

9704

Diag. Cht. Nos. 1262, 1261-2 & 1114

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC
Field No. HSB-40-2-77
Office No..... H-9704

LOCALITY

State FLORIDA
General Locality NORTHWEST COAST
Locality OFF ST. GEORGE ISLAND
AND DOG ISLAND

1977

CHIEF OF PARTY
William R. Daniels

LIBRARY & ARCHIVES

DATE July 19, 1978

9704

July
1978

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✓ = Misc. items removed from the D.R. and filed with the field records

HYDROGRAPHIC TITLE SHEET

H-9704

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.

HSB-40-2-77

State Florida

General locality Northwest Coast

Locality ~~Vicinity~~ ^{off} St. George Island and Dog Island

Scale 1:40,000 Date of survey 24 June 1977 - 5 Sept. 1977

Instructions dated 20 August 1974 * Project No. OPR-508-AHP-75

Vessel NOAA Launch 1257

Chief of party William R. Daniels, LCDR., NOAA

Surveyed by Albert E. Theberge, LCDR., NOAA, M.J. Bradley, E.L. Martin, G.D. Hendricks, S. Lloyd, G.L. Merrill

Soundings taken by echo sounder, ~~hand held, pot~~

Graphic record scaled by AT, MB, EM, GH, SL, GM

Graphic record checked by AT, MB

Protracted by _____ Field sheet PDP/8E
Automated plot by AMC CALCOMP 618

Verification by AMC Verification Branch JS Bradford

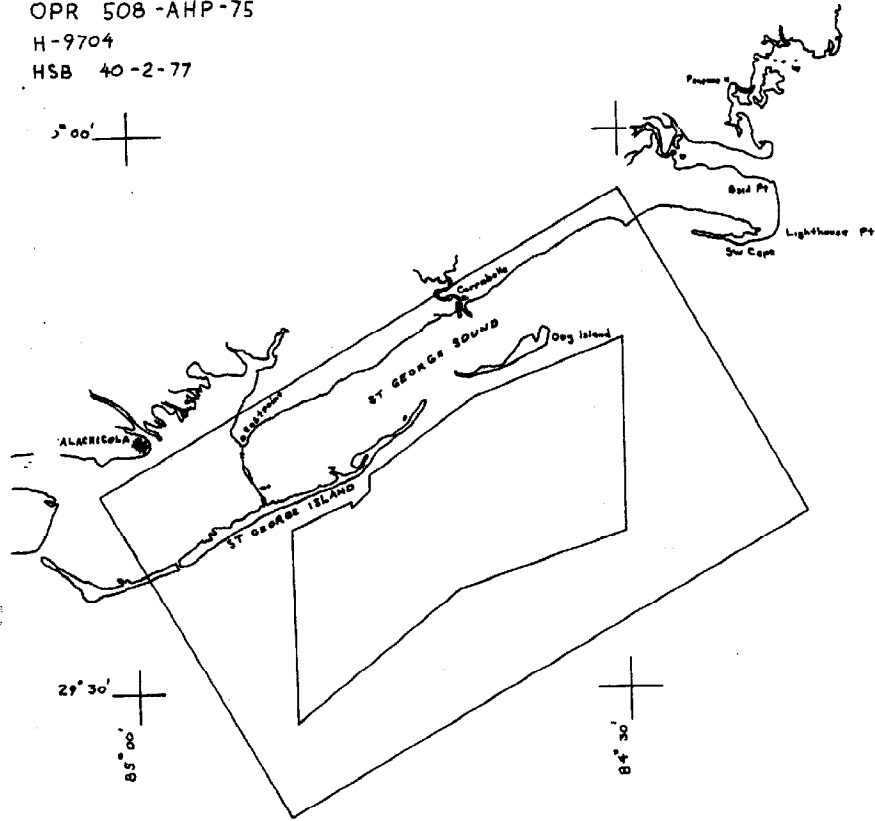
Soundings in ~~feet~~ ^{meters} feet at MLW ~~MLLW~~

REMARKS: * Change No. 1-14 April 1975
Change No. 2-7 Sept. 1976
Change No. 3- 15 March 1977

Applied to stds 10/2/78
[Signature]

Tampa Bay to Cape San Blas
Chart #11400
Scale 1:456,394

OPR 508 -AHP-75
H-9704
HSB 40-2-77



DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H 9704 (HSB 40-2-77)

SCALE: 1:40,000
VESSEL: Hydrographic Surveys Branch, NOAA LAUNCH 1257
CHIEF: LCDR William R. Daniels, OIC: LCDR Albert E. Theberge, Jr.

A. PROJECT

This project was accomplished under Project Instructions OPR-508-AHP-75, Northwest Coast of Florida, 20 August 1974. The instructions were amended by Change Number 1, Amendment to Instructions, 14 April 1975, Change Number 2, Amendment to Instructions, 7 September 1976, and Change Number 3, Amendment to instructions, 15 March 1977.

B. AREA SURVEYED

The area encompassed by the survey was south of Carrabelle, Florida. The following points form the boundaries of the survey:

- | | |
|-------------------------------|--------------------------------|
| 1) 29° 48'.8 N
84° 30'.0 W | 6) 29° 40'.5 N
84° 46'.7 W |
| 2) 29° 38'.7 N
84° 30'.0 W | 7) 29° 40'.1 N
84° 46'.7 W |
| 3) 29° 35'.5 N
84° 40'.0 W | 8) 29° 40'.8 N
84° 45'.5 W |
| 4) 29° 28'.4 N
84° 50'.3 W | 9) 29° 41'.6 N
84° 45'.5 W |
| 5) 29° 38'.8 N
84° 50'.3 W | 10) 29° 45'.8 N
84° 38'.8 W |

This survey was conducted from 24 June 1977 to 5 September 1977.

C. SOUNDING VESSEL

All sounding on this survey was accomplished by NOAA LAUNCH 1257 (VESNO 1257). All survey records are labeled with the vessel number and are annotated in black.

Position Numbers Used: 0001 - 3674

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon equipment was used to obtain soundings during the survey:

Electronic Cabinet Unit:	Model 723-42 Unit 723 S/N 1910
Digital Depth Monitor:	Model DE723-41 Unit DE-723D S/N 2772
Recorder:	Model DE723 Unit 723-40 S/N 2042

All velocity correctors were determined by bar check. Historic settlement and squat data was used during the survey. LAUNCH 1257 has a static draft of 2'.7 and an underway draft of 2'.4 at survey speed of 1850 RPM. On J.D. 140 (1977), a settlement and squat determination was attempted in the vicinity of Ochlockonee Shoal by running over the same point at different speeds. However, data was inconclusive inasmuch as the bottom was a little too irregular. Results indicated a TRA corrector of 2'.2 at 1850 RPM as opposed to the 2'.4 historical value. Because of the irregular bottom the OIC of NOAA LAUNCH 1257 chooses to continue using the 2'.4 corrector until a test may be run in ideal conditions. From July 15 thru the end of the survey, weather precluded running a test.

E. HYDROGRAPHIC SHEETS

The field sheets were prepared using the Processing Trailer assigned to the party. Main scheme hydrography was plotted on one field sheet and another sheet was prepared where crosslines, bottom samples, developments, and sounding densifications were plotted. Any additional data required to replace rejected soundings were also plotted on the overlay.

Verification and smooth plotting will be done at the Atlantic Marine Center, Norfolk, Virginia. Projection and control parameters are in the Appendix. Use of a sheet layout similar to that in the illustration at the beginning of this report as opposed to the registered survey area will facilitate smooth plotting.

F. CONTROL STATIONS

Left (RED) Station : JOHNSON RAYDIST 1976
 G.P. : 29° 43' 36".668
 84° 53' 08".295

Right (GREEN) Station: MOUND TOWER 1935
 G.P.: 30° 05' 16".124
 84° 09' 46".424

JOHNSON RAYDIST 1976 was located by Mr. Jim Shea of Atlantic Marine Center Operations Division. MOUND TOWER 1935 is an intersection station located by a geodetic field party.

G. HYDROGRAPHIC POSITION CONTROL

Control for this survey was Haystings Raydist DR-S system operating in the range-range mode. No known difficulties were experienced that could have degraded the expected position accuracy.

SHORE STATION EQUIPMENT:

Left Station: RED Raydist Model AA-60
 S/N 84

Right Station: GREEN Raydist Model AA-60
 S/N 69

EQUIPMENT ABOARD LAUNCH 1257:

Third Party Equipment:

Antenna Loading Coil Model QB-52B, S/N 81
DRS System Navigator Model ZA-67B, S/N 58
Raydist Transmitter Model TA-96B, S/N 45

First Party Equipment:

Antenna Loading Coil Model QB-52B, S/N 81
DRS System Navigator Model ZA-67V, S/N 67
Raydist Transmitter Model TA-96B, S/N 86

LAUNCH 1257 worked in the third party mode with a frequency of 3306.495 on J.D. 175 - 178 and in the first party mode with a frequency of 3306.400 on J.D. 182 - 248.

G. HYDROGRAPHIC POSITION CONTROL (continued)

All Raydist calibrations were obtained at two fixed aids to navigation, Turkey Point Light 2 and St. George Sound Light. Their respective positions are:

Turkey Point Light 2:	29° 51' 18".512 N
	84° 30' 56".865 W
St. George Sound Light:	29° 47' 58".8917 N
	84° 41' 08".1072 W

Both lights were positioned by third order horizontal control methods. Turkey Point Light 2 was positioned by Mr. Harry Romine, National Geodetic Survey, in 1977. St. George Sound Light was positioned by Mr. Jim Shea of AMC Operations Division in 1976.

Most calibrations of the Raydist system were accomplished by averaging the four Raydist values obtained from detached positions taken as NOAA LAUNCH 1257 maneuvered past Turkey Point Light 2 on four perpendicular headings. The average values were then compared to the known values for computation of the Raydist daily correctors.

On J.D.'s 192, 202, and 248 calibrations were obtained at St. George Sound Light as well as at Turkey Point Light 2. The calibration method at St. George Sound Light was to maneuver the boat past the four corner posts of this fixed aid to navigation. Detached positions were taken on each corner and the average of these Raydist values was compared to the known value at the center of the structure to obtain calibration values. In all instances calibrations compared favorably between Turkey Point Light 2 and St. George Sound Light. On J.D. 248 separate calibrations were taken in the afternoon and corrector values obtained at both locations differed by only .05 lane on both red and green rates. These favorable comparisons lead the hydrographer to believe that the navigational electronic lattice was stable throughout the working area and that all calibration values are correct throughout the survey area.

H. SHORELINE

There was no shoreline delineated on this survey.

I. CROSSLINES

Crossline agreement is good. Differences range from 0-2 feet. Crosslines constitute 11.8% of main scheme sounding line.

J. JUNCTIONS

This survey, H-9704 (HSB 40-2-77), junctions with H-9683 to the east, H-7723 to the south, and H-6784 to the west. H-9683 was run concurrently with the same sounding vessel and position control so agreement is excellent. Agreement with H-7723 and H-6784 ranges from zero to four feet. As these surveys were run approximately thirty years ago, it is probable that minor shifting of bottom features has occurred as the majority of the bottom material is unconsolidated sediment.

K. COMPARISON WITH PRIOR SURVEYS

The survey area was previously covered by the surveys H-655, 1858, H-1156, 1872, H-1184, 1873, and H-1509, 1882. The depths on NOS Charts 11401, 11404, and 11405 which cover the survey limits are representative soundings taken directly from the old surveys. For these reasons comparison of the previous surveys would be of little value. Comparison of the charts mentioned is made in the next section.

L. COMPARISON WITH THE CHART

All soundings in blue on the sounding overlay were taken from Charts 11404,*1:40,000, 11401,**1:80,000, and 11405***1:80,000. The soundings were transferred from the charts to the field sheets by having the charts enlarged to a 1:40,000 scale by photographic means. The soundings on these charts which lie within the H-9704 survey limits were compiled directly from surveys conducted in the 1870's. Generally, agreement between the charted soundings and depths from the H-9704 survey is reasonable considering the age of the surveys. Those charted soundings which were shallower than those found during the survey were investigated by running developments over them at reduced line spacing. Refer to the overlay sheet for a comparison of developments and charted shoaler soundings.

*11404 - 8th ed., ~~July 1977~~ June 11, 1977

**11401 - 15th ed., 1/31/76

***11405 - 13th ed., 11/8/75

M. ADEQUACY OF SURVEY

This survey is sufficiently complete and adequate to warrant its use to supercede prior surveys for charting.

N. AIDS TO NAVIGATION

The following aids to navigation are located in the area covered by this survey. Their surveyed positions and positions published in the United States Coast Guard Light List, Volume II, 1977, page 136, are as indicated.

N. AIDS TO NAVIGATION (continued)

Aids to Navigation	Surveyed Positions	Published Positions
Dog Island Reef West Buoy 2:	29 49' 04".445 N 84 31' 10".301 W	(29 49'.07) (84 31'.17)
Carrabelle Channel Lighted Whistle Buoy 1:	29 44' 32".773 N 84 39' 39".881 W	(29 44'.55) (84 39'.66)
Carrabelle Channel Buoy 3:	29 44' 59".378 N 84 39' 33".822 W	(29 44'.99) (84 39'.56)
Carrabelle Channel Lighted Bell Buoy 5:	29 45' 35".529 N 84 39' 39".914 W	(29 45'.59) (84 39'.66)

O. STATISTICS

Total number of positions:	3674
Nautical miles of sounding line:	1614.3
Nautical miles of crossline:	190.9
Nautical miles of development:	27.6
Total nautical miles of hydrography:	1832.8
Square nautical miles of hydrography:	174.3
Total number of bottom samples:	41

P. MISCELLANEOUS

An inspection of the field sheet and fathometer records will reveal that this area is remarkable for its uniform blandness. With the exception of a few shoals in the northwest corner of the sheet and a few drop-offs approaching 15' of relief the sheet is essentially featureless.

Q. RECOMMENDATIONS

Because of the great age of the prior surveys, it is recommended that the entire survey should be reviewed carefully and a new edition of affected charts be produced on the basis of the soundings obtained during this survey, H-9704, 1:40,000, 1977.

R. AUTOMATED DATA PROCESSING

Program Number	Program Name	Version Date
RK 111	RANGE-RANGE REAL TIME PLOT	1-30-76
RK 201	GRID, SIGNAL AND LATTICE PLOT	4-18-75
RK 211	RANGE-RANGE NON-REAL TIME PLOT	1-15-76
RK 300	UTILITY COMPUTATIONS	2-10-76
PM 360	ELECTRONIC CORRECTOR ABSTRACT	2-02-76
AM 500	PREDICTED TIDE GENERATOR	11-10-72
AM 602	ELINORE LINE ORIENTED EDITOR	5-21-75

S. REFERENCE TO REPORTS

None

Respectfully Submitted,

Albert E. Theberge, Jr.
LCDR Albert E. Theberge, Jr., NOAA
Officer in Charge, NOAA LAUNCH 1257

FIELD TIDE NOTE

Field tide reduction of soundings was based on predicted tides from St. Petersburg, Florida, corrected to Dog Island, west end, 29° 47' N, 84° 40' W, and were interpolated by PDP 8/e computer utilizing AM500, Predicted Tide Generator.

Smooth tide correctors will be obtained from St. George Island East End Tide Station (872-8548). This station was installed and maintained for the period of this survey by the State of Florida Department of Natural Resources. Data from this station has been forwarded to NOS in Rockville.

NOAA LAUNCH 1257
VELOCITY CORRECTOR TAPE
H-9704 (HSB 40-2-77)
24 JUNE - 5 SEPTEMBER 1977

000057 1 0004 0001 000 125700 009704
000067 1 0003
000078 1 0002
000090 1 0001
000103 0 0000
000115 0 0001
000130 0 0002
000145 0 0003
000159 0 0004
000175 0 0005
000192 0 0006
000208 0 0007
000225 0 0008
000242 0 0009
000258 0 0010
000275 0 0011
000292 0 0012
000308 0 0013
000325 0 0014
000342 0 0015
000358 0 0016
000375 0 0017
000392 0 0018
000408 0 0019
000425 0 0020
000442 0 0021
000458 0 0022
000475 0 0023
000492 0 0024
000508 0 0025
000525 0 0026
000542 0 0027
000558 0 0028
000575 0 0029
000592 0 0030
000608 0 0031
000625 0 0032
000642 0 0033
000658 0 0034
000675 0 0035
000692 0 0036
000708 0 0037
999999 0 0038

ABSTRACT OF BARCHECKS
 NOAA LAUNCH 1257

PROJECT CAR-508

DATE 22 JUNE 1977

LOCATION NE GULF OF MEXICO

DAY 173

DEPTH	DIGITAL	DIFF.	FATHO.	DIFF.
5	2.9	2.85	2.15	3.1
	2.8			2.9
10	7.4	7.25	2.75	7.5
	7.1			7.2
15	11.9	12.0	3.0	12.0
	12.1			12.2
20	16.7	16.8	3.2	16.8
	16.9			16.9
25	21.6	21.6	3.4	21.7
	21.6			21.5
30	26.3	26.3	3.7	26.3
	26.3			26.2
35	31.1	31.05	3.95	31.1
	31.0			30.9
40	35.8	35.85	4.15	35.8
	35.9			35.8
45	40.3	40.45	4.55	40.3
	40.6			40.6
50	45.2	45.3	4.7	45.3
	45.4			45.4
55				
60				
65				
70				
75				
80				

* THIS BAR CHECK RECORDED IN SOUNDING VOLUME
 H-9683, HSB 40-1-77

ABSTRACT OF BARCHECKS
NOAA LAUNCH 1257

PROJECT OPR-508

DATE 9 SEPTEMBER 1977

LOCATION NE GULF OF MEXICO

DAY 252

	DEPTH	DIGITAL	DIFF.		FATHO.	DIFF.
	5	2.7	2.55	2.45	—	—
		2.4			—	
	10	7.2	7.2	2.8	7.0	7.1
		7.2			7.2	
	15	11.8	11.85	3.15	11.7	11.8
		11.9			11.9	
	20	16.7	16.7	3.3	16.7	16.7
		16.7			16.7	
	25	21.5	21.5	3.5	21.5	21.45
		21.5			21.4	
	30	26.1	26.05	3.95	26.0	26.05
		26.0			26.1	
	35	30.8	30.75	4.25	30.7	30.7
		30.7			30.7	
	40	35.5	35.4	4.6	35.4	35.35
		35.3			35.3	
	45	40.2	40.2	4.8	40.0	40.05
		40.2			40.1	
	50	44.9	44.95	5.05	44.8	44.9
		45.0			45.0	
	55					
	60					
	65					
	70					
	75					
	80					

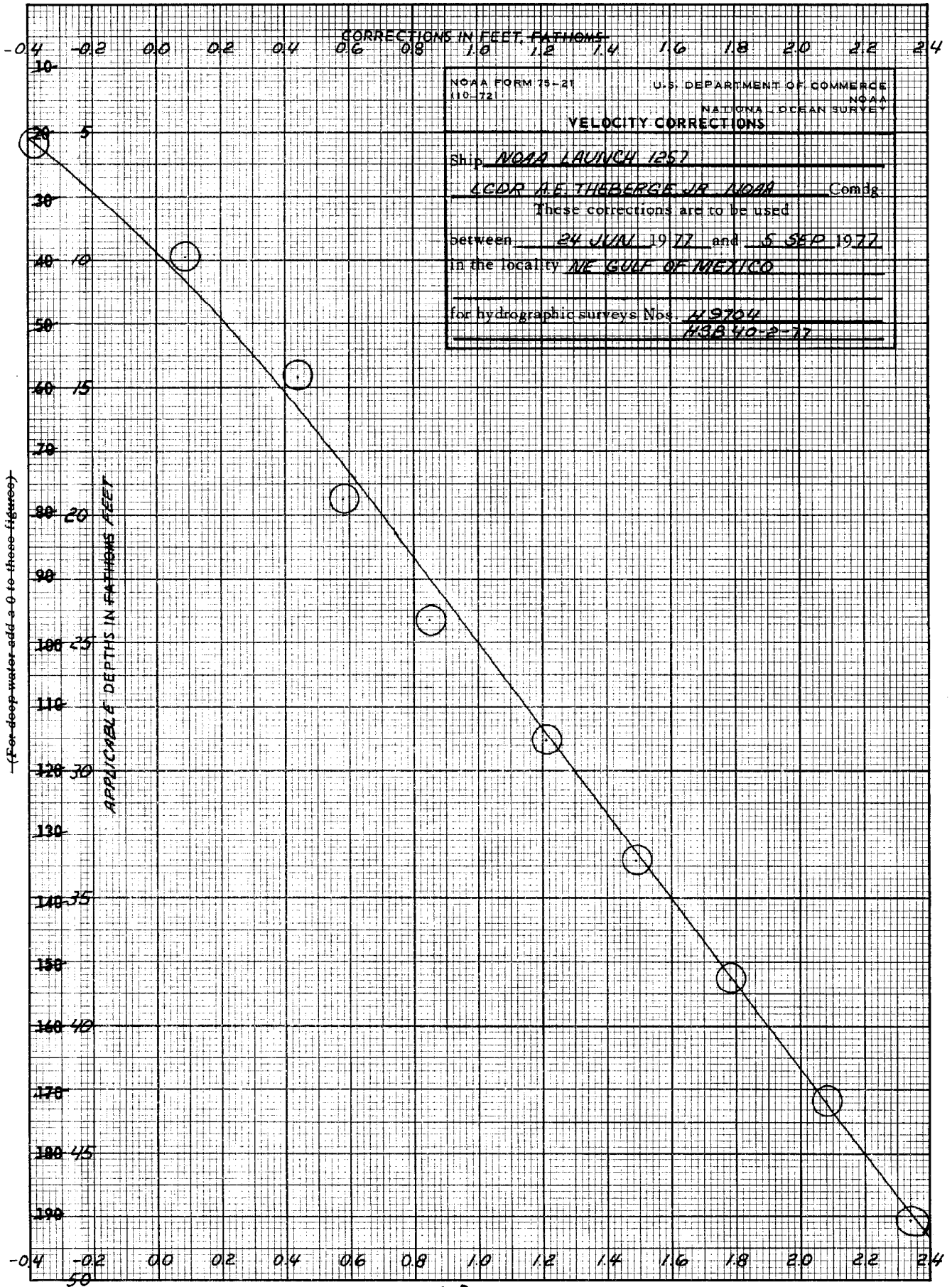
* THIS BAR CHECK RECORDED IN SOUNDING VOLUME
H-2683, HSB-40-1-77

NOAA LAUNCH 1257
 Abstract of Bar Check Corrections*
 H-9704 (HSB 40-2-77)
 24 June - 5 September 1977

True Depth (ft)	Corrections						Average Corrections (ft)
	J.D. 173	J.D. 188	J.D. 193	J.D. 210	J.D. 228	J.D. 252	
5	-0.55	-0.4	-0.35	-0.45	-0.3	-0.25	-0.38
10	0.05	0.0	0.25	0.05	0.1	0.1	0.09
15	0.3	0.4	0.5	0.35	0.65	0.45	0.44
20	0.5	0.6	0.65	0.55	0.55	0.6	0.58
25	0.7	0.9	0.9	0.9	0.9	0.8	0.85
30	1.0	1.2	1.2	1.25	1.35	1.25	1.21
35	1.25	1.5	1.45	1.5	1.7	1.55	1.49
40	1.45	1.75	1.7	1.9	2.0	1.9	1.78
45	1.85	2.15	1.95	2.15	2.3	2.1	2.08
50	2.0	2.35	2.15	2.6	2.6	2.35	2.34

* DRAFT = 2'7
 CORRECTION = TRUE DEPTH - (MEAN INSTRUMENT DEPTH + 2'7)

(Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)



(For deep water add a 0 to these figures)

APPLICABLE DEPTHS IN FATHOMS FEET

KE 20 X 20 TO THE INCH 46 1240
7 X 10 INCHES
MADE IN U.S.A.
KEUFFEL & ESSER CO.

NOAA LAUNCH 1257
Velocity Correction Table
H-9704 (HSB 40-2-77)
24 June - 5 September 1977

Applicable Depth Scaled from NOAA Form 75-21 (feet from surface)	Velocity Correction (feet)
0 - 5.7	-0.4
6.7	-0.3
7.8	-0.2
9.0	-0.1
10.3	0.0
11.5	0.1
13.0	0.2
14.5	0.3
15.9	0.4
17.5	0.5
19.2	0.6
20.8	0.7
22.5	0.8
24.2	0.9
25.8	1.0
27.5	1.1
29.2	1.2
30.8	1.3
32.5	1.4
34.2	1.5
35.8	1.6
37.5	1.7
39.2	1.8
40.8	1.9
42.5	2.0
44.2	2.1
45.8	2.2
47.5	2.3
49.2	2.4
50.8	2.5
52.5	2.6
54.2	2.7
55.8	2.8
57.5	2.9
59.2	3.0
60.8	3.1
62.5	3.2
64.2	3.3
65.8	3.4
67.5	3.5
69.2	3.6
70.8	3.7
- deeper	3.8

APPROXIMATE VELOCITY CORRECTIONS

USED FOR OFFLINE FIELD SHEET

OPR 508

HSB 40-2-77

H 9704

VESNO 1257

*For Field Sheet
USE ONLY*

000101 0 0002 0001 000 125700 020275

000145 0 0004

000183 0 0006

000225 0 0008

000265 0 0010

000307 0 0012

000345 0 0014

000389 0 0016

000427 0 0018

000468 0 0020

000510 0 0022

000553 0 0024

000593 0 0026

000633 0 0028

000672 0 0030

000715 0 0032

999999 0 0034

SIGNAL TAPE
JD 175- JD 178
OPR 508
HSB 40-2-77
H 9704
VESNO 1257

THRID PARTY, FREQ. 3306.495

001	7	29	43	36668	084	53	08295	250	0000	330650	JOHNSON RAYDIST, 1976
002	7	30	05	16124	084	09	46424	250	0000	330650	MOUND TOWER RAYDIST, 1935
101	7	30	02	25974	084	10	37552	243	0000	000000	*ST MARKS FRONT RANGE LIGHT
102	7	29	56	02168	084	18	05112	243	0000	000000	*OCHLOCKONEE BAY APPROACH LIGHT 2
103	7	29	51	18512	084	30	56865	243	0000	000000	*TURKEY POINT LIGHT 2
104	7	29	47	58892	084	41	08107	243	0000	000000	*ST GEORGE SOUND LIGHT

* USED FOR WHOLE LANE COUNT CALIBRATION

SIGNAL TAPE

JD 182- JD 248

OPR 508

HSB 40-2-77

H 9704

VESNO 1257

FIRST PARTY, FREQ. 3306.400

001	7	29	43	36668	084	53	08295	250	0000	330640	JOHNSON RAYDIST, 1976
002	7	30	05	16124	084	09	46424	250	0000	330640	MOUND TOWER RAYDIST, 1935 r 1952
101	7	30	02	25974	084	10	37552	243	0000	000000	*ST MARKS FRONT RANGE LIGHT
102	7	29	56	02168	084	18	05112	243	0000	000000	*OCHLOCKONEE BAY APPROACH LT 2
103	7	29	51	18512	084	30	56865	243	0000	000000	*TURKEY POINT LIGHT 2, 1977
104	7	29	47	58892	084	41	08107	243	0000	000000	*ST GEORGE SOUND LIGHT 1976

* USED FOR WHOLE LANE COUNT CALIBRATION

APPROVAL SHEET

SURVEY H-9704 (HSB-40-2-77)

The hydrographic records transmitted with this report are complete and adequate.

No direct supervision was given by me during field work.

This survey is complete and adequate with no additional field work recommended.

Approved and forwarded,

For *Robert Lewis*
William R. Daniels
LCDR., NOAA
Chief, HSB

January 10, 1978

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 872-8261 Alligator Point, S W Cape

Period: June 24 - September 5, 1977

HYDROGRAPHIC SHEET: H-9704 *4 H-9683*

OPR: 508

Locality: Florida west coast, offshore from St. George Island
(Gulf coast low water datum):

Plane of reference (~~mean low water~~): 1.82 ft.

Height of Mean High Water above Plane of Reference is
2.4 ft.

Remarks: Recommended zoning:

(1) West of 84°42'

Range ratio
x0.70

(2) East of 84°42'

x0.80

Don Spill

Chief, Tides Branch

APPROVAL SHEET
FOR
SURVEY H-9704

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has ~~has not~~ been made. A new final sounding printout has ~~has not~~ been made.
- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the Verifier's Report.

Date:

6/21/78

Signed:

Harry R. Smith

Title: Chief, Verification Branch

GEOGRAPHIC NAMES

H-9704

Name on Survey	A	B	C	D	E	F	G	H	K
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST	

DOG ISLAND (TITLE)										1
EAST PASS										2
GULF OF MEXICO										3
ST. GEORGE ISLAND (TITLE)										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
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APPROVED

Chas. E. Harrington

CHIEF GEOGRAPHER - C3XB

28 JULY 1978

HYDROGRAPHIC SURVEY STATISTICS

H-9704

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	2
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS	2

DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	2					1-misc. data
CAHIERS	2 with printouts		1			
VOLUMES	1					
BOXES			1-Smooth*			

T-SHEET PRINTS (List) # with 3 bundles of sawtooth rec. & Sndg. vols.

SPECIAL REPORTS (List)

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE- VERIFICATION	VERIFICATION	TOTALS
POSITIONS ON SHEET			3674
POSITIONS CHECKED	365	451	
POSITIONS REVISED		10	
SOUNDINGS REVISED		514	
SOUNDINGS ERRONEOUSLY SPACED		5	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS		53	
VERIFICATION OF SOUNDINGS	3	49	
COMPILATION OF SMOOTH SHEET		24	
APPLICATION OF TOPOGRAPHY		0	
APPLICATION OF PHOTOBATHYMETRY		0	
JUNCTIONS		10	
COMPARISON WITH PRIOR SURVEYS & CHARTS		7	
VERIFIER'S REPORT		3	
OTHER		5	
TOTALS	3	151	154

Pre-Verification by B. Keene, J. Wilson, K. Ainsley	Beginning Date 11/14/77	Ending Date 05/08/78
Verification by J. Bradford	Beginning Date 05/28/78	Ending Date 06/13/78
Verification Check by G. Trefethen	Time (Hours) 3	Date 06/14/78
Marine Center Inspection by Hydrographic Inspection Team (AMC)	Time (Hours) 10	Date 06/20/78
Quality Control Inspection by <i>R. H. Wellman</i>	Time (Hours) 27	Date 7-28-78
Requirements Evaluation by <i>J. Baungrader</i>	Time (Hours) 2	Date 9-27-78

✓ HLM

REGISTRY NO. _____

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

REGISTRY NO. H-9704

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 12/4/80 TIME REQUIRED _____ INITIALS YER

REMARKS:

c. The development of the bottom configuration and investigation of least depths ~~is~~ ^{are} considered adequate.

4. Condition of Survey

The sounding records, smooth sheet and accompanying overlays, hydrographic records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual. (See Q.C. Report-item 2)

5. Junctions

An adequate junction was effected with the following contemporary survey:

H-9683 (197⁷) 1:40,000 to the east

Surveys H-6784 (1942) and H-7723 (1948) join H-9704 (1977) but are not considered contemporary surveys; therefore, no effort has been made to join these surveys together. A general agreement within one to four feet was noted between the present survey (H-9704) and the prior surveys (H-6784 and H-7723) within the common area. (See Q.C. Report-item 3)

6. Comparison With Prior Surveys

(See Q.C. Report-item 4 a)

a.	H-1156	1:20,000	(1872)	H-1509 (1882) 1:10,000 - 1:20,000 H-5795 (1934-35) 1:10,000 H-5867 (1935) 1:20,000 H-6784 (1942-43) 1:40,000
	H-1184	1:40,000	(1873)	
	H-7723	1:100,000	(1948)	
	H-7818	1:100,000	(1950)	

These surveys, taken together, cover the common area of the present survey. A comparison of the present survey with the prior surveys reveals the depths to be in harmony; however, differences of 3 to 8 feet shoaler prior survey soundings in the northern portion of the sheet are listed below. (See Q.C. Report-items 4 b and 4 c)

<u>Prior Survey Depths</u>	<u>Location</u>	<u>Least Depth From H-9704</u>
14'	29° 41.26' 84° 45.20'	22'
18'	29° 41.50' 84° 44.85'	25'
20'	29° 41.70' 84° 44.50'	25'

<u>Prior Survey Depths</u>	<u>Location</u>	<u>Least Depth From H-9704</u>
22'	29° 41.90' 84° 44.10'	25'
20'	29° 39.65' 84° 48.30'	12'
18'	29° 38.40' 84° 48.72'	13'

b. H-655 1:20,000 (1858) H-734 (1860) 1:20,000
~~H-1509 1:10,000 (1852)~~ H-1354 (1875-76) 1:600,000

These surveys also cover portions of H-9704. H-655 and H-1509 were not available at the time of verification; however, the field did make a comparison and no major differences were noted.

No comparisons with these early or small scale surveys are necessary.

The 15-foot dropoff mentioned in the Descriptive Report under Section P (Miscellaneous) is located in the vicinity of latitude 29° 33.00', longitude 84° 45.40' and is considered an important feature inasmuch as it is unnatural to the flatness of the surrounding area. (See Q.C. Report-item 5)

Considering the concentration of hydrography and the accuracy of the modern survey equipment no soundings have been brought forward from prior surveys.

The present survey is adequate to supersede the prior surveys within the common areas.

7. Comparison With Charts 11404 (8th Edition, June 11, 1977)
 11401 (15th Edition, January 31, 1976)
 11405 (13th Edition, November 8, 1975)

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys and a reported charted feature (Presurvey Review item #10, Obstr. rep. PD).

Presurvey Review, OPR-508, dated September 26, 1972 lists Presurvey Review item #10 and two dashed-circled 36-foot soundings. Presurvey Review item #10 originates with local Notice to Mariners No. 15 of 1969, and reports a least depth of 15 feet at latitude 29° 44.6', longitude 84° 39.15'. Fathograms were inspected by both the hydrographer and the verifier; no indication of this 15-foot obstruction was noted. Before recommending

that this feature be deleted from the charts a more thorough investigation should be performed.

The two dashed-circled 36-foot soundings charted within the limits of H-9704 are in good agreement. A least depth of 37 feet was obtained at latitude $29^{\circ} 42' 19''$, longitude $84^{\circ} 36'$ and a 36-foot agreement was noted at latitude $29^{\circ} 48.36'$, longitude $84^{\circ} 31' 57''$.

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

b. Aids to Navigation

Four floating aids to navigation were located on the present survey and are in good agreement with their charted positions.

St. George Sound Light* and Turkey Point Light 2 were used for calibrations and were shown on the smooth sheet as cartographic code 139. * Revised to cartographic code 243. (See Q.C. Report-item 1c)

8. Compliance With Instructions

This survey adequately complies with the Project Instructions.


9. Additional Field Work


This is an excellent basic survey. Additional field work is not recommended.


Inspection Report
H-9704

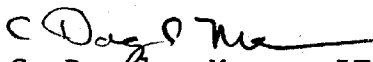
Any verification errors regarding procedures and presentation of survey data detected during inspection by the Hydrographic Inspection Team have been corrected before submission for administrative approval. HIT comments regarding quality of field work, compliance with instructions, and adequacy of the survey have been incorporated within the Verifier's Report.

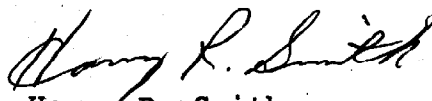
Examined and Approved:
Hydrographic Inspection Team
Date:


Robert A. Trauschke, CDR, NOAA
Chief, Processing Division

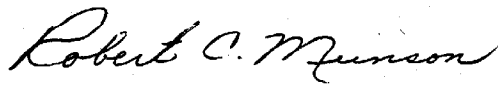
ASST

Charles H. Nixon, CAPT, NOAA
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Harry R. Smith
Team Leader
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Approved/Forwarded


Robert C. Munson
RADM, NOAA
Director, Atlantic Marine Center



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352/KWW

July 28, 1978

TO: *R.H. Carstens*
For A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: K. W. Wellman *K.W. Wellman*
Quality Evaluator

SUBJECT: Quality Control Report for H-9704 (1977), Florida, Northwest Coast, Off St. George Island and Dog Island

A quality control inspection of H-9704 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths and navigation hazards, junctions, verifier's decisions and actions, and cartographic presentation of data.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as discussed in the Verifier's Report, the HIT Report, and as follows:

1. The following deficiencies relative to control stations shown on the smooth sheet are noted:

a. The reference station shown in Stamp #42 on the smooth sheet was improperly identified as "Mound Tower Raydist 1935." The term "Raydist" is not a part of the name of the station and should not have been included.

b. The years of establishment for control stations 103 and 104 (symbolized as triangulation stations during verification) were not included on the smooth sheet as required by section 7.3.3.1 of the Hydrographic Manual.

c. Control stations 001 and 104 are considered to have been mistakenly identified as triangulation stations during verification. The Geodetic Survey Information Center has no record of these stations. These stations were appropriately shown as hydrographic stations; i.e., cartographic code 243; during quality control.

2. Section 4 of the Verifier's Report is supplemented by the following:



. . . Hydrographic Manual except that section K of the Descriptive Report does not mention Presurvey Review item 10. This item was apparently investigated during the survey and, therefore, should have been discussed in the aforementioned section. (See sections 2.3.3 and 5.3.4(K) of the Hydrographic Manual--Fourth Edition.)

3. A brief comment referencing areas where no contemporary surveys junction the present survey is customarily included in the Verifier's Report. Section 5 of the Verifier's Report is lacking any such comment and is supplemented by the following:

Present depths are in general harmony with charted depths on the north, south, and west where no contemporary surveys junction the present survey.

4. Reference section 6 a of the Verifier's Report:

a. Several prior surveys covering portions of the present survey were not mentioned in the Verifier's Report. These surveys were considered during quality control.

b. The general comment that depths are in harmony is considered misleading. Further, there is no specific indication that the prior surveys listed in the referenced section are superseded. (See sections 6.3.7.1 and 6.6(11) of the Hydrographic Manual--Fourth Edition.)

The corresponding portion of the general text of section 6 a of the Verifier's Report is superseded by the following:

. . . prior surveys reveals a variable pattern of depth differences generally within a range of ± 2 to 3 feet, with scattered depth differences of as much as ± 10 feet. The noted depth differences are attributed to natural causes and to the less detailed and less accurate methods employed on the prior surveys. The present survey is adequate to supersede the prior surveys within the common area.

c. A general statement concerning the range of depth differences noted would have been sufficient. Specific references to general localities and associated depth differences such as those included in the referenced section of the Verifier's Report are considered unnecessary.

5. Reference section 6 b of the Verifier's Report:

No drop-offs of the indicated magnitude are noted in the area of the present survey. The local relief in the vicinity of the indicated position is approximately 10 feet.

6. Geographic names should have been lettered "lightly in pencil" on the smooth sheet during verification. (See section 7.3.12.3 of the Hydrographic Manual--Fourth Edition.) The necessary names were added to the smooth sheet during quality control inspection.

cc:
C35
C351

