

WIRE DRAG
0831

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Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. 2142 Office No. H 6871
WIRE DRAG

LOCALITY

State Massachusetts

General locality Buzza rds Bay

Locality N.W. of Woods Hole

194 2

CHIEF OF PARTY

Bowie and Garber

LIBRARY & ARCHIVES

DATE August 18, 1943

M

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. HC831

WIRE DRAG

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.

Field No. 2142

REGISTER NO. W.D. H 6831
WIRE DRAG

State Massachusetts

General locality Buzzards Bay

Locality N.W. of Woods Hole

Scale 1:20000 Date of survey July 1942

Vessel Motor Vessel Gilbert

Chief of Party John Bowie Jr. and Harry Garber

Surveyed by

Protracted by ~~J.C. Curd~~ Wire Drag by A. Kaupa

Soundings penciled by J.C. Curd L.L. Lawrence

Soundings in ~~7/1000~~ feet at M.L.W.

Plane of reference

Subdivision of wire dragged areas by Kaupa

Inked by

Verified by G.F. Jordan

Instructions dated June 18 and July 4, 1942

Remarks: This Sheet was processed at the Norfolk Processing Office.

GPO

Worcester

XWW 10/4/91

6831
OH 6831
WIRE DRAGS

DESCRIPTIVE REPORT

TO

Accompany Wire Drag Sheet

Special Survey in Buzzards Bay

between

Woods Hole and Cleveland Ledge L. H.

Motor Vessel GILBERT

John Bowie, Jr., Comdg.

July, 1942

Scale 1 : 20,000

AUTHORITY:

Authority for this survey was received in letter from the Director, dated June 8, 1942. Supplemental instructions for investigations in the vicinity of Cleveland Ledge Light House were received in letter from the Director, dated July 4, 1942. ✓

CONTROL:

With the exception of one tripod signal established on Uncatena Island, sufficient artificial objects existed that could be used as signals for control of the survey. ✓

SURVEY METHODS:

Standard survey methods were used for hydrography with an 808-A portable depth recorder and short wire drag equipment. All positions were plotted from sextant angles observed upon three stations. ✓

CONSTRUCTION OF WIRE DRAG:

As a limited amount of wire drag investigation was to be made during the current season, the wire drag was constructed from the materials at hand. ✓

A thousand feet of standard 3/16" wire in one hundred foot lengths was on hand for ground wire. A three hundred foot length of 21-thread manila line was made up for each towline. Four thirty-gallon gasoline drums with 3/8" chain

HB831
WIRE DRAG

2.

lashings were used for all buoys. Two 35 lb. scrap shackles lashed together proved to be of sufficient weight for the end buoys, and one 35 lb. shackle for each of the intermediate buoys was used. The uprights were made of standard leadline. The line stretched about 4% after the first two days of dragging. The lines were re-marked and held their length for the remainder of the work.

Cedar wooden toggles were made up, but soon became water-logged causing the sections to sag while underway. To make wooden toggles of sufficient size to support the 3/16" wire would prove too bulky. Seven and one half inch hollow steel spheres, locally used with fishing nets, were obtained for use as the toggles. However, their buoyancy was not quite enough ~~as the~~ as the center of a section would test about one and a half feet deeper than at a buoy. Two toggles were tried, but the lift was excessive from too great a buoyancy.

With the exception of obtaining toggles of the proper buoyancy, the remainder of the drag equipment proved quite satisfactory.

Launch No. 75 was used as the guide launch, and a 40 foot open motor sailer for the end launch for a part of the time. A new wire drag tender was later obtained for the end launch. A dinghy with an outboard motor was sufficient for the tender.

The drag was continuously tested while underway with a seven foot length of greased pipe attached to a leadline.

PERSONNEL:

- | | |
|--------------|------------------------------------|
| 1. Officers: | John Bowie, Jr., Comdg. Officer |
| | Harry F. Garber, Executive Officer |
| | Lorne G. Taylor, Deck Officer |
| 2. Crew: | Launch Hydrography - 4 to 5 men |
| | Wire Drag 10 men |

Respectfully submitted:

John Bowie, Jr.
Commanding Officer,
Motor Vessel GILBERT

H6831
WIRE DRAG

WIRE DRAG

DATE 1942	DAY	STAT. MI. of	No. of
JULY	letter	Drag Strip	Positions
4	A	1.2	11
7	B	0.2	4
9	C	2.0	28
13	D*	--	--
16	E	2.4	37
17	F	1.5	23
24	G	0.5	17
27	H	<u>1.0</u>	<u>10</u>
Totals		8.8	130

Area -- Square Statute Miles 1.0.

* Rejected-- Excessive lift of toggles

per C.R.R.

See H 6742 for correspondence and location of stations.

H6831
NOV 1943

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO.

Records accompanying survey:

Boat sheets .1...; sounding vols. 0...; wire drag vols. 1...;
bomb vols. 0.....; graphic recorder rolls;
special reports, etc. ~~Two tracings~~ 1 A&D Sheet
.....

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

Number of positions on sheet .130.
Number of positions checked ..63.
Number of positions revised0.
Number of soundings recorded
Number of soundings revised (refers to depth only) ...1.
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details Time
Junctions Time
Verification of soundings from graphic record Time

Verification by *G.F. Jordan*.... Total time ..11.. Date *Dec. 28, 1943*

Review by*G.F. Jordan*..... Time ..6.. Date *Dec. 28, 1943*

H6831

WIRE 2211

Remarks

Decisions

	Remarks	Decisions
1		
2	For title	U.S.G.B
3	"	415706 "
4		416707
5		
6		
7	<u>Uncatena I.</u> = location of tide staff	415707
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GEOGRAPHIC NAMES

Survey No.

16831

WIRE

Name on Survey											
	A	B	C	D	E	F	G	H	K		
<u>Massachusetts</u>											1
<u>Buzzards Bay</u>											2
<u>Woods Hole</u>											3
<u>Cleveland hedge</u>											4
											5
											6
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Names underlined in red approved
by L. Heck on 1/13/44

LAC
HLL

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 4, 1943

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
1 volume of sounding ^{wire drag} records for

HYDROGRAPHIC SHEET 6831

Locality Northwest of Woods Hole, Buzzards Bay, Massachusetts.

Chief of Party: John Bowie, Jr. in 1942
Plane of reference is mean low water reading
0.8 ft. on tide staff at Uncatena Island
6.7 ft. below B. M. 1 (1931)

Height of mean high water above plane of reference is 3.6 ft.

Condition of records satisfactory except as noted below:

C. T. Green

Chief, Division of Tides and Currents.

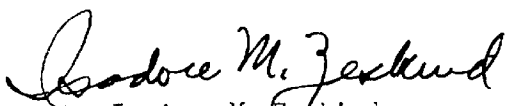
NO 6831
WIRE

A D D E N D U M

Sheet H ~~6831~~⁶⁸³¹ (Wire drag and hydrographic)

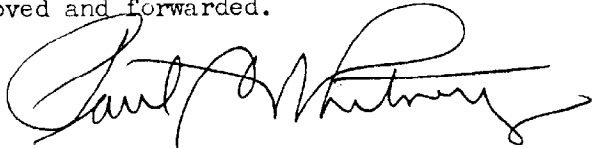
Notations in wire drag volume for A & C days (Red) state that drag sections are 400 ft. in length. This appears to be in error and should read 500 ft. These sections were plotted as 500 ft.

Respectfully submitted,


Isadore M. Zeskind
Associate Cartographic Engr.

Norfolk Processing Office
July 27, 1943

Approved and forwarded.


Paul C. Whitney
Supervisor S. E. District

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

} No. H 6831 Wire Drag
No. T

{ received July 31, 1943
registered August 2, 1943
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
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83			
88			
90			

RETURN TO

82	R.W.Knox
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RPWC

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6831 W.D.

Field No. 2142

Massachusetts, Buzzards Bay, N.W. of Woods Hole
Surveyed July 1942; Scale 1:20,000
Instructions dated July 4, 1942

Soundings:

Hand lead
808 Fathometer

Control:

Three-point fix on shore signals
Dual Control

Chief of Party - John Bowie, Jr., Harry F. Garber
Surveyed by - John Bowie, Jr., Harry F. Garber
Protracted by - A. Kaupa
Soundings plotted by - L. L. Lawrence
Verified and inked by - G. F. Jordan
Reviewed by - G. F. Jordan
Inspected by - H. R. Edmonston, January 10, 1944

1. Shoreline and Signals

Previously established triangulation, with the addition of one hydrographic signal, furnished the control for this special survey.

The partial high water line is from the only available recent surveys T-6621 and T-6622 (1938), and T-5609.

2. Junctions with Contemporary Surveys

This is a special survey complete on one sheet.

3. Comparison with Prior Surveys

There is no conflict with H-3391 (1912-1914) W.D.

4. Comparison with Hydrographic Surveys

The present survey was made to investigate certain charted and reported shoal depths in Cleveland Ledge Channel but also supplemented the contemporary survey H-6742 (1942). There are no conflicts.

5. Comparison with Chart 251 (latest print of 10- 1-43)
Chart 249 (" " " 11-12-43)

- a. The 23-ft. shoal reported in chart letter No. 184 (1942) at Lat. $41^{\circ}38.05'$, Long. $70^{\circ}41.85'$ was disproved by this survey. The sounding is not charted.
- b. The 28-ft. sounding charted at Lat. $41^{\circ}37.5'$, Long. $70^{\circ}41.9'$ from blueprint No. 34418 should be retained on the charts. The sounding is actually 28.5 feet on the blueprint as against 29 feet on the present survey. The records of the present survey indicate the depths by lead line were read at even foot intervals.
- c. The 27-ft. sounding charted at Lat. $41^{\circ}37.35'$, Long. $70^{\circ}42.3'$ and reported subsequent to the present survey in chart letter No. 129 (1943) is a boulder. The fact that the edge of the drag strip appears to clear the 27 should be disregarded.

6. Condition of the Survey

The sounding records, descriptive report and smooth plotting are satisfactory.

The difficulty with improvised wire drag equipment is noted in the descriptive report.

7. Compliance with Instructions

The investigation of the reported shoals is considered adequate.

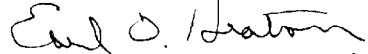
The desired investigation of the 31-ft. sounding at Lat. $41^{\circ}33.0'$, Long. $70^{\circ}46.6'$ was not accomplished. There is no mention in the descriptive report of this sounding which falls outside the limits of the sheet by two minutes of longitude.

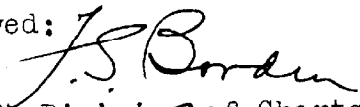
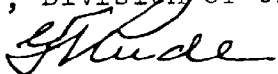
8. Additional Work

Additional wire drag work in this area, in general, is discussed in the review of H-6742 (1942), Par. 10.

Examined and approved:


Chief, Surveys Branch


Chief, Section of Hydrography


Chief, Division of Charts

Chief, Division of
Coastal Surveys

Partially applied to Chart 249 (before verif. + review) G.R. 9/7/43
Fully " " " 1210 " " " " 1/25/44
Examined after review - No correction to Ch 249 - J.W. 6/7/44
" no correction to ch. 1108 July 26, 1944
1210 Reconst. - Fully applied after verif. + review 11/29/61 J.R.
Compl. to new ch. 260 2-8-62 RKO