

# 9509

Diag. Cht. No. 1258 & 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. .... AHP-20-2-75  
Office No. .... H-9509

### LOCALITY

State ..... FLORIDA  
General Locality ..... WEST COAST OF FLORIDA  
Locality ..... OFF TARPON SPRINGS

1975

### CHIEF OF PARTY

J. O. ROLLAND

### LIBRARY & ARCHIVES

DATE ..... 4-26-77

9509

W 104  
1008  
1008

**HYDROGRAPHIC TITLE SHEET**

H-9509

**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 20-2-75

State Florida

General locality West Coast of Florida

Locality Northwest of Clearwater Off Tarpon Springs

Scale 1:20,000

Date of survey Apr. 17 to Aug. 1, 1975

Instructions dated August 20, 1974

Project No. OPR 508-AHP-7545

Vessel NOAA Launches 1257 & 1255

Chief of party LCDR John O. Rolland

Surveyed by LCDR David Wilson, LT(jg) Richard P. Floyd, LT(jg) Craig P. Berg,  
ENS Susan R. Ellis

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by Digital Fathometer

Graphic record checked by DMW, RPF, CPB, GSL ✓ B.J. Stephenson

Protracted by N/A CALCOMP-618 Automated plot by COMPLOT-CALCOMP-618

Verification by ✓ B.J. Stephenson AMC

Soundings in fathoms feet at MLW MLLW

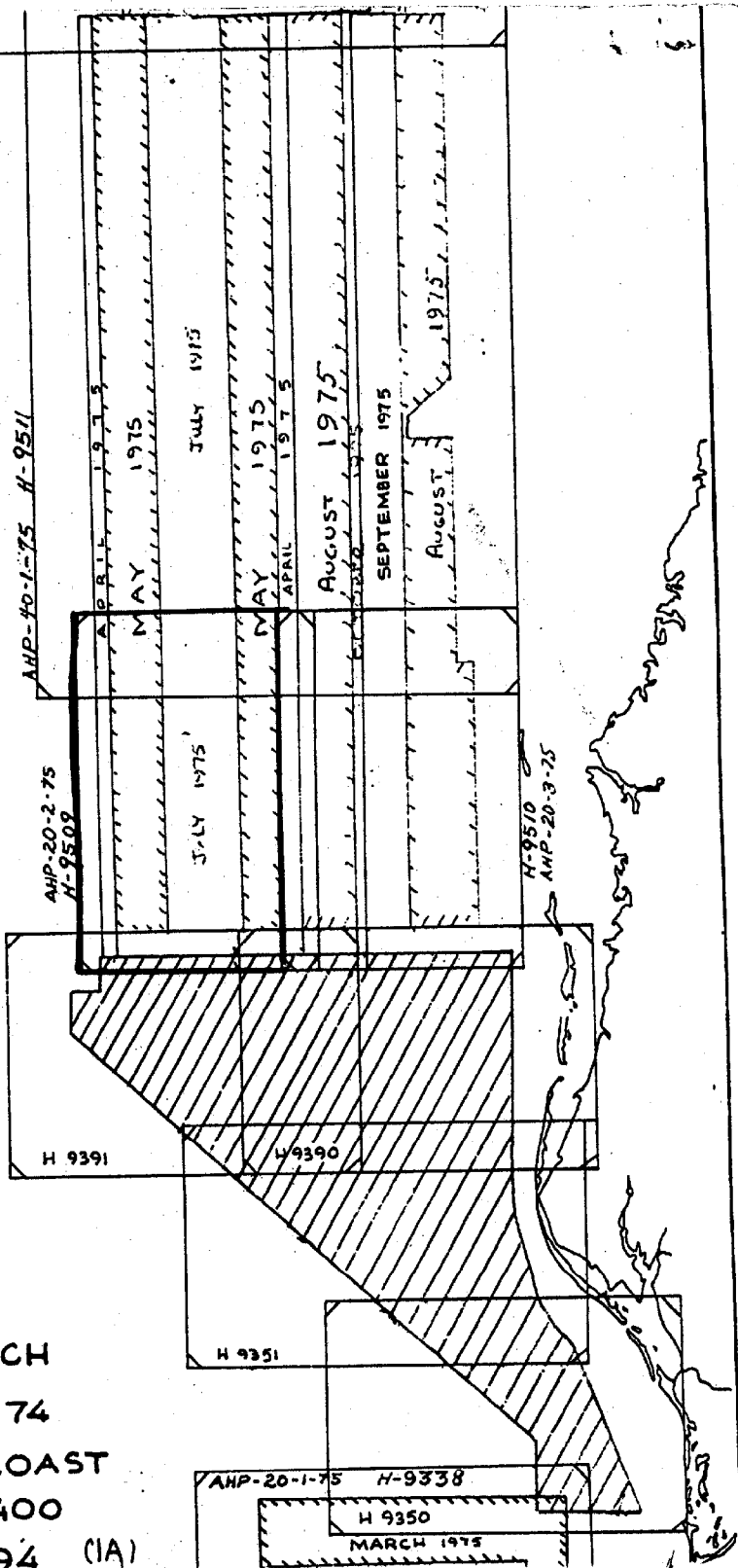
**REMARKS:**

*Applied to stds 8/4/77*  
*CD*

INDEX

	Page
Hydrographic Title Sheet.....	1
Boatsheet Layout.....	1a
A. Project.....	2
B. Area Surveyed.....	2
C. Sounding Vessel.....	2
D. Sounding Equipment and Corrections to Echo Soundings.....	2-3
E. Hydrographic Sheets.....	3
F. Control Stations.....	4
G. Hydrographic Position Control.....	4
H. Shoreline.....	5
I. Crosslines.....	5
J. Junctions.....	5
K. Comparison with Prior Surveys.....	5-7
L. Comparison with Chart.....	7
M. Adequacy of Survey.....	8
N. Aids to Navigation.....	8
O. Statistics.....	8
P. Miscellaneous.....	8-9
Q. Recommendations.....	9
R. Automated Data Processing.....	10
S. Reference to Reports.....	10
Projection Parameters.....	11-13
Electronic Control Parameters.....	14-15
Abstract of Correction to Electronic Position Control.....	16-20
Field Tide Note.....	21
Signal Tape.....	22
Position Data Sheet.....	23-30
Bottom Samples.....	31-34
Velocity Curve.....	35-39
Bar Check Abstract.....	40-45
Settlement and Squat.....	46-48
TC/TI.....	49
Approval Sheet.....	50

MONTH	L.N.M.	TO (FROM)	MISC N.M.	B.S.	SQ. MI.
FEB	692	325	43	0	67
MAR	815	236	178	62	62
APR	434	226	65	0	21
MAY	1227	385	21	0	137
JUN	0	0	0	0	0
JUL	1551	650	140	27	135
AUG	1757	408	138	27	73
SEP	1253	350	152	9	115
OCT	791	514	76	122	19
NOV	732	184	28	0	50
DEC	1123	554	77	16	80
JAN	1218	530	35	0	124
FEB	281	207	118	25	0



PROJECT SKETCH  
 OPR 508 - AHP-74  
 FLORIDA WEST COAST  
 FROM CHART 11400  
 SCALE 1:456,394 (1A)

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-9509 (AHP-20-2-75)

SCALE: 1:20,000 1975  
VESSEL: Atlantic Hydrographic Party Chief of Party John O. Rolland

A. Project

This project was accomplished under the following Project Instructions: ✓  
OPR-508-AHP-75<sup>5</sup> Northwest Coast of Florida, dated 20 Aug. 74.  
Change #1: Amendment to Instructions, dated 14 Apr. 75.

B. Area Surveyed

The area encompassed by the survey was offshore from Tarpon Springs, Florida. The following limits form the survey boundary: ✓

south: Lat. 28°04'00"  
north: Lat. 28°15'00"  
east: Long. 83°02'00"  
west: Long. 83°12'00"  
11'00"

This survey was accomplished between 17 Apr 75 and 1 Aug. 75.

C. Sounding Vessel

All sounding on this survey was accomplished by NOAA Launch 1257 (EDP 1257) and NOAA Launch 1255 (EDP 1255). All survey records are annotated with vessel numbers. In addition, NOAA 1257 has labels in black, NOAA 1255 in blue. ✓

NOAA 1255 had the Electronic Cabinet Unit fail on Day 142. The problem was corrected by replacement.

D. Souding Equipment and Corrections to Echo Soundings ✓

NOAA 1257 used the following equipment for all soundings obtained during this survey:

Raytheon Fathometer, Model DE-723, Unit 723-4, s/n 37024  
Raytheon Digital Depth Monitor, Model DE-723-41, Unit DE-723, s/n 2772  
Raytheon Electronic Cabinet Unit, Model DE-723-42, Unit DE-723, s/n 1910

NOAA 1255 used the following equipment for all sounding obtained during this survey:

Raytheon Fathometer, Model DE-723, Unit 723-40, s/n 2924  
Raytheon Digital Depth Monitor, Model DE-723-D, Unit 723-41, s/n 1045  
Raytheon Electronic Cabinet Unit, Model DE-723-D, Unit 723-42, s/n 2781

All soundings after 151312Z Day 142 used Raytheon ECU, Model DE-723-D Unit 7273, s/n 2132.

Depths on this survey range from 26 to 65 feet.

No TDC or STD measurements were taken and, therefore the only velocity corrections applied are those determined by bar check. When the survey was completed, the bar check markings were measured with a steel tape and found to be in error. This error varied linearly along the entire length of both lines. On one line the 70 foot mark was actually 69.3' and on the other, the 75 foot mark was actually 74.0'. The errors were averaged and prorated for every 5 foot interval of bar depth. Velocity corrections were determined with the corrected or actual bar depths. An abstract of bar depths is located in the appendix. Approximate velocity correctors were applied to off-line plot sheets using data obtained in previous surveys, and are included in the appendix. Velocity corrections determined from direct comparison bar checks from this survey are included in the appendix.

The fathometer initial was maintained at zero by periodic adjustments and the digital depth monitor is assumed to have no instrument error, therefore, no corrections are applied due to those instruments. A-F checks were made throughout the day to correct stylus error.

Settlement and squat was determined for Launch 1255 on 16 Jan 75 using the standard rod and level method. Results are included in the appendix. On Launch 1257, previously determined settlement & squat corrections were used (See H-9344 Descriptive Report). These corrections were combined with the draft (2.7 feet) and applied to soundings via the corrector tape. On Launch 1255 however, draft (also 2.7 feet) has been applied on the corrector tapes and settlement & squat applied to the TC/TI Tape.

Abstracts of Corrections to Echo Soundings are included in the appendix of this report.

#### E. Hydrographic Sheets

The field sheets were prepared aboard the survey vessels using the hydroplot system. Verification and smooth plotting will be performed at the Atlantic Marine Center, Norfolk, Virginia. Projection and electronic control parameters are included in the appendix of this report.

#### F. Control Stations

Left (red) station: H-AMC-75, 1975.

Right (green) station: Church, 1975

Electronic station location was accomplished using third-order methods by Mr. Jim Shea of Operations Division, Atlantic Marine Center, Norfolk, Virginia.

#### G. Hydrographic Position Control

Control used for this survey was the Hastings Raydist DR-S system operating in Range-Range Mode. No known difficulties were experienced with the control system that may have degraded the expected position accuracy, except as noted in the miscellaneous section of this report.

Left Station: H-AMC-75, 1975  
Red Raydist Model AA-60, s/n 54

Right Station: Church, 1975  
Green Raydist Model AA-60, s/n 119

Equipment aboard NOAA 1257:

Antenna Loading Unit, Model QB-52B, s/n 143  
DR-S System Navigator, Model ZA-67B, s/n 67  
Transmitter, Model TA-96 B, s/n 86

Equipment aboard NOAA 1255:

Antenna Loading Unit, Model QB-52B, s/n 119  
DR-S System Navigator, Model ZA-67A, s/n 58  
Transmitter, Model TA-96, s/n 45  
Strip Chart Recorder, Model RB-15, s/n 13

Calibration of the Raydist system was accomplished by means of 3-point sextant fixes with at least one object changed during each series of calibrations. On days of poor visibility, calibration was accomplished at fixed aids to navigation, located by means of third-order methods by Mr. Jim Shea. Calibration objects were existing triangulation or located by Mr. Shea. NAD 1927 was used for all position computations.

These calibrations are considered adequate for raw position data throughout the survey area. An abstract of corrections to be applied to the observed data is included in the appendix.

#### H. Shoreline

There was no shoreline delineated on this survey.

#### I. Crosslines

Crosslines were run to the extent of 10.5% of the basic system of sounding lines. Agreement was very good, 0 to 1 feet in most cases. In areas where disagreement by as much as two feet occurs, it can be attributed to relatively steep slopes or very irregular bottom configuration in the vicinity of the discrepancy. Visual check of the fathogram records in these areas was used to reconcile significant differences at crossings.

#### J. Junctions

This survey junctions with the following prior surveys:

H-7792, 1:100,000, 1950 ✓  
H-9390, 1:20,000, 1973 ✓  
H-9391, 1:20,000, 1973 ✓

In addition, it junctions with two contemporary surveys which were run concurrently with it. These were H-9510, 1:20,000, 1975 and H-9511, 1:40,000, 1975. Naturally, agreement is excellent.

H-9390 and 9391 were run in 1973 with Launch 1257. The field sheets were available for direct comparison and after applying approximate velocity corrections, determined by bar check assumed to be about 1 foot in 20, agreement is excellent. Approximate velocity corrections have already been applied to H-9509 offline field sheets.

Agreement with H-7792 is only fair. There seems to be a fairly consistent two foot difference between depths from H-7792 and H-9509, those from H-9509 being shoaler. It remains unknown to the hydrographer why this is so, and no recommendations as to how to adjust the soundings can be submitted. Also, it appears that some shifting has occurred in the shoal located at  $83^{\circ}09.0'N$ ,  $28^{\circ}10.7'W$ . This shoal is now oriented in a NW-SE direction and is fairly well defined.

#### K. Comparison with Prior Surveys

There are no numbered presurvey review items in the survey area. There is, however, one dashed circled item. It is a 45 foot depth from chart 11126 located at  $28^{\circ}11.2'N$ ,  $83^{\circ}07.5'W$ . The actual depth in this area is 55 feet. <sup>Actual</sup> One quarter mile ENE of this position a least depth of 44 feet was obtained as shown on the offline plot. The position of the charted 45 should be adjusted accordingly.



Comparison was made with prior survey 1593b, a 1:40,000 survey conducted in 1881<sup>4</sup>. The density of the depths from this survey is very sparse. In view of this and the age of the survey, comparison is not very practical. However, a few of the major discrepancies are noted below. Representative soundings which lie south of the southern limit of chart 11126 were transferred to the overlay for this comparison.

At 28°10.1'N, 83°03.7'W a prior survey depth of 48 feet lies in an area where the contemporary depths are 43 feet.

In the vicinity of 28°09.1'N, 83°05.3'W the depths obtained are approximately 3 to 5 feet deeper than those shown on the prior survey. However, one half mile to the west of that position the soundings obtained are 3 to 9 feet shallower than those shown on the prior survey.

At 28°08.0'N, 83°05.6'W a least depth of 40 feet was obtained in an area not covered by the prior survey. Similarly, least depths of 38 feet at 28°08.7'N, 83°03.9'W and 34 feet along a line from 28°08.7'N, 83°02.5'W to 28°08.6'N, 83°02.2'W were obtained in areas not covered by prior survey lines.

A 45 foot sounding from the prior survey located at 28°09.1'N, 83°04.4'W lies in an area where the general depths run from 40 to 42 feet.

The line of soundings on the prior survey extending from 28°08.2'N, 83°06.7'W to 28°08.0'N, 83°02.2'W differs quite appreciably from those obtained on this survey. Soundings on the present survey vary from about 7 or 8 feet shallower to about 4 feet deeper than those obtained during the 1881<sup>4</sup> survey. *Comparison does not look that bad on Smith sheet about 5 to 6 ft. between Long: 83°06' - 83°07', all other areas 1 to 2 ft.*

At 28°06.6'N, 83°05.7'W the prior survey soundings are about 6 to 8 feet shallower than those obtained during the contemporary survey.

A least depth of 38 feet was obtained at 28°06.6'N, 83°02.8'W. Prior survey depths in this area are about 46 feet.

Least depths of 43 feet were obtained along a line from 28°06.1'N, 83°06.2'W to 28°05.9'N, 83°05.9'W. No sounding lines were run in this area during the prior survey.

At 28°04.8'N, 83°06.4'W, where the depths range from 51 to 55 feet, the prior survey depth is 45 feet. One third of a mile SSE of that position a least depth of 44 feet was obtained.

A depth of 61 feet was obtained at 28°05.0'N, 83°08.9'W where the prior survey depth is 55 feet.

A shoal was found along a line from 28°07.7'N, 83°07.0'W to 28°08.3'N, 83°08.2'W. No indication of this shoal was found during the 1881<sup>4</sup> survey on a line crossing the shoal at about 30°.

At  $28^{\circ}08.1'N$ ,  $83^{\circ}09.5'W$  depths of 54 to 56 feet were obtained where the prior survey depths are around 60 feet.

L. Comparison with the Chart

(c 105 114) ✓  
The entire survey area lies on NOS chart 11120 which is plotted at a scale of 1:456,394. Comparison was not made with this chart because of the great difference in scale between the chart and the survey. The northern portion of the survey also lies on chart 11126, 11th edition, May 18, 1974. Most of the portion of the chart which coincides with the northern portion of this survey has been compiled from H-1593b and hence the same general comments are applicable here. Namely, comparison is of little value due to the age of the prior survey and sparse soundings. Major discrepancies are noted below.

The 42 foot depth charted at  $28^{\circ}14.7'N$ ,  $83^{\circ}03.0'W$  lies in an area where general depths range from ~~32'~~<sup>30'</sup> to 37 feet.

A ~~29'~~<sup>30'</sup> sounding was obtained at  $28^{\circ}14.3'N$ ,  $83^{\circ}03.7'W$ . The charted depths in this vicinity are in the 40 foot range.

A least depth of 26 feet was obtained at  $28^{\circ}13.~~8~~<sup>.13</sup>'N$ ,  $83^{\circ}02.~~1~~<sup>.15</sup>'W$ . This sounding should be charted.

At  $28^{\circ}12.6'N$ ,  $83^{\circ}02.9'W$  a 42 foot depth is charted where a shoal runs in a NNW-SSE direction with depths ranging from 33 to 36 feet.

A least depth of 35' was obtained at  $28^{\circ}12.~~0~~<sup>.01</sup>'N$ ,  $83^{\circ}03.~~8~~<sup>.83</sup>'W$ . There is no indication of this shoal area on the chart.

At  $28^{\circ}11.3'N$ ,  $83^{\circ}02.8'W$ , the chart shows a 37 foot depth. This is accurate but a least depth of 34 feet was obtained 0.1 mile ~~east~~<sup>South</sup> of that position.

A 42 foot depth was obtained at  $28^{\circ}10.1'N$ ,  $83^{\circ}03.3'W$  where a 46 foot depth is charted.

At  $28^{\circ}13.9'N$ ,  $83^{\circ}07.~~3~~<sup>.26</sup>'W$  a least depth of 41 was obtained on a shoal where many depths come up to 42 to 44 feet. This shoal is not indicated on the chart. Charted soundings around the shoal are 49, 51 and 52 feet.

Most other charted soundings are within 3 feet of the depths obtained during this survey but many of the least depths do not appear on the chart. In addition, charted soundings are not representative of the bottom configuration. This area should be carefully reviewed and the next edition of chart 11126 revised.

M. Adequacy of Survey

This survey is complete and adequate to supersede prior surveys for charting purposes.

N. Aids to Navigation

No floating or fixed aids are included in the survey area.

O. Statistics

	<u>NOAA 1255</u>	<u>NOAA 1257</u>	<u>Total</u>
Total No. of Positions	1761	1575	3336
Total Nautical Miles of Hydro	542	509	1051
Square Nautical Miles	46.2	41.8	88
Bottom Samples	27	27	54
N. M. Sounding Line	451	413	864
N. M. Crosslines	44	47	91
N. M. Development	47	49	96

P. Miscellaneous

- (1) The Tarpon Springs Power Plant Stack is a very prominent landmark visible from a substantial percentage of the area covered by this sheet. This stack should be charted immediately. Its position was determined by 3rd Order Traverse methods in 1974 by Jim Shea of AMC. It is located at latitude 28°11'03.138"N, longitude 82°47'19.402"W.
- (2) Three surveys (H-9509, H-9510, H-9511) were worked on simultaneously. Any data common to two surveys, one of which was H-9511 (i.e. calibration abstracts and Raydist strip chart records) were placed in the records with H-9511. Only on one day (Day 226) was work done on both H-9509 and H-9510. The data common to both of these surveys was placed with the H-9510 records.
- (3) A defective card in the Hazlow interface of NOAA Launch 1257 caused a systematic error in Pattern I readings.

The following table shows these results:

<u>Called for</u>	<u>Displayed</u>
.0	.8
.1	.9
.2	.0
.3	.1
.4	.2
.5	.3
.6	.4
.7	.5
.8	.8
.9	.9

In the case of .2 thru .7 (displayed as .0 thru .5) the unit digit carried over so that the error was +0.8 for 0.0 thru 0.7 and 0.0 for .8 and .9.

The days and times during which this problem continued are listed below.

On every day of this survey affected, the calibrations also contained the error. No change to calibration values is therefore required.

Two methods follow for correcting the data during smooth plotting:

- (1) Plot all positions where 0.8 or 0.9 occur by time and course. The disadvantage here is that difficult steering caused by sea and the jumping left-right indicator has produced wavy lines which may be incorrectly straightened out.
- (2) Compare all Pattern I values which contain 0.8 or 0.9 in the tenths place with the sawtooth record.

It should be noted the fixed marking pen on the sawtooth recorder is 2 to 4 mm longer than red recording pen. Hence, compensation must be made when scaling value from sawtooth record.

All days affected are assumed to have all bad data or all good data. Only junction areas were scaled to determine the breakpoint; the others were not.

<u>Day</u>	<u>Problem</u>	<u>Time</u>
196	consistent	all day
197	consistent	all day
198	consistent	all day
199	consistent thru good	152142 152207 thru 165858

Method (1) will be implemented thru a modification to the spooling program by AMC Electronic Data Processing Branch CAM 33. All fix data containing .8 & .9 in pattern I will be plotted on time and course for the above days.

*Correction applied by EDA-AMC*

#### Q. Recommendations

None

R. Automated Data Processing

<u>Program #</u>	<u>Program Name</u>	<u>Version Date</u>
RK111	Realtime R/R	8/7/74
RK201	Grid, Lattice, Signal Plot	4/18/75
RK211	Non Realtime R/R	8/16/74
RK300	Utility Computations	5/22/75
AM500	Predicted Tide Generator	11/10/72
RK561	Geodetic Calibration	2/19/75
AM602	Elinore	5/21/75
PM360	Electronic Corrector Abstract	3/21/74

S. Reference to Reports

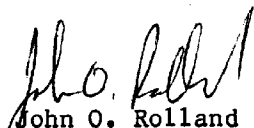
None

Respectfully Submitted,

*for John O. Rall*  
LCDR David Wilson  
OTC, Launch 1257

APPROVAL SHEET  
SURVEY H-9509 (AHP-20-2-75)

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

  
John O. Rolland  
CDR, NOAA  
Chief, Hydrographic Party

SIGNAL TAPE  
 0PR-508-AHP-784  
 AHP-20-2-75  
 H-9509  
 VESNO 1255

001	7	23	30	12754	032	39	00230	250	0000	330652	*H-AMC-4 Raydist ✓
002	7	23	04	08375	032	46	03189	250	0000	330652	*Church Raydist ✓
110	7	23	10	00176	032	50	41492	139	0000	000000	Anclote Key L+H ✓
139	7	23	01	19537	032	46	34577	139	0000	000000	Dunedin Mon. San Chris <sup>St</sup> Tk <sub>1973</sub>
140	7	23	01	13706	032	47	10574	139	0000	000000	Dunedin H.P. Hoed Inc. Tank, 1973
141	7	23	01	17535	032	47	10621	139	0000	000000	Dunedin H.P. Hoed Inc. Stack, 1973
150	7	27	59	03151	032	49	38495	139	0000	000000	Clearwater Bch, Pinellas Co. Tk, 1973
160	7	27	55	00595	032	50	29554	139	0000	000000	Belleair Bch, Pinellas Co. Tk, 1973
200	7	23	11	03133	032	47	19402	139	0000	000000	Tarpon Springs Power Plant Stack
300	7	23	15	01397	032	52	57140	252	0000	000000	Day Beacon #2 ✓
310	7	23	03	15100	032	51	59466	252	0000	000000	Day Beacon #1 ✓

001-002 Traverse (Shea)

110-160 Published Triangulation

200 Traverse (shea) Az. and distance, no check &.

300-310 Three Point Fix (Floyd, Shea)

\* Frequency for VESNO 1257 = 330640

VELOCITY TABLE

OPR-508-AHP-75

AHP-20-2-75

H-9509

NOAA LAUNCH 1257

000233 0 0008 0001 000 125700 009509

000273 0 0010

000313 0 0012

000353 0 0014

000393 0 0016

000433 0 0018

000473 0 0020

000513 0 0022

000553 0 0024

000593 0 0026

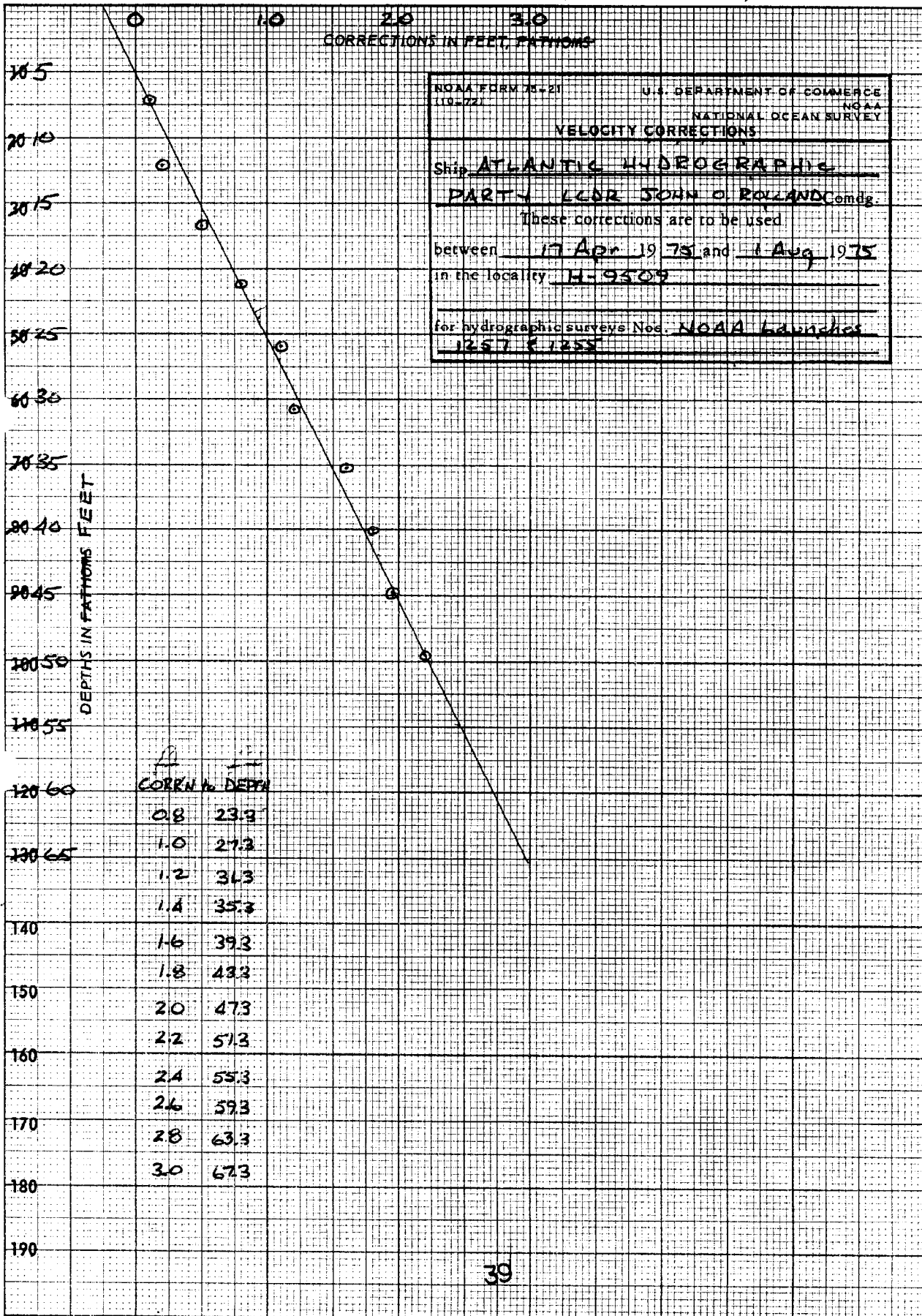
000633 0 0028

000673 0 0030

999999 0 0032



(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)

ABSTRACT OF BAR DEPTH CORRECTIONS

	Depth of Bar Marking	Actual Depth
Right side	70'	69.3'
Left side	75'	74.0'

Prorated Values

<u>Depth of Bar Marking (ft)</u>	<u>Actual Depth (ft)</u>
5	4.94
10	9.89
15	14.83
20	19.77
25	24.72
30	29.66
35	34.60
40	39.54
45	44.49
50	49.43
55	54.37
60	59.32
65	64.26
70	69.20

ABSTRACT OF BARGHECKS  
 NOAA LAUNCH 1257

PROJECT H-9509

DATE 24 July 75

LOCATION Fla. West Coast

DAY 205

DEPTH	True Depth from Transducer	DIGITAL	DJFF.	FATHO.	DIFF.
8495	2.25	—	—	—	—
10890	7.20	7.05	0.15	7.05	
161485	12.15	11.85	0.30	11.75	
201975	17.05	16.40	0.65	16.45	
252170	22.00	21.05	0.95	21.15	
302965	26.95	25.75	1.20	25.70	
353460	31.90	30.55	1.35	30.60	
403955	36.85	35.15	1.70	35.20	
454450	41.80	39.85	1.95	39.85	
504945	46.75	44.50	2.25 R	44.60	
				44.30 "8"	
555435	51.65	49.30	2.35	49.40	
				49.20 "8"	
60					
65					
70					
75					
80					
Note: Transducer depth 2.7					
		44			18

ABSTRACT OF BARCHHECKS  
 NOAA LAUNCH 1257

PROJECT H-9509

DATE COB 14 75

LOCATION Fl West Coast

DAY 126

DEPTH	true Depth from transducer	DIGITAL	DIFF.	FATHO.	DIFF.
1995	2.25	—	—		
108 <sup>9</sup> 90	7.20	—	—		
1514.85	12.15	12.20	-0.05		
2019.75	17.05	16.80	+0.25		
2524.70	22.00	21.30	0.70		
3029.65	26.95	26.10	0.85		
3534.60	31.90	30.85	1.05		
4039.55	36.85	35.50	1.35		
4544.50	41.80	39.95	1.85		
5049.45	46.75	44.90	1.85		
	"B"	44.80	1.95		
5554.35	51.65	49.50	2.15		
60					
65					
70					
75					
80					
Note: Transducer depth 2.7					
		45			

ABSTRACT OF BARCHECKS  
NOAA LAUNCH 12571255

PROJECT H-9509

DATE 23 July 75

LOCATION Fla. West Coast

DAY 204

DEPTH	True Depth from Transducer	DIGITAL	DIFF.	FATHO.	DIFF.
5 4.95	2.25	-	-	-	-
10 8.90	7.20	7.20	0.00	7.20	
15 11.85	12.15	11.95	0.20	11.90	
20 19.75	17.05	16.60	0.95	16.60	
25 21.70	22.00	21.15	0.85	21.10	
30 29.65	26.95	25.95	1.00	25.90	
35 31.60	31.90	30.70	1.20	30.70	
40 39.55	36.85	35.20	1.65	35.35	
45 44.50	41.80	40.15	1.65	40.00	
50 49.45	46.75	44.90	1.95	43.35	
55 54.35	51.65	49.70	1.95	43.35'8"	
				49.70	
60					
65					
70					
75					
80					

Note: Transducer depth 2.7

SETTLEMENT AND SQUAT CORRECTION  
 LAUNCH 1257  
 13 December 1972  
 (Level Method)

TIME	RPM'S	PASS #1	PASS #2	PASS#3	MEAN	TIDE CORREC.	NEW MEAN	SETTLEMENT & SQUAT CORRECTION
9:35	stop	8.68 ✓	8.60 ✓	8.69 ✓	8.68 ✓	0	8.68	.00
	600	8.70	8.75	--	8.72	-.01	8.71	+ .03
9:50	1100	9.15	9.14	9.05	9.11	-.023	9.09	+ .41
	1850	8.40	8.50	--	8.45	-.04	8.40	-.28
10:15	stop	8.74	8.73	--	8.74	-.06		

SETTLEMENT AND SQUAT DETERMINATION

NOAA Launch 1255  
 16 January 1975  
 Egmont Key, Florida

	RPMS	STOP	OUT	BACK	STOP	AVE STOP	AVE AT SPEED	S & SQ
(IDLE)	500	2.36	2.43	2.40	2.33	2.34	2.41	+0.07
	1000	2.33	2.68	2.70	2.32	2.32	2.69	+0.37
	1250	2.32	2.76	2.74	2.27	2.30	2.75	+0.45
	1500	2.27	2.60	2.64	2.28	2.27	2.62	+0.35
( L)	1850	2.27	2.33	2.35	2.26	2.26	2.34	+0.08

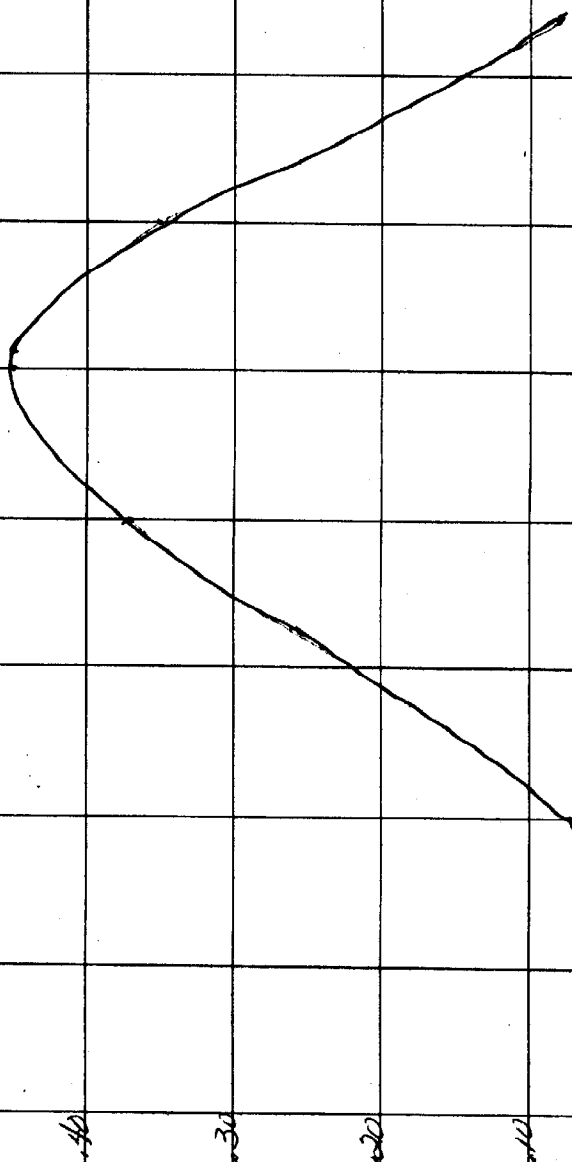
Settlement and Log of  
NOAA LAUNCH 1855

16 JAN 25

~~CHIEF~~

88  
CORRECTION (FT.)  
50  
40  
30  
20  
10  
0

SPEED (RPM)  
500  
1000  
1500  
2000





### FIELD TIDE NOTE

Predicted tides were generated using program AM500 and applied to online and offline plots. Predicted highs and lows were taken from St. Marks River Entrance and corrected to Anclote Keys, south end, and applied to all depths in the survey. No zoning is required.

The original requirement for a tide gage at Anclote Key was deleted with change no. 1 dated April 14, 1975.

5/18/76

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): Cedar Key

Period: April 17 - August 19, 1975

HYDROGRAPHIC SHEET: H-9509

OPR: 508

Locality: Off west coast of Florida near Anclote Key  
diurnal


Plane of reference (mean ~~lower~~ low water): 1.75

Height of Mean High Water above Plane of Reference:

2.6 ft.

Remarks: Recommended zoning:

Apply a time correction of -1.9 hr. and range  
ratio x0.86.

  
\_\_\_\_\_  
Chief, Tides Branch

GEOGRAPHIC NAMES

H-9509

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

TARPON SPRINGS (TITLE)										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

APPROVED

*Chas. Harrington*

STAFF GEOGRAPHER

25x2

4 MAY 1977

26

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H-9509

- 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.

Date: 3-31-77

Signed: *William Jones*  
Title: Chief, Verification Branch

- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 3-31-77

Signed: *RAF*  
Title: Chief, Processing Division

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9509**  
**AHP-20-2-75**

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET Plus PNO & Excess Overlay		1	BOAT SHEETS (1 paper & 1 mylar) (2 parts)		1	
DESCRIPTIVE REPORT		1	OVERLAYS 6 preliminary overlay		6	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
<del>ENCLOSURES</del> ENVELOPES	2x					1
CAHIERS	2 (Pathograms & Printouts)		1x			
VOLUMES	2					
BOXES			1-Smooth			
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	REVIEW	TOTALS
POSITIONS ON SHEET				3336
POSITIONS CHECKED		350	5	
POSITIONS REVISED		35		
DEPTH SOUNDINGS REVISED		367	7	
DEPTH SOUNDINGS ERRONEOUSLY SPACED		---		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		---		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS		8	4	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		70	2	
SPECIAL ADJUSTMENTS		--		
ALL OTHER WORK		92	16	
<b>TOTALS</b>		<b>170</b>	<b>22</b>	
PRE-VERIFICATION BY F.D. Lamison, F.L. Saunders	BEGINNING DATE 07/01/76	ENDING DATE 09/15/76		
VERIFICATION BY B.J. Stephenson	BEGINNING DATE 09/28/76	ENDING DATE 10/28/76		
REVIEW BY B.J. Stephenson	BEGINNING DATE 01/18/77	ENDING DATE 01/19/77		

*Quality Control: G. K. Myers 16 hrs 5/14/77* *Navigation: Raymond Jones 28-TT*  
S. G.P.O. 1972-769-562/4390 REG. #6 3 hrs

REGISTRY NO. 9509

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. 9509

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 9-23-82 TIME REQUIRED \_\_\_\_\_ INITIALS JHE

REMARKS:

H-9509

Information for Future Presurvey Reviews

No significant bottom changes have occurred since the prior surveys.

<u>Position Index</u>		<u>Bottom Change Index</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
280	0831	3	2	50 years
281	0831	3	2	50 years
280	0832	3	2	50 years
281	0832	3	2	50 years

ATLANTIC MARINE CENTER  
VERIFIER'S REPORT

REGISTRY NO. H-9509

FIELD NO. AHP-20-2-75

Florida, West Coast, Northwest of Clearwater

SURVEYED: April 17 through August 1, 1975

SCALE: 1:20,000

PROJECT NO.: OPR-508

SOUNDINGS: Raytheon DE-723  
Raytheon Digital  
Depth Monitor

CONTROL: Raydist  
(Range-Range)

Chief of Party ..... LCDR J. O. Rolland  
Surveyed by ..... LCDR D. M. Wilson  
..... LTJG R. P. Floyd  
..... LTJG C. P. Berg  
..... ENS S. R. Ellis  
Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... B. J. Stephenson

1. Introduction

No unusual problems were encountered; however, the projection parameter was revised, and the red changes in the Descriptive Report were made by the verifier.

2. Control and Shoreline

- a. The origin of control is covered in Section F of the Descriptive Report.
- b. There is no shoreline in the area of the present survey.

3. Hydrography

- a. Depths at crossings are in good agreement.
- b. The standard depth curves were adequately delineated. Brown curves and the 36 foot supplemental depth curve were added to portray certain bottom features.
- c. The development of the bottom configuration and the investigation for least depths are considered adequate.



#### 4. Condition of Survey

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate to conform to the requirements of the Provisional Hydrographic Manual, with the following exceptions:

- a. The sounding volumes were not properly stamped.
- b. The index in the sounding volumes were not filled out.
- c. The front cover of the sounding volumes were not filled out completely.

#### 5. Junctions

An adequate junction was effected with the following surveys:

- H-9510 (1975) on the east
- H-9511 (1975) on the north
- H-9390 and H-9391 (1973) on the south

A butt junction was effected with H-7792 (1948-50) on the west. The comparison reveals a difference of one to four feet. These differences could be attributed to natural changes that have occurred during the time lapse, and the scale difference of the two surveys.

The more completely developed present survey supersedes H-7792 (1948-50) within the common area and should be used for the charted curves.

#### 6. Comparison with Prior Surveys

- H-1760 (1886) 1:40,000
- H-1593a (1884) 1:40,000
- H-1593b (1884) 1:40,000

These surveys, taken together, cover the area of the present survey. Soundings on the 1884 surveys are actually too sparse for a detailed comparison; however, a comparison was made and the present survey reveals only minor differences, if you take into consideration the less detailed and less accurate methods employed on the prior surveys. The hydrographer has prepared a detailed comparison in Section K of the Descriptive Report

which has listed the major discrepancies. In most cases even these discrepancies can be justified if consideration is given to the survey methods employed.

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

7. Comparison with Charts 11409, 13th Edition, February 21, 1976 and 11400, 15th Edition, November 8, 1975

a. Hydrography

The charted hydrography originates with the previously discussed junctional and prior surveys which require no further consideration.

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

b. Aids to Navigation

There are no aids to navigation on the present survey.

c. Attention is directed to Section L of the Descriptive Report.

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.

Approval Sheet for H-9509

Examined and Approved:  
Hydrographic Inspection Team  
Date: 03/30/77

*Robert A. Trauschke*

CDR Robert A. Trauschke, NOAA  
Chief, Processing Division

CDR Jeffrey G. Carlen, NOAA\*  
Chief, Coastal Mapping Division

*Douglas Mason*

.. Douglas Mason, LT, NOAA  
Chief, EDP Branch

*William L. Jones*

William L. Jones  
Chief, Verification Branch

*Dorothy C. Calland*

Dorothy C. Calland  
Verification Branch

\* TDY

Approved/Forwarded

*Robert C. Munson*

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

NOTE: The original Approval Sheet for  
this survey was accidentally  
destroyed at AMC.

*Robert A. Trauschke*



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

C352

May 4, 1977

*a J Patrick*  
TO: A. J. Patrick  
Chief, Marine Surveys Division  
FROM: *G. K. Myers*  
G. K. Myers  
Chief, Quality Control Branch

SUBJECT: Quality Control Report, H-9509 (1975), Florida, West Coast  
of Florida, Off Tarpon Springs

A quality control inspection of H-9509 (1975) has been accomplished to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths and navigation hazards, decisions and actions by the verifier, and cartographic presentation of data.

Junctions with H-9511 (1975) on the north, H-9510 (1975) on the east, H-9390 (1973) on the southeast, and H-9391 (1973) on the southwest will be evaluated during the quality control inspection of these surveys.

Generally, the present survey was found to conform to National Ocean Survey standards and requirements except for the following:

1. Descriptions of some bottom characteristics shown on the boat sheet were transferred incorrectly to the smooth sheet.
2. A few supplemental depth curves were added during quality evaluation.
3. A junction with H-7792 (1948-50) on the west was not required by the project instructions. In general, present survey depths are in close harmony with charted depths. However, a comparison between charted and survey depths reveals differences of 1-4 feet in areas covered by chart 1258.
4. Sawtooth recorder tapes were not submitted to the Marine Surveys Division.

CC:  
C351



