

8181 WIRE DRAG

Diag. Cht. No. 1204-3.

<small>Form 504</small> U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
<i>Type of Survey</i> <u>Wire Drag</u>	
<i>Field No.</i> <u>HI-WA-1253</u> <i>Office No.</i> <u>H-8181 W.D.</u>	
LOCALITY	
<i>State</i> <u>Maine</u>	
<i>General locality</i> <u>Gulf of Maine</u>	
<i>Locality</i> <u>Johns Bay and Damariscotta</u>	
<u>River</u>	
<u>1953</u>	
CHIEF OF PARTY	
<u>E. B. Brown</u>	
LIBRARY & ARCHIVES	
DATE	<u>March 23, 1956</u>

USCOMM-DC 5087

8181
WIRE DRAG

8

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. H-8181WD

Field No. ~~HI-WA~~ 1253 WD

State MAINE

General locality GULE OF MAINE

Locality JOHNS BAY & LOWER DAMARISCOTTA ^{River} and ~~JOHNS RIVERS~~

Scale 1: 10,000 Date of survey 11 May to 11 Sept., 1953

Instructions dated 6 February 1953

Vessel WAINWRIGHT & HILGARD

Chief of party E. B. BROWN

Surveyed by E. B. BROWN, J. C. TRIBBLE, JR., H. J. SEABORG & R. A. PARKER

Soundings taken by fathometer, ~~graphic recorder, hand lead, wire~~

Fathograms scaled by

Fathograms checked by

Protracted by A. Kaupa

Drag strip inked by

~~Soundings recorded by~~ A. Kaupa

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ and are true depths.

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk District Office.

JK

DESCRIPTIVE REPORT

To Accompany

Wire Drag Field Sheet No. HI-WA - 1253, WD
Project CS-265
Coast of Maine, 1953
Scale 1:10,000

Commanding: Ships WAINWRIGHT & HILGARD - E. B. Brown

A. PROJECT

Supplemental instructions, Project CS-265 Wire Drag, dated 6 February 1953, reference 22/MEK S-2-W&H. ✓

B. SURVEY LIMITS AND DATES

The locality of the survey is Johns Bay and lower reaches of the Damariscotta and Johns River. The sheet covers the specific area from Latitude $43^{\circ}43'45''$ to Latitude $43^{\circ}52'30''$ and from Longitude $69^{\circ}30'00''$ to Longitude $69^{\circ}36'30''$. The survey commenced on 11 May 1953 and was completed on 11 September 1953. ✓

Junctions were made with contemporary Surveys HI-WA 1153 to the north, HI-WA 2153 to the south and HI 2253 to the east. ✓

C. VESSELS & EQUIPMENT

The Ships WAINWRIGHT and HILGARD were used as the guide launch and end launch respectively. Launch No. 171 was used as the tender. Standard wire drag equipment was used during this survey. The WAINWRIGHT used 808 fathometer No. 58s, the HILGARD used 808J fathometer No. 139 SPX and Launch No. 171 used 808 fathometer No. 53. ✓

D. TIDE AND CURRENT STATIONS

Hourly heights for the reduction of soundings and effective drag depths were obtained from portable automatic tide gages installed and maintained by this party at Fort Point, Pemaquid Beach, Johns Bay, Maine and East Boothbay, Maine. ✓

There were no current stations observed. ✓

E. SMOOTH SHEET

To be prepared by the Norfolk Processing Office. ✓

F. CONTROL STATIONS

Triangulation stations used for control were natural objects such as lighthouses, towers, and beacons, and recoverable topographic stations previously located by aerial photogrammetry. Two signals were identified by this party on the aerial photographs: (HIL & JEN). Five signals were located by hydrographic means: (DRO, FOB, GET, POP, RUS). One signal was identified and pricked directly from the film positive: (EMO). Reference is made to the list of signals, Attachment 1 of this report. ✓

H. SOUNDINGS AND DRAG TESTS

Soundings were obtained using the 808 fathometer. The wire drag tests were made using a graduated iron pipe suspended from a small float by upright wire. This pipe was coated with white lead to determine the point of contact with the ground wire.

I. CONTROL OF WIRE DRAG

Standard dual control methods were used to control the wire drag. Sextant fixes were taken ever three (3) minutes as a rule, with a cut to the end buoy and opposite vessel immediately after the fix. The cuts were recorded as plus (+) if the object was clockwise and minus (-) if counterclockwise of the signal. The first cut is to the end buoy and the second cut to the opposite vessel unless otherwise noted. The distance from the center of the wheelhouse to the end buoy was 104 meters when a 300 foot towline was used, and 134 meters when a 400 foot towline was used. The distances were measured on the pier with the ship alongside. The 104 meter towline was used in confined waters and the 134 towline in open and deep waters.

J. ADEQUACY OF SURVEY

This survey is considered adequate with regard to the wire drag investigations and no further work is considered necessary.

L. COMPARISON WITH PREVIOUS SURVEYS, CHARTS AND DANGERS & SHOALS

In general this survey was in good agreement with the previous hydrographic surveys of this area and with Chart No. 314. The following listed hangs are specific instances in which there is some disagreement. Hang numbers refer to the Hang Data Sheet, Attachment No. 6 of this report.

*For Positions of hangs,
see attachment No 6*

PREVIOUS SURVEY H-6844

Hang No. 3 - This hang at effective 33 was in a charted depth of 35 feet. When coming over the hang in picking up the drag, no sounding less than 33 feet was obtained. ~~It is recommended this be charted as 33 feet.~~ Due to the proximity of this and a 25 foot pinnacle, the area was cleared at effective 23.

Hang No. 4 - Hang occurred in known depth of 26 feet but indicates lesser depth. Recommend this be charted as a rock cleared at 18 feet. *Hang 20' cleared 20'*

Hang No. 5 - This drag hung at 35 feet in surrounding depths of 40 to 58 feet. Previous survey shows a 40 foot sounding surrounded by deeper water. It is recommended it be charted as rock cleared at 32 feet.

(17ft)
Hang No. 7 - This hang was in a known shoal area but the drag indicates a lesser depth than is charted. A detached sounding of 14 feet was obtained. It is recommended that this be charted as a rock cleared at 12 feet.

(16ft)
13
Hang No. 18 - This hang occurred on a charted 19 foot sounding but it indicates a lesser depth. It is recommended this be charted as a rock cleared at 14 feet.

Hang No. 19 - This is a charted shoal of 30 feet in depths of 40 to 50 feet. This hang however indicates a lesser depth. It is recommended this be charted as a rock cleared at 26 feet.

Hang No. 21 - A least depth of 11 feet was obtained on position 2 W. The shoal was cleared with a 7 feet effective drag between positions 7 to 9 Y. It is recommended this shoal be charted as a rock cleared at 7 feet.

Hang No. 22 - A least depth of 21 feet was obtained on position 1 W. The shoal was cleared with a 17 foot effective drag between position 17 to 21 X. The investigation indicates that the 19 foot sounding is essentially correct and should be charted as rock cleared at 17 feet. *(From H-6844 (1943))*

Hang No. 26 - The drag hung on one strip and cleared on another at 36 feet. This is a charted shoal of 38 feet. It is recommended this be charted as a rock cleared at 35 feet.

PREVIOUS SURVEY H-6843

Hang No. 15 - This hang is in charted depths of 30 to 40 feet on the western edge of ledge but indicates lesser depth. A detached sounding of 25 feet was obtained over the hang. It is recommended that it be charted as 25 feet. *(See Hang Data)*

PREVIOUS SURVEY H-6840

H-6840 Hang No 39 - Drag grounded 3 min off 28' depth near 30' shoal. Not cleared. No sounding. Cleared by 26 ft on H-6983 (1943)

H-6858 Hang No. 25 - The HILGARD spent about 30 minutes crossing the area but was unable to come to any conclusion with the 808 fathometer. A 37 foot drag hung tight, pos. 39 - 50 BA. A 32 foot drag hung for 12 minutes and came free, pos. 51 - 62 BA. *34*

Two drags at effective depths of 33 feet cleared with no indication of groundings, pos. 26 - 38 BA and 63, 73 BA. It is recommended that this be charted as a rock cleared at 32 feet.

O. COAST PILOT INFORMATION

Reference is made to special report, Coast Pilot Information Projects CS-265, 1953 submitted under separate cover.

P. AIDS TO NAVIGATION

See Attachment 4 of this report.

Q. LANDMARKS FOR CHARTS

No new landmarks for charts are recommended for the area covered by this survey.

Previous Survey H-6858 (1943)

Hang No 36 - A 50' hang in 38-59 ft of water. CI by 47'

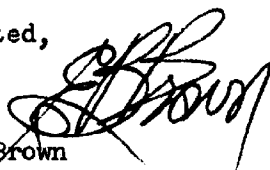
Hang No 23 - A 39' hang in 40-59 ft of water. CI by 37'

Hang No 25 - (Above)

Z. TABULATION OF APPLICABLE DATA

- Attachment No. 1. List of Signals
2. Tide Note
3. Statistics
4. Aids to Navigation
5. Fathometer Corrections
6. Hang Data Sheet

Submitted,


E. B. Brown
Comdr., USC&GS
Chief of Party

LIST OF SIGNALSFilm Positive No. T-5991

<u>SIGNAL</u>	<u>NUMBER</u>
ART	408
AZO	821
BAT	409
BIB	434
BIG	353
BLUE	814
CHIM	637
CRY	426
CUP	633
DIM	812
DOE	432
EASY	442
ELM	792
EMO	Estb. 1953
EON	788
ERG	419
GAS	850
GALE	306
GEM	1600
HOLY	646
HID	1591
HUG	853
ICE	851
IVY	422
JET	405
LIP	852
MAW	339
NEW	412
NIL	641
NON	338
OLD	796
PAL	411
PAW	793
PEP	2090
PIE	435
PIN	438
PEG	643
POL	403
RIG	835
RIP	809
ROT	640
RUB	2089
RUM	819
SAG	352
SIC	431
SIR	436
SKI	348
STY	416
SUP	1599
TAN	790
THY	421
TOY	407
TUB	343

Film Positive No. T-5991

<u>SIGNAL</u>	<u>NUMBER</u>
UNIT	1596
USE	342
WAD	650
WASH	414
WET	1598
WIN	817
WOO	639
YAK	336
YET	647

PHOTO-HYDRO STATIONS

<u>SIGNAL</u>	<u>PHOTOGRAPH</u>
HIL	Photo No. 7110
JEN	Photo No. 7111

Film Positive No. T-5992

<u>SIGNAL</u>	<u>NUMBER</u>
CAW	655
DIP	656
EVA	859
FED	860
MICE	766
QUIT	359
REAR	760
SPAT	758

Triangulation Stations

<u>SIGNAL</u>	<u>SOURCE</u>
HIT	White Id. 1934
HYPO	Hypocrites Beacon 1934
PEM	Pemaquid L. H. 1942
RAM	Ram Id. L. H. 1902
TOW	Rutherford Id. Sq. Tower 1942

Hydrographic Locations

<u>SIGNAL</u>	<u>LOCATION</u>
DRO	Vol. 4, Page 40&41 Guide Launch Record
FOB	Vol. 1, page 60 Guide Launch Record & Vol. 1, page 39 End Launch Record
GET	Vol. 4, Page 40&41 Guide Launch Record
POP	Vol. 1, Page 48 End Launch Sheet 1153
RUS	Vol. 7, Page 37 End Launch Record & Vol. 9, Page 31&32 Guide Launch Record

PROCESSING OFFICE
LIST OF SIGNALS

H-8181WD

TRIANGULATION STATIONS

HIT WHITE ISLAND 2, 1934
HYPO HYPOCRITES BEACON, 1859-1934
PEM PEMAQUID LIGHTHOUSE, 1942
RAM RAM ISLAND LIGHTHOUSE, 1902
TOW RUTHERFORD ISLAND SQUARE TOWER, 1942

DESCRIBED TOPOGRAPHIC STATIONS

SOURCE T-5991

Art Cup Doe Gas Gale Holy Hid Old Paw Rip Thy

SOURCE T-5992

Caw

TOPOGRAPHIC STATIONS

SOURCE H-6843

Bib Big Easy Fob Hug Ice Lip Pie Pin Peg Sag Sic
Sir Ski Wad Yet Dip Ewa Fed Mice Quit Rear Spat

SOURCE H-6844

Azo Bat Chim Cry Dim Eon Erg Gem Ivy Jat Maw
New Nil Non Pal Pep Rig Rot Rub Rum Sty Sup
Tan Toy Tub Unit Use Wash Wet Win Woo Yak

Pol (transferred from boat sheet)

HYDROGRAPHIC STATIONS

Dro Vol. 4, pg. 40&41 (G.L.)
Feb^{Feb} Vol. 1, pg. 60 "
Get Vol. 4, pg. 40&41 "
Pop Vol. 1, pg. 48 Survey H-8180WD
Rus Vol. 7, pg. 37 (E.L.)
Vol. 9, pg. 31&32 (G.L.)

PHOTOGRAMMETRIC FEATURES

SOURCE T-5991

Blue Elm Emo

SOURCE T-5990

Hil Jen

P. D. List of
 FLOATING AIDS TO NAVIGATION
 H8181 W.D.

<u>BUOY</u>	<u>LAT.</u>	<u>LONG.</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Outer Heron I. Ledge Buoy	43-46.16 ✓	69-33.82 ✓	34' ✓	23AA ✓	8-3-53
Hypocrite Ledge Buoy 1A	43-48.25 ✓	69-35.21 ✓		2AA ✓	"
Hypocrite Ledge Bell Bouy "HL"	43-48.44 ✓	69-34.82 ✓	157'	38Y ✓	7-29-53
Little R. Gong Buoy	43-49.21 ✓	69-34.90 ✓	37'	1fa* ✓	8-29-53
Little R. Buoy 1	43-49.17 ✓	69-34.81 ✓	76'	2fa* ✓	"
Little R. Buoy 2 ✓	43-49.30 ✓	69-34.25 ✓		5FA ✓	9-11-53
Little R. Buoy 4	43-50.09 ✓	69-34.04 ✓	34' ✓	2T ✓	7-17-53
Ram I. Ledge Buoy 1 ✓	43-48.35 ✓	69-35.81 ✓		1AA ✓	8-3-53
Pemaquid Ledge Buoy ✓	43-49.05 ✓	69-31.18 ✓	44' ✓	29CA (E.L.)	8-6-53
Foster Pt. Shoal Buoy 1	43-50.47 ✓	69-34.05 ✓	32' ✓	1T ✓	7-17-53
Turnip I. Buoy 1	43-49.77 ✓	69-33.40 ✓	35' ✓	1V ✓	7-22-53
Pemaquid Pt. Gong Buoy 2	43-49.74 ✓	69-31.00 ✓	70' ✓	29CA(G.L.)	8-6-53
Damariscotta R. Buoy 6	43-51.40 ✓	69-34.05 ✓		16S	7-15-53
Damariscotta R. Buoy 5	43-51.84 ✓	69-34.76 ✓	69'	28p*	7-9-53
Damariscotta R. Buoy 7	43-52.18 ✓	69-35.00 ✓	47'	29p*	7-9-53
Gangway Ledge Buoy 2	43-48.48 ✓	69-36.23 ✓	41' ✓	1AA ✓	8-3-53

*Positions transferred to the tender record in order to obtain day letters.

Attachment 2

Tidal Note

Portable automatic tide gages were established and maintained by this party at; Fort Point, Pemaquid Beach, Johns Bay, Maine, Latitude $43^{\circ}52.6'$ Longitude $69^{\circ}31.5'$ and East Boothbay, Maine, Latitude $43^{\circ}51.9'$ Longitude $69^{\circ}35.0'$.

Height of Mean Low Water above the zero of the tide staff at these two gages was 3.4 and 2.7 feet respectively.

Hourly heights were scaled from the marigrams by the personnel of this party. All times noted on the marigrams are Eastern Daylight Savings Time while this time was in effect (29 April to 27 Sept.)

Records from the East Boothbay Gage were used without correction for differences in time and height for the work in the Damariscotta River north of Latitude $43^{\circ}49.3'$ and in Christmas Cove north of Latitude $43^{\circ}49.6'$. For Johns Bay, Fisherman Passage, and the outside, the Pemaquid Gage was used without correction for differences in time and height.

Attachment 3STATISTICS

1253

<u>VOL.</u>	<u>DATE</u>	<u>DAY</u>	<u>POSITIONS</u>	<u>STAT. MI.</u>
1	5/11/53	A	63	4.8
1	12	B	25	2.3
1	27	C	18	3.8
1 & 2	6/1/53	D	65	6.0
2	2	E	81	6.0
2	3	F	47	3.8
2 & 3	4	G	64	5.1
3	8	H	27	2.4
3	10	J	45	3.7
3 & 4	12	K	76	6.3
4	15	L	37	2.9
4	16	M	17	1.4
4	7/8/53	N	18	0.8
4 & 5	9	P	26	2.5
5	10	Q	33	2.5
5	14	R	29	2.9
5	15	S	50	4.0
6	17	T	23	1.4
6	21	U	17	1.3
6	22	V	52	4.7
6&7	24	W	56	3.7
7	28	X	50	2.9
7	29	Y	38	2.8
7	30	Z	70	5.7
8	8/3/53	AA	54	3.3
8	4	BA	73	4.1

Attachment 3 Contd.

STATISTICS

1253

<u>VOL.</u>	<u>DATE</u>	<u>DAY</u>	<u>POSITIONS</u>	<u>STAT.MI.</u>
8 & 9	6	CA	63	4.2
9	7	DA	59	3.3
9	12	EA	53	4.5
9	9/11/53	FA	<u>10</u>	<u>0.9</u>
		TOTALS	1390	104.0

Attachment 4

Aids to Navigation

<u>Name</u>	<u>Position</u>	<u>Depth</u>	<u>Location</u>	<u>Date</u>
Outer Heron Id. Ledge	43 46.20 ¹⁶ 69 33.80	35' ³⁴	Vol. 8 Page 9 Wainwright Rec.	3 Aug. 53
Hypocrite Ledge Buoy 1A	43 48.25' 69 35.22	27'	Vol. 8 Page 1 WAINWRIGHT Rec.	3 Aug. 1953
Hypocrite Ledge Bell Buoy	43 48.40 69 34.80	162'	Vol. 7 Page 35 WAINWRIGHT Rec.	29 July 53
Little River Gong Buoy <i>Bell</i>	43 49.20 69 34.90	37'	Vol. 7 Page 33 HILGARD Record	29 Aug. 53
Black Can C-1	43 49.16 69 34.82	76'	Vol. 7 Page 33 HILGARD Record	29 Aug. 53
Inner Heron Id S-2	43 49.30 69 34.25	30'	Vol. 9 Page 44 WAINWRIGHT Rec.	11 Sept. 53
Inner Heron Id. S-4	43 50.12 69 34.02	40'	Vol. 4 Page 41 HILGARD Record	17 July 53
Ram Id. Ledge Buoy 1	43 48.40 69 35.80	24'	Vol. 8 Page 1 WAINWRIGHT Rec.	3 Aug. 53
Pemaquid Ledge Buoy	43 49.05 69 31.18	45'	Vol. 8 Page 58 WAINWRIGHT Rec.	6 Aug. 53
Pemaquid Pt. Gong Buoy 2	43 49.70 69 30.94	70'	Vol. 9 Page 1 WAINWRIGHT Rec.	6 Aug. 53
Turnip Id. S-1	43 49.80 69 33.40	42'	Vol. 6 Page 23 WAINWRIGHT Rec.	22 July 53
Foster Pt. Shoal Buoy 1	43 50.47 69 34.05	38'	Vol. 4 Page 41 WAINWRIGHT REC.	17 July 53
Red Spar S-6	43 51.43 69 34.05	30'	Vol. 4 Page 31 HILGARD Record	15 July 53
Black Spar S-5	43 51.83 69 34.75	77'	Vol. 4 Page 52 WAINWRIGHT Rec.	9 July 53
Black Spar S-7	43 52.17 69 35.00	54'	Vol. 4 Page 52 WAINWRIGHT Rec.	9 July 53

Note: See N. 40. List. Some sops. in this page. Taken from Hilgard list.

The positions of these aids, as charted on Chart No. 314 are in agreement with the locations as obtained during this survey.

Attachment 5

Fathometer Corrections

WAINWRIGHT - Fathometer No. 58 S (Initial set at 2.0 ft.)

<u>A RANGE</u>		<u>B RANGE</u>	
<u>DEPTH</u>	<u>CORRN</u>	<u>DEPTH</u>	<u>CORRN</u>
0 - 23'	0.0	0 - 40.5'	-0.5'
24 - 39'	-0.5'	41 - 45	-1.0'
40 -	-1.0'	45 -	-1.5'

HILGARD - Fathometer No. 139 SPX (Initial set at 2.0 ft.)

Fathometer correction is zero for 2 feet initial in this ship.

LAUNCH NO. 171 - Fathometer No. 53 (Initial set at 0.5 ft.)

Fathometer correction is zero for No. 53 in Launch No. 171.

Latitude Longitude	General Depth	Min. Hang Pt.	Position No.	Max. Clear.	Position No.	Path. Sdg.	Remarks
1. 43°51.76' ✓ 69°31.77' ✓	30	(32 MP)	2 to 28D ✓	27' ✓ 28' ✓	36 to 47D ✓	28 ✓ <i>Pa. 29d</i>	Known shoal. # ✓
2. 43°51.48' ✓ 69°34.12' ✓	26	(28 MP)	1 to 3S ✓	14 ✓	16 to 20S ✓	— 01	Known shoal. (The north shoulder of charted 16.) # ✓
3. 43°51.20' ✓ 69°34.15' ✓	30-35	33 ✓	1 to 16R ✓	23 ✓	11 to 15S ✓	—	Known 35' sounding, lesser than charted. (See Section I of this report.) ✓
4. 43°51.33' ✓ 69°32.57' ✓	30	20 ✓	22 to 26F ✓	20 ✓	1 to 13H ✓	—	Known shoal. Lesser depth than charted. (See Section I of this report.) ✓
5. 43°51.16' ✓ 69°32.58' ✓	40-50	35 ✓	14 to 17H ✓	32 ✓	23 to 27H ✓	37 ✓	Lesser depth than charted. (See Section I of this report.) ✓
6. 43°52.06' ✓ 69°32.55' ✓	27-60	(42 MP)	1 to 25J ✓ 1 to 16K ✓	24 ✓	35 to 47F ✓	— 01	Known shoal of 27ft. depth. # ✓
7. 43°51.53' ✓ 69°32.06' ✓	30	17 ✓	26 to 31K ✓	22 13	33 to 39K ✓	14 ✓	Adjacent to charted 19' shoal. Lesser depth than charted. (See Section I of the report.) ✓
8. 43°49.45' ✓ 69°32.51' ✓	21-30	(30 MP)	40 to 76K ✓	17 ✓	7 to 14L ✓	—	Known shoal of 21 foot depth. # ✓
9. 43°49.32' ✓ 69°32.52' ✓	50-60	(55 MP)	15 to 37L ✓	17 ✓	7 to 14L ✓	—	Known shoal (wrap of hang 8 from south). # ✓
10. 43°51.49' ✓ 69°34.28' ✓	30	(35 MP)	1 to 14N ✓	18 ✓	16 to 20S ✓	21 ✓ <i>see from 2</i>	Known shoal of 20 feet. # ✓
11. 43°51.92' ✓ 69°34.63' ✓	30	31 ✓	1 to 5Q ✓	21 ✓	15 to 22Q ✓	27 ✓	Known shoal (south shoulder of charted 23). # ✓
12. 43°51.92' ✓ 69°34.44' ✓	32	33 Not used	1 to 9P ✓	21	15 to 22Q ✓	—	Wrapped known shoal. # ✓ Shoal apparently extends farther offshore than indicated on H-8845

Not cleared
(reverse b/y/f)

Wrapped known shoal. # ✓
Shoal apparently extends farther offshore than indicated on H-8845

HANG DATA

Latitude Longitude	General Depth Ft.	Min. Hang Ft.	Position No.	Max. Clear.	Position No.	Path. Sdg.	Remarks
13. 43° 51.69' ✓ 69° 34.50' ✓	33	34 MP	10 to 17P ✓	—	—	—	Known 33' sounding to immediate north of charted 19 (From H-6844, 1943) of Sec. H-50 No. 18 De Low. Known shoal. (Western edge of ledge.) ? ^{15' charted} ₃₁₄ ^{some East of}
14. 43° 52.16' ✓ 69° 34.92' ✓	30	38	18 to 21P ✓	21	15 to 22Q ✓	—	Strip not plotted. Some area as H-5 below.
15. 43° 52.23' ✓ 69° 34.93' ✓	30-40	32 ✓	22 to 26P ✓	13 ✓	23 to 33Q ✓	25 ✓	Lesser depth than charted. (Western edge of ledge.) (See Sec. I. of this report.)
16. 43° 52.17' ✓ 69° 34.77' ✓	18-30	21 MP	15 to 22Q ✓	15/13	23 to 33Q ✓	—	On known shoal. # (South shoulder ledge of charted 17.)
17. 43° 50.25' ✓ 69° 33.66' ✓	30-40	34 MP	8 to 16T ✓	25 ✓	1 to 11U ✓	—	On known shoal area. #
18. 43° 50.01' ✓ 69° 33.57' ✓	19-30	16 ✓	2 to 5T ✓	14 ✓	6 to 15V ✓	—	Known Shoal. Lesser depth than charted. (See Section I of this report.)
19. 43° 48.87' ✓ 69° 33.47' ✓	30	28 ✓	16 to 29V ✓	26 ✓	33 to 43V ✓	—	Known shoal. (See Sec. I of this report.)
20. 43° 49.45' ✓ 69° 33.46' ✓	30	27	30 to 32T ✓	—	—	—	Not smooth plotted.
21. 43° 48.93' ✓ 69° 33.79' ✓	22	06 MP	1 to 6T ✓	7A ✓	7 to 9T ✓	10.8	Hung from start of strip in known depths of 24 to 30'. Hang on edge of known shoal, 22' from H-6844 Southern shoulder of 11-ft. pinnacle. (See Sec. I of this report.) #
22. 43° 49.18' ✓ 69° 33.95' ✓	38	43 MP	16 to 56W ✓	17 ✓	17 to 21X ✓	21X ✓	Southern shoulder of 19-ft. known shoal. (See Sec. I of this report.) #
23. 43° 47.84' ✓ 69° 33.42' ✓	38	43.8	18 to 22CA ✓	37 ✓	39 to 50BA ✓	—	Known depths of 30 to 40 fms in 40-59 ft of water (See sec. I. of report)
24. 43° 46.08' ✓ 69° 33.84' ✓	50-60	50 MP	14 to 22AA ✓	—	—	—	Wrapped a known shoal of depth # 6 1/2 feet.
29. 43° 46.43' ✓ 69° 34.36' ✓	30-40	28.4	3-13AA	—	—	—	Drag grounded 3 min. ✓

Not shown on Sonar

254	General		Min. Hang Ft.	Position No.	Max. Clear.	Position No.	Path. Sdg.	Remarks
	Latitude	Longitude						
25.	43° 47.6' N	69° 33.4' W	30-40	51 to 62BA	33 ✓	26 to 38BA 69 to 73BA MR. 3' Swells	—	See Sec. I. of this report. ✓
26.	43° 49.38' N	69° 31.12' W	38	14 to 17DA	36 ✓	18 to 30DA	—	See Sec. I. of this report. ✓
27.	43° 49.05' N	69° 31.21' W	22 ✓	31 to 46DA	10 ✓	7 to 13EA	—	Wrapped a known shoal area # (charted 12 1/2 miles SW of Hang) (1-13EA cleared charted n by 20') ✓
28.	43° 48.93' N	69° 31.30' W	12-30 ✓	47 to 59DA	10 ✓	7 to 13EA	—	Wrapped known shoal. #
29.	43° 48.58' N	69° 31.34' W	50-60	29 to 42EA	25 ✓	47 to 59DA	—	Southern shoulder of shoal ledge. #
30.	43° 46.25' N	69° 33.84' W	50-60	43 to 53EA	—	—	—	Wrapped known shoal. #
31.	43° 51.43' N	69° 34.13' W	30	1 to 4FA	14 ✓	16 to 20S (See 17a m 2)	—	Southern shoulder of known shoal ledge. #
32.	43° 51.81' N	69° 32.10' W	20-30	6 to 10FA	—	—	—	Wrapped known shoal. (Southern point of Johns Island.) #
33.	43° 46.83' N	69° 33.44' W	30-60	25 to 49X ✓	26 ✓	37 to 43W ✓	46 ✓	Known shoal ✓
34.	43° 48.84' N	69° 33.22' W	30-60	3-15W ✓	26 ✓	1-17V ✓	—	Known shoal ✓
35.	43° 51.35' N	69° 32.54' W	20-33	55-74E	20 ✓	1-13W	—	Known shoal #
36.	43° 47.54' N	69° 33.41' W	58-59	24-54AA ✓	33 ✓	8-38BA 10-17CA ✓	—	Shoaler than H-6858 ✓
37.	43° 47.86' N	69° 33.41' W	51	1-1a BA ✓	37 ✓	39-50 BA ✓	—	Known shoal #
38.	43° 47.60' N	69° 33.42' W	51	10-17P	34 ✓	1-14A	—	Shoal 204 NW of 33 depth in 3-2-10

ADDENDUM
To Accompany

WIRE DRAG SURVEY H-8181WD (Field No. Wa-Hi-1253WD)

GENERAL

A split, in two sections, occurs in the vicinity of Lat. 43°-48.6, Long. 69-34.6 (splits covered by H-6983WD (1944))

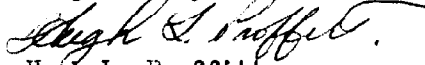
All drag strips were smooth plotted with the exception of those listed below. Explanatory notes have been entered on the overlay tracings of these lines.

Lines 75 to 81E; 18 to 21P; 30 to 32V; 22 to 24X; 45 to 47Z; 63 to 73BA; 1 to 9CA

CONTROL

All control stations, other than triangulation and described topographic, have been removed from the original air-photo compilations. The remaining topographic stations were transferred from blue line prints of previous hydrographic surveys H-6843 and H-6844^{of 1943.} Station "Pol" was transferred directly from the boat sheet as no other source was found.

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
24 Feb. 1956

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

10 April 1956

Division of Charts: R. H. Carstens

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

HYDROGRAPHIC SHEET 8181

Locality Gulf of Maine

Chief of Party: E. B. Brown in 1953
Plane of reference is mean low water, reading
3.4 ft. on tide staff at Fort Point, Johns Bay
14.5 ft. below B. M. 1 (1943)

2.7 ft. on tide staff at East Boothbay
16.6 ft. below B. M. 1 (1943)

Height of mean high water above plane of reference is:
Fort Point - 8.8 ft.
East Boothbay - 9.0 ft.

Condition of records satisfactory except as noted below:

Branch
Chief, ~~Division of~~ Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-2181 W.D.

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
Maine									1
Gulf of Maine									2
Pemaquid Point									3
Johns Bay				(tide station)				B.G.M.	4
Johns Island								"	5
Pemaquid Beach				(tide station)					6
Pemaquid Harbor									7
Johns River									8
Rutherford Island									9
East Boothbay				(tide station)				B.G.M.	10
Lincoln Neck									11
Damariscotta River									12
White Islands									13
Fisherman Island Passage									14
									15
Birch Island									16
Beaver Island									17
Pemaquid Neck									18
									19
Tide station off sheet									20
Fort Point									21
									22
									23
									24
									25
									26
									27

for title

Names approved
3-29-56 L. Heck
(see chart 314 for
best placement
of names).

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~181~~ Wire Drag.

Records accompanying survey:

Boat sheets ..2...; sounding vols.; wire drag vols. .20...;
 bomb vols.; graphic recorder rolls ~~1-Envelope~~
 special reports, etc. ~~1-Descriptive report, 1-Smooth sheet, 1-A & B sheet,~~
~~and 1-Tide and Drag data.~~.....

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

Number of positions on sheet		2780..
Number of positions checked		250..
Number of positions revised		20..
Number of soundings revised (refers to depth only)		2..
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		—
Topographic details	Time	..24..
Junctions	Time	..30..
Verification of soundings from graphic record	Time	..1..
Verification by <i>D. R. Engle</i>	Total time	397... Date <i>Mar 18 1960</i>
Reviewed by <i>J. J. ...</i>	Time	..73.. Date <i>7-12-60</i>

H-8181 WD - 2

- B. H-6840 (1943), 1:10,000
- H-6843 (1943), 1:10,000
- H-6844 (1943), 1:10,000
- H-6858 (1943), 1:20,000

Effective depths of the present wire-drag survey do not conflict with the depths on the above listed surveys, except as indicated below. Soundings and groundings from the present survey have been transferred to these basic surveys.

1. The 32-ft. sounding charted in Lat. $43^{\circ}47.70'$, Long. $69^{\circ}33.36'$ from H-6858 (1943) has been revised to 54-ft. The kelp trace of a fathometer sounding was erroneously read as the true bottom. The 54-ft. sounding was cleared by a wire-drag set to an effective depth of 37-ft. on the present survey. Similarly two 24-ft. soundings 200 meters to the southwestward have been revised to 33 and 36 ft. respectively on reexamination of the fathograms. A 33-ft. clearance was obtained on this shoal.

2. The 58-ft. sounding charted in Lat. $43^{\circ}47.60'$, Long. $69^{\circ}33.65'$ originates with H-6858 (1943). A wire-drag hang of 50-ft. was cleared by a wire-drag set to an effective depth of 47-ft. here on the present survey. (See Attachment 6, item 36 in the Descriptive Report)

3. The 28-ft. sounding charted in Lat. $43^{\circ}50.04'$, Long. $69^{\circ}33.85'$ originates with H-6844 (1943). A momentary grounding of 25-ft. was obtained here on the present survey.

4. The 26-ft. sounding charted in Lat. $43^{\circ}48.73'$, Long. $69^{\circ}31.34'$ originates with H-6844 (1943) where it was brought forward from Bp. 13452 (1910). A grounding of 25-ft. which was cleared by a wire-drag set to an effective depth of 23-ft. was obtained here on the present survey.

4. Comparison with Chart 314 (Latest print date 10-12-59)

A. Hydrography

No conflicts were noted between the charted soundings and the effective wire-drag depths of the present survey except as listed in paragraph 3 above. Attention, however, is directed to the charted cleared effective wire drag depths over groundings which were revised during verification and review, and which are listed below:

H-8181 WD - 3

Charted Cleared Depth ft.	Location		Revised cleared depth on present survey - ft.	Attachment No. 6 Item No.
	Latitude	Longitude		
35	43°49.37'	69°31.10'	36	26
12	43°51.53'	69°32.06'	13	7
19	43°51.27'	69°32.54'	20	35
33	43°51.18'	69°32.50'	32	5
28	43°46.62'	69°34.34'	26	39

B. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended, except that the red and black can buoy charted in Lat. 43°48.98', Long. 69°31.19' is located on the present survey about 100 meters northward of its charted position. In its charted position, the buoy more adequately marks the intended feature.

5. Condition of Survey

a. The Descriptive Report and sounding records are complete and comprehensive.

b. The survey was accurately and neatly smooth plotted, except as follows:

1. Rule 2, page 37 of the wire drag Manual (Special Pub. 18) was not observed when the length of drag between adjacent uprights exceeded $2\frac{1}{2}\%$ of the length of section. These discrepancies were corrected during verification of the smooth sheet.

2. When the drag depth was increased lines delimiting areas were drawn connecting the buoy paths at the time the first upright of a wire drag section was lowered instead of at the time the second upright was lowered. These discrepancies were corrected during verification of the smooth sheet.

3. In some instances sinuous instead of straight line bights were drawn at the beginning of drag strips when the drag had not assumed its natural bight. These discrepancies were corrected by drawing straight line bights during verification of the smooth sheet.

6. Project Instructions

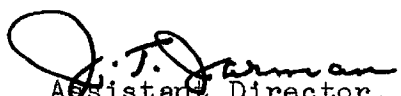
The survey adequately complies with the Project Instructions.

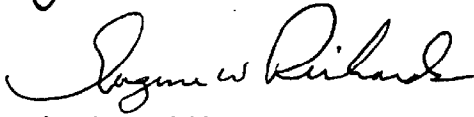
7. Additional Field Work Recommended

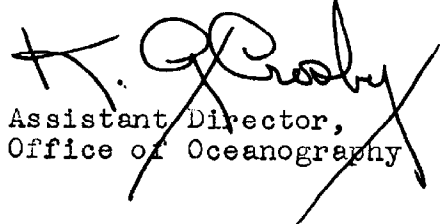
No additional field work is recommended.

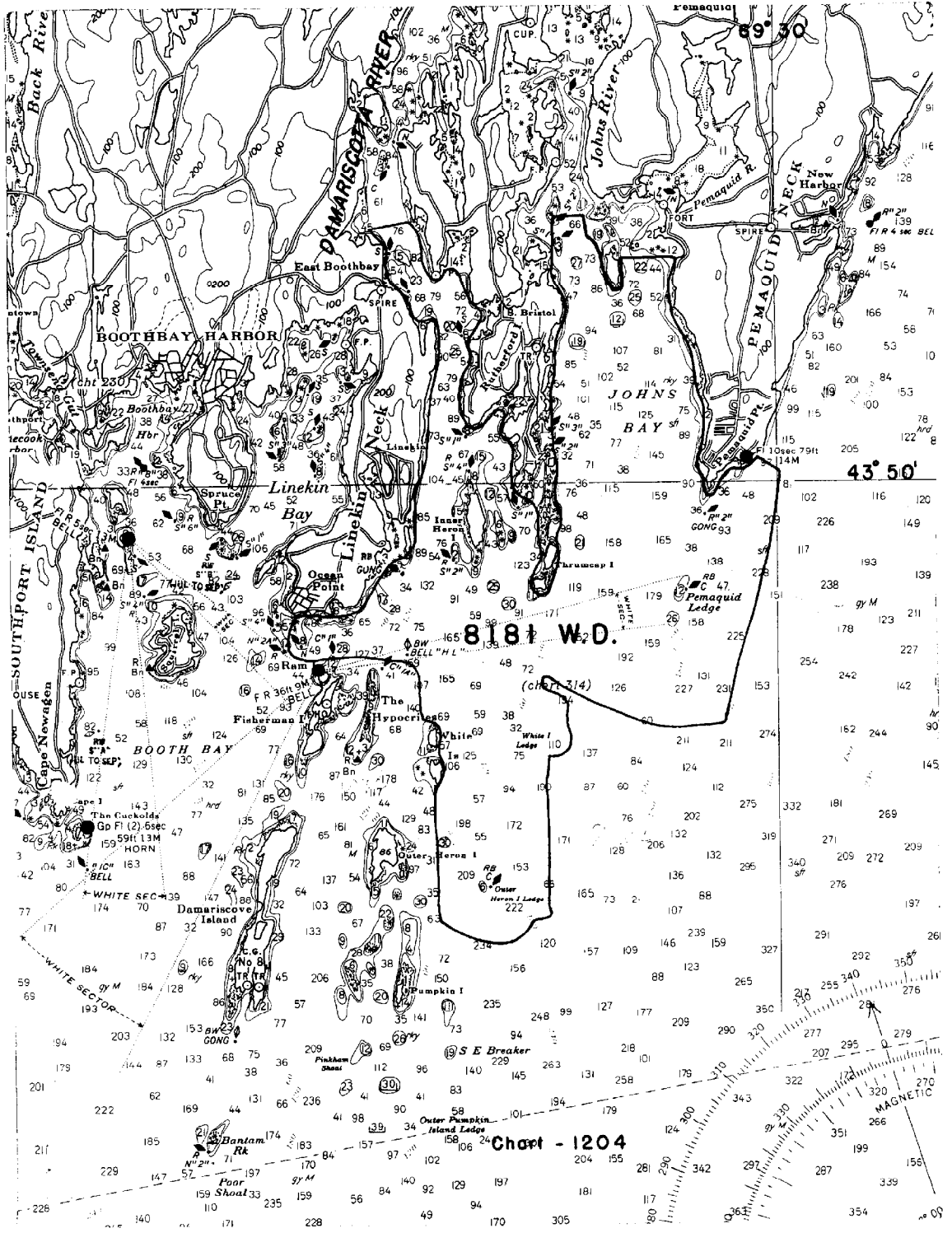
Examined and Approved:


Chief,
Nautical Chart Division


Assistant Director,
Office of Cartography


Projects Officer,
Operations Division


Assistant Director,
Office of Oceanography



NAUTICAL CHARTS BRANCH

SURVEY NO. N-8181 Wire Drag.

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9-10-56	314	J. Walker	Before After Verification and Review <i>Partially</i>
3/14/57	1204	G.E.	Before After Verification and Review <i>Partially</i>
6/20/57	313	S.F.M.	Before After Verification and Review <i>☒</i>
10/10/60	314	John M. McAlinden	Before After Verification and Review <i>Completely Applied</i>
12/23/60	1204	Stum	Before After Verification and Review <i>Completely applied.</i>
8-31-61	313	G. P. Johnson	Before After Verification and Review <i>Fully Applied</i> <i>Thru. Chrt 314</i>
11/30/66	1106	F. J. Pavlat	Before After Verification and Review <i>Completely App'd.</i> <i>thru Chrt. 1204.</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.