

9455

Diag. 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-40-2-74

Office No. ... H-9455

LOCALITY

State ... FLORIDA

General Locality ... EAST COAST

Locality ... VICINITY OF MATANZAS INLET

1974

CHIEF OF PARTY

F. T. Smith

LIBRARY & ARCHIVES

DATE ... 7/1/76

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

9455

Area 3
cht
8435c
1244
1111
1001

Area 4
cht
1007

HYDROGRAPHIC TITLE SHEET

H-9455

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-40-2-74

State Florida

General locality East Coast of Florida

Locality Vicinity of Matanzas Inlet
~~St. Augustine~~

Scale 1:40,000 Date of survey April 17 - July 30, 1974

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

Vessel NOAA Launches 1255 and 1257

Chief of party LCDR Fidel T. Smith

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

Soundings taken by echo sounder, ~~and~~ Raytheon DE-723D

Graphic record scaled by Digitized and scanned by launch personnel

Graphic record checked by Launch Officers and Survey Technicians

Protracted by Complot ~~CALCOMP 618~~ Automated plot by EQP-AMC - CALCOMP 618

Verification by L.G. Crow

Soundings in ~~XXXXX~~ feet at MLW ~~XXXXX~~

REMARKS: changes in red by L.G.C. (AMC)

Applied to sheet 10/7/76
[Signature]

2

CM-7306 LORAN

GENERAL EXPLANATION

FREQUENCY CHANNEL (preceding H)
1.....1950 kc.

BASIC PULSE RECURRENCE RATE
H (High)...33 1/3 pulses per second

SPECIFIC RECURRENCE RATES assigned for station identification (following H)
6, 7

EXAMPLE: 1H6

RATES ON THIS CHART

1H6 1H7

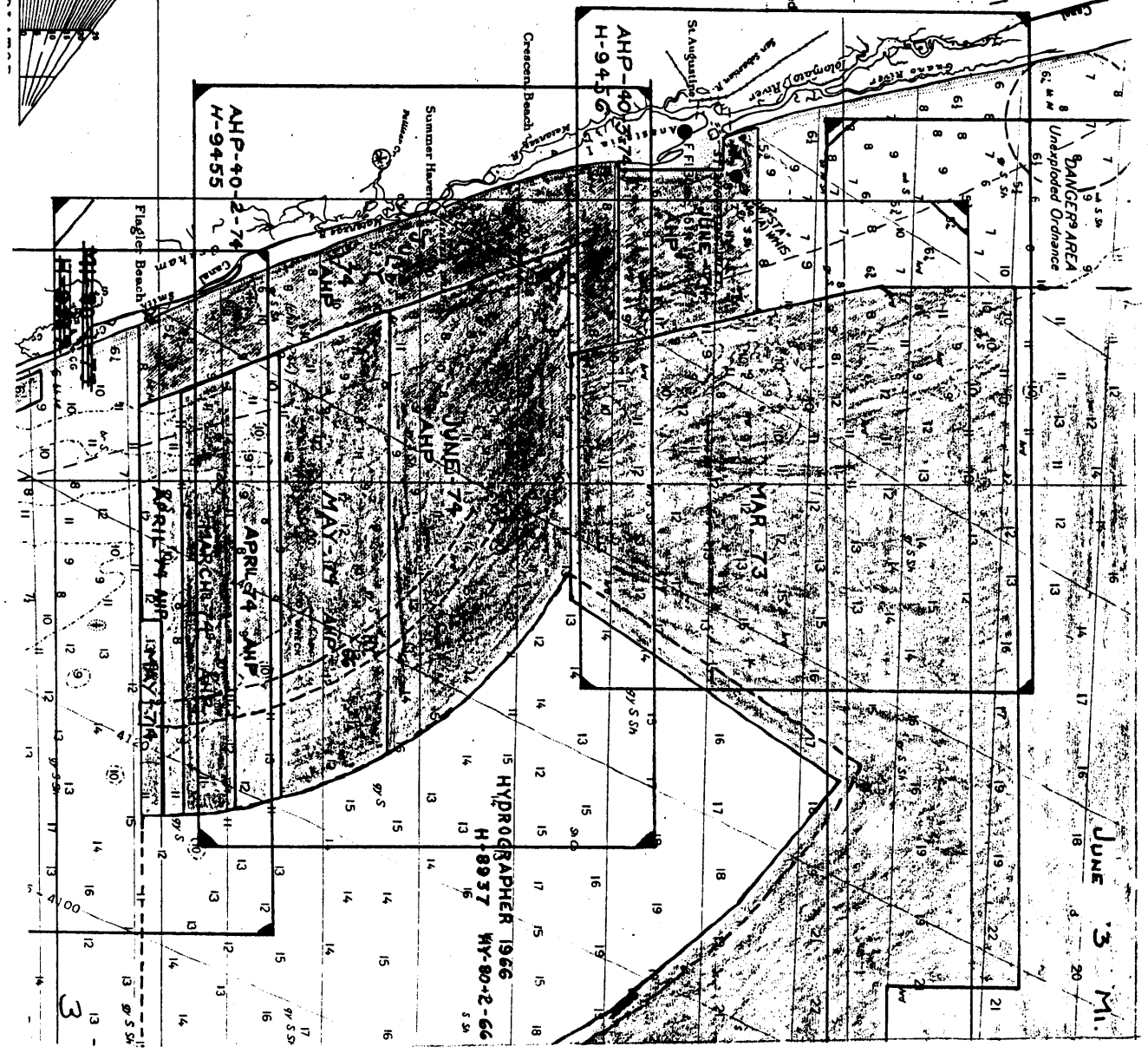
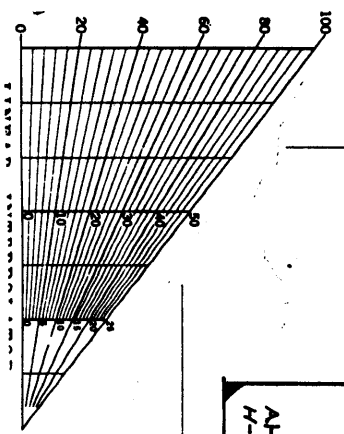
CAUTION

Styewaves should not be used in determining loran lines of position on this chart.

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of other radio signals as aids to marine navigation can be found in the U.S. Coast Guard List of Lights and other Marine Aids and U.S. Naval Oceanographic Office Publication, H.O. 117 (A & B).

1200661
1200661



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DESCRIPTIVE REPORT(H-9455)

A. PROJECT

This survey was accomplished under the following Project Instructions:

OPR-436-746-73 Coasts of Georgia and Florida dated March 26, 1973.

Change #1: Supplement to Instructions dated May 3, 1973.

Change #2: Supplement to Instructions dated May 17, 1973.

B. AREA SURVEYED

The area surveyed is south of St. Augustine Inlet, Florida between Latitudes 29° 33' N and 29° 50' N. The survey extends from the 2 fathom contour on the inshore end to the approximate 14 fathom contour offshore (approximately 20 miles offshore).

The survey was accomplished between April 17, 1974 and July 30, 1974.

The survey junctions with the following contemporary surveys:

H-8937, 1:80,000, 1966

H-9371, 1:40,000, 1974

H-9367, 1:80,000, ~~1966~~

1973

C. SOUNDING VESSEL

NOAA Launch 1255(Hi-Speed Launch) and NOAA Launch 1257(Slo-Speed Launch) accomplished all sounding on this survey. All records are annotated with vessel number.

D. SOUNDING EQUIPMENT

The following equipment was used by Launch 1257 for all soundings taken on this survey:

Raytheon Fathometer Model DE 723, SN 37024

Raytheon Digital Depth Monitor Model DE 723-41, SN 37016

Raytheon Electronic Cabinet Unit Model DE 723-42, SN 1910

The following equipment was used on the Days indicated for sounding by Launch 1255 on this survey:

Days 107 to 117

Raytheon Analog Recorder Mod. DE 723D, Serial No. 37019

Raytheon Digital Depth Monitor, Mod. DE 723D, Serial No. 1045

Raytheon ECU, Mod. DE723-D, Serial No. 2132

Days 120 to 211

Raytheon Analog Recorder, Mod. DE 723D, Serial No. 2934

Raytheon Digital Depth Monitor, DE 723D, Serial 1045

Raytheon ECU, Mod. DE 723D, Serial 2132

Velocity Corrections were determined by a combination of Bar Check Data and Beckman TDC observations.

Depths on this survey range from 6 to 136⁴⁰ feet.

E. SMOOTH SHEET

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

F. CONTROL

Control for this survey was by Hastings Raydist operating in the Range-Range mode. Both vessels operated from the same set of shore stations. Launch 1257 used a 1st party system aboard and Launch 1255 operated with a 4th party system. No difficulties or problems occurred with the system during this survey. NOAA Launch 1257 operated on a frequency of 3306.400 KHZ. NOAA Launch 1255 operated on a frequency of 3306.520 KHZ.

Two sets of stations were used to control the survey. For operation between Days 107 and 180 the stations were located as follows:

- Left Station Flag 1973
 - Red Raydist Model AA60 SN 54
 - Lat. 29° 29' 22.61"
 - Long. 81° 07' 57.11"
- Right Station Signal 585
 - Green Raydist Model AA60 SN 119
 - Lat. 29° 50' 40.54"
 - Long. 81° 15' 56.98"

For operation between Days 189 and 211 the stations were located as follows:

- Left Station Palm Raydist 1974
 - Red Raydist SN 54
 - Lat. 29° 28' 35.256"
 - Long. 81° 10' 52.216"

Right Station Deltona Raydist 1974
 Green Raydist SN 119
 Lat. 29° 46' 50.817"
 Long. 81° 18' 30.545"

All stations and calibration signals were located by 3rd order Traverse methods by Mr. Jim Shea of the Atlantic Marine Center, Operations Division.

The position of signal 585 was located by the Field Party with a short Traverse using only one angle and distance. See Horizontal Angle Volume Number 1 for original data.

Triangulation Stations were used for calibration when available.

Calibration was by 3-point sextant fix. Check angles were used if enough people were available. Otherwise at least one object was changed during any one series of fixes.

G. SHORELINE

There is no shoreline on this survey. No photo control or manuscripts were provided. Sounding lines were run as close to shore as conditions would permit. In all cases the 12 foot contour is adequately delineated which was in accordance with Project Instructions. *Shoreline was applied to the smooth sheet. TP-00663 & TP-00664*

H. CROSSLINES

Crosslines were run to the extent of 8.4% of the principal system of sounding lines. Agreement is excellent, 0 to 1 foot in most cases, 2 feet in a few. Anything more than two feet can be attributed to relatively steep slopes in the immediate vicinity of the disagreement.

I. JUNCTIONS

After applying velocity corrections to the depth on the boatsheet, the soundings agree generally within 2 feet with the soundings from H-8937. Most soundings agree within 2 feet of those from H-9367 before applying velocity corrections, and it has been assumed that the depths taken from H-9367 had not yet had velocity corrections applied either.

J. COMPARISON WITH PRIOR SURVEYS

Presurvey review item number 32 was developed and appears to be about 200 meters in diameter, dropping from depths of 56 to 58 feet to a maximum of ¹⁴⁰~~155~~ feet at its center. *Plotted as a spring.*

There appears to be a slight elongation of this depression in the Northwest - Southeast direction.

The fathogram was examined for indications of the 28 foot depth described in Presurvey Review Information Item number 34. No evidence of this item was found.

Pre-Survey Review Items

Pre-survey item no. 35: The charted wreck at Lat. $29^{\circ}35'56''$ Long. $80^{\circ}54'06''$ listed as an information item was not found. The normal system of two hundred meter spacing was split to one hundred meters. In addition a buoy was placed at the charted location and a series of concentric patterns run at reduced speed in the area for a period of approx. 2 hours. The shoalest sounding in the vicinity becomes 64 ft. (with the addition of velocity corrections).

Pre-Survey Item 36: The charted wreck at Lat. $29^{\circ}34'00''$ Long. $81^{\circ}09'00''$ listed as an information item was not found. The search for this item was the same as was done for item #35. Least depth in area becomes 50 ft. with addition of velocity correction.

Dashed-Circled items:

The charted 60 ft. sounding at Lat. $29^{\circ}33'48''$ Long. $80^{\circ}59'03''$ does exist. A sounding of 57 ft. was found at the charted location, with the addition of velocity corrections this becomes a 60 ft. sounding.

The charted 58 ft. sounding at Lat. $29^{\circ}34'24''$ Long. $80^{\circ}53'30''$ probably does not exist. A raw sounding of 57 ft. was found 100 meters west of the charted location. This becomes 60 ft. when velocity corrections are applied *and is adequate for charting.*

The charted 58 ft. sounding at Lat. $29^{\circ}34'50''$ Long. $80^{\circ}53'56''$ was not found. The shoalest sounding in the area becomes 60 ft. with additions of velocity corrections. No search outside of the regular system of sounding lines was made. *close to present 59*

The charted shoal with a least depth of 56 ft. at Lat. $29^{\circ}34'44''$ Long. $80^{\circ}49'56''$ does exist. Least depths in the area are ~~59~~ ⁵⁹ ft. after velocity corrections are applied. In addition, the shoal seems to have assumed a more pronounced linearity in the north-south direction than the northeast-southwest direction charted. *Shoal is plotted NE-SW*

The charted sounding of 60 ft. at Lat. $29^{\circ}36'25''$ Long. $81^{\circ}03'51''$ probably exists. A 61 ft. sounding (after corrections applied) was located 200 meters south of the charted item. *Present depths adequate*

The 59 ft. charted sounding at Lat. $29^{\circ}37'14''$ Long. $81^{\circ}03'36''$ does exist. A sounding of ~~56~~ ⁵⁶ ft. was obtained by Launch 1255 less than 100 meters Northeast of the charted location. With corrections this becomes 59 ft.

The charted 53 ft. sounding at Lat. $29^{\circ}37'42''$ Long. $81^{\circ}05'28''$ probably exists. An uncorrected sounding of 52 ft. was obtained less than 100 meters southeast of the charted item. With corrections applied this becomes 54 ft.

All dashed-circled items were found to agree within 3 feet applying velocity corrections except the following:

1. The charted 60 ft. depth at Latitude 29° 41.5' North, Longitude 81° 06.4' West is in the area of 66 foot depths obtained during this survey. *Disregard - 60 considered disproved*
2. Near Latitude 29° 41.0' North, Longitude 81° 08.2' West, the depths determined from this survey are 64-65 feet. The charted depth in this area is 51 feet. *Disregard 51 considered nonexistent.*

K. COMPARISON WITH CHART

Except as noted above, comparison with C&GS 1244, 6th Edition, August 4, 1973 was generally good. Some minor discrepancies were found; however, a 4² foot depth was obtained during this survey at Latitude 29° 48.9' North, Longitude 81° 09.5' West. This depth is not shown on the chart. Water depths within a semicircle having a radius of 1½ miles, centered about Butler Beach, have shoaled 2-4 feet. The charted wreck at Latitude 29° 47.0' North, Longitude 81° 15.1' West was not found in the regular system of lines and no further search was made. The area should be wire dragged to prove or disprove its existence.

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>1255</u>	<u>1257</u>
Total NM of Sounding Line	2259	1451
Nautical Miles of Crossline	163	122.5
Nautical Miles of Development	11	33
Miscellaneous Distance Run	333	180
Nautical Miles To and From	1662'	478
Bottom Samples	32	0

ABSTRACT OF TIMES OF HYDROGRAPHY

NOAA LAUNCH 1255

<u>Julian Day</u>	<u>Date</u>	<u>Positions</u>	<u>Time From</u>	<u>Time To</u>
107	17 April, 1974	1- 116	143828	192616
108	18 April	116- 175	141614	164446
Duplicate position numbers 116				
113	23 April	176- 289	150911	193341
117	27 April	290- 447	134600	195004
120	30 April	448- 566	141344	193435
121	1 May	567- 665	145530	183631
122	2 May	666- 762		
127	7 May	763- 857	141754	181043
128	8 May	858- 916		
129	9 May	917-1010	151504	193038
130	10 May	1011-1125	132151	174314
135	15 May	1126-1246	133036	174924
136	16 May	1247-1361	133505	175458
141	21 May	1362-1486	135509	183213
144	24 May	1487-1580	144527	181655
148	28 May	1581-1597	144601	152401
149	29 May	1598-1700	132747	174715
150	30 May	1701-1877	131358	195928
151	31 May	1878-2061	131641	213001
155	4 June	2062-2143	132325	165541
157	6 June	2144-2211	132828	163823
161	10 June	2212-2256	143955	165525
162	11 June			
163	12 June	2257-2383	140336	190755
164	13 June	2384-2534	131541	190557
165	14 June	2535-2638	132453	171558

170	19 June	2639-2686	144149	165712
171	20 June	2687-2797	133745	184537
179	28 June	2829-2885	175836	202517
180	29 June	2886-2935	144011	171940
190	9 July	2936-3030	142626	175913
191	10 July	3031-3138	141020	182257
193	12 July	3139-3279	131107	175904
196	15 July	3280-3392		174232
197	16 July	3393-3462	133658	164831
199	19 July	3463-3512	131509	161346
200	19 July	3513-3622	132804	172236
203	22 July			
205	24 July	3623-3738	135920	182339

ABSTRACT OF TIMES OF HYDROGRAPHY

NOAA LAUNCH 1257

<u>Julian Day</u>	<u>Date</u>	<u>Positions</u>	<u>Time From</u>	<u>Time To</u>
150	30 May 1974	5000-5084	133003	171054
152	1 June	5085-5215	125302	181221
154	3 June	5216-5386	124307	193444
155	4 June	5387-5533	124655	185414
157	6 June	5534-5733	121652	203435
158	7 June	5734-5838	133351	174833
162	11 June	5839-5994	122152	184215
163	12 June	5995-6152	121059	185425
164	13 June	6153-6206	123730	210228
165	14 June	6207-6263	140444	212230
168	17 June	6264-6374	122906	165633
169	18 June	6375-6542	122503	195344
180	29 June	6542-6644	125930	181500

Note: Duplicate Position Number 6542 on Days 169 and 180.

189	8 July	6645-6771	131356	185514
191	10 July	6772-6882	133507	183734
192	11 July	6883-7014	122858	180356
193	12 July	7015-7175	121050	184951
196	15 July	7176-7307	122958	184214

81° 12' 45"

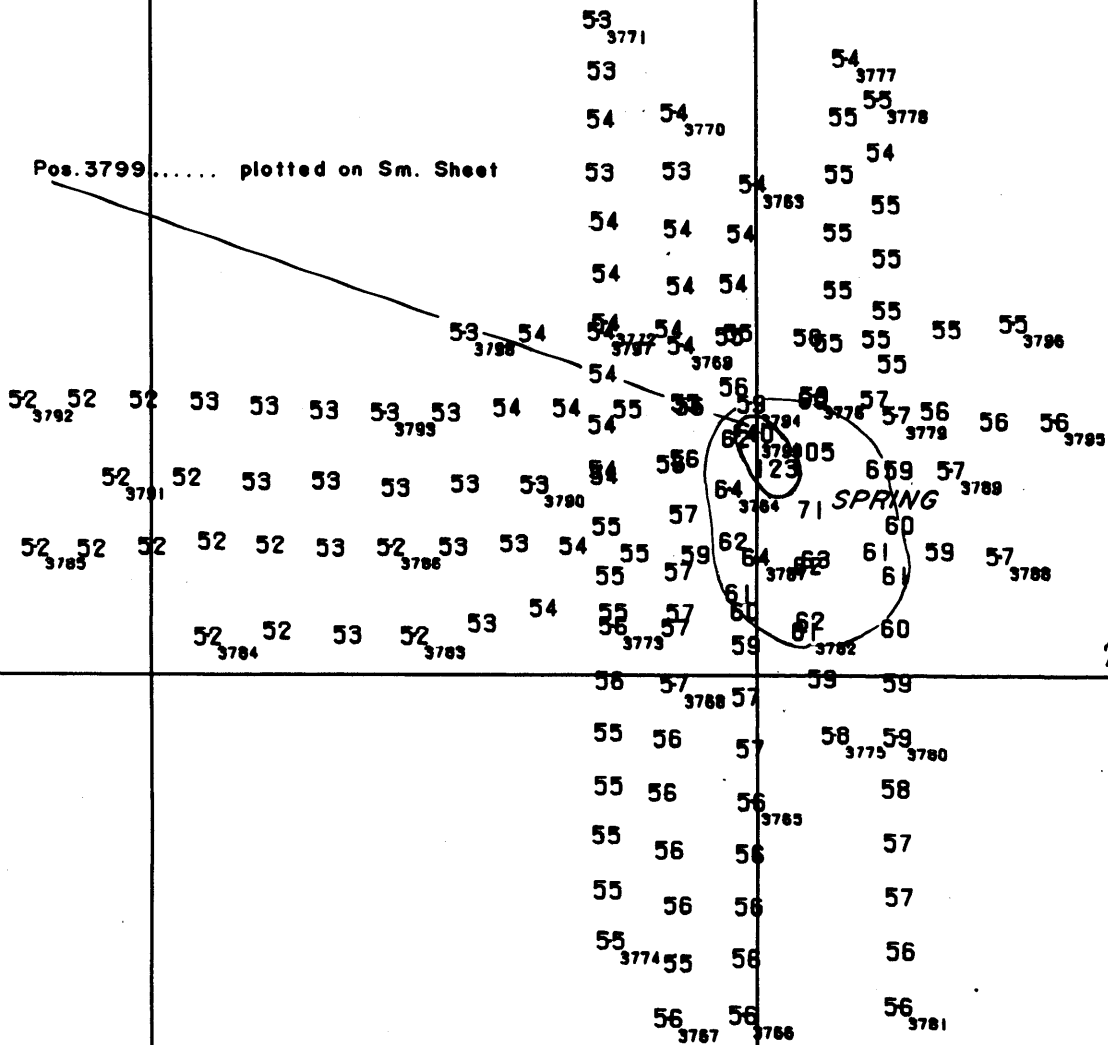
81° 12' 30"

H-9455 (AHP-40-2-74)
ENLARGEMENT OF DEVELOPMENT
Pos. 3763 thru 3799, Day no. 211,
VESNO 1255..... Scale 1:5,000

29° 46' 15"

29° 46' 15"

Pos. 3799..... plotted on Sm. Sheet



81° 12' 45"

81° 12' 30"

O. MISCELLANEOUS

The bar check on Day 162 was rejected due to inaccurate data caused by seas.

The bar check taken on Day 191 by Launch 1255 was also not used due to inaccurate data which results from poor sea conditions for obtaining bar check.

The analog recorder unit on Launch 1255 was changed on Day 118. The ECU remained the same throughout the survey as did the Digital Depth Monitor.

P. RECOMMENDATIONS

None

Q. REFERENCES TO REPORTS

- 1 - Electronic Control Report, OPR-436(H-9455)
- 2 - Report on Corrections to Echo Soundings, OPR-436(H-9455)

APPROVAL SHEET

The Boatsheet and records were inspected for completeness and no additional work is considered necessary.



F. T. Smith

LCDR, NOAA

Chief, AHP

ELECTRONIC CONTROL REPORT
ATLANTIC HYDROGRAPHIC PARTY
LAUNCHES 1257 AND 1255
OPR-436 EAST COAST OF FLORIDA
SURVEY AHP-40-2-74 (H-9455)

Chief of Party
LCDR Fidel T. Smith

This report and the calibration data apply to Survey H-9455(AHP-40-2-74).

Hastings Raydist operating in the Range-Range mode was used to control this survey. The two vessels both operated from the same set of shore stations. Launch 1257 operated with a 1st party navigator while Launch 1255 operated with a 4th party navigator aboard. No unusual difficulties or problems occurred with the system during this survey. The shore stations were returned by personnel of the Electronics Division of AMC and the frequencies of the Launch units were checked once during this survey. Launch 1257 operated on a frequency of 3306.400 KHZ. Launch 1255 operated on a frequency of 3306.520 KHZ.

The following is an inventory of equipment used by the Launches during the survey. No equipment changes were done during the survey.

Launch 1257:

Navigator - ZA64 Serial No. 59
 Transmitter TA96 Serial No. 37
 Antenna Loading Coil (QB52) Serial No. 119
 Raydist Power Supply

Launch 1255:

Navigator - ZA67 Serial No. 58
 Transmitter - ZA96 Serial No. 36
 Antenna Loading Coil (QB52) Serial No. 143
 Raydist Power Supply (SA-201) Serial No. 76

The shore station equipment used by both vessels is as follows:

Left Station(Red) Model AA60
 Serial Number 54
 Right Station(Green) Model AA60
 Serial Number 119

One station always used a 60 foot tower with no whip antenna while the other used a 40 foot tower with a 35' whip antenna attached.

Two sets of stations were used to control the survey. For operation between Days 107 and 180 the stations were located as follows:

Left Station(Red) - Flag 1973
 Lat. 29° 29' 22.61"
 Long. 81° 07' 57.11"

Right Station(Green) - Signal 585

Lat. $29^{\circ} 50' 40.54''$

Long. $81^{\circ} 15' 56.98''$

For operation between Days 189 and 211 the stations were located as follows:

Left Station(Red) - Palm Raydist 1974

Lat. $29^{\circ} 28' 35.256''$

Long. $81^{\circ} 10' 52.216''$

Right Station(Green) - Deltona Raydist 1974

Lat. $29^{\circ} 46' 50.817''$

Long. $81^{\circ} 18' 30.545''$

All stations and calibration signals were located by 3rd Order Traverse methods by Mr. Jim Shea of the Atlantic Marine Center Operations Division. The position of signal 585 was located by the Field Party with a short traverse using only one angle and a taped distance from traverse signal 584. See sounding volume 1 for original data.

Calibration was by 3-Point Sextant Fix. Sextants were checked for index error before each series of fixes. Check angles were used if enough people were available. Otherwise at least one object was changed during any one series of fixes. In one case only 3 objects could be seen to calibrate on. In this case the left and right anglers reversed position during the series of fixes to insure correct sighting of the available objects.

Launch 1257 used program RK-561 to compute calibrations and therefore the original data is on computer printouts from the program.

Launch 1255 recorded data by hand on forms and used AM560 to compute the calibrations. Due to the fact that RK561 could not be made to work with Launch 1255's system at the time.

Signal Tape, Abstract of Calibration Corrections(including Lane Loss and Gains), and original Calibration Data follow.

The daily calibration observations and computations are bounded and submitted with the field records. They should remain with the field records.

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1257

SHEET : H-9455

TIME	DAY	PATTERN 1	PATTERN 2
133003	150	+00076	-00038
235959		+00076	-00038
125302	152	-00026	+00055
235959		-00026	+00055
124307	154	-00020	-00041
235959		-00020	-00041
124655	155	-00004	+00036
235959		-00004	+00036
121652	157	-00015	-00044
235959		-00015	-00044
133351	158	-00018	+00048
235959		-00018	+00048
122152	162	-00026	+00038
235959		-00026	+00038
121059	163	-00022	+00038
235959		-00022	+00038
123730	164	-00027	+00031
235959		-00027	+00031
140444	165	-00030	+00038
235959		-00030	+00038
122906	168	-00032	+00037
235959		-00032	+00037
122503	169	-00028	+00040
235930		-00028	+00040
125930	180	-00040	+00034
235959		-00040	+00034
131300	189	+00010	-00021
235959		+00010	-00021
133507	191	+00015	-00033
235959		+00015	-00033
122800	192	+00018	-00024

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1257

SHEET : H-9455

TIME	DAY	PATTERN 1	PATTERN 2
235959	192	+00018	-00024
121050	193	+00023	-00016
235959		+00023	-00016
122958	196	+00016	+00065
160040		+00127	+00078
160100		+00227	+00078
235959		+00227	+00078

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1255

SHEET : AHP-40-2-74

TIME	DAY	PATTERN 1	PATTERN 2
143828	107	+00404	-00336
240000		+00404	-00336
144735	108	-00026	-00026
240000		-00026	-00026
150911	113	+00022	-00005
172914		+00022	-00005
172934		+00022	-00005
240000		+00022	-00005
134600	117	+00020	+00004
141220		+00020	+00004
240000		+00020	+00004
141344	120	+00026	+00001
240000		+00026	+00001
145530	121	+00005	+00017
240000		+00005	+00017
145737	122	+00013	+00012
240000		+00013	+00012
141754	127	+00006	+00021
181754		+00006	+00021
240000		+00006	+00021
142023	128	+00003	+00022
240000		+00003	+00022
151504	129	+00007	+00013
190818		+00007	+00013
240000		+00007	+00013
132151	130	+00004	+00021
240000		+00004	+00021
132000	135	+00010	+00022
180000		+00010	+00022
133505	136	+00003	+00015
165538		+00003	-00182
180000		+00003	-00182

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1255

SHEET : AHP-40-2-74

TIME	DAY	PATTERN 1	PATTERN 2
0 136	+00003	-00182	
134917	141	+00013	+00013
183300		+00013	+00013
144507	144	+00015	+00036
190000		+00015	+00036
144601	148	+00008	+00032
160000		+00008	+00032
130000	149	+00009	+00045
180000		+00009	+00045
131358	150	+00001	+00043
200000		+00001	+00043
131641	151	+00005	+00036
210821		+00005	+00036
214000		+00005	+00036
132315	155	+00016	+00039
160158		+00016	+00039
175541		+00016	+00039
132828	157	+00001	+00037
170000		+00001	+00037
141733	161	+00010	+00034
163225		+00010	+00034
170000		+00010	+00034
140246	163	-00007	+00048
184735		+00007	+00048
200000		+00007	+00048
131541	164	-00003	+00037
192000		-00003	+00037
132453	165	-00009	+00028
173000		-00009	+00028
144149	170	-00010	+00007
165732		-00010	+00007
133745	171	-00003	+00002

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 1255

SHEET : AHP-40-2-74

TIME	DAY	PATTERN 1	PATTERN 2
180645	171	-00003	+00002
184557		-00003	+00002
175836	179	-00025	+00005
191212		-00025	+00005
240000		-00025	+00005
144011	180	-00020	+00010
161403		-00020	+00010
170320		-00020	+00010
240000		-00020	+00010
153417	190	+00027	+00029
175959		+00027	+00029
144012	191	+00032	+00042
182300		+00032	+00042
131107	193	+00031	-00038
175924		+00031	-00038
135835	196	+00031	-00047
165743		+00031	-00047
235959		+00031	-00047
133638	197	+00030	+00044
145300		+00030	+00044
164851		+00030	+00044
131448	199	+00027	+00042
161406		+00027	+00042
132744	200	+00042	+00030
134904		+00042	+00030
172256		+00042	+00030
134453	205	+00042	+00034
140855		+00042	+00034
151128		+00042	+00034
173401		+00042	+00034
235959		+00042	+00034
165140	211	+00031	+00045
193250		+00031	+00045

1. Project # OPR-436 2. Reg. # H-9455 3. Field # AHP-40-2-74
 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

Range-Visual

Range One (R₁) *Control Typ. #21*
 Station I.D. Flag 1973 (240)
 Range Two (R₂)
 Station I.D. Signal 585 (585)

Lat.	<u>29</u> °	<u>29</u> '	<u>22.61</u> "
Long.	<u>81</u> °	<u>07</u> '	<u>57.11</u> "
Lat.	<u>29</u> °	<u>50</u> '	<u>40.54</u> "
Long.	<u>81</u> °	<u>15</u> '	<u>56.98</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.	_____°	_____'	_____"

Location of Survey:

Range-Range

Imagine an observer is standing at R₁ Station and looking directly at R₂ (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		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>1257</u>	<u>133003</u>	<u>150</u>	<u>181500</u>	<u>180</u>	<u>5000</u>	to <u>6644</u>
<u>1255</u>	<u>140000</u>	<u>107</u>	<u>240000</u>	<u>180</u>	<u>001</u>	to <u>2935</u>

9. Remarks: _____

1. Project # OPR-436 2. Reg. # H-9455 3. Field # AHP-10-2-71

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

Range-Visual

Control Typ # 22

Range One (R ₁)	(220)	Lat.	<u>29</u> °	<u>28</u> '	<u>35.256</u> "
Station I.D.	<u>Palm Raydist 1974</u>	Long.	<u>81</u> °	<u>10</u> '	<u>52.216</u> "
Range Two (R ₂)		Lat.	<u>29</u> °	<u>46</u> '	<u>50.817</u> "
Station I.D.	<u>Deltona Raydist (270) 1974</u>	Long.	<u>81</u> °	<u>18</u> '	<u>30.545</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 R₁ Station and looking directly at R₂ (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)
<u>1257</u>	<u>131356</u>	<u>189</u>	<u>184214</u>	<u>196</u>	<u>6645</u> to <u>7307</u>
<u>1255</u>	<u>150000</u>	<u>190</u>	<u>240000</u>	<u>211</u>	<u>2936</u> to <u>3799</u>

9. Remarks:

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

- 1. Project No. OPR-436
- 2. Reg. No. H-9455
- 3. Field No. AHP-40-2-74
- 4. Requested By Verification
- 5. Ship or Office A.M.C.
- 6. Date Required _____

7. Polyconic Modified Transverse Mercator

8. Central Meridian of Projection 81 ° 01 ' 00 "

9. Survey Scale: 1: 40,000

10. Size of Sheet (check one):

36 x 54 36 x 60 Other Specify _____

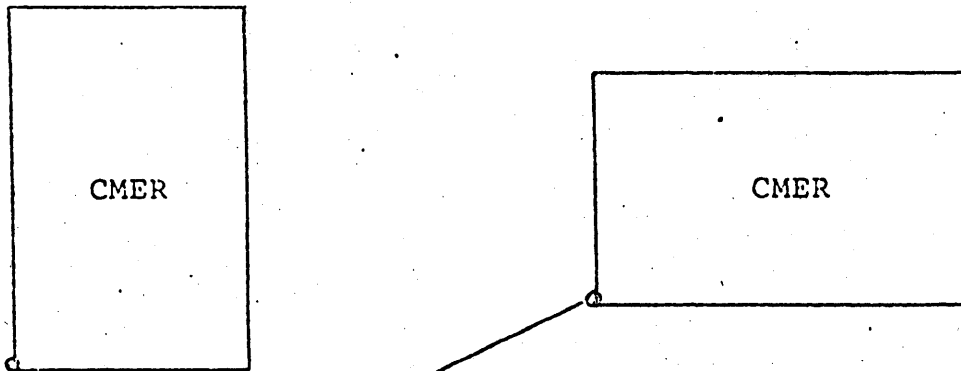
11. Sheet Orientation (check one):

NYX = 1

NYX = 0

N

N



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

Latitude 29 ° 31 ' 36 "

Longitude 81 ° ~~16~~ ' ~~53~~ 30 "

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

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify _____

15. Remarks: _____

REPORT ON
CORRECTIONS TO ECHO SOUNDINGS
ATLANTIC HYDROGRAPHIC PARTY
NOAA LAUNCHES 1255 AND 1257
OPR-436 EAST COAST OF FLORIDA
SURVEY AHP-40-2-74 (H-9455)

Chief of Party
LCDR Fidel T. Smith

A. Sounding Equipment

The following equipment was used by Launch 1257 for all soundings on this survey:

Raytheon Fathometer Model DE 723-40 Serial No. 37024
 Raytheon Digital Depth Monitor
 Model DE 723-41 Serial No. 37016
 Raytheon ECU Model 723-42 Serial No. 1910

The following equipment was used by Launch 1255 on the days indicated for sounding on this survey:

Days 107 to 117
 Raytheon Fathometer Model DE 723D Serial No. 37019
 Raytheon Digital Depth Monitor
 Model DE 723D Serial No. 1045
 Raytheon ECU Model DE ~~723D~~ Serial No. 2132

Days 120 to 211
 Raytheon Fathometer Model DE 723D Serial No. 2924
 Raytheon Digital Depth Monitor
 Model DE 723D Serial No. 1045
 Raytheon ECU Model DE 723D Serial No. 2132

Only the analog recorder was switched during the portion of AHP-40-2-74, H-9455 completed by Launch 1255.

B. Instrument, Draft, and Phase Error

A draft correction of +2.7 feet was applied to all soundings on the Master Tape for both vessels. No instrument error was applied as the digitized soundings are correct as digitized. No phase correction was applied. While check scanning the fathograms a correction was determined and applied to all analog values which were changed or inserted on the Master Tape. This analog to digital correction was written for A and B scales on the Master Tape Printouts.

*Inst. error corr.
is included*

in bar check

C. Stylus Arm Error

The instruments were maintained in good operating condition throughout this survey. Frequent initial, A-F, and stylus checks were made daily. Any stylus arm error noted was applied to analog readings while checking or inserting soundings.

D. Settlement and Squat

No new settlement and squat determination was made for Launch 1257 during this survey. Previous determination (See H-9344 Descriptive Report) were used. The same settlement and squat corrections were applied to soundings obtained by Launch 1255.

Settlement and squat corrections were not made for Launch 1255 due to the unavailability of a suitable area to carry out these determinations in the vicinity of St. Augustine, Florida.

E. Velocity Corrections

Velocity corrections were determined by two separate methods. One method was the traditional bar check and the other method was from TDC casts made with portable electronic temperature, depth and conductivity sensors. Bar checks were only made under ideal conditions. The results for the two methods are shown in this report. A velocity table was constructed for each vessel and is given in this report. There is a slight difference between the velocity curves for Launch 1257 and 1255 and is probably due to the fact that Launch 1257's data is weighted in favor of July while 1255's data is a mean of May and July readings. This could cause a $\frac{1}{2}$ foot error at seventy feet.

The results of the TDC computations agree with the bar checks within 0.1 foot at forty feet.

Velocity table printouts are shown in this report along with printouts of TC/TI tapes.

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

CORRECTIONS IN FEET, FATHOMS

NOAA FORM 700-1
REVISED 1970
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship: NOAA Launch 187

LEDR: John O. Ballard Comdg.

These corrections are to be used
between May 30, 1974 and July 15, 1974
in the locality Flagler Beach to St.
Augustine Beach, East Coast of Florida
for hydrographic surveys Nos. ANP 40-2-74
(N-9255)

FATHOMETER DEPTHS IN FATHOMS, FEET
(For deep water add a 0 to these figures)

Corr'n To Depth

0.2	5.0
0.4	8.3
0.6	11.6
0.8	15.0
1.0	18.3
1.2	21.6
1.4	24.9
1.6	28.2
1.8	31.5
2.0	34.9
2.2	38.2
2.4	41.5
2.6	44.8
2.8	48.1
3.0	51.4
3.2	54.8
3.4	58.1
3.6	61.4
3.8	64.7
4.0	68.0
4.2	71.4
4.4	74.7
4.6	78.0
4.8	81.3
5.0	84.6
5.2	87.9
5.4	91.3
5.6	94.6
5.8	97.9

- = TDC, Day 187
- ⊙ = Bar Check, Day 162 (Rejected)
- ⊕ = Bar Check, Day 190
- ⊗ = Bar Check, Day 199

Velocity Connector Table 0001
 Vesno 1257 AHP-40-2-74
 H-7455, OPR-A36

000050 0 0002 0001 000 125700 009455
 000083 0 0004
 000116 0 0006
 000150 0 0008
 000183 0 0010
 000216 0 0012
 000249 0 0014
 000282 0 0016
 000315 0 0018
 000349 0 0020
 000382 0 0022
 000415 0 0024
 000448 0 0026
 000481 0 0028
 000514 0 0030
 000548 0 0032
 000581 0 0034
 000614 0 0036
 000647 0 0038
 000680 0 0040
 000714 0 0042
 000747 0 0044
 000780 0 0046
 000813 0 0048
 000846 0 0050
 000879 0 0052
 000913 0 0054
 000946 0 0056
 000979 0 0058
 999999 0 0058

Tel/TI Connector
Yes no 1257

OPR-436
ANP-40-2-74
H-9455

DAY 150 & ON 39

1003
000000 0 ~~0000~~ 0001 150 125700 009455
24⁰⁰00 0 0000 0001 211 125700 009455

ABSTRACT OF BARCHHECKS
NOAA LAUNCH 1255
East Coast of Florida

10 July 1974
191 Day

OPR-436

Depth	DIGITAL		ANALOG		Difference
	down	up	down	up	
5	4.1	4.4	4.4	4.5	
10	9.1	9.5	9.3	9.6	
15	14.4	14.4	14.4	14.4	
20	19.0	19.0	19.0	19.0	
25	23.9	23.9	23.9	23.9	
30	28.6	28.7	28.7	28.8	
35	34.5		34.6		
40					
45					
BAR	Ave.Dig.	Diff.		Diff.	-.8
5	4.2	.8		0.0	
10	9.3	.7		-0.1	
15	14.4	.6		-0.2	
20	19.0	1.0		0.2	
25	23.9	1.1		0.3	
30	28.6	1.4		0.6	
35	34.5	1.5		0.7	
Uncorrected depth from Transducer same as average digital					

Abstract of Barchecks
 NOAA Launch 1255
 121 Day---- 1 May 1974

BAR	Digital		ANALOG					
	down	up	down	up				
5	3/0	2.9	same as dig.					
10	7.4	7.5	see fath. for 121 day					
15	12.3	12.3						
20	17.0	17.0						
25	21.9	21.9						
30	26.7	26.7						
35	31.5	31.5						
40	36.2	36.3						
45	41.0	41.0						
50	46.0	46.0						

depth	Ave Digital	Difference		Corr'n to sounding
		Transducer depth		
5	2.9	2.1		0.0
10	7.4	2.6		0.5
5	12.3	2.7		0.6
20	17.0	3.0		0.9
25	21.9	3.1		1.0
30	26.7	3.3		1.2
35	31.5	3.5		1.4
40	36.2	3.8		1.7
45	41.0	4.0		1.9
50	46.0	4.0		1.9

19 JUL 1974

BAR CHECK

Launch 1255

BAR	DIG	ANAL.			Average Dig.	Diff.	DIFF-2.5: Coverage	RAW DEPTH FROM TRANS Applicable Dig.
5	2.5	2.6	-0.2	5	2.5	2.5	0.0	SAME AS AVE DIG.
10	7.1	7.1	+0.2	10	7.2	2.8	0.3	
15	12.0	12.0	+0.3	15	12.0	3.0	0.5	
20	16.7	16.7	+0.6	20	16.7	3.3	0.8	
25	21.1	21.1	+1.2	25	21.1	3.9	1.4	
30	26.2	26.2	+1.1	30	26.1	3.9	1.4	
35	30.8	30.8	+1.5	35	30.8	4.2	1.7	
40	35.7	35.8	+1.6	40	35.7	4.3	1.8	
45	40.3	40.4	+2.0	45	40.3	4.7	2.2	
45	40.4	40.4	+1.9					
40	35.8	35.8	+					
35	30.9	30.9						
30	26.0	26.1						
25	21.2	21.3						
20	16.7	16.8						
15	12.1	12.2						
10	7.3	7.4						
5	2.5	2.6						

GAIN @ 2.5
 125 volts
 60 c/s

CORRECTIONS IN FEET, FATHOMS

✓ *Wells*

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship: LAUNCH 1253

Comd'g: LT. DAVID KEUFEL

These corrections are to be used between 19 and 19 in the locality East Coast of Florida, St. Augustine Inlet for hydrographic surveys from 40-5-74

FOR DATA CORRECTED
POINTS VERY CLOSELY
TO THIS DATA, USE
THIS DATA FOR
VELOCITY CORRECTIONS

○ BAR CHECK 19 JULY, 1974 (2800)
△ BAR CHECK 1 MAY, 1974 (121)

VELOCITY CORRECTIONS FOR SALT WATER

COOR. DEPTH	COOR. DEPTH	COOR. DEPTH			
0.2	4.0	1.4	20.5	5.0	43.2
0.4	8.0	1.6	31.6	5.2	101.1
0.6	12.0	1.8	35.4	5.4	106.1
0.8	16.0	2.0	37.4	5.6	110.0
1.0	19.7	2.2	43.2	5.8	113.9
1.2	23.6	2.4	47.2	6.0	117.7
		2.6	51.1	6.2	117.8
		2.8	53.0	6.4	115.8
		3.0	53.8	6.6	120.5
		3.2	60.7	6.8	123.5
		3.4	66.9	7.0	127.5
		3.6	71.6	7.2	131.4
		3.8	74.6	7.4	135.3
		4.0	78.6	7.6	139.3
		4.2	82.5		
		4.4	86.4		
		4.6	90.4		
		4.8	94.3		

$m = \frac{W}{V} = \frac{55}{23} = 2.39$
 $= 14.609 \frac{W}{V_{CORR}}$

Average Current for Bar Checks
and Two T.C.S. (129, 136)
4.0 5.0

(For deep water add a 0 to these figures)

K&E 20 X 20 TO THE INCH 46 1240 MADE IN U.S.A. KEUFFEL & ESSER CO.

CORRECTIONS IN FEET, FATHOMS

✓ *Walls*

NOAA FORM 70-21 (10-1-78) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SERVICE

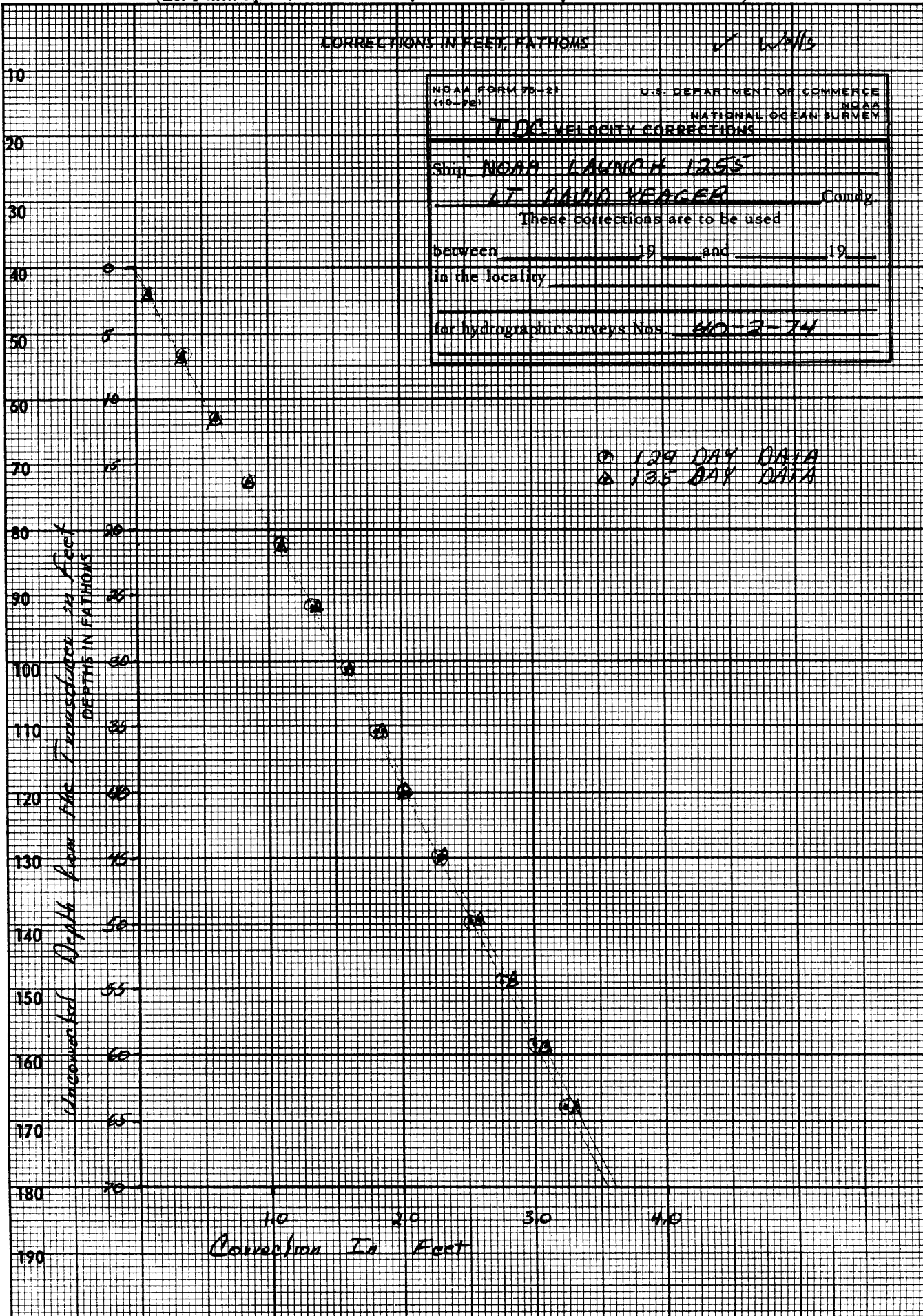
TDC VELOCITY CORRECTIONS

Ship NOAA LAUNCH 1255 Comd'g LT DAVID KEAGER

These corrections are to be used between 19 and 19 in the locality _____

for hydrographic surveys Nos 610-2-74

(For deep water add a 0 to these figures)



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

Uncorrected Depth from the Transducer in Feet DEPTHS IN FATHOMS

Correction In Feet

○ 129 DAY DATA
△ 135 DAY DATA

VELOCITY CORRECTOR TABLE 0001

VESNO 1257

OPR 436

AHP 40-2-74

H-9455

000050	0	0002	0001	000	125700	009455
000083	0	0004				
000116	0	0006				
000150	0	0008				
000183	0	0010				
000216	0	0012				
000249	0	0014				
000282	0	0016				
000315	0	0018				
000349	0	0020				
000382	0	0022				
000415	0	0024				
000448	0	0026				
000481	0	0028				
000514	0	0030				
000548	0	0032				
000581	0	0034				
000614	0	0036				
000647	0	0038				
000680	0	0040				
000714	0	0042				
000747	0	0044				
000780	0	0046				
000813	0	0048				
000846	0	0050				
000879	0	0052				
000913	0	0054				
000946	0	0056				
000979	0	0058				
999999	0	0058				

TC/TI TAPE PRINTOUT

VESNO 1257

OPR 436

AHP 40-2-74

H-9455

1003
000000 0 ~~0000~~ 0001 150 125700 009455
240000 0 0000 0001 211 125700 009455

TC/TI TAPE FOR AHP 40-2-74 VESNO 1255

000000 0 1003 0002 107 125500 009455
132157 0 0000 0002 211 125500 009455

VELOCITY CORRECTOR TABLE FOR AHP 40-2-74 VESNO 1255

000040 0 0002 0002 000 125500 009455
000080 0 0004
000127 0 0006
000157 0 0008
000197 0 0010
000236 0 0012
000275 0 0014
000315 0 0016
000354 0 0018
000393 0 0020
000432 0 0022
000472 0 0024
000511 0 0026
000550 0 0028
000588 0 0030
000629 0 0032
000669 0 0034
000716 0 0036
000746 0 0038
000786 0 0040
000825 0 0042
000864 0 0044
000904 0 0046
000943 0 0048
000982 0 0050
001011 0 0052
001061 0 0054
001100 0 0056
001139 0 0058
001177 0 0060
999999 0 0060

Lao 1255

Sheet AHP 2-74

Registry Numt

H-9455

No1	Julian Day	First Position Number	Time (GMT)	Last Position Number	Time (GMT)	Development Positions	Detached Positions	Rejected Positions	Duplicate Positions	Omitted Positions	Bottom Samples
I	107	001	143828	116	192616	N0	N0	N0	116	N0	N0
I	108	118	141614	175	164446	N0	N0	N0	116	N0	N0
I	113	176	150911	289	193341	N0	N0	N0	N0	N0	N0
I	117	290	134600	447	195004	N0	N0	N0	N0	N0	N0
I	120	448	141344	566	193435	N0	N0	N0	N0	N0	N0
I	121	567	145530	665	183631	N0	N0	N0	N0	N0	N0
I	122	666	160017	762	184046	N0	N0	N0	N0	N0	N0
I	127	763	141754	857	181043	N0	N0	N0	N0	N0	N0
I	128	858	142023	916	163327	N0	N0	N0	N0	N0	N0
I	129	917	151504	1010	193038	N0	N0	N0	N0	N0	N0
I	130	1011	132151	1125	174314	N0	N0	N0	N0	N0	N0
I	135	1126	133036	1246	174924	N0	N0	1126-1128	N0	N0	N0
I	136	1247	133505	1361	175458	N0	N0	1332-1361	N0	N0	N0
I	141	1362	135509	1486	183213	N0	N0	1362-1370	N0	N0	N0
I	144	1487	144527	1580	181655	N0	N0	N0	N0	N0	N0
I	148	1581	144601	1597	152401	N0	N0	N0	N0	N0	N0
I	149	1598	132747	1700	174715	N0	N0	1685-1687	N0	N0	N0
I	150	1701	131358	1877	195928	N0	N0	N0	N0	N0	N0
I	151	1878	131641	2061	213001	N0	N0	N0	N0	N0	N0
I	155	2062	132325	2143	165541	N0	N0	N0	N0	N0	N0
I	157	2144	132828	2211	163823	N0	N0	N0	N0	N0	N0
I	161	2212	143955	2258	165525	2229-2245	1-4 N0	N0	N0	N0	N0
I	162	0001	133000	0014	185500	N0	0001-0004	N0	N0	N0	14
I	163	2257	140336	2303	190755	N0	N0	N0	N0	N0	N0
I	164	2304	131541	2534	190557	N0	N0	2384	N0	N0	N043

La. 1255

Sheet AHF -74

Registry Num

H-9455

Vol	Jullan Day	First Position Number	Time (GMT)	Last Position Number	Time (GMT)	Development Positions	Detached Positions	Rejected Positions	Duplicate Positions	Omitted Positions	Bottom Samples
I	165	2535	13 24 53	2638	17 15 58	NO	NO	NO	NO	NO	NO
I	170	2639	14 4 149	2686	16 57 12	NO	NO	NO	NO	NO	NO
I	171	2887	13 37 45	2797	18 45 37	NO	NO	2798-2828	NO	NO	NO
I	179	2829	17 58 36	2885	20 25 17	NO	NO	" "	NO	NO	NO
I	180	2886	14 40 11	2935	17 19 40	NO	NO	NO	NO	NO	NO
I	190	2936	14 26 26	3030	17 59 13	NO	NO	2936-2964	NO	NO	NO
I	191	3031	14 10 20	3138	18 22 57	NO	NO	3031	NO	NO	NO
I	193	3139	13 11 07	3279	17 59 09	NO	NO	NO	NO	NO	NO
I	196	3280	14 58 38	3392	17 42 32	NO	NO	NO	NO	NO	NO
I	197	3393	13 36 58	3462	16 48 31	NO	NO	3454-3562	NO	NO	NO
I	199	3463	13 5 02	3512	16 13 46	3500-3512	0015-0017	NO	NO	NO	NO
I	200	3513	13 00 04	3622	17 22 36	NO	NO	NO	NO	NO	15
I	203	0015	13 19 07	0029	16 23 46	NO	0018-0032	NO	NO	NO	NO
I	205	3623	13 52 00	3798	18 23 39	NO	NO	NO	NO	NO	NO
I	211	3739	16 51 40	3799	19 32 42	3739-3798	3799	NO	NO	NO	NO

254

44

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

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

1

VESSEL	NOAA LAUNCH	PROJ. NO.	YEAR	SHEET	AHP -	CHECKED BY	DATE CHECKED	REMARKS		OBS. INIT.	
								(Unusual conditions, cohesiveness, density, cutter, size, no., type of bottom relief, etc.)	(slope, plain, disposition, etc.)		
NOAA LAUNCH 1255	OPR-436	1974	H-9455	AHP-46-2-74	W.D. OTTO	8 AUGUST 74					
SERIAL NO.	DATE	SAMPLE POSITION		DEPTH FEET	WEIGHT OF SAMPLER	APPROX. PROX. TRAILING	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS	OBS. INIT.
0001	11 June 74	29/38	81/06	61 FT.	6 lbs.	1/2" - 1"		Brown	Fine brn Sand & brk Shell	PI = 382.36 P2 = 604.89	DWY
0002	11 June 74	29/38	81/02	59 FT.				Brown	Fine brn Sand & brk Shell	PI = 411.19 P2 = 684.15	DWY
0003	11 June 74	29/38	80/59	64 FT.				Brown	Fine brn Sand & brk Shell	PI = 477.25 P2 = 756.72	DWY
0004	11 June 74	29/38	80/56	69 FT.				Brown	Fine brn Sand & brk Shell	PI = 552.37 P2 = 852.14	DWY
0005	11 June 74	29/38	80/53	64 FT.				Brown	Fine brn Sand & brk Shell	PI = 640.14 P2 = 936.89	DWY
0006	11 June 74	29/38	80/50	78 FT.				Brown	Brk Shells & Gravel PI = 736.36 PII = 1035.82	DWY	
0007	11 June 74	29/38	80/47	81 FT.				Brown	Fine brn Sand & brk Shell	PI = 827.37 PII = 1135.02	DWY
0008	11 June 74	29/35	80/46	75 FT.				Brown	Fine brn Sand & brk Shell	PI = 798.53 P2 = 1197.48	DWY
0009	11 June 74	29/35	80/50	70 FT.				Brown	Fine brn Sand & brk Shell	PI = 690.86 PII = 1101.60	DWY
0010	11 June 74	29/35	80/53	70 FT.				Brown	Fine brn Sand & brk Shell	PI = 587.31 PII = 1007.27	DWY
0011	11 June 74	29/35	80/56	58.0				Brown	Fine brn Sand & brk Shell	PI = 494.94 PII = 922.81	DWY
0012	11 June 74	29/35	80/59	56.0				Brown	Fine brn Sand & brk Shell	PI = 412.02 P2 = 844.67	DWY
0013	11 June 74	29/35	81/02	67.0				Brown	Fine brn Sand & brk Shell	PI = 327.81 P2 = 765.37	DWY
0014	11 June 74	29/35	81/05	60.0				Brown	Fine brn Sand & brk Shell	PI = 278.32 P2 = 702.86	DWY
<p>NOTE: Some Samples are of Small Quantity Due to Relatively LIGHT</p> <p>SAMPLER USED, SAMPLER WAS OF THE "BOONE" TYPE.</p> <p>RADIST STATIONS FOR THESE SAMPLES WERE SIGNALS 504 & 585</p>											

Use more than one line per sample if necessary.

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

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

VESSEL		PROJ. NO.		YEAR		SHEET #		CHECKED BY		DATE CHECKED	
LAUNCH 1255		OPR-436		1974		AHP-40-2-74 (NETH) H-9455		WILLIAM D. OTTO		8-10-74	
SERIAL NO.	DATE	SAMPLE POSITION		DEPTH FEET (if different)	WEIGHT OF SAM- PLER	AP- PROX. TRA- TION	LENGTH OF CORE	COLOR OF SEDI- MENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesion, density, cutter, strat. no., type of bottom relief, etc.)	OBS. INIT.
		LATITUDE	LONGITUDE								
0015	18 July 74	29/32	81/08	48'	6 LBS	1"-1 1/2"		Blk	blk M & brk Sh	PT = 667.37	Dry
0016	18 July 74	29/35	81/08	56'				Blk	blk M & brk Sh	PT = 299.52	Dry
0017	18 July 74	29/38	81/08	42.10				Blk	blk M & brk Sh	PT = 571.84	Dry
0018	22 July 74	29/41	81/12	36.99				Blk	blk M & brk Sh	PT = 413.55	Dry
0019	22 July 74	29/41	81/09	37.97				Blk	blk M & brk Sh	PT = 488.54	Dry
0020	22 July 74	29/41	81/06	46.35				Blk	blk M & brk Sh	PT = 534.68	Dry
0021	22 July 74	29/41	81/03	41.92				Blk	blk M & brk Sh	PT = 303.39	Dry
0022	22 July 74	29/41	81/00	37.06				Blk	blk M & brk Sh	PT = 540.52	Dry
0023	22 July 74	29/41	80/53	35.07				Blk	blk M & brk Sh	PT = 388.47	Dry
0024	22 July 74	29/41	80/53	46.42				Blk	blk M & brk Sh	PT = 558.86	Dry
0025	22 July 74	29/41	80/53	48.55				Blk	blk M & brk Sh	PT = 482.79	Dry
0026	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 598.26	Dry
0027	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 586.72	Dry
0028	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 653.73	Dry
0029	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 688.44	Dry
0030	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 735.08	Dry
0031	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 799.63	Dry
0032	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 813.59	Dry
0033	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 903.95	Dry
0034	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 885.53	Dry
0035	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 887.33	Dry
0036	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 823.13	Dry
0037	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 778.51	Dry
0038	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 755.05	Dry
0039	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 667.77	Dry
0040	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 697.63	Dry
0041	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 556.51	Dry
0042	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 667.56	Dry
0043	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 452.47	Dry
0044	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 649.70	Dry
0045	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 338.90	Dry
0046	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 647.80	Dry
0047	22 July 74	29/41	80/53	46.03				Blk	blk M & brk Sh	PT = 239.94	Dry

RAYDIST STATIONS FOR THESE SAMPLES WERE:
 * U.S. G.P.O. 1972-769-565/530 REG. #6

RAYDIST STATIONS FOR THESE SAMPLES WERE:
 PALM RAYDIST 1974 — DELTONA RAYDIST 1974

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- 9455

- 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: May 13, 1976

Signed:

William L. 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: 13 May 1976

Signed:

C. Dale North

Title: Chief, Processing Division

10/9/74

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
Jacksonville Beach

Period: April 17 - July 24, 1974

HYDROGRAPHIC SHEET: H9455

OPR: 436

Locality: Outer Coast of Northern Florida

Plane of reference (mean ~~lower~~ low water): 2.1 ft. (Daytona Beach)
6.1 ft. (Jacksonville Beach)

Height of Mean High Water above Plane of Reference is 4.5 ft.

Remarks: Recommended automated zoning.

James R. Hubbard

Chief, Tides Branch

Jacks Bch.

30 17
81 23.2

Daytona Bch

29 14
81 00

GEOGRAPHIC NAMES

H-9455

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP ATLAS	GRAND McNALLY ATLAS	U.S. LIGHT LIST		
ATLANTIC OCEAN										1
CRESCENT BEACH										2
MARINELAND										3
MATANZAS INLET										4
SUMMER HAVEN										5
										6
										7
										8
										9
										10
										11
										12
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										25

Approved
 Chas. E. Harrington
 Staff Geographer - CS162
 25 Aug. 1976

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9455

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & 2-Overlays		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS		5	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	1					
CAHIERS	3-Fath., P/O., & Sawtooth		1			
VOLUMES	2					
BOXES			1			

T-SHEET PRINTS (List)

~~1-1/2" x 1-1/2" x 1-1/2"~~

SPECIAL REPORTS (List)

1-Electronic Control Report filed with Fathograms

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			TOTALS
	PRE-VERIFICATION	VERIFICATION	REVIEW <i>HIT</i>	
POSITIONS ON SHEET				6045
POSITIONS CHECKED		604		
POSITIONS REVISED		100		
DEPTH SOUNDINGS REVISED		500		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		8		
JUNCTIONS		30		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		100		
SPECIAL ADJUSTMENTS		24		
ALL OTHER WORK		75		
TOTALS		257	30	
PRE-VERIFICATION BY W.H. Tyndall, C. Meekins, and R. Roberson	BEGINNING DATE 09/17/74	ENDING DATE 06/22/75		
VERIFICATION BY L.G. Cram	BEGINNING DATE 04/06/76	ENDING DATE 04/22/76		
REVIEW BY HIT	BEGINNING DATE	ENDING DATE		

Reg. No. 9455

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 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 12/2/80 TIME REQ'D. _____ INITIALS JHC

REMARKS:

Information for Future Presurvey Reviews

Except for the inlets and inshore areas, only minor changes are expected in the survey area.

The following items will require investigation by wire-drag, either conventional or improvised, and divers to verify their existence and to obtain their least depths:

<u>Item</u>	<u>Latitude</u>	<u>Longitude</u>
1. 28-foot sounding, Wk	29°46.7'	81°14.0'
2. Wreck	29°35.6'	81°10.6'
3. Wreck	29°46.93'	81°15.13'
4. Wreck (NORTHWESTERN)	29°34.0'	81°09.0'
5. Wreck (ARAWAR)	29°36.0'	80°54.02'

<u>Position Index</u>		<u>Bottom Change Index</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
293	0812	3	2	50 years
293	0811	2	2	50 years
293	0810	2	2	50 years
293	0805	2	2	50 years
294	0812	3	2	50 years
294	0811	2	2	50 years
294	0810	2	2	50 years
294	0805	2	2	50 years

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO.: H-9455

DATE: May 13, 1976

GENERAL LOCALITY and SPECIFIC LOCATION:

FIELD NO.: AHP-40-2-74

East Coast of Florida, St. Augustine

SURVEYED: April 17, 1974 through July 30, 1974

PROJECT NO.: OPR-436

SCALE: 1:40,000

SOUNDINGS BY: Raytheon DE-723 and 723D
with Digital Monitor

CONTROL: Raydist
(Range-Range)

Chief of Party LCDR F.T. Smith
Surveyed by LCDR J.O. Rolland
..... LT D.W. Yeager
..... LTJG R. Floyd
Automated Plot by Calcomp Plotter #618 (AMC)
Verified and Inked by Leroy G. Cram

1. Description of the Area

The area is just south of St. Augustine Beach, Florida and extends to a point just north of Flagler Beach, Florida. The area surveyed extends from the approximate six foot curve to the approximate ninety foot curve. The area is predominantly sand and shell.

2. Control and Shoreline
Type-Source-Origin

The control for this survey is by Raydist operated in the range-range mode with Launch 1255 and Launch 1257 using the same set of stations. The origin of control is adequately covered in Section F of the Descriptive Report.

The shoreline originates with final reviewed (September, 1975) manuscripts TP-00663 and TP-00664 based on October - November, 1973 air photography and a 1975 field edit. These manuscripts were reduced from 1:20,000 scale to 1:40,000 scale for application on this sheet.

3. Hydrography

- A. Crossings: Depths at crossings are in good agreement.
- B. Depth Curves: The usual depth curves adequately delineate the bottom configuration.
- C. Low-water Line: The low-water line was applied from the shoreline manuscripts as listed in Section Two above.
- D. Developments: Developments were run on Pre-survey Review Items and are discussed by number as follows:

Item No. 35 - Wreck of the vessel ARAWAR at latitude $29^{\circ} 33' 56''$, longitude $80^{\circ} 54.026''$ which originates with chart letter 539 of 1963. This item was investigated on day 161 (10 June). The shoalest depth found after Smooth corrections was a 62 foot sounding and no real indication of a wreck appears on fathograms. It is recommended that this wreck be retained on the chart and investigated by wire drag.

Item No. 36 - Sunken wreck charted at latitude $29^{\circ} 34'$, longitude $81^{\circ} 09'$; wreck of the vessel NORTHWESTERN from Notice to Mariners No. 7 of 1956. This item was investigated on day 199. The shoalest depth found was a 50 foot sounding. It is recommended that the wreck symbol be retained as charted ~~x~~ pending wire-drag investigation.

Item No. 34 - The 28 foot sounding charted at latitude $29^{\circ} 46.70'$, longitude $81^{\circ} 14.00'$ originates with Notice to Mariners No. 33 of 1920. This item was not developed during current survey. There are three lines approximately ²⁰⁰100 meters apart that cover this item. The shoalest depth found is 43 feet. Recommend this 28 foot sounding be retained as charted.

Item No. 32 - Underwater spring at latitude $29^{\circ} 46.10'$, longitude $81^{\circ} 12.49'$ is charted from H-4299 (1923). This item was investigated on current survey on day 211. The spring appears to be roughly the same size with a maximum depth of 140 feet. An enlargement was made and included in Descriptive Report. The deep was plotted on smooth sheet at position number 3799.

Dashed Circle Item - The 48 foot depth at latitude $29^{\circ} 47.4'$, longitude $81^{\circ} 04.5'$ was investigated on day 180. The investigation appears to be north of the 48 foot sounding; however, a 50 foot sounding was found between positions 6594 and 6595. It is recommended that ~~the 48 foot sounding be retained as charted.~~ ^{from the present survey} 46-49 ft. depths found to the north + south of this item.

4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Atlantic Marine Center Manual.

5. Junctions

Junctions were made with the following surveys: H-9456 - AHP-40-3-74 (1974), H-9367 - MI-80-1-73 (1973), and H-9371 - AHP-40-1-74 (1974). ~~No~~ junction was made with H-8937 (HY-80-2-66) ^{during quality control inspection,}

The junctions ^{were made} with H-9456 (AHP-40-3-74) and H-9367 (MI-80-1-73) ~~were~~ the two sheets that join H-9455 (AHP-40-2-74) to the north. These junctions were made with good agreement. The junction to the south with H-9371 (AHP-40-1-74) could only be made ^{by} as a butt junction. ~~To do this one line was deleted from H-9455 (AHP-40-2-74);~~ ^{deleting} positions 5 through 33, day 107, Launch 1255. It appears that there were problems with control that were not resolved in the field nor could they be resolved during verification. With the deletion of this line the junction becomes satisfactory.

6. Comparisons

A. Prior Surveys: Comparisons were made with five prior surveys; H-3964 (1917), H-4294 (1923), H-4299 (1923), H-4300 (1923) and H-4435 (1924). The agreement between these surveys and the present survey indicates a difference of ± 2 to 3 feet in most cases. The present survey is adequate to supersede these prior surveys within the common area.

Surveys that were not compared ~~were~~ H-1047 (1870), H-1148A and B (1872), H-1266 (1875), H-1365 (1876-77), and H-4377 (1924). Recommend using the present survey to update the 60 foot curve in isolated cases and to resolve differences listed as Pre-survey Review Items.

B. Published Charts: This survey was compared with published chart C&GS 1244 (No. 11205), 6th edition, dated August 4, 1973.

(a) Hydrography: Most of the charted hydrography originates with prior surveys H-4299 (1923) and H-4294 (1923) previously discussed, ~~which~~ requires no further consideration.

(b) Attention is directed to the following: A wreck charted at approximate latitude 29° 46.9', longitude 81° 15.1' was not investigated on the current survey. Recommend retaining this feature.

(c) Aids to Navigation: There are no aids to navigation on this survey.

7. Compliance With Instructions

This survey adequately complies with the Project Instructions.

8. Additional Field Work


This is an excellent basic survey. Additional hydrographic field work is not recommended; however, the wrecks and/or obstructions of this area should be wire dragged to prove or disprove their existence.

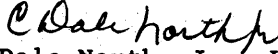
9. Hydrographic Inspection Team Comments

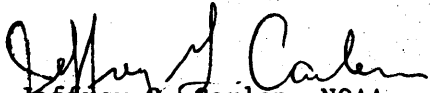
Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

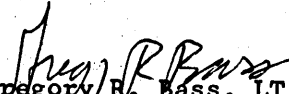
Approval Sheet for Survey H-9455

Examined and Approved:
Hydrographic Inspection Team
Date: 13 May 1976


CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

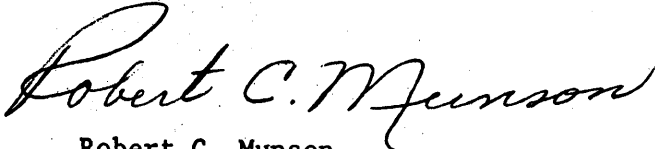

C. Dale North, Jr., LCDR, NOAA
Chief, Processing Division


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


Gregory R. Bass, LT, NOAA
Chief, EDP Branch


William L. Jonns
Chief, Verification Branch

Approved/Forwarded


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



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

C352

July 23, 1976

TO: *A. J. Patrick*
A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Qualify Control Branch

FROM: D. J. Romesburg *D. J. Romesburg*
Quality Evaluator

SUBJECT: Quality Control Report, H-9455 (1974), Florida, East Coast of Florida, Vicinity of Matanzas Inlet

A quality control inspection of H-9455 (1974) 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, navigational hazards, junctions, shoreline transfer, decisions and actions taken by the verifier and cartographic presentation of data.

The following deficiencies are noted:

1. The junction with H-8937 (1966) on the east was not made by the verifier but was accomplished during quality control inspection.
2. Several depths were revised to obtain depth curve agreement with H-9371 (1974) on the south. One sounding from a rejected line of hydrography on the present survey was erroneously inked on the smooth sheet as a junctional sounding from H-9371 (1974).
3. Several soundings were brought forward from prior survey H-4294 (1923) to help delineate the inshore areas.
4. Prior surveys H-4377 (1924) 1:40,000 and H-4434 (1924) 1:100,000 were omitted from section 6A, Comparison with Prior Surveys, in the verifier's report. These surveys were compared with the present survey during quality control inspection. No major differences were found and the present survey is adequate to supersede the prior surveys within the common area.

The 51 charted from H-4299 (1923) in latitude $29^{\circ}41.0'$, longitude $81^{\circ}08.2'$ falls in depths of 63 feet on the present survey. Investigation of this area discredits the existence of a feature in this locality and the 51 should be disregarded.



The 60 charted from H-4299 in latitude 29°41.5', longitude 81°06.4' falls in present depths of 65-66 feet and is considered disproved by the present development.

5. A wreck was carried forward to the present survey from prior survey H-4294 (1923) in latitude 29°46.93', longitude 81°15.13'. Another wreck located on this prior survey in latitude 29°35.6', longitude 81°10.6' was verified on the present survey during quality control inspection. Traces of this wreck to 14 feet were found on the fathograms for Julian Days 193 and 199. The hydrographer made no determination of the least depth on the wreck, however.

6. No statement was made in the verifier's report to indicate that the present survey was adequate to supersede the charted hydrography, thereby necessitating an additional chart comparison be made during quality control inspection. In addition, the largest scale chart in the survey area, chart 11485 (843-SC), was not included under section 6B, Comparison with Charts. Numerous features 2-5 feet shoaler than charted depths were found on the present survey.

Together with the features listed in section 3D of the verifier's report, the two wrecks charted at latitude 29°46.93', longitude 81°15.13' and latitude 29°35.6', longitude 81°10.6' should be retained on the chart.

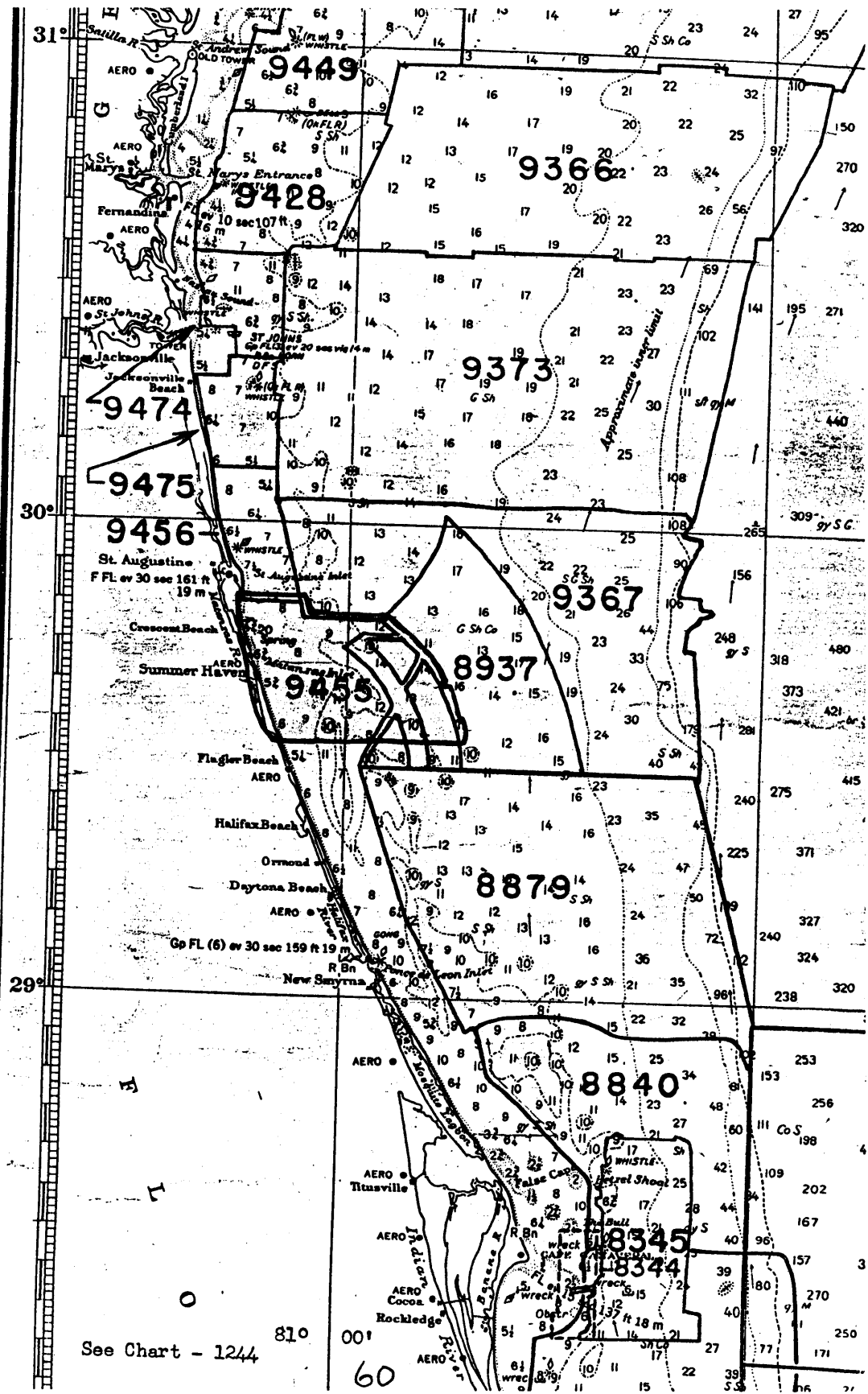
The 28 depth charted in latitude 29°46.70', longitude 81°14.05' was described in the verifier's report for H-4294 (1923) as a wreck reported in Notice to Mariners No. 33 of 1920. It is recommended that the charts reflect the pertinent information.

A wire-drag investigation of this charted wreck should be accomplished.

The Review Report for shoreline manuscript TP-00663 states that the pier and pier ruins charted in the vicinity of latitude 29°40.25', longitude 81°12.75' on chart 1244 do not exist.

Except for the revisions and retention of the items noted above, the present survey is adequate to supersede the charted hydrography within the common area.

cc:
C351



See Chart - 1244

60

