

# FE 92

## WIRE DRAG

FE 92  
WIRE DRAG

Diagram No. 1219-2

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-4649-WD.....  
Office No..... FE-92.....

#### LOCALITY

State ..... Delaware--New Jersey.....  
General Locality ..... Atlantic Ocean.....  
Locality ..... Off Delaware--New Jersey.....  
..... Coast.....

19 49

#### CHIEF OF PARTY

R.H. Tryson, Jr.,.....

#### LIBRARY & ARCHIVES

DATE ..... May 9, 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.1 1951

# FE No.1 1951

FE-92

Diag. Cht. No. 1219-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey WIRE DRAG

Field No. PBS-4649-WD Office No. \_\_\_\_\_

### LOCALITY

State Delaware, New Jersey

General locality Atlantic Ocean

Locality Off Delaware-New Jersey Coast

1949

CHIEF OF PARTY

Raymond H. Tryon, Jr.

LIBRARY & ARCHIVES

DATE MAY 9 1951

B-1870-1 (1)

FE No.1  
1951

DESCRIPTIVE REPORT  
TO ACCOMPANY

WIRE DRAG SURVEY \_\_\_\_\_

(Field No. 4649 WD)

Ships PARKER, BOWEN, STIRNI

Raymond H. Tryon, Jr.  
Chief of Party

AUTHORITY

This survey was executed in compliance with Supplemental Instructions for Project CS-326 dated 8 April 1949.

DATE OF SURVEY

(L. 552 (1949))  
Wire-drag operations were between 26 September and 2 October 1949

SCOPE

The survey was made in order to locate and determine the least depths over items contained in paragraphs 39 and 40 of the Supplemental Instructions.

The item contained in paragraph 41 of the instructions was laid out to be accomplished on this survey. Its location was at the extreme range of the Shoran stations and reception was not good enough during the time available for the survey to complete the item.

CONTROL

Shoran distances were used as control for all work on this survey.

Station WER was located on TOWER No. 7 at Fort Miles, Delaware. The geographic position of this tower as furnished by the Washington Office is:

Latitude      38° - 46' - 1059.2 meters  
Longitude     75° - 05' - 852.4 meters

The antenna at this station was mounted on top of and at the center of the tower. Its height was approximately 119 feet above sea level.

Station RAT was at triangulation station STRATHMERE 1932. A standard shoran antenna mast fifty feet long was mounted on a 4'x 4'x 20' stand built directly over the station. This made the antenna height 70 feet above sea level.

The Shoran sets were calibrated in Chesapeake Bay at the beginning of the field season. Corrections have been applied to the observed readings to make the zero settings agree with the calibrated values.

#### SURVEY METHODS

Standard dual control methods were used. Azimuths to the Near and the Far buoys were determined by the azimuth circles on gyro repeaters mounted on top of the pilot houses of the Guide and End Launches. On several of the days when the Gyro Compass on one or the other of the Launches were inoperative bearings were taken on the other vessel and from this bearing and the one to the end buoy a relative bearing was computed and the Near or Far buoy position plotted.

Standard 100 foot lengths of ground wire were used for the towline and the distance from the shoran mast to the end of the bridle was added to determine the total length of the towline. The distance from the shoran mast to the end of the bridle was about 60 feet. The following entries were made for length of towline.

<u>Length of Ground Wire Used in Feet</u>	<u>Length of Towline Entered in Meters</u>
300	120
400	150
500	180
600	210
700	240
800	270
900	300
1000	330

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. This line was attached to a small buoy reel mounted on a small float. 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.

Due to the height of the freeboard on the tender it was not feasible to reset the uprights after the drag was in the water. Due to this factor it was sometimes necessary to tow the drag along the bottom in the shoaler water in order to have sufficient depth of drag in the deeper water. Very little trouble was had when the ends of the drag were aground but it is difficult to tow the middle of the drag up more than a moderate slope.

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

#### FIELD OPERATIONS

As indicated on the obstruction data sheet, one of the two wrecks searched for was found.

Long drags to cover the areas with a minimum number of steps were set to effective depths to clear the charted soundings of the areas as shown on chart 1109. Due to uneven bottom, the drag grounded at times but the strip was continued by pulling the drag along the bottom unless a definite hang was indicated.

At the beginning of every drag strip, every effort was made to get the towing ships abeam and to get even tension on the drag before the line was begun.

#### RECORDS

Drag settings were based on predicted tides for Sandy Hook, New Jersey, corrected for time and height as applied to the area. Actual tides used in the completion of the smooth records were based on the tides for Sandy Hook and Lewes, Delaware, and were furnished this party by the Washington Office. All references to effective depths, unless otherwise specified, are those indicated 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. Hourly heights from the Sandy Hook, New Jersey and Lewes, Delaware tide gages were furnished by the Washington Office and used to process the records.

OBSTRUCTION, CLEARANCES, DISCREPANCIES, ETC.

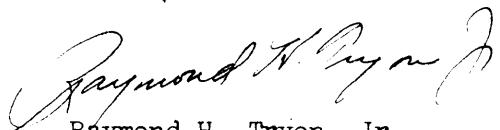
Special reports for each wreck were submitted to the Director during the progress of the survey and copies of these reports were forwarded to the Supervisors of the Eastern and Southeastern Districts. Copies of these reports are attached to and become a part of this report.

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

Your attention is invited to the drag strips for Wreck No. 833. This wreck fouled the drag badly causing the loss of one intermediate buoy on two of the strips. These buoys were subsequently recovered. The wreck was first hung on strip pos. 1 - 17B, effective depth 88 feet one intermediate buoy lost. This intermediate buoy was recovered on strip pos. 2 - 6C, effective depth 64 feet when the drag was hung on the buoy upright and so pulled clear. An intermediate buoy was again lost on strip, pos. 14 - 17C, at effective depth of 74 feet. The buoy was recovered on the next strip pos. 18 - 21C, effective depth 68 feet. The drag however, on this strip was not hung on the lost buoy upright, but on a portion of the wreck. This was proved when the tender sighted the buoy on the surface well inside the "V" where it was subsequently recovered.

RECOMMENDATIONS

It is recommended that the work on the two items covered by this report be classified as complete.



Raymond H. Tryon, Jr.  
Lt. Comdr., USC&GS  
Comdg. Ships PARKER,  
BOWEN, STIRNI

OBSTRUCTION DATA SHEET  
Survey No. 4649, WD

LOCATION	GENERAL DEPTH FEET	MINIMUM HANG FEET	POSITION NUMBER	MAXIMUM CLEARANCE FEET	POSITION NUMBER	CHARACTER OF OBSTRUCTION	REMARKS
38° - 52' + 000 meters	102	68	<del>18-21C</del> 200	<del>65</del>	22-29C	Wreck No. 833	Wreck No. 834 (44)
74° - 23' + 342 meters			1C*				
38° - 49' + 000 meters	66	--	---	55-58	1-31A	See Par. 39	Area cleared
74° - 31' + 000 meters				59-60	32-56A	Instructions	No obstruction found.

\* Detached position over portion of wreck

STATISTICS FOR SHEET NO. \_\_\_\_\_ (PBS-4649, WD)  
 Ships PARKER, BOWEN & STIRNI (Project CS-326)

<u>Date</u> 1949	<u>Day</u> <u>Letter</u>	<u>Stat. Miles</u> <u>Drag</u>	<u>Number</u> <u>Positions</u>	<u>No. H.L.</u> <u>Soundings</u>	<u>No. Fath.</u> <u>Soundings</u>
Sept. 26	A	5.6	59		
Sept. 29	B	1.5	17		2
Oct. 2	C	2.8	29		
			<u>105</u>		

Total Area dragged 10.8 Square Statute Miles



418 Post Office Bldg., Norfolk, Virginia

18 October 1949

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

Subject: Special report on Wire-drag investigation of wreck No. 833.

This investigation is covered by paragraph 40 of Supplemental instructions for project CS 326 dated 8 April 1949.

The wreck was located at:-

Latitude 38°- 52.00  
Longitude 74°- 23.25

2834(49)

A drag strip set at an effective depth of 60.0 feet hung the wreck.

A drag strip set at an effective depth of 67.0 feet cleared the wreck.

Predicted tides for the area were used to compute the effective depths.

The recommended charting depth is 67 feet.

66' hang  
65' cleared depth  
Changed to 65 by review  
Jmud. 2/20/52

Raymond H. Tryon, Jr.  
LCDR, USNCRS  
Comdg. Ships PARER, BOWEN & STIEMI

cc: Supervisor, Eastern District  
Supervisor, SE District

c/o Postmaster, Cape May, New Jersey

28 September 1949

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

Subject: Special Report on Wire Drag Investigation of Wreck **SAFARI**

This wreck is covered by paragraph 39 of the supplemental instructions of project CS-326 dated 8 April 1949.

An area of 8.4 square statute miles was dragged centered at latitude  $38^{\circ} - 49'$ ; longitude  $74^{\circ} - 31'$ , with effective depths of 56 and 59 feet.

38

31

8  
ON ORIGINAL DOCUMENT

The entire area was found to be clear.

Predicted tides were used to compute depths.

*L. 784(49)*

Raymond H. Tryon, Jr.  
LCMR, USCGAS  
Comdg. Ships PARKER, BOWEN & STERNI

cc: Supervisor, Eastern District  
Supervisor, SE District



USCGS Ships PARKER, BOWEN, & STIRMI, Room 418,  
Post Office Building, Norfolk, Virginia.

19 October 1949

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

Through: Supervisor, Eastern District

Subject: Floating Aids to Navigation - Project CS-326

The location of the floating aids to navigation as listed below were determined when this party was working on Field Sheet PBS-4649 SD:

Description	Lat. & Long.	Bottom Character	Depth Feet
Five Fathom Bank Lightship	38-47.09 74-35.05		
Station Buoy for Five Fathom Bank Lightship	38-47.58 74-35.16	crs bn S	61
Twenty-One-Foot Shoal Buoy 2 TS	38-50.38 74-37.74	crs bn S brk sh	31
Five Fathom Bank Buoy FTB	38-53.91 74-38.01	crs gy S, C	25

Depths reduced to MLW and based on observed tides.

Raymond H. Tryon, Jr.  
LCDR, USCGS  
Comdg. Ships PARKER, BOWEN, & STIRMI

cc: Supervisor, Eastern District (2)

GEOGRAPHIC NAMES

Survey No. F.E. No.1, 1951  
W.D.

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Atlantic Ocean</u>			(for title)								1
<u>New Jersey</u>			( " " )								2
<u>Delaware</u>			( " " )								3
											4
											5
											6
											7
											8
											9
											10
<u>Sandy Hook, N.J.</u>			(tide gage)								11
<u>Lewes, Delaware</u>			( " " )								12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined  
in red are approved

5-29-51  
L. Heck



REVIEW OF FIELD EXAMINATION NO. 1, 1951

This Field Examination was made to locate and determine the least depths over wrecks which are designated Items numbered 39 and 40 of Supplemental Instructions dated 8 April 1949.

Wreck SATARTIA (Item 39) was <sup>not</sup> found. Wreck 833 (Item 40) was ~~not~~ found.

Revisions  
made by  
R.H. Carstens  
2/20/52  
See reports  
in D.R.

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

The work was applied to Chart 1219 dated 11-27-50 prior to verification. The least depth of 67 ft. charted on Wreck 833 in lat. 38° 52.0', long. 74° 23.3', was revised <sup>cleared by</sup> to 65 ft. during verification and review.

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

7-18-51

I. M. Zeskind

Inspected by: R. H. Carstens

RHC

### TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Tides~~

23 May 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 3  
volumes of sounding ~~records~~ and Wire Drag records

for FE NO 1, 1951

~~HYDROGRAPHIC SHEET~~

Locality New Jersey Coast and Delaware Bay Entrance

Chief of Party: R. H. Tryon in 1949  
Plane of reference is mean low water, reading  
3.9 ft. on tide staff at Sandy Hook  
9.3 ft. below B. M. 2 (1923)

3.0 ft. on tide staff at Lewes, Delaware  
13.3 ft. below B. M. 36 (1947)

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

Sandy Hook = 4.6 feet  
Lewes = 4.2 feet

Condition of records satisfactory except as noted below:

*E. C. McKay*  
*Section*

Chief, ~~Division of Tides and Currents~~

74° 24'

22'

WRECK 833  
Cleared by 65 ft.

least depth 66'  
cleared by 65'  
7PS

26

52'

28

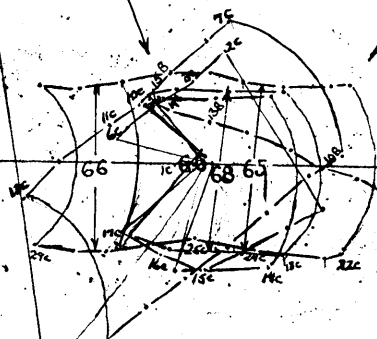
40

38

38° 50'

30

Fe. No. 1-1951





24

32'

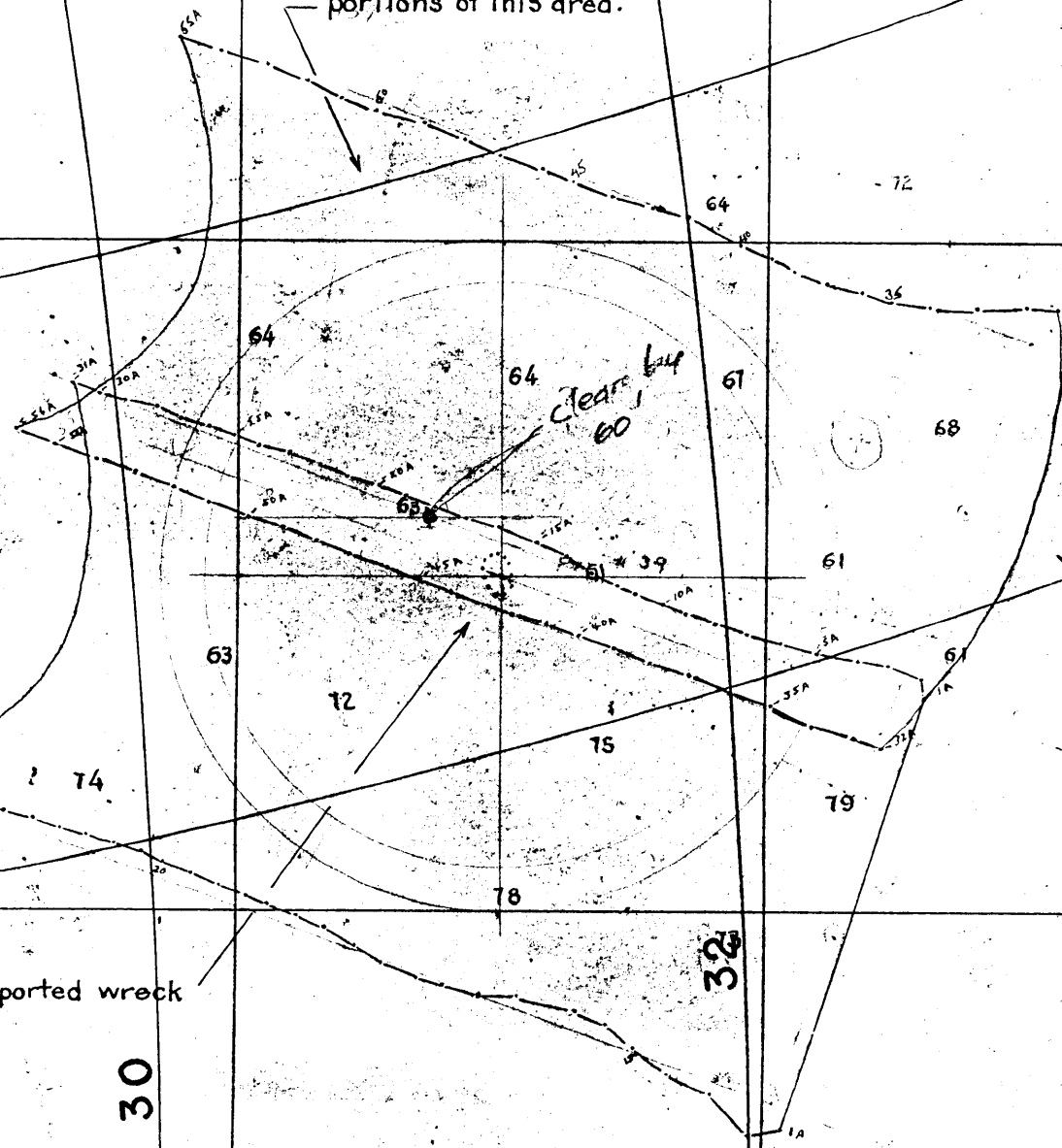
74° 30'

34

WRECK ITEM 39  
No obstruction found.  
Drag touched bottom over  
portions of this area.

26

38° 50'



Location of reported wreck

30

Fe. No. 1-1951

30

