

8183

WIRE DRAG

Diag. Cht. No. 1204-3.

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|--|--|
| <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-1154W-D</u> <i>Office No.</i> <u>H-8183 W.D.</u> | |
| LOCALITY | |
| <i>State</i> <u>Maine</u> | |
| <i>General locality</i> <u>Muscongus Bay</u> | |
| <i>Locality</i> <u>East of Pemaquid Neck</u> | |
| <u>1954</u> | |
| CHIEF OF PARTY | |
| <u>E. B. Brown</u> | |
| LIBRARY & ARCHIVES | |
| DATE <u>November 17, 1959</u> | |

USCOMM-DC 5087

8183
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. H-8183WD

Field No. HI-WA 1154WD

State Maine

General locality Muscovogus Bay
~~Gulf of Maine~~

Locality E 95t of Pemaquid Neck
~~Muscovogus Bay~~

Scale 1:10,000 Date of survey 30 April thru 13 Sept.

Instructions dated 6 February 1953 and 9 March 1954

Vessels WAINWRIGHT and HILGARD

Chief of party E. B. Brown

Surveyed by E. B. Brown, L. G. Taylor, G. L. Short, & J. B. Watkins, Jr.

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

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by SHIP PERSONNEL

Protracted by W. W. FEAZEL

DRAG STRIPS INKED

~~Soundings plotted~~ by W. W. FEAZEL

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~ and are true depths

REMARKS:

.....
.....
.....
.....
.....

DESCRIPTIVE REPORT

To Accompany -

Wire Drag Field Sheet No. HI-WA-1154, W.D.

Project CS-265
Coast Of Maine, 1954
Scale 1:10,000

E. B. Brown ----- Chief of Party

A. PROJECT

Supplemental Instructions dated 6 February 1953 and 9 March 1954, reference 22/MEK, S-2-W&H.

B. SURVEY LIMITS & DATES

The locality of the survey is Muscongus Bay and the lower reaches of Muscongus Sound. The sheet covers the specific area from Latitude $43^{\circ} 29' N$, to Latitude $43^{\circ} 56' 30'' N$ and from Longitude $69^{\circ} 24' 30'' W$ to Longitude $69^{\circ} 31' W$. Field work commenced on 20 April and was completed on 13 September 1954.

Junctions were made with contemporary survey HI-WA-2253 to the south, HI-WA-1254 to the North, and HI-WA-1354 to the East.

(H-8465 1953-JJ)

(H-8499 (1954))

(H-8500 (1954-JJ))

C. VESSELS AND EQUIPMENT

The Ships WAINWRIGHT and HILGARD were used as guide launch and end launch respectively. Launch C&GS No. 171 was used as a drag tender. Standard wire drag equipment was used throughout this survey. The WAINWRIGHT used fathometer No. 58-S, the HILGARD used fathometer No. 139-SPX to 12 May and No. 138-SPX through the remaining period of the survey. Launch 171 used fathometer No. 138-SPX to 12 May and No. 139-SPX the remaining period.

D. TIDES AND CURRENTS

Hourly heights for the reduction of soundings and effective drag depths were obtained from the portable automatic tide gage installed at New Harbor, Maine.

D. TIDES AND CURRENTS

*by N.P.O. from hourly heights requested from W.O.
H.L.P.*

On letter "W" day no hourly heights from the New Harbor gage were available and predicted tides were used. A comparison had previously been made between predicted and observed tides and no noticeable difference was noticed. ✓

No range or time factors were applied to the hourly heights. ✓

There were no current stations observed. ✓

E. SMOOTH SHEET

was
~~To be~~ prepared by the Norfolk Processing Office. ✓

F. CONTROL STATIONS

Topographic
~~Triangulation~~ stations used for control were natural objects such as lighthouses, towers, beacons and recoverable topographic stations previously located by aerial photogrammetry. Twelve signals were located by hydrographic means and one pricked directly from the film positive. Reference is made to the list of signals, attachment I of this report. ✓

H. SOUNDINGS AND DRAG TESTS

Soundings were obtained using the 808 fathometer and occasionally the lead line. The wire drag tests were made using a graduated iron pipe suspended from a small float by upright wire. The 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 wire drag. Sextant fixes were taken every 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 from the signal. The first cut is to buoy "N" (end buoy) or "F" (end buoy), WAINWRIGHT and HILGARD respectively. The second cut was to the opposite vessel unless otherwise noted. ✓

I. CONTROL OF WIRE DRAG

The distance from the center of the wheelhouse to the end buoy was 104 meters when a 300 foot towline was used, 134 meters when a 400 foot towline was used, and 74 meters with a 200 foot towline. The distances were measured on the pier with the ship alongside. The 74 and 104 meter towlines were used in confined waters and the 134 meter towline in open and deep water.

J. ADEQUACY OF SURVEY

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

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

In general this survey is in good agreement with the hydrographic surveys of the area and Chart No. 314. The following listed hangs are specific instances in which there is disagreement. Hang numbers refer to the Hang Data Sheet, attachment No. 8 of this report.

PREVIOUS SURVEY NO. H-6853

HANG NO. 4 - The drag hung at effective 52 feet on the southwest shoulder of the New Harbor Sunken Ledges in the vicinity of a charted 52-foot sounding. A reduced sounding of 49.5 feet was obtained by the drag tender. The hang was cleared with an effective 47.5 feet. This is a lesser depth than charted, see chart letter of 6-29-54 HI-WA.

43° 51.5'
69° 27.85'

HANG NO. 8 - The drag hung at effective 15 feet in the vicinity of a charted 19-foot sounding. Due to inclement weather no tender investigation was possible. The hang was cleared with the drag set at effective 14 feet. This indicated a lesser depth than charted, see chart letter of 6-19-54 HI-WA.

43° 54.1'
69° 25.17'

HANG NO. 9 - Hang on a known 4-foot shoal at effective 15 feet. No cleared depth over this shoal was obtained. An extensive investigation by the launch tender at low tide was conducted and a shoalest sounding of 3 feet was obtained by hand lead. This is a lesser depth than charted and it is recommended it be charted as such.

43° 54.42'
69° 25.18'

Note to compilation - 3^{ft} recorded in Vols.
4ft shown on pencilled S.S.
ET

HANG NO. 11 - Drag hung at effective 15.5 feet on a known 17-foot shoal and then pulled free, thus indicating the drag was not firmly hung. The hang was cleared with an effective 14. This is a lesser depth than is charted, see chart letter of 6-29-54 HI-WA.

✓
43° 55.37'
69° 25.27'

HANG NO. 12 - Hung at effective 19.5 on a known 22-foot shoal. Hang cleared with effective 18. Launch tender obtained a hand lead sounding of 22.5 feet. The hang indicates a lesser depth than charted, see chart letter of 6-29-54 HI-WA.

✓
43° 55.65'
69° 26.90'

HANG NO. 13 - Drag hung at effective 26 feet on a known 30-foot shoal. Launch tender obtained a sounding of 29.5 feet. The hang was cleared with an effective 24. Indicates a lesser depth than charted, see chart letter of 6-29-54 HI-WA.

✓
43° 54.20'
69° 27.14'

PREVIOUS SURVEY H-6854

HANG NO. 10 - Hung with effective 6.5 feet on the northeast edge of a known shoal ledge of general depths 9 to 15 feet. Shoalest sounding by tender of 9 feet. Hang cleared with effective 4. This indicates a lesser depth than charted, see chart letter of 6-29-54 HI-WA.

✓
43° 55.28'
69° 24.70'

O. COAST PILOT INFORMATION

Reference is made to special report, Coast Pilot Information, project CS-265, 1954 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. ✓

U. FATHOMETER CORRECTIONS

Fathometer No. 58-S was used on the Ship WAINWRIGHT throughout the field season. Three bar checks were obtained during this period. An "A" to "B" scale comparison was taken on the first and third bar check and the mean value for correction to the "A" scale obtained. The value thus determined was (-) 0.87 feet to be applied to "B" scale readings. The value actually applied was (-) 1.0 feet in accordance with paragraph 822 of the Hydrographic Manual. A very definite change in corrections was noted between the first bar check and the latter two bar checks. After study of previous conditions of the same general locality it was decided best to use the first bar check for all corrections in the period April through May. The latter two bar checks were found to be in reasonable agreement and corrective values were meant. Curves were plotted of Correction vs Depth, corrections to be applied to soundings were then scaled from the curves in accordance with paragraph 822 of the Hydrographic Manual. All bar checks for the Ship WAINWRIGHT were referred to a 2.0 foot initial and index corrections were applied when necessary.

On the Ship HILGARD fathometer No. 139 SPX was used through the period 12 May and No. 138 SPX for the remainder of the season. One bar check was made while No. 139 SPX was in use and a curve plotted as explained in above paragraph. The corrections to be applied were determined in the same manner as stated above. No "A" to "B" scale comparison was made while this fathometer was in use aboard the HILGARD but a value of (✓) 2.38 feet was determined from comparisons made when the fathometer was installed in Launch No. 171. This type of error is inherent in the machine and will remain constant in either vessel. The actual correction applied was (✓) 2.5 feet in accordance with paragraph 822 of the Hydrographic Manual. During the period while fathometer No. 138 SPX was in use two bar checks were made. However the latter bar check was considered to be very poor and was rejected. A curve was plotted as explained above and corrections thus determined and applied. All checks were referred to a 2.0 ft. initial.

An "A" to "B" scale comparison was made with fathometer No. 138 and the value determined to be (-) 2.98 feet. The correction applied to all "B" scale readings was (-) 3.0 feet.

Fathometer No. 138 SPX was used in launch 171 to 12 May but no bar checks were made during this period. Because of lack of information the corrections as determined while this machine was aboard the HILGARD were used referring the bar check to a zero initial.

During the remainder of the field season fathometer No. 139 SPX was used in Launch C&GS-171. Two bar checks were obtained and the mean value of the two used in plotting the velocity curve. An "A" to "B" scale comparison was made during each bar check and the mean value determined to be (f) 2.38 feet as mentioned in paragraph two (2) above. A correction of (f) 2.5 feet was applied to all "B" scale readings. *Bar check in fender record pg 28. Initial at zero.*

The effective radius of the stylus arms was measured on all fathometers and found to be within the proper limits.

See attachment 5 for abstract of bar checks and attachment 6 for abstract of fathometer corrections.

Z. TABULATION OF APPLICABLE DATA

- Attachment:
1. List of signals
 2. Tidal Note
 3. Statistics
 4. Aids to Navigation
 5. Abstract of Bar Checks
 6. Abstract of Fathometer Corrections
 7. Hang Data Sheet

submitted,

John B. Watkins, Jr.
John B. Watkins, Jr.
Lieutenant (j.g.) USC&GS

Approved and Forwarded

Lorne G. Taylor
Lorne G. Taylor
Lt. Commander, USC&GS
Chief of Party

ATTACHMENT 1

LIST OF SIGNALS

*See Processing Office
Signal list.*

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|--------------------|
| CUP | Hydrographic Sheet |
| RED | H-6853 |
| HUM | do |
| CHIM | do |
| VET | do |
| HUT | (ORA) do |
| LAX | do |
| WAD | (ZIG) do |
| POL | (YAK) do |
| PIN | do |
| KEY | do |
| AZO | do |
| SAM | do |
| FIG | do |
| NIG | do |
| GUS | do |
| WIN | do |
| RUS | (WOO) do |
| ZIG | (HAG) do |
| OIL | do |
| ABE | (PAN) do |

| <u>NAME</u> | <u>NO.</u> | <u>SOURCE</u> |
|-------------|------------|-----------------|
| YAK | 336 | Topographic Map |
| EBB | 330 | No. T-5991 |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|--|
| EGO | Film Positive No. T-5999. This signal pricked directly from the film positive |
| BLACK | do (U.S.E. #13) |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|----------------------------------|
| CAW | RAT Hydrographic Sheet H-6854 |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|---------------------------------|
| PEM | PEMAQUID LIGHT HOUSE, 1859-1934 |
| YEL | YELLOW HEAD, 2, 1934 |
| NEW | NEW HARBOR CHURCH SPIRE, 1934 |
| BROWN | BROWNS HEAD 2, 1934 |
| BAR | BAR ISLAND 1859 - 1934 |
| GULL | GULL 1859 - 1934 |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|-----------------------------|
| JAG | Vol. 1 HILGARD & WAINWRIGHT |
| CAN | do |
| BAT | do |
| ROK | Sheet Hi-Wa 1254 - Vol. 1 |
| BOL | do |
| PIP | do |
| KIT | Vol. 1 HILGARD & WAINWRIGHT |
| MUM | do |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|----------------------------|
| LAND | Topographic Map No. T-5999 |
| KILL | do |
| FISH | do |

| <u>NAME</u> | <u>SOURCE</u> |
|-------------|------------------|
| COO | Sheet Hi-Wa 1254 |

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS ...
H-8183WD

TRIANGULATION STATIONS

BAR BAR ISLAND, CHIMNEY ON HOUSE, 1934-43
BROWN BROWNS HEAD 2, 1934
GULL GULL, 1859-1934
NEW NEW HARBOR, M.E. CHURCH, CROSS ON STEEPLE, 1934-42
PEM PEMAQUID L.H., 1859-1942
YEL YELLOW HEAD 2, 1934

MARKED TOPOGRAPHIC STATIONS

SOURCE T-11130(S)

Coal, 1943 Fish, 1943 Kill, 1943 Land, 1943

TOPOGRAPHIC STATIONS

SOURCE T-11130(S)

Azo Hut Key Lax Pin Wad Win

SOURCE H-6853

Caw Chim Fig Gus Nig Oil Pol Sam

SOURCE T-5991

Black Cup Hum

SOURCE T-5999

Vet

SOURCE H-6844

Yak

SOURCE T-11130(N)

Goo

PLANIMETRIC FEATURES

Ego T-11130(S) Rus T-5991 J11 T-5999
Zig " Ebb "

HYDROGRAPHIC STATIONS

Abe Vol. 1, Pg. 1,58,60 (E.L.)
Bat " 1,,Pg. 1,2,59,60 (E.L.)
Bol Vol 1, (E.L.), Wa-H1-1254WD
Can Vol. 1, (E.L.), Pg. 1,2,59,60
Jag Vol. 1, (E.L.), Pg. 1,59,60
Kit Vol. 1, (E.L.), Pg. 60
Mum Vol. 1, (G.L.), pg. 60; Vol. 1, (E.L.), Pg. 58,60
Pip Vol. 1, (E.L.), Wa-H1-1254WD
Red Vol. 1, (G.L.), Pg. 1,60
Rok Vol. 1, (E.L.), Wa-H1-1254WD

ATTACHMENT 2

TIDAL NOTE

A portable automatic tide gage was established and maintained by this party at New Harbor, Maine, Latitude $43^{\circ} 52.5'$; Longitude $69^{\circ} 29.4'$ ✓

Height of Mean Low Water above the zero of the tide staff at this gage was 3.6 feet. ✓

Hourly heights were scaled from the marigrams by party personnel. All times noted on the marigrams are Eastern Daylight Saving Time with the exception of April 20 and 21 which are on Eastern Standard Time. ✓

Records from the New Harbor tide gage were used without height or time correction for all work accomplished on this sheet except letter "W" day. Predicted tides were used for reduction of soundings on this date (see section D of this report). ✓

ATTACHMENT 3

S T A T I S T I C S

WIRE DRAG SHEET 1154

| <u>DATE</u> | <u>DAY LETTER</u> | <u>VOLUME</u> | <u>POSITIONS</u> | <u>STAT. MI.</u> |
|-------------|----------------------------------|---------------|------------------|------------------|
| 4/20/54 | A ✓ | I | 27 | 1.7 |
| 4/21/54 | B ✓ | I | 83 | 5.7 |
| 4/26/54 | C ✓ | I | 7 | 0.4 |
| 4/27/54 | D ✓ <i>Via message</i> | I | 87 | 6.7 |
| 4/28/54 | E ✓ | II | 31 | 2.4 |
| 5/3/54 | F ✓ | II | 23 | 1.7 |
| 5/4/54 | G ✓ | II | 22 | 1.9 |
| 5/11/54 | H - <i>15 reported</i> | II | 27 | 1.6 |
| 5/12/54 | J <i>41-47, 48, 53 reported</i> | II | 53 | 4.9 |
| 5/13/54 | K ✓ | II | 16 | 0.9 |
| 5/18/54 | L <i>Report at 28</i> | III | 28 | 1.9 |
| 5/19/54 | M | III | 52 | 4.6 |
| 5/20/54 | N <i>11-13W report</i> | III | 26 | 2.3 |
| 5/26/54 | P | III | 21 | 2.0 |
| 5/27/54 | Q | IV | 68 | 4.6 |
| 6/1/54 | R <i>11-12 reported on field</i> | IV | 21 | 1.8 |
| 6/3/54 | S | IV | 40 | 3.2 |
| 6/4/54 | T | IV | 48 | 3.4 |
| 6/7/54 | U | IV | 33 | 3.1 |
| 6/8/54 | V | IV | 6 | 0.6 |
| 9/13/54 | W | V | 4 | 0.2 |
| | | TOTALS | 723 | 55.6 |

ATTACHMENT 4

See Processing Office book

AIDS TO NAVIGATION

| <u>NAME</u> | <u>DEPTH</u> | <u>LOCATION</u> | <u>DATE</u> |
|--|------------------|---|---------------|
| New Harbor entrance buoy Red Bell #2 | 135 ft. 26.5' | <i>see Vol. 1c</i> Vol. I, Page 3 WAINWRIGHT & HIL. | 20 April 1954 |
| Webbers Ledge Red Nun "N2" | 16' 17.8' | Vol. II Page 9-10 WAINWRIGHT | 28 April 1954 |
| Black Spar '1' | 16' 17' | Vol. II Page 17 WAINWRIGHT | 3 May 1954 |
| New Harbor Entrance buoy Red Bell "2" | 135' | Vol. I Page 32 HILGARD | 26 April 1954 |
| Red Spar "6" | 18' 19' | Vol. II Page 20 HILGARD | 3 May 1954 |
| Red Spar "4" | 36' | Vol. II Page 20 HILGARD | 3 May 1954 |
| Black Spar "3" | 28' 29' | Vol. II Page 20 HILGARD | 3 May 1954 |
| Red Spar "4" | 48.4' | Vol. II Page 22 HILGARD | 4 May 1954 |
| RB Nun Obstruction buoy | 39' 52' | Vol. LV Page 2 HILGARD | 1 June 1954 |
| Black Can "1" | 38' 51' | Vol. IV, Page 2 HILGARD | 1 June 1954 |

The position of these aids as charted on Chart 314 are in agreement with the locations as obtained during this survey.

*Original typed values
were before application of reducers.
See next page*

NORFOLK PROCESSING OFFICE
 FLOATING AIDS TO NAVIGATION
 H-8183WD

| <u>BUOY</u> | <u>LATITUDE</u> | <u>LONGITUDE</u> | <u>DEPTH</u> | <u>POS. NO.</u> | <u>DATE</u> |
|-----------------------------------|-----------------|------------------|--------------|-----------------|--------------------|
| Poland N. Ledge Buoy 3 | 43-55.72 | 69-27.04 | 28' ✓ | 7f | 5/3/54 |
| Poland S. Ledge Buoy 1 | 43-55.46 | 69-26.93 | 17' | 4f | " |
| Haddock I. Ledge Buoy 1 | 43-53.28 | 69-25.95 | 38' | 2r | 6/1/54 |
| Bar I. Ledge Buoy 6 | 43-54.38 | 69-26.92 | 18' | 5f | 5/3/54 |
| Browns Head Buoy 4 | 43-53.88 | 69-27.38 | 35' ✓ 48' | 6f 1g | 5/3/54 5/4/54 |
| Webbers Sunken Ledge Buoy 2 | 43-53.33 | 69-29.03 | 16' ✓ | 7&8e | 4/28/54 |
| New Harbor Lighted Bell Buoy 2 | 43-52.43 | 69-28.73 | - 135' | 1a 1c | 4/20/54 4/26/54 |
| Haddock I. Kelp Ledge Buoy | 43-52.68 | 69-26.36 | 39' ✓ | 1r | 6/1/54 |

ATTACHMENT 5

| BAR CHECK NO. | DATE | PHASE CORRECTION B TO A SCALE | | | | | | | | | | | | |
|--------------------------------------|---------|-------------------------------|---------|---------|---------|-------|-------|-------|-------|-------|--|-------|-------|---------|
| | | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | | | |
| WAINWRIGHT FATH. 58-S - 2.0' initial | | | | | | | | | | | | | | |
| 1. | 7/19/54 | 0.00 | 0.0 | -0.1 | -0.2 | -0.4 | -0.8 | -1.2 | -1.1 | -1.4 | | -0.8 | -1.0 | -1.1 |
| 2 | 6/3/54 | f0.50 | f0.40 | f0.30 | f0.20 | f0.25 | f0.10 | f0.25 | f0.20 | -0.15 | | | | |
| 3 | 7/20/54 | f0.15 | 0.0 | 0.0 | -0.05 | -0.10 | -0.10 | -0.15 | -0.20 | -0.20 | (-0.10) | -0.85 | -0.60 | (-0.20) |
| Mean of 2&3 | | f0.32 | f0.20 | f0.15 | f0.08 | f0.08 | f0.00 | f0.05 | 0.0 | -0.18 | Mean B to A correction is (-)0.87' | | | |
| HILGARD FATH. 139 SPX - 2.0' initial | | | | | | | | | | | | | | |
| 1 | 4/19/54 | f0.70 | (0.0) | f0.25 | (-0.30) | 0.0 | f0.15 | f0.15 | 0.0 | 0.0 | | | | |
| FATH. 138 SPX - 2.0' initial | | | | | | | | | | | | | | |
| 2 | 6/3/54 | 0.0 | 0.0 | -0.30 | -0.10 | -0.30 | -0.40 | -0.90 | -1.20 | -1.0 | | -2.1 | -2.55 | -3.30 |
| 3 | 7/20/54 | (0.0) | (-0.30) | (-0.40) | (-0.40) | | | | | | | | | |
| 3 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.3 | (Bar check taken in fathoms) Mean B to A correction is (-)2.98' | | | |
| LAUNCH #171 FATH. 139 SPX - | | | | | | | | | | | | | | |
| 1 | 6/3/54 | 0.0 | 0.0 | -0.10 | 0.0 | -0.10 | -0.3 | -0.45 | -0.50 | -0.4 | | f1.85 | f2.15 | f1.7 |
| 2 | 7/20/54 | f0.20 | f0.15 | 0.0 | f0.10 | f0.05 | 0.0 | 0.0 | 0.0 | -0.15 | | f3.0 | f2.8 | f2.8 |
| Mean of 1&2 | | f0.10 | f0.08 | -0.05 | f0.05 | -0.02 | -0.15 | -0.22 | -0.25 | -0.28 | Mean B to A correction is (f)2.38' | | | |

() values indicated thus have been rejected

FATHOMETER CORRECTIONS

ATTACHMENT 6

LAUNCH 171

Fathometer No. 139 SPX - Initial set at 0.0

| A RANGE | | B RANGE | |
|--|-------------------|--------------|-------------------|
| <u>DEPTH</u> | <u>CORRECTION</u> | <u>DEPTH</u> | <u>CORRECTION</u> |
| 0 - 44' | 0.0' | 35' - 44' | 0.0' |
| 45' - 50' | -0.5' | 45' - 90' | -0.5' |
| Range correction B to A use (f)2.5' | | | |

Fathometer No. 138-SPX - Initial set at 0.0

| | | | |
|-------------------------------------|-------|-----------|-------|
| 0 - 30' | 0.0 | 35' - 44' | -0.5' |
| 31' - 44' | -0.5' | 45' - 55' | -1.0' |
| 45' - 50' | -1.0' | 56' - 64' | -1.5' |
| | | 65' - 73' | -2.0' |
| | | 74' - On | -2.5' |
| Range correction B to A use (-)3.0' | | | |

SHIP HILGARD

Fathometer No. 139-SPX - Initial set at 2.0'

| A RANGE | | B RANGE | |
|--|-------------------|--------------|-------------------|
| <u>DEPTH</u> | <u>CORRECTION</u> | <u>DEPTH</u> | <u>CORRECTION</u> |
| 0- 21.5' | f 0.5' | 35' - 90' | 0.0 |
| 22' - 50' | 0.0 | | |
| Range correction B to A use (f)2.5' | | | |

Fathometer No. 138-SPX - Initial set at 2.0'

| | | | |
|-------------------------------------|------|-----------|-------|
| 0- 30' | 0.0' | 35' - 44' | -0.5' |
| 31' - 44' | -0.5 | 45' - 55' | -1.0' |
| 45' - 50' | -1.0 | 56' - 64' | -1.5' |
| | | 65' - 73' | -2.0' |
| | | 74' - on | -2.5' |
| Range correction B to A use (-)3.0' | | | |

(Continued)

ATTACHMENT 6 Continued

FATHOMETER CORRECTIONS

SHIP HILGARD

Fathometer No. 138-SPX - Initial set at 0.33 fms.

| <u>A RANGE</u> | <u>CORRECTION</u> |
|----------------|-------------------|
| 0 - 13 fms | 0.00 fms |
| 13 - on | -0.50 fms |

SHIP WAINWRIGHT

Fathometer No. 58-S, Initial set at 2.0' (period of April thru May)

| <u>A RANGE</u> | | <u>B RANGE</u> | |
|----------------|-------------------|----------------|-------------------|
| <u>DEPTH</u> | <u>CORRECTION</u> | <u>DEPTH</u> | <u>CORRECTION</u> |
| 0 - 24' | 0.0' | 35' - 45' | -1.0' |
| 25' - 34' | -0.5' | 46' - 59' | -1.5' |
| 35' - 46' | -1.0' | 60' - 74' | -2.0' |
| 47' - 50' | -1.5' | 75' - 90' | -2.5' |

Range correction B to A use (-)1.0'

(period of June thru Oct.)

| | | | |
|-----------|-------|-----------|-------|
| 0 - 13' | -0.5' | 35' - 64' | 0.0' |
| 14' - 50' | 0.0' | 65' - 90' | -0.5' |

Range correction B to A use (-)1.0'

ATTACHMENT 7

HANG DATA

See Survey 74 sheet for details.

| Latitude & Longitude | General Depth Ft. | Min. Hang Ft. | Position No. | Max'm Clear Ft. | Position No. | Path. Sdg. | Remarks |
|-------------------------------------|-------------------|---------------|--------------|-----------------|--------------|-------------|--|
| | | | | | | | |
| 1. 43°50' 9.1" N 69°29' 26" W | 40 to 50 | 47 | 22E to 31E | 16.0 | 23D to 33D | 41.0 | Wrapped a known shoal ✓ |
| 2. 43°51' 4.7" N 69°29' 27.2" W | 30 to 60 | 31 32 | 65D to 87D | 29.0 30.0 | 1E to 13E | --- | Hung on shoulder of known shoal ✓ |
| 3. 43°51' 50.1" N 69°29' 20.1" W | 30 to 40 | 29 | 1E to 13E | 12.0 | 14E to 21E | --- | Wrapped known shoal ✓ <i>aid 94.4g.</i> <i>Hang not shown on 5/5</i> |
| 4. 43°51' 58.1" N 69°27' 05.1" W | 52 | 52 | 56B to 64B | 47.0 | 21N to 26N | 49.0 | Indicates lesser depth than charted ✓ |
| 5. 43°52' 6.7" N 69°28' 77.1" W | 8 | 45 | 1 to 7C | 6.0 | 17D to 22D | --- | Wrapped known shoal ✓ <i>Hangs not shown on 5/5</i> |
| 6. 43°53' 30.1" N 69°27' 52.1" W | 30 to 40 | 49 | 1B to 23B | 29.0 30.0 | 1K to 18K | --- | Pulled up to known shoal ✓ <i>Hang not shown on 5/5</i> |
| 7. 43°52' 78.1" N 69°26' 98.1" W | 30 to 60 | 46 | 1E to 18L | 26.0 | 19L to 28L | --- | Wrapped known shoal ✓ <i>Hang not shown on 5/5</i> |
| 8. 43°54' 6.0" N 69°25' 17.1" W | 23 | 15.0 | 13R to 21R | 14.0 | 1T to 14T | --- | Lesser depth than charted ✓ |
| 9. 43°54' 42.1" N 69°25' 18.1" W | 4 to 5 | 15 | 56Q to 68Q | --- | --- | L.L. 3.0 | Known ledge - Lesser depth than charted ✓ |
| 10. 43°55' 28.1" N 69°24' 4.7" W | 15 | 6.0 | 20U to 26U | 4.0 | 1V to 6V | 9.0 | Known shoal - Lesser depth than charted ✓ <i>See H-6854 (1954)</i> |

(continued)

ATTACHMENT 7 continued

HANG DATA

| Latitude & Longitude | General Depth Ft. | Min. Hang Ft. | Position No. | Max'm Clear | Position No. | Fath. Sdg. Ft. | Remarks |
|----------------------------------|-------------------|---------------|----------------------------|-------------|--------------|----------------|--|
| 11. 43° 55.37' N 69° 25.27' W | 17 | *15 | 8P | 14.0' | 13P to 21P | --- | Known 17' shoal - Lesser depth than chart *17m depth known shoal shoal |
| 12. 43° 55.65' N 69° 26.90' W | 22 | 19.1 | 28J to 34J | 18.0' | 35J to 41J | H.L. / 22.5' | Known shoal, Lesser than charted ✓ |
| 13. 43° 54.89' N 69° 27.14' W | 30 | 26 | 9P to 23P <i>inside</i> | 24.00' | 6H to 14H | 29.5' | Lesser depths than charted ✓ |
| 14. 43° 55.11' N 69° 27.21' W | 27 | 30 | 22G | 25.0' | 1J to 15J | --- | Wrapped known shoal ✓ |
| 15. 43° 55.42' N 69° 27.08' W | 930 | 24 25 | 1-10J 15J | 8.0' | 48J to 53J | --- | Wrapped known shoal ✓ |
| 16. 43° 55.71' N 69° 27.16' W | 19 | 24 25 | 17 11J to 19J | --- | --- | --- | Pulled up to known rock awash ✓ |
| 17. 43° 54.43' N 69° 26.29' W | 10 to 20 | 28 | 11N to 13N | --- | --- | --- | Known shoal ledge N.P. Fix and length of drag erroneous. |

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

WIRE DRAG SURVEY H-8183WD (H1-Wa-1154WD)

GENERAL

This appears to be an excellent wire drag survey except for the discrepancies listed below, and for minor irregularities which have been clarified by the smooth plotter with notes on the plotting overlays.

Pertinent drag data relating to each hang has been entered on the smooth sheet in pencil.

All drag strips were plotted on transparent overlays which are being forwarded with the smooth sheet for use during verification.

"O" Rapidograph pens were used on this survey to ink drag strips, effective depths, etc. The smooth plotter found it much easier to maintain line weights, and also reported a saving in time by avoiding the continual cleaning, adjusting and inking of conventional ruling pens.

DISCREPANCIES

Lat. 43-55.4' Long. 69-25.1' The 11' and 15' soundings, shown on H-6853 at this point, were cleared by lines 1 to 12P and 16 to 19U, effective at 15' and 17' respectively. Both clearances appear questionable as the drag was under tension from another hang on line 1 to 12P, and on line 16 to 19U a hang was noted after the line ended. Also, note differences between boat and smooth sheet plots of line 1 to 12P. *11 ft sdg. not cleared by 1-12P. 15 ft sdg. considered cleared by 15 ft WD strip. (16-19U, eff depth 17 ft, does not clear 15 ft)*

Line 11 to 13N was not smooth plotted as the drag length or control appear questionable. This line shows a hang in an area of deeper water already cleared by three lines at a greater depth. The hang could have been caused by sag as it occurred shortly after the line began and before a normal bight could be formed.

WD Strip N.P. (See #17 - Hang Data, pg 2.)

The position of station Rok is plotted incorrectly on the G.L. boat sheet. Positions on E.L. and smooth sheets agree.

OK OK okay as plotted on smooth sheet.

Norfolk, Va.
9 November 1959

Respectfully submitted,

Hugh L. Proffitt
Hugh L. Proffitt
Cartographer

GEOGRAPHIC NAMES
Survey No. H-8183 W.D.

| Name on Survey | Source | | | | | | | | | | |
|-------------------------|--------|---|----------------|---|---|---|---|---|-----|----|--|
| | A | B | C | D | E | F | G | H | K | | |
| <u>Maine</u> | | | (title) | | | | | | BGN | 1 | |
| <u>Gulf of Maine</u> | | | " | | | | | | | 2 | |
| <u>Muscongus Bay</u> | | | " | | | | | | | 3 | |
| <u>Pemaquid Neck</u> | | | | | | | | | | 4 | |
| <u>New Harbor</u> | | | (tide station) | | | | | | | 5 | |
| <u>Western Egg Rock</u> | | | | | | | | | | 6 | |
| <u>Baddock Island</u> | | | | | | | | | | 7 | |
| <u>Ross Island</u> | | | | | | | | | BGN | 8 | |
| <u>Browns Head</u> | | | | | | | | | | 9 | |
| <u>Louds Island</u> | | | | | | | | | BGN | 10 | |
| <u>Marsh Island</u> | | | | | | | | | | 11 | |
| <u>Thief Island</u> | | | | | | | | | | 12 | |
| <u>Muscongus Sound</u> | | | | | | | | | | 13 | |
| <u>Round Pond</u> | | | | | | | | | | 14 | |
| | | | | | | | | | | 15 | |
| | | | | | | | | | | 16 | |
| | | | | | | | | | | 17 | |
| | | | | | | | | | | 18 | |
| <u>Indian I.</u> | | | | | | | | | | 19 | |
| <u>Bar Island</u> | | | | | | | | | | 20 | |
| <u>Webbe Dry Ledge</u> | | | | | | | | | | 21 | |
| <u>Killuck Stone I</u> | | | | | | | | | | 22 | |
| | | | | | | | | | | 23 | |
| | | | | | | | | | | 24 | |
| | | | | | | | | | | 25 | |
| | | | | | | | | | | 26 | |
| | | | | | | | | | | 27 | |

Names approved 12-29-59
L. Heck

Any of the names on the 9-29-58
revision of chart 313 are approved, if it
is desired to apply them.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Oceanic Surveys:~~

11 January 1960

Division of Charts: R. H. Carstens

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

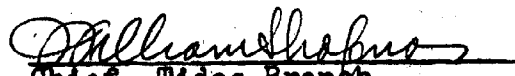
HYDROGRAPHIC SHEET 8183 (W.D.)

Locality Muscongus Bay, Maine

Chief of Party: E.B. Brown in 1954
Plane of reference is mean low water, reading
3.6 ft. on tide staff at New Harbor
16.8 ft. below B. M. 1 (1943)

Height of mean high water above plane of reference is 8.8 feet.

Condition of records satisfactory except as noted below:


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

✓

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~8183~~ W.D.

Records accompanying survey:

Boat sheets ~~2~~...; sounding vols. ~~2~~...; wire drag vols. ~~9~~...;
 bomb vols.; graphic recorder rolls ~~1~~-Envelope (Fathogram str-
 ips).
 special reports, etc. ~~1~~-Smooth sheet, ~~1~~-A. & D. sheet, ~~1~~-Descriptive
 report and ~~1~~-Roll, plotting overlays,

The following statistics will be submitted with the cartog-
 rapher's report on the sheet:

| | Det Pos | |
|---|------------|--------------|
| Number of positions on sheet | 31 | 1446 |
| Number of positions checked | 31 | 24292 |
| Number of positions revised ^{25 added} <u>strips</u> _{revised} | 3 | .13... 22 |
| Number of soundings revised (refers to depth only) | 2 | |
| Number of soundings erroneously spaced | - | |
| Number of signals erroneously plotted or transferred | - | |
| Topographic details | Time | .2... |
| Junctions | Time | 1.... |
| Verification of soundings from graphic record | Time | |

Verification by E. E. Thomas Total time 1.75 Date 10-10-61
 Reviewed by [Signature] Time 51 Date 12-27-61

OFFICE OF CARTOGRAPHY
REVIEW SECTION -- NAUTICAL CHART DIVISION
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8183 WD

FIELD NO. HI-WA 1154 WD

Maine, Muscongus Bay, East of Pemaquid Neck

SURVEYED: April - September 1954

SCALE: 1:10,000

PROJECT NO. CS - 265

SOUNDINGS: Leadline
808 Depth Recorder

CONTROL: Sextant fixes
on shore signals

Chief of Party ----- E. B. Brown
Surveyed by ----- E. B. Brown, L. G. Taylor,
G. L. Short, and J. B. Watkins, Jr.
Protracted by ----- W. W. Feazel
Soundings plotted by ----- W. W. Feazel
Verified by ----- E. E. Thomas
Reviewed by ----- I. M. Zeskind
Inspected by ----- R. H. Carstens

DATE 12-27-61

A. Purpose

The purpose of the survey was to continue wire-drag operations in Muscongus Bay east of Pemaquid Neck and in the vicinity of Louds Island in compliance with Instructions dated 6 February 1953 and 9 March 1954. The objective of the survey was to assure safe anchorage areas and passages thereto for deep draft vessels. The purpose also was to determine the least depth within 2 feet of all previously located dangers and all dangers which may be found in the progress of the survey.

B. Shoreline

The shoreline originates with reviewed photogrammetric surveys T-5991 (1941-42), T-11134 (1952-53), and T-11130 N and S (1952-53).

The source of the control is given in the Descriptive Report.

C. Junctions with Wire-Drag Surveys

H-8183 WD

An adequate junction was effected with H-8499 WD (1954) on the north. The junctions with H-8465 WD (1953-54-55) on the south and with H-8500 WD (1954-55) on the east will be considered in the reviews of those surveys.

D. Comparison with Hydrographic Surveys

H-6853 and Ad WK (1943-45), 1:10,000
H-6854 (1943-44), 1:10,000

The effective depths of the present wire-drag survey do not conflict with the depths on the above listed surveys. Several soundings were carried forward from the present survey to the above listed surveys.

E. Comparison with Chart 313 (Latest print date 12-4-61)

1. Hydrography

No conflicts were noted between the charted soundings and the effective wire-drag depths of the present survey.

A 3 foot supersedes the 4 foot charted in latitude $43^{\circ}54.45'$, longitude $69^{\circ}25.2'$, and a 35 foot supersedes the 43 foot charted in latitude $43^{\circ}50.95'$ longitude $69^{\circ}29.25'$.

2. 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. However, the nomenclature of the following buoys was changed subsequent to the present survey:

| <u>Buoy at Chart Location</u> | | <u>Changed</u> | | <u>Authority</u> |
|-------------------------------|--------------------|----------------|-----------|-------------------|
| <u>Latitude</u> | <u>Longitude</u> | <u>From</u> | <u>To</u> | |
| $43^{\circ}53.88'$ | $69^{\circ}27.34'$ | S"4" | N"4" | HON to M 27, 1959 |
| $43^{\circ}55.45'$ | $69^{\circ}26.85'$ | S"1" | C"1" | HON to M 17, 1961 |
| $43^{\circ}55.70'$ | $69^{\circ}27.00'$ | S"3" | C"3" | HON to M 17, 1961 |

F. Condition of Survey

1. Field Work

The field work was satisfactorily accomplished.

2. Records

The information recorded in the sounding volumes is generally adequate except in several instances where insufficient data was recorded in the sounding volume to determine the shape of the bight at wire-drag groundings.

3. Descriptive Report

The Descriptive Report is complete and comprehensive.

4. Field Plotting

The field plotting was satisfactory.

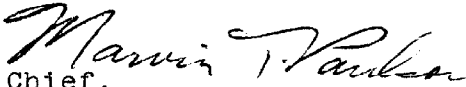
G. Compliance with Project Instructions

The survey adequately complies with the project instructions.

H. Additional Field Work Recommended

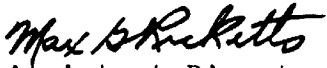
It is recommended that the survey be extended to provide coverage over the 9 foot shoal in latitude $43^{\circ} 51.57'$ longitude $69^{\circ} 29.19'$.

Examined and Approved:


Chief,
Nautical Chart Division


Assistant Director,
Office of Cartography


Projects Officer,
Operations Division


Assistant Director,
Office of Oceanography

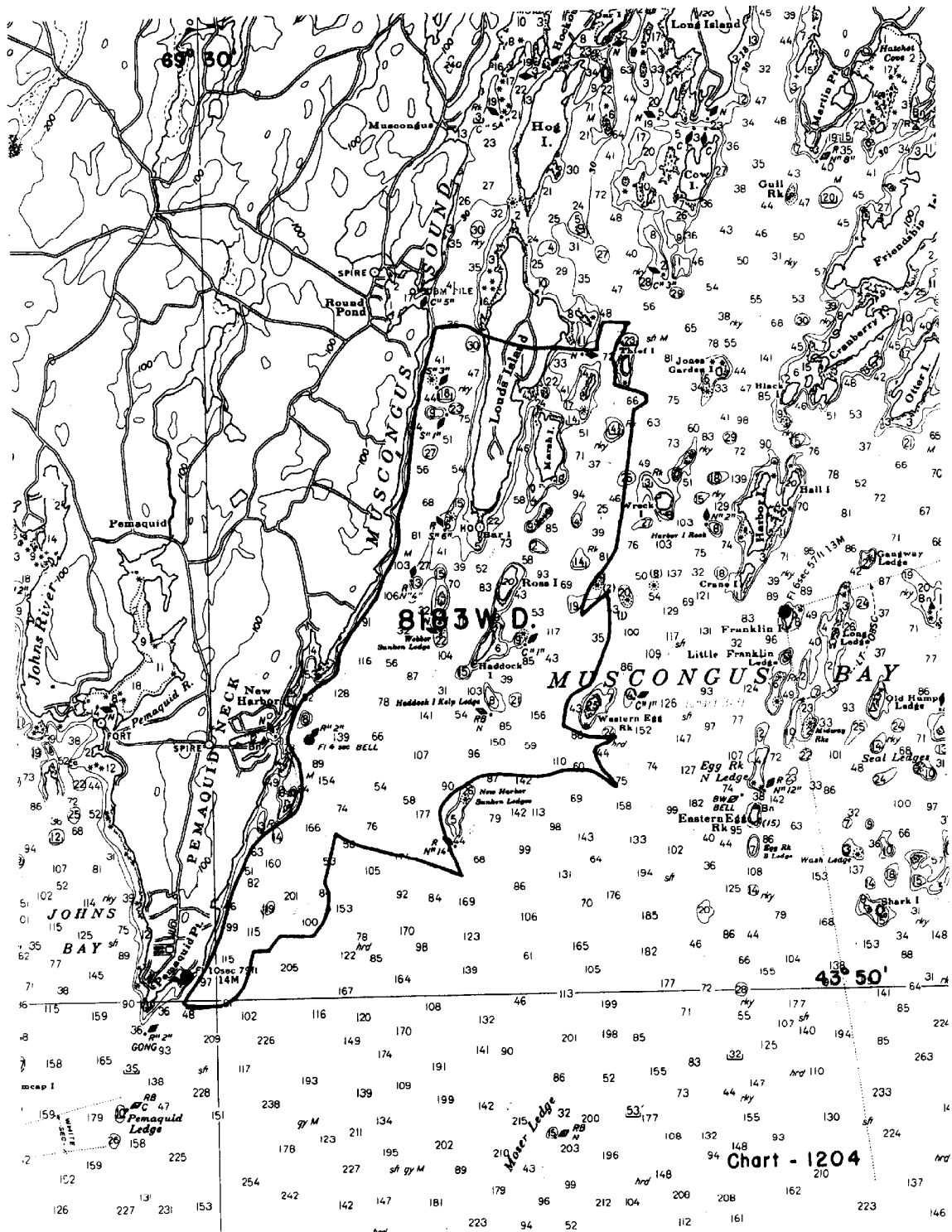


Chart - 1204

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8183 W.D.

Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|----------|-------|--------------|---|
| 12/16/59 | 1204 | J.A.M. | Before After Verification and Review <i>Partially</i> <i>Compared with 313 dng #12</i> |
| 12/29/59 | 1106 | J.F. Walker | <i>no correction</i> Before After Verification and Review <i>This inshore</i> <i>area may be considered as completely applied on ch 1106</i> |
| 2-5-60 | 313 | E.M. Albert | <i>Examined</i> Before After Verification and Review |
| 6-16-60 | 71 | J.M.A. | Before After Verification and Review |
| 9-10-62 | 313 | John W Knoop | <i>Application in full</i> Before After Verification and Review <i>CRD 4-12-64</i> |
| 10-22-63 | 1204 | G.R. McLann | Before After Verification and Review <i>FULLY APPLIED THRU 313</i> |
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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.