report.

The following speed of sound casts were taken during the course of the survey:

<u>Table Applied</u>	<u>Day</u>	<u>Cast Depth Meters</u>	<u>Location NAD 1983</u>	<u>Days Used</u>
1	155	12.0	28°33'08"N 096°30'13"W	148-158

<u>Table Applied</u>	<u>Day</u>	<u>Cast Depth Meters</u>	<u>Location NAD 1983</u>	<u>Days Used</u>
2	161	12.0	28°33'08"N 097°17'50"W	161-165
3	169	10.0	28°33'00"N 096°30'00"W	168-172
4	177	12.0	28°33'08"N 096°30'00"W	175-184
5	190	12.0	28°33'08"N 096°30'14"W	189-200
6	203	11.0	28°33'30"N 096°31'00"W	203

A data quality assurance test (DQA) was performed prior to each speed of sound cast to assure proper working condition of the probe. Speed of sound tables are included in the separates* of this report.

Weather permitting, lead line comparisons were conducted on each day of hydrography to determine an instrument corrector and check the static draft. Instrument corrections are applied via the velocity table. Lead line comparison forms can be found in the separates* of this report.

Settlement and squat measurements for vessel 770 were performed on May 23, 1990 (DN 143) at the Harbor Refuge in Port Lavaca, Texas, using the NOS prescribed level rod method (Zeiss Level S/N 08765). Settlement and squat correctors and the static draft corrector of .32-meter for vessel 770 were applied on-line through the offset tables. Copies of the field data, the graphs of the settlement and squat correctors vs. RPM, and the offset tables are included in the separates.*

The final field sheets and rough sheets were plotted with predicted tides using Port O'connor as the reference station and correctors designated in the project instructions. Approved tides were requested from the Sea and Lake Levels Branch, N/OMA1212, in a letter dated July 26, 1991. Copies of the field tide level note, request for approved tides, and HDAPS tide tables are included with the separates.*

Survey records were scanned by AHP-2 employees. Significant peaks and deeps which occurred between selected soundings, missed depths, incorrectly digitized soundings, and the effects of sea and swell action were corrected while scanning the echograms.

* Filed with the hydrographic data.

H. CONTROL STATIONS ✓

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

Five monumented control stations (stations 001, 005, 006, 016, and 017), and one fixed aid to navigation (station 012) were used to control this survey. The station list is included in the separates of this report.

All control stations used on this survey were either existing stations or stations set by the Coastal Surveys Unit. Copy of the NOAA Form 76-40 submitted to N/CG245, is included in the separates of this report.* All monumented control stations were established using third order, class I Geosatellite Positioning System methods. The horizontal control report was written within the Coastal Surveys Unit and was forwarded to the Atlantic Hydrographic section in Norfolk, Virginia.

* No NOAA Form 76-40 submitted by the field.

I. HYDROGRAPHIC POSITION CONTROL ✓

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

The following Falcon Mini-Ranger equipment was used:

	<u>Equipment</u>	<u>S/N</u>
(770)	RPU	E0164
	R/T	E2957
	R/S	F3180
	R/S	E2906
	R/S	E2977
	R/S	E2963
	R/S	E2890
	R/S	C2091

Positions which had erratic lines of position, indicated by high residuals (over 5 meters), high error circle radii (over 15 meters), and angles of intersection higher than 150 degrees or lower than 30 degrees on the "raw" listing were "smoothed" or recomputed with point computation during processing. Positions were "smoothed" by dead reckoning between two accurate positions. Positions were recomputed with point computation by turning off the problem station or turning on a station with a good distance which was off when the position was recorded.

If more than six consecutive selected soundings had high residuals, high error circle radii, or angles of intersection outside the 30 to 150 degree margin with an erratic track plot, the data were rejected and later rerun. Occasionally, the residual values were greater than 5 meters or error circle radii values were greater than 15, yet the trackline plot showed that the position of the survey vessel was accurate. In those instances, the data were considered adequate and were plotted without smoothing on the final field sheet. Point computation was used if possible when high residuals or high error circle radii occurred at the first or last position of a line.

Another occasional problem was encountered when a good residual and error circle radius appeared on the "raw" listing, but the easting or northing of the position was off by thousands of meters. These positions were rejected, smoothed, or recomputed with point computation following the standards mentioned above.

Critical system checks were performed by visually observing the error circle radii and residual values on the Texas Microsystems (TMI) screen in the survey vessel. The "DUMP ALPHA" and "DUMP GRAPHICS" functions are not available with the TMI so no hard copy of these checks are possible. However, the data identification listing serves as the record of the quality of the positional data.

Independent observations were monitored to ensure the ECR values remained less than 10 meters (1.0 mm at the scale of the survey) and the maximum residual was consistently smaller than 3 meters. Multiple lines of position were used throughout the survey eliminating the need for formal critical checks, per section 3.1.3.3 of the field procedures manual.

Baseline calibrations were performed as specified in the field procedures manual. The baseline values were incorporated into the Texas Microsystems "C-O" table and applied directly to all "on-line" data. Baseline calibration forms and the "C-O" tables are included in the separates* of this report.

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

H. SHORELINE ✓

Shoreline details shown on the final field sheet were manually transferred from TP-01651 and TP-01648. The shoreline manuscripts were compiled at 1:20,000 scale and photographically enlarged to 1:10,000 scale. TP-01651 and TP-01648 are compiled on NAD 83.

* Filed with the hydrographic data.

Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore, and by visual inspections. The shoreline in this survey area agrees very well with both manuscripts. Verified shoreline is shown in black ink on the final field sheet.

All shoreline details on the manuscript were verified visually. Some detached positions were taken on features that agreed well with the shoreline manuscript as required. These features were transferred to the final field sheet in black ink at the position from the shoreline manuscript. New pier ruins, groins, and changes to existing features were portrayed in red ink. New features not related to the shoreline (piles and piles in ruin) are shown in black ink.

The pier and ruins centered around latitude $28^{\circ}33'20''N$, longitude $096^{\circ}31'25''W$ is not in ruins. It is a T-shaped pier. Detached positions were taken on day 168 positions 1833-1835 to verify this pier. The hydrographer recommends that this item be charted as a T-shaped pier. *Concur*

The ruins shown on the T-map centered around latitude $28^{\circ}31'48''N$, longitude $096^{\circ}30'39''W$ are ruins but are submerged rock breakwaters. These breakwaters were put in to help prevent beach erosion. The hydrographer recommends that a submerged breakwater be charted. *concur*

The ruins on the T-map between latitude $28^{\circ}34'15''N$, longitude $096^{\circ}33'40''W$ and latitude $28^{\circ}34'57''N$, longitude $096^{\circ}34'00''W$ are wooden breakwaters. These breakwaters were put in to help prevent shoreline erosion. The hydrographer recommends that the word ruins be replaced with breakwater. *Concur*

I. CROSSLINES ✓

A total of 23 linear nautical miles of crosslines were run on H-10381 which equals 13% of the linear nautical miles of hydrography. Crossline soundings agree well except in the area of latitude $28^{\circ}34'36''N$, longitude $93^{\circ}30'33''W$, where they agreed to within .4-meter of the main scheme soundings. These differences were caused by predicted tides anomalies. See comments made on Section P "Miscellaneous", of this report about these predicted tides anomalies.

Crossline problem resolved with application of approved tides.

J. JUNCTIONS

This sheet junctions with H-10379 to the east and H-10390(1991) to the north.

Junction soundings between the present survey and the junction surveys agree to within two tenths of a meter. This difference could be partly attributed to the use of different vessels and the predicted tides anomalies in this area. See comments made on Section P "Miscellaneous", of this report about these predicted tides anomalies.

K. COMPARISON WITH PRIOR SURVEYS See Func Report, section 6

This survey was compared with prior survey, H-5857, dated 1935, at a 1:20,000.

The soundings between the prior survey and the present survey agreed to within $\frac{1}{10}$ meter with the present survey soundings being slightly deeper. The Matagorda ship channel was dredged after completion of the prior survey and prior to commencement of the present survey. The soundings from the prior survey which are located within the limits of the Matagorda ship channel differ greatly with the present survey soundings. The hydrographer recommends that the present survey soundings be charted. *Concur*

Sand Point Lights 1 and 3 located at latitude $28^{\circ}33'33''N$, longitude $096^{\circ}30'46''W$ and latitude $28^{\circ}33'40''N$, longitude $096^{\circ}31'03''W$ no longer exist.

Due to erosion, the shoreline has changed as much as 80 meters from just north of Indian Point to Gallinipper Point and the shoreline centered around latitude $28^{\circ}31'45''N$, longitude $096^{\circ}30'36''W$ has changed as much as 50 meters. Both of these changes are due to natural causes.

The shoreline around Indian Point has filled in 20 meters due to either man made or natural causes.

Sand Point Reef centered around latitude $28^{\circ}33'30''N$, longitude $096^{\circ}31'00''W$ no longer exist due to the dredging of the Matagorda ship channel and natural causes. *Do not concur. Shoaling of 3 ft and less extends at least 100 meters southwest from the present tip of Sand Point.*

The tip of Sand Point has shifted about 900 meters to the ^{with} south, southwest from natural causes.

With consideration for the above statements, the present survey is adequate to supersede the prior surveys within the common areas. *Concur*

L. COMPARISON WITH THE CHART

Comparisons were made with the following largest scale chart covering the present survey area:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11317	19th	January 20, 1990

There are twenty-~~one~~^{two} AWOIS items within the limits of the present survey. See the AWOIS reports included with the separates of this report for findings on these AWOIS items. * Investigation forms for these AWOIS items are attached.

There are four lighted well platforms located within the survey area.

In general, the soundings from this survey compared to within .81 meter of the charted depths.

An uncharted pipeline crossing sign was located on the shoreline at latitude $28^{\circ}34'55.471''N$, longitude $96^{\circ}28'56.133''W$. A detached position was taken on day 182, position 2497. The F4 key is used on the on-line program for detached positions and this function allows you to enter a bearing and distance to where the detached position should be taken. The program takes the bearing and distance and computes a position from the survey launch. This allowed the pipeline crossing sign to be shown on shore. ✓✓

The three charted piles centered around latitude $28^{\circ}34'28''N$, longitude $096^{\circ}33'29''W$ do not exist. Chain drags were performed on day 178, positions 2276-2309, and day 184, positions 2533-2536 and nothing was found. The hydrographer recommends that the piles be removed from the chart. Concur ✓✓

The charted platform located at latitude $28^{\circ}34'14''N$, longitude $096^{\circ}31'51''W$ was not visible. A chain drag performed on day 178, positions 2310-2336 revealed a pipe seven meters long, with a .3-meter diameter lying in a northwest-southeast direction. A dive was performed on day 183, position 2520. See dive investigation report number 4 in the Item Investigation section of the separates. ** The hydrographer recommends that the platform be removed from the chart and a submerged obstruction be charted. ** Appended to this report. Shown on the smooth sheet as a 1st obstr (pipe) ✓✓ Concur

The light charted at latitude $28^{\circ}34'28''N$, longitude $096^{\circ}34'42''W$ was not visible. A chain drag was performed on day 177, positions 2263-2274. A metal light structure was located by divers on day 183, position 2519. See dive investigation report number 3 in the Item Investigation section of the separates. (attached) The hydrographer recommends that the light be removed from the chart and a submerged obstruction_{cov 1.3m} be charted at the surveyed position. ✓

*** Exxon Pipeline Light B (26395) Concur

The charted piles* located at latitude $28^{\circ}34'16''N$, longitude $096^{\circ}31'31''W$ no longer exist. This area was chain dragged during the chain drag for awois item 5335 and no piles were found. See the Awois Item report on awois item 5335 for positions of the chain drag. A pipe was found during the chain drag and a dive was performed on day 183, position 2518. See dive investigation report number 2 in the Item Investigation section of the separates. The hydrographer recommends that the piles be removed from the chart and a submerged obstruction be charted at the surveyed position. *Chart 0⁹ obstr at lat. 28/34/15.49N, long 96/31/28.60W.*

*Awois 5335

Two discontinued spoil areas located within the survey area centered around latitude $28^{\circ}33'45''N$, longitude $096^{\circ}31'30''W$, and latitude $28^{\circ}32'45''N$, longitude $096^{\circ}30'00''W$ were developed at 50-meter line spacing. The soundings agreed well with the main scheme hydrography except in some areas where the soundings in the discontinued spoil areas were shoaler. The hydrographer recommends that the discontinued spoil areas be removed from the chart and the present survey soundings be charted. *Concur*

The small island shown on the T-map centered around latitude $28^{\circ}33'51''N$, longitude $096^{\circ}30'45''W$ no longer exist with only a small shoal remaining. The main scheme hydrography was split to 50 meters to fully define the shoal. The hydrographer recommends that the present survey soundings be charted. *Chart shoal as depicted on Smooth sheet and extend spoil area limit line through area of island.*

The shoal extending out from Sand Point was split to 50 meters to fully define the shoal. The hydrographer recommends that the present survey soundings be charted. *Concur*

The shoal extending out from the spoil island centered around latitude $28^{\circ}33'00''N$, longitude $096^{\circ}29'30''W$ was developed at 50-meter line spacing in an east-west direction and 100 meters in a north-south direction to fully define the shoal. The hydrographer recommends that the present survey soundings be charted. *Concur*

There are eight rock groins centered around latitude $28^{\circ}32'15''N$, longitude $096^{\circ}30'51''W$ that were not charted. Detached positions were taken on day 168 positions 1840-1847 on these groins. The hydrographer recommends that the groins be charted at the surveyed positions. *Concur*

A T-shaped pier, not previously charted, was located at latitude $28^{\circ}32'54''N$, longitude $096^{\circ}31'15''W$. A detached position was taken on day 168, position 1836. The hydrographer recommends that the pier be charted at the surveyed position. *Concur*

A pile, not previously charted, was located at latitude $28^{\circ}33'14''N$, longitude $096^{\circ}31'15''W$. A detached position was taken on day 168, position 1839. The hydrographer recommends that the pile be charted at the surveyed position. *Concur*

A pile, not previously charted, was located at latitude $28^{\circ}33'24''\text{N}$, longitude $096^{\circ}30'55''\text{W}$. A detached position was taken on day 168, position 1849. The hydrographer recommends that the pile be charted at the surveyed position. *Concur* ✓

A pile, not previously charted, was located at latitude $28^{\circ}33'43''\text{N}$, longitude $096^{\circ}30'17''\text{W}$. A detached position was taken on day 168, position 1852. The hydrographer recommends that the pile be charted at the surveyed position. *Concur* ✓

A row of stakes not previously charted was located at latitude $28^{\circ}34'59''\text{N}$, longitude $096^{\circ}28'58''\text{W}$. A detached position was taken on day 182, position 2499. The hydrographer recommends that the row of stakes be charted at the surveyed position. *Concur* ✓

Uncharted platform ruins were located at latitude $28^{\circ}33'55''\text{N}$, longitude $096^{\circ}30'23''\text{W}$. A detached position was taken on day 168, position 1854. The hydrographer recommends that platform ruins be charted at the surveyed position. *Concur* ✓

Five uncharted pipes were located centered around latitude $28^{\circ}34'03''\text{N}$, longitude $096^{\circ}29'15''\text{W}$. Detached positions were taken on three of the pipes on day 167, positions 1816-1818. Detached positions were taken on the other two pipes on day 193, positions 2705 and 2706. The hydrographer recommends that the pipes be charted at the surveyed positions. *Concur* ✓

Pier ruins, not previously charted, were located at latitude $28^{\circ}34'14''\text{N}$, longitude $096^{\circ}33'36''\text{W}$. A detached position was taken on day 169, position 1864. The hydrographer recommends that the pier ruins be charted at the surveyed position. *Concur* ✓

Two uncharted piles were located at latitude $28^{\circ}34'02''\text{N}$, longitude $096^{\circ}33'17''\text{W}$. A detached position was taken on day 169, position 1869, between the two piles. The hydrographer recommends that the word "piles" be charted at the surveyed position. *Concur* ✓

A pile, not previously charted, was located at latitude $28^{\circ}33'49''\text{N}$, longitude $096^{\circ}32'39''\text{W}$. A detached position was taken on day 169, position 1862. The hydrographer recommends that the pile be charted at the surveyed position. *Concur* ✓

A pile, boat ramp, and ruins, previously not charted, were located around latitude $28^{\circ}33'42''\text{N}$, longitude $096^{\circ}32'22''\text{W}$. Detached positions were taken on day 169, positions 1870-1872. The hydrographer recommends that the pile, boat ramp, and ruins be charted at their surveyed positions. *Concur* ✓

Two uncharted pipes were located at latitude 28°31'07"N, longitude 096°29'41"W. A detached position was taken between the two pipes on day 168, position 1837. The hydrographer recommends that the symbol and the word "pipes" be charted at the surveyed position. *Concur* ✓

A pipe, not previously charted, was located at latitude 28°31'06N, longitude 096°29'40"W along with two piles located ten meters and bearing 185° from the pipe. A detached position was taken on day 168, position 1838. The hydrographer recommends that the symbol and the words "piles" and pipe be charted at the surveyed position. Position 1838 is shown as a pile on the smooth sheet and included with the description for position 1837. *Concur* ✓

Two uncharted pipeline crossing signs were located at latitude 28°35'47"N, longitude 096°32'53"W, and latitude 28°35'01"N, longitude 096°33'00"W. Detached positions were taken on day 164, positions 1704 and 1705. These pipeline crossing signs are attached to 3-pile dolphins and are not lighted. The hydrographer recommends that the pipeline crossing signs be charted at the surveyed positions. *Concur* ✓

A pipe, not previously, charted was located at latitude 28°33'50"N, longitude 096°30'47"W. A detached position was taken on day 193, position 2709. The hydrographer recommends that an obstruction "pipe ~~swash~~" be charted at the surveyed position. *Concur* ✓

The present soundings are adequate to supersede charted soundings within the common areas. *Concur*

M. ADEQUACY OF SURVEY ✓

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

N. AIDS TO NAVIGATION ✓

There are no floating aids to navigation in this survey area. There are ^{nineteen} ~~twenty-four~~ non-floating aids to navigation ^{charted} in the survey area.

These aids were compared to the U. S. Coast Guard Light List Volume IV, 1991. ^{With the exception of the following,} the aids with light list positions agree well with the surveyed positions. Aids "49" and "50" are located ^{approx.} 160 meters southeast of the charted position. Aids "51" and "52" agree well with the charted positions. Aids "53" through "58" are located ^{approx.} 170 meters northwest of the charted positions. Aids "59" and "60" agree well with the charted positions. All of the aids, ("49" through "60"), marking the channel agree well with the positions on the T-map. The hydrographer recommends that the aids be charted at the surveyed positions. *Concur* ✓

See discussion of Exxon Pipeline Light B in section L, page 9. Exxon Pipeline Light A, was located at lat. 28°34'10.7 N, long. 96°31'47.7 W, approx. 75m west of its charted position.

No submarine cables, overhead cables, ferry routes, nor overhead pipelines are within the survey area. There are three under water pipelines in the survey area. Two of these pipeline crossings agree with the charted positions. Detached positions were taken on the third pipeline crossing as it was not previously charted.

No new landmarks were located within the survey area. Landmarks portrayed on the manuscript were verified by visual inspection. No discrepancies were found with the landmarks portrayed on shoreline manuscript T-01651 nor T-01648. "stack" charted at lat. 28/33/55.5N, long 96/33/06W not investigated. Remain as charted.

O. STATISTICS ✓

<u>Description</u>	<u>770</u>
Total Number of Positions	2877
Total Lineal Nautical Miles of Hydrography	249
Square Nautical Miles of Hydrography	12
Days of Production	28
Detached Positions	81
Bottom Samples	29
Tide Stations	3
Current Stations	0
Speed of Sound Casts	6
Magnetic Stations	0

P. MISCELLANEOUS ✓

All positions listed in this report are based on the North American Datum of 1983 (NAD 83).

There were predicted tide anomalies observed during this survey causing depths on adjacent sounding lines to differ by .4 meter. The hydrographer believes that when smooth tides are applied this problem will be resolved. *They were resolved with approval tides.*

Eight position numbers were duplicated and are listed in the Abstract of Positions found in the separates of this report. While on line, the data acquiring program loses count and ends up with one position number short causing the processing system to duplicate the first position number of the next line. In addition, changing the sounding interval on line also causes duplicated positions. See comments made under Section F, "Sounding Equipment".

Twenty-nine bottom samples were taken and submitted to the Smithsonian Institution on June 28, 1991, as directed in Section 6.7 of the project instructions. Bottom sample positions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which may be found in the separates* of this report.

No anomalous currents were observed in the survey area.

* Filed with the hydrographic data.

Q. RECOMMENDATIONS

None.

S. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10379	Pacific Hydrographic Section N/CG245 Seattle, WA, 1991
Horizontal Control Report for OPR-K228-AHP2	Field Photogrammetry Section N/CG23322 Norfolk, VA, 1991
Chart Sales Agent Report	Chart Distribution Branch N/CG33 Rockville, MD, 1991
User Evaluation Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA, 1991
Chart Inspection Report	Atlantic Hydrographic Section N/CG244 Norfolk, VA, 1991
Coast Pilot Report	Pacific Hydrographic Section N/CG245 Seattle, WA, 1991

Submitted by:

Glenn D. Hendrix
Surveying Technician, Atlantic Hydrographic Party Two

CHART NO.: 11317

AWOIS ITEM NO.: 5327

ITEM DESCRIPTION: 4 foot reported

SOURCE: CL249/82

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE:

DAY NO.:

TIME:

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION:

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETTIC POSITION: DATUM LATITUDE N LONGITUDE W

CHARTED: NAD83 28° 34' 00.99" 096° 3³' 00.91"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: Main scheme hydrography was run in the area and then it was split to 50 meters in the area. The soundings inshore are shoaler while the others are 4 feet or deeper. Depths range between 0.4m to 1.7m (1ft to 5ft)

CHARTING RECOMMENDATIONS: Remove from chart and chart present survey soundings. Do not concur, Remove "4 ft rep 1982", Chart "1ft 1991".

*See Encl Report
Section 7.C.*

COMPILATION USE

CHART:

11317 Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5328

ITEM DESCRIPTION: 7 piles that mark edge of dredge channel

SOURCE: CL1178/58--COE

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: July 17, 1991	DAY NO.: 198	TIME: 213811-215427
July 18, 1991	199	153003-170700

REFERENCE: OPR-K228

VESSEL: 0770

LEAST DEPTH: 1.8 meters

POSITION: 2802-2817
2827-2842

CORRECTORS APPLIED: Predicted Tides Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'07.99"	096°32'57.91"
OBSERVED:	NAD83	28°34'05.75"	096°32'56.03"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was made of the area and only 5 of the 7 piles were seen. A chain drag was performed at the site of the piles that were not there and nothing was found. While turning to get on line, a submerged pile was snagged about 75 meters southeast of the center of the drag area. A detached position was taken on day 203 position 2876. The least depth and the observed position listed above are from that detached position. The remaining piles were pulled by King Fisher Salvage of Port Lavaca, Texas, phone number 512-552-6751, Tony Garza, foreman.

The 5 visible piles were removed by salvage company as per conversation with chief of party,
Tom Waddington, 3/31/92.

CHARTING RECOMMENDATIONS: Remove piles from chart. Chart submerged pile at the observed position. *Concur*

11317 Applied 7-13-92

CHART NO.: 11317

AWOIS ITEM NO.: 5329

ITEM DESCRIPTION: small pier

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 18, 1991 DAY NO.: 169 TIME: 194518

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.⁵/₂ meters (bares)

POSITION: 1863

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
Settlement and Squat

GEODETTIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'00.99"	096°33'15.91"
OBSERVED:	NAD83	28°34'02.47"	096°33'17.52"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was performed and a wooden breakwater was found, not a small pier.

CHARTING RECOMMENDATIONS: Remain as charted but change the lable from pier to breakwater. Chart wooden breakwater in ruins at the observed position. Charted pier at different location and considered not disproved, revise to submerged piles.

COMPILATION USE

CHART:

11317-*Applied* 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5330

ITEM DESCRIPTION: group of small piers

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 18, 1991 DAY NO.: 169 TIME: 201052-202449

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 1865-1668

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'40.99"	096°33'54.91"
OBSERVED:	NAD83	28°34'39.43" 28°34'47.77"	096°33'52.71" 096°33'55.94"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A visual search was made of the area and the piers do exist. Detached positions were taken on each of the piers.

CHARTING RECOMMENDATIONS: Chart piers at the surveyed positions.

Comley

COMPILATION USE

CHART:

11317 - Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5335

ITEM DESCRIPTION: piles

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 27, 1991 DAY NO.: 178 TIME: 195414-212329
 July 03, 1991 184 180718-183131

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 0.9m

POSITION: 2362-2400, 2518
 2525-2532

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
 Settlement and Squat ___

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'15.99"	096°31'20.91"
OBSERVED:	NAD83	28/34/15.49 N	96/31/28.60 W

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
 R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area at 15 meter line spacing and ~~nothing was found.~~
a subm. pipe (0.9m) was found.

CHARTING RECOMMENDATIONS: Remove from chart. *Concur*
Chart a subm. obst at the observed position

COMPILATION USE

CHART: *Chart 11317*
Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5336

ITEM DESCRIPTION: piles

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June, 1991

DAY NO.: 164

TIME: 161040

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.5 METERS (bares)

POSITION: 1707

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'30.99"	096°31'50.91"
OBSERVED:	NAD83	28°34'29.94"	096°31.48.91"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was performed over the required area in depths from 0.4 meter to 1.5 meters with good visibility of the bottom. The visible pile listed above was the only thing found in the area.

CHARTING RECOMMENDATIONS: Chart as a visible pile. *Concur*
Delete charted pils, chart pile at above position.

COMPILATION USE

CHART: 11317

Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5347, 5346

ITEM DESCRIPTION: 3 foot reported

SOURCE: CL1249/82--CPRS

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE:

DAY NO.:

TIME:

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION:

CORRECTORS APPLIED: Predicted Tides Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'50.99"	096°29'05.90"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: Main hydrography was run in the area and the area with the 3 foot reported was split to 25 meters. The shoalest depth found was ^{3.6}3.6 ft. The markers* that are charted at latitude 28°35'00"N, longitude 096°29'06"W no longer exist. They were pulled by King Fisher Salvage of Port Lacava, Tx., phone number 512-552-6751, Tony Garza, foreman.
Depths range from 0.6m nearshore to 1.8meters (2 to 6 ft).

CHARTING RECOMMENDATIONS: Remove from chart and chart the present survey soundings. Remove markers reported from chart. *Concur ^{ward} 2/1/82*
Remove note, "3 ft rep", chart note, "2 ft 1991".

See Eutic Report 7.6.

* Markers are Awois 5346

COMPILATION USE

CHART: 11317 Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5348

ITEM DESCRIPTION: small T-shaped pier

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: July 2, 1991 DAY NO.: 182 TIME: 200236-200547

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.6 m bases

POSITION: 2494-2495

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETTIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°34'51.99"	096°28'57.90"
OBSERVED:	NAD83	28°34'51.70"	096°28'57.87"
		28°34'51.24"	096°28'57.98"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A visual search was made of the area. The T-shaped pier was found to be a wooden bulkhead. Detached positions were taken on the day listed above.

CHARTING RECOMMENDATIONS: Remain as charted. *Do not correct
chart dots and bulkhead as shown on smooth sheet.*

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5351

ITEM DESCRIPTION: platform ruins

SOURCE: CL1309/84--USPS

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 26, 1991 DAY NO.:177 TIME:192040-204426

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 2223-2262

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION: DATUM LATITUDE N LONGITUDE W

CHARTED: NAD83 28°33'53.99" 096°31'22.91"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area at 15 meter line spacing and nothing was found.

CHARTING RECOMMENDATIONS: *Remove platform from chart*

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5352

ITEM DESCRIPTION: 7 piles bare at HW

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 26, 1991 DAY NO.: 177 TIME: 141502-190148

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 2110-2222

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETTIC POSITION: DATUM LATITUDE N LONGITUDE W

CHARTED: NAD83 28°33'43.99" 096°31'33.91"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area and nothing was found.

CHARTING RECOMMENDATIONS: Remove from chart. *Comury*

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5353

ITEM DESCRIPTION: two sets of ruins

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 18, 1991 DAY NO.: 169 TIME: 190513, 190841

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.⁵/₇ meters (bares)

POSITION: 1859, 1860

CORRECTORS APPLIED: Predicted Tides Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°33'47.99"	096°32'31.91"
OBSERVED:	NAD83	28°33'47.96" 28°33'47.03"	096°32'30.82" 096°32'30.19"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was performed and two rows of piles were found. Detached positions were taken on the offshore end of the two rows of piles. The height listed above is the piles on the offshore end.

CHARTING RECOMMENDATIONS: Remain as charted. Do not concur,
chart rows of piles as shown on Smooth sheet.

COMPILATION USE

CHART:

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5354

ITEM DESCRIPTION: a pier and set of ruins

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 18, 1991 DAY NO.: 169 TIME: 191322

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.7 meters (bares)

POSITION: 1861

CORRECTORS APPLIED: Predicted Tides X Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°33'40.99"	096°32'27.91"
OBSERVED:	NAD83	28°33'46.51"	096°32'27.83"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A visual search was performed. Two rows of piles with a small finger pier at endshore end were found. A detached position was taken on the offshore end and center of the two rows of piles. The height listed above is on the tallest of the piles at the offshore end.

CHARTING RECOMMENDATIONS: Chart small finger pier with ruins extending from end of the pier to the offshore detached position.

Concur

However, this observation is west of the Awois item. Retain pier and ruins centered at above Awois position.

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5355

ITEM DESCRIPTION: pile

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 25, 1991 DAY NO.: 176 TIME: 182721-184456

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 2098-2109

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION: DATUM LATITUDE N LONGITUDE W

CHARTED: NAD83 28°33'35.99" 096°30'47.91"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area, chain drag was limited to the east side of the channel, at 15 meter line spacing and nothing was found.

CHARTING RECOMMENDATIONS: Remove from chart.

Comur

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5356

ITEM DESCRIPTION: pile

SOURCE: CL717/82---USPS

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 25, 1991 DAY NO.: 176 TIME: 173642-175409
June 27, 1991 178 192130-192342
REFERENCE: OPR-K228 VESSEL: 0770

HEIGHT: POSITION: 2084-2095
2359-2361

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETTIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28° 33' 31.99"	096° 30' 40.91"
OBSERVED:	NAD83		

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area, chain drag limited to the east side of channel, at 15 meter line spacing and nothing was found.

CHARTING RECOMMENDATIONS: Remove from chart. *Concur*

COMPILATION USE

CHART: *11317 Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5357

ITEM DESCRIPTION: small T-shaped pier

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 03, 1991 DAY NO.: 154 TIME: 181227

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 282

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°33'12.99"	096°31'21.91"
OBSERVED:	NAD83	28°33'12.94"	096°31'21.08"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A visual search was made of the area and the T-shaped pier does exist.

CHARTING RECOMMENDATIONS: Chart at surveyed position. *Do not correct*
Retain as charted

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5358

ITEM DESCRIPTION: small pier

SOURCE: unknown

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: July 2, 1991 DAY NO.: 182 TIME: 145814

REFERENCE: OPR-K228 VESSEL: 0770

HEIGHT: 2.0 meters (bares) POSITION: 2407

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°32'56.99"	096°31'17.91"
OBSERVED:	NAD83	28°32'57.65"	096°31'16.55"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was made of the area and ruins were found.

CHARTING RECOMMENDATIONS: Chart ruins at the observed position.

*Do not correct
Retain as charted*

COMPILATION USE

CHART:

*11317
Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5359

ITEM DESCRIPTION: platform ruins

SOURCE: ^{unknown source, 1971} CL577/78--USPS, revised to ruins

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 25, 1991 DAY NO.: 176 TIME: 145027-145541
 June 27, 1991 178 182200-191136

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.⁵ meters (bares)

POSITION: 2079-2083
 2337-2358

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
 Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°33'26.99"	096°30'46.91"
OBSERVED:	NAD83	28°33'32.63"	096°30'53.94"
		(position of the three pipes)	

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
 R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area at 15 meter line spacing and nothing was found. While the boat was turning to get on line, the chain drag snagged. A dive investigation, (dive investigation report number 5), was performed on day 183, (position 2521), at the site. The divers found three pipes forming a triangle. The height listed above is on the three pipes.

CHARTING RECOMMENDATIONS: Remove platform ^{ruins} ~~ruins~~ from chart and chart submerged obstruction at the surveyed position. *COMENT*

COMPILATION USE

Chrt 11317 Applied 7-13-92

CHART NO.: 11317

AWOIS ITEM NO.: 5360

ITEM DESCRIPTION: platform ruins

SOURCE: CL1309/84--USPS

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 21, 1991 DAY NO.: 172 TIME: 143046-144136

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: ~~4.0~~^{3.8} meters

POSITION: 2069-2077

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°33'05.99"	096°30'12.91"
OBSERVED:	NAD83	28°33'06.52"	096°30'14.68"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A chain drag was performed and a snagged occurred at the observed position listed above. A dive investigation, (dive investigation report number 6), was performed on day 184, (position 2523), and a submerged pile was found. The height listed above is on the pile.

CHARTING RECOMMENDATIONS: The required chain drag area was not completely covered. The platform ruins should remain as charted but at the surveyed position. *Do not concur*

Platform not considered disjunct and should be revised to subm. ruins at the charted position, however, the subm. pile, discovered near by will overplot the ruins. To prevent congestion it is recommended that the subm. ruins be charted, exclusively.

COMPILATION USE

CHART: 11317 Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5361

ITEM DESCRIPTION: piling

SOURCE: CL1592/81--USPS

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 19, 1991 DAY NO.: 170 TIME: 135237-143219

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: ~~2.2~~
2.0 meters

POSITION: 1873-1898

CORRECTORS APPLIED: Predicted Tides X Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°32'47.99"	096°29'46.91"
OBSERVED:	NAD83	28°32'45.73"	096°29'46.03"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was performed over the area and nothing was seen. A chain drag was performed over the required area and a snag occurred at the observed position listed above. A dive investigation, (dive investigation report number 7), was performed on day 184, (position 2524), and a mass of cable and rope were found. The height listed above is on the cable and rope.

CHARTING RECOMMENDATIONS: Pile should be removed from the chart and a submerged obstruction be charted at the surveyed position.

Do not correct

COMPILATION USE

CHART: 11317 Applied 7-13-92

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5362

ITEM DESCRIPTION: 34 foot fishing vessel (WK)

SOURCE: LNM5/74--8th CGD

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 20, 1991
June 21, 1991

DAY NO.: 171
172

TIME: 163319-202626
135219-142626

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT:

POSITION: 1967-2045
2049-2068

CORRECTORS APPLIED: Predicted Tides ___ Velocity ___ Draft ___
Settlement and Squat ___

GEODETTIC POSITION: DATUM LATITUDE N LONGITUDE W

CHARTED: NAD83 28°33'00.99" 096°30'00.91"

OBSERVED: NAD83

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers X
R/AZ, T-2 and Mini-Rangers ___

METHOD OF ITEM INVESTIGATION: A chain drag was performed over the required area at 15 meter line spacing and nothing was found. The chain drag was limited to the east and west sides of the channel.

CHARTING RECOMMENDATIONS: Remove from chart. *CMW*

COMPILATION USE

CHART: 11317 *Applied 7-13-92*

APPLIED AS:

CHART NO.: 11317

AWOIS ITEM NO.: 5363

ITEM DESCRIPTION: 32 foot cabin cruiser (WK)

SOURCE: LNM47/60--8th CGD

CHIEF OF PARTY: Lt. Thomas Waddington

INVEST. DATE: June 19, 1991 DAY NO.: 170 TIME: 152150-192434

REFERENCE: OPR-K228

VESSEL: 0770

HEIGHT: 1.6 meters

POSITION: 1901-1962

CORRECTORS APPLIED: Predicted Tides Velocity Draft
Settlement and Squat

GEODETIC POSITION:	DATUM	LATITUDE N	LONGITUDE W
CHARTED:	NAD83	28°32'50.99"	096°29'30.90"
OBSERVED:	NAD83	28°32'45.17"	096°29'29.78"

POSITION DETERMINED BY: Multiple LOP, Mini-Rangers
R/AZ, T-2 and Mini-Rangers

METHOD OF ITEM INVESTIGATION: A chain drag was performed at 15 meter line spacing over the required area and the item was snagged. A dive, (see dive investigation report number 1 in the Item Investigation section of the separates), was performed on day 171. A 9 meter by 3 meter wooden hull lying in a north-south direction was found.

CHARTING RECOMMENDATIONS: Chart dangerous submerged wreck at the observed position. *Concur, Delete wreck at charted position.*

COMPILATION USE

CHART: *11317*
Applied 7-13-92

APPLIED AS:

CONTROL STATIONS

OPR-K228-AHP2
AHP-10-8-91
H-10381

STA	LATITUDE YEAR	CC	LONGITUDE	STATION NAME
001	28°39'08.751"N 1990	250	096°33'48.617"W	ALCOA, 1990
005	28°33'23.435"N 1990	250	096°31'27.214"W	INDI, 1990
006	28°30'25.466"N 1990	250	096°28'47.523"W	IOLA, 1990
012	28°35'26.693"N 1990	250	096°34'02.932"W	MATAGORDA Ship Channel RNG D R LT, 1989
016	28°36'57.750"N 1990	250	096°30'48.191"W	RHOD, 1990
017	28°34'12.754"N 1990	250	096°29'19.105"W	SAND, 1990



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Charting & Geodetic Services
Atlantic Hydrographic Party Two
P.O. Box 509
Port Lavaca, TX 77979

July 24, 1991

**ADVANCE
INFORMATION**

MEMORANDUM FOR: Commander, 8th U.S. Coast Guard District

FROM: Lieutenant Thomas R. Waddington, NOAA
Chief, Atlantic Hydrographic Party Two

SUBJECT: Report of Dangers to Navigation

The following uncharted features were discovered during hydrographic survey operations of project number OPR-K228-AHP2, Hydrographic Survey Registry Number H-10381, Survey Title: Lavaca and Matagorda Bays, Gallinipper Point to Indianola Island:

Two lighted well platforms at the following positions:

<u>Latitude</u>	<u>Longitude</u>
28°33'08.475"N	096°29'53.798"W
28°33'05.131"N	096°30'38.538"W.

Three fixed aids to navigation identified as pipeline crossing lights:

<u>Characteristics</u>	<u>Latitude</u>	<u>Longitude</u>
Qk Fl R 4M Priv Maint'd 3-pile dolphin	28°33'30.781"N	096°30'52.008"W
Qk Fl R 4M Priv Maint'd 3-pile dolphin	28°33'35.174"N	096°30'42.819"W
QK Fl 4M Priv Maint'd 3-pile triangle shaped dolphin.	28°33'49.064"N	096°30'14.532"W

Two non-lighted pipeline crossing signs on three pile dolphins:

<u>Latitude</u>	<u>Longitude</u>
28°34'46.678"N	096°32'53.402"W
28°35'01.222"N	096°33'00.400"W



**ADVANCE
INFORMATION**

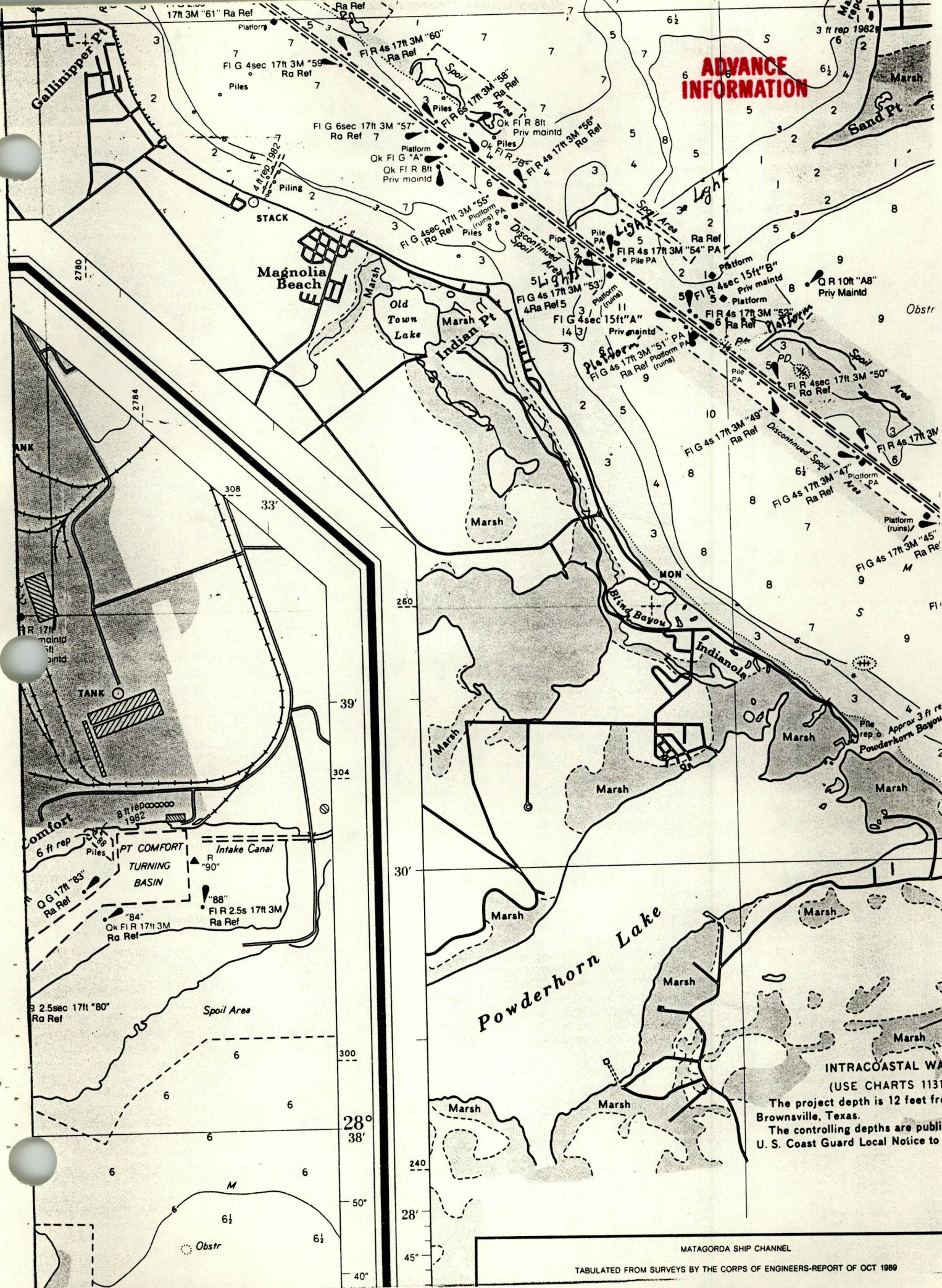
All reported positions are based on the North American Datum of 1983 and affect Chart Number 11317, dated January 20, 1990, 19th Edition.

The above information is subject to verification.

Questions concerning this report should be directed to the Pacific Hydrographic Section at Seattle, Washington (telephone number 206-526-6835).

Attached is a chartlet showing locations of these features.

ADVANCE INFORMATION



INTRACOASTAL WATERWAY
(USE CHARTS 11315)
The project depth is 12 feet from Brownsville, Texas.
The controlling depths are published in U. S. Coast Guard Local Notice to Mariners.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Seattle, Washington 98115-0070

Pacific Hydrographic Section
7600 Sand Point Way NE
Seattle, WA 98115-0070

October 22, 1991

Commander (OAN)
Eighth Coast Guard District
Hale Boggs Federal Building
501 Magazine Street
New Orleans, LA 70130-3396

**ADVANCE
INFORMATION**

Dear Sir:

During office review of the following hydrographic surveys,
twenty-eight new dangers to navigation were found:

<u>Survey</u>	<u>Title</u>
H-10379	Texas, Matagorda Bay, Boggy Bayou to Powderhorn Bayou
H-10380	Texas, Matagorda Bay, 5.5 Nautical Miles Southwest of Palacios Point
H-10381	Texas, Matagorda Bay, Indianola Island to Gallinipper Point
H-10382	Texas, Matagorda Bay, Tres Palacios Bay
H-10396	Texas, Matagorda Bay, Entrance to Turtle Bay
H-10397	Texas, Matagorda Bay, 4.5 Nautical Miles East of Port O'Connor

These dangers to navigation affect the following charts:

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11316	33rd ed., 1/19/91	NAD 83
11317	20th ed., 3/23/91	NAD 83
11319	22nd ed., 2/10/91	NAD 83

I recommend that the enclosed Report of Dangers to Navigation
be included in the Local Notice to Mariners.

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

Sincerely,

for Douglas G. Hennick
Commander, NOAA
Chief, Pacific Hydrographic Section

Enclosure

cc: DMA/TC
N/CG221



REPORT OF DANGERS TO NAVIGATION

**ADVANCE
INFORMATION**

Hydrographic Survey Registry Numbers and Titles:

<u>Survey Number</u>	<u>Title</u>
H-10379	Texas, Matagorda Bay, Boggy Bayou to Powderhorn Bayou
H-10380	Texas, Matagorda Bay, 5.5 Nautical Miles Southwest of Palacios Point
H-10382	Texas, Matagorda Bay, Tres Palacios Point
H-10396	Texas, Matagorda Bay, Entrance to Turtle Bay
H-10381	Texas, Matagorda Bay, Indianola Island to Gallinipper Point

Project Number: OPR-K228-AHP, Atlantic Hydrographic Party

All soundings reduced to Mean Lower Low Water using predicted tides.

Affected nautical charts:

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11316	33rd ed., 1/19/91	NAD 83
11317	20th ed., 3/23/91	NAD 83

<u>Danger to Navigation</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
8 ft shoal.....	28°29'08.0"	96°25'32.0"
8 ft shoal.....	28°29'25.0"	96°26'19.0"
9 ft shoal.....	28°30'06.0"	96°19'07.0"
10 ft shoal.....	28°30'32.0"	96°17'45.0"
9 ft shoal.....	28°30'48.0"	96°19'27.5"
7 ft shoal.....	28°31'13.0"	96°28'55.0"
9 ft shoal.....	28°31'53.0"	96°18'15.0"
5 ft shoal.....	28°32'27.0"	96°29'34.0"
7 ft soundings in the vicinity of.....	28°33'13.0"	96°28'26.0"
10 ft shoal.....	28°33'24.0"	96°19'55.0"
4 ft shoal.....	28°33'55.0"	96°31'36.0"
Submerged Platform Ruins.....	28°34'16.0"	96°17'40.0"
Charted visible platform observed as		
5 ft shoal.....	28°34'24.0"	96°32'51.0"
9 ft shoal.....	28°34'44.4"	96°17'11.4"
4 ft shoal.....	28°34'52.0"	96°33'08.0"
10 ft shoal.....	28°35'00.1"	96°19'03.8"
10 ft shoal.....	28°35'42.0"	96°19'10.8"
8 ft shoal.....	28°36'47.4"	96°18'24.0"
6 ft shoal.....	28°36'48.0"	96°17'11.4"
7 ft shoal.....	28°36'56.3"	96°16'49.2"
8 ft shoal.....	28°37'00.0"	96°20'21.0"
Visible Crib.....	28°38'24.0"	96°19'18.0"
Revise charted "5ft" note to "1/2 ft".....	28°38'27.0"	96°19'22.5"
Visible Crib.....	28°38'29.7"	96°18'46.7"
Visible Crib.....	28°38'31.8"	96°18'47.1"

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

REPORT OF DANGERS TO NAVIGATION

**ADVANCE
INFORMATION**

Hydrographic Survey Registry Numbers and Titles:

<u>Survey Number</u>	<u>Title</u>
H-10397	Texas, Matagorda Bay, 4.5 Nautical Miles East of Port O'Connor

Project Number: OPR-K228-AHP, Atlantic Hydrographic Party

All soundings reduced to Mean Lower Low Water using predicted tides.

Affected nautical charts:

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11316	33rd ed., 1/19/91	NAD 83
11317	20th ed., 3/23/91	NAD 83
11319	22nd ed., 2/10/90	NAD 83

<u>Danger to Navigation</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
5 ft shoal.....	28°27'05.0"	96°20'00.6"
Revise charted "6 ft rep" note to "5 ft rep"...	28°28'06.0"	96°17'33.0"

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

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-K228-AHP2
AHP-10-8-91
H-10381
1991

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-K229-AHP2, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. The survey data and reports were completed under frequent supervision. All boat sheets and final field sheets were reviewed in their entirety and all supporting records were also checked.

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

Thomas R. Waddington
Thomas R. Waddington
LT., NOAA
Chief, Atlantic Hydrographic Party Two



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: October 21, 1991
Revised April 21, 1992

MARINE CENTER: Pacific

OPR: K228

HYDROGRAPHIC SHEET: H-10381

LOCALITY: Matagorda and Lavaca Bays, TX

TIME PERIOD: May 28 - July 22, 1991

TIDE STATIONS USED: 877 3259 Port Lavaca, TX
Lat. 28° 38.5'N Lon. 96° 36.5'W

877 3701 Port O'Connor, TX
Lat. 28° 27.2'N Lon. 96° 24.3'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 1.77 ft. (877 3259)
2.11 ft. (877 3701)

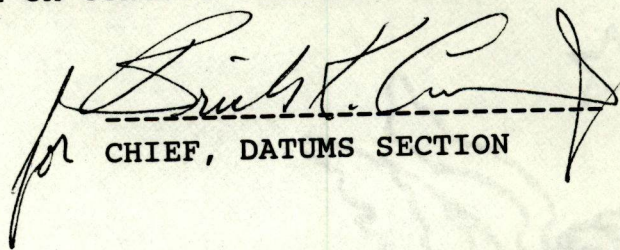
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.0 ft. (877 3259)
1.0 ft. (877 3701)

REMARKS: RECOMMENDED ZONING

1. Northwest of a line from Sand Point to Indian point, heights are direct, and apply -01 hr 00 min time correction to Port Lavaca, TX (877 3259).

2. Southeast of a line from Sand Point to Indian Point, zone direct on Port O'Connor, TX (877 3701).

NOTE: Hourly heights are tabulated on Central Standard Time.


CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

H-10381

Name on Survey	ON CHART NO. 11317 ON PREVIOUS SURVEY NO. H-5857 CON U.S. QUADRANGLE MAPS FROM LOCAL INFORMATION ON LOCAL MAPS P.O. GUIDE OR MAP GRAND McNALLY ATLAS U.S. LIGHT LIST										
	A	B	C	D	E	F	G	H	K		
GALLINIPPER POINT	X										1
INDIANOLA ISLAND	X										2
INDIAN POINT	X										3
LAVACA BAY	X										4
MAGNOLIA BEACH	X										5
MATAGORDA BAY	X	X									6
SAND POINT	X	X									7
TEXAS (title)	X										8
											9
											10
											11
											12
											13
											14
											15
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											22
											23
											24
											25

Approved:

Charles E. Harrington

Chief Geographer - N/Cg 2x5

MAY 14 1992

NOAA FORM 77-27(H) (9-83)		U.S. DEPARTMENT OF COMMERCE		REGISTRY NUMBER	
HYDROGRAPHIC SURVEY STATISTICS				H-10381	
RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.					
RECORD DESCRIPTION		AMOUNT		RECORD DESCRIPTION	
SMOOTH SHEET		1		SMOOTH OVERLAYS: POS., ARC, EXCESS	
DESCRIPTIVE REPORT		1		FIELD SHEETS AND OTHER OVERLAYS	
DESCRIP-TION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/SOURCE DOCUMENTS
ACCORDION FILES	1				
ENVELOPES					
VOLUMES					
CAHIERS					
BOXES					
SHORELINE DATA					
SHORELINE MAPS (List):					
PHOTOBATHYMETRIC MAPS (List):					
NOTES TO THE HYDROGRAPHER (List):					
SPECIAL REPORTS (List):					
NAUTICAL CHARTS (List):					
OFFICE PROCESSING ACTIVITIES					
<i>The following statistics will be submitted with the cartographer's report on the survey</i>					
PROCESSING ACTIVITY			AMOUNTS		
			VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET					2877
POSITIONS REVISED					
SOUNDINGS REVISED					
CONTROL STATIONS REVISED					
			TIME-HOURS		
			VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION					
VERIFICATION OF CONTROL					
VERIFICATION OF POSITIONS			28		28
VERIFICATION OF SOUNDINGS			64		64
VERIFICATION OF JUNCTIONS					
APPLICATION OF PHOTOBATHYMETRY					
SHORELINE APPLICATION/VERIFICATION					
COMPILATION OF SMOOTH SHEET			14		14
COMPARISON WITH PRIOR SURVEYS AND CHARTS				4	4
EVALUATION OF SIDE SCAN SONAR RECORDS					
EVALUATION OF WIRE DRAGS AND SWEEPS					
EVALUATION REPORT				22	22
GEOGRAPHIC NAMES					
OTHER*					
Digitization					
*USE OTHER SIDE OF FORM FOR REMARKS			TOTALS	106	26
Pre-processing Examination by M. Brown			Beginning Date	8-14-91	Ending Date
Verification of Field Data by R. Davies			Time (Hours)	26	Ending Date
Verification Check by B. Olmstead, D. Hill			Time (Hours)	34	Ending Date
Evaluation and Analysis by R. Davies			Time (Hours)	26	Ending Date
Inspection by D. Hill			Time (Hours)	4	Ending Date

EVALUATION REPORT

H-10381

1. INTRODUCTION

Survey H-10381 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2 under the following Project Instructions.

OPR-K228-AHP, dated March 1, 1991
CHANGE NO. 1, dated June 4, 1991
CHANGE NO. 2, dated July 11, 1991

This survey was conducted in Texas and covers a portion of Matagorda Bay, east to Sand Point and between Gallinipper Point and the town of Indianola. The surveyed area extends from latitude 28/31/00N to latitude 28/35/07N, and from longitude 96/28/54W to longitude 96/33/58W. The surveyed area includes the Matagorda Ship Channel. The shoreline consists of sand, dredged spoil islands and small piers along the mainland. The bottom consists of mud, sand and shells. Depths range from zero to 13.8 meters.

Predicted tides for Port O'Connor, Texas were used for the reduction of soundings during field processing. Approved hourly heights zoned from Port Lavaca and Port O'Connor, Texas, gages 877-3259 and 877-3701 were used during office processing.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. The TRA sound velocity and electronic control correctors are adequate. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey that includes categories of information required to comply with Hydrographic Survey Guidelines No. 52, Standard Digital Data Exchange Format, April 15, 1986. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

2. CONTROL AND SHORELINE

Sections H and I of the hydrographer's report contain adequate discussions of horizontal control and hydrographic positioning. Additional detailed information on horizontal control is in the following.

GPS and Terrestrial Survey, San Antonio and Lavaca Bays, Texas, October 1990
Field Report, Matagorda Bay, Texas and vicinity, January 23, 1989 to March 13, 1989
Fixed Aids to Navigation and Landmark Features, Photogrammetric Survey CM-8715,
Matagorda Bay and Vicinity.

Positions of horizontal control stations used during hydrography are 1990 field values based on NAD 83. These values were used during office processing for the computation of positions. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined with NGS program NADCON. Geographic positions based on

NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude: 0.996 seconds (30.659 meters)
Longitude: 0.913 seconds (24.804 meters)

The year of establishment of control stations shown on the smooth sheet originates with NGS listing and the above referenced geodetic control reports.

The quality of several positions exceeds limits in terms of error circle radius and residual or have angles of intersection less than 30 degrees or more than 150 degrees. A review of the data, however, indicates that none of these fixes are used to position dangers to navigation. The features or soundings located by these fixes are consistent with surroundings. These fixes are considered acceptable.

The following shoreline maps apply to this survey.

	<u>Photo Date</u>	<u>Class</u>
TP-01648	Feb., Mar. 1989	III
TP-01651	Feb., Mar. 1989	III

The following shoreline changes are depicted in red with supporting positional information. These revisions are considered adequate to supersede the common photogrammetrically delineated shoreline. Refer to the smooth sheet for an accurate depiction.

	<u>Latitude(N)</u>	<u>Longitude(W)NAD 83</u>
rock groins in vicinity of	28/32/11	96/30/53
pier	28/32/53	96/31/15
T-pier	28/33/19	96/31/22.5
ruins	28/33/40	96/32/20
ruins	28/34/02	96/33/18
pier ruins	28/34/14	96/33/37

The following shoreline changes are depicted in dashed red without supporting positional information. These revisions are considered adequate to supersede the common photogrammetrically delineated shoreline. Refer to the smooth sheet for an accurate depiction.

	<u>Latitude(N)</u>	<u>Longitude(W)NAD 83</u>
HWL from	28/34/57	96/28/57
to	28/34/12	96/29/27
HWL	28/34/21	96/31/33
HWL	28/34/39	96/32/00

3. HYDROGRAPHY

With the exceptions noted below and elsewhere in this report, hydrography is adequate to:

- a. delineate the bottom configuration, determine least depths, and draw the standard depth curves;
- b. reveal there are no significant discrepancies or anomalies requiring further investigation; and
- c. show the survey was properly controlled and soundings are correctly plotted.

The hydrographer was apparently unable to define the zero depth curve due to shallowness which prevented an approach by boat.

4. CONDITION OF SURVEY

The hydrographic records and reports received for processing are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3, the Hydrographic Survey Guidelines, and the Field Procedures Manual, April 1990 Edition.

5. JUNCTIONS

Survey H-10381 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10379	1991	10,000	East
H-10390	1991	10,000	North

The junction with surveys H-10379 and H-10390 are complete.

6. COMPARISON WITH PRIOR SURVEYS

H-5857 (1935) 1:20,000

Survey H-5857 covers the entire area of the present survey. This area which is common to both surveys has changed little, the greatest difference being the new ship channel running northwest to the southeast. Soundings between the present and the prior survey agree within one meter except in the dredged Matagorda Ship Channel and the associated spoil areas on either side of this channel. Additional discussion can be found in section K of the hydrographer's report.

There are no AWOIS items which originate from the prior survey H-5857.

Survey H-10381 is adequate to supersede the prior survey within the common area.

7. COMPARISON WITH CHART

Chart 13117, 19th edition, dated January 20, 1990; scale 1:50,000

a. Hydrography

All charted hydrography originates with surveys H-5857 and miscellaneous sources.

With the exception of the following, survey H-10381 is adequate to supersede charted hydrography within the common area.

The pile charted at latitude 28/33/15N, longitude 96/31/00W, was not investigated and should remain as charted.

b. AWOIS

All AWOIS items originate with miscellaneous sources. Refer to the hydrographer's report for discussion and disposition of these features, supplemented as follows.

AWOIS item 5347, 3ft rep, at latitude 28/34/51N, longitude 96/29/06W, should be removed from the chart. Soundings in the area range from 2ft to 6ft (0.6m to 1.8m). Chart, "2ft 1991".

c. Controlling Depths

The Matagorda Ship Channel cuts through this survey in a northeast to southwest direction. The survey verified the project depth although most depths are deeper than project depths.

The note, "4 ft rep 1982", associated with the charted channel at latitude 28/34/01N, longitude 96/33/01W, should be removed from the chart. Soundings in the area of this charted channel indicate that the channel no longer exists. Until then, the channel should be charted as discontinued with a note, "1ft 1991". This is AWOIS item 5327.

d. Aids to Navigation

There are nineteen fixed aids within the area of this survey and they were located and serve their intended purpose. However, several aids to navigation have apparently been relocated by the USCG since the publication of the chart. Refer to the hydrographer's report, section L for revised positions. No form 76-40's were supplied by the hydrographer to report these new positions. There are no floating aids within the survey area.

All charted landmarks should remain as charted.

e. Geographic Names

Names appearing on the smooth sheet and in the survey title have been approved by the Chief Geographer.

f. Dangers to Navigation

The hydrographer reported two well platforms and five pipeline crossing signs, of which three were lighted, to the U. S. Coast Guard. A copy of the report is attached. An additional danger to navigation report was generated during office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10381 adequately complies with the project instructions.

9. ADDITIONAL FIELD WORK

This is an adequate hydrographic survey. Additional field work is recommended on a time available basis to address the pile in section 7.a.

f. l. Green
for C. R. Davies
Cartographer

APPROVAL SHEET
H-10381

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproof of charted data. The digital data have been completed and all revisions and processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts have been made and are included with the survey records. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Dennis Hill

Date: 4-2-92

Dennis J. Hill
Chief, Hydrographic Processing Unit
Pacific Hydrographic Section

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

Douglas G. Hennick

Date: 4/3/92

Commander Douglas G. Hennick, NOAA
Chief, Pacific Hydrographic Section

Final Approval

Approved:

J. Austin Yeager

Date: 12-13-94

for J. Austin Yeager
Rear Admiral, NOAA
Director, Coast and Geodetic Survey

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

Hydrographic Index No. 90 C

