6783

WIRE DRAG

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 1002 *Office No.* H6783

LOCALITY

State Maine

General locality Casco Bay

Locality Eastern Part

1942

CHIEF OF PARTY

C.D.Meaney

LIBRARY & ARCHIVES

DATE

8-1870-1 (1)

6783 WIRE DRAG

Form 537
Ed. Dec. 1930

REG. NO. H6783

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.

Field No. 1002 WD

REGISTER NO. H6783

State MAINE

General locality Casco Bay

Locality Eastern Part

Scale 1:10,000 Date of survey July, 1942

Vessel LYDONIA (MARINDIN & RODGERS)

Chief of Party C. D. Meaney

Surveyed by C. R. Reed & R. M. Stone

Protracted by A. B. Brownell

Soundings penciled by A. B. Brownell

Soundings in fathoms feet Feet

Plane of reference Mean low water

Subdivision of wire dragged areas by A. B. Brownell

Inked by A. B. Brownell

Verified by G.F.Jordan

Instructions dated May 7, 1941; March 11, 1942, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT
to accompany

WIRE DRAG SHEET FIELD NO. 1002

Eastern Casco Bay, Maine

Scale 1:10,000

Project CS-265 1942 LYDONIA Sub-party

LAUNCHES MARINDIN, RODGERS & NO. 72

INSTRUCTIONS:

Instructions for the work executed on this sheet are the original project instructions dated May 7, 1941 and supplemental instructions dated March 11, 1942.

Two areas mentioned in the Director's letter dated July 10, 1942 were not covered in the present survey namely at Latitude 43° 40.8' Longitude 69° 52.1' and at Latitude 43° 42'2Longitude 69° 53'8 Boat sheets were made for this additional work but were not used and are being forwarded with the other boat sheets.

SURVEY METHODS:

Standard dual control wire drag methods were employed using the wire drag launches MARINDIN and RODGERS. Lift tests were made with the floating type of tester which has been standard for several years. In entering the lift in the guide launch record an additional allowance was made for chop and swell.

This wire drag survey was made while waiting for sufficient soundings on contemporary hydrographic surveys. Dragging was difficult due to the sparsity of soundings in the area.

The bell buoy at Latitude 43° 42.8' Longitude 69° 55.2' was located by cuts as the dragging proceeded.

GROUNDINGS:

Soundings considerably shoaler than those charted were obtained at

Latitude	Longitude	Sounding
43° 42.56'	69° 52.54'	33 feet not cleared
43° 42.14'	69° 52.61'	43 feet cleared by 39 ft – 41 ft on hydro 100 m., S.E.
43° 42.55'	69° 54.07'	46 feet " " 44 ft – 45 ft grdg on H-6674 100 m. SW.
43° 43.52'	69° 54.65'	47 feet " " 46 ft

The last three of these were dragged to within 2 feet of the bottom. The 33 feet was not covered by a drag due to ending the field season before completion of the survey.

Buoy F "bumped" at a depth of 46½ feet at Latitude 43° 42.0' Longitude 69° 52.9' just after the end of a line (pos. 39M). 42ft grounding H-6774 45ft sounding H-6806

DISCREPANCIES:

An unusual condition occurs at position 16E. Here the drag went aground (Latitude 43° 43.0' Longitude 69° 56.35') outside the dragged area. The sideways motion of the end launch relative to the forward motion of the drag combined with the fact that the end launch was ahead of the guide launch is believed responsible. By using a celluloid buoy spacer it may be seen that the drag probably passed over the grounding in a reverse direction prior to hanging. In traveling in a reverse direction over the ground the drag might become slack upon touching an obstruction in this manner and hang when forward motion was resumed. A further investigation should be made. - Adjusted - 34 ft hydro sdg: cleared by 30 ft on H-6922

The end of the line at 31J (Latitude 43° 43' Longitude 69° 53½) has several discrepancies. Positions 6j and 7j fall behind the bight ending the drag strip. The 38 foot sounding obtained on the contemporary hydrographic survey at Latitude 43° 42.87' Longitude 69° 53.53' also falls behind this bight. The "bumping" of buoy F prior to reaching position 10j falls in deeper water on the hydrographic survey. Ensign R. M. Stone, who was in charge of dragging on J day, was aware of the discrepancy in position of positions 6j and 7j but has no solution. The bight has been drawn to include these shoal soundings. A further investigation should be made. Position 6j has been adjusted, thereby disposing of the important discrepancy.

A 37 foot sounding shown on Chart 315 at Latitude 43° 42.9' Longitude 69° 52.2' was dragged to a depth of 41½ feet without hanging. The contemporary hydrographic survey shows 44 feet smooth bottom in the vicinity. The sounding should be removed from the chart.

On position 21 J day number 2 buoy is noted as bumping at 49 feet (Latitude 43° 43.5' Longitude 69° 55.2'). The contemporary hydrographic survey shows about 80 feet of water here. A further investigation should be made. Disregarded, as drag was under extreme tension due to grounding at buoys no. 4, 5 and F

AREA AND DEPTH DIAGRAM:

The end launch end of the drag strip at position 16E (Latitude 43° 43' Longitude 69° 56½') has been omitted as it is detached and must be covered when wire drag surveys are resumed. Covered on H-6922 (1943)

SPLITS:

Due to the fact that dragging was stopped on this sheet in favor of work on the Kennebec River and approaches many unfinished areas and splits were left. Those occurring within the dragged area are listed.

Latitude	Longitude	Nature of split.
43° 41.8'	69° ~~52.1'~~ 51.7'	Insufficient overlap with previous season's work.
43° 42.7'	69° 55.1'	Insufficient overlap with previous season's work. Smooth bottom of 74ft depth
43° 42.75'	69° 55.25'	Not covered due to rejection of end launch position, and bell buoy — same
43° 43.6'	69° 54.6'	Insufficient overlap. 75m. overlap is adequate here.
43° 44.08'	69° 53.85'	" 30m. — three positions determine adequate overlap of three strips
43° 44.05'	69° 53.7'	" 50m overlap adequate here
43° 44.35'	69° 53.6'	" 45 m. " " "
43° 44.15'	69° 53.05'	" 60 m. " " "
43° 44.3'	69° 53.05' (smooth 64 ft bottom)	" 10 m. insufficient, and marked
43° 42.15'	69° 52.5'	" Believe 45ft sounding was cleared; further consideration is not warranted, as 41ft to southwest on hydro. was cleared by 39ft.
43° 42.3'	69° 52.4'	Not dragged.
~~43° 42.7'~~	~~69° 52.1'~~	" "
~~43° 43.4'~~	~~69° 52.95'~~	" "
43° 44.2'	69° 54.1'	" " 19 ft shoal

RECOMMENDATIONS:

As further work is necessary on this sheet no recommendations are made other than those mentioned under discrepancies.

TIDES:

Tides used were from the Portland, Maine, standard tide gage.

STATISTICS:

Statute miles of wire drag	32.7
Area of wire drag (sq. st. mi.)	6.5
Number of soundings	61

Respectfully submitted,

Clarence R. Reed

Clarence R. Reed
H & G Engineer
U.S.C.&G.Survey

Approved & Forwarded:

C. D. Meaney

C. D. Meaney
Chief of Party

ADDENDUM

1002

WIRE DRAG ~~501~~ (Field)

This sheet was partially processed at this office.

Respectfully submitted,

Isadore M. Zeskind

Isadore M. Zeskind
Assoc. Cartographer Engr.

Norfolk Processing Office
December 31, 1942

Approved and Forwarded

Paul C. Whitney

Paul C. Whitney
Supervisor Southeastern District

	Remarks	Decisions
1		U.S.G.S
2		"
3		437698
4		"
5		"
6		"
7		437699
8		"
9		"
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15	Location of tide staff	
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M 234		

GEOGRAPHIC NAMES

Survey No.

H6783

WIRE DRAG

Name on Survey

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Casco Bay										1
Maine										2
Cape Small										3
Small Point Harbor										4
Wood I.										5
Flag I.										6
Ragged I.										7
Pond I.										8
Bailey I.										9
										10
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										14
Portland →										15
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Names Unaffected in rec approval
by L. Heckon 12/24/44

M 234

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6783
WIRE DRAG

Records accompanying survey:

Boat sheets two..; sounding vols. (3)..; wire drag vols. (4)..;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. A & D overlay tracing.....

.....

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

Number of positions on sheet		—
Number of positions checked		137.
Number of positions revised		2.
Number of soundings recorded		61.
Number of soundings revised (refers to depth only)		0.
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		—
Topographic details	Time	—
Junctions	Time	3.
Verification of soundings from graphic record	Time	—

Verification by..G.F.Jordan..Total time ..4½.. Date 2/6/43....

Review by .....G.F.Jordan..... Time ...9.. Date Dec.23,1944.

RAC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 11, 1943.

~~Division of Hydrography and Topography~~:

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Tide Reducers are approved in 4 volumes of sounding and wire drag records for

HYDROGRAPHIC SHEET 6783

Locality Eastern Part Casco Bay, Maine.

Chief of Party: C. D. Meaney in 1942
Plane of reference is mean low water reading
8.6 ft. on tide staff at Portland
19.0 ft. below B.M. 31

Height of mean high water above plane of reference is 8.9 feet.

Condition of records satisfactory except as noted below:

E K Green

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

DIVISION OF CHARTS

Review Section — Surveys Branch

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6783 W. D.

Field No. 1002 W. D.

Maine, Casco Bay, Eastern Part
Surveyed in July 1942, Scale 1:10,000
Instructions dated May 7, 1941; March 11, 1942

Soundings: Control:

Hand lead Three-point fix on shore signals

Chief of Party - C. D. Meaney
Surveyed by - C. R. Reed, R. M. Stone
Protracted by - A. B. Brownell
Subdivision of dragged areas by - A. B. Brownell
Verified by - G. F. Jordan
Reviewed by - G. F. Jordan
Inspected by - H. R. Edmonston, January 11, 1945

1. Shoreline and Signals

The shoreline is from planimetric drawings T-5970 and T-5971. The control is from previous triangulation and graphic control surveys T-6928b and T-6929b (1942).

2. Junctions with Contemporary Wire Drag Surveys

The progress on this survey was stopped in order to take up other work. Dragging was continued in the 1943 and 1944 seasons. H-6922 (1943) W.D. satisfactorily overlaps the western part of the present survey, whereas the eastern part is to be concluded in 1944. The A. and D. sheet for H-6922 includes the present survey in the common area. The A & D sheet of H-6977 includes the remainder of H-6783 W.D.

The deficiencies in the overlap with H-6674 (1941) W.D. will probably be eliminated in the 1944 work, with the exception of the insufficient overlap at Lat. 43°42.7', Long. 69°55.1'. As this occurs over smooth bottom of 74 ft. depth, the deficiency is considered unimportant. Insufficient overlap eliminated by coverage on H-6977 WD (1944)

3. Comparison with Hydrographic Surveys

a. H-6809 (1942-43)

There are no disagreements with H-6809 except the 34 ft. sounding at Lat. 43°42.97', Long. 69°57.17' which is noted in the reviews of H-6809 and H-6922 (1943).

b. H-6806 (1943)

φ 43°43.54' λ 69°54.64'

One disagreement exists in the incompleted coverage of H-6806. A 42 ft. contemporary sounding appears to be cleared by 44 and 46 ft. drags on the present survey. The 42 shows as a clear pinnacle on the fathograms. As there appear to be no irregularities in either survey, the clearance over this shoal has been reduced to 42 ft. on the A. and D. sheet, in order to avoid disagreement.

4. Comparison with Prior Surveys

The 37 ft. prior sounding charted on chart 315 at Lat. 43°42.9', Long. 69°52.2' and falling in 43 ft. depths on the contemporary survey H-6806 (1943) is considered disproved by the 41 ft. clearance on the present survey.

5. Comparison with Chart 315 (print of Jan. 31, 1944)

The present survey is in agreement with the chart, except for discrepancies already disposed of in the reviews of the contemporary hydrographic surveys.

The 38 ft. sounding charted at Lat. 43°42.35', Long. 69°51.85' is from advance information regarding a grounding on the present survey. Verification corrects this grounding to 37 ft., 25 meters northwest.

6. Condition of the Survey

a. The sounding records and descriptive report are satisfactory.

b. The clock time of the guide and end launches appears not to have been regularly correlated.

c. Considerable revision was made in the smooth plotting of the subdivided areas.

7. Compliance with Instructions for the Project

The adequacy of coverage in the western part of the present area is considered in the review of H-6922 (1943) W.D. The eastern part will be considered in the review of the 1944 wire drag survey.

8. Additional Work

See paragraph 7.

Examined and approved:

Chief, ~~Surveys Branch~~ Division of Charts

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys

Applied to Chart Correction 315 (before review) Jan 19, 1943. H.E.M.

applied to Chart 314 before review H.F.C 2/12/43

Applied to reconstruction of chart 315 (before review) 12/1/43 - J.T.W.

" " " " " 314 after review 9/23/46 - J.T.W.

Inspected and found to be completely applied to reconst. of chr 1204

—May 12 1949. Stg.—