9734

Diag. Cht. No. 1263-1

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-20-4-77

Office No. H-9734

LOCALITY

State .... Florida

General Locality .... Northwest Coast

Locality .... West of St. Joseph Spit

1977-78

CHIEF OF PARTY
William R. Daniels, Thomas W. Richards

LIBRARY & ARCHIVES

DATE .... March 9, 1979

9734

[illegible]EA-4
[illegible]
11[illegible]0L-1262 ✓
11[illegible]89-1263 ✓
11[illegible]/13-867
[illegible]0-1115
[illegible]00-114
[illegible]6-1403
[illegible] -1067 NC

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

NOAA FORM 77-28
(11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-9734

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-20-4-77

State: FLORIDA

General locality: Northwest Coast

Locality: West of St. Joseph Spit

Scale: 1:20000

Date of survey: 12-2-77- 4-14-78

Instructions dated: Sept. 9, 1977 *

Project No.: OPR-521-HFP-77 (~~X~~J217)

Vessel: NOAA Launch 1257

Chief of party: William Daniels, LCDR, NOAA; Thomas W. Richards, LCDR, NOAA

Surveyed by: Michael F. Kolesar, LCDR, NOAA

Soundings taken by echo sounder, [redacted], [redacted]: Raytheon 723-D

Graphic record scaled by: MK, GL, GM, GH, LP

Graphic record checked by: MK

PDP8/E(Field Sheet)

Protracted by:

Automated plot by: ~~AMC-CALCOMP 618~~ XYN - 1201

Verification by: Doug [illegible]

Soundings in ~~fathoms~~ feet at ~~MLW~~ ~~MLLW~~ Gulf Coast Low Water Datum

REMARKS: * Change No. 1 - 9/15/1977

Change No. 2 - 12/21/1977

Change No. 3 - 12/21/1977

~~Change No. 4 - 6/15/78~~

MK, Michael Kolesar; GL, George Lloyd; GM, Gary Merrill;

LP, Louis Podleiszek; GH, Glen Hendrix

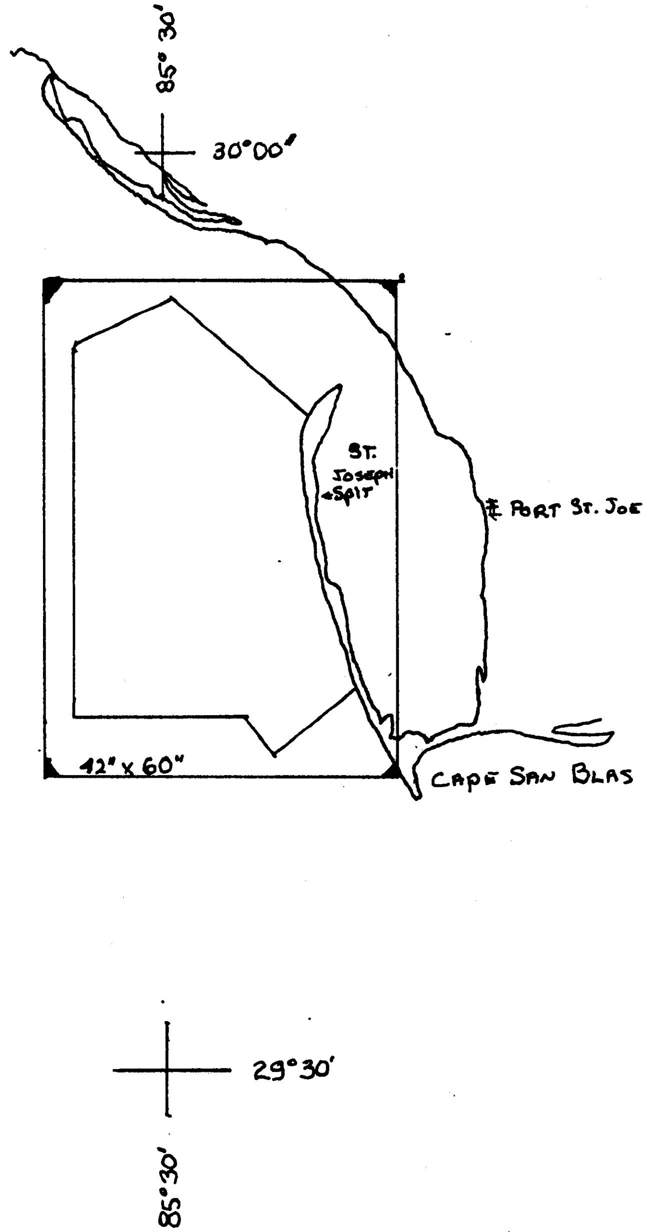
Appd to standards
5-16-79 WJL

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

☆ U.S. GPO: 1974-0-768-081/1207

CAPE ST. GEORGE
TO
MISSISSIPPI PASSES
CHART 11360

OPR-521
H-9734
HSB-20-4-77



DESCRIPTIVE REPORT
To Accompany
HYDROGRAPHIC SURVEY
H-9734 (HSB-20-4-77)

Scale - 1:20,000 (1977-78)
Chief of Party: William Daniels, LCDR
Thomas W. Richards, LCDR
Officer-in-Charge: Michael F. Kolesar, LCDR

A. PROJECT

This project was accomplished under Project Instructions OPR-521-HFP-77, Gulf of Mexico, September 9, 1977, (now OPR-J217). The instructions were amended by Change No. 1, September 15, 1977; Change No. 2, December 21, 1977; Change No. 3, December 21, 1977, ~~and Change No. 4, June 15, 1978~~.

B. AREA SURVEYED

The area surveyed was seaward of the 3 fathom curve west of St. Joseph Spit, Florida, bounded by the following points:

	Latitude	Longitude
1.	29-42-30	85-23-21
2.	29-40-00	85-26-00
3.	29-41-36	85-27-00
4.	29-41-36	85-33-12
5.	29-53-48	85-33-12
6.	29-55-12	85-29-30
7.	29-51-12	85-25-06
8.	29-50-48	85-25-12

The survey was conducted from December 2, 1977, through April 14, 1978.

C. SOUNDING VESSEL

All sounding on this survey was accomplished by NOAA Launch 1257 (VESNO 1257).

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon sounding equipment was used during the survey:

Recorder - Model DE723-40
S/N - 2042

Electronic Cabinet Unit - Model 723-42
S/N 1910

Digital Depth Monitor - Model 723-41
S/N 2772

Historic settlement and squat values were used for the survey. Static draft was 2.7 feet and underway at 1850 RPM was 2.4 feet. Draft correctors are applied on the corrector tapes. All hydro was run at 1850 RPM.

Velocity corrections were determined by bar check and a Martek Model #101-10, S/N 477. Bar checks and TDC's from this survey and H-9735 (HSB-20-5-77) were grouped together and averaged as the surveys were run concurrently in adjacent waters.

Bar checks and TDC's were separated into three groups as significant variation of water temperature with time was noted. The groups are dated as follows:

Velocity Table 1 - Day 346 (1977) - 012 (1978)
Velocity Table 2 - Day 030 (1978) - 046 (1978)
Velocity Table 3 - Day 058 (1978) - 104 (1978)

Table 1 bar check data was supplemented using TDC cast data from Day 087. Bar check data from Day 087 correlated closely with the bar check data from the period 346 (77) through 012 (1978). It is believed that the 087 TDC curve, although taken in March, is representative of the water conditions during the earlier period.

Table 2 bar check data was supplemented by a TDC cast on Day 046 (1978).

Table 3 bar check data was supplemented with TDC cast data taken on Day 093 (1978). Three TDC's taken on Days 087, 093, and 117 average very closely to Day 093. The maximum difference from the average is 0.2 feet at 100 feet.

Velocity Tables 1, 2, and 3 shown in the Appendix were constructed from the TDC curves. Instrument correction for differences between bar checks and TDC data are shown in the Appendix on the Sounding Correction Abstract.

Field sheets were plotted using the "Approximate Velocity Corrections" shown in the Appendix. These curves are shown on the Velocity Corrections Graph as the bar check curve extended by the TDC cast data.

TDC computations are included in the Appendix.

TDC casts were taken as follows:

Day 046	(2/15/78)	Lat. 30-03	Long. 85-39
Day 087	(3/28/78)	Lat. 29-42	Long. 85-43
Day 093	(4/3/78)	Lat. 29-50	Long. 85-32
Day 117	(4/27/78)	Lat. 30-07	Long. 85-53

E. HYDROGRAPHIC SHEETS

Field sheets were prepared using a PDP 8/e and Calcomp plotter. Four plotter sheets "A", "B", "C" and "D" were used to cover the area. Main scheme hydro, junction soundings, charted soundings, and prior survey soundings are plotted on one set of sheets while developments, sounding densifications, and bottom samples are plotted on an overlay.

Verification and smooth plotting will be accomplished by Processing Division, Atlantic Marine Center, Norfolk, Virginia.

F. CONTROL STATIONS

Raydist control locations are as follows:

Left (Red) H-2-FL-77 (1977)
Lat. 30-07-49.386
Long. 85-44-29.936

Right (Green) Gulf Sands Raydist (1977) unmonumented
Lat. 29-54-28.363
Long. 85-22-11.433

Both stations were established using Third Order Class I survey methods by Operations Division, AMC.

G. HYDROGRPAHIC POSITION CONTROL

Control for this survey was supplied by a Hastings Raydist DR-S system operating in the range-range mode. No known difficulties were experienced that would have degraded the system's position accuracy.

Shore station equipment used throughout the survey is as follows:

Left (Red): Raydist Model AA-60
S/N 84

Right (Green) Raydist Model AA-60
S/N 69

Launch equipment:

Navigator:	Raydist Model ZA67 S/N 67
Transmitter:	Raydist Model TA96 S/N 86
Antenna Loading Coil:	Raydist Model QB52 Day 342-031 S/N 194 Day 035-104 S/N 81

The Raydist net required that some hydro be performed in a land shadow area of St. Joe Spit. Calibrations for this area were accomplished at the south end of St. Joe Spit within the land shadow area. Calibrations for hydrography run in areas not within the land shadow were accomplished outside the shadow at the north end of the spit.

All calibrations were accomplished using three point sextant fixes with a right or left check angle. Computations were done by Program RK 561. An abstract of corrections is included in the Appendix. All calibration points were third order control. The list of signals is included in the Appendix.

H. SHORELINE

There was no shoreline delineated on this survey.

I. CROSSLINES

Crosslines constitute 9.3% of main scheme hydro. No crosslines were run in the extreme southeast corner of the survey due to the extreme irregularity of the bottom.

Crossline agreement in all cases was very good with agreement of less than one foot in most instances. The greatest disagreement of two feet was found in the inshore area just off St. Joe Spit in areas of extremely irregular bottom. concur

J. JUNCTIONS See Verifier's Report

Junctions with the following five surveys were made:

H-6786, 1:20000, (1942-43): Junction with this survey is excellent with junctions within one foot. The bottom is very irregular in this area. ~~concur~~ do not concur 7PS
Conflicts in depths are generally attributed to shifting bottom features. A butt junction was made, the present survey supersedes H-6786 within the common area.

Conflicts in depths of 1 to 5 ft, with present survey depths generally shoaler than H-6785 depths, necessitated a butt junction. The present survey supersedes H-6785 in the overlap area. JPS

H-6785 (1942-43), 1:40000: Junction with this survey is good with agreement within two feet. The bottom is irregular in this area. ~~concur~~

H-7723, (1948-50), 1:100,000: Junction with this survey is fair with agreement generally within three feet. The bottom is irregular in the inshore area. Agreement in the offshore area in smooth bottom is generally within two feet. ~~concur~~

~~H-7723 Butt junction made in inshore areas because of conflict~~ H-9734 supersedes this portion of H-7723

H-7631 (1947), 1:40000: Junction with this survey is excellent with agreement within one foot in most areas and within two feet in isolated irregular areas. concur JPS

H-7631 junctional area superseded by H-9883 (1980) RWD 5/82

H-7633 (1947), 1:40000: Junction with this survey is excellent with agreement within one foot. concur

H-7633 junctional area superseded by H-9915 (1980) RWD 5/82

K. COMPARISON WITH PRIOR SURVEYS

See Verifier's Report

The area surveyed is covered by Prior Surveys H-1265A and H-1511b. Although requested, neither of these surveys was available from the archives, so no comparison could be made.

L. COMPARISON WITH THE CHART

Chart No.: 11389
Edition: 17
Date: April 23, 1977.

Charted soundings are shown in red on the field sheet. Agreement in general is good with agreement within two feet in most instances. Specific areas are discussed below.

The numbered developments listed below are also plotted and numbered on the overlay sheet.

Dev. #1 Lat. 29-54.7, Long. 85-30.2
(Obstr PA-charted from CL-1814 of 1976)

PSR Item #1 reported to be ~~a~~ car bodies which floated away during creation of a fish haven. One hundred meter spacing was run in an area 1000 meters by 1000 meters surrounding the reported position. No indication of the car bodies ~~was found.~~ or reef were found. concur JPS

Recommendation: Retain charted obstruction. ~~Change "PA" to "PD".~~

Dev. #2 Lat. 29-53.77, Long. 85-30.70

A spurious trace was observed on the fathogram between Pos. 2732 and 2733. This line was rerun and nothing was found. This spurious trace is considered disproved. concur JPS

PSR Item # 1

Dev. #3 Lat. 29-53.2 to 29-55.1, Long. 85-32

A fish haven lies oriented north-south in this area. Fifty meter lines were run on the axis of the fish haven. Nothing was found.

Recommendation: Retain fish haven in charted position. concur APS

Dev. #4 Lat. 29-52.9, Long. 85-34.1 Charted Obstr, PA
PSR #1 See C. Critique, Item 1

Same as Development No. 1

Dev. #5 Lat. 29-53.4, Long. 85°29.2

Various spurious traces and fish indications were found on three adjacent main scheme lines in this area. Main scheme lines were split to 100 meters and a line run down the axis. Nothing was found during the additional work. These spurious traces are considered disproved. concur APS

Dev. #6 Lat. 29-53.45, Long. 85-29.9

A 34-foot charted from H1511b (1882) sounding is shown at this position. One hundred meter line spacing was run over the area. Least depth found was 36 feet. It is recommended that the present survey's 36-foot sounding be charted here. Concur APS

Dev. #7 Lat. 29-51.15, Long. 85-31.05

A 54-foot charted sounding from H-1511b (1882) is shown at this position. One hundred meter spacing was run over the area. Least depth found was 56 feet. It is recommended that the present survey's 56-foot sounding be charted here. Concur APS

54-ft- 210 meters - N.E. on present survey

Dev. #8 (Obstr. P.A. ~~Charted from CL 1814 (1976)~~
Lat. 29-50.4, Long. 85-28.7 - PSR ITEM #1)

Lat. 29-50.4, Long. 85-29.3 - FISH HAVEN

no indication of obstructions found APS

Same as Development #1

Dev. #9 Lat. 29-49.90, Long. 85-27.32 H-1265a (1875)

A 26-foot charted sounding from ~~H-1511b (1882)~~ is shown at this position. One hundred meter spacing was run. Least depth found was 2~~8~~9 feet. It is recommended that the present survey's 2~~8~~9-foot sounding be charted. concur ✓JPS

✓ Dev. #10 Lat. 29-49.55, Long. 85-27.50

A 28-foot charted sounding from H-1511b (1882) is shown at this position. One hundred meter spacing was run. Least depth found was 3~~0~~1 feet. It is recommended that the present survey's 3~~0~~1-foot sounding be charted. concur ✓JPS

✓ Dev. #11 Lat. 29-47.90, Long. 85-30.0

A 61-foot charted sounding from H-1511b (1882) is shown at this position. One hundred meter spacing was run. Least depth found was 64 feet. It is recommended that the present survey's ~~64-foot~~ soundings be charted. concur ✓JPS

✓ Dev. #12 Lat. 29-4~~1.90~~4.0', Long. 85-32.75

A 7~~8~~2-foot charted sounding from an undetermined source is shown at this position. One hundred meter spacing was run ~~300 meters north~~ of chtd 72'. Least depth found was 7~~4~~3 feet. It is recommended that the present survey's 7~~4~~3-foot sounding be charted. concur JPS

✓ Dev. #13 Lat. 29-46.75, Long. 85-28.45

A 46-foot sounding was found while running main scheme lines, which lies outside the 8 fathom curve. One hundred meter spacing was run in the area. Nothing shoaler was found.

It is recommended that the present survey's 46-foot sounding be charted. concur ✓JPS

✓ Dev. #14 Lat. 29-45.60, Long. 85-27.30

A charted sounding of 39 feet is shown at this position. One hundred meter spacing was run. Depths of 40-41 feet were found. It is recommended that the present survey's 40-foot sounding be charted. concur 39 ft. on present survey 200 meters east of chtd 39 ft. JPS

Dev. #15 Lat. 29-44.9, Long. 85-28.5

A charted sounding of 51 feet from H-1511b (1882) is shown in this area. One hundred meter line spacing was run. The least depth found in the area was 54 feet. A ~~50~~ 49-foot sounding was found 0.3 miles to the east.

It is recommended that the 51-foot sounding on the chart be deleted in favor of the ~~50~~ 49-foot sounding at Lat. 29-44.92, Long. 85-28.15. concur gps

Dev. #16 Lat. 29-44.70, Long. 85-27.75

Irregular depths ~~curves~~ were found in this area. One hundred meter spacing was run. A least depth of 45 feet was found at Lat. 29-44.76, Long. 85-27.80. It is recommended that this 45-foot depth be charted. concur gps

Dev. #17 Lat. 29-43.35, Long. 85-30.80

This is the center of a large ~~shoal~~ rise. One hundred meter spacing was run in the area. A least depth of 66 feet was found.

It is recommended that the 66-foot sounding be charted. concur gps

Dev. #18 Lat. 29-42.75, Long. 85-31.48

This position is the shoalest point of a large horsehoe-shaped ~~shoal~~ rise. The least depth found was 66 feet.

It is recommended that the 66-foot sounding be charted. concur

Dev. #19 Lat. 29-42.35, Long. 85-30.15

A charted sounding of 73 feet is shown at this position. One hundred meter line spacing was run. The area was found to be a trough with depths from 75 to 7~~7~~6 feet. Seventy-three foot depths do exist to the east and west.

It is recommended that present depths be charted ~~the 73-foot charted sounding be changed to 77 feet to show the deep~~. concur

Dev. #20 Lat. 29-41.8', Long. 85-28.75'

A charted 63-foot sounding is shown in this area. One hundred meter spacing was run. Least depth found in the area was 63 feet.

It is recommended that the 63-foot sounding be retained but recharted at Lat. 29-41.72', Long. 85-29.42'. concur

Dev. #21 Lat. 29-41.73', Long. 85-27.8'

A charted sounding of 49 feet and junction sounding of 51 feet exist in this area. 50 meter spacing was run. Least depth determined in area was ~~54~~ 53 54 feet. Bottom was regular.

Recommend delete the 49-foot charted sounding and chart 54-foot sounding from current survey.
concur
FPS

Dev. #22 Lat. 29-42.75', Long. 85-27.35'
Nothing abnormal here - FPS
Irregular depths ~~contours~~ were found in this area. 100 meter spacing was run. Nothing significant was found and the depths ~~curves~~ should be charted as found during the present survey.

Dev. #23 Lat. 29-44.55', Long. 85-29.25'

A charted sounding of 64 feet is shown in this area. 100 meter spacing was run and depths of 66 to 70 feet were found by the present survey. 64-foot depths exist just .35 mile to the east-northeast.

It is recommended that the 64-foot sounding be deleted in favor of the ~~soundings~~ found during the present survey. ~~67 foot~~ soundings

Dev. #24 Lat. 29-45.~~1~~6 3', Long. 85-28.04'
(1ft.)
Irregular depths ~~curves~~ were found in this area. 100 meter spacing was run. A least depth of 48 feet was found.

It is recommended that the 48-foot depth be charted. concur

Dev. #25 Lat. 29-49.3, Long. 85-25.65

A 25-foot sounding was found on a crossline. The area was split to 100 meters and the sounding was confirmed. concur

Dev. #26 Lat. 29-49.66, Long. 85-26.0

A spurious trace was observed between Pos. 409 and 410. The area was split to 50 meters and nothing was found.

The spurious trace is considered disproved.

Dev. #27 Lat. 29-48.58, Long. 85-25.46

Found spike or fish at Pos. 447, split area to 50 meter line spacing and found nothing. The spurious trace is considered disproved.

Dev. #28 29-48.27, Long. 85-26.25

A 26-foot charted sounding from H-1265a (1875) is shown. 100 meter spacing was run. Many 26-foot soundings were found within .2 mile of the charted sounding.

It is recommended that the 26-foot sounding be charted where found on the present survey. concur

Dev. #29 Lat. 29-47.88, Long. 85-26.40

Numerous suspected fish were recorded on the fathogram. The area was split to 50 meters. Nothing was found. The assumption that these traces were fish was confirmed.

Dev. #30 Lat. 29-47.72, Long. 85-25.6

Same as Development No. 29

Dev. #31 Lat. 29-47.5, Long. 85-25.7

Same as Development No. 29

Dev. #32 Lat. 29-46.8, Long. 85-26.8

A 34-foot charted sounding from H-1511b (1882) is shown in this area. 100 meter spacing was run. A 34-foot sounding was found .15 mile east-southeast of the charted sounding.

It is recommended that the 34-foot sounding be recharted at Lat. 29-46.75, Long. 85-26.60. concur

Dev. #33 Lat. 29-47.15, Long. 85-25.7

The 5 fathom curve is irregular in this area. Splits to 100 meters were run to adequately delineate the area.

It is recommended that the 5 fathom curve be charted as found on the present survey. concur

Dev. #34 Lat. 29-46.2, Long. 85-25.~~1~~ 0

A 22-foot shoal was found in the area during the survey. 100 meter spacing was run to delineate the shoal. The least depth found was 22 feet.

It is recommended that the 22-foot shoal sounding be charted. concur

The area bounded by St. Joe Spit on the east, Long. 85-27.0 on the west, 29-40 on the south, and 29-48 on the north, is an area of extremely irregular bottom. In many areas, 100 meter spacing was run in order to better delineate the bottom. Consequently, the whole area looks like a development. Agreement between charted soundings, prior survey soundings and junction soundings is poor. Often significantly shallower soundings than charted were found during the present survey in close proximity to the charted soundings. The prior survey was of 1875 vintage and it is obvious that leadline depths were used. Since the whole area was well developed during the present survey, it is recommended that all charted soundings should be discarded in favor of the new data. A note as to the irregularity of the bottom should be placed on the chart in this vicinity. Note not necessary

JPS

The chart shows a sounding of 59 feet at Lat. 29-52.4, Long. 85-31.3. Soundings from this survey indicate that depths are 48 to 51 feet in the area. It is recommended that the charted sounding be dropped in favor of the shoaler soundings found during this survey. concur

M. ADEQUACY

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

N. AIDS TO NAVIGATION See Verifier's Report

The following aids to navigation are located in the area covered by this survey. Their surveyed positions and positions published in the U.S. Coast Guard Light List, Vol. II, 1978, are appended. (Page ~~66~~ 149) OK

These aids adequately serve the purpose for which they were established.

O. STATISTICS

Total Number of Positions	3040
Nautical Miles Sounding Line	928
Nautical Miles Crossline	86
Nautical Miles Development	74
Total Nautical Miles Hydrography	1088
Square Nautical Miles Hydrography	99
Number of Bottom Samples	83
Bar checks	13
TDC casts	4

P. MISCELLANEOUS

The significant item found during this survey is the east-west ridges and troughs found at the south end of St. Joe Spit. It should be noted that on virtually every day that the vessel was in the area, a current of at least one knot with a north-northwesterly set was observed.

Numerous questionable traces interpreted as fish were investigated by split lines, No traces were confirmed as bottom features

Q. RECOMMENDATIONS

1. Because of the age of the prior surveys, (1875 and 1882), it is recommended that this entire survey be carefully reviewed and a new edition of Chart 11389 be produced on the basis of this survey.

2. The remaining inshore area covered by Prior Survey 1265a should be resurveyed by a small launch at the earliest opportunity.

R. AUTOMATED DATA PROCESSING

Program Number	Name	Version Date
RK 111	R/R Real Time Plot	1-30-76
RK 201	Grid Signal & Lattice Plot	4-18-75
RK 211	R/R Non-Real Time Plot	1-15-76
RK 300	Utility Computations	2-10-76
PM 360	Elect. Corrector Abstract	2-2-76
AM 500	Predicted Tide Generator	11-10-72
RK 530	Velocity Corrections Comp.	5-10-76
RK 561	R/R Calibration	2-19-75
AM 602	Elinore	5-20-75

S. REFERENCE TO REPORTS

Control Report, OPR-521-HFP-77 - Gulf of Mexico

Respectfully submitted,

Robert Lewis

for Michael F. Kolesar, LCDR, NOAA
Officer-in-Charge
NOAA Launch 1257

FIELD TIDE NOTE

Field tide reduction of soundings was based on predicted tides from St. Andrew Bay Entrance, Florida. The control gage is located at Pensacola, Florida.

Smooth tide correctors will be obtained from Cape San Blas Tide Station (#872-8942) and Panama City Beach Tide Station (872-9189).

The Cape San Blas station was installed and maintained for the period of this survey by Servitron, Inc., Baton Rouge, Louisiana, for the Florida Department of Natural Resources.

The Panama City Beach Station (ADR) was installed and maintained by the Florida Department of Natural Resources through early April, 1978. The gage was removed due to silting. This party installed a bubbler gage and staff at the location on April 12, 1978. This gage was operational during the rest of the project.

Data from these stations has been forwarded to NOS, Tides Division, Rockville, Maryland.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Hydrographic Surveys Branch
439 W. York Street
Norfolk, Virginia 23510

June 8, 1978 CAM11/RAL

TO: Chief, Tides Branch, C331

FROM: Lcdr Thomas W. Richards
Chief, HSB

SUBJECT: Request for tide data

Please furnish smooth tide correctors and zoning information to AMC, Processing Division, CAM3 for Survey H-9734 (HSB-20-4-77), Project OPR-521-HFP-77 (OPR-K217-HFP-78).

Field Tide reduction of soundings was based on predicted tides from Pensacola corrected to St. Andrew Bay Entrance.

Smooth tide correctors should be obtained from Tide Station #872-8942 at Cape San Blas #872-9189 at Panama City Beach.

The following times of hydrography include two hours before and after actual times:

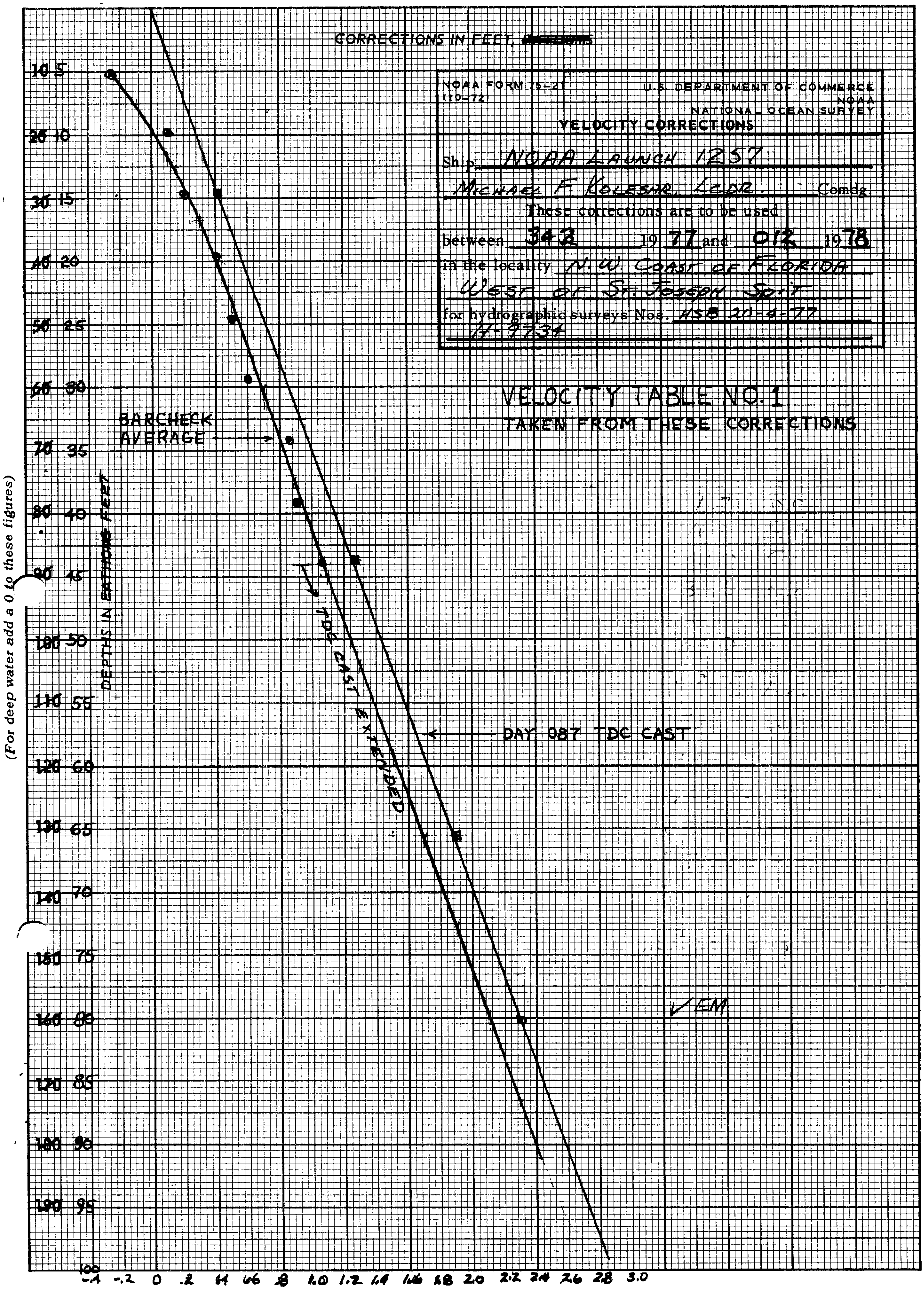
Julian Day	Hydro Begins (GMT)	Hydro Ends (GMT)
1977		
336	1400	2200
337	1600	2300
342	1300	2300
346	1300	2400
1978		
005	1500	2300
006	1500	2300
011	1400	2300
012	1400	2300
030	1400	2200
031	1400	2300
035	1400	2300
065	1600	2300
080	1400	2300
083	1500	0100 (084)
087	1400	0100 (088)

AVERAGE OF BARCHECK ABSTRACTS

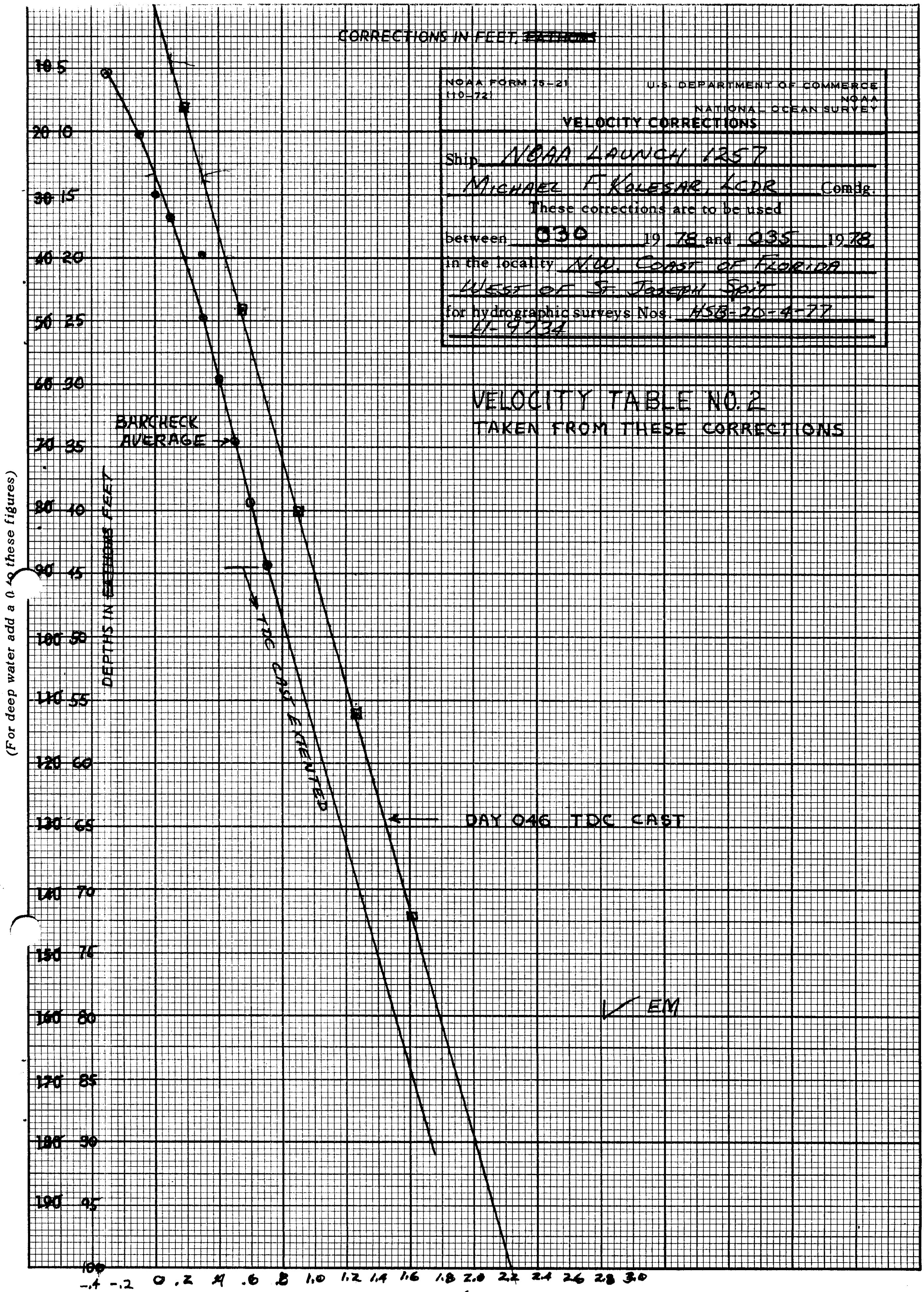
HSB — 20-4-77 (H-9734)
HSB 20-5-77 (H-9735)

	J.D. 342 (77) - 011 (78)		J.D. 030 - 046 (78)		J.D. 058 - 117 (78)	
True Depth	CORRN -	App. DEPTH	CORRN -	App. DEPTH	CORRN -	App. DEPTH
5	-.25	5.25	-.3	5.3	-.2	5.3
10	.10	9.9	-.1	10.1	-.15	10.15
15	.2	14.8	0	15.0	.18	14.85
20	.4	19.6	.3	19.7	.33	19.70
25	.5	24.5	.3	24.7	.48	24.50
30	.6	29.4	.4	29.6	.65	29.35
35	.85	34.15	.5	34.5	.80	34.20
40	.9	39.10	.6	39.4	1.05	38.95
45	1.05	43.95	.7	44.3	1.14	43.90
50	—	—	—	—	1.30	48.70

EM



☆ U. S. GOVERNMENT PRINTING OFFICE: 1972-761-123



☆ U. S. GOVERNMENT PRINTING OFFICE: 1972-761-123

SIGNAL LIST

H-9734
HSB-20-4-77
VESNO 1257

001	7	30	07	49386	085	44	29936	25~~0~~ 4	0000	330640	St. ANDREWS (RAYDIST)	1977	*
002	7	29	54	28363	085	22	11433	~~254~~ ~~25~~ ok	0000	330640	GULF SANDS (RAYDIST)	1977	**
004	7	29	54	24193	085	24	18530	139	0000	000000	FRONT RANGE A	1977	*
005	7	29	41	15215	085	22	23111	~~243~~ 139	0000	000000	CE-03B (X-banner)	1977	*
006	7	29	41	35403	085	22	35368	~~243~~ 139	0000	000000	CE-04 (banner)	1977	*
008	7	29	42	26868	085	23	00194	~~243~~ 139	0000	000000	CE-06B (X-banner)	1977	*
009	7	29	43	35211	085	23	29069	~~243~~ 139	0000	000000	CE-07B (X-banner)	1977	*
010	7	29	44	09374	085	23	43352	~~243~~ 139	0000	000000	CE-08B (X-banner)	1977	*
011	7	29	40	15577	085	21	23115	139	0000	000000	CAPE SAN BLAS L.H.	1977	***
012	7	29	40	42084	085	20	42318	139	0000	000000	MICROWAVE TOWER	1978	***
013	7	29	50	17644	085	18	53130	139	0000	000000	HIGHLAND VIEW TANK	1978	**
014	7	29	52	53351	085	22	30405	139	0000	000000	FRONT RANGE C	1977	**
015	7	29	55	04934	085	22	50096	139	0000	000000	REAR RANGE A	1977	**
016	7	29	56	43231	085	24	36639	139	0000	000000	MEXICO BEACH TANK	1978	* ***

* Signal located by Operations Division AMC.
** Signal located by HSB-HFP1.
*** Signal located by NGS.

Field records, computations, and published G.P.s for the above signals are on file at the Hydrographic Surveys Branch Office.

Note: See calibration data in accordian folder for listing of Signal List used for field plot.

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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
HSB-HFP-1	Florida	NW Coast	1977

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OPR-J217		H-9734	NA 1927

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	LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
REAR RANGE	St. Jdseph Pt. Rear Range A	29 54	04.934	85 22	50.096		F-6-L	11389 11360
Front RANGE	St. Joseph Pt. Front Range A	29 54	24.193	85 24	18.530		F-6-L	11389
REAR RANGE	Rear Range B	29 53	43.917	85 22	15.809		F-6-L	11389
REAR RANGE	Rear Range C FRONT	29 52	53.351	B5 22	30.405		F-6-L	11389

(65A)

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		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

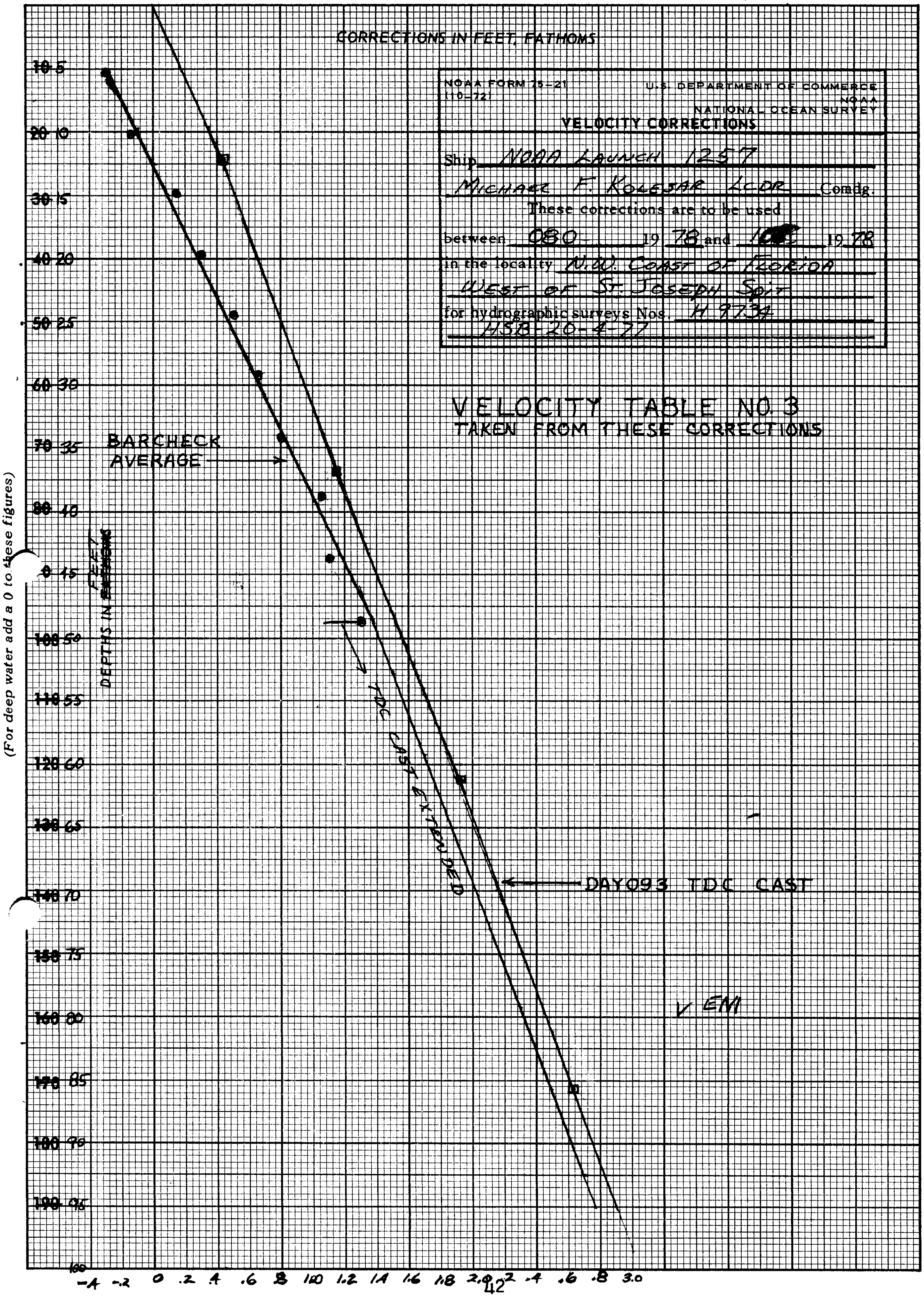
**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

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

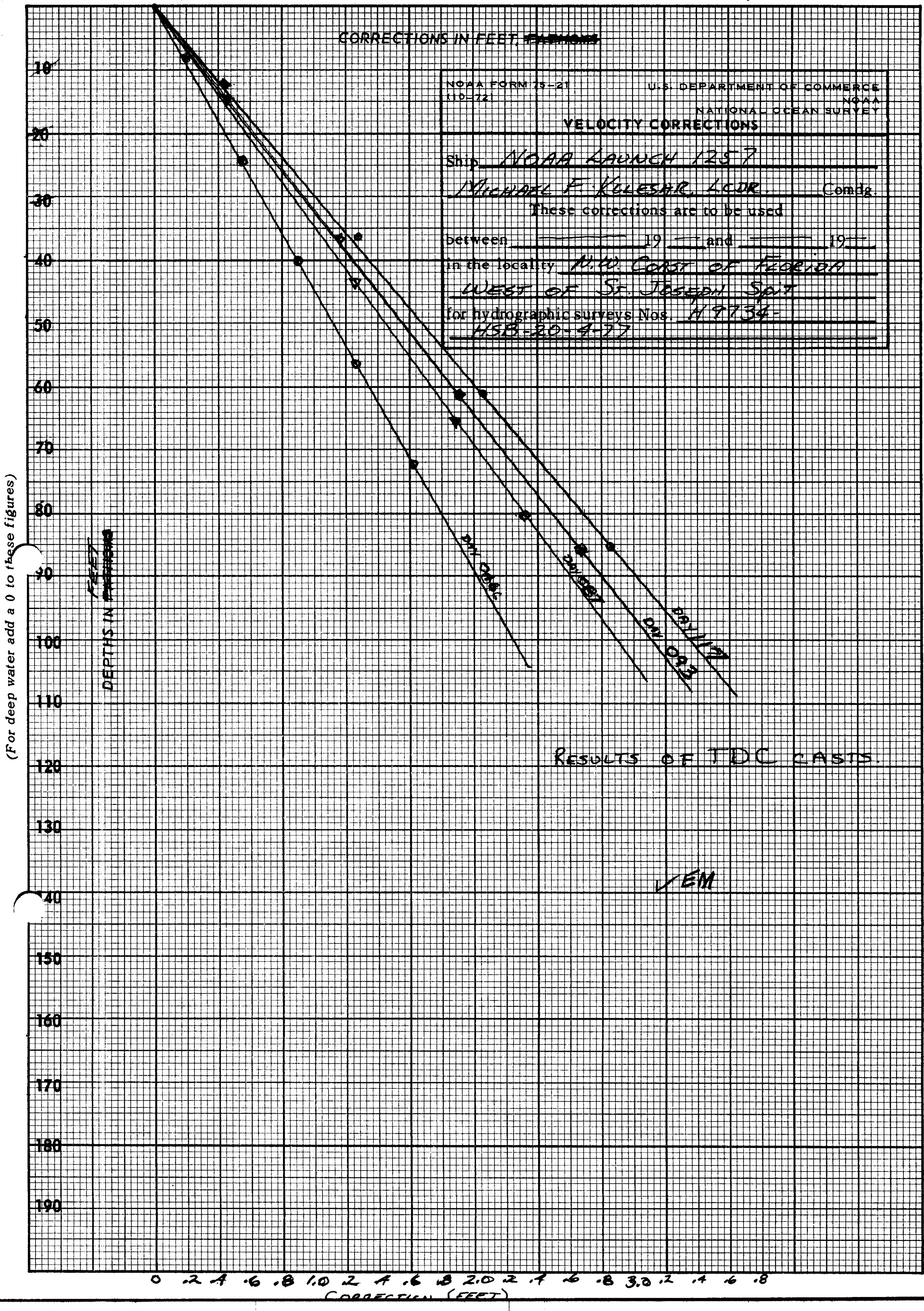
☆ U. S. GPO:1975-0-665-080/1155

Aids to Navigation	Surveyed Positions	Charted Positions	Published Positions	Number	Page
R "6" fl. R 2.5s	29 52' 48.690" 85 27' 41.543"	(29 52.81') (85 27.69')		1568	150
R N "4"	29 52' 31.977" 85 28' 17.268"	(29 52.53') (85 28.29')			150
R "2" Gp. fl. R 5s (2 flashes)	29 52" 15.216" 85 28' 51.938"	(29 52.25') (85 28.86')	29 52.2' 85 28.9'	1564	149
"3" fl. G 4s	29 52' 36.538" 85 28' 19.514"	(29 52.62') (85 28.33')		1567	150
C "5"	29 52' 51.968" 85 27' 44.604"	(29 52.87') (85 27.74')			150
C "7"	29 53' 08.423" 85 27' 10.202"	(29 53.14') (85 27.17')			150
BW "SJ" Mo (A) whistle	29 51' 59.203" 85 29' 32.161"	(29 51.98') (85 29.50')	29 52.0' 85 29.5'	1563 140	149 17
RN "8"	29°53.06' 85°27.11'	(29°53.03') (85°27.17')			150

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



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



OPR 521

SOUNDING CORRECTION ABSTRACT

VESSEL NOAA Launch 1257

FIELD NO. HSB 20-4-77

REGISTRY NO. H- 9734

Julian Date	From Time (GMT)	To Time (GMT)	Velocity Corr. Table No.	(Note: TRA Corr. is the algebraic sum of these columns) Draft Corr.	Instrument Error Corr.	Initial Corr.	S&S Corr.	TRA Corr. ft/fms	Remarks
342	154112	346(221355)	1	0.0	-0.2	0.0	0.0	-0.2	
005	170009		1	0.0	-0.2	0.0	0.0	-0.2	
030	161822		2	0.0	-0.2	0.0	0.0	-0.2	
035		210000							
080	163750		3	0.0	-0.3	0.0	0.0	-0.3	
104		215556							

July 19, 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 Form 362

Tide Station Used (NOAA Form 77-12): 872-8942 Cape San Blas, Fl.

Period: December 2, 1977 - April 14, 1978

HYDROGRAPHIC SHEET: H-9734

OPR: 521(OPR K217)

Locality: Florida Panhandle, vicinity of Cape San Blas

Plane of reference (~~Mean Lower Low Water~~) (Gulf coast low water datum): 2.7ft.

Height of Mean High Water above Plane of Reference is 1.5 ft.

Remarks: Zone direct

for as Chief, Tides Branch

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-9734

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
FLORIDA										1
ST. JOSEPH SPIT	TITLE									2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
				Approved:						18
										19
				Chas. E. Harrington						20
				Chief Geographer - C3x5						21
				28 MARCH 1979						22
										23
										24
										25

APPROVAL SHEET

SURVEY H-9734 (HSB-20-4-77)

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

Calibration signal 008 (X-banner) was entered on the field signal tape with an approximate 2 second error in longitude. A new signal tape and corrector tape was made by HSB office personnel and all calibration computations using this signal were recalculated. The field sheet was not replotted using this new data.

Direct daily supervision was not given by me during the field work. As noted above this survey is complete and adequate to supersede prior surveys for charting with no additional field work recommended.

Approved and forwarded,

Thomas W Richards

THOMAS W. RICHARDS
Chief, Hydrographic Surveys Branch

NOAA FORM 77-27 (5-77)

U. S. DEPARTMENT OF COMMERCE NOAA

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NUMBER: H-9734

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	8
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS	3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	~~2~~	1				
CAHIERS	2- with printouts		~~1~~			
VOLUMES	2					
BOXES						1- strip charts

T-SHEET PRINTS *(List)*

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			3123
POSITIONS CHECKED		250	
POSITIONS REVISED		20	
SOUNDINGS REVISED		125	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	
	TIME — HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)			
VERIFICATION OF CONTROL		2	
VERIFICATION OF POSITIONS		22	
VERIFICATION OF SOUNDINGS	2	45	
COMPILATION OF SMOOTH SHEET		36	
APPLICATION OF TOPOGRAPHY		0	
APPLICATION OF PHOTOBATHYMETRY		0	
JUNCTIONS		0	
COMPARISON WITH PRIOR SURVEYS & CHARTS		8	
VERIFIER'S REPORT		13	
OTHER			
TOTALS	2	126	128

Pre-Verification by K. Ainsley	*Beginning Date* 08/21/78	*Ending Date* 08/21/78
Verification by F. Lamison, D. Mason	*Beginning Date* 09/23/78	*Ending Date* 01/22/79
Verification Check by B. Stephenson	*Time (Hours)* 4	*Date* 01/22/79
Marine Center Inspection by Hydrographic Inspection Team (AMC)	*Time (Hours)* 5	*Date* 02/13/79
Quality Control Inspection by F. P. Saulsbury	*Time (Hours)* 32	*Date* 3/27/79
Requirements Evaluation by [illegible signature]	*Time (Hours)* 3	*Date* 4/16/79

Carstens 11 hr 4/5/79

APPROVAL SHEET
FOR
SURVEY H-9734

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/[redacted] been made. A new final sounding printout has/[redacted] 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: 2/22/79

Signed:

Title: Chief, Verification Branch

Reg. No. H-9734

The Computer and Excess Sounding ,ards 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 REQ'D____________ INITIALS____________

REMARKS:

Reg. No. ____________

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____________ TIME REQ'D.____________ INITIALS____________

REMARKS:

ATLANTIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO. H-9734 | FIELD NO. HSB-20-4-77

Florida, Northwest Coast, West of ST Joseph Spit.

SURVEYED: December 2, 1977 through April 14, 1978

SCALE: 1:20,000 | PROJECT NO.: OPR-J217

SOUNDINGS: Raytheon 723D | CONTROL: Raydist (Range-Range)

Chief of Party .... W. Daniels
Surveyed by .... M. Kolesar
.... G. Hendrix
.... G. Merrill
.... L. Podleiszek
.... G. Lloyd
Automated Plot by .... XYN-1201 (AMC)
Verified and Inked by .... D. V. Mason
January 22, 1979

1. Introduction

a. No unusual problems were encountered during the verification of this survey.

b. The red changes in the Descriptive Report were made by the verifier.

2. Control and Shoreline

a. The source of control is adequately described under Sections F. and G. of the Descriptive Report.

b. There is no shoreline in the survey area.

3. Hydrography

a. Depths at crossings are in good agreement.

b. The standard depth curves were adequately delineated. The supplemental 36 foot was added, to the extreme south-eastern part of this survey, to further delineate the bottom configuration.

c. The development of the bottom configuration and the investigation of least depths are considered adequate except as noted in Section 4.

4. Condition of Survey

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual, except as follows:

a. Differences were found between the Descriptive Report's electronic control corrector abstract and the electronic corrector tapes. IT was determined from the Calibration sheets that the corrector tapes were in error. The corrector abstract listed in the Descriptive Report is considered correct and the tapes have been corrected, and the corrections are applied to the smooth sheet.

b. The hydrographer did not run enough hydro lines to adequately delineate the channel limits of St. Joseph Entrance Channel. Two lines at 50 meter spacing should have been run on the outside of the buoys to further delineate the channel and the 30 foot curve. Develop. is adequate—Channel is maintained by C.O.E. Some shoaling has occurred along edges. JPS

c. The position for St. Joseph Channel sea buoy was deleted from the field's records. (This data has been reinstated into the records by the verifier.)

5. Junctions

There are no contemporary surveys in the survey area, but the field junctioned with five prior surveys. These junctions are adequately described in Section J. of the Descriptive Report. Junction and butt junction annotations were added to the respective survey sheets

6. Comparison with Prior Surveys

a.	H-1265a	(1875)	1:20,000
	H-1511b	(1882)	1:40,000

Comparison with the above prior surveys are in good agreement and no discussion is necessary.

b.	H-6785	(1942-43)	1:40,000
	H-6786	(1942-43)	1:20,000
	H-7633	(1947)	1:40,000
	H-7723	(1948-50)	1:100,000

A comparison between the above prior surveys and the present survey revealed relatively minor differences in depths. These prior surveys are adequately described under Section J. of the Descriptive Report.

The present survey is adequate to supersede all of the above prior surveys in the common area.

7. Comparison With Chart #11389 (17th Edition, April 23, 1977)

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys supplemented by nonascertainable sources and requires no further consideration except as discussed below.

Two Presurvey Review items were investigated and are listed under ~~Sections~~ Section L. of the Descriptive Report.

A comparison with charted soundings is adequately discussed under ~~Sections~~ Section L. of the Descriptive Report and no further discussion is necessary.

There are no conflicts between the project depth and the present survey. - Some shoaling has occurred along the edges of the entrance channel.

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

b. Aids to Navigation of ENTRANCE CHANNEL TO PORT ST. JOE

There are eight floating aids to navigation located on the present survey. These aids are in substantial agreement with their charted positions and adequately serve the purposes intended.

8. Compliance With Instructions

This survey complies with the Project Instructions.

9. Additional Field Work

This is an excellent basic survey and no additional field work is recommended.

Inspection Report
H-9734

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: February 13, 1979

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

Carl W. Fisher
Carl W. Fisher, CDR, NOAA
Chief, Operations Division

R. D. Sanocki
R. D. Sanocki
Technical Assistant
Processing Division

Maureen R. Kenny
C. Douglas Mason, LT, NOAA
Chief, Electronic Data
Processing Branch

Harry R. Smith
Harry R. Smith
Team Leader
Verification Branch

Approved/Forwarded

Robert C. Munson
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

OA/C352:FPS

March 27, 1979

a J Patrick

TO: A. J. Patrick
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: F. P. Saulsbury F. P. Saulsbury
Quality Evaluator

SUBJECT: Quality Control Report for H-9734 (1977-78), Florida, Northwest Coast, West of St. Joseph Spit

A quality control inspection of H-9734 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, it was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report, the HIT Report, and as follows:

1. Presurvey Review Item 1--Obstruction PA charted in latitude 29°52.90', longitude 85°~~29~~ 34.10' from Chart Letter 1814 of 1976.

This is the charted representation of car bodies that floated away from their intended fish haven location. Rather than charting an obstruction with a danger curve in 70 to 73 feet of water and forcing the mariner to avoid the area, it is recommended that a nondangerous sunken wreck symbol PA be charted at this location. See H-9883(1980), Quality Control Report

2. Check scanning of the fathograms appeared to be carefully done. However, the extreme peaks of the graph were invariably read even where chop was apparent on the graphs. It is considered a more valid practice to average the chop about one-third down from the tops of the chop. Although the chop was generally not excessive, some of the depths may be too shoal by a foot.

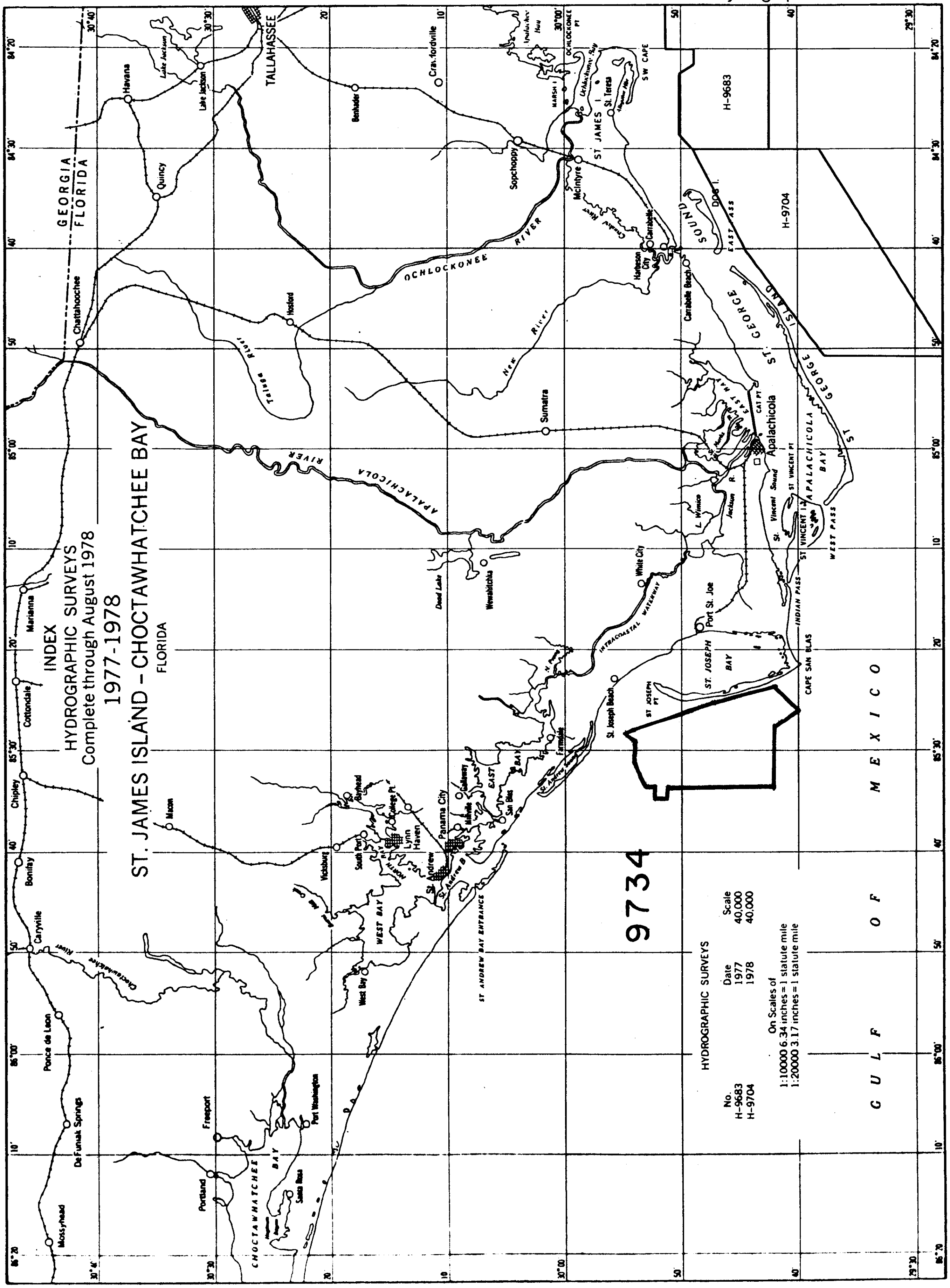
3. A number of questionable traces rising 2 to 5 feet off the bottom and interpreted as fish were investigated by split lines at a spacing of 50 to 100 meters. It is questionable whether such wide spacing is adequate to

prove or disprove small features or obstructions on the bottom. A more intense investigation would have been preferred. However, no comparable bottom features were found on the split lines. Considering the number of traces involved and the type of bottom, the interpretation of the hydrographer was accepted.

cc:
OA/C35
OA/C351

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

Hydrographic Index No. 84 E



FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9734

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
411	5/31/79	J. OWYANG	Full Part Before After Verification Review Inspection Signed Via
			Drawing No. #54 NO CORRECTION, INSIDE 10 FATHOM CURVE.
867 11393	7-23-79	J. OWYANG	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 11
1263 11389	8-2-79	J. OWYANG	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 37 REVIEWED DMP 8-24-79
1262 11401	8-6-79	J. OWYANG	Full [redacted] After Verification Review Inspection Signed Via
			Drawing No. 28
11400 (1114)	3-27-80	D M PERKINS	Full [redacted] After Verification Review Inspection Signed Via
			Drawing No. 30
11360	4/2/80	DM PERKINS	Full [redacted]ore After Verification Review Inspection Signed Via
			Drawing No. 38
11006	6-5-80	D. Wylie	Full Part Before After Verification Review Inspection Signed Via
			Drawing No. 30 No Correction 3 E Area
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.