

7659

RESTRICTED

Diag'd. on Diag. Ch. No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ARN-2348 Office No. H-7659

LOCALITY

State Alaska

General locality Arctic Coast

Locality Camden Bay and Vicinity

1948

CHIEF OF PARTY

H.A. Paton

LIBRARY & ARCHIVES

DATE Feb. 15, 1949

DECLASSIFIED BY NOAA
PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.

7659

FEB 15 1949

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

H-7659

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-7659

Field No. ARN-2348

State Alaska

General locality Arctic Coast

Locality Camden Bay & Vicinity
~~Barter Island~~

Scale 1:20,000 Date of survey Aug-Sept, 1948

Instructions dated 4 February 1948

Vessel Arctic Shore Party

Chief of party Hubert A. Paton

Surveyed by Horace G. Conerly and Lewis V. Evans

Soundings taken by fathometer, graphic recorder, ~~hand lead~~ 808 J

Fathograms scaled by

Fathograms checked by

Protracted by Clarence E. Lehman

Soundings penciled by Clarence E. Lehman

Soundings in ~~feet~~ feet at ~~MLLW~~ MLLW

REMARKS: Fathograms read and rescanned by the field party.

Critical areas re-examined in the Seattle Processing Office.

DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7659
(Field Number ARN 2348)

Barter Island, Alaska

Project CS-320

1 9 4 8

SCALE OF SURVEY: 1:20,000.
CHIEF OF PARTY: Hubert A. Paton
IN CHARGE OF SUB-PARTY: Horace G. Conerly.
FIELD WORK BY: H. G. Conerly and L. V. Evans.

A. PROJECT:

Authority for this survey is contained in the supplemental instructions for Project CS-320, issued by the Director, dated 4 February 1948.

B. SURVEY LIMITS AND DATES:

This survey extends from Longitude $144^{\circ}18'$ West, westward to Longitude $144^{\circ}58'$ West, inclusive of Simpson Cove. To the south the survey commences on the beaches along the mainland coast excepting the easternmost section, where extensive tidal flats at the mouth of the ~~Saragochit~~ Saragochit River made inshore development impracticable. To the north this survey extends seaward an average distance of five miles offshore. The northern limits could not be extended because an impenetrable ice barrier prevented further work to the north. The entire survey was made in the summer months of 1948.

C. VESSELS AND EQUIPMENT:

The survey was executed by the personnel of the Arctic Shore Party, operating from the Coast and Geodetic Survey Base camp at Barter Island, Alaska. One chartered Eskimo launch (Launch No. 9) and one Coast and Geodetic Survey Rearming Boat (Launch #11), were used for the survey. All sounding were made with 808 recording fathometers, numbers 121S, 125S, and 126S.

D. TIDE AND CURRENT STATIONS:

Tidal data for the reduction of soundings were obtained

from the Washington Office, based on recorded tides of the tide staff maintained at the Barter Island Base Camp. See tidal note attached.

No current stations were occupied because of the close proximity of the ice pressure ridge and the continuous presence of ever shifting ice floes, throughout the entire 1948 open water season.

E. SMOOTH SHEET:

The smooth sheet will be constructed and compiled by personnel in the Seattle Processing Office. See Processing Office report attached.

F. CONTROL:

The control of this survey consisted of second and third order triangulation stations, and hydrographic signals located by transit cuts from the triangulation. The triangulation was executed by H. A. Paton, in 1948, and is based upon "BARTER 1948" and "ASTRO AZIMUTH 1948" Datum.

G. SHORELINE AND TOPOGRAPHY:

The shoreline of this survey is derived from aerial photographic compilations from photographs taken with the nine lens camera. The smooth sheet shoreline is to be added when the final compilations have been completed in the Washington Office.
Shoreline added to Smooth Sheet in W.O. from T-8624 and T-8625 (1948).

H. SOUNDINGS:

All soundings were obtained by 808J recording fathometer operating on the foot scale. The soundings were scaled and recorded to the nearest one-half foot and were corrected for tide, index and velocity to the nearest 0.2 foot in compliance with standard practice.

See Report on VELOCITY CORRECTIONS PROJECT CS-320, 1948, BARTER ISLAND, ALASKA.

I. CONTROL OF HYDROGRAPHY:

The hydrography on this survey was controlled by sextant fixes on signals erected over the triangulation and hydrographic stations. The continued presence of pressure ridge ice barrier

prevented the gunning of sounding lines far off-shore and hence no dead reckoning lines were run.

J. ADEQUACY OF SURVEY:

With the exception of a small area <sup>Lat 70 02.9
Long 144 50.</sup> 3-3/4 miles NNE of station "Arclight" this survey is considered adequate for the area covered. No attempt was made to develop the low water line in the extensive shoals off the mouth of the ~~Sadlerochit~~ ^{Saligathit} River, because of the impracticability of landings on this portion of the coast. Mud flats and sand bars awash extend an average of one mile out to sea. There are no permanent channels in these tidal flats.

When a junction is made with the work, the area NNE of "Arclight" should have some additional development.

See P 7e and
8 of Review.

K. CROSSLINES:

No definite system of crosslines was run on this survey. Approximately three percent of the lines run across the regular pattern of sounding lines.

L. COMPARISON WITH PRIOR SURVEYS:

No prior detailed surveys of this area have been accomplished. The survey sketches of E. de K. Leffingwell, show remarkable resemblance to the present survey, and many details and soundings correspond closely.

M. COMPARISON WITH CHART:

The only chart of this area, USC&GS 9400, is a small scale sailing chart and does not show the area covered by this survey in sufficient detail to make comparison.

N. DANGERS AND SHOALS:

One mile Northwest of Collinson Point there is a shoal area with sounding of 3 and 4 feet. This shoal limits the usefulness of Simpson Cove. <sup>4 ft. least depth on smooth sheet of 70 00.30 Lat 144 50.53
about 8 ft can be carried into Simpson Cove.</sup>

O. COAST PILOT INFORMATION: *jam*

Anchorage for launches in all weather can be found in Simpson Cove. This bay is usually free of all drift ice. Controlling

depth is seven feet. In westerly weather the best spot to anchor is back of the crook in the sand spit half mile inside the Cove. The bottom is sticky black mud. Landings can be readily made all along the spit and upon the eastern shores of this Cove. The southwest shore is difficult to land upon on account of extensive slide areas along the clay bluffs.

8ft Smooth Sheet

P. AIDS TO NAVIGATION:

No aids to Navigation exist in the area covered by this survey.

Q. LANDMARKS FOR CHARTS:

See special report.

R. GEOGRAPHIC NAMES:

See special report.

S. TABULATION OF APPLICABLE DATA:

1. Triangulation records - forwarded to Washington.
2. Tidal Data, Barter Island - forwarded to Washington.
3. Report on Velocity Corrections - forwarded to Washington.
4. Coast Pilot Notes - forwarded to Washington. *Jan*
5. Landmarks for Charts - forwarded to Washington.
6. Report on Geographic Names - forwarded to Washington.

T. ATTACHMENTS:

1. Abstracts of Velocity Corrections.
2. Tidal data sheets.
3. List of Signals.
4. Statistics for this survey.
5. Approval sheet.
6. Report on Smooth Plotting (to be inserted by Seattle Processing Office).

STATISTICS FOR HYDROGRAPHIC SURVEY H-7659
(field Number ARN 2348)

Launch No.	Date 1948	Volume Number	Day Letter	Number Pos.	Stat. Mile Sounding
9	14 Aug.	1	a green	112	23.7
9	17 "	1&2	b "	145	33.8
9	21 "	2&3	c "	210	48.3
9	31 "	3	d "	143	34.6
9	1 Sept.	3	e "	31	8.3
9	2 "	4	f "	197	51.8
11	3 Aug.	5	a red	125	19.6
11	4 "	5	b "	138	31.8
11	14 "	5	c "	102	30.2
11	17 "	5	d "	135	38.2
11	21 "	5	f "	213	52.9
11	31 "	5&6	g "	136	35.3
11	2 Sept.	6	h "	146	42.6
11	4 "	6	j "	90	29.7
Totals				1923	480.8

Total Area 72.7 sq. stat. miles.

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TIDAL NOTE

The soundings on this survey were reduced to mean lower low water, using tides as recorded from observations on the tide staff at Barter Island at Latitude $70^{\circ}08.20'$ and Longitude $143^{\circ}35.83'$. ✓

The height of mean lower low water above the "Q" foot mark of the staff varied throughout the season on account of damage sustained due to ice. ✓

ABSTRACT OF VELOCITY CORRECTIONS
ARCTIC SHORE PARTY PROJECT GS 320 1948
BARTER ISLAND, ALASKA

LAUNCH NO. D

Pathometer No. 121 B

FISH UNITS DRIP INSTALLATION

HYDRO SURVEY ARH2248 c day.

" " ARH2348 c day.

Depth	Correction
0.0ft. to 7.0ft.	0.4 ft.
7.0 to 10.5	0.2
10.5 to 14.5	0.0
14.5 to 18.0	-0.2
18.0 to 21.5	-0.4
21.5 to 25.0	-0.6
25.0 to 28.5	-0.8
28.5 to 32.5	-1.0
32.5 to 36.5	-1.2
36.5 to 40.5	-1.4
40.5 to 45.0	-1.6
45.0 to 49.0	-1.8
49.0 to 53.5	-2.0
53.5 to 58.0	-2.2

FISH UNITS 1ST. INSTALLATION

HYDRO SURVEY ARH 2148 24a to 175 a day

" " " 1c to 16c day

" " ARH 2248 f thru k days

" " ARH 2348 d thru f days

Depth	Correction
0.0 ft. to 2.5 ft.	-0.2 ft.
2.5 to 6.0	-0.4
6.0 to 10.0	-0.6
10.0 to 13.5	-0.8
13.5 to 17.5	-1.0
17.5 to 21.0	-1.2
21.0 to 24.5	-1.4
24.5 to 28.5	-1.6
28.5 to 32.0	-1.8
32.0 to 36.0	-2.0
36.0 to 40.0	-2.2
40.0 to 44.0	-2.4
44.0 to 48.0	-2.6
48.0 to 52.5	-2.8
52.5 to 57.0	-3.0
57.0 to 61.5	-3.2

BILGE UNIT INSTALLATION

HYDRO SURVEY ARH2148 1a to 23a day, b day,

17c to 51c day, d & e days

" " ARH1148 a & b days

" " ARH2248 a thru d days.

" " ARH2348 a & b days

Depth	Correction
1.0 ft. to 4.5 ft.	-0.4 ft.
4.5 to 8.0	-0.6
8.0 to 12.0	-0.8
12.0 to 15.5	-1.0
15.5 to 19.0	-1.2
19.0 to 23.0	-1.4
23.0 to 26.5	-1.6
26.5 to 30.0	-1.8
30.0 to 34.0	-2.0
34.0 to 38.0	-2.2
38.0 to 42.0	-2.4
42.0 to 46.0	-2.6
46.0 to 50.5	-2.8
50.5 to 55.0	-3.0
55.0 to 59.0	-3.2

ABSTRACT OF VELOCITY CORRECTIONS
ARCTIC HERR PARTY PROJECT GS 320 1948
BARBER ISLAND, ALASKA

LAUNCH NO 10

Corrections to be used between 16 July and 4 September 1948.

HYDRO SURVEY AHS 2148 a thru n days and aa thru cc days
" " AHS 1148 a thru e days.

Depth		Corrections
0.0 ft.	to 6.0 ft.	0.0 ft.
0.0	to 10.0	-0.2
10.0	to 15.5	-0.4
15.5	to 17.5	-0.6
17.5	to 21.0	-0.8
21.0	to 25.0	-1.0
25.0	to 28.5	-1.2
28.5	to 32.0	-1.4
32.0	to 35.0	-1.6
35.0	to 40.0	-1.8
40.0	to 44.0	-2.0
44.0	to 48.5	-2.2
48.5	to 52.0	-2.4
52.0	to 57.0	-2.6
57.0	to 61.0	-2.8
61.0	to 65.5	-3.0

ABSTRACT OF VELOCITY CORRECTIONS
ARCTIC SHORE PARTY PROJECT CS 320 1938
BARTER ISLAND, ALASKA

LAUNCH NO 11

1ST FISH INSTALLATION - Fatho. No. 1253 2ND FISH INSTALLATION, FATHO. 1253
HYDRO SURVEY ANN 1145 a thru f days. HYDRO SURVEY ANN 2345 e thru h days
" " ANN 2345 a, b, & d days. " " ANN 2345 c thru f days
" " ANN 2345 b day.

Depth		Correction	Depth		Corrections
0.0 ft. to 5.0 ft.		-0.8 ft.	0.0 ft. to 7.0 ft.		0.0 ft.
5.0	to 9.0	-1.0	7.0	to 11.0	-0.2
9.0	to 13.0	-1.2	11.0	to 14.5	-0.4
13.0	to 17.0	-1.4	14.5	to 18.0	-0.6
17.0	to 21.0	-1.6	18.0	to 22.0	-0.8
21.0	to 24.5	-1.8	22.0	to 25.5	-1.0
24.5	to 28.0	-2.0	25.5	to 29.0	-1.2
28.0	to 31.5	-2.2	29.0	to 33.0	-1.4
31.5	to 35.5	-2.4	33.0	to 37.0	-1.6
35.5	to 39.0	-2.6	37.0	to 41.0	-1.8
39.0	to 43.5	-2.8	41.0	to 45.0	-2.0
43.5	to 47.5	-3.0	45.0	to 49.0	-2.2
47.5	to 52.0	-3.2	49.0	to 53.5	-2.4
52.0	to 56.5	-3.4	53.5	to 58.0	-2.6
56.5	to 61.0	-3.6	58.0	to 62.5	-2.8

1ST AND 3RD FISH INSTALLATIONS FATHO NO. 126 S
HYDRO SURVEY ANN 1146 g day
" " ANN 2346 e day, j day thru m day.
" " ANN 2346 a day, g day thru j day

Depth	Corrections
0.0 ft. to 7.0 ft.	-1.0
7.0 to 11.0	-1.2
11.0 to 14.5	-1.4
14.5 to 18.5	-1.6
18.5 to 22.0	-1.8
22.0 to 26.0	-2.0
26.0 to 29.5	-2.2
29.5 to 33.0	-2.4
33.0 to 37.0	-2.6
37.0 to 41.0	-2.8
41.0 to 45.0	-3.0
45.0 to 49.0	-3.2
49.0 to 54.0	-3.4
54.0 to 58.0	-3.6
58.0 to 63.0	-3.8
63.0 to 68.0	-4.0

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APPROVAL SHEET

The boat sheet and field records of this survey are approved as transmitted to the Seattle Processing Office for smooth plotting. The work of this survey was inspected daily and suitable suggestions made to the hydrographers.

Horace G. Conerly
Horace G. Conerly,
Lt. Comdr., C&GS,
In charge of sub-party.

Approved and forwarded:

Hubert A. Paton
Hubert A. Paton,
Comdr., C&GS,
Chief of Arctic Project.

H-7659 - (ARN-2348)

ARCTIC COAST OF ALASKA - BARTER ISLAND

PROCESSING OFFICE NOTES

Smooth Sheet:

The projection is hand made on "K. & E." paper, N124H. The datum depends on the astronomical determinations at Barter Island in the spring of 1948. No acceptable shoreline is available for the smooth sheets. The shoreline on the boat sheets were transferred from air photographs in the field.

*Shoreline applied
in W.O. from
T-8624 and T-8625
(1948).*

Crossings:

The crossings are good. There are occasional differences of a foot.

Dangers:

The undeveloped twenty-four foot sounding at latitude 70° 02.9', longitude 144° 50' is called to your attention. The fathogram trace is clear and definite and fathometer speed is constant, showing a well marked knoll, but there is only one line over it. Additional development recommended by the hydrographer.

*Add. work recom-
mended. See
TP 7c & 8 of
Review.*

Entrance to Simpson Cove:

In the Coast Pilot information on page four the limiting depth into this Cove is given as eight feet between the end of Collision Point and the shoal a mile to northwestward. From the appearance of the smooth sheet an eleven foot entrance south of the shoal seems possible. On consultation, Mr. Conerly, said that he thinks the shoal a mile northwest of Collision Point extends westward and southward to shore, but this is uncertain.

Northern Limit of Hydrography:

On the north the sounded area extends to the ice barrier which remained throughout the season.

7 February 1949.

Respectfully submitted,

Edgar E. Smith
Edgar E. Smith,
Cartographic Engineer,
Seattle Processing Office.

H-7659 - (ARN-2348)

LIST OF SIGNALS

TRIANGULATION OCCUPIED STATION

ARGUS	- ARGUS, 1948	HYDRA	- HYDRA, 1948
SON	- <u>ANDERSON</u> , 1948	NAK	- <u>KOGANAK</u> , 1948
BRAD	- <u>BRADLEY</u> , 1948	NEP	- <u>NEPTUNE</u> , 1948
CANIS	- CANIS, 1948	SCORPIO	- SCORPIO, 1948

TRIANGULATION - INTERSECTION STATIONS

ALL
BELL
DEN
LOT
NIX
PIN
SMALL POLE
TOM
LARGE POLE

TOPOGRAPHIC STATION

ARC - ARCLIGHT - Latitude - $69^{\circ} 59' 32.07''$ - 993.8 m.
Longitude - $144^{\circ} 54' 37.74''$ - 336.8 m.
(See boat sheet note)

HYDROGRAPHIC STATIONS

(See angles in Vol. 8 of H-7656)

HUT
KYT
KEY
LUX
MOON
NAT
OMA
RIC
WRECK

H-7659 - (ARN-2348)

GEOGRAPHIC NAMES

Beaufort Sea

Collisonⁿ Point

Anderson Point

Simpson Cove

Katakturak River

Nuvoak Creek

Ekalookliurak Creek

Saligochit River

RAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 21, 1949

~~Division of Hydrography and Topography~~

Division of Charts: R. H. Carstens

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 7659

Locality - Camden Bay, Barter Islands, Arctic Coast

Chief of Party: H. A. Paton in 1948
Plane of reference is mean lower low water, reading
1.1 ft. on tide staff at Camp Site (outside)
53.4 ft. below B. M. 1 (BARTER ASTRO 1948)

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

Condition of records satisfactory except as noted below:

E. C. McKay
Section

Chief, ~~Division of Tides and Currents~~

GEOGRAPHIC NAMES

Survey No. **H-7659**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Alaska</u>											1
<u>Arctic Coast</u>											2
<u>Beaufort Sea</u>									USGB		3
<u>Anderson Point</u>											4
<u>Saligochit River</u>				(referred to USBGN)							5
<u>Camden Bay</u>											6
<u>Ekal/ookliurak Creek</u>				(referred to USBGN)							7
<u>Nuvvok Creek</u>				<i>NUVVOAK on name std. 9400 (Miss Jata by phone)</i> (" ")							8
<u>Simpson Cove</u>											9
<u>Collinson Point</u>											10
<u>Katakaturak River</u>				KATAK TURUK <i>on chart 9400</i> KALAK TURUK <i>on pp. 4472</i> (referred to USBGN)							11
<i>verified with Heck 3-25-49</i>											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Items 5, 7, 8, and 11 are based on the recent names report for this region (S.R. 119, 1948). They represent changes from the previous chart usage. All are being referred to the USBGN, and decisions may result before final inking of names.
 2/11/49 L. Heckl. H.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7659....

Records accompanying survey:

Boat sheets ..2...; sounding vols. ..8...; wire drag vols.;
bomb vols.; graphic recorder rolls 5. ~~envel.~~
special reports, etc.
.....

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

Number of positions on sheet		.1923.
Number of positions checked		..57..
Number of positions revised		...10..
Number of soundings revised (refers to depth only)		..40..
Number of soundings erroneously spaced		..17..
Number of signals erroneously plotted or transferred		...0..
Topographic details	Time	...0..
Junctions	Time	...0..
Verification of soundings from graphic record	Time	..16..

Verification by *R. Robert C. Riddell*..... Total time .151.... Date *10 JUNE 49*

Reviewed by *I. M. Zeskind*..... Time .10.... Date *Jan. 5, 1950*

Correct spelling of creek
name in Camden Bay area

is Nuvoak

3/20¹⁵ L.A.

Department of Commerce
U. S. Coast and Geodetic Survey
Washington, D. C.

Dear Sir:

The *U. S. Coast and Geodetic Survey* wishes to determine the proper spelling and name of

Will you please answer the following questions, taking care to print names plainly, sign your name and address, and return this sheet in the enclosed envelope, which requires no postage. If you are not informed concerning this name, kindly make inquiries or hand this sheet to some one who can supply the data asked for.

Very truly yours,

L. O. Tolbert.
Director.

1. By what name is this place or feature best known in your neighborhood?

2. Is it spelled in any other way?

3. Is it known by any other name?

4. What is the origin, history, or meaning of the name?

5. Give here any other information which you may think pertinent or helpful in determining the name, form, or spelling which should be adopted.

Date,

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7659

FIELD NO. ARN-2348

Alaska, Arctic Coast, Camden Bay and Vicinity
Surveyed in Aug. - Sept., 1948 Scale 1:20,000
Project No. CS-320

Soundings:

Control:

808 Fathometer

Sextant fixes on shore signals

Chief of Party - H. A. Paton
Surveyed by - H. G. Conerly and L. V. Evans
Protracted by - C. E. Lehman
Soundings plotted by - C. E. Lehman
Verified and inked by - R.C. Richard
Reviewed by - I. M. Zeskind, January 2, 1950
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with air photographic surveys T-8624 and T-8625 (1948). See Review T-8624

The source of the control is adequately described in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in adequate agreement.

3. Bottom Configuration and Depth Curves

The bottom is generally smooth. Minor irregularities in the inshore depths east of Anderson Pt. are probably caused by the gouging of grounded ice. In this area tidal flats extend as much as one mile offshore.

The usual depth curves are adequately delineated, except for the low-water line which was not determined along inshore shoal areas because of the low range of tide (0.5 ft.). The low-water line and portions of the 6-ft. curve are not shown in areas where deep water extends close inshore.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-7658 (1948) on the east. No contemporary survey on the west is registered at the present time. On the north the present survey extends to the limit of the 1948 ice ridge.

5. Comparison with Prior Surveys

No prior surveys of this area have been made by this Bureau.

6. Comparison with Arctic Chart No. 8 (Print date 5/2/49)

A. Hydrography

This preliminary chart was compiled from the present survey before verification. Minor corrections to soundings amounting to 1 ft. have been made on the smooth sheet during verification and review.

B. Aids to Navigation

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

7. Condition of the Survey

- a. The field plotting was accurately done.
- b. The sounding records and Descriptive Report are complete and comprehensive.
- c. The extensive shoal area east of Anderson Pt. was not developed, as mentioned in the Descriptive Report, because of the impracticability of beach landings. There are no permanent channels in these tidal flats.
- d. An insufficient number of crosslines were run.
- e. The shoal with a least depth of 24 ft. in lat. 70° 02.9', long. 144° 50.0', was not developed.


8. Compliance with Project Instructions


This survey adequately complies with the Project Instructions, except as noted in paragraphs 7d and e above. The running of dead reckoning lines normal to the shoreline and at 10 mile intervals was prevented by an offshore pressure ice barrier.


9. Additional Field Work Recommended

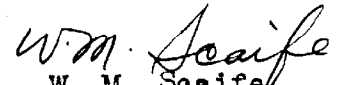
This is a very good survey, except for the development of the shoal mentioned in paragraph 7e. It is recommended that this shoal be developed by additional sounding lines. The deficiencies noted in paragraph 7c and d and paragraph 8 are mentioned only as a matter of record.

Examined and approved:


H. R. Edmonston
Chief, Nautical Chart Branch


Casper M. Durgin
Chief, Division of Charts


K. G. Crosby
Chief, Section of Hydrography


W. M. Scaife
Chief, Division of Coastal Surveys

145° 00' 30' 144° 00' 30' 143° 00'

ARN 1148 H-7656
ARN 2148 H-7657
ARN 2248 H-7658
ARN 2348 H-7659

B E A U F O R T S E A

