

# 9371

Dia. Cht. No. 1244

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-10-1-74**  
Office No. .... **9371**

### LOCALITY

State ..... **FLORIDA**  
General Locality ..... **EAST COAST OF FLORIDA**  
Locality ..... **ORMOND BEACH TO FLAGLER BEACH**

1974

CHIEF OF PARTY  
**FIDEL T. SMITH**

### LIBRARY & ARCHIVES

DATE ..... **9-29-75**

U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098

*charts*

843 SC 'A'  
1244 Appl'd 2-26-76 RAS  
1111  
1001  
1002

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTER NO.
<b>HYDROGRAPHIC TITLE SHEET</b>		H-9371

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 40-1-74
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State Florida

General locality East Coast of Florida

Locality Ormond Beach to Flagler Beach

Scale 1:40,000 Date of survey February - August 1974

Instructions dated March 26, 1973 Project No. OPR 436-746-73

essel NOAA Launches 1257, 1255, and 1261

Chief of party LCDR Fiddl T. Smith

Surveyed by LCDR J. Rolland, LT D. Yeager, LTJG R. Wells

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

Graphic record scaled by Soundings digitized on line

Graphic record checked by Launch officers and survey technicians

Protracted by N.A. Automated plot by Cal. Comp. Plotter - CAB  
DEG-PDF-01 AMC

Verification by N.A.

Soundings in ~~1000~~ feet at MLW ~~MLW~~

REMARKS:

Applied to stels 12-30-75 ✓  
CAB

A. Project

This survey was conducted under OPR 436-746-73 Coasts of Florida and Georgia. Supplemental Instructions are as follows:

Change #1, Supplement to Instructions, dated May 3, 1973 ✓

Change #2, Supplement to Instructions, dated May 17, 1973 ✓

B. Area Surveyed

The area surveyed from the 12 foot curve to about 8 miles offshore between latitudes  $29^{\circ}16'$  and  $29^{\circ}29'$  and offshore to about longitude  $80^{\circ}43'$  between latitudes  $29^{\circ}29'$  and  $29^{\circ}33'$

The field work for this survey was accomplished between February 1, 1974 and August 26, 1974, inclusive.

This survey junctions with the following contemporary surveys:

H-9358 ✓	1:40,000 ✓	1974 ✓	on the south
H-8879 ✓	1:80,000 ✓	1966 ✓	on the east
H-8937 ✓	1:80,000 ✓	1966 ✓	on the east
H-9455 ✓	1:40,000 ✓	1974 ✓	on the north

C. Sounding Vessel

NOAA Launches 1257, 1255, and 1261 accomplished this survey. All records are annotated with vessel numbers. Launch 1257 used black to identify records and Launches 1255 and 1261 used red. All soundings and position numbers on the boat sheets are plotted in black, regardless of which launch obtained them.

D. Sounding Equipment

The following sounding equipment was used on Launch 1257 for this survey:

Raytheon Fathometer, Model DE-723, Unit 723-40, SN 37024 ✓  
Raytheon Digital Depth Monitor, Model DE-723, Unit 723-41, SN 37016 ✓  
Raytheon Electronic Cabinet Unit, Model DE-723, Unit 723-42, SN 1910 ✓

The following sounding equipment was used on Launch 1255:

Raytheon Fathometer, Model DE-723, Unit 723-40, SN 2934 ✓  
Raytheon Digital Depth Monitor, Model DE-723, Unit 723-41, SN 1045 ✓  
Raytheon Electronic Cabinet Unit, Model DE-723, Unit 723-42, SN 2132 ✓

The following sounding equipment was used on Launch 1261:

Raytheon Fathometer, Model DE-723, Unit 723-40, SN 1279  
Raytheon Electronic Cabinet Unit, Model DE-723, Unit 723-42, SN 37013

Depths in this survey range from 6 feet to 83 feet (velocity corrections not applied).

Corrections to echo soundings include draft, settlement and squat, and velocity corrections. Velocity corrections were determined by a combination of bar checks and Beckman TDC data. See the report in the appendix on Corrections to Echo Soundings for more detail.

#### E. Smooth Sheet

The smooth sheet will be plotted at the Atlantic Marine Center, Processing Division, Norfolk, Virginia.

#### F. Control

Two independent methods of control were used in this survey. The first was the Del Norte Technology Trisponder/202 System using the Model 210 Microwave Transponders operating in a range-range mode. This system was used by Launches 1257 and 1261 and many problems were encountered with it. One major problem was finding suitable locations for the shore stations. Since this system is a line of sight system, the stations had to be placed close to the beach to prevent blockage by buildings and other structures. This resulted in another problem. Stations had to be located very close together to allow the launches to develop the 12 foot contour without going too far inside the 30° intersection line. This meant moving shore stations far more often than was feasible, consequently, the Del Norte shore stations were generally located a little farther apart than was desirable.

As a result of surveying too far inside the 30° intersection limit, it is of the hydrographers' opinion that some of the depths obtained by Launch 1261 were poorly located and should be checked. It is recommended that the AMC, Verification Branch take a close look at the soundings obtained by Launch 1261 located farthest inshore between latitudes 29°20.3' and 29°21.9'. These do not agree with the depths obtained by Launch 1257 using Raydist. *No conflicts here on smooth sheet*

Another problem encountered with the Del Norte control system was that of skip zones. These zones are areas where interference caused the system to jump hundreds and thousands of meters. Soundings between the good fixes were plotted by time and course.

The Del Norte system was used on the southern portion of the sheet from the southern limit to approximately latitude 29°19.5' and from there, northward to about 29°25.5' from the inshore limit to one mile offshore. The shore stations used each day are noted at the beginning of each days master printout.

Four sets of Del Norte stations were used in this survey. For operation between days 032 and 044 inclusive, the stations were located as follows:

Left Station: Signal 224 ✓  
Latitude  $29^{\circ}15'22.79''$  ✓  
Longitude  $81^{\circ}01'19.66''$  ✓

Right Station: Signal 406 ✓  
Latitude  $29^{\circ}19'12.96''$  ✓  
Longitude  $81^{\circ}03'12.03''$  ✓

For operation on days 063 and 065, the stations were located as follows:

Left Station: Signal 406 ✓  
Latitude  $29^{\circ}19'12.96''$  ✓  
Longitude  $81^{\circ}03'12.03''$  ✓

Right Station: Signal 462 ✓  
Latitude  $29^{\circ}25'50.75''$  ✓  
Longitude  $81^{\circ}06'17.18''$  ✓

For operation during a portion of day 078, the stations were located as follows:

Left Station: Signal 406 ✓  
Latitude  $29^{\circ}19'12.96''$  ✓  
Longitude  $81^{\circ}03'12.03''$  ✓

Right Station: Signal 438 ✓  
Latitude  $29^{\circ}22'32.85''$  ✓  
Longitude  $81^{\circ}04'45.79''$  ✓

For operation during the remainder of day 078 and for the entire day 088, the stations were located as follows:

Left Station: Signal 438 ✓  
Latitude  $29^{\circ}22'32.85''$  ✓  
Longitude  $81^{\circ}04'45.79''$  ✓

Right Station: Signal 462 ✓  
Latitude  $29^{\circ}25'50.75''$  ✓  
Longitude  $81^{\circ}06'17.18''$  ✓

The remainder of the sheet was controlled using the Hastings Raydist system in the range-range mode. This system was used by Launches 1257 and 1255. Both vessels used the same sets of shore stations.

Launch 1257 used a 1st party system, Navigator SN 59, Transmitter SN 37 operating at a frequency of 3306.400 kHz. Launch 1255 operated with a 4th party system, Navigator SN 58, Transmitter SN A5 at a frequency of 3306.520 kHz.

Three sets of Raydist shore stations were used in this survey. For operation between days 060 and 179, inclusive, the stations were located as follows:

Left(red) Station: ~~Flag~~<sup>g</sup>, 1973 —  
Latitude  $29^{\circ}29'22.61''$  —  
Longitude  $81^{\circ}07'57.11''$  —

Right(green) Station: Signal 585 —  
Latitude  $29^{\circ}50'40.54''$  —  
Longitude  $81^{\circ}15'56.98''$  —

For operation between days 207 and 210, inclusive, the stations were located as follows:

Left Station: Palm, 1974 —  
Latitude  $29^{\circ}28'35.256''$  —  
Longitude  $81^{\circ}10'52.216''$  —

Right Station: Deltona, 1974 —  
Latitude  $29^{\circ}46'50.817''$  —  
Longitude  $81^{\circ}18'30.545''$  —

For operation between days 213 and 238, inclusive, the stations were located as follows:

Left Station: Chicken, 1974 —  
Latitude  $29^{\circ}16'53.19''$  —  
Longitude  $81^{\circ}06'48.88''$  —

Right Station: Palm, 1974 —  
Latitude  $29^{\circ}28'35.256''$  —  
Longitude  $81^{\circ}10'52.216''$  —

The same two units were used in each set of shore stations. They were Red Raydist Model AA60, SN 54 and Green Raydist Model AA60, SN 119.

All but three stations and calibration signals were either triangulation stations or points located by 3rd order traverse methods by Mr. Jim Shea of the Atlantic Marine Center, Operations Division. The three exceptions were as follows:

Signal 406; Located by T-2 and taped distance by personnel from Launch 1257.

Signal 438; Located by sextant and tape by personnel from Launch 1261.

Signal 462; Located by sextant and tape by personnel from Launch 1261.

Calibration was accomplished by 3 point sextant fix. Check angles were used if enough people were available. Otherwise, at least one object was changed during each series of fixes. Corrections were determined by computer using RK 561, Version 8/23/73 and AM 530, Version 6/6/73 and printouts and original data have been submitted with field records.

#### G. Shoreline

No photo control or manuscripts were provided to delineate the shoreline on this survey. In accordance with the project instructions, the 12 foot contour was developed as much as possible. Sounding lines had to be run parallel to the shoreline to accomplish this, however.

#### H. Crosslines

Crosslines were run to the extent of 8% of the principle system of sounding lines. Agreement was excellent, one foot or less in most cases. Apparent disagreement in a few cases is probably due to a relatively rough bottom in the immediate vicinity of the discrepancy.

#### I. Junctions

Soundings agree very well with those from H-9358, which joins the survey on the south and H-9455 which junctions with the north edge of this survey. These two junction surveys were done by A.H.P. Launches 1257, 1255, and 1261 under the same project instructions as this survey. Agreement with H-8879, which bounds this survey on the east, generally is good after applying velocity corrections. Soundings in the northwest corner of that survey, however, are about 2-4 feet deeper than those obtained in the current survey. Agreement with H-8937, which joins the northern quarter of the eastern edge of this survey is good after velocity corrections have been applied.

#### J. Comparison with Prior Surveys

The only presurvey review items on this sheet are dashed-circled items. There are no numbered items. All dashed-circled items not specifically mentioned here were found to agree within 3 feet after velocity corrections were applied.

The charted 57 foot depth at latitude  $29^{\circ}16.8'$ , longitude  $80^{\circ}58.0'$  was not found. The nearest depth to this is 63 feet (after applying velocity corrections). The bottom in this area is very flat so the area was not developed.

A depth of 40 feet (velocity correction applied) was found at latitude  $29^{\circ}20.6'$ , longitude  $80^{\circ}56.0'$ . A development of the area produced no shoaler depths. The charted depth in this vicinity is 45 feet.

No comparison was made with prior surveys.

✓  
K. Comparison with the Chart

Much of the bottom is different than what is indicated by C & GS 1244, 6th Edition, August 4, 1973. For example, the shoal areas centered about longitude 80°56' from 29°18' to 29°22' are not adequately shown on the chart.

There is a 46 foot depth (velocity correction applied) at latitude 29°25.9', longitude 80°59.7' that is not charted. Likewise, many other shoal soundings along a line running NNW, SSE through that point are not shown.

A 57 foot depth (velocity correction applied) at latitude 29°29.5', longitude 80°44.9' is not charted and the bottom in this area is very poorly represented.

The water in the vicinity of latitude 29°29.5', 80°52' is 5-6 feet deeper than what the chart indicates.

✓  
L. Adequacy of Survey

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

✓  
M. Aids to Navigation

There are no fixed or floating aids to navigation within the limits of this survey.

✓  
N. Statistics

	<u>1257</u>	<u>1255</u>	<u>1261</u>	<u>Total</u>
Nautical Miles of Sounding Line	1737 ✓	230 ✓	109 ✓	2076 ✓
Nautical Miles of Crossline	148 ✓	10 ✓	0	158 ✓
Nautical Miles of Development	93 ✓	4 ✓	0	97 ✓
Miscellaneous Distance Run (NM)	348 ✓	13 ✓	30 ✓	391 ✓
Nautical Miles to and from	1725 ✓	233 ✓	172 ✓	2130 ✓
Bottom Samples	32 ✓	2 ✓	0 ✓	34 ✓

Total # Pos. 3743

✓  
O. Miscellaneous

Field work on this survey was accomplished rather intermittently. There were many reasons for this, including mechanical and electrical problems aboard the launches, party moves, and work on AHP 40-2-74 and AHP 40-3-74 during the same period of time.



Position numbers 500-596 and 602-769 inclusive were duplicated as both Launches 1257 and 1261 used these numbers. Position number 681 was used three times because Launch 1261 duplicated it once itself and Launch 1257 also used it.

Data obtained by Launch 1257 during the entire day 234 was rejected. All original records except the master tape were retained. The master tape was destroyed. This day was rejected because the end of day calibration did not agree with the beginning of day calibration by approximately two lanes on each Raydist pattern. The Raydist strip chart was closely examined and no evidence of lane losses could be found. Even if lane losses had been found the problem would not be solved entirely, as pattern I correctors would have drifted about 0.4 lane in that event.

Day 234 was spent on developments and splits and for that reason the original printout, fathogram, and Raydist strip chart are retained. It may be possible for verifiers to resolve the problem. The field work done on day 234 was redone on subsequent days, however. *The data for 234 day was not used when the processing section spooled the tapes, and the verification section did not request the data be plotted since the*  
P. Recommendations *field party rejected it.*

None

Q. References to Reports

1. Electronic Control Report, OPR 436, AHP 40-1-74, H-9371
2. Report on Corrections to Echo Soundings OPR 436, AHP 40-1-74, H-9371

APPROVAL SHEET  
SURVEY H-9371 (AHP 40-1-74)

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



F. T. Smith  
LCDR, NOAA  
Chief, AHP

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436    2. Reg. # H-9371    3. Field # AHP-40-1-74  
 4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)  
 5. Frequency 3306.520 (for conversion of electronic lanes to meters)  
 6. Mode of Operation (check one):

Range-Range  Type 24

Range-Visual

Range One (R <sub>1</sub> )	(Brown)	Lat.	<u>29</u> °	<u>16</u> '	<u>53.19</u> "
Station I.D.	<u>Chicken Raydist, 1974</u>	Long.	<u>81</u> °	<u>06</u> '	<u>48.88</u> " <u>07</u>
Range Two (R <sub>2</sub> )	(Green)	Lat.	<u>29</u> °	<u>28</u> '	<u>35.26</u> "
Station I.D.	<u>Palm Raydist, 1974</u>	Long.	<u>81</u> °	<u>10</u> '	<u>52.22</u> " <u>01</u>

Hyperbolic (3-station)

Hyper-Visual

Slave One		Lat.	_____ °	_____ '	_____ "
Station I.D.	_____	Long.	_____ °	_____ '	_____ "
Master		Lat.	_____ °	_____ '	_____ "
Station I.D.	_____	Long.	_____ °	_____ '	_____ "
Slave Two		Lat.	_____ °	_____ '	_____ "
Station I.D.	_____	Long.	_____ °	_____ '	_____ "

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=0

Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>1255</u>	<u>140758</u>	<u>213</u>	<u>172738</u>	<u>213</u>	<u>5326</u>	to <u>5410</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks: \_\_\_\_\_

1/31/74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

- 1. Project # OPR-436      2. Reg. # H-9371      3. Field # AHP-40-1-74
- 4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)
- 5. Frequency 3306.400 (for conversion of electronic lanes to meters)
- 6. Mode of Operation (check one):

Range-Range  Type 23

Range-Visual

Range One (R<sub>1</sub>) (Brown)  
 Station I.D. Chicken Raydist 1974  
 Range Two (R<sub>2</sub>) (Green)  
 Station I.D. Palm Raydist 1974

Lat.	<u>29</u> °	<u>16</u> '	<u>53.19</u> "	
Long.	<u>81</u> °	<u>06</u> '	<u>48.88</u> "	067
Lat.	<u>29</u> °	<u>28</u> '	<u>35.26</u> "	
Long.	<u>81</u> °	<u>10</u> '	<u>52.22</u> "	001

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____°	_____'	_____"	
Long.	_____°	_____'	_____"	
Lat.	_____°	_____'	_____"	
Long.	_____°	_____'	_____"	
Lat.	_____°	_____'	_____"	
Long.	_____°	_____'	_____"	

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=0

Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)		
	Time	Day	Time	Day		to	
<u>1257</u>	<u>133418</u>	<u>214</u>	<u>175355</u>	<u>238</u>	<u>1898</u>	to	<u>3071</u>
<u>1255</u>	<u>140758</u>	<u>213</u>	<u>172738</u>	<u>213</u>	<u>5326</u>	to	<u>5410</u>

9. Remarks:

\_\_\_\_\_

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436      2. Reg. # H-9371      3. Field # AHP-40-1-74  
 4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)  
 5. Frequency 3306.400 (for conversion of electronic lanes to meters)  
 6. Mode of Operation (check one):

Range-Range  **Type 22**      Range-Visual

Range One (R<sub>1</sub>) *(Purple)*      Lat. 29 ° 29 ' 22.61 "  
 Station I.D. Flag Raydist 1973      Long. 81 ° 07 ' 57.11 "<sup>003</sup>  
 Range Two (R<sub>2</sub>) *(Blue)*      Lat. 29 ° 50 ' 40.54 "  
 Station I.D. Signal 585      Long. 81 ° 15 ' 56.98 "<sup>004</sup>

Hyperbolic (3-station)       Hyper-Visual

Slave One      Lat. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 Station I.D. \_\_\_\_\_      Long. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 Master      Lat. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 Station I.D. \_\_\_\_\_      Long. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 Slave Two      Lat. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 Station I.D. \_\_\_\_\_      Long. \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=0  
 Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:  
 Slave One must be to observer's Left;  
 Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.  
 This form applies to all data on this survey.  
 This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>1257</u>	<u>1620</u>	<u>24 060</u>	<u>1937</u>	<u>56 179</u>	<u>489</u>	to <u>1897</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks: \_\_\_\_\_

1/31/74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

- 1. Project # OPR-436    2. Reg. # H-9371    3. Field # AHP-40-1-74
- 4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)
- 5. Frequency 3306.520 (for conversion of electronic lanes to meters)
- 6. Mode of Operation (check one):

Range-Range  Type 21

Range-Visual

Range One (R<sub>1</sub>) *(Green)*  
 Station I.D. Palm Raydist 1974  
 Range Two (R<sub>2</sub>) *(Red)*  
 Station I.D. Deltona Raydist 1974

Lat.	<u>29</u> °	<u>28</u> '	<u>35.26</u> "
Long.	<u>81</u> °	<u>10</u> '	<u>52.22</u> " <i>601</i>
Lat.	<u>29</u> °	<u>46</u> '	<u>50.82</u> "
Long.	<u>81</u> °	<u>18</u> '	<u>30.54</u> " <i>002</i>

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "
Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "
Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "

- 7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=0

Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

- 8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>1255</u>	<u>125300</u>	<u>207</u>	<u>151444</u>	<u>210</u>	<u>5000</u>	to <u>5325</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

- 9. Remarks: \_\_\_\_\_

1. Project # OPR-436 2. Reg. # H- 9371 3. Field # AHP-40-1-74

4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range  Type 104

Range-Visual

Range One (R<sub>1</sub>) (Brown)  
 Station I.D. Signal 438  
 Range Two (R<sub>2</sub>) (Blue)  
 Station I.D. Signal 462

Lat.	<u>29</u> °	<u>22</u> '	<u>32.85</u> "	"
Long.	<u>81</u> °	<u>04</u> '	<u>45.79</u> "	" <sup>b</sup>
Lat.	<u>29</u> °	<u>25</u> '	<u>50.75</u> "	" <sup>o</sup>
Long.	<u>81</u> °	<u>06</u> '	<u>17.18</u> "	" <sup>o</sup>

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____°	_____'	_____"	"
Long.	_____°	_____'	_____"	"
Lat.	_____°	_____'	_____"	"
Long.	_____°	_____'	_____"	"
Lat.	_____°	_____'	_____"	"
Long.	_____°	_____'	_____"	"

7. Location of Survey:

Range-Range

Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=β

Survey area is to observer's Left  A=1

Hyperbolic

Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)		
	Time	Day	Time	Day		to	
<u>1261</u>	<u>154613</u>	<u>088</u>	<u>175157</u>	<u>088</u>	<u>737</u>	to	<u>769</u>
_____	_____	_____	_____	_____	_____	to	_____
_____	_____	_____	_____	_____	_____	to	_____

9. Remarks: \_\_\_\_\_

1. Project # OPR-436      2. Reg. # H-9371      3. Field # AHP-40-1-74

4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range  Type 103

Range-Visual

Range One (R<sub>1</sub>) (Red)  
 Station I.D. Signal 406  
 Range Two (R<sub>2</sub>) (Brown)  
 Station I.D. Signal 438

Lat.	29°	19'	12.96"
Long.	81°	03'	12.03"
Lat.	29°	22'	32.85"
Long.	81°	04'	45.79"

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=∅  
 Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

Slave One must be to observer's Left;  
 Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.  
 This form applies to all data on this survey.  
 This form applies to part of the data on this survey.

Vessel EDP #	From Time	Day	To Time	Day	Position Numbers (inclusive)
1261	135513	078	190147	078	602 to 734
_____	_____	_____	_____	_____	_____ to _____
_____	_____	_____	_____	_____	_____ to _____

9. Remarks: \_\_\_\_\_



1. Project # OPR- 436      2. Reg. # H-9371      3. Field # AHP-40-1-74
4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)
5. Frequency 1498.35 (for conversion of electronic lanes to meters)
6. Mode of Operation (check one):

Range-Range  Type 102

Range-Visual

Range One (R<sub>1</sub>)      (Red)  
 Station I.D.      Signal 406  
 Range Two (R<sub>2</sub>)      (Blue)  
 Station I.D.      Signal 462

Lat.	29 °	19	12.96 "
Long.	81 °	03	12.03 "
Lat.	29 °	25	50.75 "
Long.	81 °	06	17.18 "

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____ °	_____	_____ "
Long.	_____ °	_____	_____ "
Lat.	_____ °	_____	_____ "
Long.	_____ °	_____	_____ "
Lat.	_____ °	_____	_____ "
Long.	_____ °	_____	_____ "

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=β

Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive)		
	Time	Day	Time	Day		to	
<u>1261</u>	<u>151647</u>	<u>063</u>	<u>180236</u>	<u>065</u>	<u>500</u>	to	<u>596</u>
_____	_____	_____	_____	_____	_____	to	_____
_____	_____	_____	_____	_____	_____	to	_____

9. Remarks: \_\_\_\_\_

43-2  
31/74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

- 1. Project # OPR-436    2. Reg. # H-9371    3. Field # AHP-40-1-74
- 4. Type of Control: Del Norte (Hi-Fix, Raydist, EPI, etc.)
- 5. Frequency 1498.35 (for conversion of electronic lanes to meters)
- 6. Mode of Operation (check one):

Range-Range  Type 101

Range-Visual

Range One (R<sub>1</sub>)                      (*Orange*)  
 Station I.D.    Signal 224  
 Range Two (R<sub>2</sub>)                      (*Red*)  
 Station I.D.    Signal 406

Lat.	<u>29</u> °	<u>15</u> '	<u>22.79</u> "	
Long.	<u>81</u> °	<u>01</u> '	<u>19.66</u> "	008
Lat.	<u>29</u> °	<u>19</u> '	<u>12.96</u> "	009
Long.	<u>81</u> °	<u>03</u> '	<u>12.03</u> "	

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "
Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "
Lat.	_____ °	_____ '	_____ "
Long.	_____ °	_____ '	_____ "

7. Location of Survey:

Range-Range  Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

- Survey area is to observer's Right  A=0
- Survey area is to observer's Left  A=1

Hyperbolic  Looking from survey area toward Master Station:

- Slave One must be to observer's Left;
- Slave Two must be to observer's Right.

- 8.  This form is submitted as an aid in preparing a boat sheet.
- This form applies to all data on this survey.
- This form applies to part of the data on this survey.

Vessel EDP #	From		To		Position Numbers (inclusive).	
	Time	Day	Time	Day		
<u>1257</u>	<u>144301</u>	<u>032</u>	<u>200602</u>	<u>044</u>	<u>00001</u>	to <u>0488</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks: \_\_\_\_\_

# SIGNAL LIST

OPR 426

AHP 40-1-74

H-9371

196	29 21 0473	081 04 0731	ORMOND BCH TK (Traverse)	-	✓	-
200	29 19 1561	081 03 1331	NE COR OF NORTH BEACH CLUB CONDO (Traverse)			
208	29 17 2395	081 02 1889	NE COR JULIANS OCEAN FRONT APTS. (Traverse)			
210	29 17 2610	081 02 4800	ORMOND HOTEL CHIMNEY, 1906 (A Vol 1, pg 801) <sup>138</sup>			
212	29 16 4619	081 03 4631	ORMOND MUNICIPAL WATER TK CTR, 1934 (A Vol 1, pg 190) <sup>138</sup>			
216	29 16 0006	081 01 3766	SE COR ALIKI CONDO (Traverse)			
224	29 15 2279	081 01 1966	SE COR BEACHCOMBER MOTEL (Traverse)			
228	29 13 3653	081 00 2451	SPACE NEEDLE (Traverse)			
234	29 09 5755	080 58 3694	NE COR OLEANS CONDO (Traverse)			
406	29 19 1296	081 03 1203	NE COR OF SOUTH BEACH CLUB CONDO (Traverse)			
440	29 22 3449	081 04 4705	2" BRONZE WASHER (Traverse)			
442	29 24 3597	081 05 4208	ORANGE BANNER (Traverse)			
460	29 25 5137	081 06 1640	ORANGE TWIST BANNER (Traverse)			
480	29 27 0938	081 06 5139	ORANGE TRIPOD (Traverse)			
486	29 28 0280	081 08 3470	MICRO TOWER (Photo Signal) 243			-
500	29 28 4243	081 07 4286	FLAGLER BEACH WATER TANK (Traverse)			-
506	29 29 3839	081 09 2064	STACK (EASTERLY OF TWO) (Photo Signal) 242			
512	29 30 4642	081 08 3581	ORANGE TRIPOD (Traverse)			
516	29 31 2660	081 08 5575	NE COR WHITE CONCRETE BLDG. (Traverse)			
524	29 33 3902	081 10 0096	ORANGE TRIPOD (Traverse)			
536	29 37 0168	081 11 2631	CENTER OF ABANDONED LIFE GUARD TOWER (Traverse)			

2-18-71

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

- 1. Project No. OPR-436
- 2. Reg. No. H-9371
- 3. Field No. AHP-40-1-74
- 4. Requested By W.H. Tyndall
- 5. Ship or Office Verification
- 6. Date Required or sdg. o/l

7. Polyconic  Modified Transverse Mercator

8. Central Meridian of Projection 80 ° 54 ' 30 "

9. Survey Scale: 1: 40,000

10. Size of Sheet (check one):

36 x 54  36 x 60  Other  Specify \_\_\_\_\_

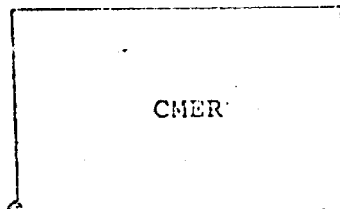
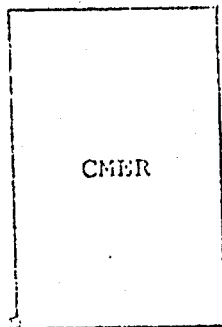
11. Sheet Orientation (check one):

NYX = 1

NYX =  $\beta$

N

N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 29 ° 15 ' 00 "

Longitude 81 ° 11 ' 30 "

13. G.P.'s of triangulation and/or signals attached

14. Material Desired: Tracing Paper  Mylar

Smooth Sheet  Other  Specify \_\_\_\_\_

15. Remarks: no origin change, only change sheet size

## ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1257

SHEET : H-9371

TIME	DAY	PATTERN 1	PATTERN 2
144301	032	-00010	-00036
235959		-00010	-00036
164729	042	-00007	-00041
175742		-00007	-00047
235959		-00007	-00041
135356	043	-00010	-00036
235959		-00010	-00036
141343	044	-00007	-00037
235959		-00007	-00037
162024	060	-00070	+00050
235959		-00070	+00050
150825	061	+00036	-00051
235959		+00036	-00051
144410	063	+00024	-00058
235959		+00024	-00058
142843	066	+00022	-00060
235959		+00022	-00060
152728	067	+00028	+00034
235959		+00028	+00034
144155	084	-00002	-00071
235959		-00002	-00071
153136	088	-00001	-00067
235959		-00001	-00067
163432	091	+00005	-00057
235959		+00005	-00057
145803	092	+00001	-00062
235959		+00001	-00062
143800	093	+00004	-00058
235959		+00004	-00058
142330	107	+00002	-00061

## ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1257

SHEET : H-9371

TIME	DAY	PATTERN 1	PATTERN 2
235959	107	+00002	-00061
144015	108	-00003	+00039
235959		-00003	+00039
140757	136	-00006	+00030
235959		-00006	+00030
134155	148	+00023	+00023
235959		+00023	+00023
132237	171	-00016	-00064
235959		-00016	-00064
133920	179	-00030	+00021
235959		-00030	+00021
133418	214	-00035	+00023
235959		-00035	+00023
131149	215	-00032	+00027
160750		-00032	+00027
141021	225	+00008	+00022
235959		+00008	+00022

## ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1257

SHEET : H9371

TIME	DAY	PATTERN 1	PATTERN 2
131244	226	+00007	+00005
235959		+00007	+00005
130606	227	+00017	+00012
235959		+00017	+00012
120000	228	+00015	+00014
235959		+00015	+00014
124457	229	+00018	+00002
235959		+00018	+00002
125850	231	+00025	+00016
235959		+00025	+00016
122102	232	+00036	-00006
235959		+00036	-00006
130145	235	+00012	+00003
235959		+00012	+00003
125744	239	+00027	+00011
175420		+00027	+00011

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1255

SHEET : H-9371

TIME	DAY	PATTERN 1	PATTERN 2
125300 133315	207	+00023 +00023	+00040 +00040
205059		+00023	+00040
132125 173529	208	+00020 +00020	+00023 +00023
132236 143937 235959	210	-00001 -00001 -00001	+00025 +00025 +00025
140753 233959	213	+00041 +00041	+00030 +00030



ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1261

SHEET : H-9371

TIME	DAY	PATTERN 1	PATTERN 2
151647	063	+00004	-00021
235959		+00004	-00021
150611	065	+00009	-00028
235959		+00009	-00028
135513	078	-00010	+00048
160715		-00010	+00048
172039		+00044	-00038
172829		+00044	-00038
180415		+00044	-00038
235959		+00044	-00038
154613	088	-00032	-00009
235959		-00032	-00009

TC/TI TAPE FOR OPR 436, H 9371 ... VESNO 1257

144301 0 0000 0001 032 125700 009371

140757 0 0003 0001 136 125700 009371

133418 0 0005 0001 214 125700 009371

VELOCITY TABLE FOR OPR 436, H 9371 ... VESNO 1257

000080 0 0002 0001 000 125700 009371

000128 0 0004

000171 0 0006

000210 0 0008

000249 0 0010

000288 0 0012

000327 0 0014

000366 0 0016

000405 0 0018

000444 0 0020

000483 0 0022

000522 0 0024

000561 0 0026

000599 0 0028

000638 0 0030

000677 0 0032

000716 0 0034

000755 0 0036

000794 0 0038

000833 0 0040

999999 0 0040

TC/TI TAPE FOR OPR 436, H 9371 ... VESNO 1255

000000 0 1003 0004 207 125500 009371  
151444 0 1003 0004 210 125500 009371  
000000 0 1003 0004 213 125500 009371  
235959 0 0000 0004 213 125500 009371

VELOCITY TABLE FOR OPR 436, H 9371 ... VESNO 1255

000040 0 0002 0004 000 125500 009371  
000085 0 0004  
000125 0 0006  
000150 0 0008  
000185 0 0010  
000220 0 0012  
000255 0 0014  
000290 0 0016  
000330 0 0018  
000365 0 0020  
000400 0 0022  
000440 0 0024  
000475 0 0026  
000510 0 0028  
000550 0 0030  
999999 0 0030

TC/TI TAPE FOR OPR 436, H 9371 ... VESNO 1261

000000 0 0000 0003 063 126100 009371

135513 0 1002 0003 078 126100 009371

VELOCITY TABLE FOR OPR 436, H 9371 ... VESNO 1261

000000 1 0002 0003 000 126100 009371

000048 0 0000

000095 0 0002

000145 0 0004

000195 0 0006

000245 0 0008

000294 0 0010

000343 0 0012

000393 0 0014

000442 0 0016

000492 0 0019

000542 0 0020

000590 0 0022

000662 0 0024

000690 0 0026

000732 0 0028

999999 0 0028



## ABSTRACT OF TIMES OF HYDROGRAPHY

NOAA LAUNCH 1257

Julian Day	Date 1974	Position Numbers From-To	Time	
			From	To
032	2/1	1 - 130	144301	194604
042	2/11	131 - 159	164729	185704
043	2/12	160 - 344	135356	204906
044	2/13	345 - 488	141343	200602
060	3/1	489 - 572	162024	194619
061	3/2	573 - 680	150825	193128
063	3/4	681 - 792	144410	194200
066	3/7	793 - 927	142843	201115
067	3/8	928 - 1033	152728	194410
084	3/25	1034 - 1140	144155	190051
088	3/29	1141 - 1194	153136	174154
091	4/1	1195 - 1274	163422	194648
092	4/2	1275 - 1300	145803	155830
093	4/3	1301 - 1354	143800	164402
107	4/17	1355 - 1449	162330	192053
108	4/18	1450 - 1460	144015	175654
136	5/16	1461 - 1544	140757	173830
148	5/28	1545 - 1642	134155	185838
171	6/20	1643 - 1783	132237	190946
179	6/28	1784 - 1897	133920	193756
214	8/2	1898 - 2007	133418	183831
215	8/3	2008 - 2072	131149	160750
225	8/13	2073 - 2184	141021	192418
226	8/14	2185 - 2294	131244	181534
227	8/15	2295 - 2404	130606	180823
228	8/16	2405 - 2521	125911	181147
229	8/17	2522 - 2626	124457	175015
231	8/19	2627 - 2748	125850	183001
232	8/20	2749 - 2900	122102	183030

ABSTRACT OF TIMES OF HYDROGRAPHY  
NOAA LAUNCH 1257 (CONTINUED)

Julian Day	Date 1974	Position Numbers From - To	Time From - To
234 ✓	8/22 ✓	All data rejected printout, fathogram, and sawtooth record included with data. Master data tape destroyed.	
235 ✓	8/23 ✓	2901 - 2952 ✓	125739 - 180722 ✓
238 ✓	8/26 ✓	2953 - 3071	125704 - 175355

---

2/7/75

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): Daytona Beach, Florida

Period: February 1, 1974 - August 26, 1974

HYDROGRAPHIC SHEET: H-9371

OPR: 436

Locality: Off East Coast of Florida

Plane of reference (mean ~~low~~ low water): 2.22 ft.

Height of Mean High Water above Plane of Reference is 4.0 ft.

Remarks: Zone direct.

*James R. Hubbard*  
for Chief, Tides Branch



ATLANTIC MARINE CENTER  
VERIFICATION OF SMOOTH TIDES

SURVEY H- 9371

PLANE OF REFERENCE: MLW OR ~~MHW~~  
TIME MERIDIAN: 0 GMT  
HEIGHT DATUM ON STAFFS: 1. 2.2 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

TIDE STATIONS	POSITION	TYPE GAGE	TIME CORR.		HEIGHT CORR.*	
			H.W.	L.W.	H.W.	L.W.
1. Daytona Beach, Florida	$\phi$ 29°14' $\lambda$ 81°	standard				
2.	$\phi$ $\lambda$					
3.	$\phi$ $\lambda$					
4.	$\phi$ $\lambda$					

HOURLY HEIGHTS:  FROM ROCKVILLE OFFICE  
 FROM FIELD MARIGRAMS VERIFIED BY: Rockville

TIDE ZONING:  NOT APPLICABLE  
 BY COMPUTER  
 FROM TWO OR MORE GAGES

LIMITS AND DESCRIPTION OF ZONING METHODS:

TIDE CORRECTIONS COMPILED:  BY COMPUTER VERIFIED BY: GFT  
 MANUALLY VERIFIED BY: \_\_\_\_\_

HEIGHT OF MHW ABOVE PLANE OF REFERENCE: 4.0

TIDE CORRECTIONS VERIFIED ON SOUNDING PRINTOUT BY: GFT

DATE OF VERIFICATION: 3/3/75

\*OR RATIO

EXAMINED AND APPROVED

*[Signature]*

Tide Note

OPR 436

AHP 40-1-74

H-9371

Predicted tides from Daytona Beach(Ocean), latitude  $29^{\circ}14'$ , longitude  $81^{\circ}00'$ , were applied to the depths obtained by AHP Launches 1257, 1255 and 1261 for the boatsheet. Actual tides from this station will be applied to these depths for the smooth sheet. No zoning is required.

---



HYDRO and POSITION DATA ABSTRACT - LAUNCH 1261 - (DAYS OF ATTEMPTED HYDRO)

DAY	No. of Abs.	NM of Hydro	Starting Pos.	Ending Pos.	Mile To End	Misc Mile
063	50	32.0	500.0	549	40.0	5.0
065 <sup>TDC</sup> <del>065</del>	47	24.0	550.0	596	40.0	10.0
067		Rejected			40.0	5.0
071		Rejected			40.0	5.0
075		Turn Back at Power Inlet				
077		Turn Back at Power Inlet				
078	135	45.0	602	736	44.0	5.0
080		Rejected			44.0	10.0
084		Rejected			55.0	15.5
088 <sup>TDC</sup>	33	8.0	737	769	48.0	10.0
No Developments or Crosslines ; Bar Checks on TDC's in Day Window						



OCEANOGRAPHIC LOG SHEET - M  
BOTTOM SEDIMENT DATA

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

VESSEL	PROJ. NO.	YEAR	SAMPLE POSITION		DEPTH (meters)	WEIGHT OF SAM- PLER	AP- PROX. TRAN- SITION	LENGTH OF CORE	COLOR OF SEDI- MENT	FIELD DESCRIPTION	REMARKS (Trawl conditions, catch/weight, depth, hauler, haul no., type of bottom, relief, etc.)	OBS. INIT.
			LATITUDE	LONGITUDE								
NOAA Launch 1251 OPR 436		74										
0001	2/11	29°19.3'	81°00.6'	59						fine br S, brk sh	Pos # 131	
02	2/11	29°19.3'	80°58.2'	64						fine br S, brk sh	# 132	
03	2/11	29°19.3'	80°55.8'	53						fine br S	# 133	
04	2/11	29°16.6'	80°54.7'	58						fine br S	# 134	
05	2/11	29°16.6'	80°56.8'	61						fine br S	# 135	
06	2/11	29°16.6'	80°59.4'	53						fine br S	# 136	
07	4/18	29°31.5'	81°04.0'	60						fine br S, brk sh	# 1452	
08	4/18	29°30.2'	81°01.0'	64						brk sh	# 1451	
09	"	29°34.5'	80°57.8'	67						brk sh	# 1452	
10	"	29°30.2'	80°54.6'	65						fine br S.	# 1453	
11	"	29°30.2'	80°51.5'	59						fine br S.	# 1454	
12	"	29°30.2'	80°48.5'	69						fine br S.	# 1455	
13	"	29°30.2'	80°45.4'	65						fine gy S, brk sh	# 1456	
14	"	29°32.8'	80°45.4'	64						fine br S, brk sh	# 1457	
15	"	29°32.8'	80°48.4'	63						fine br S, brk sh	# 1458	
16	"	29°32.8'	80°51.6'	63						fine gy S, sh	# 1459	
17	"	29°32.8'	80°54.6'	58						fine br S, brk sh	# 1460	

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M  
BOTTOM SEDIMENT DATA

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

VESSEL	PROJ. NO.	YEAR	SAMPLE POSITION		DEPTH (Fathoms)	WEIGHT OF SAM- PLER	AP- PROX. FRAC- TION	LENGTH OF CORE	COLOR OF SEDI- MENT	FIELD DESCRIPTION	REMARKS (Trawl conditions, collection gear, depth, cutter, speed, no. of bottom, soil of line, slope, plan, disposition, etc.)	OBS. INIT.
			LATITUDE	LONGITUDE								
NOAA <i>CANADIAN</i>	<i>CPR436</i>	<i>74</i>										
<i>18</i>	<i>May 28</i>		<i>29° 32.8' N</i>	<i>81° 04.0' W</i>	<i>61</i>				<i>fine br S, blk sh</i>	<i>pos # <del>441</del> 1545</i>		
<i>19</i>	<i>May 28</i>		<i>29° 32.8'</i>	<i>81° 00.8'</i>	<i>55</i>				<i>fine br S, blk sh</i>	<i>1546</i>		
<i>20</i>	<i>May 28</i>		<i>29° 32.8'</i>	<i>80° 57.8'</i>	<i>59</i>				<i>fine br S</i>	<i>1547</i>		
<i>21</i>	<i>Aug. 23</i>		<i>29° 27.4'</i>	<i>81° 01.4'</i>	<i>58</i>				<i>fine br S</i>	<i>2941</i>		
<i>22</i>	<i>"</i>		<i>29° 25.1'</i>	<i>81° 03.4'</i>	<i>59</i>				<i>bk M, sh</i>	<i>2942</i>		
<i>23</i>	<i>"</i>		<i>29° 22.5'</i>	<i>81° 02.4'</i>	<i>59</i>			<i>1</i>	<i>fine br S, sh</i>	<i>2943</i>		
<i>24</i>	<i>"</i>		<i>29° 20.0'</i>	<i>81° 01.4'</i>	<i>57</i>				<i>blk sh</i>	<i>2944</i>		
<i>25</i>	<i>"</i>		<i>29° 20.0'</i>	<i>80° 58.2'</i>	<i>62</i>				<i>fine br S, blk sh</i>	<i>2945</i>		
<i>26</i>	<i>"</i>		<i>29° 20.0'</i>	<i>80° 55.0'</i>	<i>56</i>				<i>fine gy S, blk sh</i>	<i>2946</i>		
<i>27</i>	<i>"</i>		<i>28° 22.7'</i>	<i>80° 56.1'</i>	<i>55</i>				<i>fine br S, blk sh</i>	<i>2947</i>		
<i>28</i>	<i>"</i>		<i>29° 22.7'</i>	<i>80° 59.4'</i>	<i>62</i>				<i>fine br S, blk sh</i>	<i>2948</i>		
<i>29</i>	<i>"</i>		<i>29° 25.1'</i>	<i>81° 00.4'</i>	<i>60</i>				<i>fine br S</i>	<i>2949</i>		
<i>30</i>	<i>"</i>		<i>29° 25.1'</i>	<i>80° 57.0'</i>	<i>62</i>				<i>fine br S, blk sh</i>	<i>2950</i>		
<i>31</i>	<i>"</i>		<i>29° 27.5'</i>	<i>80° 58.1'</i>	<i>70</i>				<i>fine br S</i>	<i>2951</i>		
<i>32</i>	<i>"</i>		<i>29° 27.5'</i>	<i>81° 01.3'</i>	<i>60</i>				<i>fine br S</i>	<i>2952</i>		

Use more than one line per sample if necessary.







**HYDROGRAPHIC SURVEY STATISTICS**  
HYDROGRAPHIC SURVEY NO. H-9371  
(AHP-40-1-74)

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & 2-Overlays	1	BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
Accordion ENVELOPES	3		2			
CAHIERS	1		1			
VOLUMES	2					
BOXES			2			

T-SHEET PRINTS (List)

~~TP-00666, TP-00665, TP-00666~~

SPECIAL REPORTS (List)

Sawtooth Records (Filed with P/O.)  
Electronic Control Report (Filed with P/O.)

**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				3756
POSITIONS CHECKED		375		
POSITIONS REVISED		52		
DEPTH SOUNDINGS REVISED		100		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		---		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		---		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		1		
JUNCTIONS		6		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		---		
SPECIAL ADJUSTMENTS		---		
ALL OTHER WORK		182		
<b>TOTALS</b>		<b>189</b>		
PRE-VERIFICATION BY W.H. Tyndall, M.W. Johnson	BEGINNING DATE 11-15-74	ENDING DATE 4-28-75		
VERIFICATION BY <sup>2 rev</sup> B.J. Stephenson	BEGINNING DATE 6-14-75	ENDING DATE 9-15-75		
REVIEW BY HIT Insp	BEGINNING DATE	ENDING DATE		

*Q.C. Carstens*

*25 hr 11/25/75*

H-9371

Items for Future Presurvey Reviews

The bottom is relatively stable. It contains several offlying sand ridges covered by 40-50 feet and numerous smaller ridges outlined by the 60-foot curve. No significant changes are apparent, although the bottom is largely sand and shell.

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
291	0811	3	2	50 years
291	0810	2	2	50 years
292	0811	3	2	50 years
292	0810	2	2	50 years
292	0805	2	2	50 years
293	0811	3	2	50 years
293	0810	2	2	50 years
293	0805	2	2	50 years

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9371

FIELD NO. AHP-40-1-74

GENERAL LOCALITY and SPECIFIC LOCATION

East Coast of Florida  
Daytona Beach to Flagler Beach

SURVEYED: February 1, 1974 through August 26, 1974

PROJECT NO.: OPR-436

SCALE: 1:40,000

SOUNDINGS BY: Raytheon Fathometer,  
Model DE 723

CONTROL: Hastings Raydist  
(Range-Range)  
Del Norte

Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... B.J. Stephenson

1. Description of the Area

This survey covers the area from the 12 foot curve seaward to the 60 foot curve. The bottom is predominantly sand, shell and mud, and the bottom is regular, sloping quickly to the 60 foot curve and is relatively flat except for several shoaler areas with the general depths of 40 to 50 feet extending in a north - south direction about 3 miles off shore.

2. Control and Shoreline  
Type-Source-Origin

The control is adequately described in paragraph F of the Descriptive Report.

The shoreline originates with shoreline manuscripts TP-00664, TP-00665 and TP-00666<sup>of 1973-74</sup> and was reduced to 1:40,000 by AMC personnel. Shoreline has been inked for orientation purposes. *unreviewed class I*

3. Hydrography

A. Crossings: The crossings are in excellent agreement, with the exception of one to two feet differences in the area of relatively rough bottom on the shoals extending in a north - south direction.

B. Depth Curves: The standard depth curves adequately delineate the area.

C. Low-Water Line: None

D. Developments: The developments of the bottom configuration are adequate.

#### 4. Condition of the Survey

The sounding records, automated plot and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Instruction Manual-Automated Hydrographic Surveys.

#### 5. Junctions

Adequate junction was made with H-9358 (1973) which joins this survey to the south. This survey also joins H-9455 (1974) on the north. Some problems were noted on the preliminary plot for this junction. It is believed that the discrepancies are on H-9455 and will be discussed in the verification of that survey. No contemporary surveys exist on the east.

#### 6. Comparisons

A. Prior Surveys: Comparisons with prior surveys were not possible as none are available to this branch at this time. See Descriptive Report, page 6, paragraph K.

B. Contemporary Surveys: See paragraph 5 - Junctions.

C. Wire Drag: Not available at AMC.

D. Comparison with Charts: Published Chart # 1244, 6th Ed., Dated: August 4, 1973.

##### (a) Hydrography

This survey's depths are in general harmony with the charted depths.

This survey is adequate to supersede the prior charted hydrography within the common area.

(b) Attention is directed to the following:

The depth of 40 feet found at 29° 20.6'N, 80° 56.0'W in charted depth of 45 feet. See sections J and K of Descriptive Report.

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(c) Aids to Navigation

There are no aids to navigation within the area.

7. Compliance with Instructions

This survey adequately complies with the Project Instructions.

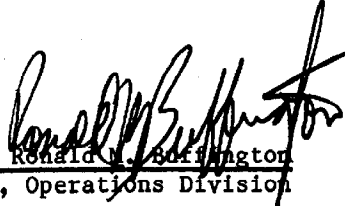
8. Additional Field Work

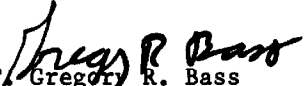
This is an excellent basic survey. Additional field work is not recommended.


Additional Notes

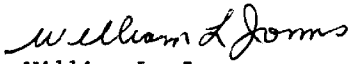
The crosslines and depth curves have been examined in the area surveyed inside of the 30° intersection as previously mentioned in paragraph F. of the Descriptive Report. There is no indication of depth misplacement.


Examined and Approved:  
Hydrographic Inspection Team  
Date: September 16, 1975

  
CAPT. Ronald M. Burlington  
Chief, Operations Division

  
LT. Gregory R. Bass  
Chief, Electronic Data Branch

  
CDR. Jeffrey G. Carlen  
Chief, Processing Division

  
William L. Jonns  
Chief, Verification Branch

Approved/Forwarded  
  
Alfred C. Holmes  
RADM., NOAA  
Director, Atlantic Marine Center



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

C323

November 26, 1975

TO: M. J. Umbach, Acting Chief *MJU*  
Marine Surveys Division

FROM: *R. H. Carstens*  
R. H. Carstens  
Quality Evaluator

SUBJECT: Quality Control Report for H-9371 (1974), Vicinity  
of Flagler Beach, Florida

Survey H-9371 was examined with respect to development of bottom configuration and least depths, junctions, sounding line crossings, data acquisition, shoreline transfer, cartographic presentation, and verification and review. In general, the survey conforms to National Ocean Survey standards and requirements except as follows:

1. The low water line, in places extending as much as 60 meters offshore, appears on the manuscripts but has not been transferred to the smooth sheet. In addition, two fishing piers extending about 200 meters offshore on the manuscripts and located by detached positions by the hydrographer had not been plotted on the smooth sheet.
2. The landmarks shown on the manuscripts were not transferred to the smooth sheet. One landmark plotted as a triangulation station was not properly identified as a landmark on the smooth sheet. Several charted landmarks are included in the list of signals in the Descriptive Report with positions which can be used to verify the charted positions.
3. The station dot was not shown in the plotted control station symbol.
4. Curves had been omitted from seven isolated features. In addition, an equal number of brown curves were added to emphasize features on the bottom not readily apparent.
5. The 49-foot depth charted in latitude  $29^{\circ}31.55'$ , longitude  $81^{\circ}00.65'$  from H-4377 (1924) falls in present depths of 54-55 feet. The 49 is a single unsupported sounding on the prior survey and is considered discredited by the present development.
6. In the junctional area with H-8879 (1966) on the east, some slight shifting of the bottom and differences in depths preclude making curves coincide. The present survey should supersede H-8879 in charting this area of irregular bottom.

Attachment:  
Descriptive Report H-9371  
cc: CAM, AHP

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:

During update, all hand-plotted soundings, crossed out in the final excess sounding printout, should be restored to the smooth plot data bank in the appropriate format.

REGISTRY NO. H-9371

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

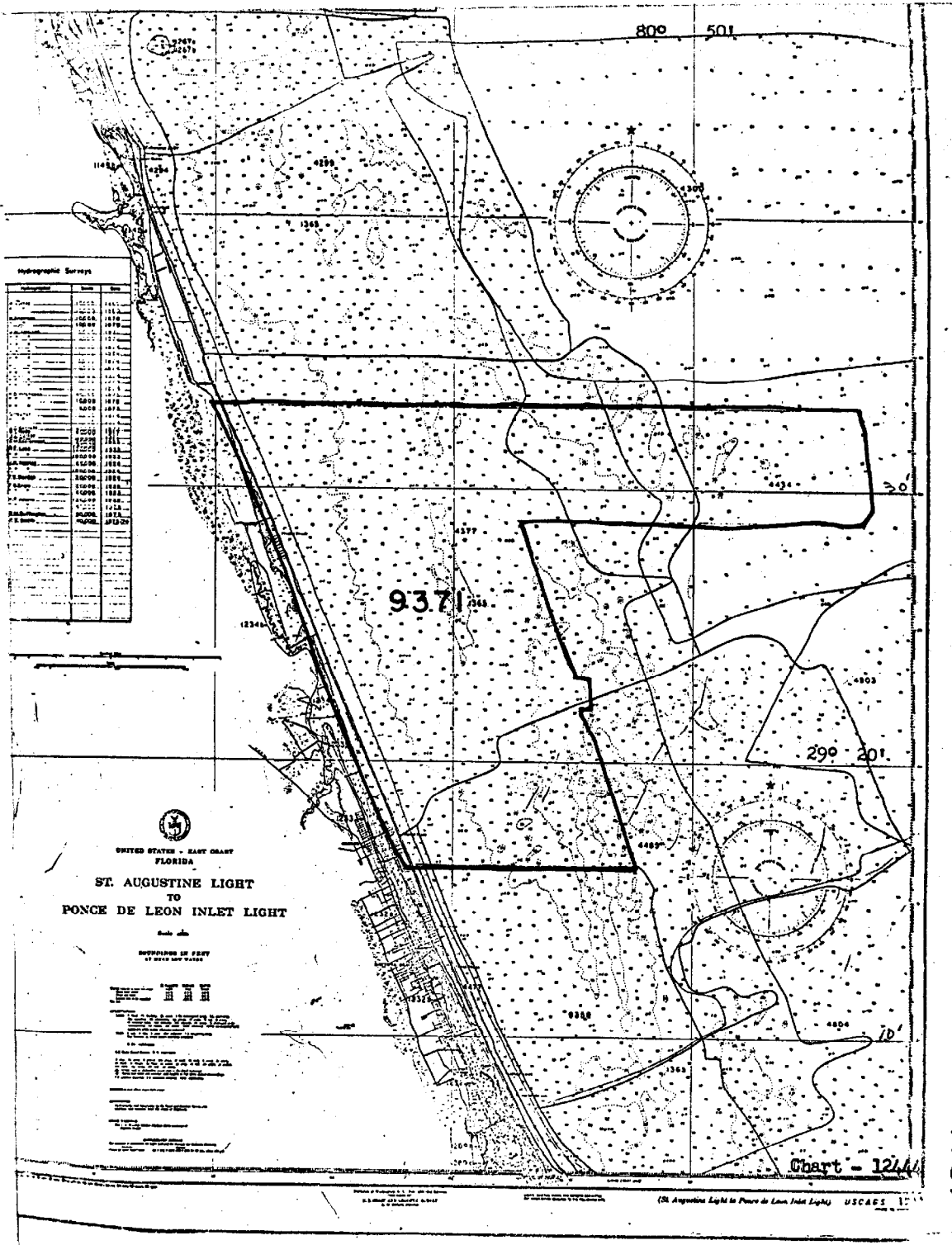
When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 12/4/80 TIME REQUIRED \_\_\_\_\_ INITIALS JAC

REMARKS:





Hydrographic Surveys

Year	Name	Commander	Class
1855	Albatross	Thorp	U.S.N.
1856	Albatross	Thorp	U.S.N.
1857	Albatross	Thorp	U.S.N.
1858	Albatross	Thorp	U.S.N.
1859	Albatross	Thorp	U.S.N.
1860	Albatross	Thorp	U.S.N.
1861	Albatross	Thorp	U.S.N.
1862	Albatross	Thorp	U.S.N.
1863	Albatross	Thorp	U.S.N.
1864	Albatross	Thorp	U.S.N.
1865	Albatross	Thorp	U.S.N.
1866	Albatross	Thorp	U.S.N.
1867	Albatross	Thorp	U.S.N.
1868	Albatross	Thorp	U.S.N.
1869	Albatross	Thorp	U.S.N.
1870	Albatross	Thorp	U.S.N.
1871	Albatross	Thorp	U.S.N.
1872	Albatross	Thorp	U.S.N.
1873	Albatross	Thorp	U.S.N.
1874	Albatross	Thorp	U.S.N.
1875	Albatross	Thorp	U.S.N.
1876	Albatross	Thorp	U.S.N.
1877	Albatross	Thorp	U.S.N.
1878	Albatross	Thorp	U.S.N.
1879	Albatross	Thorp	U.S.N.
1880	Albatross	Thorp	U.S.N.
1881	Albatross	Thorp	U.S.N.
1882	Albatross	Thorp	U.S.N.
1883	Albatross	Thorp	U.S.N.
1884	Albatross	Thorp	U.S.N.
1885	Albatross	Thorp	U.S.N.
1886	Albatross	Thorp	U.S.N.
1887	Albatross	Thorp	U.S.N.
1888	Albatross	Thorp	U.S.N.
1889	Albatross	Thorp	U.S.N.
1890	Albatross	Thorp	U.S.N.
1891	Albatross	Thorp	U.S.N.
1892	Albatross	Thorp	U.S.N.
1893	Albatross	Thorp	U.S.N.
1894	Albatross	Thorp	U.S.N.
1895	Albatross	Thorp	U.S.N.
1896	Albatross	Thorp	U.S.N.
1897	Albatross	Thorp	U.S.N.
1898	Albatross	Thorp	U.S.N.
1899	Albatross	Thorp	U.S.N.
1900	Albatross	Thorp	U.S.N.
1901	Albatross	Thorp	U.S.N.
1902	Albatross	Thorp	U.S.N.
1903	Albatross	Thorp	U.S.N.
1904	Albatross	Thorp	U.S.N.
1905	Albatross	Thorp	U.S.N.
1906	Albatross	Thorp	U.S.N.
1907	Albatross	Thorp	U.S.N.
1908	Albatross	Thorp	U.S.N.
1909	Albatross	Thorp	U.S.N.
1910	Albatross	Thorp	U.S.N.
1911	Albatross	Thorp	U.S.N.
1912	Albatross	Thorp	U.S.N.
1913	Albatross	Thorp	U.S.N.
1914	Albatross	Thorp	U.S.N.
1915	Albatross	Thorp	U.S.N.
1916	Albatross	Thorp	U.S.N.
1917	Albatross	Thorp	U.S.N.
1918	Albatross	Thorp	U.S.N.
1919	Albatross	Thorp	U.S.N.
1920	Albatross	Thorp	U.S.N.

UNITED STATES - EAST COAST  
 FLORIDA  
 ST. AUGUSTINE LIGHT  
 TO  
 PONCE DE LEON INLET LIGHT

DEPT. OF COMMERCE  
 OFFICE OF COAST AND GEODETIC SURVEY  
 WASHINGTON, D. C.

Scale 1:50,000

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Chart - 1244

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