FE214
WIRE DRAG

Diagram No.1001-3,1240-3, & 1241-2

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. RH-20-1-73

Office No. FE-214WD (1973)

LOCALITY

State Georgia

General Locality Savannah

Locality Savannah Light

1973

CHIEF OF PARTY
CDR L. Pickens

LIBRARY & ARCHIVES

DATE March 13, 1973

☆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 1975WD

FE214
WIRE DRAG

F E No. 1
1975
WIRE DRAG

FE-214 WD

Diag. Cht. Nos. 1001-3, 1240-3 & 1241-2.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Wire Drag
F.E.No.1-1975 W.D.
Field No. RH-20-1-73 Office No. SP-AMC-1-RH-73

LOCALITY

State Georgia

General locality Savannah

Locality Savannah Light

19

CHIEF OF PARTY

Cdr. Leonard Pickens

LIBRARY & ARCHIVES

DATE 13 March 1973

USCOMM-DC 37022-P66

F E No. 1 1975 WIRE DRAG

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.
None
SP-AMC-1-RH-73

FIELD NO.
RH-20-1-73

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

State Georgia

General locality Savannah

Locality Savannah Light

Scale 1: 20,000 Date of survey 26 Feb. - 13 March '73

Instructions dated 15 January 1973 Project No. SP-AMC-1-RH-73

Vessel NOAA SHIPS RUDE AND HECK

Chief of party Cdr. Leonard E. Pickens

Surveyed by Ships Personnel

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

Graphic record scaled by MBH ✓ by MWJ

Graphic record checked by MBH ✓ by MWJ

Protracted by CALCOMP Automated plot by CALCOMP AMC

Verification by MBH ✓ by BJS

Soundings in ~~fathoms~~ XXXXX feet at MLW ~~MLLW~~ XXXXX Based on Smooth Tides

REMARKS:

TABLE OF CONTENTS

— EAST COAST

ON LIGHT

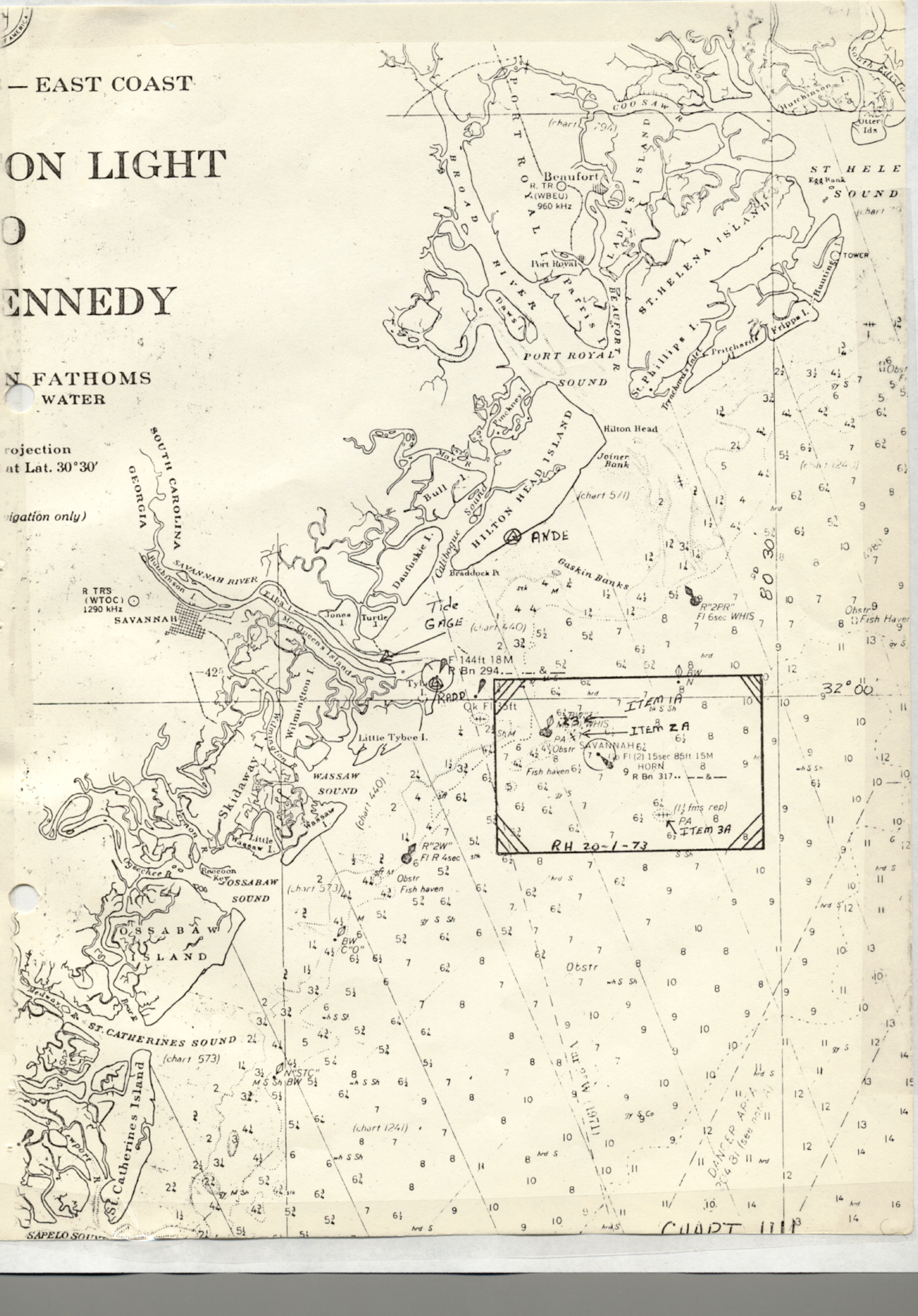
O

ENNEDY

N FATHOMS
WATER

rojection
at Lat. 30°30'

igation only)

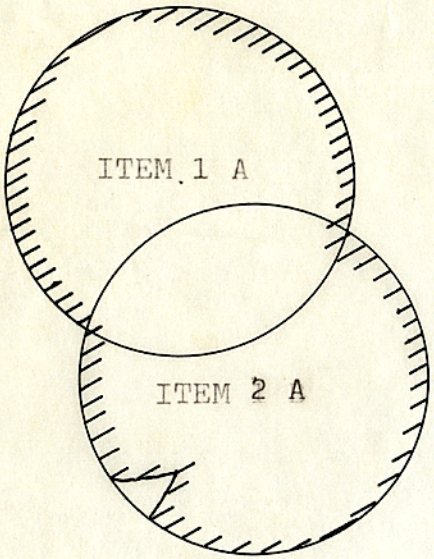


80 45

80 40

80 35

32 00



SAVANNAH
BEACON

OPR-SP-AMC-1-R/H-73

WIRE DRAG- SHEET 20-1-73

SAVANNAH, GEORGIA

NOAA SHIPS RUDE & HECK

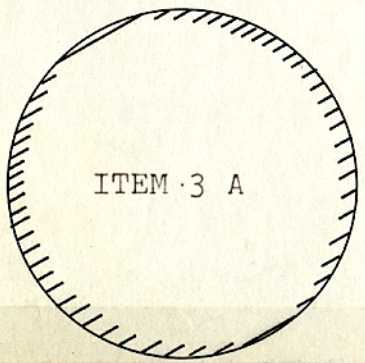
L.E.PICKENS, CHIEF OF PARTY

FEB.-MAR. 1973

SCALE: 1:80,000

PROGRESS SKETCH

31 55



To Aids 5/31/73

Received APR 5 1973 Office of Marine Survey & Maps C3x1 C3x4 578

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

Copy to: C32 4-9-73

RETURN TO NAUTICAL DATA BRANCH FILES

Reply to Attn. of:

Date : 23 March 1973

To : Director, Atlantic Marine Center
Attn: CAM

From : CDR Leonard E. Pickens
Commanding Officer
NOAA Ships RUDE & HECK

Subject: Summary of SP-AMC-1-R/H-73, Southeast Coast Investigations, Georgia-Savannah

26 February - 13 March 1973
Operations were begun and completed in the Savannah, Georgia area with the following results:

Ref. L-1512(72) LNM 44/72 Light (?)

ITEM A-1
A reported 23 ft. shoal, 2.75 N.M. from Savannah Beach on a bearing of 322°T. This item was investigated both by reconnaissance hydrography and by wire drag and it has not been located. It is felt that sufficient information has been gathered to disprove it's existence. The only object located in the one N.M. radius of the item location was an anchor, with one fluke 3 feet off the bottom. This is not considered a hazard to navigation and was not reported as such.

Deleted 5/.../73 JWS — NM 26/73 ?

Remove wreck (NPs)

1111 1241 440

ITEM A-2
A charted wreck at Lat. 31°56.0'N, Long. 80°42.5'W. The wreck, on Chart 440 is given as position approximate with no least depth available and has been dragged to a one N.M. radius and has not been located. A small area in the S.E. corner of the one N.M. radius can be seen in the progress sketch to have not been cleared. This was due to a disabled merchant vessel being anchored in that area, awaiting engine repairs. The only object located in the area was a rounded 6 ft. by 2 ft. mound, 2 1/2 ft. off the bottom in an area charted as 35 ft. This is not considered as a hazard to navigation and was not reported as such. It is felt that sufficient information has been gathered to disprove it's existence. The minimum effective depth (using predicted tides) cleared in this area was 29 ft. at M.L.W.

(Ref: CL-1168/64)

1111 1241 1440

ITEM A-3
A charted wreck at Lat. 31°54.0'N, Long. 80°37.0'W. This wreck area on Chart 1111, with a charted depth of 1 1/2 fathoms has been dragged to a one N.M. radius and has not been located. The minimum effective depth (using predicted tides) cleared in the area was 34 ft. at M.L.W.; therefore it is felt that sufficient information has been gathered to disprove it's existence.

GENERAL 7/26/73
Throughout the period spent working these items, progress was hampered by fog conditions, usually heavy in the early mornings and dispersing by late

Chart
440 Applied ...
1240 ...
1241 Applied 7/3/73 JWS
1111 Applied 5/29/73 JWS

578
MAY 23 1973

morning or early afternoon. Progress was also hampered by delayed engine replacement parts arrival, steering breakdowns, and late afternoon electrical storms resulting in loss of electronic navigational control.

The descriptive reports for SP-AMC-1-R/H-73 sheet 20-1-73 are in various stages of completion - actual tidal data cannot be received until the end of March, 1973 - and will follow this summary upon completion.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

May 23, 1973

The Hydrographer of the Navy
Hydrographic Department
Ministry of Defence
Taunton, Somerset, England

Dear Sir:

Please refer to your memorandum (H 3968/72) dated September 27, 1972, concerning the MV ARCTIC TROLL reporting of a 23-foot shoal on obstruction in the approaches to Savannah Harbor.

During March 1973 NOAA Ships RUDE and HECK conducted a reconnaissance hydrographic and wire drag search within one nautical mile radius of the reported position with negative results. Accordingly, a Notice to Mariners will be published deleting the 23-foot obstruction.

L-1512(72)
L-578(73)

Sincerely,

John O. Boyer
Captain, NOAA
Chief, Marine Chart Division

L-578(73)

CODE	SURNAME	DATE	CODE	SURNAME	DATE
C3222	Dailey	5/24			
C32x1	Zapata	5/24			
C32	[illegible]	5/25			

NOAA FORM 61-2

C3222JDailey:ljk 5/23/73

FILE COPY

attached 5/25/73

DESCRIPTIVE REPORT
TO ACCOMPANY
WIRE DRAG FIELD NUMBER RH-20-1-73
PROJECT SP-AMC-1-R/H-73
SAVANNAH, GEORGIA
1973
CDR LEONARD E. PICKENS
NOAA SHIPS RUDE & HECK

A. AUTHORITY -
This project was authorized under Project Instructions SP-AMC-1-R/H-73, Wire Drag, Southeast Coast Investigations, dated 15 January 1973: Also, Change 1, dated 9 February 1973, Change 2, dated 14 Februaary 1973, and Change 3, dated 22 February 1973.

B. CHARACTER AND LIMITS OF THE WORK
The purpose of this project was to investigate and prove or disprove the existence of three reported items in the vicinity of Savannah Light.

The locality of the survey, covered by C&GS Charts 440 and 1111 is as follows: Sheet layout is from Latitude 31°52'N to 32°01'N and from Longitude 80°31'W to 80°47'W. Each item was investigated so as to include the area within a 1 mile radius of the reported position.

The reported positions of the three items are as follows: Item 1A bears 322°T from Savannah Light at a distance of 2.75 NM.; Item 2A - Lat. 31°58.0'N, Long. 80°42.5'W; Item 3A - Lat. 31°54.0'N, Long. 80°37.0'W.

The entire survey was conducted on a scale of 1:20,000 using Raydist DR-S Range-Range control.

C. CONTROL AND SHORELINE
Raydist DR-S Range-Range control was utilized. The Raydist was operating on a frequency of 3300.4 KHz, giving a lane width of 45,39904 meters. There was no shoreline on the sheet.

Two Raydist shore stations, ANDE and RADD, were utilized for control. ANDE, located on Hilton Head Island, served as the Red station. RADD, located near Savannah Beach on Tybee Island, served as the Green station.

Upon completion of the survey, the stations were dismantled, but both stations are recoverable as described in the enclosed station descriptions. Assistance in locating these shore stations was provided by Mr. Richard Kesselring of Photo Party 61. A listing of all signals used is given in Attachment I.

D. DATE OF SURVEY
Operations on SP-AMC-1-R/H-73 (on sheet RH-20-1-73) were begun on 26 February 1973 and completed on 13 March 1973.

E. TIDAL REDUCERS
Preliminary reduction of each days data was done using predicted tides.

Actual tidal data has been furnished by the Rockville Office for the standard tide gauge at Savannah River Entrance, Georgia. See Attachment IX for location and description of station.

Servicing and levels to this gauge were not required. The tide observed was contacted by ships personnel, however, to insure that the gauge was operating satisfactorily.

F. JUNCTIONS
Not applicable.

G. SPLITS
No splits exist on sheet RH-20-1-73.

H. GROUNDINGS AND HANGS
See Sttachment II.

I. GENERAL NOTES
Morning and evening calibrations were generally made by circling Savannah Light.

Occassionally, calibration was done by running the Bloody Point Range and turning a left angle, either to Tybee Lighthouse or to Savannah Beach Municipal Water Tank.

In addition to morning and evening calibrations, frequent lane counts were taken whenever practical on navigation buoys as well as on Savannah Light.

Throughout this survey an 800' ft. towline was utilized and thus the distance from the Raydist antenna to the end buoy was 265 meters.

The following occurances should be noted when verifying this survey:

B Day (27 Feb. 1973)
RUDE failed to get an evening calibration due to problems with the starboard main engine. The morning calibration served as the daily average for this day.

D Day (1 March 1973)
During morning calibration at Savannah Light, the NOAA Ship PIERCE - also utilizing Raydist control, but at a different frequency - was approxinately 2 miles east of Savannah Light. Both parties were concerned over possible interference but the RUDE & HECK held their calibrations throughout the day with no lane loss noted.

F Day (5 March 1973)
Both ships did a morning lane count on the Bloody Point Range, but this

was used as a lane count only. Actual calibration was done at Savannah Light and this data was used for the daily correctors.

G Day (6 March 1973)
Cuts to guide vessel and F buoy in positions 1 through 12 are in error by various amounts because the HECK repeaters were not synchronized with the main gyro. Corrections were made by plotting the two ship positions and determining the true bearing to the guide vessel. By comparing the observed bearing with the true bearing, a corrector was determined and this corrector was also applied to the cut to F buoy.

8 March 1973
All work done on this day was rejected due to RUDE Raydist problems. The RUDE was 9 lanes off on the RED and 4 lanes off on the GREEN prior to beginning the line. This resulted in the strip being run with approximately 60% effective width instead of the normal 75%. The day letter H was originally used for this day, but since the whole day was rejected, the following day - 9 March 1973 became H day.

J. CURRENTS
In general, the current tables were adequate for planning drag strips. For the inshore items 1A and 2A, strips were planned using the standard inshore current tables.

For item 3A, located southeast of Savannah Light, we used the rotary current table and in general it served our needs.

Occassionally problems did arise in dragging when the wind was perpendicular to the current. At these times, we would do our own "current survey", by dropping off a tester and letting it float with the current for awhile to help determine the proper direction to drag.

K. DISCREPANCIES AND COMPARISIONS WITH RECENT SURVEYS AND CHARTS
In general, charted depths from the most recent charts were found to be quite reliable and were used daily in conjunction with additional depths taken from ship hydro run immediately prior to wire dragging.

The followint obstructions were located while searching for both charted and/or new items (as provided for in Project Instructions) and constitute discrepancies to existing charts.

1) "Object covered with coral" 3 feet off the bottom. Approximately 6 ft. long by 2 ft. wide. Position number and day letter - 16-E. Charted depth is 35 feet.

   Location: 1) 31°58.98' Ø 80°43.73'. Not considered a hazard to navigation.

2) "Anchor fluke 3 ft. off bottom": Position number and day letter: 22-E; charted depth is 35 ft.; location: y 31°59.83' Ø 80°43.94'. Not considered a hazard to navigation.

L. PERSONNEL AND EQUIPMENT

Throughout this survey the RUDE & HECK acted as Guide and End vessel respectively. Both ships are equipped with Raytheon DE-723 Fathometers used to help plan drag strips. Ships launches alternated as drag tester from week to week.

Standard wire drag equipment was used throughout the survey. It should be noted that during the in-port season, some new intermediate buoys were obtained. These buoys were left over from the old drag boats - WAINWRIGHT & HILGARD. These buoys appear to be the same as our standard intermediate buoys, but it is not known for sure if these buoys are weighted the same or if they have the same towing characteristics as the old buoys.

Officers aboard during this survey included: CDR L.E. Pickens, LCDR W.E. Noble, LTJG S.H. Manzo, ENS H.B. Arnold, and ENS R.D. Wells.

M. MISCELLANEOUS

Operations on this project were often hampered by fog. Sea conditions were generally good, but fog was practically a daily occurance - some days it would burn off with the morning sun, other days it would last all day.

N. SUMMARY

Item 1A was a 23 ft. shoal reported by the MV ARTIC TROLL. The reported location of this shoal was at a bearing of 322°T, 2.75 NM from Savannah Light. This area was investigated to a radius of 1 NM from the reported location. The investigation included one days reconnaissance hydrography as well as wire drag. The results disprove the existance of the shoal - the area was cleared by wire drag to a minimum depth of 29 feet effective depth (predicted tides). The maximum effective depth cleared in the area was 43 feet predicted tides.

Two hangs were encountered within the area, but both objects were within 2 1/2 feet of the bottom and are not considered hazards to navigation.

Item 2A was a charted wreck at Lat. 31°58.0'N, Long. 80°42.5'W, - position approximate. This item was investigated, in conjunction with item 1A, to a radius of 1 NM. The results did not locate any wreck or hazard to navigation within this area. The area was cleared from a minimum effective depth of 29 ft. to a maximum effective depth of 45 ft. (predicted tides).

Item 3A was a reported wreck in Lat. 31°54'N, Long. 80°37'W, with a least depth of 1 1/2 fathoms. The area was investigated to a 1 NM radius with no wreck being located. The area was cleared from a minimum effective depth of 34 ft. to a maximum effective depth of 42 ft. (predicted tides).

O. RECOMMENDATIONS

Recommend item 1A not be charted as a 23' shoal. This item is considered complete.

Recommend item 2A be removed from Chart 440. This item is considered complete.

Recommend item 3A be removed from Chart 1111. This item is considered complete.

APPROVAL SHEET

All records of this survey prior to smooth plotting are hereby approved. One small area of Item 2-A remains uncleared due to a merchant vessel at anchorage awaiting repairs; however, Items 1A, 2A, and 3A are considered complete and adequate for charting. The field work was personally supervised by the undersigned and the boatsheet and records were inspected daily.

Leonard E Pickens

CDR Leonard E. Pickens
Commanding Officer
NOAA Ships RUDE & HECK

LIST OF ATTACHMENTS

ATTACHMENT I

A. RAYDIST CONTROL STATIONS

STATION	LATITUDE	LONGITUDE	REMARKS
ANDE	32°07'55.083"	80°46'15.147"	Red Station
RADD	32°01'12.325"	80°50'34.976"	Green Station

B. CONTROL SIGNALS - USED FOR CALIBRATION

SIGNAL	LATITUDE	LONGITUDE	REMARKS
Savannah Light	31°57'00.416"	80°40'59.062"	Circle Calibrate
Bloody Pt. Rear Rng.	32°03'17.590"	80°50'23.135"	Range
Bloody Pt. Front Rng.	32°02'30.533"	80°49'40.513"	Range
Tybee Lighthouse	32°01'19.301"	80°50'44.985"	Left Object
Savannah Beach Municipal Water Tank	32°00'39.717"	80°50'31.690"	Left Object

ATTACHMENT II

LIST OF GROUNDINGS AND HANGS

Position No. & Day Letter	Buoy No.	Latitude	Longitude	Grounded Effective Depth	Cleared by Day & Strip No.	Cleared Effective Depth	Charted Depth	Remarks
14B	10-11	31°59.83'	80°43.94'	36'	—	—	35'	Uninvestigated hang.
16E	1-2	31°58.98'	80°43.73'	34'	D2	32.5'	35'	6'X2' Object 2.5' off bottom.
22E 22E	2-3	31°59.88'	80°43.94'	34'	—	—	35'	See #14B, anchor fluke 3' off bottom.

ATTACHMENT III

DAILY RAYDIST CORRECTORS

DATE	DAY LETTER	RUDE		HECK	
		Red	Green	Red	Green
2-26-73	A	+	NA	0.0	0.0
2-27-73	B	+0.1	0.0	+0.1	-0.1
2-28-73	C	- REJECTED -			
3-01-73	D	+0.1	0.0	+0.2	-0.2
3-02-73	E	+0.1	0.0	0.0	-0.1
3-05-73	F	+0.2	+0.1	0.0	0.0
3-06-73	G	+0.1	0.0	+0.1	0.0
3-09-73	H	- REJECTED -			
3-12-73	J	+0.2	+0.3	0.0	+0.1
3-13-73	K	0.0	0.0	+0.1	+0.2

RANGE-RANGE LANES AND DISTANCES

STATION 1= 32 7 55.083 ANDI
80 46 15.147

STATION 2= 32 1 12.325 RADD
80 50 34.976

FREQ = 3300.4

PT	LATITUDE	LONGITUDE	LANE 1	LANE 2	DIST 1	DIST 2	
1	31 57 0.416	80 40 59.062	480.26	374.33	21803.23	16994.08	SAVANNAH BEACON
2	32 0 12.418	80 48 17.256	321.73	89.39	14606.13	4058.25	TYBEE FRONT LIGHT

SAVANNAH BEACON
G 027°
R 067 1/2°
G 207°
R 247 1/2°

Bearings used in circle calibration at Savannah Beacon.

TYBEE FRONT RANGE LT.
G 027°
R 103°
G 207°
R 283°

: NOTE; Tybee Front Range LT Removed Prior to start off survey

ATTACHMENT IV
STATISTICS

DATE	DAY LETTER	STRIP #	VOL. #	POSITIONS	LNM	SNM
2-26-73	A		I Hydro	82	23.7	2.37
2-27-73	B	B-1	I-WD	14	2.35	2.94
~~2-28-73~~	~~C~~	~~C-1~~	~~I-WD~~	(4)	- REJECTED -	
3-01-73	D	D-1	I-WD	16	3.5	4.90
3-01-73	D	D-2	I-WD	7	1.25	0.88
3-02-73	E	E-1	I-WD	16	1.7	2.55
3-02-73	E	E-2	I-WD	6	0.6	0.27
3-05-73	F	F-1	I-WD	10	1.35	1.62
3-06-73	G	G-1	I-WD	15	3.0	3.9
3-06-73	G	G-2	I-WD	6	1.0	0.14
~~3-09-73~~	~~H~~	~~H-1~~				
~~3-12-73~~	~~J~~	~~J-1~~	~~II-WD~~	(9)	- REJECTED -	
3-12-73	J	J-2	II-WD	12	1.7	1.53
3-13-73	K	K-1	II-WD	10	1.65	2.0
3-13-73	K	K-2	II-WD	17	1.75	2.2

258

ATTACHMENT V
FLOATING AIDS TO NAVIGATION

NAME	LATITUDE	LONGITUDE	REMARKS
Buoy BW"T"	31°58.28'	80°44.10'	Used to check lane count
Buoy W or "B"	31°57.32'	80°44.30'	
Buoy W or C"A"	31°57.88'	80°45.42'	
Buoy B"1"	31°58.68'	80°45.10'	

ATTACHMENT V

CHARLESTON TO SAVANNAH

SHORELINE MAPPING

JOB PH-7101

DESCRIPTIONS OF RAYDIST STATIONS (SITES) FOR NOAA SHIPS RUDE AND HECK

	Latitude	Longitude
ANDE 1973	32° 07' 55".083	80° 46' 15".147

The station is located on Hilton Head Island, on the beach, and at, approximately, latitude 32° 07' 55". Permission for the site was obtained from Mr. Vance Fowler, Vice President-Administration, Sea Pines Company, Hilton Head Island, South Carolina 29928, to whom a letter of liability and explanation should be sent. The letter should describe the apparatus in detail, including dimensions, appearance, etc. Also, include the period of time the site will be occupied. Power for the station can probably be obtained from an outside outlet on the Anderson home(see Form 525), which is about 140 feet distant.

Note: a description of the site on Tybee Island, Georgia, will follow as soon as possible.

ATTACHMENT VII

CHARLESTON TO SAVANNAH

SHORELINE MAPPING

JOB PH-7101

DESCRIPTION OF RAYDIST STATION SITE FOR NOAA SHIPS RUDE AND HECK - 1973

	Latitude	Longitude
RADD 1972	32° 01' 12".325	80° 50' 34".976

Located on the northerly end of Tybee Island, on property owned by the Ocean View Corporation of Savannah. Permission obtained from Dr. Edward W. Towns, c/o Oceanside Nursing Home, 77 Van Horne, Savannah Beach, Georgia. Phone 912-786-4511 or 912-786-4471. Send the usual letter to Dr. Towns assuming liability.

It will be necessary to install a meter at this site. There is a service assembly pole about 75 feet distant from the site, complete with meter base and breaker panel.

1/31/74

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

SP-AMC-1-R/H-73

1. Project # ~~OPR~~- 2. Reg. # H-None 3. Field # RH-20-1-73

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

5. Frequency 3300.4 KH2 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [x]

Range One (R_1) Station I.D. ANDE 1973

Range Two (R_2) Station I.D. RADD

Range-Visual [ ]

Lat.	32°	07'	55.68"
Long.	80°	46'	15.14"
Lat.	32°	01'	12.32"
Long.	80°	50'	34.97"

Hyperbolic (3-station) [ ]

Slave One Station I.D. _____

Master Station I.D. _____

Slave Two Station I.D. _____

Hyper-Visual [ ]

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

7. Location of Survey:

Range-Range [x] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [ ] A=Ø

Survey area is to observer's Left [x] 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.

[x] 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	From Day	To Time	To Day	Position Numbers (inclusive)	
						to
						to
						to

9. Remarks: R_1 red arcs, R_2 blue arcs.

CAM3-1
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

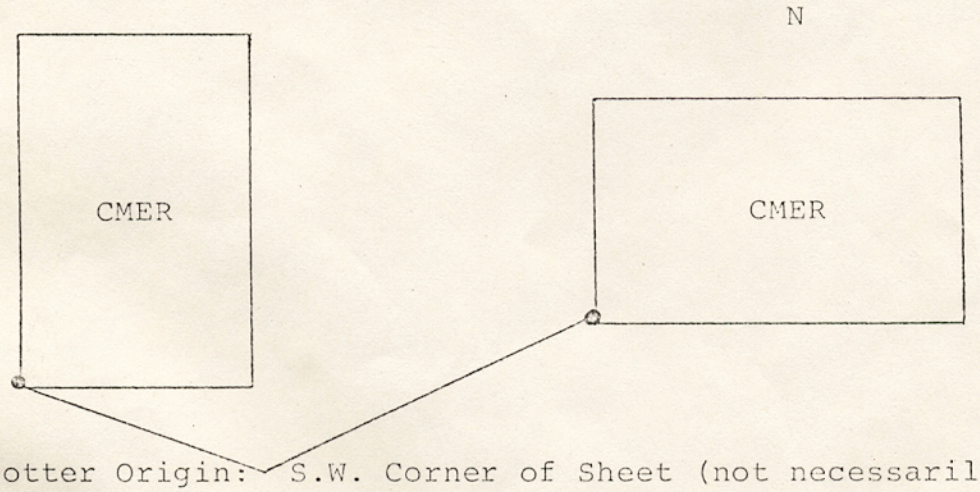
1. Project No. SP-AMC-1-R/H-73
2. Reg. No. H- None
3. Field No. RH-20-1-73
4. Requested By Verification Branch
5. Ship or Office AMC
6. Date Required ASAP

7. Polyconic [x] Modified Transverse Mercator [ ]
8. Central Meridian of Projection 80 ° 39 ' 00 "
9. Survey Scale: 1: 20,000
10. Size of Sheet (check one):

    36 x 54 [x] 36 x 60 [ ] Other [ ] Specify _____

11. Sheet Orientation (check one):

    NYX = 1 [ ] NYX = Ø [0]



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
    Latitude 31 ° 52 ' 00 "
    Longitude 80 ° 48 ' 00 "
13. G.P.'s of triangulation and/or signals attached [ ]
14. Material Desired: Tracing Paper [ ] Mylar [x]
    Smooth Sheet [x] Other [ ] Specify _____
15. Remarks: _____

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- NONE
SP-AMC-1-RH-73 (RH-20-1-73)

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. NA

Date: January 24,1975

Signed: William L Jonns
William L.Jonns
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: January 24,1975

Signed: C Dale North Jr
C.Dale North,Jr.LCDR,NOAA
Title: Chief, Processing Division

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER
F. E. No. 1 - 1975
W. D.

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	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 U.S. LIGHT LIST	K	
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25

☆ U.S. G.P.O. 1972-769-565/516 REG. #6

NOAA FORM 77-27
(9-72)
(PRESC. BY
HYDROGRAPHIC
MANUAL 20-2,
6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. R/H-20-1-73 Wire Drag SP-AMC-1-R/H-73

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & 1 A&D Boatsheet	2
DESCRIPTIVE REPORT	1	OVERLAYS (Smooth A&D Sheet)	1

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS Wire Drag Records	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES		1				
CAHIERS						
VOLUMES	1		4			
BOXES				0	0	

T-SHEET PRINTS *(List)*
None

SPECIAL REPORTS *(List)*
None

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				258
POSITIONS CHECKED		41		
POSITIONS REVISED		7		
DEPTH SOUNDINGS REVISED		N/A		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		N/A		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		None		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		None		
JUNCTIONS		None		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		N/A		
SPECIAL ADJUSTMENTS		N/A		
ALL OTHER WORK	4	140		
TOTALS	4	140		

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY M. W. Johnson	Sept. 17, 1974	Oct. 9, 1974
VERIFICATION BY M. B. Hickson	Oct. 11, 1974	Dec. 19, 1974
REVIEW BY	BEGINNING DATE	ENDING DATE

* U.S. G.P.O. 1972-769-562/439 REG.#6

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. RH 20-1-73
SP-AMC-1-RH-73

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & AID	1	BOAT SHEETS	2
DESCRIPTIVE REPORT		OVERLAYS	10

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1 & Misc. Data					
VOLUMES	5					
BOXES						

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				516
POSITIONS CHECKED		516		
POSITIONS REVISED		50		50
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		0		0
JUNCTIONS		0		0
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		5		
SPECIAL ADJUSTMENTS				
ALL OTHER WORK	3	132		
TOTALS		140		

PRE-VERIFICATION BY Maurice Hickson	BEGINNING DATE Nov. 11, 74	ENDING DATE Dec. 18, 74
VERIFICATION BY Michael Johnson	BEGINNING DATE Dec. 18, 74	ENDING DATE Dec. 20, 74
REVIEW BY	BEGINNING DATE	ENDING DATE

* U.S. G.P.O. 1972-769-562/439 REG.#6

Verifier: M. B. Hickson

December 20, 1974

VERIFIER'S ADDENDUM TO RH-20-1-73

Wire Drag

On this survey there were four hangs and four groundings. These hangs are listed below with descriptions and dispositions.

HANGS

1. Position 14B was an investigated hang occuring at an effective depth of 36 feet. This object was rehung and identified on Position 22E.

2. Position 16E was a coral covered object measuring 6 feet by 2 feet and 2.5 feet off the bottom was hung at an effective depth of 35 feet. This object was cleared by strip D2 with an effective depth of 31 feet.

3. Position 10F was an anchored ship's anchor with its chain hung. The disabled ship was anchored off seabuoy BW "T" and unable to move due to engine trouble. Since the anchored ship was only a temporary obstruction, the hang was discarded by the verifier and thus ended the strip on Position 9F.

4. Position 22E was an anchor fluke 3 feet off the bottom hung at an effective depth of 32 feet. This hang is the same object as hung on Position 14B. This hang was not cleared.

GROUNDINGS

1. Grounding of N buoy at position 4D through the end of the strip. Buoy Number 1 grounded between positions 6D and 7D only. These groundings were partially cleared by 37 feet on E Day and 38 feet on J Day. Part of N grounding remains not cleared. Charted depth is 45 feet.

2. Grounding of F buoy at Position 4D through to Position 9D, F buoy remained clear after 9D to the end of the strip. Also buoy number 12 was grounded between positions 5D and 7D only. The grounding occurred at an effective depth of 42 feet. This grounding was not cleared. Charted depth is 43 feet.

3. Grounding of number 7 buoy at Position 13D through the end of the strip. Grounding occurred at an effective depth of 42 feet. This grounding was not cleared. Charted depth is 42 feet.

4. Grounding of N buoy at Position 18J through the end of the strip. Grounding occurred at an effective depth of 36 feet. This grounding was not cleared. Charted depth is 38 feet.

VERIFICATION NOTES
SURVEY RH-20-1-74 WD

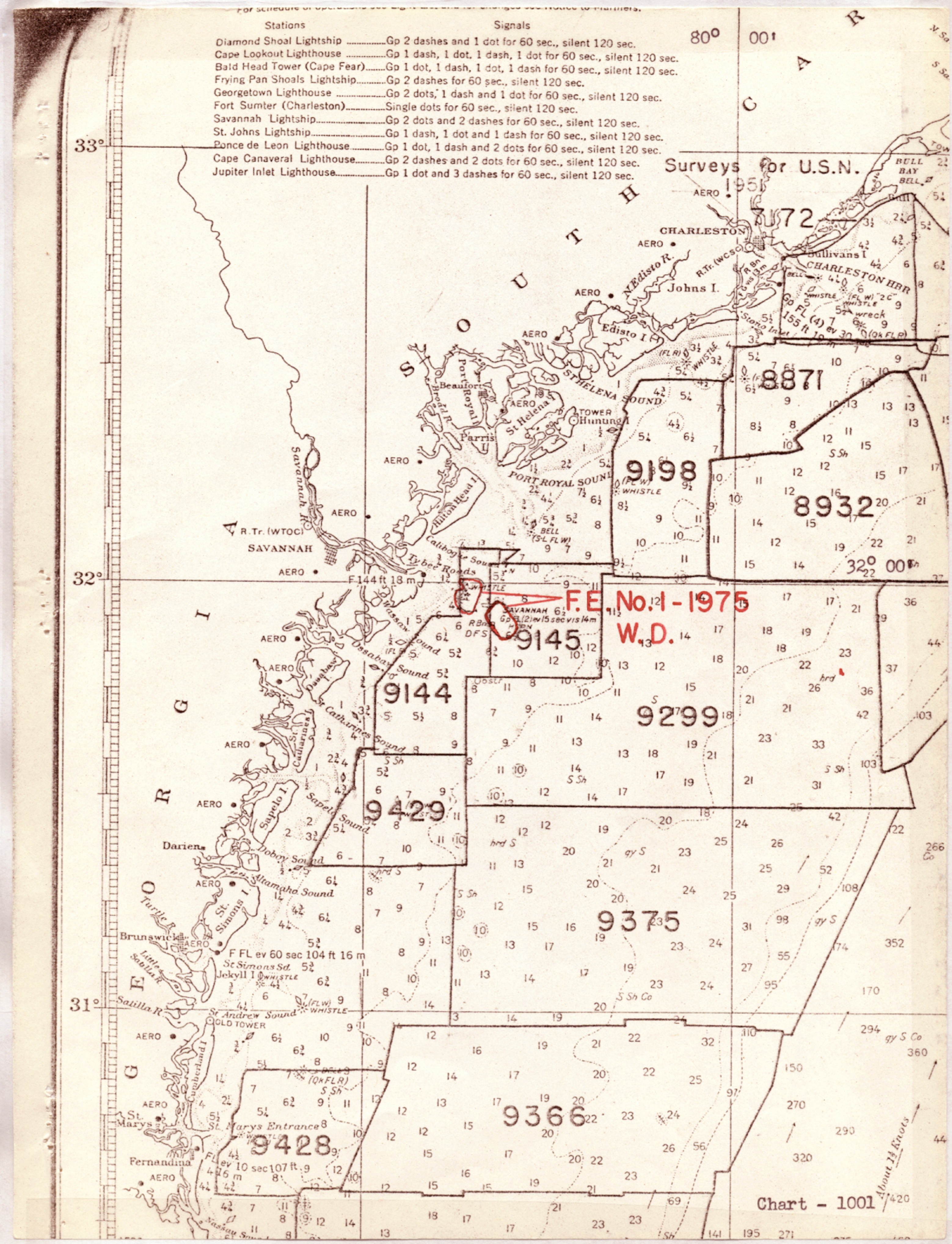
GENERAL

This wire drag survey is classified as an field investigation and is considered adequate for the purpose intended.

William L. Jonns

Norfolk, Va.
January 24, 1975

William L. Jonns
Chief, Verification Branch
AMC.


For schedule of operations see Light List and for changes see Notice to Mariners.
Stations
Signals
Diamond Shoal Lightship — Gp 2 dashes and 1 dot for 60 sec., silent 120 sec.
Cape Lookout Lighthouse — Gp 1 dash, 1 dot, 1 dash, 1 dot for 60 sec., silent 120 sec.
Bald Head Tower (Cape Fear) — Gp 1 dot, 1 dash, 1 dot, 1 dash for 60 sec., silent 120 sec.
Frying Pan Shoals Lightship — Gp 2 dashes for 60 sec., silent 120 sec.
Georgetown Lighthouse — Gp 2 dots, 1 dash and 1 dot for 60 sec., silent 120 sec.
Fort Sumter (Charleston) — Single dots for 60 sec., silent 120 sec.
Savannah Lightship — Gp 2 dots and 2 dashes for 60 sec., silent 120 sec.
St. Johns Lightship — Gp 1 dash, 1 dot and 1 dash for 60 sec., silent 120 sec.
Ponce de Leon Lighthouse — Gp 1 dot, 1 dash and 2 dots for 60 sec., silent 120 sec.
Cape Canaveral Lighthouse — Gp 2 dashes and 2 dots for 60 sec., silent 120 sec.
Jupiter Inlet Lighthouse — Gp 1 dot and 3 dashes for 60 sec., silent 120 sec.
80° 00'
33°
32°
31°
32° 00'
SOUTH CAR
GEORGIA
Surveys for U.S.N. 1951
CHARLESTON
Sullivans I
CHARLESTON HBR
Johns I.
Edisto I
N. Edisto R.
St. HELENA SOUND
Beaufort
Port Royal
Parris
St. Helena
Hunting I
PORT ROYAL SOUND
Hilton Head I
Calibogue Sound
Tybee Roads
SAVANNAH
Savannah R.
Wassaw Sound
Ossabaw Sound
St. Catharines Sound
Sapelo Sound
Sapelo I.
Doboy Sound
Darien
Altamaha Sound
St. Simons I.
Brunswick
St. Simons Sd.
Jekyll I
St. Andrew Sound
Satilla R
Cumberland I
St. Marys
St. Marys Entrance
Fernandina
Nassau Sound
BULL BAY
7172
8871
8932
9198
9145
9144
9299
9429
9375
9366
9428
F.E. No. 1 - 1975
W.D.
Chart - 1001
About 1½ Knots

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. F. E. No. 1 - 1975 W. D.

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
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.