

# FE96

## WIRE DRAG

Diagram No.1000-3 & 1217-2

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. .... PBS-4350-WD  
Office No..... FE-96

#### LOCALITY

State ..... New Jersey  
General Locality .. Atlantic Ocean  
Locality ..... Off Southern New Jersey  
..... Coast

19 50

CHIEF OF PARTY  
G.R. Fish

#### LIBRARY & ARCHIVES

DATE ..... June 7, 1951

☆ 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.5 1951

FE96  
WIRE DRAG

# FE No. 5 1951

FE-96

Diag. Cht. Nos. 1000-3 & 1217-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey WIRE DRAG  
Field No. PBS-4350-WD Office No. FE.No. 5, 1951 <sup>WD.</sup>

### LOCALITY

State NEW JERSEY  
General locality ATLANTIC OCEAN  
Locality OFF SOUTHERN NEW JERSEY COAST

194 50

CHIEF OF PARTY

G. R. FISH

LIBRARY & ARCHIVES

DATE JUN 7 1951

B-1870-1 (1)

FE No. 5  
1951

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. F.E. No. 5, 1951, WD.

Field No. FBS-4350 WD.

State NEW JERSEY

General locality ATLANTIC OCEAN

Locality OFF SOUTHERN NEW JERSEY COAST

Scale 1 : 40,000 Date of survey 13-18 June, 1950.

Instructions dated 5 March, 1948 & 8 April, 1949

Vessel PARKER, BOWEN & STIRNI

Chief of party G. R. Fish

Surveyed by Ship's Officers

Soundings taken by ~~fathometer~~, graphic recorder, hand lead, ~~etc.~~

Fathograms scaled by \_\_\_\_\_

Fathograms checked by \_\_\_\_\_

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

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

Soundings in ~~XXXXXX~~ feet at MLW ~~MLW~~

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DESCRIPTIVE REPORT  
TO ACCOMPANY

WIRE DRAG SURVEY FIELD SHEET No. \_\_\_\_\_ (PBS-4350, WD)

Ships PARKER, BOWEN, & STIRNI Comdr., G. R. Fish, Chief of Party

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AUTHORITY

This survey was executed in compliance with Supplemental Instructions for Project CS-326, dated 5 March 1948, 23 August 1949 and 12 December 1949.

DATE OF SURVEY

Wire drag operations on this sheet were on 13 and 18 June 1950.

SCOPE

This survey was made to locate and determine the least depth water over Wreck No. 238 (Tanker VARANGER, Item 3 of instructions dated 12 August 1949), and Wreck No. 537 (Freighter CAYRU, Item 49 of instructions dated 12 December 1949).

CONTROL

Shoran distances from two shoran stations located at Townsend Inlet Coast Guard Station (Station TOWN) and on the Ritz-Carlton Hotel at Atlantic City, New Jersey (Station RITZ) were used to control all positions on this sheet. The antenna at TOWN was mounted on top of a portable mast 100 feet high and the antenna at RITZ was mounted on top of the penthouse housing the elevator machinery, elevation about 200 feet.

Station TOWN was located 35.3 meters in true azimuth  $21^{\circ} 09'$  from triangulation station TOWNSEND, 1932. Station RITZ was located 11.5 meters in true azimuth  $172^{\circ} 29'$  from triangulation station RITZ, 1931.

The shoran sets were calibrated in Lower Chesapeake Bay before beginning field work and the corrections obtained have been applied to the shoran readings recorded in the record books.

SURVEY METHODS

Standard dual control methods were used. The positions of the end buoys were plotted from the ship position by using gyro azimuth bearings and the length of the towline in meters. The length of the towline, in meters, used for plotting purposes is the length of ground

wire, in feet, between the end buoy and the Ship plus 100 feet and the sum multiplied by 0.3. Thus, when 800 feet of ground wire is used, the length of towline for plotting purposes is 270 meters.

Tests for lift were made by the Tender using a graduated lead filled pipe, 3/4" x 10 feet long, attached to a graduated airplane cord and suspended from a small float on which a buoy reel is mounted. The pipe was coated with a mixture of white lead and oil to accurately determine the point of contact with the ground wire. Tests for lift were taken as soon as the drag was towing smoothly and repeated as thought necessary to take care of changing conditions.

Changing the depth of drag while the drag is in the water is too cumbersome with a Tender the size of the STIRNI and it was found more expedient to take in, reset and put the drag out again. Due to not being able to reset the drag while underway the initial drag setting had to be made at the most favorable depth which sometimes let the drag pull along the bottom.

The PARKER was used as the guide vessel, the BOWEN as the end vessel, and the STIRNI as the tender.

#### FIELD OPERATIONS

The wreck of the Freighter CAYRU was not found. On the first drag strip the shoran signals were fairly strong and the lines were well controlled. The shoran signals faded about noon and the second drag strip could not be plotted in final position until the line was finished. This poor control while towing the drag and a change of wind and current resulted in a holiday and insufficient overlap between the two drag strips. There was not time on that day to cover the holiday with another drag strip and the control was too unreliable. In lieu of this a dead reckoning line was run through the area and a sonar search made, with negative results.

The wreck of the Tanker VARANGER was located by sonar and a fathometer sounding and position obtained before putting out the drag.

#### RECORDS

Drag settings were based on predicted tides for Sandy Hook, New Jersey, corrected for the vicinity. Actual tides used in completing the smooth records were furnished by the Washington Office for each wreck. All references to effective depths unless otherwise specified, are those indicated in the record books.

Fathometer corrections obtained from bar checks have been applied to all fathometer soundings entered in the record books.

Tide reducers and lifts have been entered to the nearest 0.5 foot and checked. Drag strip diagrams showing the effective depth in integral feet have been drawn and checked in the record books.

#### TIDES

Tide gages were not maintained by this party. Tides used in completing the records were furnished by the Washington Office and are based on Atlantic City and Sandy Hook, New Jersey, tides.

#### OBSTRUCTIONS, CLEARANCES, DISCREPANCIES, ETC.

Special reports for each wreck were submitted to the Director during the progress of the survey and copies were forwarded to the Supervisor, Eastern District. Copies of the reports are attached to and become a part of this report.

An obstruction date sheet showing the minimum hang and maximum clearance, and based on the final corrections, is included herewith and these values take precedence over the values listed in the special reports.

#### RECOMMENDATIONS

The reported position of the Freighter CAYRU is given in whole minutes of latitude and longitude, indicating that the position is approximate only, and the wreck does not appear to have been found by the party searching for wrecks on the U. S. S. GENTIAN. Even though the present wire drag survey leaves a small holiday between the drag strips it is recommended that the sonar search made of this holiday be accepted as a substitute for the wire drag coverage and that no further search be made for this wreck.

G. R. Fish  
Commander, USC&GS  
Comdg. Ships PARKER, BOWEN, STIRNI

OBSTRUCTION DATA SHEET

Survey No. 4350,WD

LOCATION	GENERAL DEPTH FEET	FATH.SDG. ON WRECK FEET	MINIMUM HANG FEET	POSITION NUMBER	MAXIMUM CLEARANCE FEET	POSITION NUMBER	CHARACTER OF OBSTRUCTION	REMARKS
Lat. $39^{\circ}-00'-23''$ <sup>692</sup> (692m) Long. $74^{\circ}-04'-57''$ (1372m)	136 ✓	95 ✓ 1-B ✓	80 ✓	28.4B ✓	76 ✓	31-38B ✓	Wreck #238 ✓ Item #3 ✓	Tanker ✓ VARANGER ✓
Lat. $39^{\circ}-05'-00''$ Long. $73^{\circ}-47'-00''$	102-120 ✓				102-98 ✓	1-36B ✓ 37-66A ✓	Wreck #537 ✓ Item #49 ✓	No obstruction found ✓

STATISTICS FOR SHEET NO. \_\_\_\_\_ (PBS-WD-4350)  
Ships PARKER, BOWEN, STIRNI (Project CS-326)

<u>Date</u>	<u>Day Letter</u>	<u>Stat.M. Dragged</u>	<u>Number Positions</u>	<u>No. H.L.</u>	<u>Soundings Fathometer</u>
13 June	A	6.8	66	—	—
18 June	B	3.4	38	—	2
Totals		10.2	104	—	2

Total square statute miles of area dragged, 9.8 square statute miles.



General Delivery, Atlantic City, N. J.

20 June 1950

To: The Director  
U. S. Coast & Geodetic Survey  
Washington 25, D. C.

Subject: Special Report on Wreck No. 537, freighter CAYRU, 5192 tons.

This wreck is Item 49 of Supplemental Instructions for Project CS-326, dated 12 December 1949.

The wreck of the CAYRU, a freighter of 5192 tons sunk in 1942, was reported in latitude  $39^{\circ} 05' 00''$ , longitude  $73^{\circ} 47' 00''$ . 98-102

An area extending out about 1-1/4 miles from the reported position of this wreck was cleared by wire drag set at effective depths of 77 and 75 feet, except where the drag bumped bottom and for the holiday and area of insufficient overlap mentioned below. 99-102

Due to intermittent shoran control and changing and variable currents the second drag strip was not adequately controlled at the time the strip was wire dragged and there is a holiday between the two drag strips about 5000 feet long and with a maximum width of 400 feet. There is another place, about 1000 feet long where the overlap is insufficient.

After completing the second drag strip a sonar search was made down the line between the two drag strips with negative results. There was not time and control was not available for another drag strip on the same day.

Due to the difficulty of securing shoran control at this distance the wreck was not visited again to wire drag the holiday between the two drag strips. It is only an occasional day when shoran signals will come in at the distances and shoran antenna heights involved with this wreck (51-3/4 miles from one station, 42 miles from the other station).

Since this wreck was apparently not located by the sonar search party operating in connection with the U.S. Navy and the U.S. Coast Guard, and since I feel that the area has been adequately covered by the present

survey, I recommend that the wreck symbol be deleted from the charts.

Depths are based on predicted tides for the vicinity.

G. R. Fish  
Commander, USCGC  
Comdg. Ships PARKER, BOWEN, STIRNI

cc: Supervisor, Easter District

Ships PARKER, BOWEN, STIRNI  
General Delivery  
Atlantic City, N. J.

20 June 1950

To: The Director  
U. S. Coast & Geodetic Survey  
Department of Commerce Bldg.  
Washington 25, D. C.

Subject: Special Report on Wreck No. 238, Tanker  
VARANGER

This wreck is Item 3 of Supplemental Instructions for Project CS-326, dated 23 August 1949.

The wreck of the tanker VARANGER is located in latitude  $39^{\circ}00'23''$ , longitude  $74^{\circ}04'57''$ . The wreck was located by sonar.

A wire drag set at an effective depth of ~~79.5~~<sup>80</sup> feet hung the wreck.

A wire drag set at an effective depth of ~~75.5~~<sup>76</sup> feet cleared the wreck.

Depths are based on predicted tides for the vicinity.

It is recommended that a clear depth of ~~75.0~~<sup>6</sup> feet be charted for this wreck.

1/2 WK

G. R. Fish  
COMDR, USC&GS  
Comdg. Ships PARKER,  
BOWEN, STIRNI

cc: Supervisor, Eastern District

RHC

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

21 June 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 3  
volumes of sounding ~~XXXXXXXXXX~~  
and wire drag records for

~~XXXXXXXXXX SHEET~~ FE NO. 5 1951

Locality New Jersey Coast, Atlantic Ocean

Chief of Party: G. R. Fish in 1950  
Plane of reference is mean low water, reading  
4.3 ft. on tide staff at Atlantic City  
15.6 ft. below B. M. 32 (1922)

3.9 ft. on tide staff at Sandy Hook  
9.3 ft. below B. M. 2 (1923)

Height of mean high water above plane of reference is as follows:

Atlantic City = 4.1 feet  
Sandy Hook = 4.6 feet

Condition of records satisfactory except as noted below:

*E. C. McKay*  
*Section*  
Chief, ~~Division of Tides and Currents.~~

Hydrographic Surveys (Chart Division)

WD

HYDROGRAPHIC SURVEY NO. FE. No. 5, 1951

Records accompanying survey:

Boat sheets <sup>2</sup>.....; sounding vols. <sup>1</sup>.....; wire drag vols. <sup>2</sup>.....;  
 bomb vols. ....; graphic recorder rolls ....;  
 special reports, etc. <sup>1</sup> Descriptive Report.....  
 .....

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

Number of positions on sheet	.....	104
Number of positions checked	.....	12
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	0
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	.....0
Junctions	Time	.....0
Verification of soundings from graphic record	Time	.....1

Verification by *[Signature]* ..... Total time <sup>14</sup>..... Date <sup>7-9-52</sup>.....  
 Reviewed by *[Signature]* ..... Time <sup>8</sup>..... Date <sup>7-10-52</sup>.....

REVIEW OF FIELD EXAMINATION 5, 1951

Project No. CS-326

The Field Examination was made to locate and determine the least depths over wrecks which are designated item 49 of Supplemental Instructions dated 12 December 1949 and item 3 of Supplemental Instructions dated 23 August 1949.

The wreck listed as item 3 of Supplemental Instructions dated 23 August 1949, was found.

The wreck listed as item 49 of Supplemental Instructions dated 12 December 1949 was not found. The recommendation by the field party to delete wreck symbol from the charts is concurred in by the reviewer. (See attached letter to the Director, dated 20 June 1950)

The results of the wire-drag examinations are tabulated on the obstruction sheet of the Descriptive Report and are plotted on the attached 2 sections of the boat sheet.

A comparison between H-6345 (1938) and the present wire-drag work shows the effective wire-drag depths to be in harmony with depths on H-6345.

This work was applied to chart 1108 (print date 10-1-51) prior to verification; the charted information is correct.

The Descriptive Report and attached correspondence adequately cover all other matters pertaining to this examination. No further discussion is considered necessary.

Reviewed by: I. M. Zeskind  
10 July 1952

Inspected by: R. H. Carstens

Wreck D Scale  
C Scale

ITEM 3  
WRECK 2 38

Bottom  
ON  
D  
SCALE

C  
Scale  
0940  
6/18/50  
Parker  
Pos 1 B

Bottom  
D Scale

D  
Scale

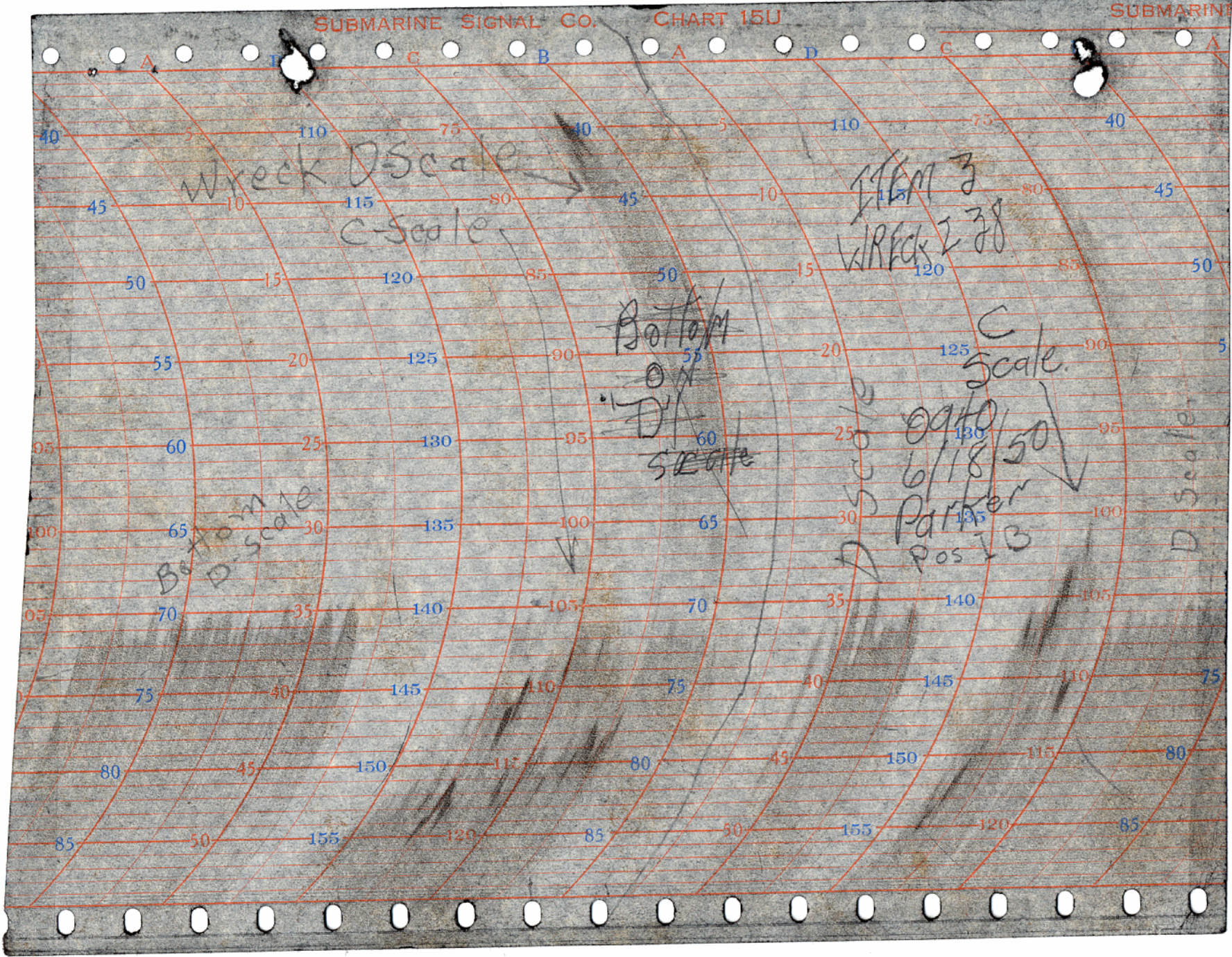
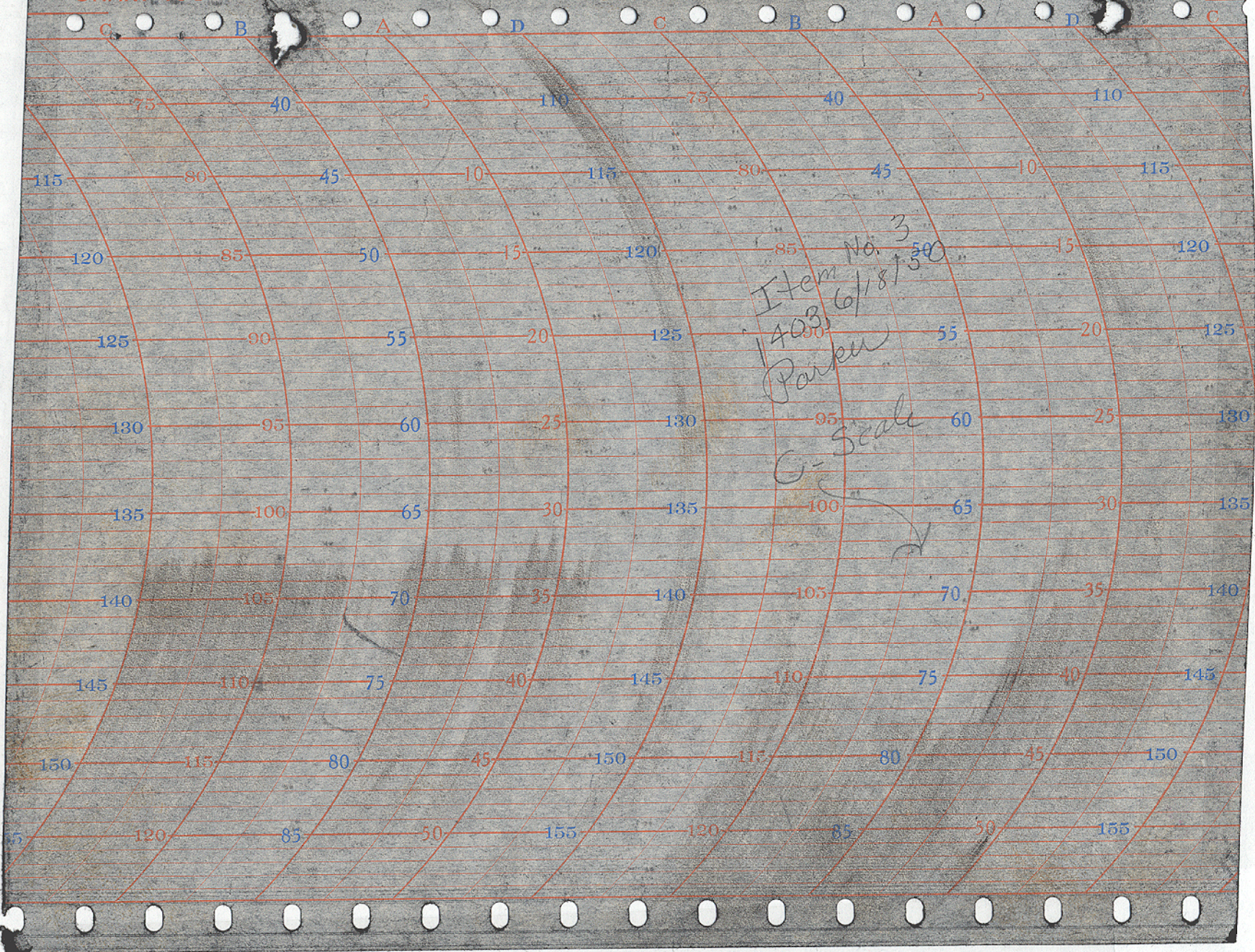


CHART 15U

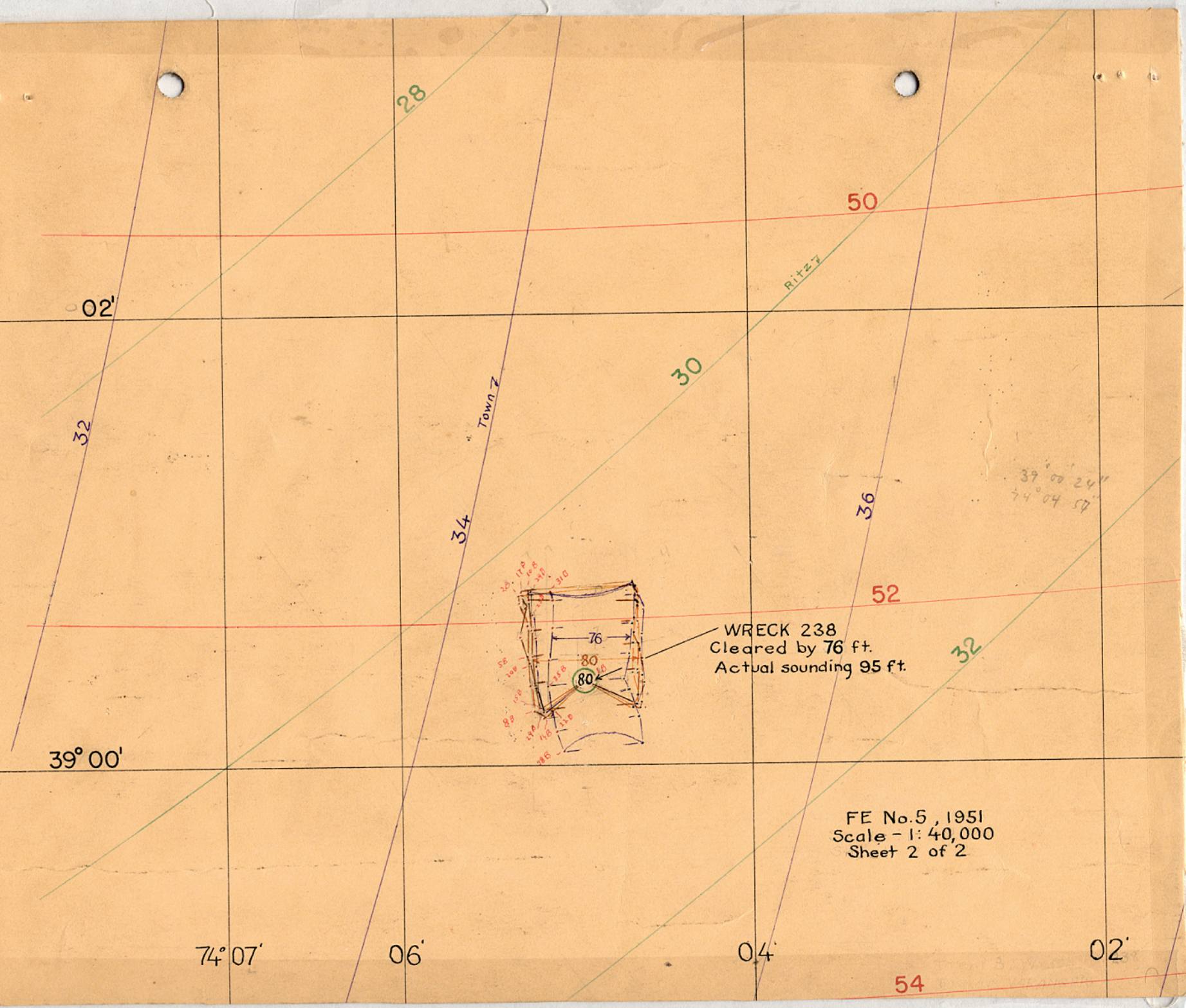
SUBMARINE SIGNAL CO.

CHART 15U









WRECK 238  
 Cleared by 76 ft.  
 Actual sounding 95 ft.

FE No.5, 1951  
 Scale - 1:40,000  
 Sheet 2 of 2

39° 00' 24"  
 74° 04' 57"

