10320

Diagram No. 1285

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-10-12-89

Registery No. H-10320

LOCALITY

State Texas

General Locality Aransas Bay

Sublocality Fulton to Goose Island

1989-90

CHIEF OF PARTY
LCDR V.D. Ross

LIBRARY & ARCHIVES

DATE August 2, 1990

☆U.S. GOV. PRINTING OFFICE: 1985—566-054

10320

11314

11313 + C

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10320

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

FIELD NO.

AHP-10-12-89

State Texas

General locality Aransas Bay

Locality Fulton to Goose Island

Scale 1:10,000 Date of survey 11/20/89 to 02/12/90

Instructions dated 09/14/89* Project No. OPR-K229-AHP2

Vessel Launch 1291 Atlantic Hydrographic Party-2

Chief of party LCDR V. Dale Ross

Surveyed by AHP-2

Soundings taken by echo sounder, hand lead, pole Raytheon DE-719-C/with ODOM Digitrace

Graphic record scaled by BAL, MJB, CJB, MPC

Graphic record checked by BAL, MJB, CJB, MPC

Verification by: ~~Protracted by~~ C.R. Davies Automated plot by PMC Xynetics Plotter

Evaluation by: ~~Verification by~~ C.R. Davies

Soundings in fathoms feet at ~~MLW~~ MLLW

REMARKS: * Change Number 1, dated 10/19/89; Change Number 2, dated 01/10/90. Times in UTC. Revisions and marginal notes in black were generated during office processing. All separates are filed with the hydrographic data, as a result page numbering may be interrupted or non-sequential.

AWOI S/SURF ✓ SJV 8/28/90

SC 1-30-97

✓ RWW. 8/14/90

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

U.S. GOVERNMENT PRINTING OFFICE: 1986 - 652-007/41215

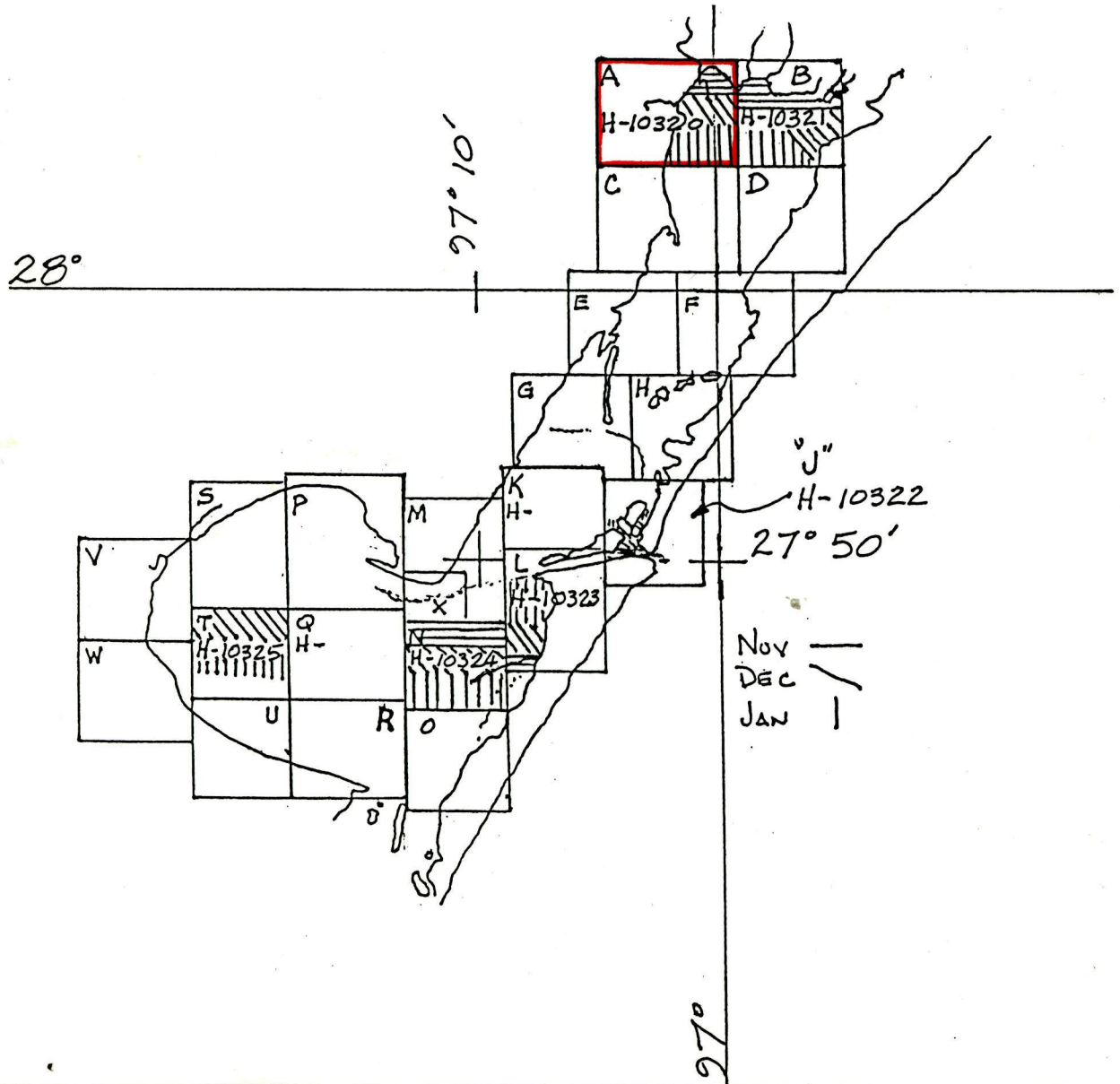
Progress Sketch

OPR-K229-AHP2-89
Corpus Christi
Texas

Atlantic Hydrographic Party Two
V. Dale Ross
Lieutenant Commander, NOAA
Chief of Party

LEGEND

	OCT	NOV	DEC	JAN
SQNMI SDG	0	13	13	21
LNMI SDG	0	309	712	674
LNMI TO/FRM	0	258	422	527
LNMI MISC	0	129	259	350
DP/BS	0	88	177	455
TIDE STA	6	0	0	0
CONTROL	18	0	0	0



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY
H-10320
AHP-10-12-89
OPR-K229-AHP2
1989/1990

A. PROJECT ✓

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K229-AHP2, Corpus Christi and Aransas Bays, Texas, dated September 14, 1989, Change Number 1, dated October 19, 1989, and Change Number 2, dated January 10,1990.

The purpose of project OPR-K229-AHP2 is to provide contemporary hydrography for the maintenance of existing charts and to compile a new chart for the naval base at Ingleside, Texas.

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

B. AREA SURVEYED ✓

The area surveyed for H-10320 covers the northwest corner of Aransas Bay, from Fulton, Texas to Goose Island. The survey limits are as follows:

North - Latitude 28°08'~~20~~15"N (Lamar, TX to Goose Island)
South - Latitude 28°04'0~~0~~5"N (Fulton, TX to Halfmoon Reef)
East - Longitude 096°58'~~30~~45"W (Hail Pt. to Halfmoon Reef)
West - Longitude 097°02'~~30~~15"W (Live Oak Peninsula and the LBJ causeway)

This survey was conducted from November 20, 1989 (day 324) to February 12, 1990 (day 043).

C. SOUNDING VESSELS ✓

NOAA launch 1292 (EDP No. 1292), a 21 foot MonArk, was used to collect all data on this survey. No problems were encountered with this vessel.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS ✓

Raytheon DE-719C fathometer, S/N 3947, modified with an Odom Hydrographic Systems, Inc. Digitrace, was used for the entire survey. Depths on this survey ranged from 1-10 feet. No problems were experienced with this fathometer.

The Digitrace readings were closely monitored for comparison with the analog trace to insure agreement between the two. Any necessary adjustments were made and noted on the fathogram.

Weather permitting, lead line comparisons were conducted each day of hydrography to determine an instrument corrector. The average corrector for Fathometer S/N 3947 used on launch 1292 was 0.2 foot. No instrument error was applied to the soundings on the final field sheet. A leadline comparison form can be found in the separates of this report. Filed with the hydrographic data

Survey records were scanned by AHP-2 employees in accordance with the hydrographic manual. With the digital reading taking precedence over the analog trace, significant peaks and deeps which occured between selected soundings, missed depths, incorrectly digitized soundings, and effects of sea and swell action were inserted or corrected while scanning.

The Raytheon DE-719C Fathometer was calibrated for a speed of sound through water of 4800 ft/sec. Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc. DIGIBAR electronic speed of sound probes (SN 154 and 169). Data quality assurance tests were performed prior to each cast. Program "Velocity" version 1.00 was used for the speed of sound corrections computations. The following casts were taken:

Cast	Day	Depth (m)	Digibar SN
1	333/1989	2	154
2	347	4	154
3	008/1990	4	169
4	017	4	169

Complete cast data information is included in the cahier for survey H-10320. See cast data information on survey H-10321 for cast 4.

AHP-2 experienced technical difficulties with the Digibar SN 154 (it was failing the DQA) and returned it to Odom for repairs. On January 8, 1990 AHP-2 received the Digibar SN 169, on loan, from the NOAA Ship RUDE.

All speed of sound correctors were applied to the final field sheet. Correctors from Table 1 were applied to days 325-339 (1989). Correctors from Table 2 were applied to days 345-354 (1989). Correctors from Table 3 were applied to days 009-043 (1990). A copy of the tables is in the separates of this report. Velocity support documentation is in the cahier for H-10320.

Correctors from Table 4 were applied to days 22-43

A static draft of one foot was applied on line. This was measured from a punch mark on the side of launch 1292, two feet above the transducer, to the water surface, then subtracting the difference.

Settlement and squat measurement for vessel 1292 was performed on November 9, 1989 (day 319) at the Sea Gun Resort in Lamar, Texas. The level method was used. Settlement and squat correctors were applied to all survey data. Data from the settlement and squat test is included in the separates of this report. Filed with the hydrographic data.

The final field sheet was plotted using predicted tides determined from the Galveston Channel using zones and correctors contained in the Project Instructions. Two zones were suggested which covered the limits of this survey, however, only one zone (+9.0 hr HW, +4.0 hr LW , 0.24 height ratio) was used. This was done to facilitate processing with the HDAPS.

Actual tide heights were requested from the Sea and Lake Levels Branch, N/OMA12, in a letter dated February 16, 1990. A copy of the letter is included in the Separates Following Text. *
Final correctors used for this survey can be found in the smooth printout.

E. HYDROGRAPHIC SHEETS ✓

The survey scale is 1:10,000. All sheets were produced by AHP-2 with the HDAPS on the Bruning ZETA 824 plotter. A list of sheets submitted for H-10320 are as follows:

Sheet	Scale	Quantity
Edited Trackline	1:10,000	1
Rough Sounding Plot	1:10,000	1
Final Field Sheet	1:10,000	1
Final Field Sheet Overlay	1:10,000	1

Unedited trackline plots and a rough sounding plot were used to monitor and evaluate the survey data. A mylar sheet with the shoreline drawn in black before it was verified, was later used for the edited trackline plot. The signals and X/Y grid was drawn in blue on this edited trackline plot because of red pen problems at the time. Detached positions were also plotted in

* Filed with the hydrographic data

blue on the edited trackline for ease of identification. Main scheme hydrography, development splits, crosslines, shoreline, aids to navigation, and horizontal control stations used during the survey are plotted on the final field sheet. Detached positions, and bottom samples are plotted on the overlay. Cartographic symbols for the detached positions are shown on the final field sheet.

All survey sheets and data were be submitted with the descriptive report to the Pacific Hydrographic Section, (N/CG 245), Seattle, Washington.

F. CONTROL STATIONS ✓

The horizontal control datum for this project is the North American Datum of 1983. Stations 101, 102, 104, 106, 108, and 112 were used to control this survey. A signal list as well as a copy of the HDAPS Control Station Table is included in the separates of this report. Control Station Table is filed with the hydrographic data.

The Coastal Surveys Unit from Norfolk, Virginia used third order, class I traverse and intersection methods to establish horizontal control for this project. The NAD 1983 was used. The horizontal control report was written and submitted by the Coastal Surveys Unit personnel for OPR-K229-AHP2.

G. HYDROGRAPHIC POSITION CONTROL ✓

Range/range positioning was the only method used to control this survey. Multiple lines of position (up to four) using Motorola Falcon 484 Mini-Rangers were used. The following Falcon Mini-Ranger equipment was used:

VESNO	Equipment	S/N	Code
1292	RPU	E0154	
	RT	E2917	
	R/S	E2977	4
	R/S	E2912	5
	R/S	E2909	6
	R/S	C2907	8
	R/S	C2889	9
	R/S	F3237	2

Baseline calibrations of the Motorola Falcon 484 equipment were performed on October 25, 1989 and January 8, 1990. The correctors were applied on-line through the Comflex "C-O" tables. Baseline calibration forms and the "C-O" tables are included in the separates. Filed with the hydrographic data.

When using three or four lines of position, a critical system check is continuously being obtained by observing the error circle radius (ecr) and residual (res) values on the Comflex screen on the survey vessels. When the error circle radius (ecr) was greater than 15m (1.5m at the survey scale) or the residuals were greater than 5m (.5m at the survey scale) for more than three to five minutes, survey operations are suspended in the area until the problem can be resolved. Any positions which had high error circle radii or residuals in an otherwise good line were smoothed during processing. If any five consecutive soundings had high error circle radii or residuals the data were rejected.

During three days of operations, days 325, 354, and 016, problems maintaining three or four lines of position were experienced. These were caused by fog, haze and the distance from the slave stations on only ten foot towers. Since the majority of data were collected with only two lines of position on these days, a static critical system check was performed between the two stations being used and Copano Bay Entrance Light 2, which was located to third order, class I standards. All the above days data is consistent with surrounding soundings.

High residuals were seen on a few detached positions on day 016. This was caused by a delay in pressing the "end" command key to accept the position. Good residuals were verified on the comflex screen at the time the detached position function key was pressed; which is the time at which the position is computed and stored. Residual value readings are not stored until the "end" command key is pressed, and do not reflect the values used in the computation of the position. This problem exists with version 3.43 of the Comflex software used on this survey, but will be corrected on future versions. These positions which show high residuals were retained as good data. Concur

All critical check values were less than 5 meters which is within the required limits of the field procedures manual. Results of the calibrations are included in the Separates Following Text. Filed with the hydrographic data

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

H. SHORELINE See Final Report section 2

Shoreline detail shown on the final field sheet was transferred by hand from TP-01611 and TP-01609. These shoreline manuscripts were compiled on NAD 1983. The eastern tip of Goose Island was transferred from TP-01196, compiled on NAD 1927.

The shoreline manuscripts were compiled at 1:20,000 scale. They were enlarged to 1:10,000 scale for use with this survey.

Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore, or by visual inspections. Verified shoreline is shown in black ink on the final field sheet.

Because all shoreline detail in the survey area was assigned as pre-survey review items, detached positions were taken on every feature, so they could be readily identified for comparison with the T-maps and the chart. The only exception was in the extreme northern end of the survey area where shallow water prevented the launch from reaching the shoreline features. A complete discussion of the shoreline detail is found on the individual item investigation reports in the separates following the text of this report.

Changes to shoreline detail are shown in red ink on the final field sheet. Shoreline detail verified by this survey is shown in black ink on the final field sheet.

Four obstructions are shown on TP-01611 along the western shoreline of Aransas Bay at:

latitude 28° 05' 15"N, longitude 097° 02' 04"W
latitude 28° 05' 17"N, longitude 097° 01' 57"W
latitude 28° 05' 22"N, longitude 097° 01' 58"W
latitude 28° 05' 56"N, longitude 097° 01' 33"W

These obstructions should not be charted. Details on these obstructions are found on the item investigation reports for items 5245, 5246, 5251, and 6115. concur

One obstruction is shown on TP-01196 at latitude 28° 06' 49"N, longitude 096° 58' 57"W. A well platform, which should be charted, was located at this position. concur

I. CROSSLINES ✓

A total of 32.5 linear nautical miles of crosslines were run on H-10320 which equals 17% of the main scheme hydrography. Disagreement of as much as 2 feet is seen when comparing the crosslines with the mainscheme hydrography. In all cases, the crossline soundings are shoaler than the mainscheme. This difference occured because of extreme low water levels during the second half of the month of December for which predicted tides did not account. All of the crosslines were run during these low water periods.

J. JUNCTIONS ✓

This sheet junctions with H-10321 (1989/90), 1:10,000 scale, on the east; ~~with H-5916 (1935), 1:20,000 scale~~ the chart, at the LBJ Causeway to the northwest; and will junction with H-10327, 1:10,000 scale, from OPR-K229-AHP, scheduled for completion in 1990, to the south. Junction soundings between the present survey and H-10321 agree well. Depths varied by no more than 2 feet. Soundings between H-10320 and ~~H-5916~~ see below also agreed within 2 feet. concur

K. COMPARISON WITH PRIOR SURVEYS See Evaluation Report section 6

This survey was compared with the following prior surveys:

Registry #	Scale	Year Surveyed
H-5875	1:20000	1935
H-5916	1:20000	1935
H-5693	1:20000	1934-35

With H-5875 ✓

Depths agree within 1 foot when comparing the prior survey to H-10320. Two exposed reefs shown on the prior are not seen on H-10320. One at latitude 28° 06' 30"N, longitude 097° 00' 05"W, now has depths of 4 and 5 feet. The other at latitude 28°06'18"N, longitude 97°00'27"W, now is seen on H-10320 as an isolated 3 foot sounding.

With H-5916 ✓

Depths agree within 1 foot when comparing the prior survey to H-10320. A reef ~~baring~~ uncovers on the prior at latitude 28°07'39"N, longitude 097°00'25"W, now has a least depth of 2 feet. A reef ~~baring~~ uncovers on the prior at latitude 28°08'03"N, longitude 097°00'21"W, is now part of a spit of land at the eastern side of the entrance to a small boat harbor constructed since the prior survey. An islet seen on the prior at latitude 28° 06' 09.0" N, longitude 097° 01' 09.0" W is now connected to shore forming a sand spit. A shell islet seen on the prior at latitude 28° 06' 33.0" N, longitude 097° 01' 18.0" W, no longer exists on H-10320. The exposed reefs seen on the prior survey at latitude 28° 07' 09.0" N, longitude 097° 00' 10.0" W are now isolated shoals with least depths of 2 feet.

With H-5693 ✓

Depths agree within 1 foot when comparing the prior survey with H-10320. No major discrepancies are seen between these two surveys. concur

In the cases described in the comparisons where exposed reefs are no longer evident on H-10320, the hydrographer feels the reasons are oyster dredging common in this area and natural storm movement over the last 55 years since the prior survey.

None of the seventy-one assigned items for this survey originated from prior surveys. concur

L. COMPARISON WITH THE CHART See EVAL Report section 7

This survey was compared to the 15th edition of chart 11314, dated August 15, 1987.

There are seventy-one AWOIS items assigned to H-10320. Included in these items is all of the shoreline detail shown on chart 11314 as well as all of the offshore features charted with the exception of the many reefs and three submerged pipes located at:

latitude 28° 05' 09.9" N, longitude 097° 00' 35.7" W
latitude 28° 04' 53.7" N, longitude 097° 00' 16.6" W
latitude 28° 04' 57.8" N, longitude 096° 59' 05.4" W

Dive investigations were made on the three submerged pipes, all with 100 meter radii circle searches. Nothing was found during any of the searches. The hydrographer recommends deleting the submerged pipes from chart 11314. Dive investigation reports are included in the separates of this report. concur

A complete discussion of the charted shoreline and offshore detail assigned as items is made on Item Investigation Report Forms in the separates following the text of this report. Many of the items which were related are grouped together on one report. When items were recommended for deletion from the chart based solely on opinions and not fully satisfying the disproval requirements, consideration of the location of the item was made with regard to proximity to reefs and navigable water.

No uncharted dangers to navigation were identified on H-10320.

Sounding agreement between charted soundings and H-10320 was excellent, agreeing to within one foot. All of the charted reefs have diminished in size and no longer uncover as large an area as charted or do not uncover at all. This is most likely due to natural storm forces and oyster dredging prevalent in this area.

Shoaling was found around the area charted as Bartell Pass at latitude 28° 07' 10" N, longitude 096° 58' 55"W. The charted reef was found to uncover a larger area north to south. A passage between the eastern tip of Goose Island and this reef was not evident. A recommendation is made to change the name Bartell Pass to Bartell Reef. A recommendation was sent to Chief Geographer

Twenty oil or gas well platforms, averaging approximately 10 meters wide by 30 meters long were located and are recommended for charting at: concur, chart as shown on smooth sheet.

PN 2563> latitude 28° 06' 49.8" N, longitude 096° 58' 58.1" W
PN 2564> latitude 28° 06' 49.8" N, longitude 096° 59' 08.5" W
PN 2593> latitude 28° 07' 51.1" N, longitude 097° 00' 35.3" W
PN 2594> latitude 28° 07' 48.1" N, longitude 097° 00' 16.0" W
PN 2595> latitude 28° 07' 47.2" N, longitude 097° 00' 15.6" W
PN 2596> latitude 28° 07' 40.3" N, longitude 097° 00' 26.2" W
PN 2597> latitude 28° 07' 38.0" N, longitude 097° 00' 36.8" W
PN 2599> latitude 28° 07' 25.7" N, longitude 097° 00' 44.9" W
PN 2601> latitude 28° 07' 07.2" N, longitude 097° 00' 53.5" W
PN 2603> latitude 28° 06' 55.5" N, longitude 097° 00' 56.1" W
PN 2605> latitude 28° 06' 44.8" N, longitude 097° 00' 43.5" W
PN 2620> latitude 28° 05' 46.9" N, longitude 096° 59' 43.8" W
PN 2621> latitude 28° 05' 35.0" N, longitude 097° 00' 07.5" W
PN 2622> latitude 28° 05' 35.1" N, longitude 097° 00' 08.0" W
PN 2623> latitude 28° 05' 25.5" N, longitude 097° 00' 07.4" W
PN 2624> latitude 28° 05' 16.0" N, longitude 096° 59' 54.6" W
PN 2625> latitude 28° 04' 57.6" N, longitude 096° 59' 47.9" W
PN 2626> latitude 28° 04' 44.3" N, longitude 097° 00' 24.5" W
PN 2627> latitude 28° 04' 33.0" N, longitude 097° 00' 37.1" W
PN 2628> latitude 28° 04' 41.4" N, longitude 097° 01' 41.6" W

These platforms were not reported as dangers to navigation because of the magenta note charted which warns of obstructions, wells and pipelines.

Wharf ruins should be charted between latitude 28° 08' 04.1" N, longitude 097° 00' 33.1" W and latitude 28° 08' 04.1" N, longitude 097° 00' 34.0" W extending northward to shore from these positions. This was not considered a danger to navigation because of the proximity to shore. concur

M. ADEQUACY OF SURVEY

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

N. AIDS TO NAVIGATION ✓

No floating aids to navigation exist within the survey area.

Two fixed aids to navigation lie within the limits of this survey. Copano Bay Approach Light 2, number 35585 from 1989 USCG Light List Volume 4, was located to Third Order, Class I standards by the Coastal Surveys Unit from Norfolk, Virginia. This light is now approximately 100 meters east of the charted location but is still adequately serving it's purpose. concur

Copano Bay Approach Light 3, number 35590 from 1989 USCG Light List Volume 4, was located by detached position on this survey. This light is now approximately 50 meters east of the charted location and still adequately serves it's purpose. concur

Three bridges exist in the survey area. One crosses from the Lamar Peninsula to the Live Oak Peninsula and separates Copano Bay from Aransas Bay. The charted vertical clearance of this bridge was verified as 50 feet by steel tape. Another bridge crosses from the Lamar Peninsula to Goose Island. The charted vertical clearance of this bridge was verified as 2 feet by steel tape. A third bridge which crosses over a canal in Neptune Harbor was measured as 7 feet vertical clearance. Because of the congestion on the chart in this area already and the fact that this bridge crosses over private canals, no recommendation is made to chart this clearance. Clearances are based on mean high water.

Numerous pipelines exist in the survey area, however only one was evident along shore. This was located by position 63 at latitude 28° 05' 41.8" N, longitude 097° 01' 55.9" W, with a position taken on the range of the pipeline at latitude 28° 05' 40.2" N, longitude 097° 01' 51.4" W. No determination could be made of the destination of this pipeline. No recommendation is made to chart this pipeline. Per a telephone conversation with Mr. James Dailey in the Mapping and Charting Branch (N/CG2222) the current NOAA policy regarding charting of the pipelines in this survey area is to let the magenta note warning of obstructions, wells, and pipelines suffice.

O. STATISTICS

Description	
Total Positions	3036
Detached Positions	217
Duplicate Positions	2
Total Miles of Hydrography	304.8
Sq. Nautical Miles of Hydrography	8
Bottom Samples	31
Digibar Casts	4
Tide Stations	9
Days of Production	22

P. MISCELLANEOUS

No anomalous currents were observed in the survey area.

Bottom samples were taken and submitted to the Smithsonian Institution as directed in Section 6.7 of the project instructions. Bottom sample positions were plotted on the overlay with the other detached positions. The bottom samples were listed on the Oceanographic Log Sheet - M, NOAA form 75-44, and may be found in the Separates Following Text.

The protective cover for small craft chart 11314 has Copano Bay misspelled as "Copana Bay". This should be corrected on future editions of chart 11314.

On day 043, detached positions were taken at the central point of visual and fathometer search areas for AWOIS items. These positions were designated NSP. A paper plot of these positions can be found in the cahier for H-10320. These positions were not plotted on any of the survey sheets listed in section E. of this report.

Q. RECOMMENDATIONS

Recommendations may be found in sections H, K, L, N and P of this report.

R. AUTOMATED DATA PROCESSING ✓

Data is collected on-line using a Comflex 1030 NX hard disk and raw data is transferred to the off-line processing system using a 3.5" floppy disk. Off-line processing is accomplished on the HDAPS consisting of the following components: a Hewlett Packard (HP) 9000 Model 300 computer, an HP 9153C Disk Drive with a Winchester hard disk storage capacity of 20 Mbytes , an HP 7959B 300 Mbyte hard drive, an HP 98785A color monitor, a Bruning ZETA 824 plotter, an HP Ruggedwriter printer, and an HP model 9145 tape drive. All off-line software programs are written in HP BASIC while all on-line programs are written in QUICKBASIC.

Raw data on the floppy disks, and edited data stored on magnetic tapes have been submitted to the Pacific Hydrographic Section (N/CG245), Seattle, WA., with the other survey data.

During data acquisition, high frequency digitized depths are recorded while simultaneously applying draft and settlement and squat corrections. Mini-ranger baseline calibration correctors for each line of position are also applied on-line. Actual water levels and speed of sound correctors are applied to the final field sheet from the respective corrector tables. Sounding plots and trackline plots are produced during processing.

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

VELOCITY (IBM PC)	Ver. 1.0 Ext. 9/89
MTEN 3 with enhancements (IBM PC)	Ver. 6/88

S. REFERRAL TO REPORTS ✓

Title	Transmittal Information
Descriptive Report To Accompany Survey H-10321	Pacific Hydrographic Section Seattle, Washington N/CG245
~~Horizontal Control Report for OPR-K229-AHP2~~ *	Field Photogrammetry Section Norfolk, VA (N/CG233)
Chart Sales Agent Report for OPR-K229-AHP2	Chart Distribution Branch (N/CG33) Rockville, MD.
User Evaluation Report OPR-K229-AHP2	Atlantic Hydrographic Section (N/CG244) Norfolk, Va.
Chart Inspection Report OPR-K229-AHP2	Atlantic Hydrographic Section (N/CG244) Norfolk,Va.
Coast Pilot Report	Coast Pilot Section Mapping and Charting Branch (N/CG22) Rockville, MD

Submitted by: Brian A. Link, Launch Hydrographer-in-Charge

* Geodetic Control Report for CM-8716 and Geodetic Control Survey Job-HC-9902

CHART #11314

PRE-SURVEY REVIEW ITEM #5218
TWO PIERS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 191901-192206 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 6 - 7

CORRECTORS APPLIED:

VELOCITY: No TRA CORRECTORS: No

PREDICTED TIDES: No

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 04' 12.~~05~~"	97° 02' 0~~7.96~~8"
OBSERVED:	(pos 6)	28° 04' 12.03"	97° 02' 07.54"
	(pos 7)	28° 04' 13.59"	97° 02' 03.80"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. The southerly of the two piers was located by position 6. This pier is intact, as charted, and is shown on TP-01611. The northerly pier is charted as ruins but found intact by position 7. The northerly pier is not on TP-01611.

CHARTING RECOMMENDATIONS: Chart two piers at the observed positions. concur

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COMPILATION USE

CHART: APPLIED AS:

CHART 11314 PRE-SURVEY REVIEW ITEM #5220

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 193059-195408 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 8-1~~78~~

CORRECTORS APPLIED:

VELOCITY: ___ TRA CORRECTORS: ___

PREDICTED TIDES: ___

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 04' 22.~~05~~"N	97° 02' 0~~6.96~~7"W
OBSERVED:	Pos. 8	28° 04' 20.50"N	97° 02' 05.47"W
	Pos. 9	28° 04' 21.16"N	97° 02' 04.37"W
	Pos. 10	28° 04' 22.62"N	97° 02' 03.37"W
	Pos. 11	28° 04' 23.10"N	97° 02' 03.21"W
	Pos. 12	28° 04' 23.83"N	97° 02' 03.32"W
	Pos. 13	28° 04' 24.84"N	97° 02' 04.05"W
	Pos. 14	28° 04' 23.84"N	97° 02' 03.93"W
	Pos. 15	28° 04' 23.24"N	97° 02' 03.79"W
	Pos. 16	28° 04' 22.38"N	97° 02' 06.52"W
	Pos. 17	28° 04' 25.60"N	97° 02' 08.83"W
	Pos. 18	28° 04' 26.81"N	97° 02' 04.74"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Ranger

METHOD OF ITEM INVESTIGATION: Southerly of the seven(7) item features was visually searched for and not found.(Delete) Second feature from south was located by positions 8-12 and is a bulkhead forming a small boat harbor. Third feature from south was visually searched for and not found (Delete). Fourth feature from south was located by position 16 and is a pier with fingers inside small boat harbor. Fifth feature from south was located by positions 13-15 and is a pier atop bulkhead forming north side of small boat harbor. The sixth feature from south was located by position 17 and is the offshore end of a row of pilings, (Chart as ruins), and the northerly feature was located by position 18 and is the offshore end of pier ruins.

CHARTING RECOMMENDATIONS: Chart features based on the above observed positions and as noted in Method of Investigation.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314 PRE-SURVEY REVIEW ITEM #5222

SOURCE:CL1109/77--SCIENTIFIC SURVEY

INVEST. DATE: 2/12/90 TIME: 202458Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 3036

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 04' 31.~~05~~"N	97° 01' 4~~2.96~~ 3"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to three feet with good bottom visibility, however nothing was found.

The marker is described as a PVC piling, which in the hydrographers opinion and firsthand inspection of other PVC markers found in the area, is no longer there nor are there any dangerous remnants.

CHARTING RECOMMENDATIONS: Delete marker from chart. Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5224
ONE PIER

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 201627 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 23

CORRECTORS APPLIED:

VELOCITY: No TRA CORRECTORS: No

PREDICTED TIDES: No

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 04' 35.~~05~~"	97° 02' 0~~6.96~~7"
OBSERVED:	28° 04' 35.76"	97° 02' 06.92"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A detached position was taken on the offshore end of a wooden T-pier. The pier bared three feet at the time of the survey. The pier is 1.5 meters wide with a 5 meter T. A visual search was conducted, no ruins exist offshore of this position.

CHARTING RECOMMENDATIONS: Delete charted pier ruins and chart pier based on position 23, which also verifies TP-01611. Concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5226
FOUR PIERS

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 202220-203326 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 24-28

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 04' 40.55"	97° 02' 08.96"
OBSERVED:	- See Method of Item Investigation -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Detached positions were taken on four piers:

Position 24 is the offshore end of the southerly of the four piers, it is a T pier that bares three feet at the time of the survey. The pier is 1.5 meters wide with a two meter N/S T. This pier agrees with the chart and is shown on T map 01611. The observed position is latitude 28° 04' 37.44" N, longitude 97° 02' 06.34" W.

Position 25 is the offshore end of the second pier from the south, the pier is in ruins. The observed position is latitude 28° 04' 38.82" N, longitude 97° 02' 07.75" W.

Position 26 is the offshore end of the third pier from the south. The pier is a new T pier 2.5 meters wide and the T is 5 meters N/S. The pier bares 4 feet at the time of the survey. The observed position is latitude 28° 04' 38.82" N, longitude 97° 02' 07.77" W.

Position 27 is the offshore end of a T pier in ruins. There are ruins between this position and position # 26. The observed position is latitude 28° 04' 40.27" N, longitude 97° 02' 05.055" W.

Position 28 is the offshore end of the Northerly of four piers. The pier is a T-pier two meters wide with a seven meter N/S T. The pier bared three feet at the time of the survey. The observed position is latitude 28° 04' 41.80" N, longitude 97° 02' 05.82 W.

CHARTING RECOMMENDATIONS: Chart the features as described at the observed positions. (See H-10320 ~~final field~~ smooth sheet) concur

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COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5227
THREE PIERS IN RUINS

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME:203935-204842 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 31, 33, and 34

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 04' 46.~~05~~"	97° 02' 0~~8~~9.~~96~~"
OBSERVED:	- See Method of Item Investigation-	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. This AWOIS item is described as four piers in ruins. The southerly two pier ruins were not found as charted during the visual search.

Position 31 is the offshore end of a pier in ruins. The pier is two meters wide and bared three feet at the time of the survey. The position is latitude 28° 04' 43.74" N., longitude 97° 02' 05.190 W.

Position 33 is the offshore end of the third charted feature from the south. The pier is in ruins and bared .5 feet at the time of the survey. The observed position of the offshore end of the pier shows the pier to be longer than charted, this position is latitude 28° 04' 47.71" N, longitude 97° 02' 03.91" W.

Position 34 is the offshore end of a T pier intact. It is 1.5 meters wide and the T extends two meters N/S. This pier is shown on the chart but is shown as ruins on T map 01611. The observed location is latitude 28° 04' 49.40 N, longitude 97° 02' 06.92" W.

CHARTING RECOMMENDATIONS: Chart the above piers and ruins at the observed positions. Remove the southerly two pier ruins from the chart.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5229
TWO PIERS IN RUINS, TWO VISIBLE

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 205127-205750 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 35-3~~78~~

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 04' 50.~~05~~"	97° 02' 0~~5.96~~6"
OBSERVED:	pos. 35	28°04'51.10"N	97°03'03.78"W
	pos. 36	28°04'52.98"N	97°02'03.85"W
	pos. 37	28°04'53.81"N	97°02'03.91"W
	pos. 38	28°04'54.45"N	97°02'07.20"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual search. The southerly of the four item features, a charted pier in ruins, does not exist per visual search of the area. The second pier from south, shown on the chart and T map 01611, was located by position 35. The third pier from south was located by position 36. The pier is intact and is longer than charted, it is shown incorrectly on the T map as ruins. No pier ruins were found of the northern item feature, however, a pipe and a pile were located at positions 37 and 38 respectively.

CHARTING RECOMMENDATIONS: Delete the most southerly feature, pier in ruins. Chart pier at pos. 35. Chart a pier intact at pos. 36, not as ruins as shown on T map. Delete the most northerly feature, pier ruins. Chart a pipe and pile at pos. 37 and 38 respectively.

cmcw

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5231
PVC PILING

SOURCE:CL1109/77--SCIENTIFIC SURVEY

INVEST. DATE: 2/12/90 TIME: 1950Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 3030

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 04' 58.~~05~~"N	96° 59' 5~~1.96~~2"W
OBSERVED:	- Not Found _	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to three feet with good bottom visibility, however nothing was found. The marker is described as a PVC piling, which in the hydrographers opinion and firsthand inspection of other PVC markers found in the area, is no longer there nor are there any dangerous remnants.

CHARTING RECOMMENDATIONS: Delete marker from chart. Concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5232
THREE PIERS IN RUINS, ONE VISIBLE

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 210450-211337 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 40, 41 and 43

CORRECTORS APPLIED: NONE

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 04' 58.~~05~~"	96° 59' 5~~1.96~~2"
OBSERVED:	pos. 40	28°04'56.81"N	97°01'57.04"W
	pos. 41	28°04'58.28"N	97°01'56.94"W
	pos. 43	28°05'01.74"N	97°02'01.88"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. No evidence of the southerly of the four piers was evident. The second pier from the south was located with position 40, is shown correctly on TP-01611 and, except for the mid-point finger, agrees with the chart. The third item feature from the south, charted pier ruins, were located at position 41 and is longer than charted. The most northerly of the four items was located by position 43 as pier ruins and is much shorter than charted. A visual searh offshore of position 43 found no additional pier ruins.

CHARTING RECOMMENDATIONS: The southerly of the four piers charted should be deleted. The other item features should be charted as described in method of investgation and as shown on H-10320 ~~final~~ ~~field~~ smooth sheet.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5240
ONE PIER

SOURCE:UNKNOWN

INVEST. DATE: 11/20/89 TIME: 211620 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 44

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 04.~~05~~"	97° 02' 0~~2.96~~3"
OBSERVED:	28° 05' 03.87"	97° 01' 59.27"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. The offshore end of a pier in ruins was located at position 44. The pier is incorrectly charted as being intact.

CHARTING RECOMMENDATIONS: Chart as ruins from observed position westward to shore.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5243
TWO PIERS IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 212033-212446 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 45-46

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 05' 10.~~05~~"	97° 0~~1~~ 2' ~~59~~ 00 .~~96~~"
OBSERVED:	(pos 45)	28° 05' 08.80"	97° 01' 59.78"
	(pos 46)	28° 05' 11.72"	97° 01' 57.11"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual search. The two pier ruins charted were not found, however, pier ruins were located both 30 meters north and south of the item position. The ruins were located by positions 45 and 46.

CHARTING RECOMMENDATIONS: Delete the charted pier ruins described by AWOIS #5243. Chart pier ruins at the observed positions. concur

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COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5245
ONE PIER

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 212737 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 47

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 12.~~05~~"	97° 0~~1~~ 2' ~~59.96~~ 00"
OBSERVED:	28° 05' 12.85"	97° 01' 57.83"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. An L shaped pier was found at the observed position. The manuscript shows a pier intact without the L portion. The pier found was shorter than the one shown on T-01611. A visual search for the obstruction shown on the T-map to the north of the pier was conducted. No obstruction was found.

CHARTING RECOMMENDATIONS: Chart a pier in rams at the observed position. Do not chart the obstruction shown on T-01611 at Latitude 28° 05'15"N, Longitude 97° 02'04"W.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5246
ONE PIER IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 213556 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 48

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 16.~~05~~"	97° 0~~1~~ 2' ~~59.96~~ 00"
OBSERVED:	28° 05' 16.25"	97° 01' 55.63"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. Pier ruins were located by position 48. The ruins are approximately 20 meters north of the charted position and 60 to 70 meters shorter than charted. A visual search for ruins offshore of the observed position found nothing.

CHARTING RECOMMENDATIONS: Chart pier ruins at the observed position. Delete the obstruction shown on TP-01611 at Latitude 28° 05' 17"N, Longitude 97° 01' 57"W.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5248
ONE PIER

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 213953 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 49

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' ~~19.55"~~ 20	97° 01' 5~~8.96~~ 9"
OBSERVED:	28° 05' 18.94"	97° 01' 58.28"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual search. A pier was located by position 49. The pier is as shown on the manuscript and as charted.

CHARTING RECOMMENDATIONS: Remain as charted

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5251
THREE PIERS IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 214536-214805 VESSEL: #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 51 - 52

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 05' 23.~~05~~"	97° 01' 5~~6.96~~"
OBSERVED:	(pos 51)	28° 05' 21.78"	97° 01' 57.67"
	(pos 52)	28° 05' 22.84"	97° 01' 57.48"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. The southerly of the three ~~features~~ piers was searched for but not found. Pier ruins, with a roof structure at the mid-point, were located with position 51. This roof structure is shown as an obstruction on TP-01611. The center of the three ~~items~~ piers was located as pier ruins by position 52, agreeing with the chart. The northerly item feature, pier ruins, as well as the obstruction shown on TP-01611 were both visually searched for but not found.

CHARTING RECOMMENDATIONS: Delete the southerly and northerly ~~features of the item~~ piers. Chart pier ruins at the observed positions. Do not chart the obstruction shown on T-01611, covered by the ruins located by position 51.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #5253-5257
Submerged Piles

SOURCE: UNKNOWN

INVEST. DATE: 2/12/90 TIME: 1959-2012Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 3031 - 3035

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:	5253>	28° 05' 23.~~05~~"N	97° 00' 11~~.96~~ 12"W
	5254>	28° 05' 23.~~05~~"N	97° 00' 16~~.96~~ 17"W
	5255>	28° 05' 23.~~05~~"N	97° 00' 20~~.96~~ 21"W
	5256>	28° 05' 23.~~05~~"N	97° 00' 23~~.96~~ 24"W
	5257>	28° 05' 23.~~05~~"N	97° 00' 27~~.96~~ 28"W
OBSERVED:		- Not Found-	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. The described markers are 37 years or more old. A marker which was accidently knocked over while trying to locate it, left rotted remains, which when prodded with a sounding pole disinegrated. The charting recommendation is based on this knowledge, as well as the proximity of the markers to Scotch Tom Reef which is susceptible to the oyster dredging common to this area, which would also destroy any pile remains.

CHARTING RECOMMENDATIONS: Delete submerged piles from chart. Concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6106
4 PIERS IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME:2152-2155Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 53-54

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 05' 28.~~05~~"N	97° 01' 0~~1.54~~2"W
OBSERVED:	pos. 53>	28° 05' 25.~~36~~"N OK	97° 01' 5~~2.94~~"W OK
	54>	~~27~~° ~~53'~~ ~~24.51~~"N 28 05 27.69"N	97° ~~28' 16.90~~"W 01 53.91"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: The southerly of five(5) item features, pier ruins, were visually searched for and not found, delete. The second feature from south, a charted pier intact, was located by position 53 as pier ruins. The third feature from south, charted pier ruins, were located by position 54. The two northerly item features, charted pier ruins were visually searched for, but not found. Delete.

CHARTING RECOMMENDATIONS: Chart pier ruins at the observed positions. Features to be deleted are noted in method of investigation. Concur

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COMPILATION USE

CHART: APPLIED AS:

CHART 11314

PRE-SURVEY REVIEW ITEM #6108
Pier Ruins

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 2205Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 59

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 37.~~05~~"N	97° 01' 5~~4.96~~5"W
OBSERVED:	28° 05' 3~~5.50~~"N ok	97° 01' 51.~~66~~"W ok

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: This item feature was located by position 59 as the offshore end of pier ruins, but found approximately 60-70 meters longer than charted.

CHARTING RECOMMENDATIONS: Chart pier ruins from position 59, westward to shore as shown on H-10320 final field sheet.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6109
PIER IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/20/89 TIME: 2209Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 61

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 40.~~05~~"N	97° 01' 5~~1.96~~2"W
OBSERVED:	28° 05' 37.78"N	97° 01' 49.28"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: The southerly item feature was located by position 61 as a pier intact, agreeing with the chart and the pier shown on TP-01611. The northerly feature, charted T-pier ruins were visually searched for, but not found. Delete.

CHARTING RECOMMENDATIONS: Chart the southerly item feature located by pos. 61 and delete the northerly item feature, the charted pier ruins.

Concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6112
FOUR PIERS

SOURCE: UNKNOWN

INVEST. DATE: 11/30/89 TIME: 1740-1752Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 468, 471, 3029

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 05' 46.~~05~~"N	97° 01' 4~~7.96~~9"W
OBSERVED:	pos.468>	28° 05' 46.12"N	97° 01' 46.92"W
	pos.471>	28° 05' 42.79"N	97° 01' 49.18"W
	pos.3029>	28° 05' 44.11"N	97° 01' 47.32"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Southerly of four(4) item features was located by position 471 as pier ruins, which is charted as a pier intact.(Chart as ruins.) Second feature from south was located by position 3029 as a pier intact as charted and shown on manuscript. (Chart pier based on position 3029) Third feature from south was verified as shown on TP-01611 as a pier intact. (Chart pier as shown on T-map.) Northerly feature was located by position 468 as a pier in ruins, both charted and shown on TP-01611 as a pier intact. (Chart as pier in ruins based on position 468.)

CHARTING RECOMMENDATIONS: Recommendations are made in the method of investigation section.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6113
FOUR PIERS IN RUINS

SOURCE: UNKNOWN

INVEST. DATE: 11/30/89 TIME: 1639-1735Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 456,458,461,463,464,467

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 05' 50.~~05~~"N	97° 01' 44~~.96~~ 5"W
OBSERVED: pos. 456>	28° 05' 51.07"N	97° 01' 41.42"W
pos. 458>	28° 05' 52.24"N	97° 01' 43.04"W
pos. 461>	28° 05' 52.55"N	97° 01' 44.84"W
pos. 463>	28° 05' 49.66"N	97° 01' 43.31"W
pos. 464>	28° 05' 49.01"N	97° 01' 44.22"W
pos. 467>	28° 05' 45.77"N	97° 01' 44.73"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Southerly of five(5) item features, charted pier ruins were visually searched for with no evidence of pier ruins found as charted. Position 467 locates center of two piles which are all that remains of pier ruins in this vicinity. (Chart pile symbols based on Position 467.) Second item feature from south was located by position 464 as pier ruins as charted , but approximately 10 meters shorter than shown on TP-01611. (Chart ruins based on position 464.) Third feature from south was located by position 463 as pier ruins as charted. (Chart as pier ruins based on position 463.) Fourth feature from south was visually searched for but not found. (Delete charted pier ruins.) Northerly item feature was located by position 456, offshore end of pier ruins, position 458 inshore end of ruins, and position 461 offshore end of pier intact. No ruins exists between positions 458-461. (Chart pier intact based on position 461 westward to shore and chart pier ruins between positions 456 and 458.)

CHARTING RECOMMENDATIONS: Recommendations are made in the method of investigation section.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6115
THREE PIERS

SOURCE: UNKNOWN

INVEST. DATE: 11/30/89 TIME: 1620-1628Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 454, 3014

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 05' 57.~~05~~"N	97° 01' ~~39.96~~ 40"W
OBSERVED:	pos. 454>	28° 05' 57.81"N	97° 01' 33.25"W
	pos.3014>	28° 05' 53.80"N	97° 01' 35.83"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Southerly of the four(4) item features was visually searched for and not found. (Delete). Second feature from south was visually searched for and not found. (Delete ruins). Third feature from south was located by position 3014, as a T-pier intact as charted and shown on TP-01611. (Chart as T-pier based on position 3014.) Northerly feature was pier ruins located by position 454 as charted, but shown on TP-01611 as an obstruction. (Chart pier ruins based on position 454).

CHARTING RECOMMENDATIONS: Recommendations are made in the method of investigation section.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6124
MARKER

SOURCE: CL 1109/77

INVEST. DATE: 2/12/90 TIME: 1833-1840Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10321 (OPR-K229-AHP) POSITION: 2998 - 3003

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 06' 19.~~05~~"N	96° 59' 4~~5.96~~6"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. The marker is described as a PVC piling, which in the hydrographers opinion and firsthand inspection of other PVC markers found in the area, is no longer there nor are there any dangerous remnants.

CHARTING RECOMMENDATIONS: Delete marker from chart.

Concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6136-6142
ROUTE MARKERS (Priv. Maintained)

SOURCE: AMERICAN LIBERTY OIL CO

INVEST. DATE: 2/12/90 TIME: 1540-1707Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10321 (OPR-K229-AHP) POSITION: 2970-2977

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED: PSR 6136>	28° 06' 36.~~05~~"N	96° 58' 43~~.96~~ 44"W
PSR 6137>	28° 06' 38.~~05~~"N	96° 58' 55~~.96~~ 56"W
PSR 6138>	28° 06' 39.~~05~~"N	96° 59' 06~~.96~~ 07"W
PSR 6139>	28° 06' 41.~~05~~"N	96° 59' 18.00"W
PSR 6140>	28° 06' 42.~~05~~"N	96° 59' 28~~.96~~ 29"W
PSR 6141>	28° 06' 44.~~05~~"N	96° 59' ~~39.96~~ 48"W
PSR 6142>	28° 06' 46.~~05~~"N	96° 59' 51~~.96~~ 52"W

OBSERVED: - Not Found -

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for these items was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. Several 12 inch diameter piles of this same row were found on the adjoining survey (H-10321).

CHARTING RECOMMENDATIONS: ~~Chart~~ Retain (markers) submerged piles at the above charted positions. See EVAL Report Section 7

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART 11314

PRE-SURVEY REVIEW ITEM #6143, 6145-6148
ROUTE MARKER (Charted as stake)

SOURCE: AMERICAN LIBERTY OIL CO

INVEST. DATE: 2/12/90 TIME: 1635Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION:2978,2980,2979,2981,2982

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:	PSR 6143>	28° 06' 46.~~05~~"N	97° 00' 04~~.96~~ 5"W
	PSR 6145>	28° 06' 48.~~05~~"N	97° 00' 14~~.96~~ 5"W
	PSR 6146>	28° 06' 50.~~05~~"N	97° 00' 03~~.96~~ 4"W
	PSR 6147>	28° 06' 50.~~05~~"N	97° 00' 26~~.96~~ 7"W
	PSR 6148>	28° 06' 53.~~05~~"N	97° 00' 34~~.96~~ 5"W

OBSERVED: - Not Found -

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for these items was precluded due to numerous pipelines throughout the survey area. The items were searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. The described stakes (less than 6" diameter assumed) are 34 years old. A marker which was accidently knocked over while trying to locate it, left rotted remains, which when prodded with a sounding pole disinegrated. The charting recommendation is based on this knowledge, as well as the proximity of the stakes to Grass Island Reefs which is susceptible to the oyster dredging common to this area, which would also destroy any pile remains.

CHARTING RECOMMENDATIONS: Delete the charted stakes. concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6144
PRIVATE MAINTAINED MARKERS

SOURCE: USPS

INVEST. DATE: 1/16/90 TIME: 1745-1756Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2585-2587

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 09.~~05~~"N	97° 00' ~~09.96~~ 10"W
OBSERVED: pos. 2585>	28° 07' 29.51"N	97° 00' 26.77"W
pos. 2586>	28° 07' 23.13"N	97° 00' 24.36"W
pos. 2587>	28° 07' 08.24"N	97° 00' 18.61"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility. Three piles (possibly markers) were found (see also item 6152) . The described markers are 25 years or more old. A marker which was accidently knocked over while trying to locate it, left rotted remains, which when prodded with a sounding pole disinegrated. The charting recommendation is based on this knowledge as well as the proximity to Grass Island Reefs which are subject to oyster dredging common to this area which would destroy any marker remains. The three piles found are suspected to be replacement markers and not the originals.

CHARTING RECOMMENDATIONS: Chart the three markers located by the above observed positions and delete the charted markers described by this item.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6149
PILING (Charted as subm PA)

SOURCE: UNKNOWN

INVEST. DATE: 2/7/90 TIME: 1655Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2964

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 06' 59.~~05~~"N	96° 58' 5~~2.96~~ 3"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A diver investigation was made on this item. Divers performed circle searches centered over the AWOIS listing position corrected to NAD 83. The searches covered the equivalent of a 200 meter radius search area. Nothing was found.

CHARTING RECOMMENDATIONS: Delete the submerged piling PA.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6150
PIPE

SOURCE: USPS

INVEST. DATE: 01/16/90 TIME: 154227 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2565

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 00.~~05~~"N	96° 58' 5~~2.96~~ 3"W
OBSERVED:	28° 06' 59.31"N	96° 58' 55.85"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. A cluster of four pipes each with two inch diameters were found. The cluster consists of three PVC pipes and one metal pipe bound together with wire. These pipes appear to mark the south end of Bartell Reef.

CHARTING RECOMMENDATIONS: Chart a pipe symbol at the observed position.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314 PRE-SURVEY REVIEW ITEM #6151
ROUTE MARKER (Charted as subm. stake)

SOURCE: AMERICAN LIBERTY OIL CO

INVEST. DATE: 01/16/90 TIME: 175947 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2588

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 05.~~05~~"N	97° 00' 3~~2.96~~3"W
OBSERVED:	28° 07' 08.77"N	97° 00' 35.28"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A detached position was taken on a six inch diameter wood pile marker. The pile bared ten feet at the time of the survey. The pile found matches the AWOIS description, however a submerged stake is charted. No submerged stake was found during the visual search with good water visibility. A bottom drag was precluded because of the numerous pipelines existing in this area.

CHARTING RECOMMENDATIONS: Delete subm stake symbol and chart ~~pile~~ prw marker based on position 2588.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6152
6 FT REP 1978

SOURCE: USPS

INVEST. DATE: 1990 TIME: VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: Numerous

CORRECTORS APPLIED: TRA, Velocity, Predicted Tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 13.~~05~~"N	97° 00' 16~~.96~~ 17"W
OBSERVED:	-See Method of Investigation-	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Lines of hydrography were run over this area at no greater than 50 meter spacing. No evidence of a marked channel exists in this area with the possible exception of the markers (piles) located as item 6144. These markers are so widely spaced that they do not adequately mark a channel. A least depth of 2 feet was found at latitude 28° 07' 02"N, longitude 097° 00' 10"W in this area. Depths found in this area were 4-~~6~~ 8 feet.

CHARTING RECOMMENDATIONS: Delete the "6 ft rep 1978" notation as well as the charted channel limits.

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6153, 6154
PILING

SOURCE: CL 1714/80

INVEST. DATE: 2/8/90 TIME: 1745Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2965

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:	PSR 6153>	28° 07' 14.~~05~~"N	97° 01' 0~~3.96~~4"W
	PSR 6154>	28° 07' 14.~~05~~"N	97° 01' 0~~6.96~~7"W
OBSERVED:		- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A dive investigation centered over the AWOIS listing position corrected to NAD 1983 was completed. The divers made a 100 meter radius circle search centered over Item 6154, then while one diver remained at a due east location on the outer perimeter of the first circle search, the second diver swam 100 meters due east of the first diver, and another circle search with 100 meter radius was performed, which encompassed Item 6153. No obstructions were found.

CHARTING RECOMMENDATIONS: In the hydrographers opinion, the AWOIS listing appears to be describing bridge fenders located by positions 2609-2610 and 2614-2615 on survey H-10230 (also shown on TP-01611). Since no obstructions were found by the dive investigation, delete the two charted piling PA symbols and chart the bridge fenders as shown on TP-01611.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6155
MARKER (Charted as stake)

SOURCE: CL 562/66

INVEST. DATE: 01/16/90 TIME: 180207 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2589

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 16.~~05~~"N	97° 00' 3~~0.96~~"W
OBSERVED:	28° 07' 14.11"N	97° 00' 34.56"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Visual Search. A twelve inch diameter wood pile was found , and located by detached position. The pile bares six feet at the time of the survey.

CHARTING RECOMMENDATIONS: Chart a ~~pile symbol~~ priv marker at the observed position. Delete the currently charted stake symbol.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6156
SHOALING REP SEPT 1961

SOURCE: UNKNOWN

INVEST. DATE: 1/22/90 TIME: 1438-1912Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2630-2806

CORRECTORS APPLIED: TRA, velocity, predicted tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 19.~~05~~"N	97° 00' 36~~.96~~ 7"W
OBSERVED:	-See Method of Investigation-	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: No evidence of a marked channel leading into the bay north of Goose Island exists, nor does any evidence of shoaling exist, which is not already charted. (Item #6160 is related.)

CHARTING RECOMMENDATIONS: Delete "Shoaling rep Sept 1961" notation and charted channel limits. chart soundings found on this survey concur

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COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6157
MARKER

SOURCE: CL 1109/77

INVEST. DATE: 2/12/90 TIME: 182149Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2997

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 19.~~05~~"N	96° 59' ~~45.96~~ 6"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. The marker is described as a PVC piling, which in the hydrographers opinion and firsthand inspection of other PVC markers found in the area, is no longer there nor are there any dangerous remnants.

CHARTING RECOMMENDATIONS: Delete marker from chart. concur ✓

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6158
SHOALING and MARKERS 6159
6162
6174

SOURCE: CL 1734/78

INVEST. DATE: 12/11/89 and 1/22/90

VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP)

POSITION: Numerous

CORRECTORS APPLIED: TRA, Velocity, and Predicted Tides
(No correctors on feature elevations)

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:	PSR 6158>	28° 07' ~~40.05~~ 25.05"N	97° 00' ~~31.96~~ 29 28.96"W
	PSR 6159>	28° 07' 44.~~05~~"N	97° 00' 2~~6.96~~ 7"W
	PSR 6162>	28° 07' 40.~~05~~"N	97° 00' 3~~1.96~~ 2"W
	PSR 6174>	28° 08' 01.~~05~~"N	97° 00' 2~~4.96~~ 5"W
OBSERVED:		-See Method of Investigation-	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: This channel with 6ft. reported 1978 (PSR 6162) and shoaling reported 1980 (PSR 6174) was developed by lines of hydrography at no greater than 50 meter line spacing with a centerline of the marked channel (PSR 6158 and 6159) run. A least depth of ~~2~~ 3 ft. at Latitude 28°08'01"N, Longitude 97°00'26"W was found. The channel is marked with temporary markers around this shoal. Four feet can be carried through this channel, but only with local knowledge. The temporary markers were not located. Four of the eleven charted markers were located by position 2571 and 2581-2583. Position 2571, Latitude 28° 08' 02.70"N, Longitude 97° 00' 24.92"W, was a 6 inch diameter pile baring 8 feet, but upon approaching the pile to locate it, the bow of the boat tapped it softly, and the pile broke off, leaving a submerged pile with a least depth of 1 ft. Position 2581, Latitude 28° 07' 59.16"N, Longitude 97° 00' 25.55"W bared 8 ft., position 2582, Latitude 28° 07' 56.58"N, Longitude 97° 00' 26.15"W bared 5 ft., and position 2583, Latitude 28° 07' 49.32"N, Longitude 97° 00' 27.55"W bared 8 ft. A visual search on range of the markers found in depths of 2-5 feet with good water clarity revealed no evidence of any submerged markers between those found.

CHARTING RECOMMENDATIONS: Show channel as ~~2~~ 3 ft. ~~Rep 1990~~, remove "shl rep 1980" note, chart the 3 markers located by positions 2581-2583, and chart a submerged pile at position 2571. Delete remaining charted markers based on the visual search and the fact that the remains of the pile knocked over were very rotted .

COMMENT

COMPILATION USE

CHART: APPLIED AS:

CHART #11314 PRE-SURVEY REVIEW ITEM #6160, 6161
SEVEN PILINGS

SOURCE: COE

INVEST. DATE: 2/12/90 TIME: 1734-1754 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2989-2995

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' ~~49.05~~ 36"N	097° 00' ~~10.96~~ 24"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for ~~this item~~ these piles was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to six feet with good bottom visibility, however nothing was found. The described markers are 30 years or more old. A marker which was accidently knocked over while trying to locate it (item 6159), left rotted remains, which when prodded with a sounding pole disinegrated. The charting recommendation is based on this knowledge.

CHARTING RECOMMENDATIONS: Delete markers from chart. concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314 PRE-SURVEY REVIEW ITEM #6163
SHOALING

SOURCE: CL 1130/71

INVEST. DATE: 1/22/90 TIME: VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: Numerous

CORRECTORS APPLIED: TRA, Velocity, Predicted Tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 40.~~05~~"N	97° 00' 3~~6.96~~7"W
OBSERVED:	- See Method of Investigation -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: The area charted as shoaling reported was developed with lines of hydrography at no greater than 50 meter line spacing east to west with lines at 100 meter spacing crossing the area north to south. No real change to chart depiction is evident since this area is charted at 3 feet or less. Significant findings in this area are: A shoal running parallel to and about 10-20 meters east of the Copano Bay Bridge from Latitude 28°07'36.0"N, Longitude 97°00'54"W, northeast to Latitude 28°07'57"N, Long:97°00'32"W, with a least depth of 12 feet at Latitude 28°07'42"N, Longitude 97°00'48"W. A shoal with a least depth of ~~3~~4feet was centered at Latitude 28°07'36"N, Longitude 97°00'39"W. Several ~~A~~ 12foot sounding just west of the charted marked channel into Lamar at Latitude 28°07'51"N, Longitude 90°00'30"W. There is also a dash zero ft curve at lats 28°07'50"N, Long 97°00'38"W. from comments in the raw data.
CHARTING RECOMMENDATIONS: Remove the "Shoaling Reported" notation. Chart representative soundings in this area based on hydrography from survey H-10320. And shoal at the above location. Concur

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COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6164
SHOALING

SOURCE: CL 1563/74

INVEST. DATE: 1/23/90 TIME:1841Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2943

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 44.~~05~~"N	97° 59' 1~~5.96~~ 6"W
OBSERVED:	- See Method of Investigation -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A detached position was taken at the head of navigation (Latitude 28° 07' 44.14"N, Longitude 96° 59' 13.54"W) coming from the west, and heading into and past Neptune Harbor. The boat was unable to get closer than 150 meters to the shoal area reported because of shallow water. Depths eastward of this position are less than 1 foot to the bridge.

CHARTING RECOMMENDATIONS: Delete "Shl rep" notation. concur No change to chart depiction is necessary since this area is currently charted as less than three feet. chart shallow area as shown on smooth sheet. Do not concur

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COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6165
MARKERS (Page 1 of 2)

SOURCE: CL 1563/74

INVEST. DATE: 1/23/90 TIME: 1729-1823Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2908-2941

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 52.~~05~~"N	96° 59' 3~~8.96~~9"W
OBSERVED:	- See page 2 of 2 (PSR 6165) -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Detached positions were taken on each of 34 private markers, marking the channel into Neptune Harbor. All markers were 6 inch diameter wood, apparently replacing the iron pipes reported in 1974. The positions and uncorrected elevations are shown on page 2 of 2 of this item report.

CHARTING RECOMMENDATIONS: Chart markers based on positions 2908-2941, delete "rep" notation.

Concur

COMPILATION USE

CHART: APPLIED AS:

Pos.	Latitude	Longitude	Elevation
2908	28° 07' 59.70"N	96° 59' 58.86"W	Bares 6 ft.
2909	28° 08' 00.44"N	96° 59' 57.99"W	Bares 6 ft.
2910	28° 07' 58.31"N	96° 59' 54.86"W	Bares 6 ft.
2911	28° 07' 57.12"N	96° 59' 52.37"W	Bares 6 ft.
2912	28° 07' 55.87"N	96° 59' 49.85"W	Bares 6 ft.
2913	28° 07' 54.37"N	96° 59' 46.52"W	Bares 6 ft.
2914	28° 07' 53.95"N	96° 59' 45.36"W	Bares 6 ft.
2915	28° 07' 53.54"N	96° 59' 43.85"W	Bares 6 ft.
2916	28° 07' 52.72"N	96° 59' 40.58"W	Bares 6 ft.
2917	28° 07' 52.05"N	96° 59' 37.83"W	Bares 6 ft.
2918	28° 07' 51.37"N	96° 59' 35.12"W	Bares 6 ft.
2919	28° 07' 50.45"N	96° 59' 31.41"W	Bares 5 ft.
2920	28° 07' 49.96"N	96° 59' 28.66"W	Bares 6 ft.
2921	28° 07' 49.21"N	96° 59' 25.82"W	Bares 6 ft.
2922	28° 07' 48.54"N	96° 59' 23.22"W	Bares 6 ft.
2923	28° 07' 47.99"N	96° 59' 20.55"W	Bares 6 ft.
2924	28° 07' 46.90"N	96° 59' 18.32"W	Bares 6 ft.
2925	28° 07' 45.95"N	96° 59' 16.61"W	Bares 6 ft.
2926	28° 07' 45.18"N	96° 59' 15.44"W	Bares 6 ft.
2927	28° 07' 44.32"N	96° 59' 13.43"W	Bares 6 ft.
2928	28° 07' 49.16"N	96° 59' 23.09"W	Bares 6 ft.
2929	28° 07' 49.73"N	96° 59' 25.54"W	Bares 6 ft.
2930	28° 07' 50.41"N	96° 59' 28.53"W	Bares 6 ft.
2931	28° 07' 50.98"N	96° 59' 31.19"W	Bares 6 ft.
2932	28° 07' 51.80"N	96° 59' 34.66"W	Bares 6 ft.
2933	28° 07' 52.49"N	96° 59' 37.45"W	Bares 6 ft.
2934	28° 07' 53.12"N	96° 59' 40.19"W	Bares 6 ft.
2935	28° 07' 53.50"N	96° 59' 41.82"W	Bares 6 ft.
2936	28° 07' 53.97"N	96° 59' 43.46"W	Bares 6 ft.
2937	28° 07' 54.58"N	96° 59' 45.07"W	Bares 6 ft.
2938	28° 07' 54.94"N	96° 59' 46.29"W	Bares 6 ft.
2939	28° 07' 56.13"N	96° 59' 49.38"W	Bares 6 ft.
2940	28° 07' 57.44"N	96° 59' 52.00"W	Bares 3 ft.
2941	28° 07' 58.69"N	96° 59' 54.14"W	Bares 4 ft.

CHART #11314

PRE-SURVEY REVIEW ITEM #6166
SHOALING REP

SOURCE: CL 1184/85

INVEST. DATE: 1/22/90

VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP)

POSITION: Numerous

CORRECTORS APPLIED: TRA, Velocity, Predicted Tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 54.~~05~~"N	97° 00' ~~29.96~~ 30"W
OBSERVED:	- See Method of Investigation -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Lines of hydrography at no more than fifty meter spacing were run east to west in the vicinity of the west tip of Goose Island, with lines crossing north to south at 100 meter spacing. Depths in the area were 1 to 2 feet with no evidence of the marked channel (see Item 6156) shown charted in this vicinity.

CHARTING RECOMMENDATIONS: Delete the "Shoaling Rep" notation and chart representative depths from H-10320 in this area. (Item 6156 recommends deletion of the marked channel limits.)

concur

COMPILATION USE

CHART:

APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6167
MARKERS 6170
6171

SOURCE: UNKNOWN

INVEST. DATE: TIME: VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2569-2570

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 08' 14.~~05~~"N	97° 00' 04~~.96~~ 5"W
OBSERVED:	pos. 2569>	28° 07' 55.95"N	97° 00' 19.66"W
	pos. 2570>	28° 07' 58.60"N	97° 00' 19.40"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Five markers are charted in this area, however only three are referenced in the AWOIS listings under Item 6170. Two piles were located by detached position numbers 2569 and 2570. A visual search of this area in depths of 2-4 feet, with good water visibility revealed no other submerged piles in this area.

CHARTING RECOMMENDATIONS: Since the two piles located do not appear to mark anything, recommend charting the two piles based on positions 2569 and 2570, and deleting the remaining markers and "markers" notation.

concur /.

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6168
Submerged Piles

SOURCE: BP66236/63

INVEST. DATE: 2/12/90 TIME: 171727Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2983

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 54.~~05~~"N	97° 00' 23~~.96~~ 4"W
OBSERVED:	- Not Found -	

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A bottom drag for this item was precluded due to numerous pipelines throughout the survey area. The item was searched for visually and with the Fathometer in depths to five feet with good bottom visibility, however nothing was found. The described piles are 25 years or more old. A marker which was accidently knocked over while trying to locate it, left rotted remains, which when prodded with a sounding pole disinegrated. The charting recommendation is based on this knowledge. ~~Three~~ Four exposed piles were located in this vicinity at:
(priv markers)

	Latitude	Longitude	Elevation
Pos. 2591 -	28° 07' 40.38"N	97° 00' 43.23"W	bares 10 ft.
Pos. 2592 -	28° 07' 47.31"N	97° 00' 38.1~~6~~ 7"W	bares 12 ft.
Pos. 2988 -	28° 07' 54.39"N	97° 00' 31.0~~8~~ 9"W	bares 6 ft.
Pos 2593	28° 07' 51.10"N	97° 00' 35.29"W	" 12 Ft

CHARTING RECOMMENDATIONS: Delete the charted submerged piles and chart ~~piles~~ priv markers located at positions 2591, 2592, 2593 and 2988.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6169
MARKERS REPORTED

SOURCE: CL 1563/74

INVEST. DATE: 1/23/90 TIME: 1908-1923Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE:H-10320 (OPR-K229-AHP) POSITION: 2945-2955

CORRECTORS APPLIED: None

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		28° 07' 56.~~05~~"N	96° 59' 3~~7.96~~8"W
OBSERVED:	pos. 2945>	28° 07' 54.74"N	96° 59' 41.62"W
	pos. 2946>	28° 07' 55.45"N	96° 59' 39.48"W
	pos. 2947>	28° 07' 55.89"N	96° 59' 38.13"W
	pos. 2948>	28° 07' 56.43"N	96° 59' 36.20"W
	pos. 2949>	28° 07' 57.14"N	96° 59' 34.41"W
	pos. 2950>	28° 07' 57.40"N	96° 59' 34.54"W
	pos. 2951>	28° 07' 56.86"N	96° 59' 36.25"W
	pos. 2952>	28° 07' 56.27"N	96° 59' 38.14"W
	pos. 2953>	28° 07' 55.86"N	96° 59' 39.49"W
	pos. 2954>	28° 07' 55.14"N	96° 59' 41.62"W
	pos. 2955>	28° 07' 54.49"N	96° 59' 43.74"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A detached position was taken on each of eleven (11) private markers, marking a channel into a private slip. The channel has depths of 1-2 feet.

CHARTING RECOMMENDATIONS: Chart markers based on positions 2945-2955, delete "rep" notation. concur

---

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6172
SHOALING

SOURCE: CL 1815/72

INVEST. DATE: 1/22/90 TIME: 2013-2030Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2836-2846

CORRECTORS APPLIED: TRA, Velocity, Predicted tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 07' 57.~~05~~"N	96° 59' 4~~2.96~~3"W
OBSERVED:	28° 07' 57.05"N	96° 59' 42.96"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A centerline of the channel with 4 feet reported 1972 was run, with a least depth of 2 feet found throughout the channel.

CHARTING RECOMMENDATIONS: Delete the "4 ft rep 1972" notation and chart channel as 2 feet, 1990.

Concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6173
SHOALING

SOURCE: CL 1815/72

INVEST. DATE: 1/22/90 TIME: 1949-2034Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2807-2835

CORRECTORS APPLIED: TRA, Velocity, Predicted tides

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 08' 01.~~05~~"N	97° 00' 0~~0~~ 1 ~~.96~~"W
OBSERVED:	28° 08' 01.05"N	97° 00' 00.96"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: No evidence of a marked channel (currently charted as "5 feet rep 1972") was seen in this area. Depths found on survey H-10320 in this area were ~~1-3~~ 2 feet.

CHARTING RECOMMENDATIONS: Delete the "5 feet rep 1972" notation, the charted channel limits, and the pile symbol at Latitude 28°08'01"N, Longitude 96°59'55"W.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6178
PIER

SOURCE: UNKNOWN

INVEST. DATE: 1/16/90 TIME: 1642-1649Z VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2572-2573

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	28° 08' 13.~~05~~"N	97° 00' 2~~1.96~~ 2"W
OBSERVED: pos. 2572>	28° 08' 10.49"N	97° 00' 21.26"W
pos. 2573>	28° 08' 08.83"N	97° 00' 23.39"W

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Detached positions were taken on the offshore end of the pier (position 2573) as well as on the east end of a finger off the main pier (position 2572). This pier is shown correctly on TP-01609.

CHARTING RECOMMENDATIONS: Chart pier as shown on TP-01609.

concur

COMPILATION USE

CHART: APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM #6175
TWO PIERS 6176
6177
6179

SOURCE: UNKNOWN

INVEST. DATE: 1/23/90 TIME: 2003 VESSEL #1292

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10320 (OPR-K229-AHP) POSITION: 2963

CORRECTORS APPLIED: None

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED: PSR 6175>	28° 08' 05.~~05~~"N	96° 59' 40~~.96~~ 1 "W
PSR 6176>	28° 08' 10.~~05~~"N	96° 59' 44~~.96~~ 5 "W
PSR 6177>	28° 08' 13.~~05~~"N	96° 59' 54~~.96~~ 5 "W
PSR 6179>	28° 08' 14.~~05~~"N	97° 00' 04~~.96~~ 5 "W

OBSERVED: -As charted and shown on TP-01609-

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: These items refer to the shoreline features along the north shore of the survey behind (north of) Goose Island. None of these features could be reached by the survey launch because of shallow water. Shoreline manuscript TP-01609 shows this area correctly* and was visually verified by the hydrographer. Ruins charted at Latitude 28°07'59"N, Longitude 96°59'38"W (two pier ruins) and Latitude 28°08'12"N, Longitude 96°59'53"W (one pier ruins) were visually verified as charted.

CHARTING RECOMMENDATIONS: Chart piers as shown TP-01609 and retain pier ruins as charted. See Final Report Section 7 for the positions of the 3 pier ruins to be retained as charted. concur

* except for the 3 pier ruins

COMPILATION USE

CHART: APPLIED AS:

SIGNAL LIST
OPR-K229-AHP2
H-10320
AHP-10-12-89

101	28° 08' 05.049"N	097° 00' 21.412"W	ROGAN 1989
102	28° 07' 31.119"N	096° 58' 52.436"W	GOOSE 1987
104	28° 06' 12.876"N	097° 01' 19.666"W	CONDO 1989
105	28° 04' 58.923"N	097° 00' 36.774"W	COPANO BAY APPROACH LT 2, 1989
106	28° 04' 35.443"N	096° 57' 55.110"W	GOOD 2 1989
108	28° 00' 49.662"N	096° 58' 12.654"W	SAS 1989
112	28° 07' 34.090"N	096° 55' 47.455"W	HAM 1934

All signals with a 1989 date were located to third order class 1 standards by the Field Photogrammetry Section, Coastal Surveys Unit (N/CG2442). Signal 102 is a GPS station located by N/CG2442 in 1987. The remaining signals are published NGS. Signal 105 was used only as a critical system check static point.

NOAA FORM 76-40
(8-74)

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Replaces C&GS Form 567.

ORIGINATING ACTIVITY
- [x] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [x] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
AHP-2	TEXAS	ARANSAS BAY	1-25-90

The following objects HAVE [ ] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
K229	AHP 10-12-89	H-10320	NAD, 1983

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	COPANO BAY APPROACH LIGHT 3 #35590, U.S.C.G. L.L. VOL. #4, 1989 2 pile structure w/GREEN LT. on Top	28° 06′	27.0″	097° 00′	39.9″		MULTIPLE LOPs HYDRO. POSITION	11314

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD	B. LINK - AHP 2	☐ PHOTO FIELD PARTY ☑ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	B. LINK - AHP 2	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

☆ U.S. GPO:1975-0-665-080/1155

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
OPR-K229
AHP-10-12-89
H-10320
1989/90

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 and 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.

V. Dale Ross
LCDR NOAA
Chief, Atlantic Hydrographic Party Two

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: April 12, 1990

MARINE CENTER: Pacific

OPR: K229

HYDROGRAPHIC SHEET: H-10320

LOCALITY: Texas, Aransas Bay, Fulton to Goose Island

TIME PERIOD: November 20, 1989 - February 12, 1990

TIDE STATION USED: 877-4513 Copano Bay Bridge, Texas

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.87 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.4 ft.

REMARKS: RECOMMENDED ZONING

PRELIMINARY

Zone direct.

James R. Hubbard

CHIEF, TIDAL DATUM QUALITY
ASSURANCE SECTION

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 9, 1990

MARINE CENTER: Pacific

OPR: K229

HYDROGRAPHIC SHEETS: H-10320, 10321, 10322, 10323, and 10324

REMARKS: The above tide notes of April 12 and 14, 1990 are final.

for Bruce K. Lee

CHIEF, TIDAL DATUM QUALITY
ASSURANCE SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10320

Name on Survey	A ON CHART NO. 1131	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D T-Sheet TP01611	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K ?	
ARANSAS BAY FULTON TO GOOSE ISLAND										
ARANSAS BAY	X	5875 5916		X			X		X	1
FULTON (title)	x				X					2
GOOSE ISLAND	X	5875 5916	X	X	X		X		X	3
GRASS ISLAND REEFS	X	5875 5693								4
HALFMOON REEF	X	5875								5
LAMAR	X		X		X		X		X	6
LIVE OAK PENINSULA	X	5916			X				X	7
LIVE OAK POINT	X			X	X				X	8
MACK REEF	X									9
NEPTUNE HARBOR	X				X					10
PIER REEF	X									11
SCOTCH TOM REEF	X									12
SHELL REEFS	X									13
TEXAS (TITLE)	X				X					14
										15
										16
										17
										18
					Approved:					19
					Chas. E. Harrington					20
					Chief Geographer - N/CG2x5					21
										22
					APR 11 1990					23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

*See attached DR exerpt

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10320

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	8
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	3

DESCRIPTION	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

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			

	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	35		35
VERIFICATION OF SOUNDINGS	84		84
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET			
COMPARISON WITH PRIOR SURVEYS AND CHARTS		12	12
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		28	26
GEOGRAPHIC NAMES			
OTHER*			
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	119	40	157

Pre-processing Examination by M. Brown	*Beginning Date* 3/12/90	*Ending Date* 4/5/90
Verification of Field Data by C.R. Davies	*Time (Hours)* 119	*Ending Date* 6/20/90
Verification Check by J. Green	*Time (Hours)* 18	*Ending Date* 7/2/90
Evaluation and Analysis by C.R. Davies	*Time (Hours)* 40	*Ending Date* 7/2/90
Inspection by D.J. Hill	*Time (Hours)* 4	*Ending Date* 7/11/90

EVALUATION REPORT
H-10320

1. INTRODUCTION

Survey H-10320 is a basic hydrographic survey accomplished by the NOAA Atlantic Hydrographic Party 2 under the following Project Instructions.

OPR-K229-AHP2, dated September 14, 1989
CHANGE NO. 1, dated December 21, 1989
CHANGE NO. 2, dated January 10, 1990

This survey occurred in Texas and covers the northern portion of Aransas Bay between the town of Fulton and Neptune Harbor. The surveyed area extends from latitude 28°04'05"N to latitude 28°08'15"N and longitude 96°58'45"W to longitude 97°02'15"W. The surveyed area includes the northeastern shoreline of Live Oak Peninsula, the southern coastline of the Lamar Peninsula and the majority of Goose Island. Shoreline consists of sand, low lying salt marshes, dredged spoil islands, oyster reefs and small harbors and marinas on Live Oak and Lamar Peninsulas. The bottom consists of sand. Depths range from 1 to 11 feet.

Predicted tides for Galveston Channel, Texas, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Copano Bay Bridge, Texas, gage 877-4513, 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 and sound velocity correctors are adequate. An accompanying computer printout contains the parameters and the correctors. The electronic control correctors have been determined according to the established procedures and are adequate. However, since this is a HDAPS survey, the opening baseline correctors applied during data acquisition cannot be changed during office processing. Refer to the survey records for a review of the electronic control correctors used for the plotting of this survey.

A digital file has been generated for this survey as required by N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983 and conforming to the specifications contained in Hydrographic Survey Guideline No. 52, Standard Digital Data Exchange Format, April 15, 1986. The file, however, is incomplete. Certain feature descriptive information, all line type data and miscellaneous isolated features are not in the digital record due to the present lack of digitizing resources. The user should refer to the smooth sheet for complete depiction of survey data.

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

Geodetic Control Report for CM-8716 and
Geodetic Control Survey Job-HC-9901

Positions of horizontal control stations used during hydrography are 1989 field and published values based on NAD 83. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined by N/CG121. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude: 1.056 seconds (32.5 meters)
Longitude: 0.964 seconds (26.3 meters)

The year of establishment of control stations shown on the smooth sheet originates with hydrographer's signal list.

The quality of several positions exceeds limits in terms of error circle radius and residual. 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 positions were acquired by the hydrographer as "see field sheet" fixes (SFS). These positions were transferred from the final field sheet.

Position Numbers	approximate Latitude(N)	Longitude(W)
3006-3008	28°06'08"	97°01'36"

The following shoreline maps apply to this survey.

	Photo Date	Class
TP-01196	Dec. 82, Nov. 83	III
TP-01609	Feb. 89	III
TP-01611	Feb. 89	III

There are numerous new piers and pier ruins along the Live Oak Peninsula drawn in red with supporting positional information. These are considered adequate to supersede the common photogrammetrically delineated shoreline.

3. HYDROGRAPHY

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 dashed zero foot curve on offshore reefs and shoals are shown on this survey as approximate from comments in the raw data and as shown on the final field sheet.

Soundings plotted along Live Oak Peninsula have been offset from several piers and pier ruins to improve legibilty. Offset soundings are listed in Table 1, which is attached to this report.

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 except as follows.

One aid to navigation, Copano Bay Approach Light 3, was not positioned to third order class one accuracy. All non-floating aids should be located to third order, unless adequate third order or aerotriangulated positions are available.

5. JUNCTIONS

Survey H-10320 junctions with the following surveys.

Survey	Year	Scale	Area
H-10321	1989/90	10,000	East
H-10327	1990	10,000	South

The junction with survey H-10321 is complete.

Survey H-10327 is still in the field. This junction will be addressed in the Evaluation Report for survey H-10327.

6. COMPARISON WITH PRIOR SURVEYS

H-5693 (1934/35) 1:20,000
H-5875 (1935) 1:20,000
H-5916 (1935) 1:20,000

Survey H-5693 covers the southern portion of the present survey. Generally, the present survey soundings agree with this prior survey. Additional discussion can found in section K of the hydrographer's report.

Survey H-5875 covers the eastern portion of the present survey. Generally, soundings have deepened by 1 to 2 feet. The three reefs, Grass Island Reefs, Mack Reef and Halfmoon Reef, have decreased in size and are on the average 2 to 4 feet deeper than the prior survey. Additional discussion can be found in section K of the hydrographer's report.

Survey H-5916 covers the western portion of the present survey. Generally, soundings have deepened by 1 to 2 feet. Grass Island Reefs and numerous small reefs in the northwestern portion of the survey area have decreased in size and are on the average 2 to 4 feet deeper than the prior survey. Additional discussion can be found in section K of the hydrographer's report.

There are no AWOIS items originating from surveys H-5875, H-5916 and H-5693 applicable to the present survey.

Survey H-10320 is adequate to supersede the prior surveys within the common area.

7. COMPARISON WITH CHART

Chart 11314, 15th edition, dated August 15, 1987;
scale 1:40,000 (NAD 27)

a. Hydrography

Charted hydrography originates with surveys H-5875, H-5916, H-5693 and miscellaneous sources.

Survey H-10320 is adequate to supersede charted hydrography within the common area except for the following items. These features should remained as charted, except for the private markers which should be shown as submerged piles.

Charted Feature	Latitude(N)	Longitude(W) (NAD 83)
priv marker	28°06'36.05"	96°58'43.96"
priv marker	28°06'38.05"	96°58'55.96"
priv marker	28°06'39.05"	96°59'06.96"
priv marker	28°06'41.05"	96°59'18.00"
priv marker	28°06'42.05"	96°59'28.96"
priv marker	28°06'44.05"	96°59'39.96"
priv marker	28°06'46.05"	96°59'51.96"
pier ruins	28°06'14.00"	96°59'53.00"
pier ruins	28°08'01.00"	96°59'38.00"
pier ruins	28°08'00.50"	96°59'32.00"

b. AWOIS

All AWOIS positions listed in the hydrographer's report have been converted to NAD 83.

All AWOIS items assigned and addressed in this survey originate with miscellaneous sources. The disposition of all the items

is adequately discussed by the hydrographer on the Item Investigation Report Forms in the separates following the text in the hydrographer's report.

c. Controlling Depths

The following controlling depths in the charted channels within the area of this survey are recommended for charting.

Controlling Depth	Latitude(N)	Longitude(W) (NAD83)
2 ft. at MLLW	28°07'52"	97°00'18"
4 ft. at MLLW	28°07'15"	97°00'15"

The following charted channels no longer exist and are recommended for removal from the chart.

Latitude(N)	Longitude(W) (NAD83)
28°07'42"	97°00'18"
28°07'15"	97°00'15"
28°08'06"	96°59'54"
28°05'25"	97°00'24"

d. Aids to Navigation

There are no floating aids located within the area of this survey. There are two fixed aids located on this survey and they serve their intended purposes.

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

No reports of dangers to navigation were generated during the survey or office processing.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10320 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is a good hydrographic survey. No additional field work is recommended.

Charles R. Davies

Charles R. Davies
Cartographer

TABLE 1- Displaced Soundings

SOUNDINGS	LATITUDE(N)	LONGITUDE(W)
2.0	28°05'43.99"	97°01'46.93"
2.0	28°05'44.14"	97°01'48.34"
2.0	28°05'37.63"	97°01'49.72"
2.0	28°05'37.81"	97°01'51.17"
2.0	28°05'40.93"	97°01'52.71"
2.0	28°05'24.40"	97°01'52.80"
2.0	28°05'28.32"	97°01"56.51"
2.0	28°05'28.46"	97°01'55.57"
2.0	28°05'21.86"	97°01'59.62"
2.0	28°05'21.47"	97°01'58.22"
2.0	28°05'11.80"	97°01'57.76"
2.0	28°05'11.91"	97°01'59.20"
2.0	28°05'08.83"	97°02'01.63"
3.0	28°05'08.58"	97°02'00.62"
2.0	28°04'58.75"	97°01'58.88"
2.0	28°04'58.86"	97°02'00.38"
2.0	28°04'58.80"	97°02'01.80"
2.0	28°04'58.09"	97°02'03.25"
5.0	28°04'26.43"	97°02'06.04"
2.0	28°04'26.22"	97°02"07.26"
2.0	28°04'26.25"	97°02'08.57"
2.0	28°04'26.44"	97°02'09.90"
2.0	28°04'29.50"	97°02'07.08"
3.0	28°04'13.32"	97°02'04.60"
2.0	28°04'13.24"	97°02'06.13"
2.0	28°04'13.51"	97°02'07.51"

APPROVAL SHEET

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 disproval 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: 7-11-90

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.

Date: 7/12/90

Commander Pamela Chelgren-Koterba, NOAA
Chief, Pacific Hydrographic Section

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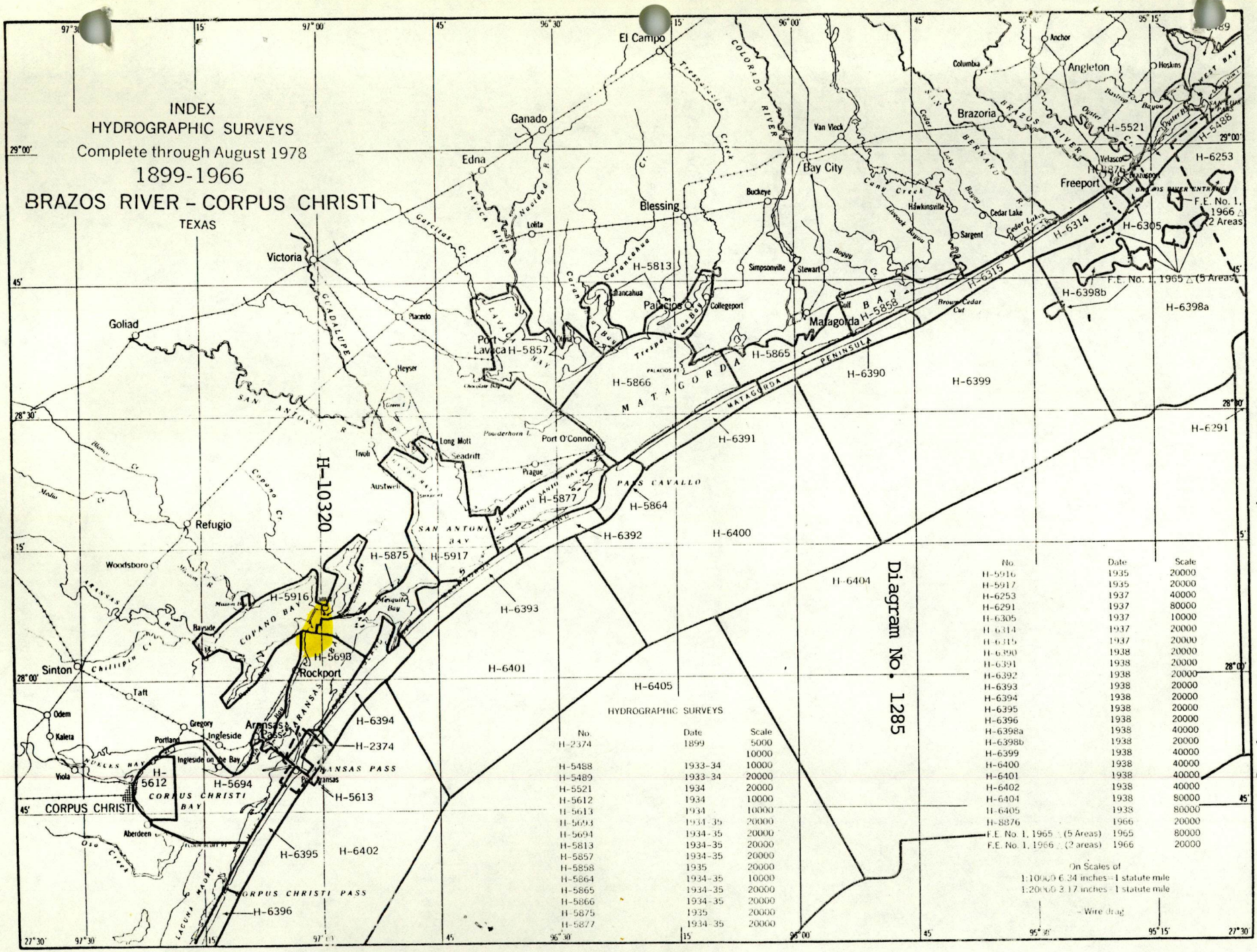
Final Approval

Approved: Wesley V. Hull Date: 8/10/90

Wesley V. Hull
Rear Admiral, NOAA
Director, Charting and Geodetic Services



HYDROGRAPHIC SURVEYS

No.	Date	Scale
H-2374	1899	5000
		10000
H-5488	1933-34	10000
H-5489	1933-34	20000
H-5521	1934	20000
H-5612	1934	10000
H-5613	1934	10000
H-5693	1934-35	20000
H-5694	1934-35	20000
H-5813	1934-35	20000
H-5857	1934-35	20000
H-5858	1935	20000
H-5864	1934-35	10000
H-5865	1934-35	20000
H-5866	1934-35	20000
H-5875	1935	20000
H-5877	1934-35	20000

No.	Date	Scale
H-5916	1935	20000
H-5917	1935	20000
H-6253	1937	40000
H-6291	1937	80000
H-6305	1937	10000
H-6314	1937	20000
H-6315	1937	20000
H-6390	1938	20000
H-6391	1938	20000
H-6392	1938	20000
H-6393	1938	20000
H-6394	1938	20000
H-6395	1938	20000
H-6396	1938	20000
H-6398a	1938	40000
H-6398b	1938	20000
H-6399	1938	40000
H-6400	1938	40000
H-6401	1938	40000
H-6402	1938	40000
H-6404	1938	80000
H-6405	1938	80000
H-8876	1966	20000
F.E. No. 1, 1965 △ (5 Areas)	1965	80000
F.E. No. 1, 1966 △ (2 areas)	1966	20000

On Scales of
1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile

– Wire drag

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

Hydrographic Index No. 90 C

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10320

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
11314	5-31-90	ALMACEN	~~Full Part~~ Before ~~After~~ Marine Center Approval Signed Via PARTIAL APPLICATION
			Drawing No. 6F SNDGS. FIELD SHEET
11300	6-16-91	ALMACEN	~~Full Part~~ Before After Marine Center Approval Signed Via EXAMINED NO
			Drawing No. SNDGS. OR CORRECTIONS APPLIED
11300	7/23/91	Stanley Asul	Full ~~Part Before~~ After Marine Center Approval Signed Via Full application
			Drawing No. of Sndgs from smooth sheet.
11314	7-25-91	Russ Davis	Full Part Before After Marine Center Approval Signed Via full application
			Drawing No. of Sndgs from Smooth Sheet.
11300	6-10-92	K.R. Foster	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 45 Exam-n/c no coverage
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.