

FE 192

Diagram No. 1000-3

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. WA-HI-40-1-63
Office No. FE-192

LOCALITY

State
General Locality .. Approaches to New York Harbor
Locality Vicinity Ruins of Texas Tower

NO. 4

19 63

CHIEF OF PARTY
E. K. McCaffrey

LIBRARY & ARCHIVES

DATE November 1963

☆ U.S. GOV. PRINTING OFFICE: 1978-666-172

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. 6 1963

FE 192

F E No. 6 1963

FE-192

WIRE DRAG

Diag. Cht. No. 1000-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Wire Drag Investigation

Field No. WA-HI-40-1-63 Office No. F.E.No.6
63 (1963) W.D.

LOCALITY

State

General locality Approaches to New York Harbor

Locality Vicinity Ruins of Texas Tower No. 4

1963

CHIEF OF PARTY

E. K. McCaffrey

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DATE November 1963

USCOMM-DC 5087

F E No. 6
1963

WIRE DRAG

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.6-1963

Field No. WA-HI-40-1-63

State

General locality Approaches to New York Harbor

Locality Vicinity Ruins of Texas Tower No. 4

Scale 1:40,000 Date of survey 26 September 1963

Instructions dated 3/19/63

Vessel WAINWRIGHT - HILGARD

Chief of party E. K. McCaffrey

Surveyed by Ship's Officers

Soundings taken by fathometer, ~~graphical recorder, hypsometer, etc.~~

Fathograms scaled by

Fathograms checked by

Protracted by Ship's Officers

Soundings penciled by Ship's Officers

Soundings in ~~XXXXXX~~ feet at MLW MLLW

REMARKS:

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.....

.....

UNITED STATES GOVERNMENT

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Memorandum

H24

TO : The Director
Coast & Geodetic Survey

DATE: 4 Nov. 1963

FROM : Commanding Officer
USC&GS Ships WAINWRIGHT & HILGARD

SUBJECT: SPECIAL PROJECT SP-1-63 - SPECIAL REPORT TO ACCOMPANY
WA-HI-40-1-63, WIRE DRAG ON TEXAS TOWER NO. 4

PROJECT:

In accordance with INSTRUCTIONS SP-1-63 dated 19 March 1963, and Supplemental Instructions No. 1, SP-1-63 dated 9/5/63, a wire drag investigation was made on the wreckage of Texas Tower Number 4, on the 26th of September 1963.

AREA SURVEYED:

Approximately 1.4 square nautical miles of wire drag was accomplished at the site of the wreckage. The wreckage was found using a 141-foot effective depth wire drag. A skiff was used to investigate the hang. It was impossible to obtain a lead line on the wreckage so the hang was buoyed, the drag taken aboard and the area surrounding the temporary buoy searched by fathometer. A 63-foot (reduced) sounding was obtained near the point of hang. A second strip cleared the hang with a 59-foot effective depth.

SMOOTH SHEET:

The smooth sheet was ruled and checked by the Washington Office. The scale of the smooth sheet was changed from a 1:10,000 to 1:40,000 to permit the plotting of Decca Navigator lines of position (New York Chain). Decca Curves were plotted in the field.

CONTROL:

A Decca Navigator, Model 12, was used to control the guide vessel. The guide vessel took magnetic bearings to the end vessel and the obstruction buoy. A range was obtained from the guide vessel to the end vessel using an optical range finder.

The end vessel took magnetic bearings to the guide vessel and obstruction buoy. All ship and buoy cuts were taken from the obstruction buoy. ✓

The Decca Navigator was calibrated using three-point fixes off Fire Island Inlet, N. Y., and scaling Decca values from curves on chart 1215. Since the corrections derived were somewhat erratic and the corrections are subject to the ships geographic position, they were not used as final corrections for the smooth plot. ✓

The original position of Texas Tower No. 4 was plotted from the EXPLORER's Raydist Position and the position of the main wreck, 200 yards bearing 250°T, "Diving On The Wreck of Texas Tower No. 4.", Page 62, 'U. S. Naval Institute Proceedings', March 1963, plotted from it. The final Decca corrections were obtained by adjusting the hang to conform to the plotted position of the wreckage. ← Note

Final corrections are as follows:

Red Arc

-0.02 lanes

Green Arc

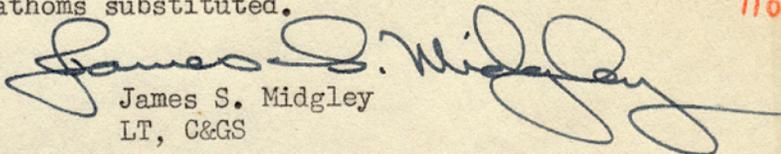
-0.26 lanes

The Decca fixes are subject to the 0.02 to 0.05 lane instability (or "Jitter") cited in Decca Navigator, Preliminary Report, EKM/jrb, dated 12 Sept. 1963. ✓

RECOMMENDATIONS:

It is recommended that the reported 4-1/4 fathoms be expunged from the charts, and 9-3/4 fathoms substituted. ✓

9 3/4 on Chart 1108


James S. Midgley
LT, C&GS

NOV. 50 DEC 14 1963

Enc.: Tide Note
Decca Curves Plotted

JSM/jrb

Texas T. #4
11/4/63

T I D E N O T E

Inferred hourly heights were furnished by the Washington Office.

Date: September 26, 1963

Datum: Mean Low Water

Time Mer.: 75° W

Survey was
accomplished
on 60°W mer.
time.

Tide times were
adjusted accordingly.

DEW

<u>Hour</u>	<u>Height</u> (ft)
0600	1.8 ✓
0700	1.9 ✓
0800	2.2 ✓
0900	2.8 ✓
1000	3.2 ✓
1100	3.7 ✓
Noon	4.0 ✓
1300	4.0 ✓
1400	3.8 ✓
1500	3.4 ✓
1600	2.8 ✓
1700	2.3 1.7 ✓
1800	1.7 ✓

DECCA CURVES PLOTTED

New York Chain

Red Arcs

H 18 Latitude $39^{\circ} 44'N$ Latitude $39^{\circ} 48'N$
 Longitude $72^{\circ} 39.947'W$ Longitude $72^{\circ} 41.770'W$

 Latitude $39^{\circ} 52'N$
 Longitude $72^{\circ} 43.584'W$

H 20 Latitude $39^{\circ} 44'N$ Latitude $39^{\circ} 48'N$
 Longitude $72^{\circ} 35.571'W$ Longitude $72^{\circ} 37.620'W$

 Latitude $39^{\circ} 52'N$
 Longitude $72^{\circ} 39.661'W$

Green Arcs

C 40 Latitude $39^{\circ} 53.589'N$ Latitude $39^{\circ} 49.213'N$
 Longitude $72^{\circ} 45'W$ Longitude $72^{\circ} 40'W$

 Latitude $39^{\circ} 40.445'N$
 Longitude $72^{\circ} 30'W$

C 42 Latitude $39^{\circ} 55'N$ Latitude $39^{\circ} 50'N$
 Longitude $72^{\circ} 51.531' W$ Longitude $72^{\circ} 46.124'W$

 Latitude $39^{\circ} 45'N$
 Longitude $72^{\circ} 40.723'W$

Curves C-41 & H 19 were graphically interpolated.

UNITED STATES GOVERNMENT

Memorandum

~~1/4~~ 211

TO : The Director
Coast & Geodetic Survey

DATE: 7/26/63

FROM : Commanding Officer
USC&GS Ships WAINWRIGHT & HILGARD
% General Delivery, Fairhaven, Mass.

SUBJECT: WIRE DRAG SURVEY, WRECKAGE OF TEXAS TOWER 4, NEW JERSEY COAST

- REFERENCE:
- (1) Instructions - Special Project 1-63, Hydrographic and Wire Drag Investigations. 2100 B-pt, S-2-W&H, dtd. 3/19/63
 - (2) Preliminary Report, Texas Tower 4. From this Command dated 4/18/63
 - (3) Office Memorandum on subject wire-drag 2100 B-pt, dtd 4/23/63
 - (4) Reply to reference (3) dated 4/30/63

Forwarded under separate cover are field records for subject survey. Your attention is invited to referenced correspondence for charting recommendations.

The drag strip positions were by single vessel control and referenced to the navigation buoy marking the obstruction site.

Tide reducers were determined from inferred hourly heights furnished by the Washington Office from the standard tide gage at Sandy Hook, N.J.

Edwin K. McCaffrey
Edwin K. McCaffrey

Encl.: Form 413

EKM/jrb

Area cleared by 81 ft.

This work is superseded by drag work done in Sept 1963 (FE 6(63) and is largely of historical interest only. Records can be disposed of on review of FE 6(1963)

~~C-211 C-211~~
C-211
New York District Officer
Coast and Geodetic Survey

C-211
9/27/63

Commanding Officer
USC&GSS WAINWRIGHT & HILGARD
c/o General Delivery, Fairhaven, Mass.

Supplemental Instructions No. 1 - Special Project 1-63
211 S-2-WA-HI, Dtd 9/5/63.

In accordance with subject instructions, a wire drag survey was accomplished on the wreckage of Texas Tower No. 4 on 9/26/63. The WAINWRIGHT & HILGARD departed Fairhaven at 2300, 9/24; returned at 0530, 9/27. (All times local.) The party based from Captree Island, Long Island, New York for this survey.

Preliminary results are as follows:

- (1) Obstruction hung by 144 foot effective depth drag.
- (2) Least depth obtained 66 feet (echo sounder), unable to verify by leadline. Sounding was a positive trace rising from 170-180 feet.
- (3) Obstruction cleared by 62 foot effective depth drag.
- (4) Length of drag 6000 feet.
- (5) Clearing strip ran south to north, originated 0.4 miles south of obstruction, ended 0.7 miles north of hang.
- (6) Obstruction buoy is 1275 yards, 165° T from wreckage. Buoy is off Light List station, but is quite close to the position obtained by you from the Third C.G. District earlier this year.
- (7) Position of wreck is 200-300 yards southwest of original tower.
- (8) Control: Single vessel utilizing Decca Navigator, optical range finder and bearings.

cc Director

Edwin K McCaffrey

871

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Nautical Chart Division: R.H. Carstens

1/8/64

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET F.E. NO 6 1963

Locality Vicinity of Texas Tower NO. 4, New Jersey

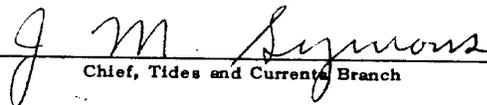
Chief of Party: E.K. McCaffrey

Plane of reference is mean low water

ft. on tide staff at

ft. below B. M.

Condition of records satisfactory except as noted below:


Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .F.E.No. 6-1963 W.D.

Records accompanying survey: Smooth sheets ¹.....;
 boat sheets ¹/₂.....; sounding vols.; wire drag vols. ².....;
 Descriptive Reports ¹.....; graphic recorder envelopes ¹.....;
 special reports, etc.

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

Number of positions on sheet	.....	29
Number of positions checked	.....	8
Number of positions revised	.....	—
Number of soundings revised (refers to depth only)	.....	—
Number of soundings erroneously spaced	.....	—
Number of signals erroneously plotted or transferred	.....	—
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....
Special adjustments	Time	.....

Verification by *Dale E. Westbrook* Total time 8.0 Date 8/12/64

Reviewed by *Dale E. Westbrook* Time 6.0 Date 8/13/64

REVIEW
FIELD EXAMINATION NO. 6, 1963, W.D.
APPROACHES TO NEW YORK HARBOR
RUINS OF TEXAS TOWER NO. 4

1. This wire-drag examination was made in compliance with with the instructions for Special Project 1-63, Supplemental Instructions No. 1, dated September 5, 1963.
2. The purpose of the examination was to obtain a least depth or a greatest cleared depth over the ruins of Texas Tower No. 4 near the approaches to New York Harbor.
3. The results of the examination are shown on the accompanying smooth sheet.

The tower ruins were hung at an effective depth of 141 feet, and a least depth fathometer sounding of 63 feet was obtained over the ruins. The ruins were subsequently cleared by an effective drag depth of 59 feet.

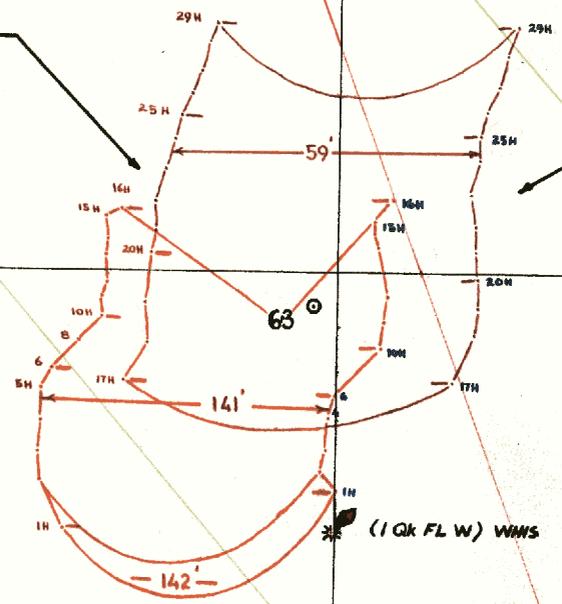
4. A comparison between the field examination and Chart 1108, 10th Ed., May 18, 1964 shows the cleared depth of 9 3/4 fms. correctly charted over the tower ruins. Other information on this field examination is also in harmony with charted depths.
5. Because of the failure of the Decca Navigator system in providing adequate calibration control on this survey, the drag strips were controlled by positioning the hang at the location of the tower ruins previously determined by Scuba divers. The accuracy of this position is in turn dependent upon the Raydist location of the original tower by the Ship EXPLORER.
6. No further discussion of the field examination is considered necessary.

Reviewed by:
Dale E. Westbrook
8/13/64

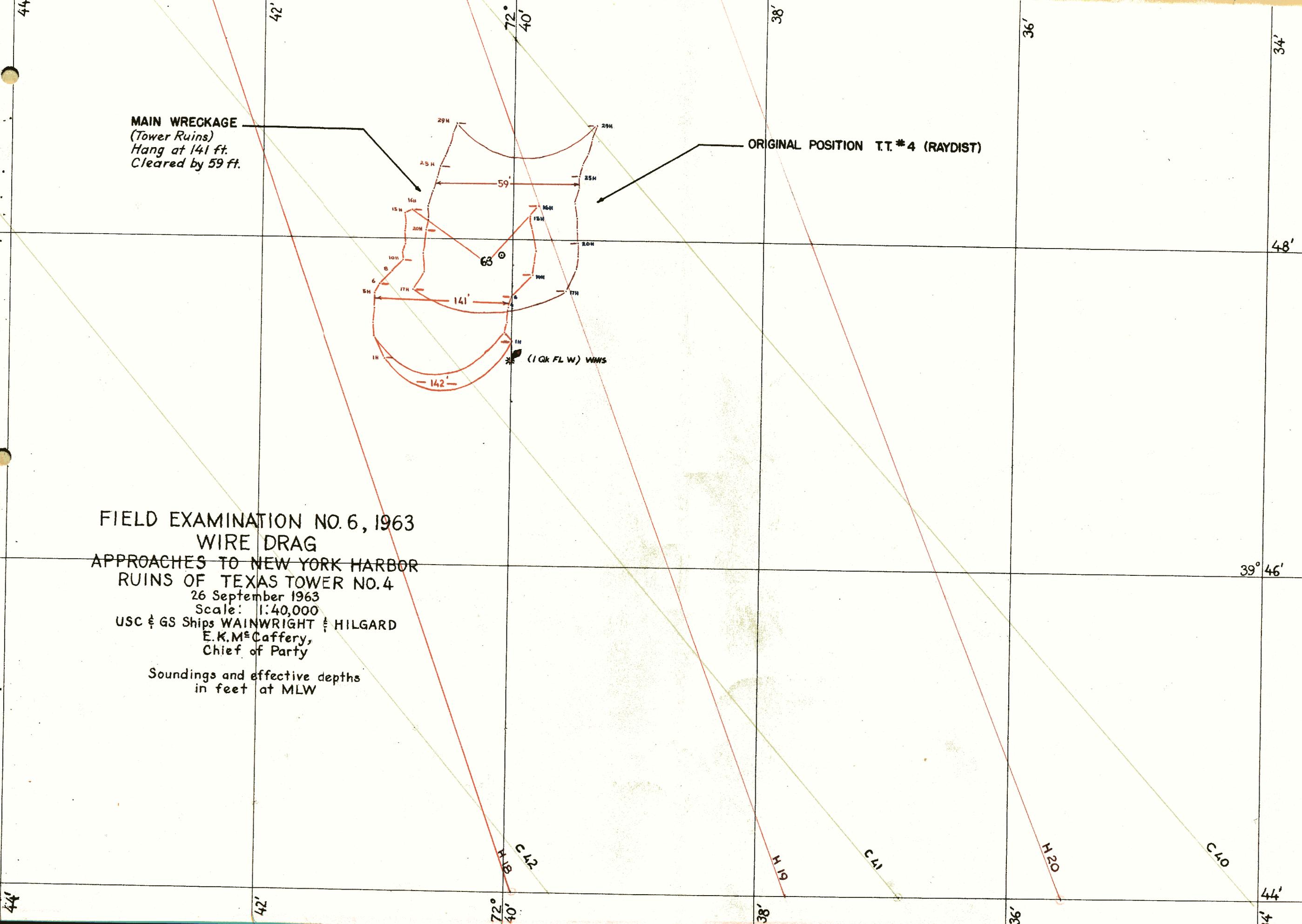
Inspected by: R. H. Carstens

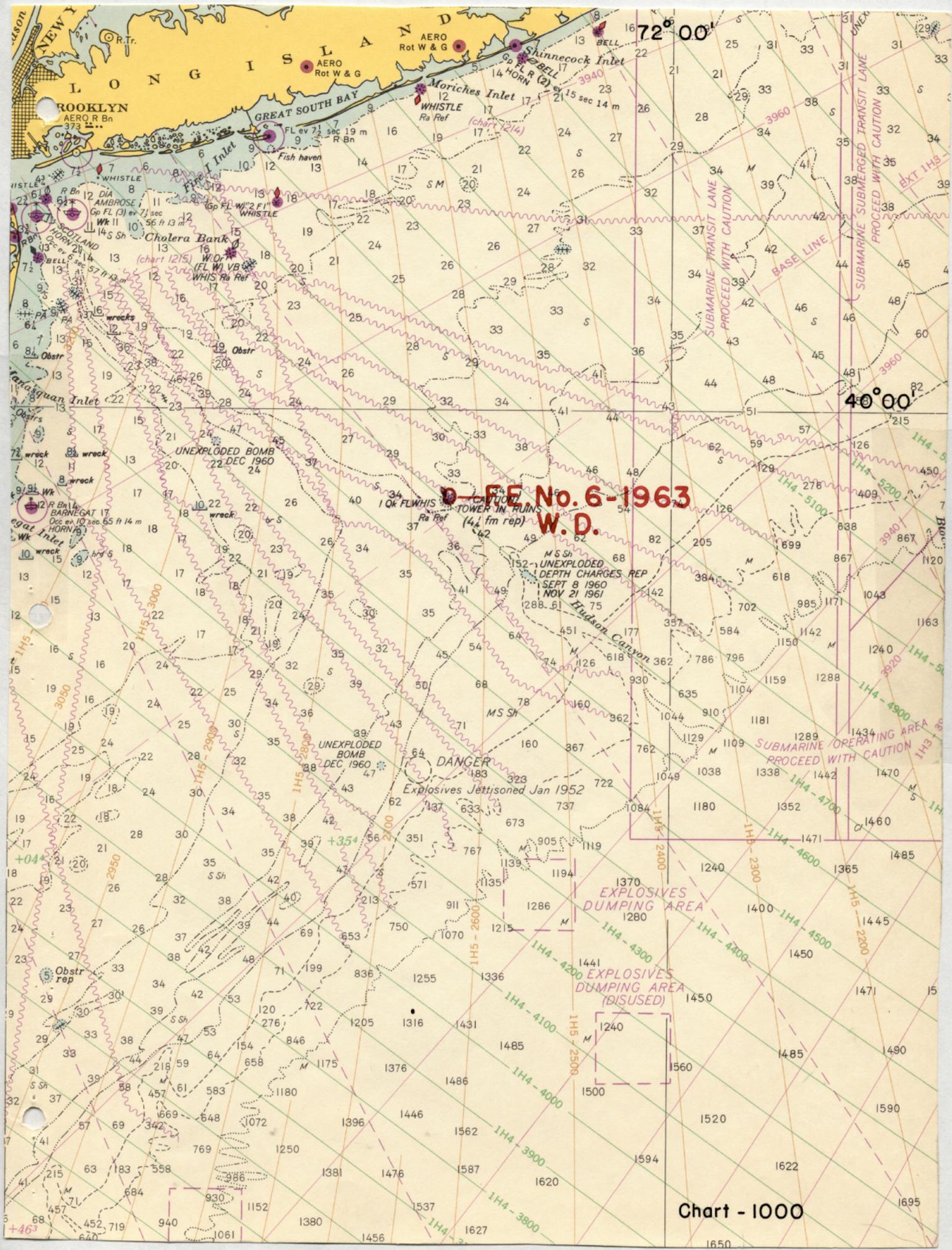
MAIN WRECKAGE
(Tower Ruins)
Hang at 141 ft.
Cleared by 59 ft.

ORIGINAL POSITION T.T.#4 (RAYDIST)



FIELD EXAMINATION NO. 6, 1963
WIRE DRAG
APPROACHES TO NEW YORK HARBOR
RUINS OF TEXAS TOWER NO. 4
26 September 1963
Scale: 1:40,000
USC & GS Ships WAINWRIGHT & HILGARD
E.K.M. Caffery,
Chief of Party
Soundings and effective depths
in feet at MLW





D-FE No. 6-1963
W.D.

Chart - 1000

