7858

Diag. Cht. No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. AR-4150-W Office No. H-7858

LOCALITY

State Alaska

General locality West Arctic Coast

Locality Northeast of Cape Beaufort

1950

CHIEF OF PARTY

R. A. Earle

LIBRARY & ARCHIVES

DATE February 19, 1951

B-1870-1 (1)



7858

Form 537
(Ed. Nov. 1941)

REG. NO.

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-7858

Field No. AR-4150-W

State Alaska

General locality West Arctic Coast, ~~Alaska~~

Locality Northeast of Cape Beaufort ~~South end of Kasegaluk Lagoon to Nuwuk Lagoon~~

Scale 1:40,000 Date of survey July & August, 1950

Instructions dated 8 March 1950

Vessel Arctic Field Party

Chief of party R. A. Earle

Surveyed by H. G. Conerly; D. M. Whipp; E. W. Richards; G. D. Scott

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

Protracted by Burnett Smith -⇒

Soundings penciled by Burnett Smith

Soundings in ~~fathoms~~ feet at ~~MLLW~~ MLLW and are true depths

REMARKS: Fathograms scaled by: W. J. Dragon; D.M. Whipp; D. J. Muirhead

Fathograms checked by: H. C. Witte; W. E. Shoemaker

U. S. GOVERNMENT PRINTING OFFICE 428975

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H-7858 (FIELD NUMBER AR-4150-W)
SOUTH END OF KASEGALUK LAGOON TO AUMALIK LAGOON
ALASKA
PROJECT CS-320, 1950
SCALE: 1:40,000

CHIEF OF PARTY - - - - - - - - - - - - - - - - - - - - - - - - - -R. A. EARLE
IN CHARGE, SUB-PARTY- - - - - - - - - - - - - - - - - - - - - - --H. G. CONERLY
FIELD WORK BY: - - - - - - - - - - - - - - - - - - - - - - - - - --H. G. CONERLY
D. M. WHIPP
E. W. RICHARDS
G. D. SCOTT

A: PROJECT

Authority for this survey is contained in supplemental instructions for Project CS-320 issued by the Director and dated 8 March 1950.

B: SURVEY LIMITS AND DATES

This survey extends from the vicinity of Kasegaluk Lagoon to Aumalik Lagoon, the latter point being about 7 miles north of Cape Beaufort.

The survey was accomplished between July 18 and August 28, 1950.

C: VESSELS AND EQUIPMENT

Navy rearming launches, modified for survey work and operating from a base camp 8 miles south of Point Lay Village were used for all hydrography. All soundings were obtained with 808 fathometers No's. 55S, 73S, 104S, 106S and 109S.

D: TIDE AND CURRENT STATIONS

A portable automatic tide gage known as the Powruk gage was operated at the base camp throughout the season (Latitude 69° 38.3 North, Longitude 163° 08.3' West. Since a study of the 1949 tide records by the Washington Office indicates no time or range difference along this section of the Arctic Coast, the Powruk tide gage was used as the master gage for all sheets from -Icy Cape to Cape Beaufort.

No current stations were occupied in this area.

E: SMOOTH SHEET

The projection for the smooth sheet was made by hand in the Seattle Processing Office in October 1950. Control was plotted and checked on the smooth sheet by personnel of the Seattle Processing Office. The protracting of positions and penciling of soundings was accomplished by a draftsman of the Seattle Processing Office under the supervision of Arctic Field Party personnel.

F: CONTROL STATIONS

All triangulation in the area was completed by R. A. Earle in 1950 on the

~~1950 and~~ 1945 Point Barrow datum.

Signals shown as marked or un-marked topographic stations were located with third order accuracy by theodolite cuts from triangulation stations.

Signal EST was transferred from sheet H-7755 by standard methods.

G: SHORELINE AND TOPOGRAPHY

Shoreline was traced on the sheet from copies of map manuscripts T-9375 and T-9402, Arctic Coast, Vicinity of Cape Beaufort. The map manuscripts were compiled from nine-lens photographs by the Portland Photogrammetric Office.

H: SOUNDINGS

All hydrography was accomplished with a 808 type depth recorders No'd. 55S, 73S, 104S, 106S and 109S, operating on the foot scale. An outboard fish installation, with the fish setting varying from 1.3 to 2.1 feet, was used. The fathometer initial was set and maintained at 1 foot on the fathogram. Daily bar-checks were obtained, and the data was recorded. The bar-check residual, obtained from the recorded bar-check data, was combined algebraically with the velocity corrections to simplify the entry of reducers. Refer to special report, "Velocity Corrections, West Unit, 1950". The fathometers were equipped with salt water reeds, and time was controlled with the fathogram. Report filed with sdg records this survey

I: CONTROL OF HYDROGRAPHY

Sounding lines run parallel to the shore were controlled by sextant fixes on shore objects. The precise dead reckoning loops perpendicular to the shore were controlled by sextant fixes when near the shore and by dead reckoning when out of sight of land.

J: ADEQUACY OF SURVEY

This sheet is complete and adequate for this area except for a possible shoal with an indicated depth of 29 feet in depths of 39 feet, position 9E (red), latitude 69° 18.38' N., Longitude 163° 26.20' W. This sounding was recorded on the "B" scale and cannot be accurately scaled since it is shoaler than 35 feet. The second sounding beyond position 10E (red) 37 feet in depths of 39 feet, is also doubtful. When the field work on this sheet was executed, both of the foregoing soundings were assumed to be in error, having been caused by momentary fathometer speed changes. For this reason no further developement was made. During the smooth plotting in Seattle, this decision was questioned. As it was not definite that these soundings on the fathograms were occasioned by fathometer speed changes. For this reason the soundings were plotted on the smooth sheet.

These shoal soundings are not considered important enough to warrant an immediate investigation. As this sheet is the southern terminus of the Arctic Field Party's hydrographic surveys on the western Arctic coast of Alaska, it is recommended that additional developement of this possible shoal be made when the hydrography to the westward is executed. ✓

K: CROSSINGS

No attempt was made ro run a definite system of crosslines on this sheet although about 5 percent of the lines are crosslines. Crossings check within the limits of accuracy specified by the Hydrographic Manual. see Review Par. 2

L: COMPARISON WITH PRIOR SURVEY ✓

There are no prior surveys in this area.

M: COMPARISON WITH CHART 9400

This is the only chart of this area, and it is on too small a scale (1:1,600,000) for satisfactory comparison with the 1950 detailed hydrography. see Review Par. 6

N: DANGERS AND SHOALS

At position 9E (Red) the fathogram shows a probable sounding of 29 feet. ✓ This possible shoal is discussed under section "J" of this report.

O: COAST PILOT INFORMATION

See: "Special Report on Coast Pilot Notes, 1950, Point Franklin to Cape Beaufort, Alaska."

P: AIDS TO NAVIGATION

There are no permanent or fixed aids to navigation in this area. ✓

Q: LANDMARKS FOR CHARTS

Data on landmarks was submitted under separate cover.

R: GEOGRAPHIC NAMES ✓K

See: "Special Report on Geographic Names, 1950, Icy Cape to Cape Beaufort, Alaska".

Z: TABULATION OF APPLICABLE DATA

(a) Attached hereto:

1. Tabulation of Statistics
2. Tide Note
3. Velocity Correction Abstract
4. List of Signals
5. List of Geographic Names

(b) Special reports submitted under separate cover.

1. Geographic Names 8 SH 14
2. Coast Pilot
3. Temperature and Salinity Observations
4. Landmarks for Charts

Respectfully submitted,

Horace G. Conerly

Horace G. Conerly
Lieutenant Commander, USC&G Survey

# TABULATION OF STATISTICS FOR

## HYDROGRAPHIC SURVEY NO. H-7858 (FIELD NO. AR-4150W)

| DATE | LAUNCH NO. | DAY LTR. | VOL. NO. | NO.POS. | STAT.MI SDG. | H.L.SDG. |
|---|---|---|---|---|---|---|
| July 18 | 1 | A | 1 | 93 | 25.8 | 0 |
| 19 | 1 | B | 1 | 66 | 25.5 | 1 |
| 21 | 1 | C | 1 | 63 | 25.3 | 1 |
| 22 | 1 | D | 1 | 65 | 26.5 | 2 |
| 24 | 1 | E | 1 | 65 | 26.2 | 1 |
| Aug. 28 | 1 | F | 2 | 61 | 33.6 | 2 |
| Jul. 19 | 2 | A | 3 | 60 | 25.7 | 0 |
| 21 | 2 | B | 3 | 58 | 27.4 | 2 |
| 22 | 2 | C | 3 | 57 | 26.7 | 0 |
| 24 | 2 | D | 3 | 0 | 00.0 | 1 |
| Aug. 28 | 2 | E | 3 | 45 | 42.9 | 0 |
| TOTALS: | | | | 633 | 285.6 | 10 |

Total area in square statute miles = 58.1

# TIDE NOTE FOR
# HYDROGRAPHIC SHEET NO. H-7858
# (Field No. AR-4150W)

STATION LOCATION

Powruk tide gage, Point Lay Base Camp; Latitude 69° 38.3' North, Longitude 163° 08.1' West.

PLANE OF REFERENCE:

Mean Lower Low Water which is 2.3 feet on the staff at the station.

All soundings were reduced to mean lower low water by using the Powruk tide gage records. The gage was maintained from 15 July to 30 Aug.

# COMBINATION VELOCITY AND FATHOMETER CORRECTIONS
## HYDROGRAPHIC SHEET H-7858 - (FIELD NO. AR-4150W)

### Fathometer 55S

| MONTH 1950 | LAUNCH NUMBER | APPLICABLE DEPTH | VELOCITY CORR. FT. | FATHOMETER CORR. FT. | TOTAL CORR. FT. | TOTAL B CORR. FT. |
|---|---|---|---|---|---|---|
| 7/21-26 | 1 | 0 to 5 | 0.0 | -0.1 | -0.1 | |
| | | 11 | -0.2 | -0.1 | -0.3 | |
| | | 17 | -0.4 | -0.1 | -0.5 | |
| | | 23 | -0.6 | -0.1 | -0.7 | |
| | | 29 | -0.8 | -0.1 | -0.9 | |
| | | 34 | -1.0 | -0.1 | -1.1 | |
| | | 39.5 | -1.2 | -0.1 | -1.3 | -2.8 |
| | | 45 | -1.4 | -0.1 | -1.5 | -3.0 |
| | | 50.5 | -1.6 | -0.1 | -1.7 | -3.2 |
| | | 55.5 | -1.8 | -0.1 | -1.9 | -3.4 |
| | | 60.5 | -2.0 | -0.1 | -2.1 | -3.6 |
| | | 65.5 | -2.2 | -0.1 | -2.3 | -3.8 |

### Fathometer 73S

| | | | | | | |
|---|---|---|---|---|---|---|
| 8/28-29 | 2 | 0 to 6 | 0.0 | 0.1 | 0.1 | |
| | | 15 | -0.2 | -0.1 | -0.1 | |
| | | 23 | -0.4 | -0.1 | -0.3 | |
| | | 31 | -0.6 | 0.1 | -0.5 | |
| | | 38.5 | -0.8 | 0.1 | -0.7 | 0.8 |
| | | 45 | -1.0 | 0.1 | -0.9 | 0.6 |
| | | 51 | -1.2 | 0.1 | -1.1 | 0.4 |
| | | 57 | -1.4 | 0.1 | -1.3 | 0.2 |
| | | 62.5 | -1.6 | 0.1 | -1.5 | 0.0 |
| | | 68 | -1.8 | 0.1 | -1.7 | -0.2 |
| | | | | | | -0.4 |

### Fathometer 104S

| | | | | | |
|---|---|---|---|---|---|
| 7/19 | 1 | 0 to 5 | 0.0 | -0;3 | -0.3 |
| | | 11 | -0.2 | -0.3 | -0.5 |
| | | 17 | -0.4 | -0.3 | -0.7 |
| | | 23 | -0.6 | -0.3 | -0.9 |
| | | 29 | -0.8 | -0.3 | -1.1 |
| | | 34 | -1.0 | -0.3 | -1.3 |
| | | 39.5 | -1.2 | -0.3 | -1.5 |
| | | 45 | -1.4 | -0.3 | -1.7 |
| | | 50.5 | -1.6 | -0.3 | -1.0 |
| | | 55.5 | -1.8 | -0.3 | -2.1 |

## COMBINATION VELOCITY AND FATHOMETER CORRECTIONS

### Fathometer 106S

### (Based on 6 Foot Bar Checks )

| MONTH 1950 | LAUNCH NUMBER | APPLICABLE DEPTH | VELOCITY CORR.FT. | FATHOMETER CORR. FT | TOTAL CORR.FT | TOTAL B CORR.FT |
|---|---|---|---|---|---|---|
| 7/19-26 | 2 | 0 to 5 | 0.0 | -0.1 | -0.1 | |
| | | 11 | -0.2 | -0.1 | -0.3 | |
| | | 17 | -0.4 | -0.1 | -0.5 | |
| | | 23 | -0.6 | -0.1 | -0.7 | |
| | | 29 | -0.8 | -0.1 | -0.9 | |
| | | 34 | -1.0 | -0.1 | -1.1 | |
| | | 39.5 | -1.2 | -0.1 | -1.3 | -1.8 |
| | | 45 | -1.4 | -0.1 | -1.5 | -2.0 |
| | | 50.5 | -1.6 | -0.1 | -1.7 | -2.2 |
| | | 55.5 | -1.8 | -0.1 | -1.9 | -2.4 |
| | | 60.5 | -2.0 | -0.1 | -2.1 | -2.6 |
| | | 65.5 | -2.2 | -0.1 | -2.3 | -2.8 |
| 8/14-28 | 1 | 0 to 6 | 0.0 | 0.4 | 0.4 | |
| | | 15 | -0.2 | 0.4 | 0.2 | |
| | | 23 | -0.4 | 0.4 | 0.0 | |
| | | 31 | -0.6 | 0.4 | -0.2 | |
| | | 38.5 | -0.8 | 0.4 | -0.4 | 0.6 * |
| | | 45 | -1.0 | 0.4 | -0.6 | 0.4 |
| | | 51 | -1.2 | 0.4 | -0.8 | 0.2 |
| | | 57 | -1.4 | 0.4 | -1.0 | 0.0 |
| | | 62.5 | -1.6 | 0.4 | -1.2 | -0.2 |
| | | 68 | -1.8 | 0.4 | -1.4 | -0.4 |

* Zero phase correction determined in verification; this column rejected.

## COMBINATION VELOCITY AND FATHOMETER CORRECTIONS

### Fathometer 1093

| MONTH 1950 | Launch No. | APPLICABLE DEPTH. FT. | VELOCITY CORR. FT | FATHOMETER CORR. FT. | TOTAL CORR. FT |
|---|---|---|---|---|---|
| July 18 | 1 | 0 to 5 | -0.0 | -0.5 | -0.5 |
| | | 11 | -0.2 | -0.5 | -0.7 |
| | | 17 | -0.4 | -0.5 | -0.9 |
| | | 23 | -0.6 | -0.5 | -1.1 |
| | | 29 | -0.8 | -0.5 | -1.3 |
| | | 34 | -1.0 | -0.5 | -1.5 |
| | | 39.5 | -1.2 | -0.5 | -1.7 |
| | | 45 | -1.4 | -0.5 | -1.9 |
| | | 50.5 | -1.6 | -0.5 | -2.1 |
| | | 55.5 | -1.8 | -0.5 | -2.3 |
| | | 60.5 | -2.0 | -0.5 | -2.5 |
| | | 65.5 | -2.2 | -0.5 | -2.7 |

# LIST OF SIGNALS
## HYDROGRAPHIC SHEET H-7858
## (Field No. AR-4150W)

| Hydro.Name | Station | Method of Location |
|---|---|---|
| WIG | | 1949 Theodolite Cuts |
| SIR | SIRIUS, 1949 | 2nd Order Triangulation |
| TAR | TARTAN, 1949 | 2nd Order Triangulation |
| ASK | | 1949 Theodolite Cuts |
| CUT | | " " " |
| EST | | " " " |
| DAN | SEDAN, 1949 | 2nd Order Triangulation |
| FIT | | 1950 Theodolite Cuts |
| GUY | | 1949 Theodolite Cuts |
| HOE | | 1950 " " |
| INK | | 1950 " " |
| KOOCH | KOOCHEOK, 1950 | 2nd Order Triangulation |
| JOY | | 1950 Theodolite Cuts |
| KID | | " " " |
| LOT | | 1950 Theodolite Cuts |
| NUT | WALNUT, 1950 | 2nd Order Triangulation |
| MUG | | 1950 Theodolite Cuts |
| NEW | | " " " |
| MAL | OMALIK NORTH BASE, 1950 | 2nd Order Triangulation |
| NIK | PANIKPIAK, 1950 | " " " |
| RAT | | 1950 Theodolite Cuts |
| FORT | CAPE BEAUFORT, 1950 | 2nd Order Triangulation |
| SNOW ✓ | | Sextant Cuts |

LIST OF GEOGRAPHIC NAMES
FOR
HYDROGRAPHIC SHEET H-7858
(FIELD NO. AR - 4150 W)

CHUKCHI SEA

KASEGALUK LAGOON

KOOCHEOK RIVER

AUMALIK LAGOON

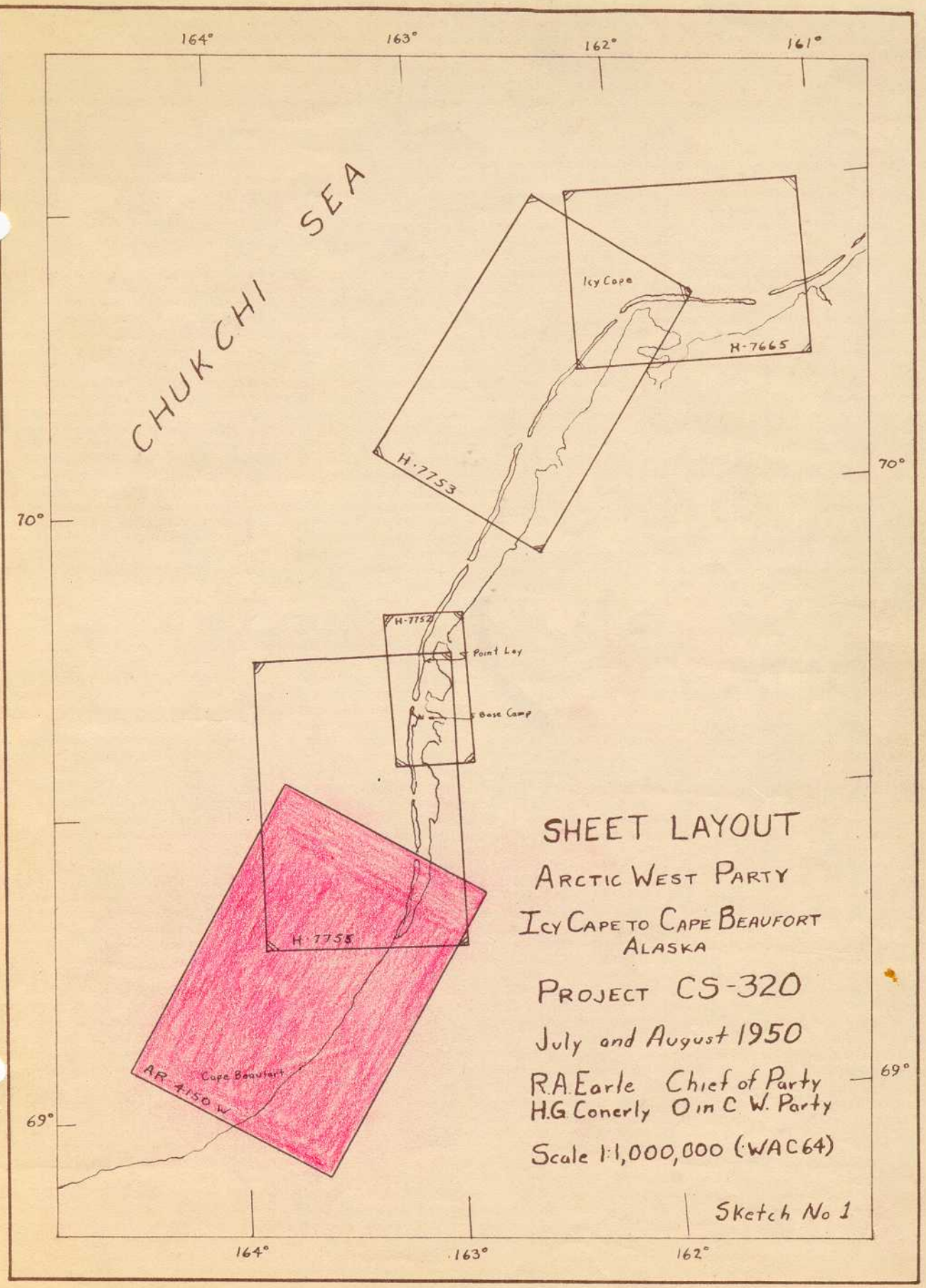
CAPE BEAUFORT

APPROVAL SHEET FOR
HYDROGRAPHIC SHEET H-7858 (FIELD # AR-4150W)

It was not possible for the Chief of Party to make frequent inspections of all wide-separated units engaged in hydrographic surveys. Therefore, such inspections were assigned to the Officer in Charge, Field Work in each base camp.

The sheet and records have been examined and are approved. The survey is considered adequate for the area, altho the possible shoal at latitude 69° 18.38'N; Longitude 163° 26.20 W. should be investigated when additional surveys in the vicinity are undertaken.

R. A. Earle
R. A. Earle,
Commander, USC&G Survey
Chief of Party




# SHEET LAYOUT

ARCTIC WEST PARTY

ICY CAPE TO CAPE BEAUFORT
ALASKA

PROJECT CS-320

July and August 1950

R.A. Earle Chief of Party
H.G. Conerly O in C W. Party

Scale 1:1,000,000 (WAC64)

Sketch No 1

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 20 March 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 3
volumes of sounding records for

HYDROGRAPHIC SHEET 7858

Locality North Arctic Coast, Alaska

Chief of Party: R. A. Earle in 1950
Plane of reference is mean lower low water, reading
2.3 ft. on tide staff at Point Lay (Powruk)
3.3 ft. below B. M. 1 (1949)

Height of mean high water above plane of reference is 0.60 foot.

Condition of records satisfactory except as noted below:

E.C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 756675

GEOGRAPHIC NAMES

Survey No. H-7858

| Name on Survey | On Chart No. A | On previous survey No. B | On U. S. quadrangle Maps C | From local information D | On local Maps E | P. O. Guide or Map F | Rand McNally Atlas G | U. S. Light List H | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Alaska | | | (for title) | | | | | | | 1 |
| Arctic Coast | | | (" " | | | | | | | 2 |
| | | | | | | | | | | 3 |
| Chukchi Sea | | | | | | | | | USGB | 4 |
| Cape Beaufort | | | | | | | | | | 5 |
| ~~A~~Omalik Lagoon | | | | | | | | | | 6 |
| Koocheok River | | | | | | | | | | 7 |
| Kasegaluk Lagoon | | | | | | | | | | 8 |
| | | | | | | | | | | 9 |
| | | | | | | | | | | 10 |
| | | | | Names underlined in red are approved, 3-8-57 L. Heck | | | | | | 11 |
| | | | | | | | | | | 12 |
| | | | | | | | | | | 13 |
| | | | | | | | | | | 14 |
| | | | | | | | | | | 15 |
| Powruk | | (location of tide gage; off limits this sheet) | | | | | | | | 16 |
| | | | | | | | | | | 17 |
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| | | | | | | | | | | 27 |

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7858

Records accompanying survey:

Boat sheets 2; sounding vols. 3; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 9 env.; 1 Smooth Sheet

special reports, etc. 1 "Special Report - Combined Velocity & Fathometer Corrections - Icy Cape to Pt. Lay and Pt. Barrow, Alaska, 1950."

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

| | | |
|---|---|---|
| Number of positions on sheet | | 634 |
| Number of positions checked | | 50 |
| Number of positions revised | | 0 |
| Number of soundings revised (refers to depth only) | | 493 |
| Number of soundings erroneously spaced | | 0 |
| Number of signals erroneously plotted or transferred | | 0 |
| Topographic details | Time | 3 hrs |
| Junctions | Time | 2 hrs |
| Verification of soundings from graphic record | Time | 16 hrs |

Verification by P.J. KENNON Total time 140 hrs Date 2-7-56

Reviewed by W. Evans III Time 25 Date 3/7/56

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

Registry No. H-7858 Field No. AR-4150 W

Alaska, Arctic Coast - Northeast of Cape Beaufort

Project No. CS-320

Surveyed - July - August, 1950 Scale 1:40,000

Soundings: Control:

808 Fathometer Visual (mainly)
Dead-reckoning
(offshore loops)

Chief of Party - R. A. Earle
Surveyed by - H. G. Conerly, D. M. Whipp, E. W. Richards and G. D. Scott
Protracted by - Burnett Smith
Soundings plotted by - Burnett Smith
Verified and inked by - D. J. Kennon
Reviewed by - L. V. Evans III 7 March 1956
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the reviewed manuscripts of air-photographic surveys T-9375 (1948-49) and T-9402 (1948-50).

The sources of the control are given in the Descriptive Report.

2. Sounding Line Crossings

The depths, after corrections discussed in paragraph 7 (c) of this review, are in good agreement at all crossings.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated within the main body of the survey. The offshore dead-reckoning loops allow only a generalized delineation of the 10-fm. curve. Although the low-water line is not drawn on the sheet the inshore line of soundings is so close to the high-water line that the low-water line can be adequately inferred.

The bottom is generally smooth with minor irregularities probably caused by gouging of grounded ice.

4. Junctions with Contemporary Surveys

This survey makes a satisfactory junction with H-7755 (1949-50) on the northeast. There are no other adjoining surveys by this Bureau. Although adjacent hydrography to the West and South as charted on Chart 9402 is reconnaissance in nature, and on too small a scale for useful comparison, the adjoining soundings are in harmony with this survey.

5. Comparison with Prior Surveys

There are no prior Coast and Geodetic Surveys of this area.

6. Comparison with Chart 9456 (Lith. Proof dated 2/13/56)
Chart 9402 (Latest print date 4/11/55)

A. Hydrography

The charted hydrography originates with the present survey before verification. Minor corrections of one foot have been made to some soundings during verification.

B. Aids to Navigation

No aids to navigation are charted within the area of this survey.

7. Condition of Survey

(a) The field plotting was accurately done.

(b) The sounding records and Descriptive Report are complete and comprehensive.

(c) During investigation of 1-ft. crossing discrepancies the B-scale phase corrections used for one of the fathometers were found to have been in error. The application of revised corrections by the verifier eliminated the discrepancies.

(d) In the original scanning of the fathograms numerous minor irregularities at uneven sounding intervals were not scanned. During verification numerous soundings were recorded from the small troughs and peaks presumed to be caused by ice gouging. Although revisions made in verification were mostly changes of only 1-ft., with a few changes of 2 or 3 ft., the resulting s oundings present a truer delineation of the bottom, with smoother, more natural depth curves.

8. Compliance with Project Instructions

This survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is a basic survey except for development of the 29-ft. possible shoal indication in lat. 69°18.38', long. 163°26.10' discussed in paragraph (J) of the Descriptive Report. The 29-ft. sounding should be investigated when work is resumed in this area. Additional lines are also desirable in the vicinity of lat. 69°13.5', long. 163°38' to complete the delineation of the 36-ft. curve.

Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Chief, Chart Division

J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-7858

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 3/26/51 | 9402 | [signature] | Before ~~After~~ Verification and Review |
| 6/14/51 | Arctic No 16 | Chas. R. Wittmann | Before " " " |
| | | | Before After Verification and Review |
| | | | |
| 6/13/55 | 9456 | Goodrich | Before ~~After~~ Verification and Review |
| | | | |
| 3-10-56 | 9455 | R.K. DeLauder | ~~Before~~ After Verification and Review |
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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.