

6780

WIRE DRAG

6780 WIRE DRAG

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **Hydrographic (Wire Drag)**

Field No. **f. W.D.1003** Office No. **H.6780**

LOCALITY

State **Maine**

General locality **Cape Small**

Locality **Kennebec River Approaches**

194 2

CHIEF OF PARTY

C.D.Meaney

LIBRARY & ARCHIVES

DATE **January 16, 1942**

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. W. D. 1003

REGISTER NO. **H6780**

State MAINE **WIRE DRAG**

General locality Cape Small

Locality Kennebec River Approaches

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

Vessel LYDONIA - (MARINDIN & RODGERS)

Chief of Party C. D. Meaney

Surveyed by C. R. Reed

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 R. H. Carstens

Instructions dated May 7, 1941; March 11, July 10, 1942

Remarks: _____

REG. NO. **H6780 WIRE DRAG**

H6780

DESCRIPTIVE REPORT

to accompany

WIRE DRAG

WIRE DRAG SHEET FIELD NO. 1003

CAPE SMALL, MAINE

KENNEBEC RIVER APPROACHES

Scale 1:10,000

Project CS-265 1942 LYDONIA Sub-party

Launches MARINDIN, RODGERS & NO. 101

INSTRUCTIONS:

Instructions for the work executed on this sheet are the original project instructions dated May 7, 1941, supplemental instructions dated March 11, 1942 and Director's letter dated July 10, 1942. No work was accomplished under supplemental instructions dated June 15, 1942 as dredging operations were underway on Pond Island Rock all season. The ledge had not been removed at the end of the field season.

Pond Rock removed to 27 ft. according to U.S. Eng. B.P. 37956 of Jan. 1944. Dragged to 22 ft. in Aug. 1944. 27 ft. now charted.

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 swell.

The position of the rock bare 1 ft. at low water shown on the boat sheet 85 meters south east of Jack Rock Beacon was determined roughly by noting cross ranges. The rock is on the range "Jack Rock Beacon - south tangent of Long Island."

Rock located on H-6675 (1941).

During the latter part of the work on this sheet a depth recorder installed on the guide launch was used. This was intended primarily for work in the Kennebec River but it was also used to great advantage in passing close to known shoals. Much time was saved by avoiding grounding with the "N" buoy on known shoals.

SHOALS AND CHANNELS:

The ~~main~~ channel entering the Kennebec River east of Seguin Island and Seguin Ledges, east and north of White Ledge and south of Whaleback Rock was dragged to 31 feet as far as South Sugarloaf Island and to 28 feet from North Sugarloaf Island to Shag Rock. The main channel from Pond Island Rock to North Sugarloaf Island was not dragged due to presence of dredging equipment during the entire time field work was executed on this sheet. The U.S. Engineers' project depth to Path is 27 feet.

Dragged to 20 ft. in 1944. See Addl. Work.

~~A secondary channel north of Jack Rock Beacon was dragged to 26 feet.~~

A channel entering the Kennebec from south of ~~Jackknife Ledge~~ and west of Seguin Ledges was dragged to 27 feet.

The following shoals were dragged to the effective depth indicated:

Name	Position	Effective Drag Depth	Soundings from Hydro. Sheet	Charted Depth	Notes
Halibut Rocks	Lat. 43°41.9' ✓ Long. 69°49.2'	20.0 ✓ 19.0 ft. ✓	24 23 ft. H-6805 (1942)	24 ft. ✓	Revise to agree with H-6805.
Camel Ground	Lat. 43°41.8' ✓ Long. 69°46.5' ✓	23.0 ✓ 22.5 ft.	25 27 ft. H-6730 (1941-42)	21 ft. ✓	See Rev. Chart [23]
0.2 of a mile north of Camel Ground	Lat. 43°42.1' ✓ Long. 69°46.4' ✓	27.5 ✓ ft.	31 ft. H-6730 (1941-42)	40 ft.	31 now charted.
Mile Ledge	Lat. 43°41.6' ✓ Long. 69°45.4' ✓	19.0 ✓ ft.	20 21 ft. H-6805 (1942)	10 ft. ✓	Remove 10. Chart 20.
0.3 of a mile east of Salter Island	Lat. 43°44.7' ✓ Long. 69°44.8' ✓	22.0 20.5 ft.	22 ft. H-6805 (1942)	48 ft.	22 now charted.

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GROUNDINGS:

1. ³¹ Several buoys "bumped" bottom southeast of Pond Island at ~~30~~ ft. These "bumpings" were later covered to ~~21.5~~ feet and ~~18.5~~ feet. 31 ft. drag was towed well inside 30 ft. curve.

2. The 42 foot grounding in 1941 at Latitude 43° 44.8', Longitude 69° 44.6' mentioned in Director's letter dated July 10, 1942 was dragged to an effective depth of 37.5 feet. A 42' foot sounding was obtained on the grounding on J day.

3. At position 36 G day the drag ^{bumped} caught on something at Latitude 43° 42.84', Longitude 69° 47.25' with an effective depth of 28 feet. While it is believed that this "grounding" may possibly have been due to the drag catching on a submerged float of a lobster pot it has not been cleared by a wire drag. 28 ft. sounding on H-6805 (1942). Consider cleared at 28 ft.

4. At position 57 H day the drag grounded for 4 minutes in a depth of 32 feet effective at Latitude 43° 42.6', Longitude 69° 48.65'. This grounding was covered to an effective depth of 29 feet. 34 ft. sounding on H-6805 (1942) satisfactory in view of 3 ft. lift. Consider cleared at 32 ft.

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5. At position 27 S day the drag "bumped" at ²⁶27½ feet (Latitude 43° 41.7' - Longitude 69° 49.25'). This was covered to an effective depth of 24 feet on T day. 26 ft. on H-6730 (1941-42) Consider cleared at 26 ft.

6. At Latitude 43° 44.7', Longitude 69° 44.8' a ²²24 foot drag grounded momentarily on the 22 foot spot found by the contemporary hydrographic survey ^{H-6805 (1942)}. This was cleared to ²²20.5 feet effective.

7. A sounding of 11.8 feet was obtained on White Ledge at Latitude 43° 43.72', Longitude 69° 45.1'. This was covered with an effective depth of 8.5 feet on R day except that a buoy tipped more than a minute after it should have passed over the ledge. It is believed that the buoy was fouled by lobster fishing gear.

Buoy tipped in area covered with 32 ft. strip. Disregard.

8. A sounding of 20 feet was obtained on a small rock ledge at Latitude 43° 43.86', Longitude 69° 45.93' between 21 feet and 23 feet on the contemporary hydrographic survey ^{H-6805 (1942)}. This ledge was cleared with an effective depth of 18.5 feet.

lat: 43° 45.0; long: 69° 46.2'

9. North of Jack Rock Beacon the drag bumped for seven minutes at an effective depth of 31 feet on K day. As the drag was pulled out of normal shape these bumpings are not shown on the sheet and the line from position 30 K to 33 K has been omitted from the area and depth sheet. The area was cleared with an effective depth of 26 feet.

Bumping along 30 ft. curve. O.K.

10. A drag of 30.5 feet effective depth "bumped" at Latitude 43° 45.5', Longitude 69° 47.1' on K day. A 28 foot effective drag covered the spot on V day.

Part of 30 ft. strip omitted. Bumping along 30 ft. curve.

11. The large buoy bumped on X day at Latitude 43° 46.26', Longitude 69° 47.11' with an effective depth of 27 feet. Soundings of 30 feet on the contemporary hydrographic survey are found here. The spot was covered on the adjoining wire drag sheet to a depth of 30.5 feet. (Sheet Field No. 1004 WD). The 3 feet of lift found by test probably did not hold good for the large buoy and the weight hangs down enough so that the actual depth indicated by the bumping is ^{accepted as} probably over 30 feet. The charted depth here is 48 feet. "Bumpings" not mentioned above are at the ends of the drag and the depth to which they were cleared can readily be ascertained by noting the adjacent depth on the area and depth sheet.

H-6803 (1942)

H-6799 (1942) W.D.

30 now charted.

All "bumpings" reconciled to depths on hydro surveys. Removed from smooth sheet to avoid misinterpretation.

DISCREPANCIES:

At Latitude 43° 41.65', Longitude 69° 46.55' a least sounding of 44 feet was obtained with a 42½ foot drag aground. It is probable that the lift at the point of grounding was less than that applied in the record to the entire drag. A similar condition occurs at position 32 E. (Latitude 43° 43.1', Longitude 69° 46.6'). Effective depth plotted at 32E.

Depths on H-6730 (1941-42) shoal rapidly. 38 ft. 40m. north of 44.

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At Latitude 43° 44.24', Longitude 69° 45.13' a sounding of 29 feet has been covered with a 31 foot drag without hanging. The sounding was obtained when the drag was reversed on a dead line. This has also been cleared with 28 feet effective.

2 pos. rejected by
and liner ended
both of 28
ground position
time 5.5

At Latitude 43° 43.2', Longitude 69° 46.7' the end launch record claimed a possible grounding with an effective depth of 29.5 feet. The contemporary hydrographic survey shows 40 feet here. It is believed that the drag did not ground and the grounding has not been shown.

Possible ground
Accepted

AREA AND DEPTH SHEET:

As noted under "Groundings" (paragraph 9) the line from 30 K to 33 K was not shown on the area and depth sheet.

SPLITS:

The 38 foot uncleared grounding at Latitude 43° 44.9', Longitude 69° 43.7' mentioned in Director's letter dated July 10, 1942 was not dragged as it fell outside the area in which work was accomplished.

on H-6679 (1941) W.D.

36 ft. sounding
on H-6805 (1942).
Cleared with
36 ft. effective
depth on
H-6830 (1943) W.D.

Jackknife Ledge was not dragged due to urgency of work in other areas and to the fact that the ledge was always covered with lobster pots.

lat. 43° 43.4'
long. 69° 46.9'

The main channel south of North and South Sugarloaf Islands was not dragged because moorings and dredging equipment used to remove this shoal prevented dragging during the entire time that the wire drag party worked in this area.

Dragged in
1944. See
Addl. Work.

RECOMMENDATIONS:

The 28 foot possible grounding discussed in paragraph "3" under "Groundings" should be cleared by wire drag.

Not necessary.
See "Groundings - 3."

The 8½ foot possible effective depth discussed in paragraph "7" under "Groundings" should be cleared by wire drag.

Satisfactory
Not necessary.
See "Groundings - 7."

The main channel south of North and South Sugarloaf Islands should be dragged upon completion of dredging operations.

Dragged in 1944/
See Addl. Work.

Jackknife Ledge should be wire dragged.

Depths on H-6805 (1942)
adequate.

TIDES:

Tides used in the Kennebec River north of a line from Pond Island to Whaleback Rock were from the Fort Popham portable gage. Tides on the remainder of the sheet were from the Portland standard gage.

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WIRE DRAG

STATISTICS:

Statute miles of wire drag	85.9
Area of wire drag (sq. st. mi.)	12.2
Number of soundings	81

Respectfully submitted,

Clarence R. Reed

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

Approved and Forwarded:

C. D. Meaney
C. D. Meaney
Chief of Party

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. H-6780

REGISTER NO.

State MAINE

General locality KENNEBEC RIVER

Locality near mouth

Scale 1-10,000 Date of survey July - August, 1944

Vessels WAINWRIGHT & HILGARD

Chiefs of Party L. C. Johnson & J. H. Brittain

Surveyed by L. C. Johnson & J. H. Brittain

Protracted by ~~J. A. McCormick~~ J. A. McCormick

Soundings penciled by

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by J. A. McCormick

Inked by J. A. McCormick

Verified by J. A. McCormick

Instructions dated Mar. 11, 1942; Mar. 16, 1943; Mar. 11, 1944

Remarks: Additional work on sheet H-6780 in 1944

DESCRIPTIVE REPORT

to accompany

SHEET H-6780 (W.D.)

ADDITIONAL WORK IN 1944

AUTHORITY: 3

Same as 6799

LIMITS:

This additional work covers the wire dragging of the west entrance channel to the Kennebec River, from north of Pond Island to Fort Popham.

METHODS:

The wire drag was done with the WAINWRIGHT as guide launch the HILGARD as end launch and launch 101 as tender. Standard dual control methods were used. The drag strips were controlled by three point sextant fixes on shore signals. Lift was determined on most sections of the drag by tests taken from the tender, using a graduated rod coated with a mixture of white lead and tallow, and suspended from a float by means of a graduated "stranded 1/8" wire. Due to currents, dragging was done only at or near slack water.

CONTROL:

Existing triangulation stations and graphic control executed by ship LYDONIA in 1942 furnished adequate control for the survey.

COMPARISON WITH CHARTED SOUNDINGS:

The Charted 16 ft. sounding to north of Pond Island was covered with an effective depth of 22½ feet, and no indication of grounding noted. It is believed this shoal has been removed by blasting and dredging. Removed to 27 ft. B.P. 37956 of Jan. 1944. 27 ft. now charted.

On pos. 12 A No. 1 buoy touched bottom on 20 ft. sounding on boat sheet. Lift was 3½ ft. at this time. On 21A, dragging effective depth of 20½ ft., the drag hung on this 20 ft. sounding. The spot was cleared with drag set at 15 feet, effective depth, latter strip set to cover 18 ft. sounding on boat sheet, but lift was ¼ ft. which cut coverage to 15 feet. lat. 43°45.05' long. 69°46.72' 20 ft. sdg. on boat sheet means nothing as area was dredged after sounding. See Rev.

The minimum effective depth obtained through this channel was 20½ ft.

TIDES:

A portable tide gage was established at position of ☉ TIDE, to furnish reducers to reduce the drag depths to mean low water. ☉ Tide shown on H-6804 (1942) lat. 43°45.3' long. 69°47.3'

L. C. Johnson

L. C. Johnson

John H. Brittain
John H. Brittain

STATISTICS SHEET 6780 (W.D.)

Additional Work 1944

Date	Day	No. Positions	No. Soundings	Stat. Mi. of Drag Strip
July 22, 1944	A	33	0	2.5
July 31, 1944	B	8	0	0.6
Aug. 1, 1944	C	10	0	0.6
<hr/>				
Total		51	0	3.7

Area Covered 0.3 Sq. statute miles

Surveys Section (Chart Division)

H6780

HYDROGRAPHIC SURVEY NO.
WIRE DRAG

Records accompanying survey:

Boat sheets ..2.; sounding vols. 0.....; wire drag vols. 1.....;
bomb vols. 0.....; graphic recorder rolls 0.....;
special reports, etc. ...A.A.D. tracing.....
.....

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

Number of positions on sheet	2076
Number of positions checked	108
Number of positions revised	11
Number of soundings recorded	81
Number of soundings revised (refers to depth only)	0
Number of soundings erroneously spaced	0

Number of signals erroneously plotted or transferred	0
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Topographic details	Time ..8. JAM
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Junctions	Time ..16. JAM
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Plotting Addl. Work	
Verification of soundings from graphic record	Time ..24. JAM

Verification by { *R. H. Carstens* Total time 10.5 1/2 } Date 11/9/43 }
 { J. A. McCormick 48 } 10/21/44 }

Review by J. A. McCormick Time 20... Date 10/25/44.

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Remarks.

Decisions

	Remarks.	Decisions
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GEOGRAPHIC NAMES

Survey No. **H6780**

WIRE DRAG

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

Name on Survey	A,	B,	C,	D,	E,	F,	G,	H,	K,	
										1
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MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H **H6780**
No. T **WIRE DRAG**

received
registered
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			
22			
24			
25			
26			
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40			
62			
63			
82			
✓ 83	Pg 2, 3 & 4	AKG	highlighted.
88			
90			

RETURN TO

82	R. W. Knox
----	-------------------

✓ R.W.K.

202
TAK

TIDE NOTE FOR HYDROGRAPHIC SHEET

March 24, 1943.

~~Division of Hydrography and Topography:~~

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

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

HYDROGRAPHIC SHEET 6780

Locality Kennebec River approaches, Cape Small, 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
2.9 ft. on tide staff at Fort Popham
14.8 ft. below B.M. 1

Height of mean high water above plane of reference is 8.9 feet at
Portland; 8.3 feet at Fort Popham.

Condition of records satisfactory except as noted below:

Ham
at Chief, Division of Tides and Currents.

LAC
HLL

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 30, 1944

~~Division of Hydrography and Topography:~~

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

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

HYDROGRAPHIC SHEET 6780

Locality Kennebec River, Maine.

Chief of Party: L. C. Johnson and J. H. Brittain in 1944

Plane of reference is mean low water reading

3.1 ft. on tide staff at Fort Popham

14.8 ft. below B. M. 1

Height of mean high water above plane of reference is 8.4 feet.

Condition of records satisfactory except as noted below:

C. H. Green

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

Review Section — Surveys Branch

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6780 W.D.

Field No. W.D. 1003

Maine; Cape Small; Kennebec River Approaches
Surveyed in July 1942 - Aug. 1944, Scale 1:10,000
Project CS-265

Wire Drag

Dual Control

Chief of Party - C. D. Meaney; L. C. Johnson
Surveyed by - C. R. Reed; L. C. Johnson
Protracted by - A. B. Brownell; J. A. McCormick
Subdivision of dragged areas by - A. B. Brownell;
J. A. McCormick
Inked by - A. B. Brownell; J. A. McCormick
Verified by - R. H. Carstens; J. A. McCormick
Reviewed by - J. A. McCormick
Inspected by H. R. Edmonston, October 25, 1944

1. Adjoining Wire Drag Surveys

Satisfactory junctions were effected with H-6799 (1942) in the Kennebec River, with H-6674 (1941) and H-6814 (1942) on the south and with H-6671 (1941) and H-6830 (1943) on the east. The Area and Depth Sheet has been altered to conform with the overlapping strips of the adjoining surveys.

2. Contemporary Hydrographic Surveys

H-6803 (1942), H-6804 (1942), H-6805 (1942),
H-6675 (1941), H-6730 (1941-42)

All of the above surveys have been reviewed and in making those reviews it was necessary to examine the drag work of the present survey pretty thoroughly. It is not considered necessary to repeat here the dispositions already made. There were many conflicts of 1 to 2 feet between effective depths and soundings but all have been satisfactorily adjusted.

3. Comparison with Chart 314 (Print of July 14, 1944)

The present survey has already been compared with the chart in connection with the reviews of the hydrographic surveys. Additional discussion is required only in the following cases:

- a. Depths of 21 and 23 feet charted in lat. $43^{\circ}41.8'$, long. $69^{\circ}46.5'$ are from B.P. 13452 of 1910, showing results of a Coast Pilot investigation by the Ship HYDROGRAPHER. Least depths on H-6730 (1941-42) is 25 feet and clearing depth on the present survey is 23 feet. Definite disposition was not made in the review of H-6730 but, after again considering the conflicting information, it is now recommended that the 21 and 23 be removed from the chart and that a clearing depth of 23 feet be charted on the H-6730 position of the 25.
- b. A 21 foot grounding, cleared with an effective depth of 20 feet, was obtained in lat. $43^{\circ}45.05'$, long. $69^{\circ}46.72'$ on the 1944 additional work. An after dredging survey by the U. S. Engineers (B.P. 38002) shows a depth of 26 feet at this point in November 1943 (project depth is 27 feet). As stated in the review of H-6804 (1942), the Engineers have been queried concerning the discrepancy.
- c. It is emphasized here that the 10 foot depth charted in lat. $43^{\circ}41.6'$, long. $69^{\circ}45.4'$ is considered disproved by a 19 foot effective depth on the present survey and is to be replaced by a 20 foot sounding from H-6805 (1942). This has already been discussed in the review of H-6805.


4. Compliance with Project Instructions

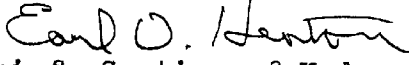
Satisfactory.

5. Additional Field Work Recommended


Although it would appear desirable that greater effective depths be carried in the main channel between Pond Island and Fort Popham, further additional work along such lines is not considered warranted in view of the U. S. Engineers' maintenance of the channel (see paragraph 5 b). Neither is it essential that the large split about Jackknife Ledge (lat. $43^{\circ}43.4'$, long. $69^{\circ}46.9'$) be dragged at this time.

Examined and approved:


Chief, ~~Surveys Branch~~
Division of Charts


Chief, Section of Hydrography


Chief, Division of Charts


Chief, Division of Coastal
Surveys

applied in part to chart 314 before review HFD 2/13/43

applied to New Chart 238 12/26/45 GFE

Then chart 238 applied to Reconst. 314 12/26/45 GFE