

# FE-223 WD

Diag. Cht. No. 1000-4.

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

Type of Survey ..... Wire Drag.....  
Field No. .... R/H-40-2-75.....  
Office No..... FE-223 WD.....

### LOCALITY

State ..... Virginia.....  
General Locality .... Chesapeake Bay.....  
Locality ... Chesapeake Bay Entrance.....

19 75

CHIEF OF PARTY

..... R. A. Ganse.....

### LIBRARY & ARCHIVES

DATE ..... July 1, 1980.....

★U.S. GOV. PRINTING OFFICE: 1980-868-537

### CHARTS

12200 App'd DCH. 8/20/81  
12221 " RPK 11/17/81  
12083 N.C. www 11/17/81

FE-223 WD

HYDROGRAPHIC TITLE SHEET

FE-223 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.

R/H 40-2-75

State Virginia

General locality Chesapeake Bay

Locality Chesapeake Bay Entrance

Scale 1:40,000

Date of survey February 28, 1975

Instructions dated December 24, 1975

Project No. OPR 515

Vessel NOAA Ships Rude and Heck

Chief of party Cdr. R.A. Ganse

Surveyed by Cdr. Ganse, Lcdr. Noble, Lcdr. Bush, LtJg Vantrain, Ens. Albertson  
Ens. Losleben.

Soundings taken by M.V. echo sounder, hand lead, pole

Graphic record scaled by

Graphic record checked by

Protracted by

Automated plot by XYNETICS 1201 PLOTTER (AMC)

Soundings penciled by

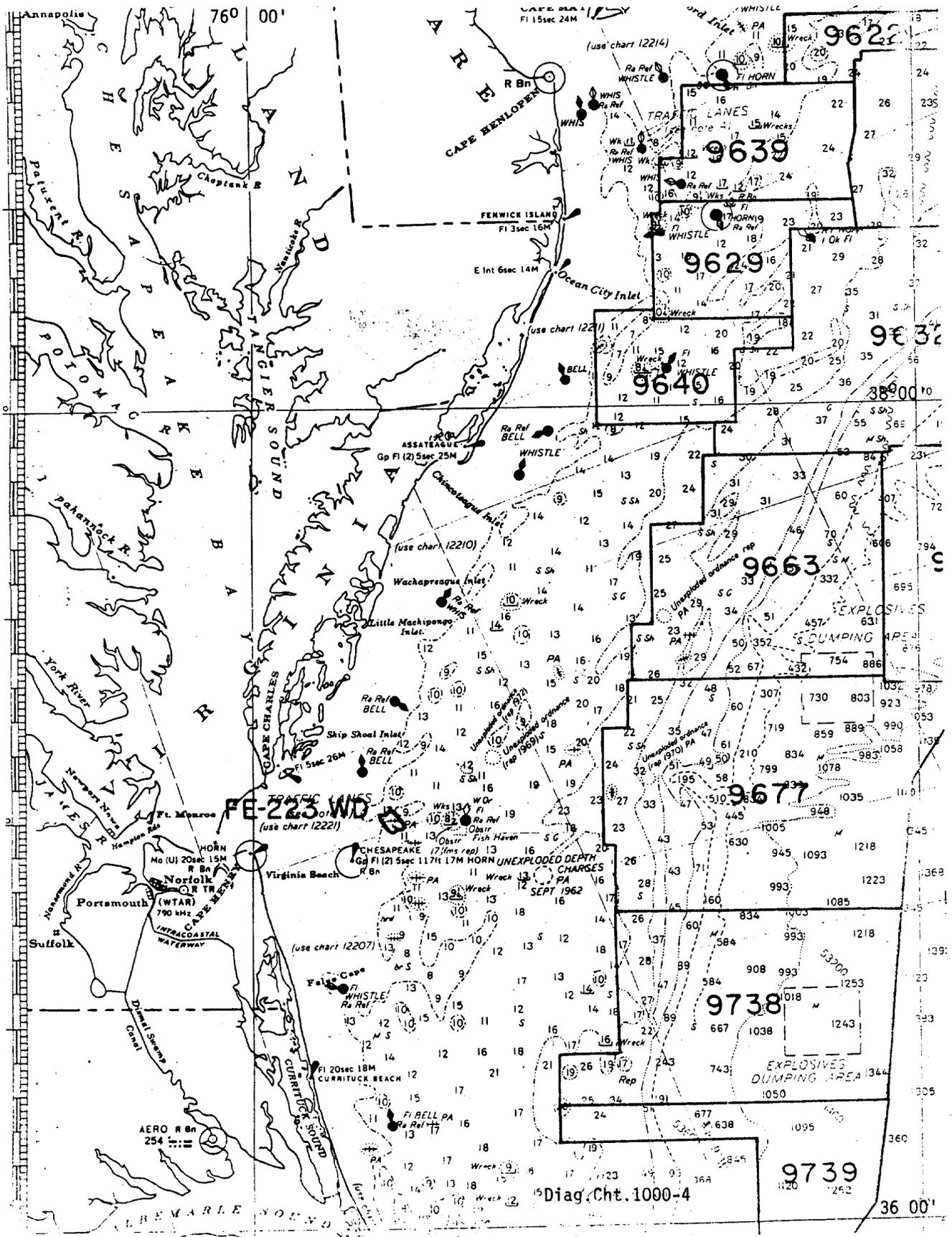
REVIEWED BY DOUG V. MASON

Soundings in XXXXXX fathoms feet at MLW XXXX

MAY 6, 1980

REMARKS:

*App'd. to standards 7-22-81 DJT*



DESCRIPTIVE REPORT  
TO ACCOMPANY  
WIRE DRAG FIELD NO. RH-40-2-75 *FE. 223W.D.*  
PROJECT OPR-515-R/H-75  
CHESAPEAKE BAY ENTRANCE  
1975  
CDR R.A. GANSE

A. AUTHORITY

This project was authorized under Project Instructions OPR-515-RU/HE-75, East and Gulf Coast Investigations, dated 24 December 1975, *and Change No 1, dated Jan 14, 1975.*

B. CHARACTER AND LIMITS OF THE WORK

The purpose of this project was to investigate various items in the Chesapeake Bay Entrance. This report covers all items investigated in this area. The area is covered by C&GS Charts 1109 and 1222. The boatsheet layout is from latitude 36°56'N to 37°04'N and longitude 75°20'W to 75°36'W. The scale used for this survey was 1:40,000 scale.

C. CONTROL AND SHORELINE

Raydist DR-S Range-Range control was used, operating on a frequency of 3300.4000 KHz, giving a lane width of 45.39904 meters. Two Raydist shore stations, FEN (R1) and GRAVITY (R2) were utilized for control. FEN, located at latitude 37°05'36.2430"N and longitude 75°58'17.5530"W, served as the RED station (Fishermans Island). GRAVITY, located at latitude 36°40'31.453" N and longitude 75°54'56.471"W, served as the GREEN station (Sandbridge). There was no shoreline on this sheet. The stations' electrical components were removed upon completion of this survey; the towers were left standing and maintained by AMC personnel. Both stations are recoverable. For further information concerning these stations see Attachment IA. A listing of calibration data used is given in Attachment IIIB.

D. DATE OF SURVEY

*FE. 223W.D.*  
Operations for OPR-515 Sheet RU/HE-40-2-75 commenced on 28 February 1975 and terminated on 28 February 1975.

E. TIDE REDUCERS

Preliminary reduction of each days data was done using predicted tides. The smooth tides will be requested from Rockville for AMC. See Attachment V for information concerning predicted tide correctors.

F. JUNCTIONS

There were no junctions with this boatsheet. ✓

G. SPLITS

There were no splits on this boatsheet. ✓

H. GROUNDINGS AND HANGS

There were none on this boatsheet. ✓

## I. GENERAL NOTES

1. While working the Chesapeake Bay entrance, morning and evening calibration was done by circling Chesapeake Light. Information concerning calibration can be found in Attachment IIIB.

2. A new stamp has been incorporated into each wire drag volume. The "DIVE INFORMATION STAMP" will be recorded in the volumes for each dive by the divers. All depths will be recorded with no tide corrector applied. A note below the information will give the predicted tide information at the time of the dive. There was no diving connected with this boatsheet.

The following occurrence should be noted when verifying this survey:

### A Day Strip I

This drag began at 1320 hours but shortly after this the HECK was experiencing engine problems. The drag was stopped at this point and didn't resume until 1336 hours. The drag was not effected by this loss. ✓

## J. CURRENTS

A current survey was conducted prior to each drag. In some cases if we were going to do several small drags in one particular area we had one current survey done at the beginning of the first drag and used it as our criteria for the remaining drags.

This current survey consisted of putting a current tester into the water and plotting its position, the time it entered and the time it was retrieved; in this manner we could determine the velocity of the current. In most cases the drag was set up to run with the current. We found that the currents varied depending on the time of day and the area in which we were working.

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

In general, we found the recent charts were reliable for determining depths. ✓

## L. PERSONNEL AND EQUIPMENT

During this survey the RUDE & HECK acted as guide and end vessel respectively. Both vessels were equipped with Raytheon DE-723 fathometers. Both launches were utilized as drag tenders. Bearings to end buoys and to opposite vessels were made on the Sperry gyro repeaters. Standard wire drag equipment was used throughout this survey. The officers aboard for this survey included: CDR R.A. Ganse, LCDR W.M. Noble, LCDR Y.A. Bush, LTJG K.F. VanTrain, ENS G.M. Albertson, and ENS Mark V. Losleben.

## M. MISCELLANEOUS

1. We continued with the same tender tester procedures that were adopted last year. This consisted basically of having the testers

in the launch read the tester rod as if the ground wire was always set the same as the tester rod. Any necessary correction for lift or sag was done by the personnel on the guide vessel and then recorded into the smooth tender record.

2. Throughout this survey the RUDE's gyro was subject to variable error (an error of 2 degrees high to 5 degrees low). Bearings are recorded as observed. When possible the amount of error was determined by bearings to distant objects and this error was recorded in the remarks column. In this case the error was taken in account in plotting the boatsheet. It is recommended that the error when observed be applied to the observed bearing before smooth plotting. When an error observation was not made (reduced visibility) it is recommended that RUDE bearing be corrected by comparing the computed bearing between the RUDE and HECK positions with the observed bearing. In any case bearing error only affects the plotting of the end buoys because in both cases where an obstruction was found it was possible to obtain a Raydist position directly over the hang rather than having to rely on cuts.

3. The RED and GREEN recorder markers on the sawtooth was reversed. Red mark records the R2 station and the Green mark records the R1 station.

#### N. SUMMARY

The following item was investigated while working on this project and our results are as follows:

1. ITEM #2. This was a "PA" wreck reported at latitude 37°00.1'N and longitude 75°34.5'W on C&GS Chart 1222. Two strips were run clearing an area 1 mile in radius about this point; no wreck was located. The area over the reported position was cleared to <sup>Actual</sup> 65.5' using predicted tides. The least depth cleared in the project area was 54.0' using <sup>Actual</sup> predicted tides. This item is considered complete. ✓

#### O. RECOMMENDATIONS

1. Wreck reported at latitude 37°00.1'N and longitude 75°34.5'W on C&GS Chart 1222 should be shown as a <sup>082</sup> ~~none~~ dangerous wreck or removed from the charts. ~~none~~ *See quality control, item 1*

*See chart items 3+5*

The following background information may be useful. The wreck symbol apparently ended up on the chart as a result of a phone conversation between a Captain Ward, USN Ret. and a Mr. Earl Rayfield of NOS. We talked to Captain Ward; he said he picked the wreck up on a sonar device, had no reason to believe it to be a danger to surface navigation but thought all wrecks should be on charts so fishermen and divers would know where they are.

APPROVAL SHEET

All records of this survey prior to smooth plotting are hereby approved. The field work was personally supervised by the undersigned and the boatsheet and records were inspected daily. The survey is considered complete and adequate for charting.

SUBMITTED BY:

*G. M. Albertson*  
G. M. Albertson  
Operations Officer  
NOAA Ships RUDE & HECK

APPROVED BY:

*R. A. Ganse*  
R. A. Ganse  
Commanding Officer  
NOAA Ships RUDE & HECK

RAYDIST CONTROL STATIONS

I            FREQUENCY: 3300.4000 KHZ, Lane width of 45.39 meters.

STATION(R1): FEN, located at Fisherman's Island, Lat. 37 05 36.2430  
North and Long. 75 58 17.5530 West., 1962

STATION(R2): GRAVITY, located at Sandbridge, Lat. 36 40 31.453  
North and Long. 75 54 56.471 West., 1965

2-A Daily raydist correctors

DATE	RUDE		HECK	
	RED	GREEN	RED	GREEN
Feb. 28, 1975	-.09	-.05	-.11	-.05

6/27/75

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): Hampton Roads

Period: February 27 - March 21, 1975

HYDROGRAPHIC SHEET: R/H 40-2-75 ~~RE~~-223 W.D

OPR: 515-R/H-75

Locality: Off Virginia Beach

Plane of reference (mean lower low water): 3.90 ft.

Height of Mean High Water above Plane of Reference is 3.4 ft.

Remarks: Recommended zoning:

Time correction  
HW and LW

-1 hr. 40 min.

Height correction  
HW LW

+0.9 ft. 0.0

*for James E Hubbard*  
Chief, Tides Branch

HYDROGRAPHIC SURVEY STATISTICS

FE-223-WD

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1 in Des. report	BOAT SHEETS & PRELIMINARY OVERLAYS		1 envelope	
DESCRIPTIVE REPORT		21	SMOOTH OVERLAYS: POS & ARC, EXCESS		1	
DESCRIP-TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS						
VOLUMES	4 - WD.	vols. & tender * tester rec.				
BOXES						

T-SHEET PRINTS (List)

SPECIAL REPORTS (List) \* - 2 bundles of sawtooth records

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE-VERIFICATION	REVIEW VERIFICATION	TOTALS
POSITIONS ON SHEET			58
POSITIONS CHECKED	30	10	40
POSITIONS REVISED	0	0	0
<del>SOUNDINGS REVISED</del>			
<del>SOUNDINGS RECORDED</del>			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED	0	0	0
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION) & survey automation	6	0	6
VERIFICATION OF CONTROL	2	1	3
VERIFICATION OF POSITIONS	5	0	5
VERIFICATION OF <del>SOUNDINGS</del> Individual Strips	0	7	7
COMPILATION OF SMOOTH <del>SHEET</del> A&D Sheet & P.O.		10	10
APPLICATION OF TOPOGRAPHY	0	0	0
APPLICATION OF PHOTOBATHYMETRY	0	0	0
JUNCTIONS	0	0	0
COMPARISON WITH PRIOR SURVEYS & CHARTS	0	1	1
Review FIELD'S REPORT	0	3	3
OTHER	0	0	0
<b>TOTALS</b>	<b>13</b>	<b>22</b>	<b>35</b>

Pre-Verification by Rude/Heck	Beginning Date 02/28/75	Ending Date 04/27/75
Verification by Review D.V. Mason	Beginning Date 05/12/80	Ending Date 05/15/80
Verification Check by Review B.J. Stephenson	Time (Hours) 3	Date 05/16/80
Marine Center Inspection by Hydrographic Inspection Team (AMC)	Time (Hours) 8	Date 05/19/80
Quality Control Inspection by D.K. Myers	Time (Hours) 9	Date 9/10/80
Requirements Evaluation by D. Baumgardner	Time (Hours) 2	Date 6/19/81

ATLANTIC MARINE CENTER

PROCESSING DIVISION

WIRE DRAG SURVEY ~~REVIEW~~

*Verifier's Report*

REGISTRY NO. F.E. -223 W.D.

FIELD NO. R/H 40-2-75

Virginia, East Coast, Chesapeake Bay Entrance

SURVEYED: February 28, 1975

SCALE: 1:40,000 (Smooth Plot)

PROJECT NO.: OPR-515

SOUNDINGS: None

CONTROL: Raydist (Range-Range)

Chief of Party

R. A. Ganse

Surveyed by:

W. M. Noble

W. A. Bush

K. F. Vantrain

G. M. Albertson

M. V. Losleben

Automated Plot by (Rough Strips)

Xynetics I20I Plotter (AMC)

Drag Strips subdivided by

*Dog Mason*  
D. V. Mason

Verified by

*Dog Mason*  
D. V. Mason

Reviewed by

*Dog Mason*  
D. V. Mason

Inspected by

H.I.T. (AMC)

Date

May 10, 1980

1. Purpose of the Survey

The purpose of the field examination was to investigate, prove or disprove the existence <sup>of</sup> and provide clearance depths <sup>on</sup> of ~~(it)~~ one item off the Virginia Coast at the Entrance to Chesapeake Bay. The reported position and identity is listed in the Project Instructions and Descriptive Report.

2. Control and Shoreline

a. The source of control is adequately described in section C of the Descriptive Report.

b. There is no shoreline in the area of the field examination.

3. Junctions

There were no junctions on this field examination.

4. Comparison with Hydrographic Surveys

a. Prior Hydrographic Survey H-5988 (1935) and H - 5992 (1935), no conflicts exist between soundings and effective depths of the field examination in the common area.

5. Comparison with Chart 12221, <sup>8</sup>3<sup>rd</sup> Edition, <sup>7/19/94</sup>~~1975~~

Comparison between Chart 12221 and the present field examination indicates that the following revisions are necessary to reflect the final results of the investigations.

a. Hydrography

1. Item 2, a sunken non-dangerous wreck, PA, originating with a telephone call from a Captain Ward, who claimed to have picked the wreck up on a sonar device. This item was not located by this examination. Two wire drag strips covered in excess of the required one (1) mile radius circle of search of the reported position with effective depths ranging from 54 to 66 feet. No hangs or groundings occurred during the investigation of this item. This item has neither been proven or disproved by this examination, therefore, retain as charted. There are no conflicts between the charted hydrography and the present wire drag examination in the common area.

*See QC, item # 1*

2. A 61 ft. depth charted in latitude  $37^{\circ}-00.00'N$  longitude:  $75^{\circ}-34.05'W$  apparently is in error, and should be a 69 ft. depth as shown on prior survey H-5988 (1935). The depth as charted is in conflict with the 66 ft. effective wire drag depth of the Field Examination.

*See QC, item # 2*

a. Aids to Navigation

There are no aids to navigation in the area of this examination.

6. Condition of Survey

a. Field Work and Records

The field work and records are considered adequate and no further discussion is necessary.

b. Descriptive Reports

The Descriptive Report is considered adequate and all necessary corrections have been made in red ink by the verifier.

c. Field Plotting

Field plotting is considered adequate.

7. Compliance with Project Instructions

This wire drag field investigation complies with Project Instructions.

*See QC, item #1*

8. Additional Field Work

The investigation of the item is considered adequate and requires no further field work.

*See QC, item #1*

9. Miscellaneous

a. Due to the small size of the survey area a chart mark-up of chart No. 12221 is not being submitted because it adds nothing to the survey data.

*See QC, item #3*

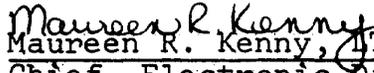
Inspection Report  
FE-223.W.D.

The completed verified survey has been inspected by the Hydrographic Inspection Team with regard to survey coverage, development of critical depths and cartographic symbolization. The survey did not verify or disprove the charted feature. The Verification Report has presented the facts accurately and properly, the procedures used, were appropriate, and the recommendations are logical and justifiable. The survey records comply with NOS requirements. The Hydrographic Inspection Team concurs with verifiers findings, actions and recommendation.

Examined and Approved:  
Hydrographic Inspection Team  
Date:

  
Karl Wm. Kieninger, CDR, NOAA  
Chief, Processing Division

  
R.D. Sanocki  
Technical Assistant  
Processing Division

  
Maureen R. Kenny, JT, NOAA  
Chief, Electronic Data  
Processing Branch  
  
Billy J. Stephenson  
Team Leader  
Verification Branch

Approved/Forwarded

  
Richard H. Houlder  
RADM, NOAA  
Director, Atlantic Marine Center



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

OA/C352:GKM

September 10, 1980

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

FROM: *George K. Myers*  
George K. Myers  
Chief, Quality Control Branch

SUBJECT: Quality Control Report for FE-223 (1975) WD, Virginia, East Coast,  
Chesapeake Bay Entrance

A quality control inspection of FE-223 WD was accomplished to monitor the survey for adequacy with respect to data acquisition, validity of cleared effective depths, A&D sheet, Verifier's 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 Verifier's Report and as follows:

1. The verifier's discussion pertaining to the investigation of Item #2 was deficient in several respects as follows:

- The Verifier's Report should have included the charted geographic position of the wreck, latitude 37°00.1'N, longitude 75°34.5'W.
- A red ink notation by the verifier in the Descriptive Report, Section 0, Recommendations, concurs with the hydrographer's recommendation that the wreck be shown as nondangerous or removed from the chart. On the other hand, the Verifier's Report states that the item should be retained as charted. Recommendations or concurrences by the verifier should be explicit and consistent throughout the report.
- Two statements made by the verifier are conflicting. One states that the "item has neither been proven or disproved by this examination." The other states that "This wire drag field examination complies with the Project Instructions."

The maximum swept depths over the reported wreck (Item #2) are more than 3 feet from the bottom within a 1-mile radius of the reported position. Therefore, neither the project instructions nor the Wire Drag Manual requirements were satisfied in this instance.



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tradition of service to the Nation

Because the wreck has not been verified or disproved, the wreck symbol should be retained on the chart. Decisions on whether the wreck should be shown as dangerous or nondangerous, and whether a clearance note can be charted, are left to the Marine Chart Division in its development of standard procedures for portraying wire-drag survey results of this type. MCD, C-3212, Retain as charted. 8/21/81 JWC HPA

2. The statement in the Verifier's Report which considers the source of a charted "61" is probable. However, inasmuch as this depth could have originated with a miscellaneous source, it is referred to the compiler for further consideration.

3. A chart mark-up covering the area common to the survey was not forwarded to Rockville. (See section 6.3.10 of the Hydrographic Manual.)

4. The new alphanumeric format which identifies a field examination was improperly designated in the Descriptive Report. The registry number for this survey should have been shown as FE-223 WD, instead of F.E. 223 WD. (See Hydrographic Survey Guideline No. 7.)

cc:  
OA/C351



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

**JUL 13 1981**

OA/C351:SF

TO: OA/CAM - Richard H. Houlder

FROM: *[Signature]*  
OA/C3 - Roger F. Lanier

SUBJECT: FE-223 (1975) WD, OPR-515-RU/HE-75, Virginia, East Coast, Chesapeake Bay Entrance, Report of Compliance with Project Instructions

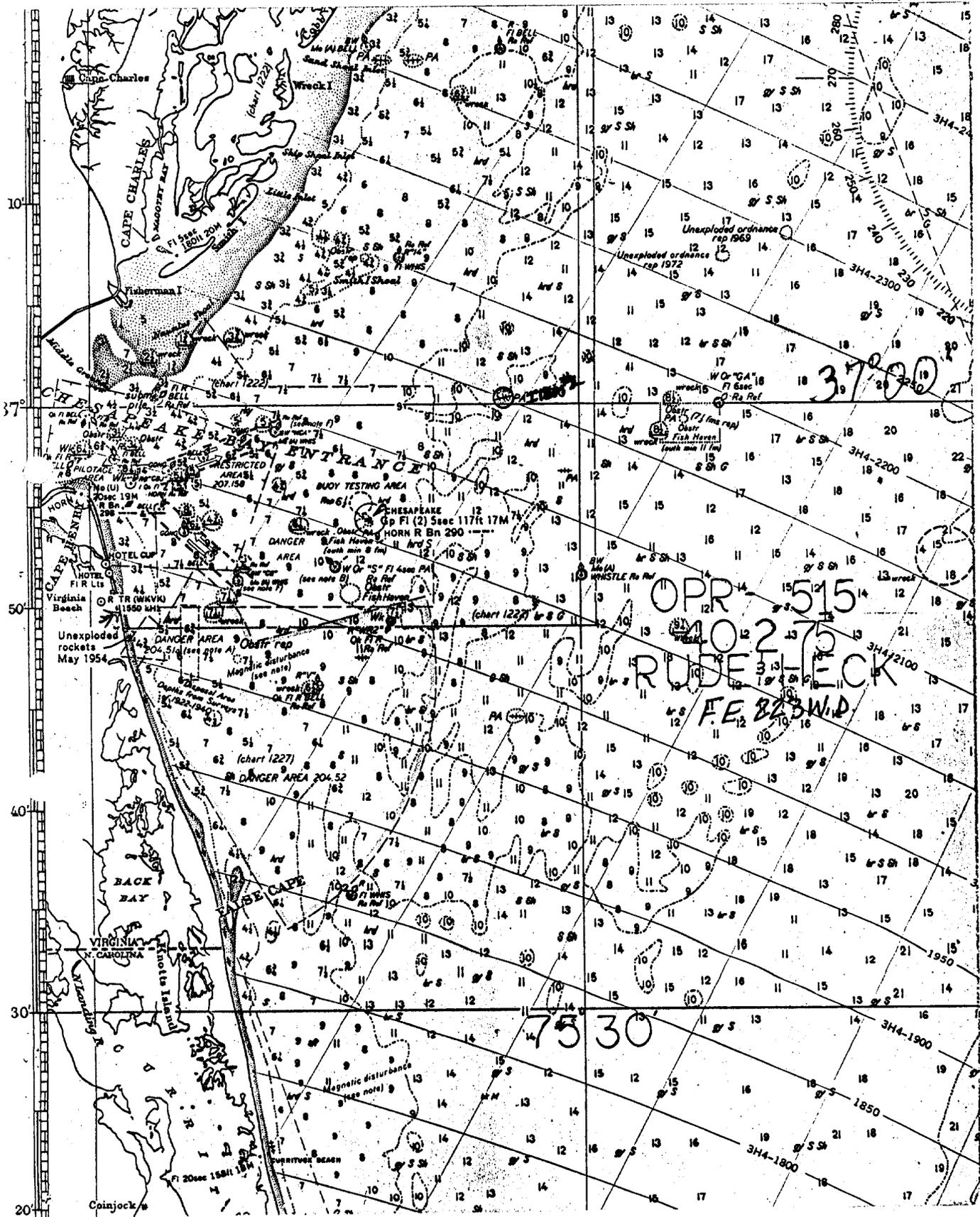
The smooth sheet and Descriptive Report for the subject survey have been examined. This survey, except as noted in the Quality Control Report, dated September 10, 1980 (copy attached), and the Hydrographic Survey Inspection Team Report, dated May 19, 1980, is complete and adequate for the purposes intended and is in compliance with Project Instructions OPR-515-RU/HE-75, dated December 24, 1974.

Attachment

cc:  
OA/C352 w/o att.



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37 20

OPR 515  
RUDE HECK  
FE 23 WID

75 30

75° 36'

75° 34'

37° 02'

37° 02'

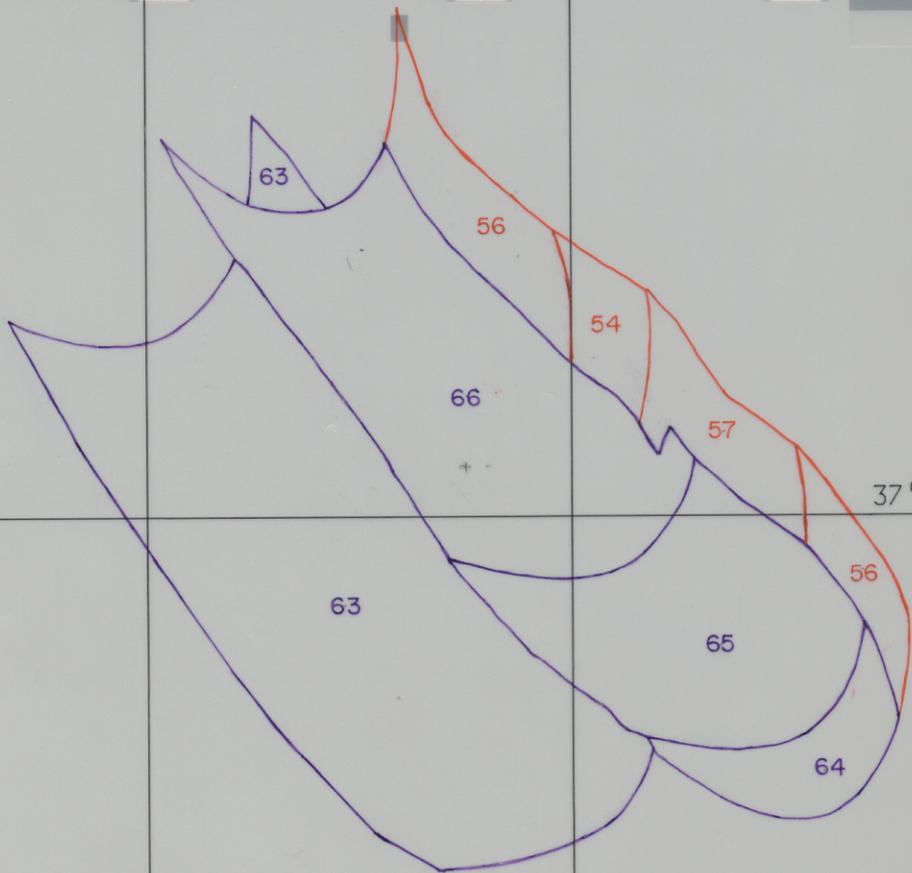
37° 00'

37° 00'

36° 58'

36° 58'

75° 34'



FE-223 WD  
A & D SHEET

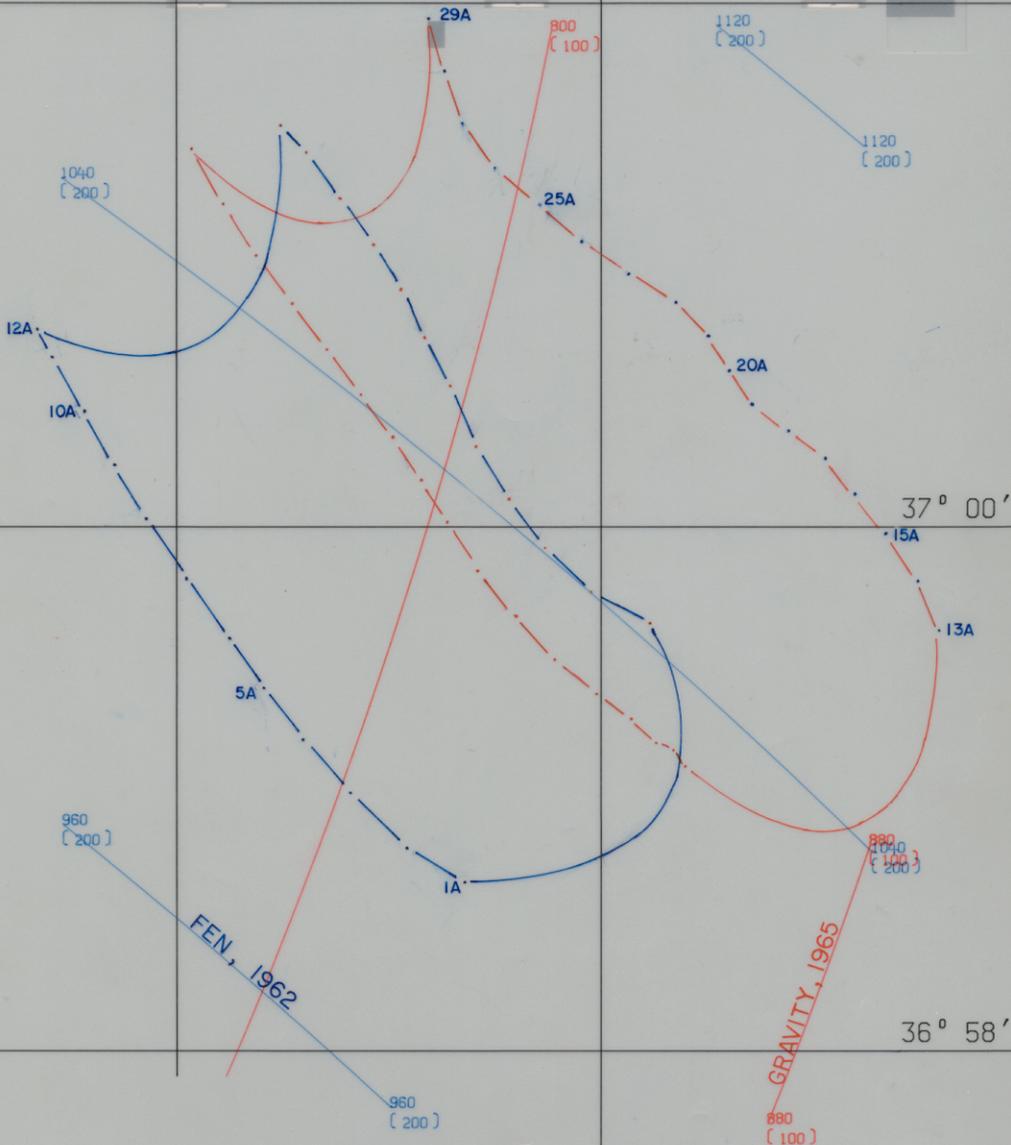
ITEM 2  
SCALE 1:40,000  
DEPTHS IN FEET

75° 36'

75° 34'

37° 02'

37° 02'



37° 00'

37° 00'

36° 58'

36° 58'

FE-223 WD  
POSITION & CONTROL OVERLAY

75° 34'

