

9746

Diag. Cht. No. 1245

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Hydrographic
Field No. HSB-10-1-78
Office No..... H-9746

LOCALITY

State Florida
General Locality Banana River
Locality Duck Creek to Pintail Creek

19 78

CHIEF OF PARTY
Thomas W. Richards

LIBRARY & ARCHIVES

DATE July 27, 1979

9746

Area 3
Charts
✓ 11484
11477 N.C

HYDROGRAPHIC TITLE SHEET

H-9746

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

HSB-10-1-78

State Florida

General locality *Banana River

Locality North Banana River Back Creek to Pintail Creek

Scale 1:10,000 Date of survey 8 March - 19 May 1978

Instructions dated 1 October 1975 Project No. OPR-G207-HFP-78

Vessel NOAA Launch 1286 and Skiff 570

Chief of party LCDR Thomas W. Richards

Surveyed by LT. Stanley R. Iwamoto

Soundings taken by echo sounder, ~~hand lead~~, pole

Graphic record scaled by **SRI, MB, LCG, RS, JD, ED

Graphic record checked by SRI MB LCG

Protracted by LCG, SRI Automated plot by AMC, CALCOMP 618 ^{XVNETICS 1201}

Verification by J.S. Bradford June 25, 79

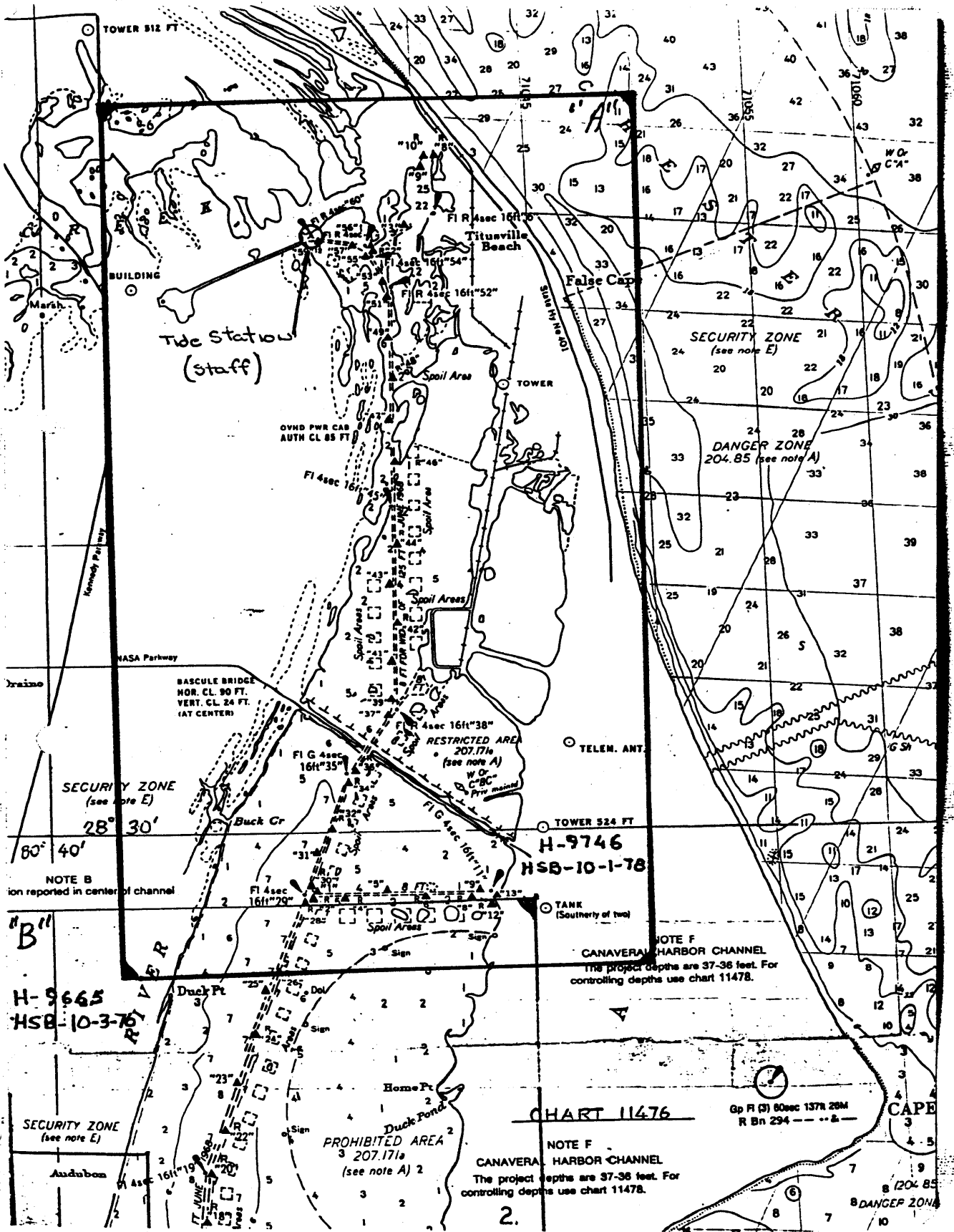
Soundings in ~~XXXX~~ feet at Low Water Datum ~~NEW~~ ~~XXXX~~

REMARKS: *Sounding Volumes show Canaveral, Fl. as General locality

** SRI - S. R. Iwamoto, MB - M. Bradley, LCG - L.C. Gilden,

RS - R. Snow, JD - J. Daniel, DE - Dave Elliott

*Applied to stds 2/6/80
CJR*



DESCRIPTIVE REPORT
To Accompany
HYDROGRAPHIC SURVEY H-9746 (HSB-10-1-78)

Scale 1:10,000 (1978)
LCDR Thomas W. Richards

Hydrographic Field Party #3
Chief of Party

A. PROJECT

This survey was conducted in accordance with project instructions OPR-499-AHP-76 (G207), dated October 1, 1975, and the following changes; Change No. 1, January 16, 1976; Change No. 2, December 7, 1977; Change No. 3, December 21, 1977; Change No. 4, January 31, 1978; and Change No. 5, June 12, 1978.

B. AREA SURVEYED

The survey area includes the Banana River from its northern limit at approximate Lat. 28°36' to below the NASA Causeway at approximate Lat. 28°29'. Survey operations began March 8, 1978, and were completed May 19, 1978.

C. SOUNDING VESSEL

NOAA Launch 1286, a 20-foot Monark with 85 HP outboard, and Skiff 570, a 13-foot Boston Whaler with 25 HP, were used to obtain all soundings.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

A Raytheon 719B (s/n 5881) fathometer was used on both Launch 1286 and Skiff 570. The transducer is mounted on a through hull fitting midships for Launch 1286. Skiff 570 had a portable transducer mounted outboard on the port quarter.

Pole soundings were taken when the bottom trace was obscured by the initial trace, generally less than 2.0 feet.

Velocity corrections were determined from bar checks. Bar check data were averaged and corrections are applied on Velocity Tables 1 and 2. Velocity correctors were not applied to soundings plotted in the field.

A static transducer draft of one (1) foot was used for Launch 1286, 0.4-foot for Skiff 570. These corrections are applied to soundings on the field sheet.

The initial was maintained at zero on line; any variations observed were recorded during scanning and corrections were applied via the TC-TI tape.

A settlement and squat test was run on the Banana River on March 22, 1978 with Launch 1286. The correction observed was 0.2 foot at all sounding speeds. The abstract of the settlement and squat test is appended.

Skiff 570 was always run at slow speeds when sounding so no settlement and squat correctors were necessary.

E. HYDROGRAPHIC SHEETS

Field sheets were prepared at Processing Division, AMC, Norfolk. Shoreline was transferred from the topographic manuscripts listed in Section H of this report. Hydrographic data was manually logged, plotted and edited in the field. Data will be forwarded to AMC for final smooth plotting.

F. CONTROL STATIONS

All control stations used were of 3rd order accuracy. Stations were located and/or verified by Hydrographic Surveys Branch, Norfolk. Ref. Control Report OPR-G207 HFP-78, March 1978, also Photo Party #61, OPR-499-AHP-76, Control Report, August 1976, and Supplemental Control Report, March 1977.

G. HYDROGRAPHIC POSITION CONTROL

The launch and skiff were positioned by range-range and range-azimuth control methods. In the range-range mode, two (2) remote Del Norte units were positioned on two (2) shore control stations while the master and DMU were installed aboard the launch or skiff. In range-azimuth mode, a Wild T-2 and a remote Del Norte were colocated at a shore station, while the master and DMU were on board the launch or skiff.

The following equipment was used:

T-2	12118	DMU	429
Master	78M 912	Remote	72R (256)
Remote	76R (251)	Remote	74R (262)

Del Norte was calibrated daily along inverse distances between 3rd order stations. Del Norte correctors were maintained at zero. No variations greater than three (3) meters were observed from one calibration to the next. Calibrations are recorded in the sounding volume.

H. SHORELINE

Shoreline detail was transferred to the field sheets from TP 00135, 00114, 00111, 00110. Field Edit was accomplished in 1971 and had been applied to these orthophotos.

Shoreline changes since field edit was accomplished are indicated on the field sheet in red ink.

Significant changes were observed in the vicinity of Lat. 28°35.2'N, Long. 80°36.5'W. See JD 102, Pos. 873-880 and 883-890. JD 136, Pos. 6969 - 6972.

The small island charted at approximately 28°30.65, 80°35.8 is no longer exposed at MLW and should be shown as awash on the chart. See JD 107, Pos. 6424, D.P. on shoal awash. ✓

I. CROSSLINES

Crosslines were run at 12% of the regular lines. Crossings are excellent with no observed disagreements greater than one foot.

J. JUNCTIONS

This survey has one junction at the southern limit of the sheet and is with Contemporary Survey H-9665 (OPR-499, 1976). Junction is excellent with no disagreements greater than one foot.

K. COMPARISON WITH PRIOR SURVEYS

This survey was compared with Prior Survey H-1415⁹ 1:20,000, 1878.

The entire area has changed drastically so a detailed comparison is of little value. The NASA causeway and all dredged channels with accompanying spoil banks are not indicated on the prior survey. ✓
concur

L. COMPARISON WITH THE CHART

This survey was compared with Chart 11484, 11th Ed., June 4, 1977, 1:80,000.

Depths agree to within one foot south of the NASA causeway. Only a few soundings are charted north of the NASA Causeway and these agree within 1 to 2 feet with the field sheet. The chart does not show the deep holes caused by "fill dredging." ✓

Exposed ruins indicated on Manuscript TP 00135 were verified, JD 123, Pos. 1310 & 1311. These ruins are not presently charted. It is recommended the ruins be charted (bare 2' MLW) at Lat. 28°29.88', Long. 80°37.94'. ✓
ruins (3) shown
on smooth sheet
JPS

An uncharted submerged pipe was located on JD 138, Pos. 1879 at Lat. 28°30.78', Long. 80°37.02'. The pipe is 2" diameter, submerged one foot and should be charted. The 2" pipe is considered a "Danger to Navigation" and was reported to the United States Coast Guard and C322 by memo. Copies of this correspondence are appended. pipe (o) on smooth sheet

All maintained channels are adequately marked and control depths are correct. ✓

The numerous deep holes shown on this survey are the result of dredging fill for causeways and construction and should be charted. *concur*

M. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys of the area.

N. AIDS TO NAVIGATION

Aids to navigation in the survey area are accurate on Chart 11484 and Light List Vol. II, 1978. All aids were found to be adequately positioned for their intended purpose. *Banana River (North) Dbn "44" & Lt. "45" were not addressed in the survey records.*

O. STATISTICS

7PS

Number of positions	Launch 1286	660
	Skiff 570	2041
Number of Tide Stations		2
Nautical miles of sounding line	Launch 1286	81.1
	Skiff 570	150.1
Square miles of Sounding Line		9.7
Bottom Samples		56

P. MISCELLANEOUS

Dredging operations are scheduled this summer in all channels.

Q. RECOMMENDATIONS

None

R. AUTOMATED DATA PROCESSING

Data was manually recorded, logged and plotted in the field. Data tapes were edited with Elinore, AM-602, 5/20/75; calibration distances determined with RK-407, Geodetic - Direct & Inverse Computations 10/23/75. G.p.'s determined by Program AM-401 Transverse Mercator State Plane Coordinate Forward and Inverse 4/1/73.

Utility Computations RK-300, 2/5/76.

S. REFERENCE TO REPORTS

Control Report OPR-G207_HFP-78, March, 1978.

Field Edit Report 1971.

Control Report, August, 1976, Photo Party #61, OPR-499-AHP-76.

Descriptive Report, OPR-499, Banana and Indian Rivers, Florida, H-9665(HSB-10-3-76).

Respectfully submitted,

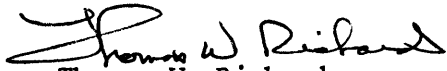
Robert Lewis
Per/ Stanley R. Iwamoto
LT., NOAA

APPROVAL SHEET

SURVEY H-9746 (HSB-10-1-78)

The hydrographic records transmitted with this report are complete and adequate to supersede prior surveys for charting. Direct daily supervision was not given by me during the field work. No additional field work is recommended.

Approved and forwarded,



Thomas W. Richards

LCDR, NOAA

Chief, Hydrographic Surveys Branch

FIELD TIDE NOTE
H-9746
HSB 10-1-78

Predicted tides were not applied since tide levels range less than 0.2 foot. Non-periodic water level changes were less than 0.5 foot observed at the northern limits of the survey area.

One tide gage was operated in the survey area; Cape Canaveral Locks #872-1609 installed November 4, 1977, Removed May 22, 1978. Levels were run November 7, 1977, and May 22, 1978. The gage is located at Lat. $28^{\circ}24.5'$, Long. $80^{\circ}38.3'$. *off limits of survey*

A tide staff was installed and leveled March 7, 1978; removed and leveled again on May 22, 1978. The staff was located at Lat. $28^{\circ}35'36''$, Long. $80^{\circ}37'12''$ and was read during periods of hydrography above Lat. $28^{\circ}34.5'$. ✓



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

June 7, 1978

CAM11/RAL

TO: Chief, Tides Branch
C331
FROM: *Babut Lewis*
for LCDR Thomas W. Richards
Chief, HSB
SUBJECT: Request for Tide Data

Please furnish tide data to AMC Processing Division for Survey H-9746 (HSB-10-1-78), Project OPR-G207-HFP-78 (OPR-499-AHP-76).

One tide gage at Cape Canaveral Locks (#872-1609) was in operation during hydrography on this survey. A tide staff was installed and leveled 7 March 1978 at Lat. 28°35'36", Long. 80°37'12" (Lt. "60"). The staff was read during periods of hydrography north of Lat. 28°-34.5'.

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

<u>J.D. 1978</u>	<u>Hydro Begins (GMT)</u>	<u>Hydro Ends (GMT)</u>
067	1200	1800
072	1100	2400
073	1100	1900
074	1200	2400
075	1300	1900
086	1400	2400
087	1400	2300
089	1500	2100
090	1300	2200
093	1300	2300
094	1300	2200
095	1200	2400
096	0000	0100
097	1200	2200
101	1300	2400
102	1300	2300
104	1500	2100
107	1300	2400
110	1200	2400



U.S. DEPARTMENT OF COMMERCE
July 19, 1978 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 872-1609 Cape Canaveral Locks, Fl.
872-1475 Kennedy Space Center, Fl.
(staff only)

Period: March 8 - May 19, 1978

HYDROGRAPHIC SHEET: H-9746

OPR: ~~499~~ G 207

Locality: Banana River, Florida

(low water datum): 2.46 ft. - Cape Canaveral
Plane of reference (~~mean-lower-low-water~~): 1.4 ft. - Kennedy Space
Center

Height of Mean High Water above Plane of Reference is

Remarks: Recommended zoning:

Zone #2 ~~#1~~ North of 28°34.5' zone direct on Kennedy Space Center.
Zone #1 ~~#2~~ South of 28°34.5' zone direct on Cape Canaveral.

Don M. Spillman
85 Chief, Tides Branch

0.0 +0.1 +0.4 +0.6 +0.8 +1.0
 (Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

CORRECTIONS IN FEET, ~~MINUTES~~

NOAA FORM 75-21 U.S. DEPARTMENT OF COMMERCE
 (10-72) NOAA
 NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship HEP-3 LAUNCH 570

LT S. LINDBERT Comdg.

These corrections are to be used

between APR 8 19 76 and MAY 19 19 76

in the locality N. BAYVIEW Pt. FL

for hydrographic surveys Nos. 11-9746

(For deep water add a 0 to these figures)

FEET
 DEPTHS IN

VELOCITY TABLE

Depth	Corr.
0.0 - 1.5	0.0
1.6 - 3.1	0.2
3.2 - 4.7	0.4
4.8 - 6.3	0.6
6.4 - 7.9	0.8
8.0 - 9.5	1.0
9.6 - 11.1	1.2

Dr. EM
 Cl. RL

-0.2 0.0 +0.2 +0.4 +0.6 +0.8 +1.0 +1.2
 (Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

CORRECTIONS IN FEET, ~~MINUTES~~

NOAA FORM 15-21
 (10-72)

U.S. DEPARTMENT OF COMMERCE
 NOAA
 NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship HFP-3 LAUNCH 1286

LT. S. IWAMOTO Comdg.

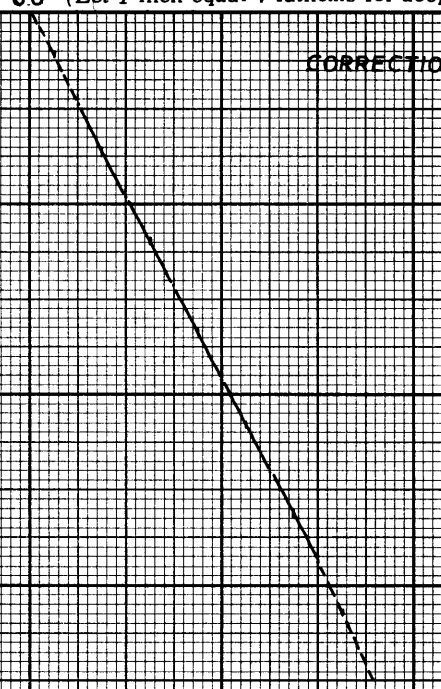
These corrections are to be used
 between MAR 27 19 78 and MAY 16 19 78
 in the locality N. BANANA RL. FL.

for hydrographic surveys Nos. H-9746

(For deep water add a 0 to these figures)

5
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175
180
185
190

FEET
 DEPTHS IN



VELOCITY TABLE ²/₁

Depth	Corr
0.0 - 2.1	0.0
2.1 - 7.2	0.2
7.2 - 11.9	0.4
11.9 - 16.7	0.6
16.7 - 21.5	0.8
21.5 - 26.2	1.0
26.2 - 30.9	1.2
30.9 - 35.6	1.4

Dr. EM
 Ch. RL

March 22, 1978
 Launch 1286
 Sett. & Squat

RPM Level Rdg. Avg. Rdg. IRA Corr.

0	5.080		
1500	5.23 5.22		
2000	5.25 5.25 5.26	5.22	+0.14
2500	5.19 5.18 5.20	5.25	+0.17
		5.19	+0.11

RPM.
 0 -1250
 1250-2330
 2330-2660

Corr
 0.00
 +0.20
 +0.00

FEET

+40
 +30
 +20
 +10
 0
 -10
 -20
 -30
 -40

500 1000 1500 2000 2500 3000
 ENGINE RPM.

Daily Electronic Control Corrections

H-9746 (HSB-10-1-78)

J.D.	Morning		Evening		Mean		Remarks
	R ₁	R ₂	R ₁	R ₂	R ₁	R ₂	
							<u>VESNO 570</u>
067	0	-	0	-	0	-	R/A hydro
072	0	-	0	-	0	-	R/A hydro
073	0	-	-	-	0	-	R/A hydro
074	0	0	0	0	0	0	R/R "
075	0	0	-	-	0	0	R/R "
086	0	-	-	-	0	-	R/A "
087	0	-	-	-	0	-	R/A "
089	0	-	-	-	0	-	R/A "
090	0	-	-	-	0	-	R/A "
093	0	-	-	-	0	-	R/A "
094	0	-	-	-	0	-	R/A "
095	0	-	-	-	0	-	R/A "
097	0	0	-	-	0	0	R/A & R/R
101	0	-	0	-	0	-	R/A
102	0	0	-	-	0	0	R/R
108	0	-	0	-	0	-	R/A
111	0	-	-	-	0	-	R/A
115	0	0	-	-	0	0	R/R
117	0	-	-	-	0	-	R/A
118	0	0	-	-	0	0	R/R
122	0	0	-	-	0	0	R/R
123	0	-	-	-	0	-	R/A
125	0	0	-	-	0	0	R/R
130	0	0	-	-	0	0	R/R
131	0	-	-	-	0	0	R/R & R/A
132	0	0	-	-	0	0	R/A & R/R
137	0	0	-	-	0	0	R/R
138	0	0	-	-	0	0	R/A & R/R
139	0	0	-	-	0	0	R/A & R/R
							<u>VESNO 1286</u>
086	0	-	-	-	0	-	R/A
104	0	0	-	-	0	0	R/R
107	0	0	-	-	0	0	R/R
110	0	0	-	-	0	0	R/R
111	0	0	-	-	0	0	R/R
135	0	-	-	-	0	-	R/A
136	0	-	-	-	0	-	R/A
				21.			

SIGNAL LIST

HFP-3

SKIFF 570, LAUNCH 1286

OPR-G207

H-9746, HSB 10-1-78

JD067-JD139

001	7	28	34	58319	030	38	47048	250	0000	000000	S.I.-01, 1978 (located by HSB)
002	7	28	35	36070	030	37	11954	250	0000	000000	LT "60" *
003	7	28	36	05982	030	36	18027	250	0000	000000	MURPHY AE, 1966 **
004	7	28	36	04765	030	35	21724	250	0000	000000	BUDROE, 1965 **
005	7	28	35	23900	030	36	32976	139	0000	000000	LT "54" *
006	7	28	35	29778	030	36	34561	250	0000	000000	NSBC 18, 1976 ***
007	7	28	32	14357	030	36	13607	250	0000	000000	NSBC 10, 1976 ***
008	7	28	33	10666	030	36	21124	250	0000	000000	NSBC 11, 1976 ***
009	7	28	33	02867	030	35	33013	250	0000	000000	APOLLO, 1976 *
010	7	28	33	26987	030	36	15633	250	0000	000000	SATURN, 1976 *
011	7	28	33	41377	030	36	20752	250	0000	000000	NSBC 13, 1976 ***
012	7	28	34	01354	030	36	24259	250	0000	000000	NSBC 14, 1976 ***
013	7	28	34	31292	030	36	20693	139	0000	000000	NSBC 15, 1976 ***
014	7	28	34	45275	030	36	25776	250	0000	000000	NSBC 16, 1976 ***
015	7	28	30	41073	030	36	32703	250	0000	000000	NSBC 08, 1976 ***
016	7	28	31	25893	030	35	54137	250	0000	000000	M.I.S., 1976 *
017	7	28	31	04272	030	37	17350	250	0000	000000	MOAT, 1976 *
018	7	28	29	34979	030	38	20331	250	0000	000000	AGENCY, 1959 **
019	7	28	30	32684	030	36	53929	139	0000	000000	LT "35" *
020	7	28	31	17213	030	36	33095	250	0000	000000	NSBC 09, 1976 ***
021	7	28	32	41203	030	36	21597	139	0000	000000	LT "44" *
022	7	28	31	08802	030	36	22053	139	0000	000000	LT "38" *

* Control located by Photo Party 61
 ** Control located by NGS
 *** Control located by US Corps of Engineers

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NOAA FORM 76-40 (2-71) U.S. DEPARTMENT OF COMMERCE-NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

PHOTOMETRY INSTRUCTION NO. 64. NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING LOCATION: HFP3 HYDROGRAPHIC SURVEYS BRANCH, OARG207 H-9746 HSB-10-1-78, DATE: 30 MAY 1978

ORIGINATING ACTIVITY: FIELD INSPECTION, FIELD EDIT, COMPILATION, FINAL REVIEW, QUALITY CONTROL AND REVIEW. (See reverse for responsible personnel)

JOB NUMBER PH-	SURVEY NUMBER T- TP-00111	DESCRIPTION	DATUM		POSITION		FIELD INSPECTION	COMPILATION	METHOD AND DATE OF LOCATION (See instructions on reverse of this form)	CHARTS AFFECTED
			LATITUDE		LONGITUDE					
			D.M. METERS	"	D.M. METERS	"				
DBN "59"		GRN. REFL.	28-35	33	080-37	08	F3A 4-5-78		Hydro location RIA Del Norte T-2 (2)	11484
DBN "57"		GRN REFL	28-35	30	080-36	45	F3A 3-13-78		RIA Del Norte T-2 (2)	11484
DBN "55"		GRN REFL	28-35	24	80-36	30	F3A 3-13-78		" "	"
DBN "1"		GRN REFL	28-35	29	80-36	33	F3A 3-13-78		" "	"
DBN "2"		RED REFL	28-35	27	80-36	32	F3A 3-13-78		" "	"
DBN "3"		GRN REFL	28-35	40	80-36	11	F3A 3-15-78		R/R Del Norte	"
LT "6"		RED REFL, FL. R., 43	28-35	48	80-35	54	F3A 3-13-78		RIA Del Norte T-2 (2)	"
DBN "8"		RED REFL	28-36	21	80-35	53	F3A 3-13-78		" "	"
DBN "9"		GRN REFL	28-36	15	80-36	01	F3A 3-13-78		" "	"
DBN "10"		RED REFL	28-36	22	80-35	57	F3A 3-13-78		" "	"

TYPE OF ACTION	NAME	TITLE
1. Objects inspected from seaward	HFP3, LT. IWAMOTO, OIC	<input checked="" type="checkbox"/> FIELD INSPECTOR <input type="checkbox"/> FIELD EDITOR
2. Positions determined and/or verified	"	FIELD INSPECTOR
3. Forms originated by Quality Control and Review Group and final review activities		FIELD EDITOR COMPILER <input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

COLUMN TITLE

TYPE OF ENTRIES

COMPILATION

Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.

FIELD INSPECTION
AND
FIELD EDIT

1. New Position Determined—Enter the applicable data by symbols as indicated below:

F -- Field

1. Triangulation
2. Traverse
3. Intersection
4. Resection
 - a. Theodolite
 - b. Planetable
 - c. Sextant

P -- Photogrammetric

1. Field identified
2. Theodolite
3. Planetable
4. Sextant

EXAMPLES:

F. 3.c

P. 2

Immediately beneath the data described above, enter the following:

a. For 'Field Positions' enter the date of location.

b. For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered -- Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified -- Enter 'Verif. mo/day/yr.'

R-2

NOAA FORM 76-40 (2-71)
 PRESCRIBED BY PHOTOGRAMMETRY INSTRUCTION NO. 64.
 U.S. DEPARTMENT OF COMMERCE-NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
 FIELD INSPECTION
 FIELD EDIT
 COMPILATION
 FINAL REVIEW
 QUALITY CONTROL AND REVIEW
 (See reverse for responsible personnel)

DATE
 30 MAY 1978

ORIGINATING LOCATION
 MF3 HYDROGRAPHIC SURVEYS BRANCH
 OOR 6307 H-9240 HSB 10-1-78

TO BE CHARTED
 TO BE DELETED
 The following objects have (have not) been inspected from seaward to determine their value as landmarks:

JOB NUMBER
 PH-
 STATE: FLORIDA

SURVEY NUMBER
 T-
 TP-00111

DATUM NA 1927

CHARTING NAME	DESCRIPTION	LATITUDE		LONGITUDE		FIELD INSPECTION	COMPILATION	METHOD AND DATE OF LOCATION (See instructions on reverse of this form)	CHARTS AFFECTED
		D.M. METERS	"	D.M. METERS	"				
DBW "53"	GRN REFL	28-35	10	80-36	20	F3A		R/A Del Norte T-2	11484
DBW "51"	GRN REFL	28-35	01	80-36	23	F3A		" "	"
DBW "49"	GRN REFL	28-34	38	80-36	23	F3A		" "	"
DBW "48"	RED REFL	28-34	14	80-36	21	F3A		R/A Del Norte T-2 (e)	"
DBW "47"	GRN REFL	28-33	50	80-36	23	F3A		R/A Del Norte T-2 (e)	"
DBW "46"	RED REFL	28-33	26	80-36	21	F3A		R/A Del Norte T-2 (e)	"
DBW "43"	GRN REFL	28-32	12	80-36	24	F3A		R/A Del Norte T-2 (e)	"
DBW "41"	GRN REFL	28-31	36	80-36	24	F3A		R/K De/Norte	"
DBW "39"	GRN REFL	28-31	16	80-36	24	F3A		" "	"
DBW "37"	GRN REFL	28-31	06	80-36	27	F3A		" "	"

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
1. Objects inspected from seaward	HFR3
2. Positions determined and/or verified	"
3. Forms originated by Quality Control and Review Group and final review activities	

INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

COLUMN TITLE

COMPILATION

FIELD INSPECTION AND FIELD EDIT

TYPE OF ENTRIES

Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.

1. New Position Determined—Enter the applicable data by symbols as indicated below:

- | | | |
|------------------|---------------------|-----------|
| F - Field | P - Photogrammetric | EXAMPLES: |
| 1. Triangulation | 1. Field identified | F. 3.c |
| 2. Traverse | 2. Theodolite | P. 2 |
| 3. Intersection | 3. Planetable | |
| 4. Resection | 4. Sextant | |
| a. Theodolite | | |
| b. Planetable | | |
| c. Sextant | | |

Immediately beneath the data described above, enter the following:

- a. For 'Field Positions' enter the date of location.
- b. For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered - Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified - Enter 'Verif. mo/day/yr.'

RS3

U.S. DEPARTMENT OF COMMERCE-NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION									
NONFLOATING AIDS OR LANDMARKS FOR CHARTS									
NOAA FORM 76-40 (2-71) PRESCRIBED BY PHOTOGRAMMETRY INSTRUCTION NO. 64.		ORIGINATING LOCATION		DATE		ORIGINATING ACTIVITY			
<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE DELETED		HFP3 HYDROGRAPHIC SURVEYS BRANCH OPR G-207 N-9746 HSB 10-1-78		30 MAY 1978		<input checked="" type="checkbox"/> FIELD INSPECTION <input type="checkbox"/> FIELD EDIT <input type="checkbox"/> COMPILATION <input type="checkbox"/> FINAL REVIEW <input type="checkbox"/> QUALITY CONTROL AND REVIEW (See reverse for responsible personnel)			
The following objects have (have not) been inspected from seaward to determine their value as landmarks.									
JOB NUMBER PH-	SURVEY NUMBER	DATUM	POSITION		LONGITUDE D.P. METERS	METHOD AND DATE OF LOCATION (See instructions on reverse of this form)		CHARTS AFFECTED	
			LATITUDE D.M. METERS	LONGITUDE D.P. METERS		FIELD INSPECTION	COMPILATION		
DBM "30"	T-TP-00114	NA 1927	28-30	34	80-30	50	FSA 5-17-78	R/R Del Norte	11484
DBM "34"			28-30	28	80-30	53	FSA 5-17-78	" "	"
DBM "32"			28-30	01	80-37	05	FSA 5-17-78	" "	"
DBM "31"	TP-00135		28-29	48	80-37	13	FSA 5-17-78	" "	"
DBM "30"			28-29	22	80-37	19	FSA 5-17-78	" "	"
DBM "29"									
DBM "28"			28-29	20	80-37	21	FSA 5-17-78	R/R Del Norte	"
DBM "1"			28-29	26	80-37	10		" "	"
DBM "2"			28-29	24	80-37	17	FSA 5-17-78	" "	"
DBM "4"			28-29	24	80-30	57	FSA 5-17-78	" "	"

1. Objects inspected from seaward	NEP3	<input type="checkbox"/> FIELD EDITOR
2. Positions determined and/or verified	"	FIELD INSPECTOR
3. Forms originated by Quality Control and Review Group and final review activities		FIELD EDITOR
		COMPILER
		<input type="checkbox"/> REVIEWER
		<input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

COLUMN TITLE

TYPE OF ENTRIES

COMPILATION

Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.

FIELD INSPECTION AND FIELD EDIT

1. New Position Determined—Enter the applicable data by symbols as indicated below:

- F** — Field
1. Triangulation
 2. Traverse
 3. Intersection
 4. Resection
 - a. Theodolite
 - b. Planetable
 - c. Sextant

- P** — Photogrammetric
1. Field identified
 2. Theodolite
 3. Planetable
 4. Sextant

- EXAMPLES:**
- F. 3.c
- P.2

Immediately beneath the data described above, enter the following:

- a. For 'Field Positions' enter the date of location.
- b. For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered — Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified — Enter 'Verif. mo/day/yr.'

RS 4

NOAA FORM 76-40
(2-71)

PRESCRIBED BY
PHOTOGRAMMETRY INSTRUCTION NO. 64.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
 TO BE DELETED

ORIGINATING LOCATION
HFR3 HYDROGRAPHIC SURVEYS BRANCH
OFF G207 N 9746 HSB 10-1-78

DATE
30 MAY 1978

The following objects have (have not) been inspected from seaward to determine their value as landmarks:

JOB NUMBER PH-	SURVEY NUMBER T - TP-00135	DATUM NA 1927	POSITION				METHOD AND DATE OF LOCATION (See instructions on reverse of this form)			ORIGINATING ACTIVITY <input checked="" type="checkbox"/> FIELD INSPECTION <input type="checkbox"/> FIELD EDIT <input type="checkbox"/> COMPILATION <input type="checkbox"/> FINAL REVIEW <input type="checkbox"/> QUALITY CONTROL AND REVIEW (See reverse for responsible personnel)
			LATITUDE D.M. METERS	LONGITUDE D.P. METERS	FIELD INSPECTION	COMPILATION	CHARTS AFFECTED			
CHARTING NAME	DESCRIPTION	D.M. METERS	D.M. METERS	D.P. METERS	D.P. METERS	FIELD INSPECTION	COMPILATION	CHARTS AFFECTED		
DBN "5"	GRN REFL	28-29	25	80-36	32	5-17-78	A/R Del Norte	11484		
DBN "6"	RED REFL	28-29	24	80-36	07	5-17-78	" "	"		
DBN "8"	RED REFL	28-29	23	80-35	37	5-5-78	" "	"		
DBN "9"	GRN REFL	28-29	25	80-35	33	5-5-78	" "	"		
DBN "10"	GRN REFL									
LT "11"	GRN REFL FL. G. 43	28-29	25	80-35	26	5-5-78	A/R Del Norte	"		
DBN "12"	RED REFL	28-29	19	80-35	25	5-5-78	" "	"		
DBN "13"	GRN REFL	28-29	23	80-35	23	5-5-78	A/R Del Norte	"		

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
1. Objects inspected from seaward	HFP 3
2. Positions determined and/or verified	
3. Forms originated by Quality Control and Review Group and final review activities	

TITLE	
<input checked="" type="checkbox"/> FIELD INSPECTOR	
<input type="checkbox"/> FIELD EDITOR	
FIELD INSPECTOR	
FIELD EDITOR	
COMPILER	
<input type="checkbox"/> REVIEWER	
<input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	

INSTRUCTIONS FOR 'METHOD AND DATE OF LOCATION' SECTION

NOTE: 'Photogrammetric Positions' are dependent entirely, or in part, upon control established by photogrammetric methods. 'Field Positions' are determined by field observations based entirely upon ground control.

COLUMN TITLE

TYPE OF ENTRIES

COMPILATION

Applicable to office identified and located objects only. Enter the number and date of the photograph used to identify the object.

FIELD INSPECTION
AND
FIELD EDIT

1. New Position Determined—Enter the applicable data by symbols as indicated below:

F - Field

1. Triangulation
2. Traverse
3. Intersection
4. Resection
 - a. Theodolite
 - b. Planetable
 - c. Sextant

P - Photogrammetric

1. Field identified
2. Theodolite
3. Planetable
4. Sextant

EXAMPLES:

F. 3.c

P. 2

Immediately beneath the data described above, enter the following:

a. For 'Field Positions' enter the date of location.

b. For 'Photogrammetric Positions' enter the date of field work; and, if a photograph was used in locating the object or the object was identified on a photograph, enter the number of the photograph used.

2. Triangulation Station Recovered - Enter 'Triang. Rec. mo/day/yr.'

3. Position Verified - Enter 'Verif. mo/day/yr.'



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

June 16, 1978

CAM11/RAL

TO: Chief, Nautical Chart Branch
C322

FROM: *Robert Lewis*
Per/LCDR Thomas W. Richards
Chief, Hydrographic Surveys Branch

SUBJECT: Advance information - Danger to Navigation -
Banana River, Florida (Chart 11484)

The enclosed copies of overlays and letter have been transmitted to the Commander, Seventh Coast Guard District.

The submerged pipe is considered to be a "Danger to Navigation" and is located on contemporary survey H-9746 (HSB-10-1-78) accomplished by HFP-3, Launch 1260.





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

June 15, 1978

TO: Commander
Seventh Coast Guard District

FROM: *Robert Lewis*
LCDR Thomas W. Richards
Chief, HSB

SUBJECT: Information pertinent to navigation in the
Banana River, Florida (Chart 11484)

The following information is a result of a recent National Ocean Survey hydrographic survey of the Banana River, Florida H-9746 (HSB-10-1-78).

A 2" iron pipe, submerged 1 foot was located by one of our survey parties while conducting hydrographic operations. The pipe is located in an area frequently used by small-craft and should be considered a "Danger to Navigation."

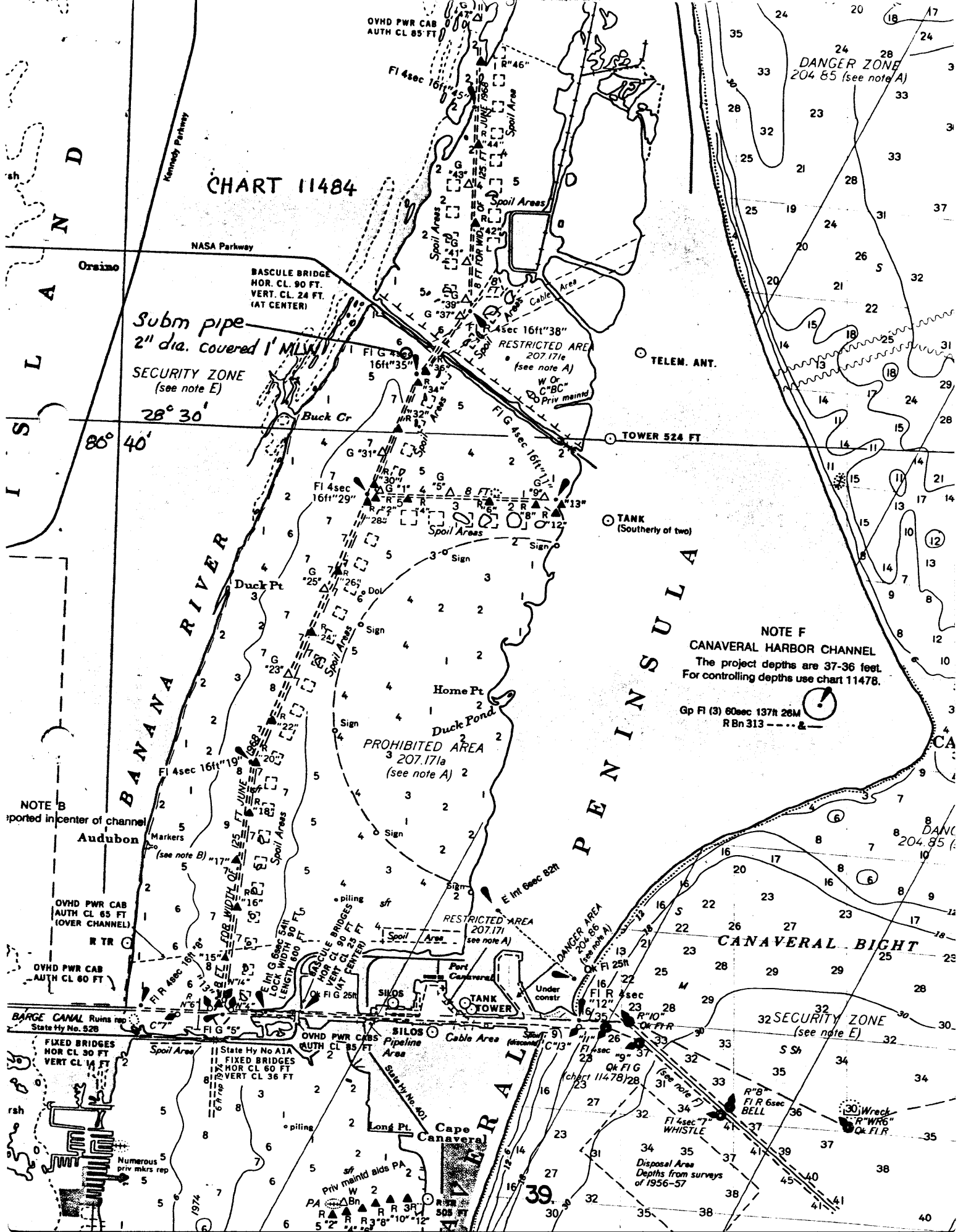
The pipe was located by "Range/Azimuth" techniques, a Del Norte distance/Wild T-2 angle. A pole sounding of 0.8 feet was obtained on the pipe.

Although the following location of the pipe is subject to office verification it is considered to be a good position.

Date of location -	18 May 1978
Latitude	28°30.73'
Longitude	80°37.02'



CHART 11484



Subm pipe
2" dia. covered 1' MLW
SECURITY ZONE
(see note E)
28° 30'

80° 40'

BANANA RIVER

PENINSULA

NOTE F
CANAVERAL HARBOR CHANNEL
The project depths are 37-36 feet.
For controlling depths use chart 11478.

Gp Fl (3) 60sec 137r 26M
R Bn 313 - - - - &

NOTE B
reported in center of channel
Audubon
(see note B)

OVHD PWR CAB
AUTH CL 85 FT
(OVER CHANNEL)

OVHD PWR CAB
AUTH CL 60 FT

BARGE CANAL
Ruins rep
State Hy No. 528

FIXED BRIDGES
HOR CL 30 FT
VERT CL 14 FT

FIXED BRIDGES
HOR CL 60 FT
VERT CL 36 FT

Numerous
priv maind rep

OVHD PWR CAB
AUTH CL 85 FT

BASCULE BRIDGE
HOR. CL. 90 FT.
VERT. CL. 24 FT.
(AT CENTER)

RESTRICTED AREA
207.171e
(see note A)

TELEM. ANT.

TOWER 524 FT

TANK
(Southerly of two)

PROHIBITED AREA
207.171a
(see note A)

RESTRICTED AREA
207.171
(see note A)

DANGER AREA
204.85
(see note A)

CANAVERAL BIGHT

SECURITY ZONE
(see note E)

Cape Canaveral

Disposal Area
Depths from surveys
of 1956-57

Wreck
"WR6"
Qk Fl R

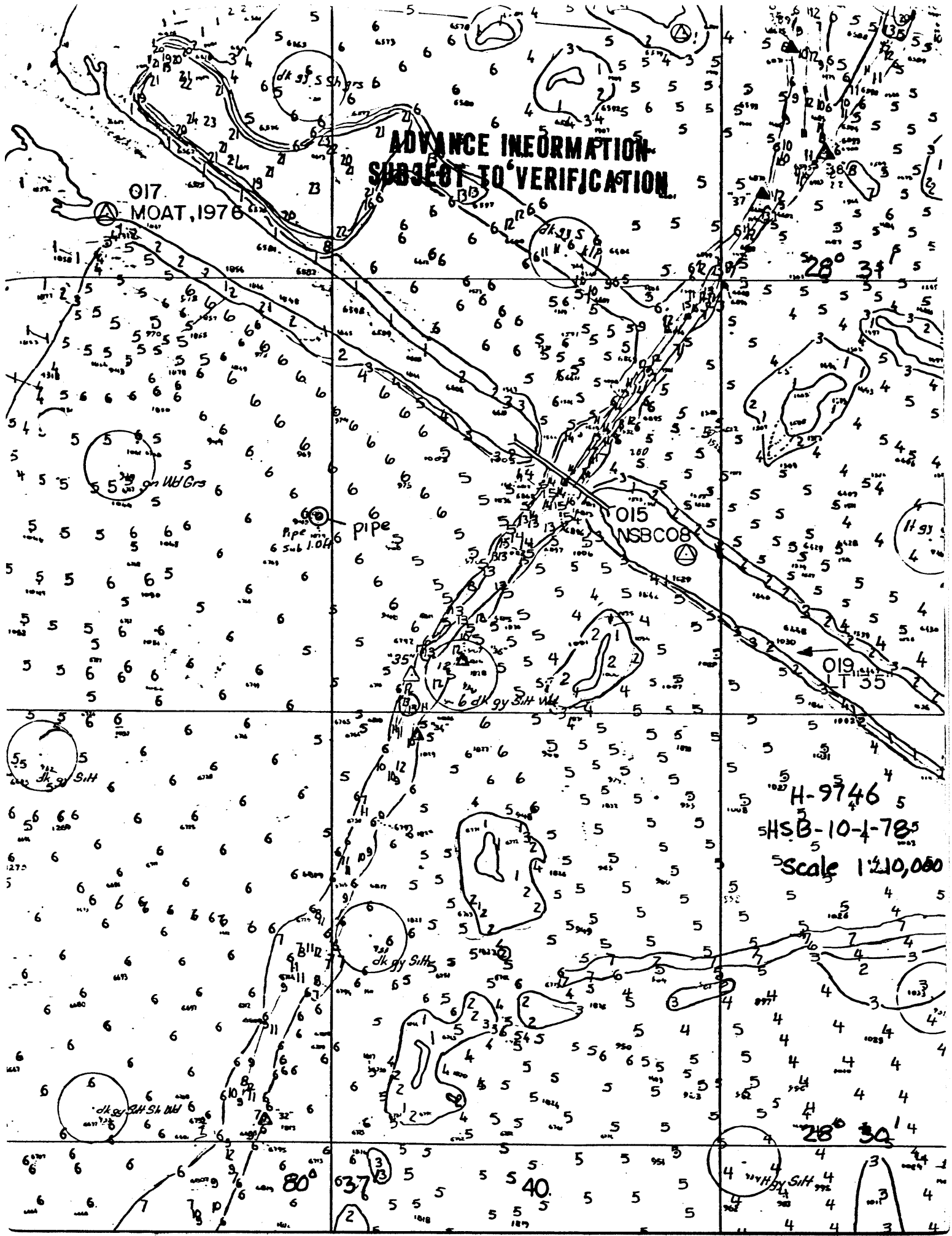
**ADVANCE INFORMATION
SUBJECT TO VERIFICATION**

017
MOAT, 1976

015
NSBCOB

019
IT 55

H-9746
HSB-10-4-78
Scale 1:210,000



GEOGRAPHIC NAMES

H-9746

11446

Name on Survey	A ON CHART NO. 11446										K	T SHEETS
	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND McNALLY ATLAS	H	I	J	L		
Banana River ✓	X										X	1
Bluebill Creek ✓											X	2
Buck Creek ✓	X										X	3
Futch Point ✓											X	4
Harrison Island ✓											X	5
Jack Davis Cut ✓											X	6
Jack Davis Island ✓											X	7
Merritt Island ✓	X										X	8
NASA Causeway ✓											X	9
Peterson Point ✓											X	10
Pintail Creek ✓											X	11
Saturn Barge Channel ✓											X	12
Tea Creek ✓											X	13
Tea Creek Cutoff ✓												14
Pepper Flats ✓												15
WHITES POINT ✓												16
CANAVERAL PENINSULA ✓												17
DEVILS ELBOW ✓												18
V.A.B. TURNING BASIN ✓												19
											Approved:	20
												21
											<i>Chas. E. Harrington</i>	22
											Chief Geographer-C3X5	23
											23 Aug. 1979	24
												25

APPROVAL SHEET
FOR
SURVEY H- 9746

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

Date:

7/13/79

Signed:



Title:

Chief, Verification Branch

HYDROGRAPHIC SURVEY STATISTICS

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION			AMOUNT
SMOOTH SHEET		1	BOAT SHEETS & PRELIMINARY OVERLAYS			1
DESCRIPTIVE REPORT		1	SMOOTH OVERLAYS: POS. ARC, EXCESS			2
DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						1-Tides & misc. data
CAHIERS	2- with printouts					
VOLUMES	12					
BOXES			1-Smooth			

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE- VERIFICATION	VERIFICATION	TOTALS
POSITIONS ON SHEET	2757		2757
POSITIONS CHECKED	435		
POSITIONS REVISED		73	
SOUNDINGS REVISED		103	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	2		
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS		76	
VERIFICATION OF SOUNDINGS		124	
COMPILATION OF SMOOTH SHEET		73	
APPLICATION OF TOPOGRAPHY		10	
APPLICATION OF PHOTOBATHYMETRY		0	
JUNCTIONS		10	
COMPARISON WITH PRIOR SURVEYS & CHARTS		26	
VERIFIER'S REPORT		20	
OTHER		5	
TOTALS	2	344	346
Pre-Verification by F. Saunders	Beginning Date 08/16/78	Ending Date 08/16/78	
Verification by S. Kelly, J. Bradford	Beginning Date 09/15/78	Ending Date 07/02/79	
Verification Check by B. Roberson	Time (Hours) 7	Date 07/02/79	
Marine Center Inspection by Hydrographic Inspection Team (AMC)	Time (Hours) 10	Date 07/09/79	
Quality Control Inspection by F.P. Saulsbury	Time (Hours) 2-05	Date 8-22-79	
Requirements Evaluation by D.J. Hill	Time (Hours) 8	Date 9/25/79	

M.N. Meyer 9/2/79 17 hrs

Reg. No. H-9746

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. H-9746

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 12-22-82 TIME REQ'D. _____ INITIALS JAC

REMARKS:

ATLANTIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO. H-9746

FIELD NO. HSB-10-1-78

Florida, Banana River, Buck Creek to Pintail Creek

SURVEYED: 8 March through 19 May 1978

SCALE: 1:10,000

PROJECT NO.: OPR-G207

SOUNDINGS: Raytheon 719B
Pole Soundings

CONTROL: Del-Norte
(Range/Range)
(Range/Azimuth)

Chief of Party T.W. Richards
Surveyed by S.R. Iwamoto
..... M. Bradley
..... L.C. Gilden
..... R. Snow
..... J. Daniel
..... D. Elliott
Automated Plot by XYNETICS 1201 Plotter (AMC)
Verified and Inked by J.S. Bradford
June 25, 1979

1. Introduction

- a. No unusual problems were encountered during verification.
- b. The red changes in the Descriptive Report were made by the verifier.

2. Control and Shoreline

- a. The source of control is adequately described in Sections F. & G. of the Descriptive Report.

b. The shoreline application was made from Coastal Zone Maps TP-00110, TP-00111, TP-00114, and TP-00135 of 1967, 1969, 1970. The dashed lines delineating shallow areas were transferred from the Coastal Zone Maps to the smooth sheet where hydrography was sparse. The hydrographer located shoreline changes by range/azimuth fixes. Revised shoreline is shown in red on the smooth sheet.

3. Hydrography

- a. The agreement at crossings is adequate.
- b. The standard depth curves are adequately delineated with the inclusion of the supplemental three foot curve. The zero curve was ^{generally} not delineated. *The small range of water level generally precluded the acquisition of soundings needed to delineate the low water curve.*

c. The development of the bottom configuration and investigation of least depths are considered adequate. Greater emphasis should have been placed on location of channels where these appeared to exist.

4. Condition of Survey

The sounding records, smooth field sheet, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, with the following exceptions: ✓

a. Closer spacing of fixes would have been beneficial for defining shoreline changes. ✓

b. The small island located at approximately latitude $28^{\circ}32'18''$, longitude $80^{\circ}36'34''$ was referenced in volume 9, page 16, day 138, fix no. 1948 as "small island 20m S.W. of the end of line" was plotted as noted. The boat sheet position is some 100 meters further from the end of the line. A detached position would have eliminated any confusion in the island's location. ✓ *concur*

c. In the area of latitude $28^{\circ}35'14''$, longitude $80^{\circ}36'05''$ the hydrographer states that an Islet no longer exist. A development of this area should have been made to obtain a least depth. *Shallow 1 ft. depths in area preclude a more detailed investigation - Development is adequate for this area.*

d. In the areas that have been dredged for fill more development would have aided in the contouring. A pole sounding should have been taken to obtain least depth. For example, a sounding of 7 feet (in approximately 23 feet) located at latitude $28^{\circ}32'33''$, longitude $80^{\circ}35'24''$. *Contours are unimportant in this area. But least depth probably should not have been obtained because of inadequate development.*

Also, what appears to be dredged channels were not investigated or developed by the hydrographer, closer line-spacing would have been desirable. For example the channel located at latitude $28^{\circ}31'25''$, longitude $80^{\circ}37'03''$ extending South West can not be traced to deep water with the information provided by field. *In the example channel 5ft can be carried so the main chan. level is adequate. Several pseudo channels are considered to have been "dredged" by the dredge to gain access to dredge in the mark area.*

e. Banana River (North) Light 45 and Daybeacon 44 were shown in error on the field sheet. Daybeacon 44 is "Light 44" in the signal list, and Light 45 is shown as a daybeacon. The smooth sheet shows these aids to navigation to be in agreement with chart #11484, TP-00114, and Coastal Guard Light List, Vol. II, 1978 page 352, Light List number 4018. *Compiler*

LT List shows "44" as a red daybn

"45" as a light

Cht shows "44" as a red daybn

"45" as a Lt.

Check with
Coast Guard
on Lt "45" &
Dbri "44" to be
sure

ZRS.

44 is shown as alt. in the signal list

"45" is not shown in the signal list.

Neither "44" or "45" are shown on the 76-40 form

5. Junctions

A junction⁶ was effected with the following survey:

H-9865 (1976) to the south

No other contemporary surveys join H-9746.

6. Comparison With Prior Survey

H-1415a (1878) 1:20,000

Comparison with prior survey is adequately covered in Section K. of the Descriptive Report.

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

7. Comparison With Chart #11484 (11th Edition, June 4, 1977)a. Hydrography

Although there has been drastic change, the few charted depths from the prior survey are in agreement, 1-2 feet, with the present survey. These changes can be attributed to cultural development.

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

b. Controlling Depth

There is no conflict between the charted controlling depth and the present survey. *Two 7 ft sdgs found in mid channel were in error & were moved out of channels during Q.C.I.*

c. Aids to Navigation

The aids to navigation on the present survey are in substantial agreement with their charted positions and adequately mark the features intended. *Banana River (North) Channel A Turning Basin Lt. appears to be poorly located.*

8. Compliance With Instruction

This survey adequately complies with the Project Instruction.

9. Additional Field Work

This is an adequate basic survey; additional field work is not recommended.

Inspection Report
H-9746

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


Examined and Approved:
Hydrographic Inspection Team
Date:


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

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

Absent
R. D. Sanocki
Technical Assistant
Processing Division

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


Billy J. Stephenson
Team Leader
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

OA/C352:FPS

August 22, 1979

R.H. Carstens
TO: R. H. Carstens
Acting Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

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

SUBJECT: Quality Control Report for H-9746 (1978), Florida, Banana River,
Buck Creek to Pintail Creek

A quality control inspection of H-9746 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, shoreline transfer, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, it was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report, the HIT Report, and as follows:

1. Some soundings were taken out of excess and added to the smooth sheet to show the continuity of channels, to indicate abrupt changes in depth, or to supplement bottom coverage.
2. Minor revisions or additions to survey items made during quality control inspection are indicated on the one-half scale survey copy to be furnished the verifier.
3. All odd-numbered daybeacons shown on the smooth sheet are green in color; however, they are represented by black daybeacon symbols on the survey.
4. The 1/2-foot sounding, originally plotted with a dashed zero curve, in latitude 28°30.94', longitude 80°37.18' was checked during quality control inspection because it was an unsupported shoal sounding. Position 1856, controlling the position of the 1/2-foot sounding, was found to plot 100 meters northeast of its smooth sheet location. The position of the fix and sounding was corrected during quality control inspection.



The 7-foot sounding plotted in latitude 28°29.40', longitude 80°35.51' falls in general depths of 10 to 11 feet in the middle of a dredged channel with charted controlling depths of 8 feet. The 7-foot sounding is noted on the fathogram to be on the edge of the channel where it is plotted on the boat sheet. The verified 7-foot sounding was rejected during quality control inspection.

Another 7-foot sounding in latitude 28°35.60', longitude 80°36.30' on the excess sounding overlay fell in the middle of a channel with a charted controlling depth of 8 feet. Position 293, controlling the position of the sounding, apparently recorded in error, plotted on land, 20 meters inside of the high water line. This fix was replotted on time and course thereby placing the 7 at the channel's edge.

5. The dolphin plotted in latitude 28°34.99', longitude 80°38.72' on the present survey, shown on TP-00110 (1967-71), and located by detached position 33 was overlooked during verification and was added to the smooth sheet during quality control inspection.

The dolphin plotted in latitude 28°33.69', longitude 80°36.36' on the present survey was overlooked during verification and was transferred to the smooth sheet from TP-00114 (1967-70) during quality control inspection.

6. Two charted landmarks from TP-00115 (1967-70) and one charted landmark from TP-00136 (1970-71) were added to the smooth sheet during quality control inspection.

7. The comparison with junctional survey H-9665 (1976) during quality control inspection revealed generally good agreement between overlapping depths. However, depth curves were in conflict. The 10-foot sounding, representing the channel deep, was erroneously plotted about 50 meters east of the channel in a shoal area. Position 1651 controlling the location of this sounding was obviously recorded in error. A revised position back-plotted on time and course corresponds to the boat sheet position which resolves the junctional discrepancy in this area.

8. Though elevations are referenced to the LWD and usually indicated by an underscored slanting number in parenthesis, features of a topographic nature (above a high water plane) should be annotated in vertical lettering. An approximate value for the difference between LWD and the high water plane is 1 foot.

*defacement
water map
corrected
on 55*

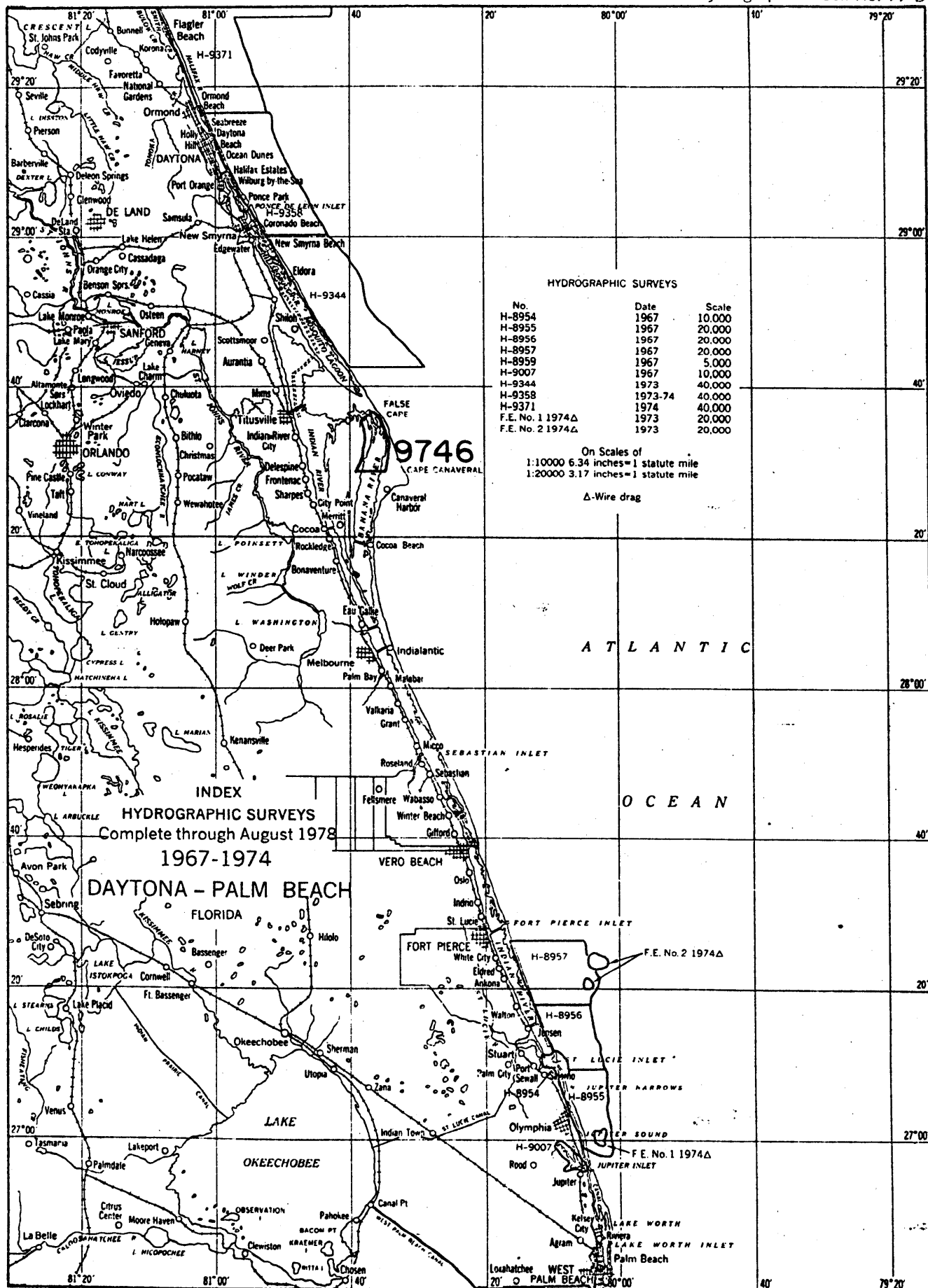
9. Some items, falling in water, were referenced in the sounding volumes but were not shown on the boat sheet and were overlooked during verification.

10. The dolphins located within a charted Federal Project Channel at latitude 28°29.35', longitude 80°35.4' on TP-00135 (1969-71) were not mentioned by the hydrographer or addressed in the Verifier's Report. However, this area is reported by a miscellaneous source (CL 1612/78) to have been dredged. These features are now considered to have been removed.

cc:
OA/C35
OA/C351

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

Hydrographic Index No. 77 D



NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9746

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11484	12 Aug 80	Mr. Radichnich	Full Part Before After Verification Review Inspection Signed Via Drawing No. 30, Q.C. SHEET, APPLIED <u>from PHOTO-REDUCTION</u> (DIRECTLY from H-sheet)
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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