

# 10366

Diagram No. 1285-2

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. .... AHP2-10-2-91  
Registry No. .... H-10366

### LOCALITY

State ..... Texas  
General Locality ..... Aransas Bay  
Sublocality ..... Vicinity of Allyn's Bight

19 91

CHIEF OF PARTY  
LCDR V.D. Ross

### LIBRARY & ARCHIVES

DATE ..... October 6, 1992

# 10366

CHTS

11314 A

CP5

HYDROGRAPHIC TITLE SHEET

H-10366

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-10-2-91

State Texas

General locality Aransas Bay

Locality Vicinity of Allyns Bight

Scale 1:10,000 Date of survey 1/22/91 to 3/27/91

Instructions dated September 14, 1991 Project No. OPR-K229-AHP2

Vessel 0517 & 1292

Chief of party LCDR V. Dale Ross, NOAA

Surveyed by Mark J. McMann, Brian A. Link, Michael J. Briscoe, Linda Grimsley

Soundings taken by echo sounder, hand lead, pole Echo Sounder, Pole

Graphic record scaled by MJM, MJB, LJG, GVT

Graphic record checked by MJM, MJB

Verification by: J. Green, I. Almacen Automated plot by PHS Xynetics Plotter

Evaluation by: I. Almacen

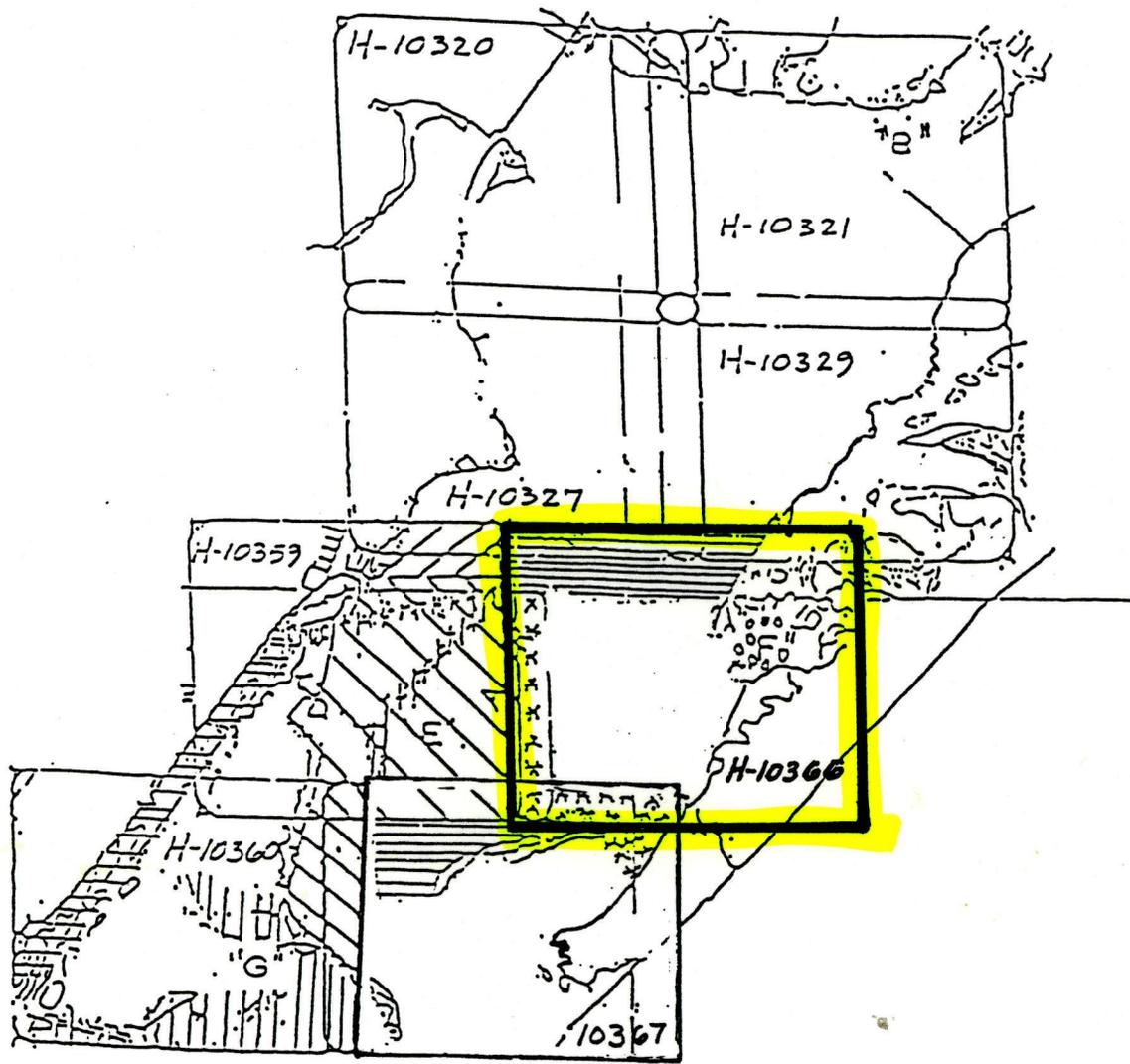
Soundings in ~~fathoms xxxxxx~~ meters ~~at MLLW~~ at MLLW and decimeters

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

*AWOIS/SURF ✓ 10/15/92 SJV*

*RWW 2/19/94*

SHEET INDEX ORP-K229-AHP 2



DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10366  
Field No. AHP-10-02-91  
OPR-K229-AHP2  
Scale: 1:10,000  
Atlantic Hydrographic Party Two  
Chief of Party: V.Dale Ross  
1991

A. PROJECT ✓

This survey was conducted in accordance with Hydrographic Project Instructions OPR-K229-AHP2, Corpus Christi and Aransas Bays, Texas, dated September 14, 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 "F" as specified by the project instructions.

B. AREA SURVEYED ✓

The area surveyed for H-10366 covers the eastern central portion of Aransas Bay in the vicinity of Allyns Bight. Survey limits are as follows:

North - Latitude  $28^{\circ}01'20''$ N  
South - Latitude  $27^{\circ}56'30''$ N (Mud Island)  
East - Longitude  $096^{\circ}57'25''$ W (San Jose Island)  
West - Longitude  $097^{\circ}01'15''$ W

This survey was conducted from January 22, 1991 (DN 022) to March 27, 1991 (DN 086).

C. SURVEY VESSELS ✓

NOAA launch 0517 (EDP No. 0517), and launch 1292 (EDP No. 1292), 21-foot MonArks, were used to collect all data on this survey. No problems were encountered with either vessel.

D. AUTOMATED DATA ACQUISITION AND PROCESSING ✓

Hewlett-Packard HDAPS Programs:

<u>Program</u>	<u>Version</u>	<u>Date</u>
Survey	4.33	5/26/90
Survey	4.61	11/28/90
Constat	2.02	3/9/90
Constat	2.05	11/28/90
Postsur	4.14	7/20/90
Postsur	4.17	11/28/90
Printout	2.23	7/12/90
Baseline	1.01	6/15/90
Backup	1.02	3/9/90
Backup	1.03	11/28/90
Quick	1.01	7/27/90
Quick	1.04	11/28/90
Conplot	1.02	6/25/90
Diagnostic	2.50	3/9/90
Compute	2.02	3/9/90
Compute	2.03	11/28/90
Point	1.20	7/27/90
Install	1.20	3/26/90
Install	1.31	11/28/90
Plotall	1.70	7/27/90
Plotall	1.77	11/28/90
Loadnew	1.00	7/27/90
Loadnew	1.22	11/28/90
Convert	2.34	6/20/90
Convert	2.36	11/28/90
Filesys	1.55	5/26/90
Filesys	1.72	11/28/90
Inverse	1.21	7/27/90
Abst	3.05	5/26/90
Listawois	1.10	11/20/90
Reject	1.00	11/20/90
Carto	1.00	10/26/90

PC-DAS program, NOAAEXE directory, Version 3.6 was used for on-line data acquisition on the survey vessel.

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

VELOCITY (IBM PC)	Ver. 1.11 (3/9/90)
MTEN 3 with enhancements (IBM PC)	Ver. 6/88
NADCON	Version 1.01 (1/9/89)
Wordperfect	Version 5.1
Volkswriter Deluxe	Release 2.0

On-line data collected on days 022-025 had the wrong transducer draft value entered in the offset table for launch 1292. These data were plotted on the final field sheet using the correct offset table values on the processing HDAPS. ✓

E. SONAR EQUIPMENT ✓

Not applicable.

F. SOUNDING EQUIPMENT ✓

Raytheon DE-719CM Fathometer, serial number 8652, modified with Odom Hydrographic Systems, Inc. Digitrace, was used for the data collected with launch 0517. Innerspace Technologies 448 echosounder serial number 188, was used for data collection with launch 1292. On day no. 022, 023, and 025 the trace got progressively lighter. The problem was eventually traced to the power supply of the depth sounder. The unit was sent for repair on day 032 and returned on day 037. No further problems were encountered with either depth sounder.

Depths on this survey ranged from 0-6 meters.

G. CORRECTIONS TO SOUNDINGS ✓

Weather permitting, lead line comparisons were conducted each day of hydrography to determine an instrument corrector. The average corrector for Fathometer S/N 8652 was 0.0 meter. The average corrector for depth sounder S/N 188 was 0.0 meter. No instrument error was applied to the soundings on the final field sheet. Lead line comparison forms can be found in the "Separates to be Included With Survey Data".\* A lead line calibrated in meters was constructed and checked on 1/7/91. No lead line corrections were necessary. The calibration form is included in the survey separates.\*

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 occurred between selected soundings, missed depths, incorrectly digitized soundings, and effects of sea and swell action were inserted or corrected, as appropriate, while scanning.

The depth sounders were calibrated for a speed of sound through water of 1500 m/sec. Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc. DIGIBAR electronic speed of sound probe serial number 155. Data quality assurance tests were performed prior to all of the casts. Program "Velocity" version 1.11 was

used for the speed of sound corrections computations. The following casts were taken:

<u>Cast</u>	<u>Day</u>	<u>Depth (m)</u>
6	010	6.0
7	035	6.0
8	043	6.0
9	058	4.0
10	072	4.0
11	086	4.0

A zero speed of sound correction was obtained for depths averaging 6.1 meters or less. No speed of sound correctors were applied on the final field sheet. Copies of the tables are in the "Separates to be Included With Survey Data".\* Speed of sound support documentation is in the cahier for H-10366.\*

A static draft of 0.3 meters was applied on line. This was measured from a punch mark on the side of launches 0517 and 1292, 0.6 meters above the transducers, to the water surface, then subtracting the difference. As mentioned in section D, the value in the offset table used on-line for for launch 1292 for days 22-25 was in error. *This error has been corrected.*

Settlement and squat measurements for vessels 0517 and 1292 were performed on October 4, 1990 (day 277). The level method was used. Settlement and squat correctors were applied to all survey data. Data from the settlement and squat test are included in the "Separates to be Included With Survey Data".\*

The final field sheet was plotted using predicted tides determined from the Galveston, Texas permanent tide station using time and height correctors furnished with the Project Instructions.

Actual tide heights were requested from the Sea and Lake Levels Branch, N/OMA12, in a letter dated April 05, 1991. A copy of the letter is included in the appendices of this report.\*

#### H. CONTROL STATIONS

The horizontal control datum for this project is the North American Datum of 1983. Stations 110, 114, 120, 124, and 126 were used to control this survey. A signal list as well as a copy of the PC-DAS Control Station Table is included in the appendices of this report.

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

I. HYDROGRAPHIC POSITION CONTROL ✓

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

<u>VESNO</u>	<u>Equipment</u>	<u>S/N</u>	<u>Code</u>
0517	RPU	F0241	
	RT	G3646	
1292	RPU	E0154	
	RT	E2919	
	R/S	G3572	1
	R/S	F3180	2
	R/S	F3290	3
	R/S	E2977	4
	R/S	E2926	5
	R/S	C2059	6

Baseline calibrations of the Motorola Falcon 484 equipment were performed on October 25, 1990, and January 25, 1991. The correctors were applied on-line through the Comflex "C-0" tables. Baseline calibration forms and the "C-0" tables are included in the "Separates to be Included With Survey 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) is greater than 15m (1.5m at the survey scale) or the residuals are 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 are smoothed during processing. *See EVAL RPT, Sec. 2*

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

J. SHORELINE

Shoreline shown on <sup>T-1197</sup> the final field sheet was transferred by hand from T-maps 1198, and 1196. The T-maps were compiled at 1:20,000 scale on NAD 1927 and enlarged to 1:10,000 scale for use with this survey. The datum shift was accomplished through the use of grid ticks on the manuscript to convert to NAD 1983.

Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore, or by visual

inspections. Shoreline detail verified by this survey is shown in black ink on the final field sheet. Several minor shoreline changes were identified and are shown in red ink on the final field sheet. These changes were all along the San Jose and Mud Island shores, which are undeveloped sandy areas subject to erosion by wind and seas.

See EVAL  
RPT., Sec. 2

Along the western shore of San Jose Island near the area of Allyns Bight and along the northern side of Mud Island, there is a disagreement between the charted shoreline and the T-map. The T-map shoreline is correct and should supercede the chart in this area. Discussions with Mr. Jim Dailey, N/CG2211, indicate that the T-maps in this area have not yet been applied to the charts. *Concur.*

All field notes regarding these changes are recorded on the graphic records for each day of hydrography. No sounding volumes nor notebooks were used. A complete list of all detached positions, generated through the HDAPS Contact File Utility, is included in the "Separates to be Included With Survey Data". \* It lists the feature or item number, position, and the elevation corrected to mean low water using predicted tides.

#### K. CROSSLINES ✓

A total of 28.5 linear nautical miles of crosslines were run on H-10366 which equals 17.0% of the main scheme hydrography. Crosslines agree within 0.3 meters throughout the entire survey.

#### L. JUNCTIONS ✓

This survey junctions with sheet "E" on the west (H-10359), sheet "H" on the south (H-10367), and sheet "C" (H-10327) and "D" (H-10329) on the north. Surveys "C", "D" and "E" were performed during the 1989-1990 survey season. Survey "H" was performed during the 1990-1991 season.

Comparison on the north with H-10327 shows disagreement of as much as 0.5 meter. This is caused by differences between predicted and actual tide values. The survey was plotted with an average value of zero while the actual tide value on the day of the junction area was run averaged -0.25 meter. The agreement on the west and south is good, ranging from 0.1 to 0.4 meter.

See EVAL  
RPT., Sec. 5

#### M. COMPARISON WITH PRIOR SURVEYS

This survey was compared with prior survey H-5693, dated Aug. 1934 to Mar. 1935, and T-map 9180, 1949-1951, T-9179 (1949-51), T-9296 (1946-51)

Soundings from H-10366 generally agree with the prior survey within 0.3 meter over the entire survey area. In the vicinity of lat. 27° 57' 00", lon. 96° 59' 30", (the mouth of Blind Pass) the current survey depths are up to 1.5 meters deeper than prior soundings. The dredged channel in this area, shown by two dashed lines on the chart, did not exist at the time of the prior survey or the T-map. See EVAL  
RPT., Sec. 6

In the area charted as Allyns Bight some shoaling has occurred, especially at the mouth of the bight, where current survey depths are up to 0.6 meter shoaler than prior survey depths. The shoreline on the west side of the bight has extended southward since the prior survey. Further into the bight, the disagreement between prior and current depths is less significant. Current depths are less than 0.3 meters shoaler. See EVAL  
RPT., Sec. 6

The prior survey and T-9180 do not show the intracoastal waterway alternate route in the center of the bay. In these areas sounding agreement is good except in the dredged channels. ✓

#### N. COMPARISON WITH THE CHART ✓

This survey was compared to the 16th edition of chart 11314, dated January 20, 1990.

There were no items originating from prior surveys. Six items from other sources were addressed on this survey. These are discussed on item investigation report forms in the "Separates to be Included With Survey Data".\* One item that falls within the limits of this sheet was resolved on sheet "H", H-10367. The item number is 5076. Three other items that fall within the limits of this sheet were addressed on sheet "E", H-10359. The item numbers are 5139, 5141, 5148. Four items that fall within the limits of this sheet were resolved on sheet "C", H-10327. The numbers are 5156, 5158, 5160 and 5163. See EVAL  
RPT., Sec. 7  
(a & b)

A lighted marker charted in the vicinity of lat. 27° 57' 12"N, lon. 96° 59' 40"W was searched for visually on D.N. 084 and nothing was found. A lighted marker charted in the vicinity of lat. 27° 57' 05"N, lon. 96° 59' 30"W was searched for visually the same day and nothing was found. There are several lighted markers and dolphins just north of the charted features and the charted locations could be in error. The dashed channel lines on the chart in this area are no longer valid as this is an unmarked natural channel, not a dredged channel. The hydrographer recommends removal of these markers and channel limit lines from the chart. See EVAL  
RPT., Sec. 7(c)  
CONCUR.

In the vicinity of lat. 27° 57' 10<sup>2</sup>"N, lon. 96° 59' 30"W, a marked channel into the Bass Bros. ranch is not charted. Three channel lines, a green side, red side, and centerline were run into this channel on D.N. 084. All privately maintained channel markers See EVAL  
RPT., Sec. 7(c)

\* The investigation report forms are attached.

were located by detached position. The hydrographer recommends charting these markers and representative soundings. *Concur.*

Two lighted gas platforms and a gas flare were located by detached position numbers 2473-2475 and are recommended for charting as follows: *Concur.*

<u>P.N.</u>	<u>Item</u>	<u>Position</u>
<del>2373</del> 2473	Gas Flare	lat. 27° 59' 30.1"N, lon. 97° 00' 44.6"W
<del>2374</del> 2474	Platform	lat. 27° 59' 30.5"N, lon. 97° 00' 42.8"W
<del>2375</del> 2475	Platform	lat. 27° 59' 19.4"N, lon. 97° 00' 36.8"W

Three uncharted items were located that constitute a danger to navigation. A gas platform in ruins, baring 4 meters, was located by detached positions 2476-2478 near lat. 27° 58' 38.2"N, lon. 97° 00' 48.3"W. A single wood pile baring 2.8<sup>4</sup> meters was located by detached position 2485 at lat. 27° 58' 49.7"N, lon. 96° 59' 25.9"W. A platform in ruins (group of piles), baring 1.8<sup>6</sup> meters, was located by detached position 2486 at lat. 27° 59' 04.7"N, lon. 96° 59' 35.8"W. A danger to navigation letter was sent to the U.S. Coast Guard and a copy is included in the appendices to this report.

A small islet charted in the vicinity of lat. 27° 57' 24"N, lon. 96° 59' 20"W, was not found. The hydrographer recommends removal of this islet from the chart. *Concur.*

Sounding comparison results between charted soundings and those found on survey H-10366, are the same as those discussed in section M of this report. *See EVAL RPT., Sec. 7.*

O. ADEQUACY OF SURVEY ✓

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

P. AIDS TO NAVIGATION ✓

Two floating aids to navigation exist within the survey area. Buoy GC "45" (U.S. Coast Guard Light List no. 35735) was found 130 meters northeast of the charted position but still serves the apparent purpose for which it was established. RN 44 was found on station and serves the apparent purpose for which it was established. *See EVAL RPT., Sec. 7(d)*

In addition to the aids mentioned in section M, there are three non-floating aids to navigation in the survey area. Aransas Bay Lt. 43 was found on station. Aransas Bay Pipeline Marker Lt. "C" was located on H-10357<sup>9</sup>. Aransas Bay Pipeline Marker Lt "D" (U.S. Coast Guard Light List no. 35730) was located 380 meters *See EVAL RPT., Sec. 7(d)*

northwest of its charted position but still serves its intended purpose.

Positions and descriptions for all aids to navigation are entered on the <sup>TS/S</sup>graphic records\* for this survey. \*<sup>fathograms</sup>

Numerous pipelines exist in the survey area, however only one was evident. This is marked by lighted markers where it crosses the Intracoastal Waterway in the northwest corner of the survey area. No recommendation is made to chart the pipelines. Per a 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. *Concur.* *See EVAL RPT., Sec 7(f)*

There are no bridges, overhead cables, overhead pipelines, submarine cables, nor ferry routes within the limits of this survey.

Q. STATISTICS ✓

<u>Description</u>	<u>0517</u>	<u>1292</u>	<u>Total</u>
Total Positions	1489	390	1879
Detached Positions	37	0	37
Duplicate Positions	6	2	8
Total Miles of Hydrography	163.3	64.8	228.1
Sq. Nautical Miles of Hydrography	3.5	2.5	6.0
Bottom Samples	0	31	31
Velocity Casts	0	6	6
Tide Stations	0	0	1
Days of Production	13	4	17

R. MISCELLANEOUS ✓

No anomalous tidal nor current conditions were observed while conducting this survey.

Bottom samples were taken and submitted to the Smithsonian Institution as directed in Section 6.7 of the project instructions. Bottom samples 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. \*

Geographic positions for all detached positions are shown on the listing of the HDAPS cartographic tables, used to compile the final field sheet. These tables contain the <sup>xy</sup>B.P. to GP conversions and are included in the "Separates To Be Included With Survey Data". \*

\* Filed with the survey records.

S. RECOMMENDATIONS ✓

Not applicable.

T. REFERRAL TO REPORTS ✓

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report To Accompany Survey H-10359	Pacific Hydrographic Section Seattle, Washington
Descriptive Report To Accompany Survey H-10327	Pacific Hydrographic Section Seattle, Washington
Descriptive Report To Accompany Survey H-10329	Pacific Hydrographic Section Seattle, Washington
Descriptive Report To Accompany Survey H-10367	Pacific Hydrographic Section Seattle, Washington
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: Mark J. McMann, Launch Hydrographer-in-Charge

\* See EVAL RPT, Sec. 2 for specific identification of applicable horizontal control reports.

NAVISOFT 1000			PRE-SURVEY: CONTROL STATION TABLE				.04-01-1991		
Station No	T	C	Number ? Carto	Latitude	Longitude	H	Freq	Vel	Date
110	F	1	2550	27:59:23.706	96:58:52.815	0	0.0	0	10/10/90
114	F	3	2550	28: 1:27.412	97: 1:14.362	0	0.0	0	10/10/90
120	F	4	2550	27:53:27.057	97: 6:40.209	0	0.0	0	10/10/90
124	F	6	2550	27:57: 7.493	97: 4:21.062	0	0.0	0	10/10/90
126	F	2	2550	27:51:50.992	97: 3:22.978	0	0.0	0	10/10/90

- 110 - Allyn 1989
- 114 - Nine Mile Point Light 2 1990
- 120 - Draw 1989
- 124 - Traylor 1989
- 126 - Aransas Pass Lighthouse 1989

CHART #11314

PRE-SURVEY REVIEW ITEM 5087  
WRECK

SOURCE: CL1667/84

INVEST. DATE: 3/25/91 (DN 084) TIME: 204018Z

VESSEL #0517

CHIEF OF PARTY: LCDR. V. DALE ROSS

REFERENCE: OPR-K229 AHP 10-2-91 H-10366

POSITION: 2460 ✓

CORRECTORS APPLIED: None

VELOCITY:

TRA CORRECTORS:

PREDICTED TIDES:

GEODETTIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

27° 57' 22.6"

96° 59' 32.0"

OBSERVED:

27° 57' 13.7" ✓

96° 59' 26.6" ✓

POSITION DETERMINED BY: Mutiple LOP, Falcon Mini Rangers

METHOD OF ITEM INVESTIGATION: A visual search in the area of the item revealed a line of sunken concrete filled barges laying adjacent to, and on the outside of the seawall on the north side of the channel into the Bass Bros. ranch on San Jose Island. These barges were obviously sunk in their present position to protect the concrete seawall.

CHARTING RECOMMENDATIONS: As the barges are an integral part of the concrete seawall already accurately charted, the hydrographer recommends removal of the shaded uncovers area labelled "Wks" on the chart. The shaded uncovers area on the chart is much larger than the actual area of the wrecks, which end even with the offshore end of the concrete seawall. A photograph of this item was taken and may be found in the Separates Following the Text of this report.\* *Concur. Chart area as shown on the smooth sheet.*

*\* Filed with the survey records.*

COMPILATION USE

CHART:

APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM 5123  
SUBM WRECK

SOURCE: CL1564/74--USPS

INVEST. DATE: 3/18-19/91 (DN 077,078) TIME: 163717-170830 VESSEL #0517

CHIEF OF PARTY: LCDR. V. DALE ROSS

REFERENCE: OPR-K229 AHP 10-2-91 H-10366 POSITION: 2005-2097 /

CORRECTORS APPLIED:

VELOCITY: TRA CORRECTORS: Yes

PREDICTED TIDES: Yes

GEODETTIC POSITION: LATITUDE (N) LONGITUDE (W)

CHARTED: 27°59'34.1" 96°59'38.0" /

OBSERVED: Not Found

POSITION DETERMINED BY: Mutiple LOP, Falcon Mini Rangers

METHOD OF ITEM INVESTIGATION: A 200 meter radius chain drag at 10-meter line spacing with 40 feet of line scope was performed and nothing was found. /

CHARTING RECOMMENDATIONS: The hydrographer recommends removal of the wreck from the chart.  
*Concur.*

---

COMPILATION USE

CHART:

APPLIED AS:

CHART #11314

PRE-SURVEY REVIEW ITEM 5147,5150,5153  
PILES

SOURCE: CL1695/73--USPS

INVEST. DATE: 3/22/91 (DN 081) TIME: 154416-182145Z VESSEL #0517

CHIEF OF PARTY: LCDR. V. DALE ROSS

REFERENCE: OPR-K229 AHP 10-2-91 H-10366 POSITION: 2332-2371

CORRECTORS APPLIED:

VELOCITY: TRA CORRECTORS: Yes

PREDICTED TIDES: Yes

GEODETTIC POSITION: LATITUDE (N) LONGITUDE (W)

CHARTED: 28°00'47.1" 97°00'58.0" ✓

OBSERVED: Not Found

POSITION DETERMINED BY: Mutiple LOP, Falcon Mini Rangers

METHOD OF ITEM INVESTIGATION: A chain drag was conducted at 10-meter line spacing with 40 feet of line scope from the edge of the Intracoastal waterway to the edge of the search area in a continuous line parallel to the channel.

CHARTING RECOMMENDATIONS: The hydrographer recommends removal of the piles from the chart. *Concur, except AWOIS Item 5147 (subm pile), which was not covered by chain drag investigation during this survey. This charted submerged pile should be retained as charted.*

---

COMPILATION USE

CHART:

APPLIED AS:



**U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

NATIONAL OCEAN SERVICE  
Atlantic Hydrographic Party 2  
439 W. York St.  
Norfolk, VA 23510-1114

April 5, 1991

To: Commander, 8th U.S. Coast Guard District  
Hale Boggs Federal Building  
500 Camp Street  
New Orleans, LA 70130-3396

  
From: V. Dale Ross, LCDR. NOAA  
Chief, Atlantic Hydrographic Party 2

Subject: Danger to Navigation Notice for inclusion in the Local  
Notice to Mariners.

While conducting a basic hydrographic survey of Aransas Bay for nautical charting, survey H-10366, in the vicinity of Allyns Bight, three uncharted dangers to navigation were found. A 10 meters wide x 20 meters long gas platform in ruins was located at latitude 27° 58' 38.3"N, longitude 97° 00' 48.3"W. A single 0.3 meter diameter wood pile was located at latitude 27° 58' 49.7"N, longitude 96° 59' 25.9"W. A 3 meters wide x 7 meters long platform ruins was located at latitude 27° 59' 04.7"N, longitude 96° 59' 35.8"W.

These items were located by four lines of position from Motorola Falcon Mini-Ranger electronic positioning system units set up on third order, class 1, ground control stations. The position of the items is North American Datum of 1983.

Attached is a copy of the affected section of chart 11314.

Questions regarding this letter can be directed to me at telephone (804)441-6746.

cc: N/CG241  
N/CG221  
N/CG2441

**ADVANCE  
INFORMATION**

THIS IS ADVANCE FIELD INFORMATION  
SUBJECT TO OFFICE VERIFICATION







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

**FILE COPY**

November 22, 1991

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

Dear Sir:

During office review of hydrographic survey H-10395, Texas, Matagorda Bay, 3 NM NE of Port O'Connor and H-10366, Texas, Aransas Bay, Vicinity of Allyns Bight, nine dangers to navigation affecting the following charts were found.

<u>Chart</u>	<u>Edition/date</u>	<u>Datum</u>
11314	16th ED., 1/20/1990	NAD 83
11316	33rd ED., 1/19/1991	NAD 83
11317	20th ED., 3/23/1991	NAD 83
11319	22nd ED., 2/10/1990	NAD 83

It is recommended that the enclosed Report of Dangers to Navigation be included in the Local Notice to Mariners.

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

Sincerely,

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

Enclosure

cc: DMA/TC  
N/CG221

**ADVANCE  
INFORMATION**



REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H-10366  
Survey Title: State: Texas  
                  Locality: Aransas Bay  
                  Sublocality: Vicinity of Allyns Bight

Project Number: OPR-K229-AHP2, Atlantic Hydrographic Field Party 2

Affected nautical chart:  
Chart Edition/date      Datum  
11314 16th Ed., 1/20/90      NAD 83

<u>Danger to Navigation</u>	<u>LATITUDE(N)</u>	<u>LONGITUDE(W)</u>
Revised position for Aransas Bay Light 43 (LL35695)	28/01/03.34	97/00/44.13

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

**ADVANCE  
INFORMATION**

APPROVAL SHEET  
BASIC HYDROGRAPHIC SURVEY  
OPR-K229  
AHP2-10-2-91  
H-10366

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

ORIGINAL

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: Jun 11, 1991

MARINE CENTER: Pacific

OPR: K229

HYDROGRAPHIC SHEET: H-10366

LOCALITY: Aransas Bay, vicinity of Allyns Bight, TX

TIME PERIOD: January 22 - March 27, 1991

TIDE STATIONS USED: 877-4770 Rockport, TX  
28°01.4'N 97°02.8'W

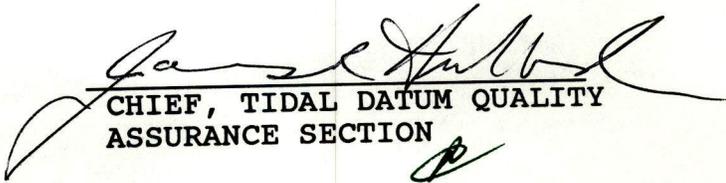
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 5.81 feet

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.4 feet

REMARKS: RECOMMENDED ZONING

1. North of 27°59.3'N, zone direct.
2. South of 27°59.3'n and north of 27°57.5'N, apply a x1.14 range ratio to all heights and a -30 min time correction.
3. South of 27°57.5'N, apply a x1.14 range ratio to all heights and a -60 min time correction.

Note: Times are tabulated in Local Standard Time.

  
CHIEF, TIDAL DATUM QUALITY  
ASSURANCE SECTION



**HYDROGRAPHIC SURVEY STATISTICS**

H-10366

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION			AMOUNT
SMOOTH SHEET		1	SMOOTH OVERLAYS: POS., ARC, EXCESS			5
DESCRIPTIVE REPORT		1	FIELD SHEETS AND OTHER OVERLAYS			4
DESCRIP-TION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES						
CAHIERS						
BOXES						

SHORELINE DATA					
SHORELINE MAPS (List):					
PHOTOBATHYMETRIC MAPS (List):					
NOTES TO THE HYDROGRAPHER (List):					
SPECIAL REPORTS (List):					
NAUTICAL CHARTS (List):					

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	VERIFICATION	EVALUATION	TOTALS	
POSITIONS ON SHEET			1813	
POSITIONS REVISED	4		4	
SOUNDINGS REVISED	915		915	
CONTROL STATIONS REVISED				
	TIME-HOURS			
	VERIFICATION	EVALUATION	TOTALS	
PRE-PROCESSING EXAMINATION				
VERIFICATION OF CONTROL				
VERIFICATION OF POSITIONS	27.0		27.0	
VERIFICATION OF SOUNDINGS	56.5		56.5	
VERIFICATION OF JUNCTIONS				
APPLICATION OF PHOTOBATHYMETRY				
SHORELINE APPLICATION VERIFICATION				
COMPILATION OF SMOOTH SHEET	29.0		29.0	
COMPARISON WITH PRIOR SURVEYS AND CHARTS		11.0	11.0	
EVALUATION OF SIDE SCAN SONAR RECORDS				
EVALUATION OF WIRE DRAGS AND SWEEPS				
EVALUATION REPORT		31.5	31.5	
GEOGRAPHIC NAMES				
OTHER: Digitizing	1.0		1.0	
*USE OTHER SIDE OF FORM FOR REMARKS	TOTALS	113.5	44.5	158.0

Pre-processing Examination by LT M. Brown	Beginning Date 5/6/91	Ending Date 5/20/91
Verification of Field Data by J. Green, I. Almacen	Time (Hours) 113.5	Ending Date 6/29/92
Verification Check by J. Green	Time (Hours) 11.0	Ending Date 8/25/92
Evaluation and Analysis by I. Almacen	Time (Hours) 44.5	Ending Date 7/9/92
Inspection by D. Hill	Time (Hours) 4	Ending Date 9-25-92

EVALUATION REPORT  
H-10366

1. INTRODUCTION

Survey H-10366 is a basic hydrographic survey accomplished by the Atlantic Hydrographic Party 2 under the following Project Instructions.

OPR-K229-AHP2, dated September 14, 1991  
CHANGE NO. 1, dated February 12, 1991

This survey was conducted in Texas covering the southeastern portion of Aransas Bay, in the vicinity of Allens Bight. The survey area extends from the north shore of Mud Island to latitude 28°01'10"N and stretches from the west shore of San Jose Island to longitude 97°01'15"W. The coast consists of sand and mud beaches along low lying marshy areas. The bottom generally consists of sand and mud mixed with broken shells. Depths range from 0.3 to 6.1 meters.

Predicted tides for Galveston, Texas, were used for the reduction of soundings during field processing. Approved hourly heights zoned from Rockport, Texas, gage 877-4770, were used during office processing.

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

A digital file has been generated for this survey as required by the specifications contained in Hydrographic Survey Guideline No. 52, Standard Digital Data Exchange Format, April 15, 1986. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete depiction of survey data.

2. CONTROL AND SHORELINE

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

Geodetic Control Report for CM-8716, dated April 12, 1989  
Geodetic Control Survey Job-HC-9901, dated December 29, 1989

Positions of horizontal control stations used during hydrography are 1989 and 1990 field values based on NAD 83. These values were used during office processing for the computation of positions. The smooth sheet and accompanying overlays are annotated with NAD 27 adjustment ticks based on values determined with the NGS program, NADCON. Geographic positions based on NAD 27 may be plotted on the smooth sheet utilizing the NAD 83 projection by applying the following corrections.

Latitude: 1.070 seconds (32.950 meters)  
Longitude: 0.959 seconds (26.198 meters)

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

There are some fixes during this survey where the maximum allowable limits of error circle radius (ECR) and residual values have been exceeded or have angles of intersection less than 30 degrees or more than 150 degrees. However, the soundings located by these fixes were found consistent with the surrounding areas and are considered acceptable.

Two of the fixes, taken to locate buoy CG "45" and a pile, slightly exceeded the allowable limits in terms of residual values. These fixes were examined and found adequate.

The following shoreline maps apply to this survey.

	<u>Photo Date</u>	<u>Class</u>	<u>Scale</u>
TP-01196	Dec. '82, Nov. '83	III	1:20,000
TP-01197	Dec. '82, Nov. '83	III	1:20,000
TP-01198	Dec. '82, Nov. '83	III	1:20,000

Changes to the shoreline were noted in some areas along the western shore of San Jose Island and a small portion of Mud Island. These changes have been transferred directly from the field sheet and depicted on the smooth sheet as dashed red lines without positional information.

### 3. HYDROGRAPHY

With the exceptions noted below, 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 zero depth curve was not defined, due to the shallow approaches to the beach.

The southern approach to Allyns Lake in the vicinity of latitude 27/58/20N, longitude 96/59/08W, was not adequately covered by this survey. It was noted that this area was too shallow to safely survey. The approximate location of the shoal was indicated on the smooth sheet by dashed black lines.

### 4. CONDITION OF SURVEY

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

The hydrographer should have taken detached positions along the HWL to adequately determine the actual changes in the shoreline configuration of the area.

The descriptive report contains unnecessarily detailed discussions of items found during the survey. This practice is contrary to the instructions in the Field Procedures Manual, Figure No. 6-1.

The format of the danger to navigation memorandum compiled by the hydrographer and forwarded to the USCG does not comply with the specifications contained in Hydrographic Survey Guideline No. 66.

## 5. JUNCTIONS

Survey H-10366 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-10327	1989/90	1:10,000	North
H-10329	1989/90	1:10,000	North
H-10359	1989/90	1:10,000	West
H-10367	1989/90	1:10,000	South

The junctions with surveys H-10359 and H-10367 are complete. Comparison reveals satisfactory agreement with the present survey.

The junctions with surveys H-10327 and H-10329 have not been formally completed because these surveys were previously processed and forwarded for charting. These surveys were compiled in feet and the junction comparison was made using a copy. The comparison is generally good, except in the area along the Intracoastal Waterway where the depths are 0.7 meter deeper on this recent survey. Based on information received from the Corps of Engineers, the channel was dredged after the completion of survey H-10327 in 1990. As a result of this dredging operation, Aransas Bay Light 43 was moved to a new location along the channel.

## 6. COMPARISON WITH PRIOR SURVEYS

H-5693(1934-35) 1:20,000

Survey H-5693 provides the basic coverage of the entire area of this survey. Comparison with this prior survey is considered satisfactory. The soundings obtained from survey H-10366 generally agree to within 0.3 meter, except in the following areas.

(a) Near the mouth of Allyns Bight in the vicinity of latitude 27/58/10N, longitude 97/59/25W, where the soundings are shoaler by about 0.6 meter than the prior survey.

(b) Along the entrance to Blind Pass in the vicinity of latitude 27/57/05N, longitude 96/59/35W, where the depths of water were found to be 0.8 to 1.0 meter deeper on this survey.

Survey H-10366 is adequate to supersede the prior survey within the common area.

There are no AWOIS items originating from the prior survey applicable to the present survey.

T-9179(1949-51) 1:20,000  
T-9180(1948-51) 1:20,000  
T-9296(1946-51) 1:20,000

Shoreline maps T-9179, T-9180 and T-9296 cover the area of this survey. These maps were considered the only source of shoreline and foreshore information available at that time. The shoreline configuration along San Jose Island and Mud Island has changed as a result of the continuous shifting of sediments along the coast.

## 7. COMPARISON WITH CHART

Chart 11314, 16th edition, dated January 20, 1990; scale 1:40,000

### a. Hydrography

The charted hydrography on the 16th edition of chart 11314 originates mostly with the prior surveys and the rest from miscellaneous sources which require no further discussion.

The charted pile originating from a miscellaneous source at latitude 27/57/11N, longitude 96/59/28W, was not discussed in the hydrographer's report. However, an investigation has been accomplished within the area to locate a daymarker close to the charted location of the pile. No pile was found and therefore it was considered disproven.

The charted channel in the vicinity of latitude 27/57/07N, longitude 96/59/36W, leading to Blind Pass no longer exists. The two charted lights marking the channel at latitude 27/57/12N, longitude 96/59/40W, and latitude 27/57/03N, longitude 96/59/29W, were searched for but not found during this investigation and therefore are considered disproven. It is recommended that this charted portion of the channel with its lighted markers be deleted from the chart as part of AWOIS item 5076. AWOIS item 5076, concerning this charted channel along Blind Pass, was adequately discussed in the evaluation report for survey H-10367.

The small islet charted at latitude 27/58/15N, longitude 96/59/05W, was not investigated during this survey and therefore should be retained as charted.

With the exception of the islet mentioned above and the charted submerged pile (AWOIS item 5147) at latitude 28/00/47N, longitude 97/00/58W, survey H-10366 is adequate to supersede charted hydrography within the common area.

### b. AWOIS

The five (5) AWOIS items investigated during this survey originate with miscellaneous sources. Discussion and disposition of each of these items are included in the separates that accompany the hydrographer's report.

AWOIS items 5139, 5141, 5148, 5156, 5158, 5160, and 5163 fall within the limits of this survey. However, these items were covered by surveys H-10327 and H-10359. The disposition of each of these items is addressed in their respective survey reports.

The disposition of AWOIS item 5076, as previously mentioned in this report, was addressed in the report for survey H-10367.

AWOIS item 5083 was not mentioned in the hydrographer's report. This item was correctly indicated on the Presurvey Survey Review markup for OPR-K229, but was listed with an

incorrect geographic position. The correct location of this item should be latitude 27/57/02N, longitude 96/59/54W. The hydrographer, without knowing it was the location of AWOIS item 5083, investigated this area and found a row of piles in ruins at the site. Delete the charted piles and chart the row of piles in ruins as shown on the smooth sheet.

c. Controlling Depths

The depths found on survey H-10366 are consistent with or deeper than the charted controlling depths along the Intracoastal Waterway. The marked channel leading to Blind Pass with charted controlling depth of 3.5 feet no longer exists and is recommended for deletion. See section 7(a) of the this report for additional information.

A channel in the vicinity of latitude 27/57/12W, longitude 96/59/30W, was found during this survey. It has a least depth of 1.8 meters and is presently marked by privately maintained markers. It is recommended that this channel be charted in accordance with this recent survey.

d. Aids to Navigation

There are three (3) fixed and two (2) floating aids located during this survey. These aids were found to be in good condition and adequately serve their intended purpose.

Aransas Bay Light 43 has been moved about 100 meters southwest of the charted position found on survey H-10327 (1990), as a result of a 1990 dredging operation along the waterway. A danger to navigation report containing the revised position of the light was sent to the Coast Guard for inclusion in the Local Notice to Mariners. A copy of the report is attached.

The present location of the Ninemile Point Dump Daybeacon 1 was determined during survey H-10327. Aransas Bay Pipeline Marker Light C was located during survey H-10359.

See section P of the hydrographer's report for additional information concerning aids to navigation.

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

Three dangers to navigation were reported to the USCG on April 5, 1991. Another report was sent to the USCG and N/CG221 on November 22, 1991 concerning the revised position of Aransas Bay Light 43. Copies of the reports are attached. No additional dangers were discovered during office processing.

The hydrographer noted the existence of pipelines within the area, however, no specific investigation was accomplished to locate these items during this survey. Based on the information received from N/CG222, the charted magenta note "Obstructions, Wells and Pipelines" is considered adequate to warn mariners of these features.

8. COMPLIANCE WITH INSTRUCTIONS

Survey H-10366 adequately complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is a good hydrographic survey and no additional field work is required



Isagani A. Almacén  
Cartographer

APPROVAL SHEET  
H-10366

Initial Approvals:

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

*Dennis J. Hill*

Date: 9-25-92

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

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

*Douglas G. Hennick*

Date: 9/25/92

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

\*\*\*\*\*

Final Approval

Approved:

*J. Austin Yeager*

Date: 7/18/94

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

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

Hydrographic Index No. 90 C

