

FE 111

WIRE DRAG

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WIRE DRAG

Diagram No. 1222-3

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.
Office No..... FE-111

LOCALITY

State Virginia
General Locality .. Lower Chesapeake Bay
Locality Thimble Shoal Channel

1953

CHIEF OF PARTY
F.B. Quinn

LIBRARY & ARCHIVES

DATE March 18, 1953

☆ 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 1953

FE No.1 1953 WIRE DRAG

FE-III

Diag. Cht. No. 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. Office No. F.E.No.1 1953

LOCALITY

State Virginia

General locality Lower Chesapeake Bay

Locality Thimble Shoal Channel

19 53

CHIEF OF PARTY

F. B. Quimm

LIBRARY & ARCHIVES

DATE March 18, 1953

B-1870-1 (1)

FE No.1
1953
WIRE DRAG

SPECIAL WIRE DRAG SURVEY

LOWER CHESAPEAKE BAY -- VICINITY OF THIMBLE SHOAL CHANNEL

Guide Vessel: Ship STIRNI. End Vessel: Ship BOWEN. Tender: Launch No. 102.

Dates of Survey:

27 January -- 6, 13, 16, 17 and 19 February -- 1953.

Authority for Survey:

- (a) Director's letter ^{to the} Supervisor, Southeastern District, 22/MEK, dated 16 December 1952.
- (b) Southeastern District Supervisor's letter to Commanding Officer, Ship STIRNI, dated 29 December 1952.
- (c) Southeastern District Supervisor's oral instructions to Commanding Officer, Ship STIRNI, subsequent to authority (b).

Project:

To determine the existence or ~~non-existence~~ of three spots reported shoaler than general depths in lower Chesapeake Bay near Thimble Shoal Channel, two of which were charted and the third reported by Army Transportation Corps personnel.

These spots appear in areas designated in this survey as AREA "A", AREA "B", and AREA "C".

General Comment:

Weather and sea conditions prevented an attempt to start the drag on 26 January. Actual work was begun on 27 January and carried on as weather permitted on six days between that date and 19 February.

A 1500-foot drag with a strip width of 1200 feet was used in Area "A" because of the narrow working space between the channel and the shoal north of it. Five 300-foot sections were set out with two end buoys and 4 intermediate buoys. Standard buoys, toggles, ground wire, upright wire, and fittings were used throughout. The testing rod was a 10-foot pipe suspended on standard upright wire from a float consisting of four toggles crated together and carrying a buoy head to regulate the length of upright. The testing rod was set two feet deeper than the ground wire and painted with a mixture of white lead and diesel oil for each test. Each towline consisted of three sections of ground wire shackled to a heavy line passed through a chock at the forward end of the towing vessel wheelhouse. The effective length of each towline was 116 meters.

The Ship BOWEN carried and laid out all drag equipment because the Ship STIRNI is not fitted to handle this equipment. The BOWEN used its auxiliary (third) engine throughout the major part of the survey. The STIRNI does not have such an engine and used a main engine intermittently.

On the last day of the survey, the drag was lengthened to seven sections giving a total length of 2100 feet and a strip width of 1900 feet.

(2)

*margin during the run
was the problem survey vessel in W.O.
redlined table sheet.*

Only predicted tides for Old Point Comfort were used in the field and the work forwarded with this report to the Supervisor, Southeastern District.

Comments on Surveyed Areas:

AREA "A"

An obstruction with a least depth of 22 feet was reported in Notice to Mariners No. 52 (29 December 1951), located about 100 yards 345° from Thimble Shoal Channel lighted buoy No. 8.

An area 1-3/4 nautical miles long and 0.4 mile wide, parallel to and along the north edge of the channel, was dragged with effective depths of 27 to 29 feet. The indicated spot was passed over with 28 feet effective, and the immediate vicinity of buoy "8" was covered by wrapping the drag around the buoy from both the northeast and the west-northwest.

The reported ^{depth} 22-foot was disproved and may be removed from the chart. No other obstructions were found in the area covered.

AREA "B"

Army Transportation Corps personnel reported to the Southeastern District Supervisor that they had stirred up mud on several occasions at latitude 36°59.0', longitude 76°12.65'.

An area 1-2/3 nautical miles long and 0.4 to 0.5 mile wide was dragged with effective depths from 14 to 21 feet. Several groundings and temporary hang-ups occurred, and the drag depths were decreased to clear them. No depths shoaler than the general depths were found by the tender using both handlead and fathometer, and by the BOWEN when the drag was picked up vertically from hang-ups.

The clearance depths shown in the tabulation in this report should be charted. The area falls within the limits of a fishtrap area, and has been used as a dumping ground. Debris consisting of rubber hose, junk and short pieces of wood were picked up with the drag.

logged

AREA "C"

A sunken wreck marked "PA" on the chart was investigated at latitude 36°58.02', longitude 76°13.15'.

This spot was covered from four directions; NE to SW, SW to NE, ESE to WNW, and WNW to ESE, with effective depths ranging from 17 to 24 feet. It was cleared by 23 feet effective in general depths of about 23 feet. Four temporary hang-ups, some due to dragging along the bottom, were reported by the tender or seen from the towing vessels. They are tabulated later in this report.

The sunken wreck symbol should be removed from the charts. This area is also part of the fishtrap area. Extension of the survey to the westward was prevented by a line of fish stakes 100 yards west of the surveyed area, charted mooring buoys lie to the south of the surveyed area.

Tabulation of Hang-ups and Clearances:

(Also shown graphically on Boat Sheet and Effective Depth Diagram)

AREA "B"

	<u>Latitude</u>	<u>Longitude</u>	<u>Hung up at</u> (feet)	<u>Cleared at</u> (feet)	<u>Remarks</u>
logged 36	59.08 ^{4.6"}	76 12.70 ^{12.0"}	14	14	Temporary hang
logged 36	58.55 ^{33"}	76 12.218 ^{10.9"}	21	14	
36	58.55 ^{33"}	76 12.25 ^{15.0"}	21	14	* Temporary hang @14'
logged 36	58.55 ^{33"}	76 11.80 ^{13.0"}	18	14	Temporary hang @15'
36	58.54 ^{6 33.6"}	76 11.58 ^{86 51.6"}	15	14	Temporary hang @15
logged 36	58.48 ^{21.7"}	76 11.50 ^{30.0"}	18	15	

* Probably on toggle marked buoy

AREA "C"

36	58.28 ⁵	76 13.12	18	--	Two buoys noted by BOWEN very briefly towing under
26 36	58.05	76 13.2	23	22	} Not plotted. Fall in gener- al depths of 22-23 ft.
36	58.1	76 12.9	23	22	
36	57.88	76 12.63	23	22	

Brief hang noted only by tender

Statistics:

5 Volumes (2 Guide, 2 End, 1 Tender)
17.7 Statute miles
2.44 Square statute miles

Conclusion:

A wire drag survey of the complete area around Areas "B" and "C" and westward to the shoals would probably turn up more debris and some fish stake stubs.

Respectfully submitted,



F. B. Quinn
Commander, USC&GS
Commanding Ship STIRNI

25 February 1953.

C O P Y

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS:

22/MEK
D-2-SE

TELEGRAPH ADDRESS:

F A C S I M I L E ADDRESS:

16 December 1952

To: Supervisor, Southeastern District
U. S. Coast and Geodetic Survey
418 U. S. Post Office Building
Norfolk 10, Virginia

Subject: Reported Obstruction—Thimble Shoal, Chesapeake Bay

1. An obstruction, with a least depth of 22 feet, has been reported lying north of Thimble Shoal Channel, Chesapeake Bay. Notice to Mariners No. 52 dated 29 December 1951 states that this reported obstruction is located about 100 yards, 345°, from Thimble Shoal Channel lighted buoy No. 8.

2. You will please make arrangements to have the area of the reported obstruction wire-dragged as soon as practicable.

/s/ R. F. A. Studds

Director.

cc. Division of Charts
Hydrography Section

C O P Y

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: Southeastern District Headquarters
Room 418 U. S. Post Office Building
Norfolk 10, Virginia

TELEGRAPH ADDRESS:

WIRE ADDRESS:

29 December 1952

To: Commanding Officer
USC&GS Ship STIRNI
418 Post Office Bldg.
Norfolk 10, Virginia

Subject: Reported Obstruction - Thimble Shoal

Attached is a copy of a letter to me from the Director dated 16 December 1952.

In connection with this request, you will please make arrangements to wire-drag the area specified in conjunction with the Ship BOWEN. You are also authorized to use the Ship WAINWRIGHT, should you need the services of a third vessel.

It is requested that you give this matter your immediate attention so that the work can be effected before the end of January. This office will construct the necessary boat sheets for you on application. It is suggested that you come in and have a conference with me concerning this matter before you decide on boat sheet limits, as there is one other small job in the immediate area that should be looked into at the same time.

Concerning this obstruction north of Thimble Shoal Channel, I tried to get some further information from the Coast Guard. The Notice to Mariners in question was put out as a result of a telephone message which reached them. They have, however, no record as to the exact date or from whom the telephone message came.

/s/ Earle A. Deily
Earle A. Deily
Comdr. USC&GS
Supervisor, SE Dist.

EAD:m

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF CHARTS SURVEY:~~

5 March 1953

Division of Charts: R. H. Carstens

Plane of reference approved in 5
volumes of sounding ~~records for~~ and wire drag records for

FE No. 1 1953

~~HYDROGRAPHIC SHEET~~
~~XXXXXXXXXXXX~~

Locality Thimble Shoal Channel, Chesapeake Bay, Virginia

Chief of Party: F. B. Quinn)
 H. O. Fortin) in 1953
Plane of reference is mean low water
ft. on tide staff at
ft. below B. M.

NOTE: Tide reducers were verified by means of tide predictions
at Old Point Comfort.

Condition of records satisfactory except as noted below:

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

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F..E. No. 1, 1953 Wire Drag

Records accompanying survey:

Boat sheets ..²...; sounding vols.; wire drag vols. 4....;
 bomb vols.; graphic recorder rolls;
 special reports, etc. 1 Tender Volume; 1 Descriptive Report; 4 Tide Correction S
 Sheets; 1 Effective Depth Diagram;

The following statistics will be submitted with the cartog-
 rapher's report on the sheet:

Number of positions on sheet
Number of positions checked ²⁰
Number of positions revised ⁵
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 ⁰

Verification by *J. J. Jeske* Total time ²² Date ^{3/10/53}

Reviewed by *J. J. Jeske* Time ⁶ Date ^{3/11/53}

The Field Examination was made to determine either the existence or non-existence of three spots reported to be shoaler than charted general depths in their respective areas as follows:

1. Area A. The Obstruction (22 ft. rep.) charted in lat. $36^{\circ} 59.13'$, long. $76^{\circ} 08.93'$, from H.O. N. to M. 52, (1951).
2. Area B. Stirring of mud in lat. $36^{\circ} 59.00'$, long. $76^{\circ} 12.65'$, reported by the Army Transportation Corps.
3. Area C. The wreck charted in lat. $36^{\circ} 58.05'$, long. $76^{\circ} 13.15'$, from H.O. N. to M. 40, (1951).

The results of the Field Examination are described in the Descriptive Report and are plotted on the accompanying 2 sections of boat sheet. The results are summarized as follows:

1. Area A. The 22 ft. reported obstruction was disproved and should be deleted from the chart.
2. Area B. The wire drag set to an effective depth of 14 ft. cleared the area where the shoal was reported to be. However, the wire-drag hung up at 14 ft. effective depth about 150 meters northwestward and was cleared by a wire-drag whose effective depth was 14 ft. logged
3. Area C. The wreck was cleared by a wire drag set to an effective depth of 23 ft. in general depths of 23-24 ft. The wreck symbol, therefore, should be deleted from the chart.

The hang-ups and clearances obtained during the investigations of the ~~above~~ mentioned spots are tabulated on page 3 of the Descriptive Report.

The effective depths do not conflict with depths from H-7750 (1948-50) except for minor differences attributable to uncertainties in lift and tidal information.

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

Reviewed by: I. M. Zeskind
12 March 1953

Inspected by: R. H. Carstens

AREA A

76° 10'

09'

08'

FENo.1, 1953
Scale 1:20,000
Sheet 1 of 2

36°59'

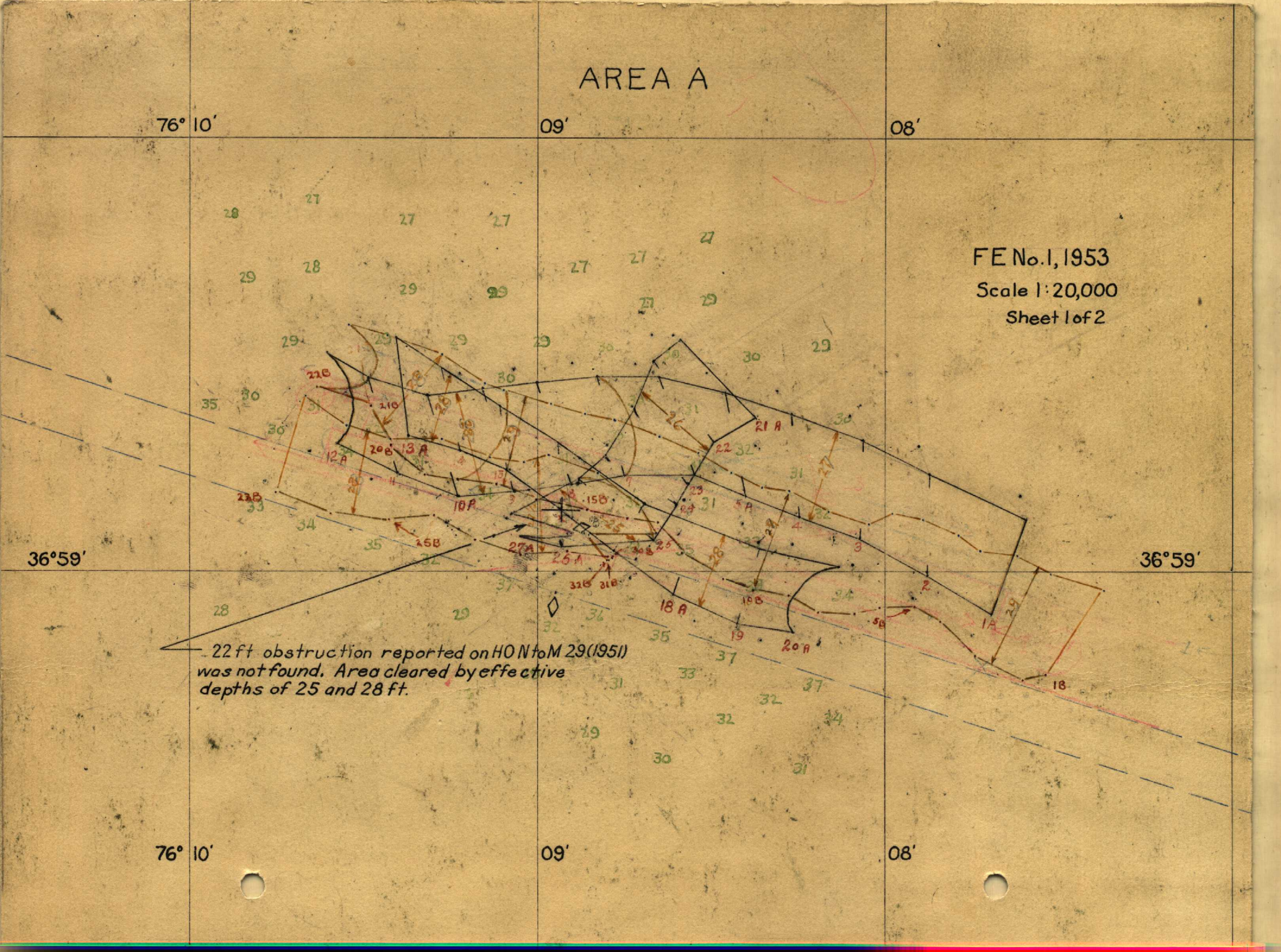
36°59'

22 ft obstruction reported on HO N to M 29 (1951)
was not found. Area cleared by effective
depths of 25 and 28 ft.

76° 10'

09'

08'



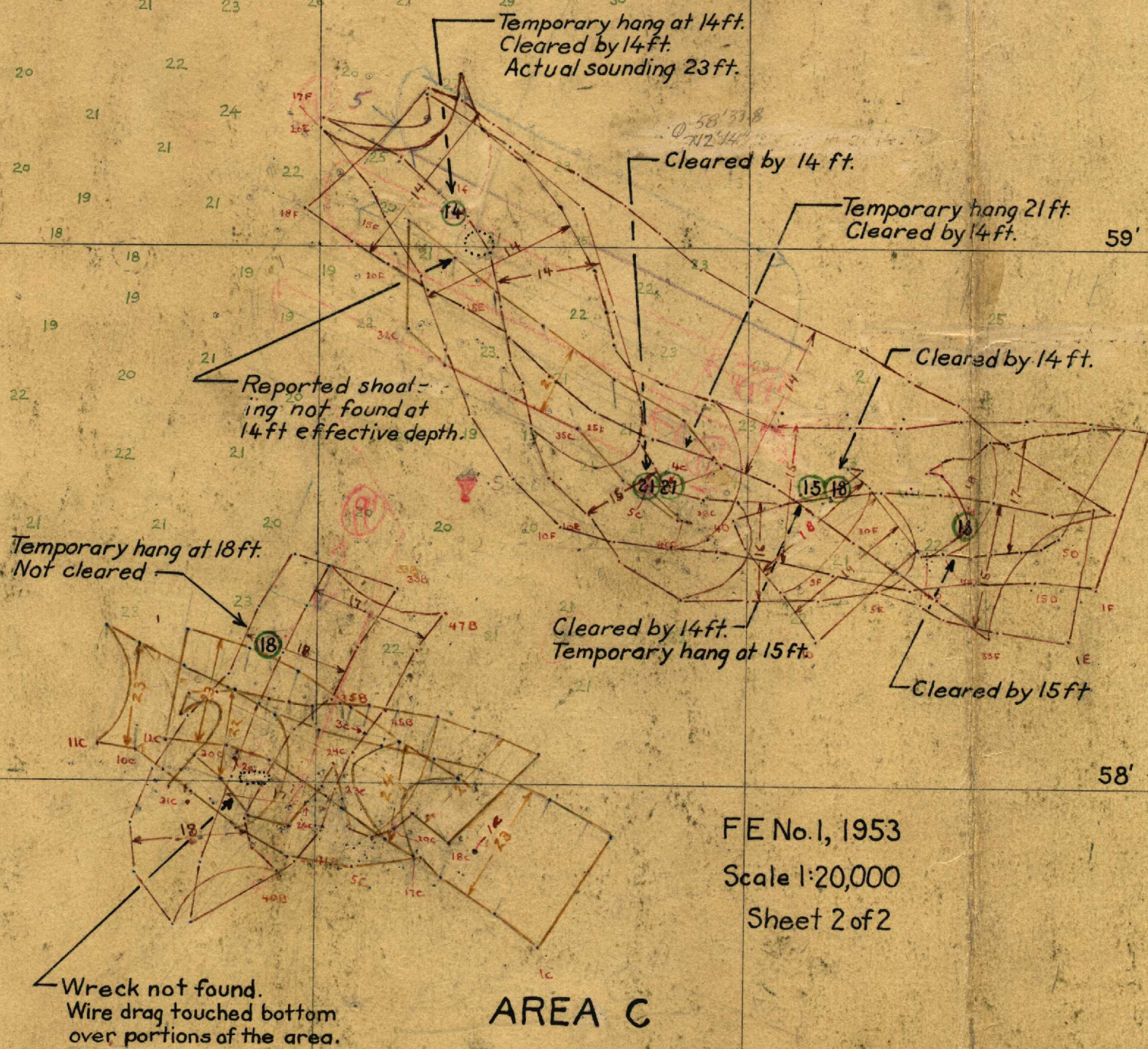
14'

13'

76° 12'

37° 00' 11"

AREA B



FE No. 1, 1953

Scale 1:20,000

Sheet 2 of 2

14'

F.E. No. 1, 1953

13'

76° 12'

57'

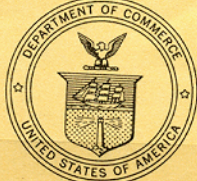
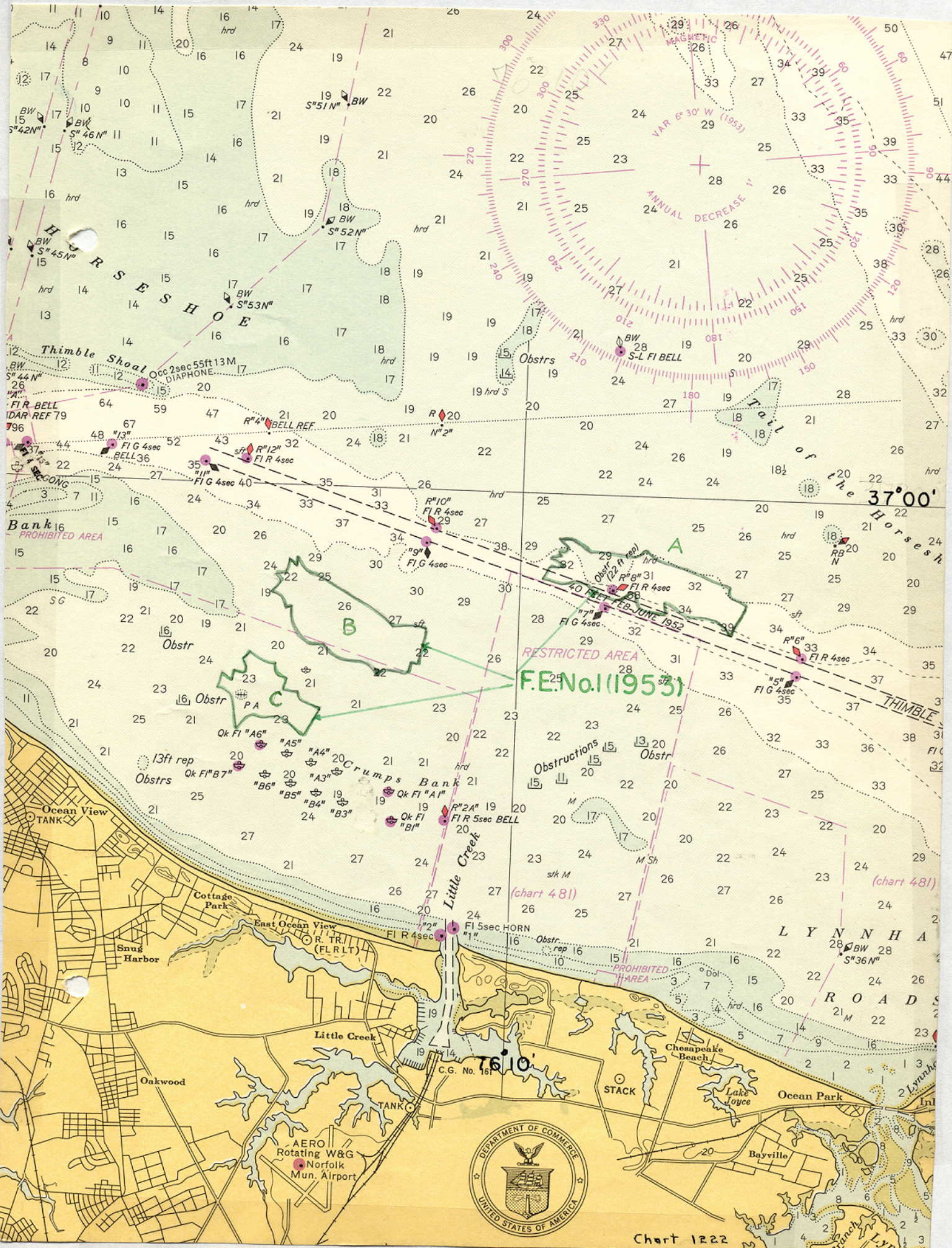


Chart 1222

applied to Felt Prof chart 481 3/12/53 GHE

applied to Reconstr 481 8/6/56 L.S.S.