

# FE218

## WIRE DRAG

Diagram No. 1242-2 & 1243-2

NOAA FORM 76-35A

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

### DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey ..... Wire Drag  
Field No. .... RU/HE-40-6-74  
Office No..... FE-218WD (1974)

#### LOCALITY

State ..... Georgia--Florida  
General Locality ..... Offshore  
Locality ..... Vicinity of Cumberland and  
..... Amelia Islands

1974

CHIEF OF PARTY  
R.A. Ganse

#### LIBRARY & ARCHIVES

DATE ..... October 31, 1979

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

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.1 1979WD

FE218  
WIRE DRAG

# FE No. 1, 1979 W.D.

Diag. Cht. 1242-2 & 1243-2

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19 74

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Area 3

CHT

11488/

11480

11502/

11503/

FE No. 1, 1979  
W.D.

HYDROGRAPHIC TITLE SHEET

FE No.1,1979 W.D.

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.

RU/HE-40-6-74

State ~~FLORIDA~~ GEORGIA-FLORIDA

General locality ~~FLORIDA - GEORGIA COAST~~ OFF SHORE

Locality ~~AMELIA ISLAND VICINITY OF CUMBERLAND AND AMELIA ISLANDS~~

Scale 1:40,000 Date of survey Oct. 9, 1974 - Oct. 25, 1974

Instructions dated August 2, 1974 Project No. SP-AMC-6-RU/HE-74

Vessel NOAA SHIPS RUDE & HECK

Chief of party CDR R.A. GANSE

Surveyed by CDR Ganse, LCDR Noble, LTJG VanTrain, ENS Mericas, ENS Albertson

Soundings taken by echo sounder, ~~and by~~

Graphic record scaled by \_\_\_\_\_

Graphic record checked by \_\_\_\_\_

Protracted by \_\_\_\_\_

Soundings penciled by \_\_\_\_\_

Soundings in ~~fathoms~~ feet at MLW ~~MKKX~~

REMARKS: Misc. items have been removed from this D.R. and are filed with the field records

*Applied to stds 3/28/80*  
*108*

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40-6-74

TEXT

This project was conducted to investigate three items off the Florida-Georgia Coast near Jacksonville, Florida. All three items were charted wrecks. Items I & J were found and cleared to a 40.6<sup>39</sup> ft. and 31.5<sup>30</sup> ft. respectively, ~~based on predicted tides.~~ It is recommended that these be recharted as having been cleared to these depths. In as much as ITEM G was never found, it is further recommended that this be removed from the charts. (See Attachment VIII).

Item 492 of  
US Navy Wreck  
List

*concur*  
A. AUTHORITY

This operation was authorized under Project Instructions SP-AMC-6-RU/HE-74 dated August 2, 1974. Also applicable is Change No. 1, Amendment to Instructions dated August 20, 1974. (See Attachment VII).

B. CHARACTER AND LIMITS OF WORK

The purpose of this survey was to investigate three charted wrecks (ITEMS G, I, & J; See Attachment II) off the coast of Northern Florida and Southern Georgia. The work area is found on C&GS Charts 1111, 1242, and 1243. The objective was to prove or disprove the existence of these charted hazards, and, if found, clear them by wire-drag method. The areas around the charted positions were of dimension as specified in the project instructions.

C. CONTROL

Raydist DR-S Range-Range control was utilized for this survey. The equipment was operating on a frequency of 3300.4 KHz, giving a lane width of 45.39904 meters. ~~Two Raydist shore stations, COW and JEKYLL station, located in a field by a motel on Jekyll Island, Georgia, served as the red station.~~ There was no shore line on the boatsheet. Upon completion of the survey, both stations were dismantled. COW is recoverable in that there is a red metal post marking the position. Note should be made that no description of COW is available. The station was cut in by Launch 1257 and we were directed to it by launch personnel. JEKYLL is not marked, and as such would prove difficult to recover. Neither station is monumented. Further information can be found in Attachment I. It should be noted that calibration was done using 3 point visual fixes plotted on a separate 1:20,000 calibration sheet. A list of all signals plotted on this sheet may be found in Attachment I. All signal numbers in the volumes refer to the numbered signals on this sheet.

See 6. B. 1)  
of the Review

Calibration Sheet  
not included with  
the survey records.

Raydist corrections are tabulated in Attachment V. For the most part these corrections are negligible and their determination is straight forward.

An exception to the foregoing are correctors for strips 1F, 2F, and 1G. The RUDE's Raydist calibration made on the evening of G Day (October 25) showed a one lane loss on both red and green arcs. It was not possible (by reviewing saw tooth records, etc.) to determine at what time (between the morning of F Day and evening G Day) these losses occurred. Therefore all RUDE positions on F and G days are subject to the following possible shifts:

ITEM I

LANES LOST

0	0	= no shift
0	1	= 200 ft. at 083
1	0	= 200 ft. at 135
1	1	= 316 ft. at 111

ITEM G

0	0	= no shift
0	1	= 155 ft. at 066
1	0	= 155 ft. at 183
1	1	= 176 ft. at 135

A review of the effect of the various possible shifts in RUDE position on overlap, etc., indicates:

The "worst case" for Item G is no loss for strip 2F and a one lane loss of both red and green for strip 1G. *concur*

The "worst case" for Item I is a one lane loss of both red and green for strip 1F. *concur*

However, even the "worst case" does not affect overlap requirements or conclusions for either of these items. *concur*

D. DATE OF SURVEY

Operations for SP-AMC-6-RU/HE-74, Sheet 40-6-74 began on October 9, 1974 and were terminated on October 25, 1974.

*Substandard -  
Long ambiguities  
should be resolved  
by the field.  
See the Review.*

*Smooth Tides are in an envelope in the  
Survey accordion folder.*

E. TIDAL REDUCERS

Preliminary reduction of each day's work was done using predicted tides for station 2831 at Fernandina Beach for ITEM G, station 2821 at St. Mary's Entrance for ITEM I and station 2781 at St. Simon's Light for ITEM J. No predicted tide data was supplied, so this was extrapolated from tide tables. Tide curves for each day have been included in the data submitted herein. Actual tide data was requested from and supplied by the Rockville Office. See Attachment X.

F. JUNCTIONS

N.A.

G. SPLITS

N.A.

H. GROUNDINGS AND HANGS

The bottom was quite irregular in this area so despite constant efforts, several groundings were encountered. In addition to these mud hangs, on several occasions a portion of the drag was pulled along the bottom. In such cases, the area is not claimed at a specific depth, but rather referenced as having been "wire swept." Further note is made in subsequent sections upon this matter.

The hangs encountered were as follows:

- 1.) B Day: A possible mud hang in the area of ITEM J. Indications suggested a possible double hang, although divers were not sent down. Lat.  $30^{\circ}01.25'$  Long.  $81^{\circ}12.57'$ . *not significant - effective depth is the same as charted depths. Also poor to determine hang position & therefore not used - Item hung with good position on C & D Days.*
- 2.) C Day: This hang plotted over the hang encountered on B Day and assumed to be a grounding. Divers investigated and found a large metal wreck lying in 48 ft. of water with 35 ft. of water above it. All depths by divers gauges. Lat.  $31^{\circ}01.28'$  Long.  $81^{\circ}12.54'$ . (See Review Report - section 4-C *U.S. Navy LCT-415*)
- 3.) D Day: Strip 1: This was a clearing attempt for ITEM J, but failed with an effective depth of 33.0 ft. (Hang) ~~based on predicted tides.~~
- 4.) D Day: Strip 3: This hang occurred during the investigation of ITEM I. Divers were deployed, but encountered zero visibility, to the point of being unable to see their depth gauges or anything else, and returned to the surface without finding the hang. The drag hung at an effective depth of ~~42.0 ft. based on predicted tides.~~

- 5.) E Day: This rehung the obstruction of D Day, Strip 3. Divers reported that this was indeed the wreck of ITEM I, Lat.  $30^{\circ}43.5'$ , Long.  $81^{\circ}21.4'$ . (See Attachment IV).

#### I. GENERAL NOTES

Calibration of the Raydist equipment was done using visual signals plotted on a separate 1:20,000 calibration sheet covering the area off Manhattan Beach, just south of Mayport, Florida. The easiest method was found to be running a range and taking an angle and a check angle. The calibration records in the volumes are self-explanatory and should require no further note. The signal numbers in the volumes refer to the numbers on the calibration sheet. (See Attachment I). The distance from the Raydist antenna to the end buoy varied as follows: for an 800 foot towline, 265 meters, and for a 1000 foot towline 326 meters.

In general TOB (tester on bottom) were not used to determine drag lift. In some instances a series of TOB tests yielding consistent values for lift was given some weight. In some instances a series of TOB tests was judged as establishing the proximity of the wire to the bottom. In these cases the area was marked as "swept" and considered free of obstructions but no depth was assigned to the drag. Some areas in which temporary grounding occurred were similarly treated. In general this was not considered sufficient and such "swept" areas were picked up properly in subsequent drags.

In the subject of tests, it might also be noted that on several days drags were run under what is best termed marginal conditions. Excessive sea state creates difficulty in obtaining accurate tests in that the tester rides up and down on the swells. This could conceivably result in misleading tests indicating either lift or sag depending on where the tester was on the swell when the ground wire passed it. There is not much that can be done under such conditions. Tests are recorded as taken and evaluated at face value.

*Substandard*

#### J. CURRENTS

Currents did not pose any particular problem in the work for this project. They were generally of a rotary nature, and of moderate strength. Current tests were taken frequently and most drags were planned to run with the current. Tests were taken using a sheet metal vane suspended by wire from a styrofoam float.

#### K. DISCREPANCIES AND COMPARISONS WITH RECENT SURVEYS AND CHARTS

Provided hydro data proved quite sufficient and was used extensively in planning the work. The only major discrepancy encountered was the non-existence of the charted wreck of ITEM G. ITEMS J & I were found within a reasonable distance from their

*Chart/Charts used are not noted - comparison is inadequate.  
No comparisons with Hydrographic Surveys.*

*See Sections 4. & 5. of the Review*

charted positions, though notably not right on these positions.

#### L. PERSONNEL AND EQUIPMENT

The Ship RUDE served as guide vessel throughout the project with the exception of Strip 1 of D Day. This was due to failure of the RUDE's Raydist and subsequent use of single vessel control as per Wire Drag Manual instructions. Each vessel used a Raytheon DE-723 fathometer for soundings. Tests were conducted by both launches. Normal wire drag hardware was used with no significant problems. A Shortage of toggle buoys did limit drag length but this was a minor problem.

Electronic punch tape recording of strip data was done at the end of the field season by ship's officers. *Contained numerous errors & no printout was provided. Errors have*

Officers participating in this survey were CDR R.A. Ganse, LCDR *been resolved in the* W.M. Noble, LTJG K.F. VanTrain, ENS G.M. Albertson, and ENS C.E. *automated strip data.* Mericas.

#### M. MISCELLANEOUS

Somewhat stormy weather was experienced during this operation. This is reflected in the sea conditions noted at the beginning *section I.* of each drag. As has been mentioned elsewhere, ~~the~~ rough sea state can be blamed for many peculiarities in tender tester results. The ships did remain in port on particularly bad days. All this considered, the project proceeded smoothly, if slowly, under the prevailing conditions.

#### N. SUMMARY

The survey encompassed 7 days of work in which data was taken and accepted. Of the 3 charted wrecks investigated, two were located and cleared. ITEM J, a Navy LCT was found to be mis-charted and was cleared to a depth of <sup>38</sup>31.5 ft. Its true position is Lat. 31°01.28', Long. 81°12.54', roughly 1/2 mile to the north-east of the charted position. ITEM I was also found slightly off its charted position, and was cleared to a depth corresponding to the reported depth on the charts, i.e., ~~40~~ <sup>40</sup> ft. based on predicted tides. The wreck of ITEM I was positioned at Lat. 30°43.48' Long. 81°21.48'. ITEM G was not found. See Addendum to Review of this F.E. for *comments pertaining to item J* *See the Review, Section 4. for more accurate positional values.*

#### O. RECOMMENDATIONS

It is recommended that ITEM I and J be recharted at their actual positions and shown as having been cleared to <sup>39</sup>31.5 feet and <sup>30.77</sup>40 feet respectively, ~~based on predicted tides.~~ Both wrecks pose potential hazards to shipping and fishing concerns. It is further recommended that the charted wreck of ITEM G, charted at Lat. 30°33' Long. 81°09.25' be removed from the charts. *Concur* <sup>\*</sup>Disregard recommendation pertaining to Item G. (See Q.C. Report-item)

## APPROVAL SHEET

All records of this survey prior to smooth plotting are hereby approved. The field work was personally supervised by the undersigned and records were inspected daily. The survey is considered complete and adequate for the purpose intended, i.e., establishing the location and effective depth of obstruction or alternately disproving the existence of suspected obstructions.



R.A. Gamse CDR NOAA  
Commanding Officer  
NOAA Ships RUDE & HECK

## LIST OF ATTACHMENTS

- I.     A.  SHORE STATION POSITIONS
- B.  VISUAL CONTROLS
- II.    PROGRESS SKETCH
- III.   FLOATING AIDS TO NAVIGATION
- IV.    GROUNDINGS AND HANGS
- V.     RAYDIST CORRECTORS AND STATISTICS
- VI.    CALIBRATION INFORMATION
- VII.   PROJECT INSTRUCTIONS
- VIII.  CHART CORRECTIONS
- IX.    BOATSHEET AND ELECTRONIC CONTROL PARAMETER SHEETS
- X.     TIDAL REDUCERS

ATTACHMENT I

A. Shore Station Positions

JEKYLL	Lat.	31° 02' 11.711"
	Long.	81° 24' 52.110"

COW	Lat.	30° 34' 17.596"
	Long.	81° 32' 17.755"

B. Visual Controls

See next page for a listing of visual controls used on the separate calibration sheet.

### DESCRIPTION OF TRIANGULATION STATION

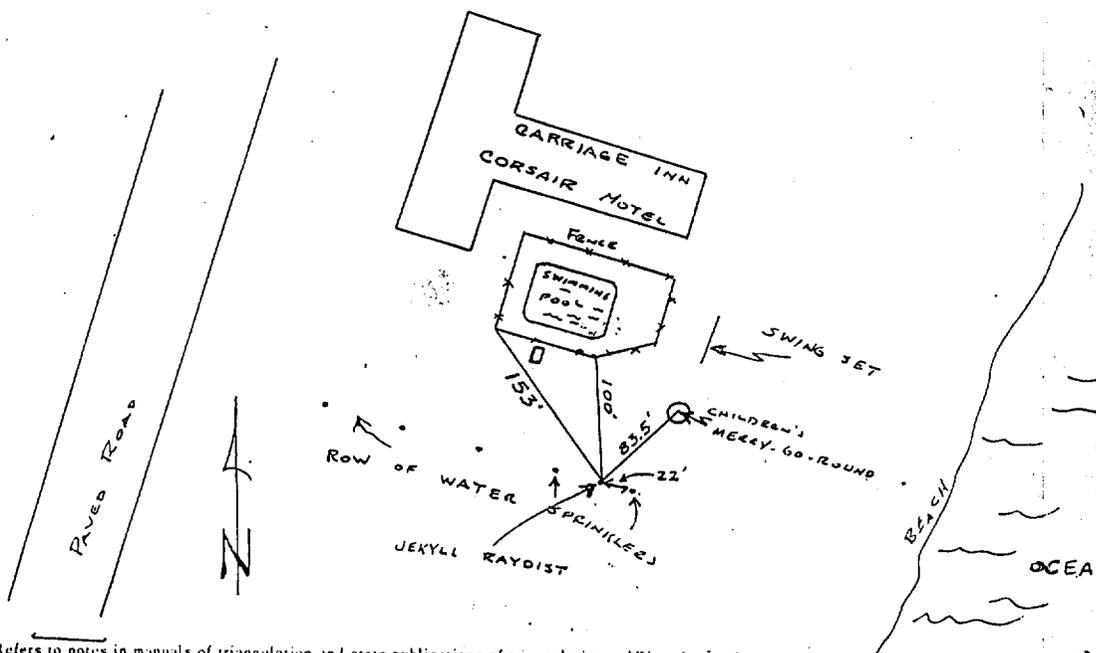
NAME OF STATION: **JEKYLL RAYDIST**      STATE: **Georgia**      COUNTY: **Glynn**  
 CHIEF OF PARTY: **A.C. Holmes**      YEAR: **1974**      DESCRIBED BY: **J.D. Shea**

NOTE.	HEIGHT OF TELESCOPE ABOVE STATION MARK	METERS.†	HEIGHT OF LIGHT ABOVE STATION MARK	METERS.	
	SURFACE-STATION MARK. UNDERGROUND-STATION MARK		DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION		
	OBJECT	BEARING	DISTANCE		DIRECTION:
FEET			METERS		
	LAT: 31°-02'-11.711"				
	LONG: 81°-24'-52.110"				

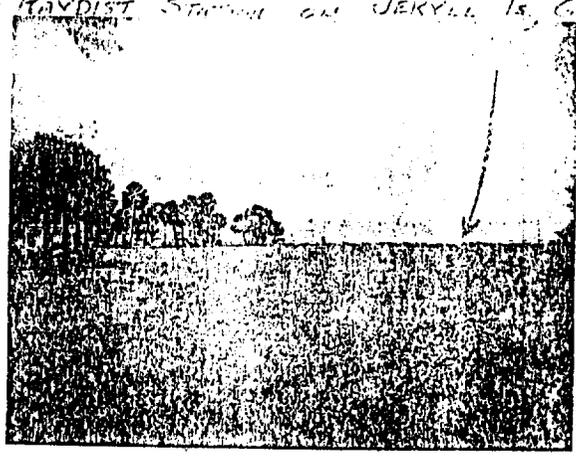
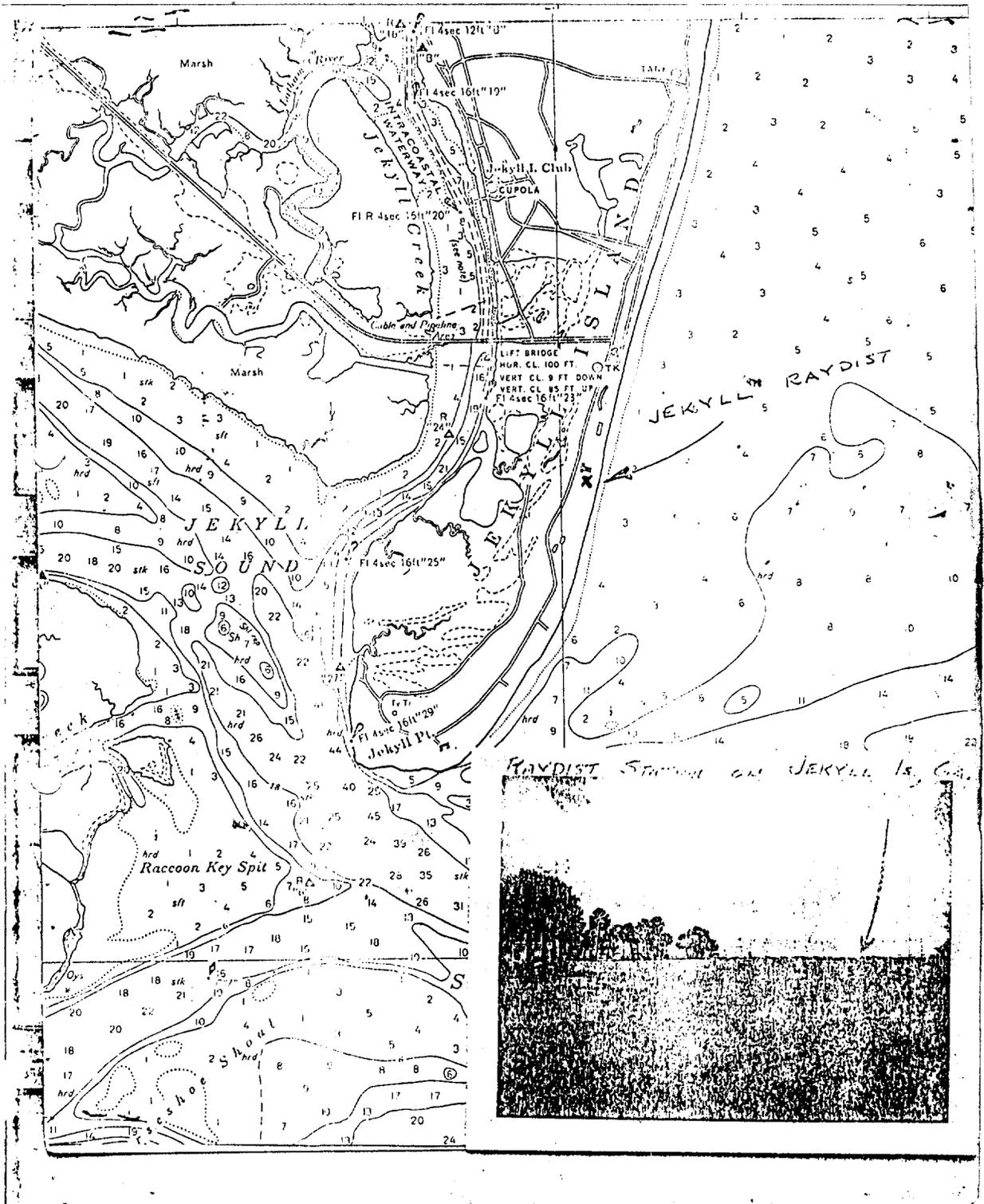
Detailed description:

Station is on an open area just south of the CORSAIR MOTEL on Jekyll Island. Station is a 1 inch iron pipe projecting 6 inches. Permission to establish the station was obtained from; Mr. Bob Anderson, Jekyll Island Authority, Jekyll Island, Ga. Phone 912-635-2236. The motel property is leased from the authority and the motel manager ~~xxx~~ also gave permission for the station to be placed there. Motel Phone is 912-635-2501. 110 volt power can probably be obtained from the pump house by the swimming pool, the motel manager will have to be contacted about the power.

NOTE: See the back of this card for a map of the area and the station location.



\* Refers to notes in manuals of triangulation and state publications of triangulation. † Direction-angle measured clockwise, referred to initial station.  
 ‡ To nearest meter only, when no trigonometric leveling is being done.





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY

ATLANTIC MARINE CENTER  
439 West York Street  
Norfolk, Virginia 23510

September 12, 1974

Mr. Bob Anderson  
Jekyll Island Authority  
Jekyll Island, Georgia 31520

Dear Mr. Anderson:

This letter is to confirm your permission allowing the National Ocean Survey to temporarily occupy a portion of the Corsair Carriage Inn Motel property with our electronic control station. The Manager of the motel was contacted, and she has no objections. The electronic control station will be installed in the open area just south of the swimming pool and will not harm the sand dunes in any way. Lt. Cdr. John Rolland discussed this installation with you.

Our utilization of this site is critical to complete a hydrographic survey to update the nautical charts off the coast of Florida. The electronic control station will be installed about the first week in October and remain there approximately one month.

The station consists of an 80-foot aluminum radio antenna securely guyed and an 80-foot radius ground plane. The ground plane is approximately 32 small wires connected to the base of the antenna that are laid on top of the ground or buried about one inch below the surface if you prefer. These wires do not present any hazard as they are not connected to electrical power. A small wooden box approximately three feet square containing the electronic equipment will be placed near the base of the antenna.

This temporary installation will present a neat appearance. The property will be vacated in its original condition. The National Ocean Survey assumes responsibility for any accidents, injury, or property destruction resulting from our equipment or occupancy of the site.

Your cooperation and assistance to this survey are sincerely appreciated. If you have any further questions pertinent to this operation, please call 804-441-6201 collect and ask for Cdr. Ralph Land or Mr. Jim Shea.

Sincerely yours,

*ME Haraden*

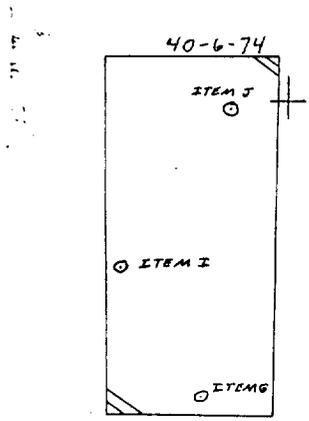
*for* Alfred C. Holmes  
Rear Admiral, NOAA  
Director, Atlantic Marine Center

cc: ✓ CO, RUDE & HECK  
Manager, Corsair Motel  
PO Box 117  
Jekyll Island, GA 31520

MERCATOR COORDINATES TO GEOGRAPHIC POSITION

STATE NO./ZONE CODE	STATION NAME	X	Y	LATITUDE	LONGITUDE
7 901					
	1 MAYPORT <sup>MICRO WAVE</sup>	371559.11	2202152.59	30 23 26.445	81 24 26.504
	2 MAYPORT <sup>TANK</sup>	370229.30	2200912.56	30 23 14.122	81 24 41.643
	3 ATLANTIC <sup>BEACH TANK</sup>	372124.96	2182021.65	30 20 7.194	81 24 19.229
	4 NEPTUNE <sup>BEACH TANK</sup>	370535.48	2174832.00	30 18 55.969	81 24 37.070
	5 <sup>NEPTUNE</sup> MICRO WAVE	374931.93	2170933.86	30 18 17.537	81 23 46.757
	6 JAX BEACH <sup>TANK</sup>	372082.15	2168329.43	30 17 51.656	81 24 19.160
	7 LT ON BLDG	376938.45	2164305.05	30 17 11.974	81 23 28.169
	8 S JAX BEACH <sup>TANK</sup>	377407.49	2158081.17	30 16 10.394	81 23 18.015
	9 PORTE VEDRA <sup>TANK</sup>	380564.72	2145776.95	30 14 8.701	81 22 41.545
	P 323	382607.98	2138705.79	30 12 58.771	81 22 17.989
	M 323	384956.95	2128216.95	30 11 15.017	81 21 50.835
	NY 33 SIGNAL	387423.62	2118819.45	30 9 42.068	81 21 22.395
	NY 34 SIGNAL	388479.69	2113098.50	30 8 45.468	81 21 10.163
	E 12 DEL <sup>WAVE</sup>	390907.60	2101581.98	30 6 51.538	81 20 42.114
	C 12 2 SIGNAL	392315.04	2095021.46	30 5 46.636	81 20 25.667
	X 322 SIGNAL	393242.06	2090757.65	30 5 4.454	81 20 15.171
	R 322 SIGNAL	394229.25	2085899.70	30 4 16.393	81 20 5.772
	V 322 SIGNAL	395161.99	2080862.83	30 3 26.559	81 19 52.991
	E 12-7 <sup>WAVE</sup>	396951.65	2073377.26	30 2 12.497	81 19 36.934
	T 322	397716.71	2067794.06	30 1 17.259	81 19 23.580
	DRY R.M. 2 <sup>DEL WAVE</sup>	399750.22	2059785.85	29 59 58.033	81 19 2.733
	H-5 SIGNAL	402851.04	2045224.31	29 57 33.977	81 18 24.410
	HORSE RAYOUT	362589.25	2096883.85	30 6 4.073	81 26 4.333
	PALM RAY	442352.90	1869510.46	29 28 35.256	81 10 52.215

70 ST JOHNS LTHSE = 30-23-09.292  
81-23-53.520

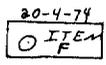


80° 00'  
+  
31° 00'

⊙ - AREA COMPLETED

81° 00'  
+  
30° 00'

+



PROGRESS SKETCH  
 40-6-74; 20-4-74  
 WIRE DRAG: ITEMS F, G, I, & J  
 EAST COAST OF FLORIDA AND GEORGIA  
 NOAA SHIPS RUDE & HECK  
 R.A. GANSE, CHIEF OF PARTY  
 OCTOBER 1974  
 SCALE 1:1,200,000; C&GS CHART 1001

ATTACHMENT III

FLOATING AIDS TO NAVIGATION

NAME	DATE	RED	GREEN
R2B" Bouy East of St. Andrew Sound	Oct. 9, 1974	554.7	1318.6
BW "STM" Bouy off St. Mary's Entrance	Oct. 12, 1974	821.0	568.2
R'2 ST. J" Bouy off St. John's Entrance	Oct. 25, 1974	1573.7	604.5

*Buoys not plotted - not in the proximity  
of the items.*

## ATTACHMENT IV

## GROUNDINGS AND HANGS

DAY & STRIP	BUOY NO.	LATITUDE	LONGITUDE	GROUNDING EFF. DEPTH	CLEARED BY STRIP	CLEARED EFF. DEPTH	REMARKS
B-1	4	31°00.25'	81°12.57'	40	D-2	31.5	<i>Strip not used</i> Possible mud hang. - <i>not significant - see Section H.</i>
C-1	2	31°01.28'	81°12.54'	37.5	D-2	31.5	<i>Strip not used</i> Hung ITEM J.
D-1	3-4	31°01.28	81°12.54'	33	D-2	<del>31.5</del> <sup>30</sup>	ITEM J.
D-3	5	30°43.50'	81°21. <sup>4</sup> <sub>53</sub> '	<del>41</del> 42	E-2	<del>39</del> 40	Hung ITEM I.
E-1	4	30°43.48'	81°21.48'	43	E-2	40	<i>Strip not used</i> ITEM I. Dive investigation conducted. (See D.R. - item H-5)
E-2	5	30°43.75'	81°21.40'	40.5			Mud hang outside project.
E-3	5-6	30°42.60'	81°21.77'	34.5			Mud hang outside project. <i>Strip not used</i>

*Depths of groundings agree with charted soundings - not significant - hang positions rejected*

ATTACHMENT V

RAYDIST CORRECTORS

DATE	RUDE		HECK		DAY
	RED	GREEN	RED	GREEN	
Oct. 10, 1974	+0.02	+0.04	-0.03	+0.09	A
Oct. 11, 1974	+0.02	+0.04	-0.03	+0.04	B
Oct. 16, 1974	+0.08	-0.01	-0.11	+0.05	C
Oct. 17, 1974	+0.08	-0.01	-0.11	+0.05	D
Oct. 18, 1974	+0.08	-0.01	-0.11	+0.05	E
Oct. 24, 1974	+0.05 or -0.95	-0.02 or -1.02	+0.12	+0.20	F
Oct. 25, 1974	+0.05 or -0.95	-0.02 or -1.02	+0.12	+0.20	G

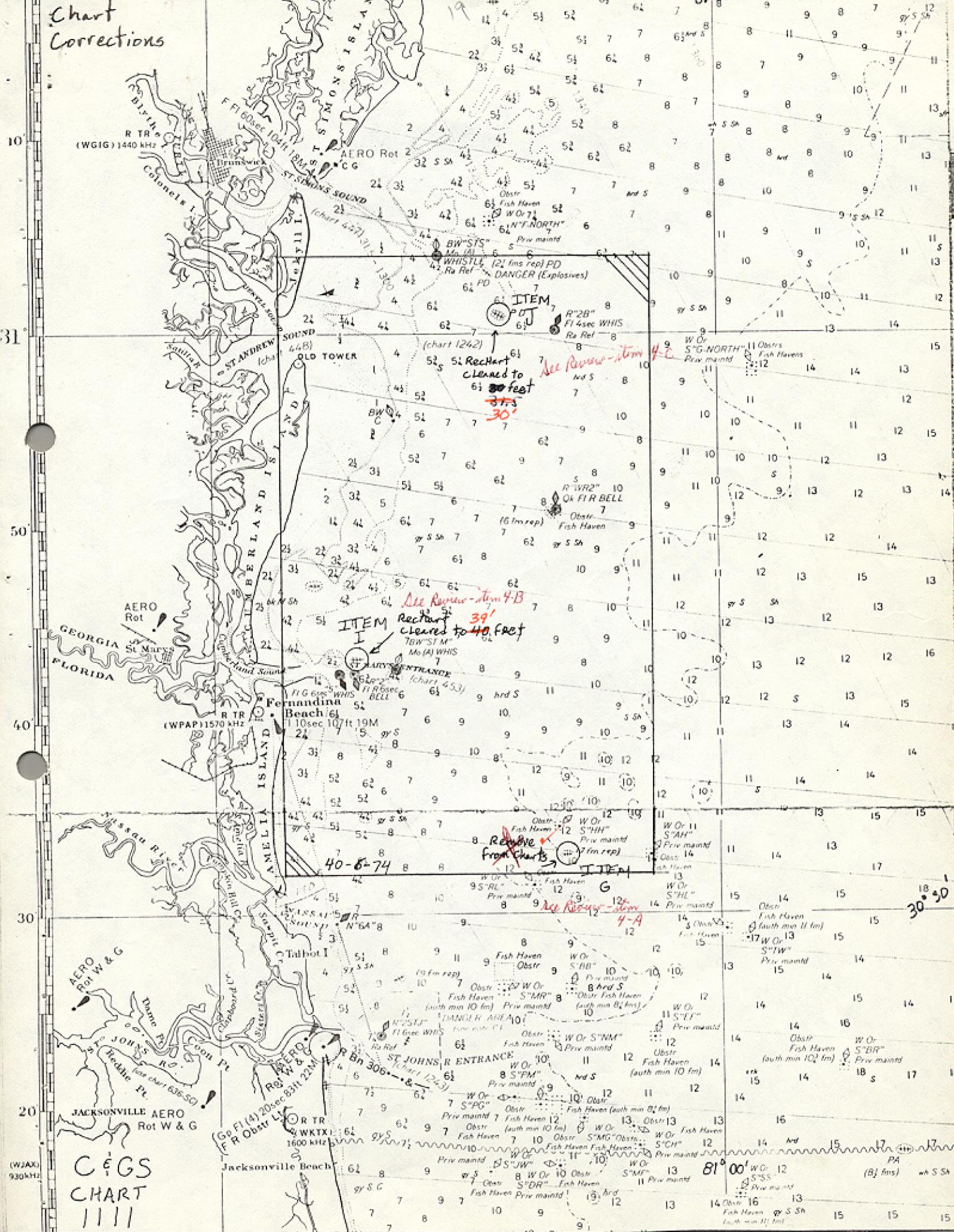
*See Section C.*

ATTACHMENT VI

CALIBRATION INFORMATION

Calibration was done using visual signals and sextant angles. The visual signals were supplied printed on a separate calibration sheet. See Attachment I for a list of these signals, their numbers on the boatsheet and their positions. Also see Attachment IX for calibration sheet parameters.

Chart Corrections



C & G S  
CHART  
1111

(W2AX)  
930KHZ

10

31

50

40

30

20

81

81

18  
30

17  
18

41.32

20

H. P. Wier

29-05-00  
80-55-00

May 17, 1979

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): 872-1120 Daytona Beach, FL

Period: October 10-25, 1974

HYDROGRAPHIC SHEET: RU/HE 40-6 ✓

OPR: SP-6-AMC-74

Locality: Off coasts of Georgia and Florida

Plane of reference (mean ~~lower~~ low water): 2.11 ft.

Height of Mean High Water above Plane of Reference is  
3.9 ft. - Daytona Beach

Remarks: Recommended zoning:

<u>ITEM</u>	<u>TIME CORRECTION</u>	<u>RANGE RATIO</u>
(2) G	+20 min.	x1.3
(3) I	+35 min.	x1.5
(4) J	+35 min.	x1.6

*James R. Huppel*  
Chief, Datums and Information Branch

## HYDROGRAPHIC SURVEY STATISTICS

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		3	BOAT SHEETS & PRELIMINARY OVERLAYS		30	
DESCRIPTIVE REPORT		1	SMOOTH OVERLAYS: POS. ARC, EXCESS		3	
DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1-tides printouts & misc. data					
VOLUMES	3-Wire drag					
BOXES						1-Tender test records Sawtooth rec.

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			212
POSITIONS CHECKED	12	72	84
POSITIONS REVISED	0	9	9
SOUNDINGS REVISED			
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED	0	0	0
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION) Survey Automation	14	0	14
VERIFICATION OF CONTROL	0	2	2
VERIFICATION OF POSITIONS	0	2	2
VERIFICATION OF SOUNDINGS Individual Strips	0	25	25
COMPILATION OF SMOOTH SHEETS & A&D Sheets	0	26	26
APPLICATION OF TOPOGRAPHY	0	0	0
APPLICATION OF PHOTOBATHYMETRY	0	0	0
JUNCTIONS	0	0	0
COMPARISON WITH PRIOR SURVEYS & CHARTS	0	4	4
VERIFIER'S REPORT	0	5	5
OTHER	0	13	13
<b>TOTALS</b>	<b>14</b>	<b>77</b>	<b>91</b>
Pre-Verification by M.B. Hickson	Beginning Date 06/12/79	Ending Date 06/15/79	
Reviewed by M.B. Hickson	Beginning Date 06/16/79	Ending Date 06/29/79	
Check by Review R.D. Sanocki	Time (Hours) 8	Date 07/16/79	
Marine Center Inspection by	Time (Hours)	Date	
Quality Control Inspection by K.W. Wellman	Time (Hours) 32	Date 12-12-79	
Requirements Evaluation by GAD	Time (Hours)	Date	

Carstens 64r

REVIEW  
FIELD EXAMINATION NO. 1, 1979  
WIRE-DRAG INVESTIGATIONS  
FLORIDA-GEORGIA EAST COAST, AMELIA ISLAND TO JEKYLL ISLAND

1. This wire-drag field examination was made in compliance with Project Instructions SP-AMC-6-RU/HE-74, dated August 2, 1974; except as noted:

A. Field records and plots were not of such completeness, accuracy, and clarity that the work may be verified by inspection as required in paragraph 2.9 of the Project Instructions.

2. The purpose of the field examination was to investigate three submerged wrecks reported offshore of the Florida-Georgia Coast. Their reported positions are as follows:

Item g.	- Latitude:	30°33'	- Identity Unknown	<i>Item 492 of US Navy Wreck List</i>
	Longitude:	81°09.25'		
Item i.	- Latitude:	30°43' <sup>2</sup> <sub>5</sub>	- Shrimp Trawler	
	Longitude:	81°21' <sup>3</sup> <sub>5</sub>		
Item j.	- Latitude:	31°01'	- U.S. Navy LCT-415	<i>NM 40 (1950)</i>
	Longitude:	81°13'		

3. The results of the investigation are shown on the accompanying mylar overlays inserted in the Descriptive Report.

4. Comparisons between Chart #1111 (17th Edition, date unknown), Chart #1242 (12th Edition, August 24, 1974) Item j, Chart #1243 (10th Edition, ~~date unknown~~ <sup>Jan 27, 1973</sup>) Item g. & i. and the field examination indicates that the following revisions to the chart are necessary to reflect the final results of the investigations:

A. Item g. <sup>(Chart 1243)</sup> - The sunken wreck, 42 ft. reported from U.S. Navy Wreck List No. 492, (identity unknown), was not located by this examination. Wire-drag strips covered in excess of one-half (1/2) \* mile radius of the reported position and therefore disproves this item as charted. The area swept clears the item position with effective depths of 54<sup>9</sup> ft. ~~to 62 ft.~~ and insures adequate bottom coverage to disprove any major, hazardous wreckage. However, effective depths should have been slightly greater in order to insure drag depths within three feet of the charted bottom. It is recommended that this item be deleted from the charts. *Disregard (See Q.C. Report-item 1)*

<sup>(Charts 11503 (453) and 11502 (1242))</sup> <sup>(charted in the vicinity of latitude 30°43.25', longitude 81°21.50')</sup>  
B. Item i. <sup>Applied</sup> - The sunken wreck, 40 ft. reported from Notice to Mariners 35 of 1950, shrimp trawler, was located at latitude 30°43'28.9", longitude 81°21'26.1". Least depth of hang is 41 feet and greatest depth of clearing is 39 feet on the present field examination. It should be charted in accordance with present information.

*\* It is not prudent to consider position better than P.A. and therefore area of radius of one mile should have been covered.*

*RHC 11/79*

(Chart 11502 (1242))  
 C. Item j. - The sunken wreck, PD from Notice to Mariners 40 of October 7, 1950 (Chart #1242), U.S. Navy LCT-415, was located at latitude  $31^{\circ}03'17.3''$ , longitude  $81^{\circ}12'30.1''$ . Least depth of hang is 33 feet and greatest depth of clearing is 30 feet on the present field examination. It should be charted in accordance with present information. *See Addendum to this Review included following page 4 of this Review Report.* NC-11503

5. Comparisons between the present field examination and hydrographic surveys (prior and contemporary) common to the items reveals the following:

A. Item g. - Hydrographic survey H-9366 (1973) - Survey not available for comparison. *(See Q.C. Report-item 4)*

B. Item i. - Hydrographic survey H-8106 (1954-55) - There is one 38 ft. sounding, two 39 ft. soundings, and several 40 ft. soundings cleared with an effective depth of 41 feet. The bottom in this area is of sand and mud composition and as this type of soft bottom is in proximity to St. Mary's Entrance, it is considered of a changeable nature. Additionally the age of the hydrographic survey is also a factor of consideration. Therefore these minor conflicts are not considered significant. *The common area of H-8106 is superseded by H-9799 (1979) and requires no further consideration. (See Q.C. Report-item 5)*

C. Item i. - Hydrographic survey H-9428 (1974) - No conflicts exist between hydrography and the field examination in the common area.

D. Item j. - Hydrographic survey H-9449 (1974) - No conflicts exist between hydrography and the field examination in the common area. *The submerged wreck hung at 33 ft. was transferred from the present survey to H-9449 to supplement that survey. (See Q.C. Report-item 6)*

6. The condition of the field examination is satisfactory except as follows:

A. Field Work and Records.

1. There are no field plotted strips for E-Day.
2. There is no printout of the logged data punch tape.
3. The logged data punch tape contained numerous errors.
4. The Raydist Strip Chart recordings are poor in quality and had insufficient annotation to be of any value in reconciling control problems.

5. Drag information between the volumes of the two vessels (Rude & Heck) occasionally did not concur.

6. There are no alphabetic day designations on the volume covers.

7. Strips are not labeled as to Strip No. \_\_\_\_\_ of \_\_\_\_\_ in the volumes.

8. Calibration and control signals are not listed in the volume indexes.

9. Volume legibility is poor and it is possible to misinterpret/misread data.

10. Control/Calibration procedures were substandard in respect to F. and G. Days. Lane ambiguities are unacceptable and should be resolved by the field. As this data primarily pertains to Item g. in which nothing was located and overlap is sufficient to insure adequate coverage using the "worst possible case" approach, this data is considered valid. See Section C. of the Descriptive Report for details of this discrepancy.

11. Lift tests were poor and substandard due to surveying in less than acceptable conditions. Section I., paragraph 3. of the Descriptive Report refers to this problem.

#### B. Descriptive Report

1. Section C., paragraph 1., sentence 2. - "Two Raydist shore stations, COW and JEKYL station, located in a field by a motel on Jekyll Island, Georgia served as the red station". This is a confusing sentence that cannot be interpreted properly. Station JEKYL RAYDIST is in a field by a motel on Jekyll Island and served as the red (Slave 1) station. Station COW RAYDIST, near the Nassau River and approximately 5 miles inland from the coast, served as the green (Slave 2) station. There is no description of station COW RAYDIST, only the supplied geographic position.

2. Section K. does not list the chart or charts used for comparison. The comparison made is inadequate.

3. This field examination was not compared with any other surveys (neither prior ~~not~~ contemporary) by the field.

7. Investigated items that are adequately <sup>u</sup>hang and cleared and reasonably ascertained to be the item required to be investigated have only the strips displaying the least depth of hang and the greatest clearing depth plotted in a smooth sheet and A&D sheet format. Where an item of investigation is not adequately hung or found, all of the acceptable clearing strips are plotted in a smooth sheet and A&D sheet format.

8. All Pre-survey Review Items were satisfactorily investigated with the possible exception of Item g. which should have had slightly deeper (closer to the bottom) clearing effective depths and better positioning control. *Also more extensive coverage should have been accomplished*

9. The Descriptive Report adequately covers all other matters pertinent to this examination. No further discussion is considered necessary.

Reviewed by: *M. B. Hickson*  
M.B. Hickson  
June 28, 1979

Inspected by:

ADDENDUM  
TO REVIEW OF F.E. NO. 1, 1979

Item "j" a sunken wreck PD, charted in latitude 31°01', longitude 81°13', originating with Notice to Mariners No. 40 of October 7, 1950 and identified as U.S. Navy LCT-415 was adequately disposed of in paragraph 4.C of the Review of F.E. No. 1, 1979. The Review and Quality Control Reports for survey H-9449 (1974) discuss a wreck of questionable identity located by that survey in latitude 31°01'07", longitude 81°14'34". It is described as being covered by 41 feet at MLW. This wreck is apparently not the wreck found by F.E. No. 1, 1979, identified as Item "j", but another wreck found in the vicinity by H-9449. NC-1150370P  
The wreck described in the Quality Control Report of H-9449 as Presurvey Review Item 10 (also Item "j" in the Project Instructions: SP-AMC-6-RU/HE-74-Wire Drag, Southeast Coast Investigations dated August 2, 1974 and in CHANGE No. 1, to these Instructions dated August 20, 1974) was adequately investigated by F.E. No. 1, 1979. Therefore, a wreck, cleared by 30 feet should be charted in latitude 31°03'17.3", longitude 81°12'30.1" from F.E. No. 1, 1979 and a wreck, covered by 41 feet in latitude 31°01'07", longitude 81°14'34" is recommended to be charted from H-9449 (1974).

*R. D. Sanocki*  
R.D. Sanocki  
Technical Assistant  
Processing Division, CAM3

*23 July 1979*



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

OA/C352:KWW

December 12, 1979

TO: Glen R. Schaefer *GRS*  
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control *gm* Branch

FROM: K. W. Wellman *K.W. Wellman*  
Quality Evaluator

SUBJECT: Inspection Report for F.E. No. 1, 1979 W.D., Georgia-Florida,  
Offshore, Vicinity of Cumberland and Amelia Islands

A preliminary inspection of the field examination (F.E.) and related reports and records revealed that no formal inspection and/or approval of the processing at CAM3 was accomplished as per established practice. Accordingly, a cursory inspection of the F.E. by the Quality Control Branch of the Hydrographic Surveys Division was considered necessary. The inspection was accomplished to monitor the wire-drag survey for obvious deficiencies with respect to data acquisition, determination of the validity of hangs, groundings, and least depths, validity of cleared effective depths over obstructions, smooth plot of developmental investigations and A & D overlays (inserted in the Descriptive Report), Review Report, decisions and actions by the verifier, and cartographic presentation of data.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as discussed in the Review Report and as follows:

1. The present wire-drag development (item G) only disproves the note "42 ft reported" at the charted position of the wreck. The submerged wreck was not verified or disproved and may still be extant. The position of the charted wreck (vicinity of latitude 30°33.00'N, longitude 81°09.25'W--chart 1243) was cleared to an effective depth of 59 feet within an area of half-mile radius. The accuracy of the charted position, however, is considered questionable and the area of the present coverage is insufficient to conclusively designate the wreck as cleared to 59 feet. The actual position of the wreck may fall beyond the limits of the dragged area. Accordingly, the wreck should be retained as presently charted and the notation "P.A." should be added to the chart. *NC-1503 72P*



During future work in the area, wire-drag coverage of the wreck should be extended to a radius of 1 mile and the wreck adequately verified or disproved.

2. The smooth-plotted overlays are considered deficient in that the Raydist Control arcs were not plotted during verification.

3. Reference section 4 of the Review Report:

Larger scale chart 11503 (453) should have been used during verification.

4. Reference section 5-A of the Review Report:

The referenced comments pertaining to H-9366 (1973) are considered irrelevant since there is no common area of coverage between the present wire-drag development and H-9366.

5. Section 5-B of the Review Report is supplemented by the following:

A comparison between this 1974 survey and H-9799 (1979) reveals conflicts of 3 feet. The noted conflicts are attributed to natural causes; i.e., the changeable nature of the bottom in the area and to uncertain lift tests. The cleared depths in proximity to the shoaler conflicting soundings on H-9799 are invalidated and should be disregarded.

6. During verification, hydrographic survey H-9373 (1973) was not compared with the wire-drag development on the present F.E. (item G).

Section 5 of the Review Report is supplemented by the following:

E. Item G - Hydrographic Survey H-9373 (1973):

There are no conflicts between the present cleared depths and hydrographic development on H-9373.

7. The formal Tide Approval Note was not included in the Descriptive Report during verification. The note was found in the cahier with the survey records and transferred to the Descriptive Report during inspection.

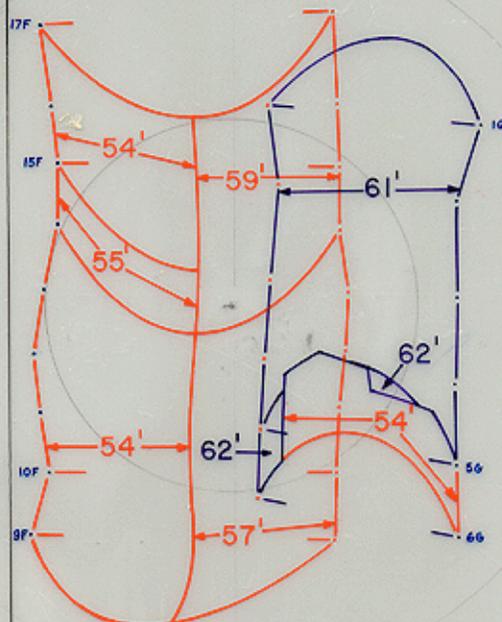
81° 10' 00"

81° 08' 00"

81° 12' 00"

30° 34' 00"

30° 34' 00"



30° 32' 00"

30° 32' 00"

ITEM "G"  
 F.E. No. 1, 1979  
 R/H - 40 - 6 - 74

81° 12' 00"

30° 30' 00"

81° 10' 00"

81° 08' 00" 30° 30' 00"

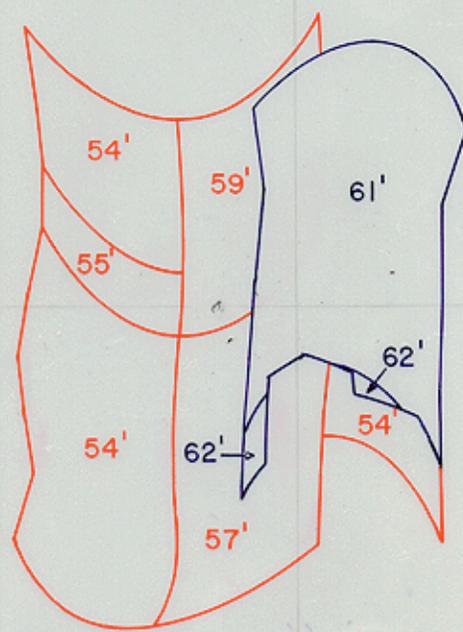
81° 10' 00"

81° 08' 00"

81° 12' 00"

30° 34' 00"

30° 34' 00"



30° 32' 00"

30° 32' 00"

ITEM "G"  
 F.E. No. 1, 1979  
 R/H - 40 - 6 - 74  
 A & D SHEET

81° 12' 00"

30° 30' 00"

81° 10' 00"

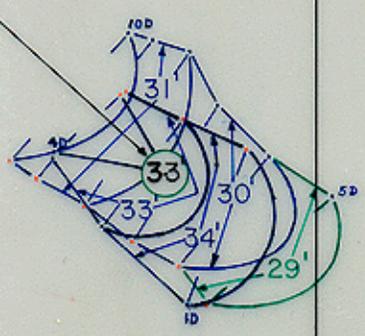
81° 08' 00"

31° 04' 00" 81° 14' 00" 81° 12' 00" 31° 04' 00"

81° 10' 00"

Hang at 33ft.  
Cleared by 30ft.  
U.S. Navy LCT - 415 (Shoalest point protruding approx. 13ft. above bottom)

31° 02' 00" 31° 02' 00"



31° 00' 00" ITEM "J" 31° 00' 00"

F.E. No. 1, 1979  
R/H - 40 - 6 - 74

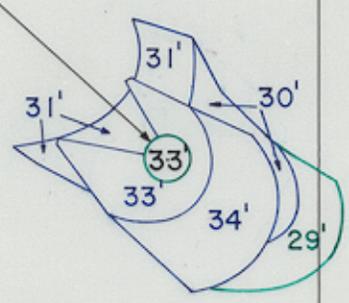
81° 14' 00" 81° 12' 00" 81° 10' 00"

31° 04' 00" 81° 14' 00" 81° 12' 00" 31° 04' 00"

81° 10' 00"

Hang at 33ft.  
Cleared by 30ft.  
U.S. Navy LCT - 415 (Shoalest point protruding approx. 13ft. above bottom)

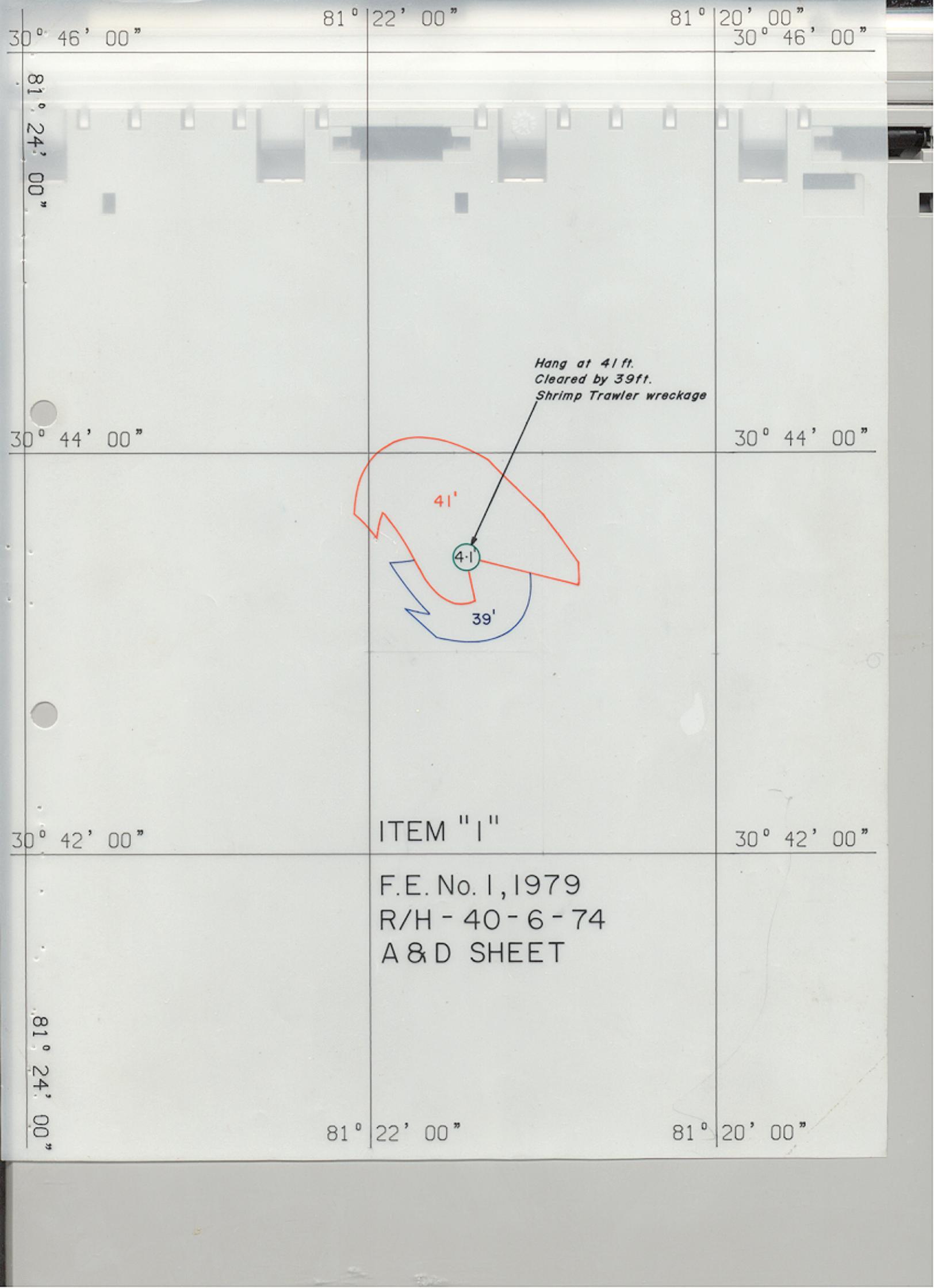
31° 02' 00" 31° 02' 00"



31° 00' 00" ITEM "J" 31° 00' 00"

F.E. No. 1, 1979  
R/H - 40 - 6 - 74  
A & D SHEET

81° 14' 00" 81° 12' 00" 81° 10' 00"



81° 22' 00"

81° 20' 00"

30° 46' 00"

30° 46' 00"

81° 24' 00"

Hang at 41 ft.  
Cleared by 39 ft.  
Shrimp Trawler wreckage

30° 44' 00"

30° 44' 00"

41'

4-1

39'

30° 42' 00"

30° 42' 00"

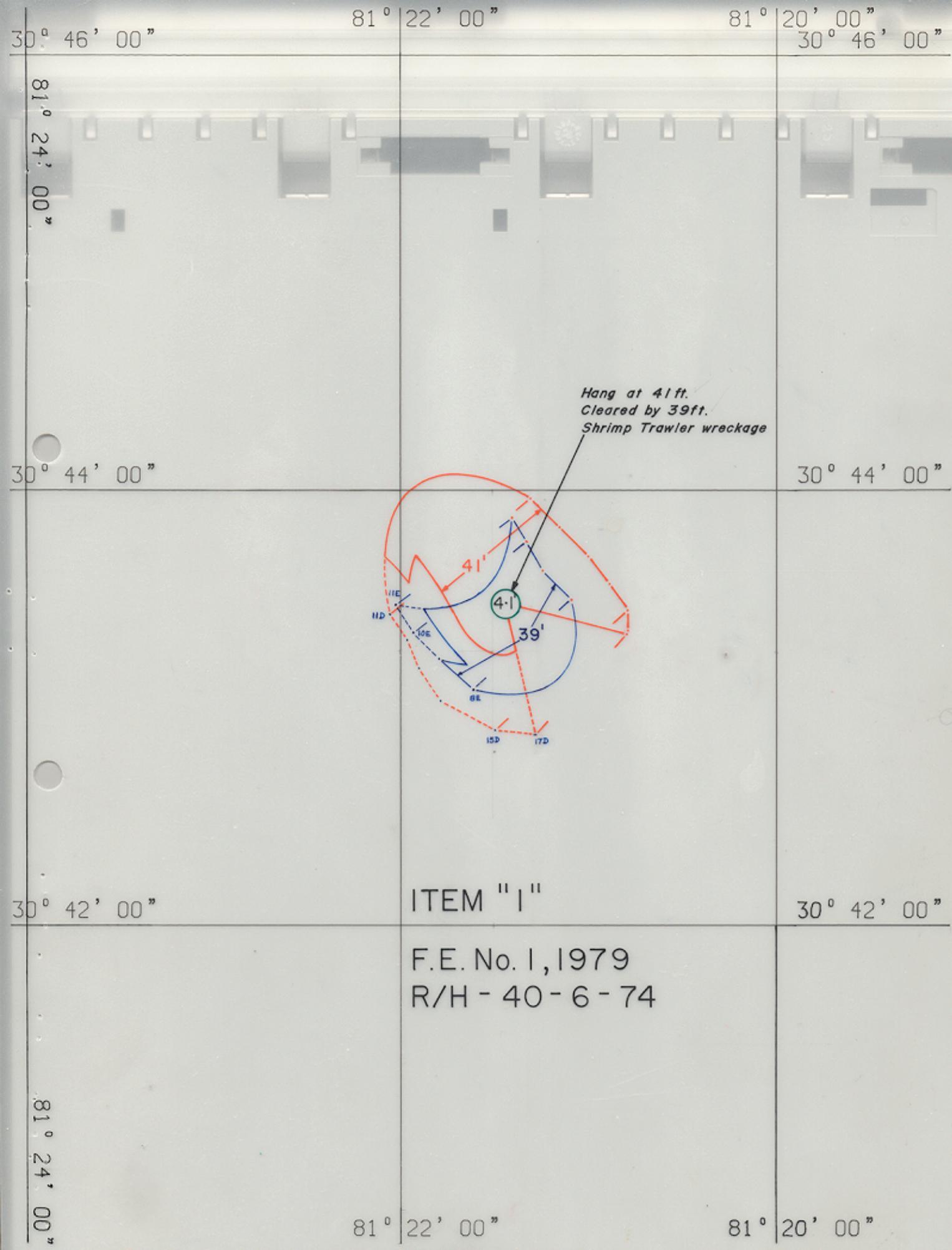
ITEM "1"

F.E. No. 1, 1979  
R/H - 40 - 6 - 74  
A & D SHEET

81° 24' 00"

81° 22' 00"

81° 20' 00"



DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

National Ocean Survey

Rockville, Maryland

Hydrographic Index No. 75 J

