

8058

CONFIDENTIAL

Diag. Cht. No. 9400

CS-320

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ARW-4153 Office No. H-8058

LOCALITY

State ALASKA

General locality ARCTIC COAST

Locality ATIGARU POINT TO THETIS ISLAND

194 53

CHIEF OF PARTY

M. G. Ricketts

LIBRARY & ARCHIVES

DATE March 13, 1958

B-1870-1 (1)

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

8058

CONFIDENTIAL

CONFIDENTIAL

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 8058

Field No. ARW 4153

State ALASKA

General locality ~~NORTH~~ ARCTIC COAST

Locality ~~HARRISON BAY~~ ATIGARU POINT TO THETIS ISLAND

Scale 1/ 40 000 Date of survey July- August 1953

Instructions dated 6 Feb. 1951, 3 Feb. 1953

Vessel ARCTIC FIELD PARTY

Chief of party MAX G. RICKETTS

Surveyed by H. R. LIPPOLD, J. B. WATKINS, R. E. WILLIAMS, L. L. RUNGE.

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

Fathograms scaled by JEFFERS, WYSOR, WAGNER, PEDRICK, GRAHAM.

Fathograms checked by FISCUS, JEFFERS, COLES, NAYAKIK, HEINZ.

Protracted by R. E. WILLIAMS

Soundings penciled by CLARENCE E. PEDERSEN

Soundings in ~~fathoms~~ feet at MLW MLLW and are based on a velocity of sound of 800 fm. per second.

REMARKS: Plotted in Seattle Processing Office.

782

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8058 (FIELD NO. ARW-4153)
NORTH ARCTIC COAST OF ALASKA - HARRISON BAY
PROJECT CS - 320 1953 SCALE 1:40,000

MAX G. RICKETTSChief, Arctic Field Party
M. A. HECHTOfficer in Charge, West Unit
H. R. LIPPOLD, J. B. WATKINS, R. E. WILLIAMS, H. L. RUNGE. Hydrographers

A: PROJECT

Authority for this survey is contained in instructions for Project CS-320 dated 6 February 1951 and supplemental instructions for Project CS-320 dated 3 February 1953.

B: SURVEY LIMITS AND DATES

This survey was accomplished in the vicinity of Harrison Bay on the North Arctic Coast of Alaska. The limits covered by the sheet are from Latitude $70^{\circ} 32.9$, Longitude $150^{\circ} 16.0$, westerly along the southern extremities of Harrison Bay to Atigaru Point, Latitude $70^{\circ} 33.8$, Longitude $151^{\circ} 43.5$, northerly to Latitude $70^{\circ} 42.0$, Longitude $151^{\circ} 43.5$, easterly to Latitude $70^{\circ} 42.0$, Longitude $150^{\circ} 15.3$ and southerly to the starting point in the vicinity of Thetis Island.

This survey was accomplished between 24 July and 26 August 1953. This survey joins that of sheet H-7991⁽¹⁹⁵²⁾ (ARW-4152) on the west and sheets H-7915⁽¹⁹⁵¹⁾ (ARE-4151), H-7917⁽¹⁹⁵¹⁾ (ARE-2251), and H-7918⁽¹⁹⁵¹⁾ (ARE-2351) on the east. It is joined by contemporary survey H-8059⁽¹⁹⁵³⁾ (ARW-8153) on the north.

The progress of the 1953 season was retarded by ice conditions which prevailed throughout the area during the early part of the season.

C: VESSELS AND EQUIPMENT

Three shore based launches and one LCM were used for this survey. The Sub-camp was located at Saktuina Point, 9 miles west of the western most limits of the sheet. Launches No's. 5, 14, 15, and LCM (Goldie) were used during the 1953 season. These launches are 35-foot Navy rearming boats and a 50-foot landing craft medium adapted for hydrographic surveying.

The turning radius of the rearming boats is 7 to 10 meters at a speed of 7.5 knots. It takes approximately 7 seconds to complete a 90 degree turn. The turning radius of the LCM was 15 meters at a standard speed of 9.0 knots (1500 rpm).

C: VESSELS AND EQUIPMENT (Cont'd)

808J type fathometers equipped with 800fm/sec reeds were used for this survey. The following fathometers were used in their respective launches during the 1953 field season: Launch No. 5, Fathometer No's. 104S and 119S; Launch No. 14, Fathometer No. S166; Launch No. 15, Fathometer No. 126S; LCM (Goldie), Fathometer No. 101S. The fish was rigged outboard on the starboard side of all boats. The limits of the depth covered by the survey were 3 to 57 feet with an average depth of 25 feet.

D: TIDES AND CURRENTS

Tide reducers used for this survey were obtained from portable tide gages installed at Saktuina Point, Oliktok Point, and Pitt Point. With the three gages a continuous record was obtained throughout the season. No time or range factors were applied to the reducers obtained from any of the gages.

There were no current stations observed.

E: SMOOTH SHEET

The smooth sheet was constructed by hand in the Seattle Processing Office. Plotting of control and soundings was done by personnel of the Seattle Processing Office.

F: CONTROL STATIONS

The control stations for the sheet are from triangulation established by Max G. Ricketts, Chief of Party, in 1951 through 1953, with the following exceptions; Stations Bad and Day are Hydrographic Signals located by sextant angles at the respective stations. Hydrographic station Bay was located by sextant angles and one triangulation cut.

Shoran stations Hal, Sak, Tola, and Het were located by triangulation. Station Tola was originally a photo point but was located by triangulation during 1953. Station Hal was located in 1952 by a measured distance on line between triangulation stations POINT, 1951 and HALKETT, 1951. This station was recovered in 1953. Station Sak was erected over intersection station SAKTUI, 1952. Station Het was located in 1951, by a measured distance on the line between triangulation stations THETIS ID. 1951 and EXEC 1951. This station was recovered in 1953.

*TOLA shown
as fourth
order station.
No computations
in Geodesy.*

G: SHORELINE AND TOPOGRAPHY

The shoreline was obtained from nine lens photograph compilations of the area. *See review for origin of shoreline*

The low water line could not be located due to small range in tide in the area. However, an attempt was made to delineate the 3 foot curve.

H: SOUNDING

An 808J type fathometer with 800 fm/sec reeds was used for soundings. Refer to special report, "Fathometer Report", Arctic West Unit, 1953, submitted under separate cover. *filed with H-8059*

I: CONTROL OF HYDROGRAPHY

Hydrography was divided into two sections, one of visual control and the other of shoran control.

The visual control was by 3 point fixes using standard hydrographic sextants. Because of inclement weather in the latter part of the season, which held up the visual launch, shoran controlled hydrography was accomplished in the visual area in order to complete the survey before closing the season.

For shoran controlled hydrography, see special report, "Shoran Corrections", submitted under separate cover.

J: ADEQUACY OF SURVEY

Although this survey does not comply strictly with the line spacing specified in the original instructions, it is considered adequate for this coast. Weather and ice conditions did not permit further development of the area. Junctions with adjoining sheets are adequate and depth curves at the junctions can be adequately drawn.

K: CROSSLINES

The percentage of crosslines run is approximately 11% of the total number of miles sounded.

L: COMPARISON WITH PRIOR SURVEYS

There are no prior surveys in this area.

M: COMPARISON WITH CHARTS

A comparison with USC&GS chart No. 9403, dated 52-5/5, has been made and two shoals, one in Latitude $70^{\circ} 35.0$, Longitude $150^{\circ} 18.0$, the other in Latitude $70^{\circ} 35.2$, Longitude $150^{\circ} 36.0$, were not found to exist. Depths of 28 to 32 feet were found in these areas on a gentle sloping bottom.

removed from Arctic Coast Charts 18 and 19

N: DANGERS AND SHOALS

There are two shoals located in the lower extremities of Harrison Bay, found and developed during the 1953 season. An extensive shoal running Southeasterly from Latitude $70^{\circ} 34.4$, Longitude $151^{\circ} 33.7$, to Latitude $70^{\circ} 31.2$, Longitude $151^{\circ} 25.5$, was found bare at low tide. A shoal with a least depth of $\frac{1}{3}$ feet is located at Latitude $70^{\circ} 32.6$, Longitude $151^{\circ} 24.5$.

These shoals are surrounded by comparatively shallow water, averaging 8 feet. Therefore they are not considered to be an important danger to navigation.

O: COAST PILOT INFORMATION

Refer to Coast Pilot Report, Arctic West Unit, 1953.

P: AIDS TO NAVIGATION

Refer to Aids to Navigation Report, Arctic West Unit, 1953.

Q: LANDMARKS FOR CHARTS

Refer to special report Landmarks for Charts, Arctic West Unit, 1953.

R: GEOGRAPHIC NAMES

on file with 854

Refer to special report Geographic Names, Arctic West Unit, 1953.

S: TABULATION OF APPLICABLE DATA

I. Attached to this report:

1. List of Signals
2. Statistics
3. Tidal Note
- 4.

II. Special Reports previously submitted:

1. Coast Pilot Report, Arctic West Unit, 1953.
2. Aids to Navigation, Arctic West Unit, 1953.
3. Landmarks for Charts, Arctic West Unit, 1953.
4. Geographic Names Report, Arctic West Unit, 1953.
5. Fathometer Report, Arctic West Unit, 1953. *Filed with H-8059*

Respectfully submitted

Herbert R. Lippold
Herbert R. Lippold
Ensign, USC&GS

APPROVED AND FORWARDED

Max G. Ricketts
Max G. Ricketts
Commander, USC&GS

ATTACHMENT 1

LIST OF SIGNALS

HYDROGRAPHIC SURVEY H-8058
FIELD NO. ARW-4153

<u>SIGNAL</u>	<u>SOURCE</u>
Bad	4153, Vol. 1, page 2
BASE	KOGRU EAST BASE, 1952
Bay	4153, Vol. 1, page 33 & 34
BITE	BITE, 1951
Cap	1951 Triangulation
Day	4153, Vol. 1, page 2
Drum	1951 Triangulation
GARU	1952 Triangulation
HOOK	HOOK, 1951
IDO	IDONO, 1951
LOVE	1953 Triangulation
NOR	NORMA, 1951
RAN	RANDOM, 1951
SAK	SAKTUI, 1952
SON	HARRISON, 1951
TIKE	TIKE, 1952
TOLA	1953 Triangulation
Hal	1952 Traverse
H et	1951 Traverse

H 8058 ARW 4153

Alaska

North Arctic Coast.

List of geographic names
penciled on smooth sheet.

Beaufort Sea.

Antigaru Point.

Colville River Delta.

Colville River - West Branch.

Tolaktovut Point.

Elaktoveach Channel.

Kupigruak Channel.

Thetis Island.

Harrison Bay.

The field party applies this name to the inshore waters between Cape Halkett and Thetis Island. Some of our maps use the name for the bay in the western part of this area between Cape Halkett and Antigaru Point.

According to a B.G.N. decision of 1944, Harrison Bay extends from mouth of Colville R. to Cape Halkett, centering about $70^{\circ}40' / 151^{\circ}30'$ (about as shown on chart 9403)
L.H.

ATTACHMENT 2

STATISTICS

HYDROGRAPHIC SURVEY H-8058
FIELD NO. ARW-4153

LAUNCH NO.	DATE 1953	VOL. NO.	DAY LTR.	NO. OF POSITIONS	STATUTE MI. SDG.	HAND LEAD
15	7/25	10	a	52 <i>plotted on H-8059</i>	20.9	0
15	7/26	10	b	7 <i>plotted on H-8059</i>	2.3	0
15	7/27	10	c	60	21.5	0
15	7/30	11	d	109	45.8	0
15	7/31	11 & 14	e	96	41.7	0
15	8/1	14	f	97	39.1	0
15	8/4	14 & 15	g	90	43.5	0
15	8/7	15	h	103	47.5	0
15	8/9	15 & 18	j	140	59.3	0
15	8/10	18	k	94	43.7	0
15	8/11	21	l	33	15.6	0
15	8/13	21 & 22	m	182	83.9	0
15	8/14	22	n	95	41.7	0
15	8/15	22	p	15 <i>plotted on H-8059</i>	----	15
15	8/16	22 & 25	q	87	36.0	1
15	8/19	25	r	131	59.4	3
15	8/20	26	s	103	45.8	3
15	8/21	26	t	64	26.8	2
TOTALS				1558	674.5	24

14	7/27	12	a	59	22.8	0
14	7/30	12	b	86	37.4	0
14	7/31	12 & 13	c	122	53.4	0
14	8/1	13	d	66	28.6	0
14	8/4	13 & 16	e	95	43.0	0
14	8/7	16	f	108	48.1	0
14	8/9	16 & 17	g	144	61.2	0
14	8/10	17	h	46	20.5	0
14	8/11	17 & 19	j	38	16.3	0
14	8/12	19	k	47	17.8	0
14	8/13	19 & 20	l	180	79.8	0
14	8/14	20	m	85	37.3	0
14	8/15	20	n	12	----	12
14	8/16	20 & 23	p	87	37.0	1
14	8/19	23 & 24	q	135	52.9	2
14	8/20	24	r	185	64.3	2
14	8/21	27	s	50	18.4	1
14	8/23	27	t	22	9.2	0
TOTALS				1567	648.0	18

ATTACHMENT 2 (Cont'd)

STATISTICS

HYDROGRAPHIC SURVEY H-8058
FIELD NO. ARW-4153

LAUNCH NO.	DATE 1953	VOL. NO..	DAY LTR.	NO. OF POSITIONS	STATUTE MI. SDG.	HAND LEAD
5	7/24	1	a	56	22.1	1
5	7/25	1	b	73	20.8	0
5	7/26	1 & 2	c	59	28.9	0
5	7/27	2	d	69	27.9	0
5	7/28	2	e	26	10.2	0
5	7/30	2 & 3	f	139	55.8	0
5	7/31	3	g	73	38.8	0
5	8/1	3	h	20	14.0	0
5	8/4	3 & 4	j	107	38.7	0
5	8/5	4	k	17	7.0	0
5	8/6	4 & 5	l	123	46.1	0
5	8/10	5	m	128	52.0	0
5	8/13	6	n	104	38.0	0
5	8/14	6 & 7	p	131	50.1	0
5	8/15	7	q	10	3.2	1
5	8/16	7	r	72	35.9	2
5	8/24	7	s	35 <i>plotted on H-7991</i>	15.8	2
5	8/26	7	t	6	1.9	1
5	7/31	8	u	9	4.9	0
	TOTALS			1257	512.1	7
LCM	7/27	9	a	16	2.1	0
LCM	7/31	9	b	12	4.0	0
LCM	8/1	9	c	49	19.5	0
LCM	8/4	9	d	23	10.4	0
LCM	8/7	9	e	23	10.0	0
	TOTALS			123	46.0	0

TOTALS FOR SHEET

Number of positions 4505
Statute miles of sounding line 1880.6
Number of hand lead soundings 49
Square statute miles of sounding 414.0

TIDAL NOTE

HYDROGRAPHIC SURVEY H-8058
FIELD NO. ARW-4153

The tide gage and staff used to obtain tidal data for this sheet, with the exception of the 24 July, 9 August, and 10 August, was located at Saktuina Point, Latitude $70^{\circ} 34.8$, Longitude $152^{\circ} 02.7$.

MLLW is 1.7 feet above the zero of the tide staff.

The tide gage and staff used to obtain tidal data for this sheet on the 24 July, before the Saktuina gage had been put in operation, was located at Pitt Point Camp, Latitude $70^{\circ} 54.9$, Longitude $153^{\circ} 04.5$ and known as Pitt Point No. 2.

MLLW is 2.4 feet above the zero of the tide staff.

The tide gage and staff used to obtain tidal data for this sheet on the 9th and 10th of August when the Saktuina gage was inoperative, was located at Oliktok, Latitude $70^{\circ} 31.0$, Longitude $149^{\circ} 52.0$ and known as Oliktok No. 2.

MLLW is 0.5 feet above the zero of the tide staff.

No tide or range factor corrections were applied to the tidal data for reducing sounding. All marigrams have been submitted to the Washington Office.

DEC 9 1953

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON 25

AND REFER TO NO. 73-mk1

AIR MAIL

4 December 1953

To: Supervisor, Northwestern District
U. S. Coast and Geodetic Survey
705 Federal Office Building
Seattle 4, Washington

Subject: Shoreline - Arctic Coast - project Ph-29

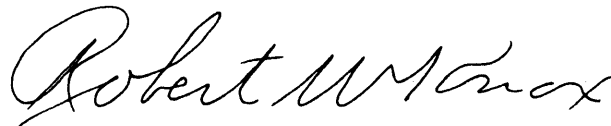
In reply to your letter dated 12 November and telegram dated 3 December 1953, 1:20,000 scale ozalid prints are being furnished for the following surveys:

T-9757	T-9764	T-9769
T-9771	T-9773	T-9776
T-9777	T-9779	

Because of difficulty of reproduction at 1:40,000 scale, contact prints at 1:20,000 scale are being furnished. It is assumed that you will be able to reduce them to the appropriate scale with a reflecting projector.

The prints of T-9765, T-9778 and T-9780 that you now have on hand will be satisfactory for the application of shoreline because no significant changes were made to the shoreline during review.

It is hoped that the prints mentioned in the first paragraph of this letter will be in the mail on 7 December, and you should not forward Arctic field sheet H-8059 until you have applied the shoreline from the topographic surveys.



Acting Director

H 8058

ARW 4153

Processing Office Notes.

Smooth sheet.

The projection was ruled by hand on a cut sheet of paper D 117. To control the shoran arcs points were computed along lines radial to the shoran station and the distances along the radii were subdivided into two statute mile intervals. The distance arcs were swung thru these points.

Crossings.

Good.

Irregular depth curves.

In the vicinity of ϕ 70 36 λ 151 30 the plotter was able to contour convolutions in the two, three and four fathom curves. These ridges and troughs are probably formed by grounded sea ice.

Shoal flats.

There is a shoal strip two or three miles wide between the sounded area and the shore. In the spring when the thaw sets in the Colville River brings ice down its various channels to the face of the delta. Here it meets the sea ice piled up on the shore. The water backs up and forms lakes until the river breaks thru the ice barrier to the sea. This forms channels a few feet deep across the bars. Later in the summer storms fill in these channels again. Winds may alter the inshore ~~depths~~ *water level* by two or three feet.

Channels into the delta.

Mr. C.A.J. Pauw made the photo inspection in this area and entered the delta for signal building, etc. The information of this paragraph and the one next above was obtained from him.

The best channels into the delta are the West Channel at meridian 151 05 and the Kupigruak Channel at meridian 150 24. Mr. Pauw has sketched from memory the approximate routes followed. See ~~smooth sheet.~~ *chart sections.*

He entered the west channel by two routes as shown. The westernmost route was traversed in a dory with an outboard motor drawing about a foot and a half thru water about two feet deep. He passed thru the other route into the West Channel in a launch drawing three and a half feet and that is about all the water there was.

Thru the channel at λ 151 02 he tried to approach ~~random~~ in dory under oars but turned back after going about half way.

*Reconnaissance information
see chart sections*

Shoran station TOLA near λ 150 55 is on a low bank only a few feet high but still the highest land in this vicinity. There is three feet of water close in to the shore.

With dory and motor he passed into the channel mouth at λ 150 52.

He carried about two feet over the bar into the Elaktoveach Channel at ϕ 70 29 λ 150 48. There is about five feet of water in the channel which can be carried for some distance.

There is about four feet of water in the ^PKugigruak Channel at ϕ 70 30 λ 150 24, with about twelve feet further inside.

When making the photo inspection Mr. Pauw made notes regarding the channels used or attempted on the face of the photographs. He also made some pole soundings which were shown in the same way. It is recommended that these field inspected photographs be examined for the hydrographic information noted at the time and not dependent on memory.

The wide easternmost channel of the Colville is full of sand bars and might be entered with a dory, dragging it over bars when necessary.

① Note below

Reconnaissance information see chart sections

Name.

The field party applies the name Harrison Bay to the inshore waters between Cape Halkett and Thetis Island. Some of our maps use the name for the bay in the western party of this area, from Cape Halkett to Antigaru Point.

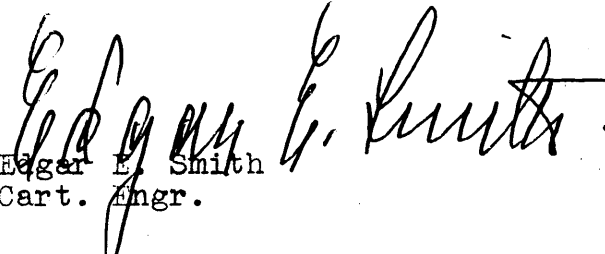
see names sheet.

Additional work

H 7991 ARW 4152

In volume 7 s-day H 8058 is the record of two lines of additional work on H 7991. It was plotted on linen and will be forwarded with smooth sheet H 8058.

s-day soundings transferred to H-7991


Edgar E. Smith
Cart. Engr.

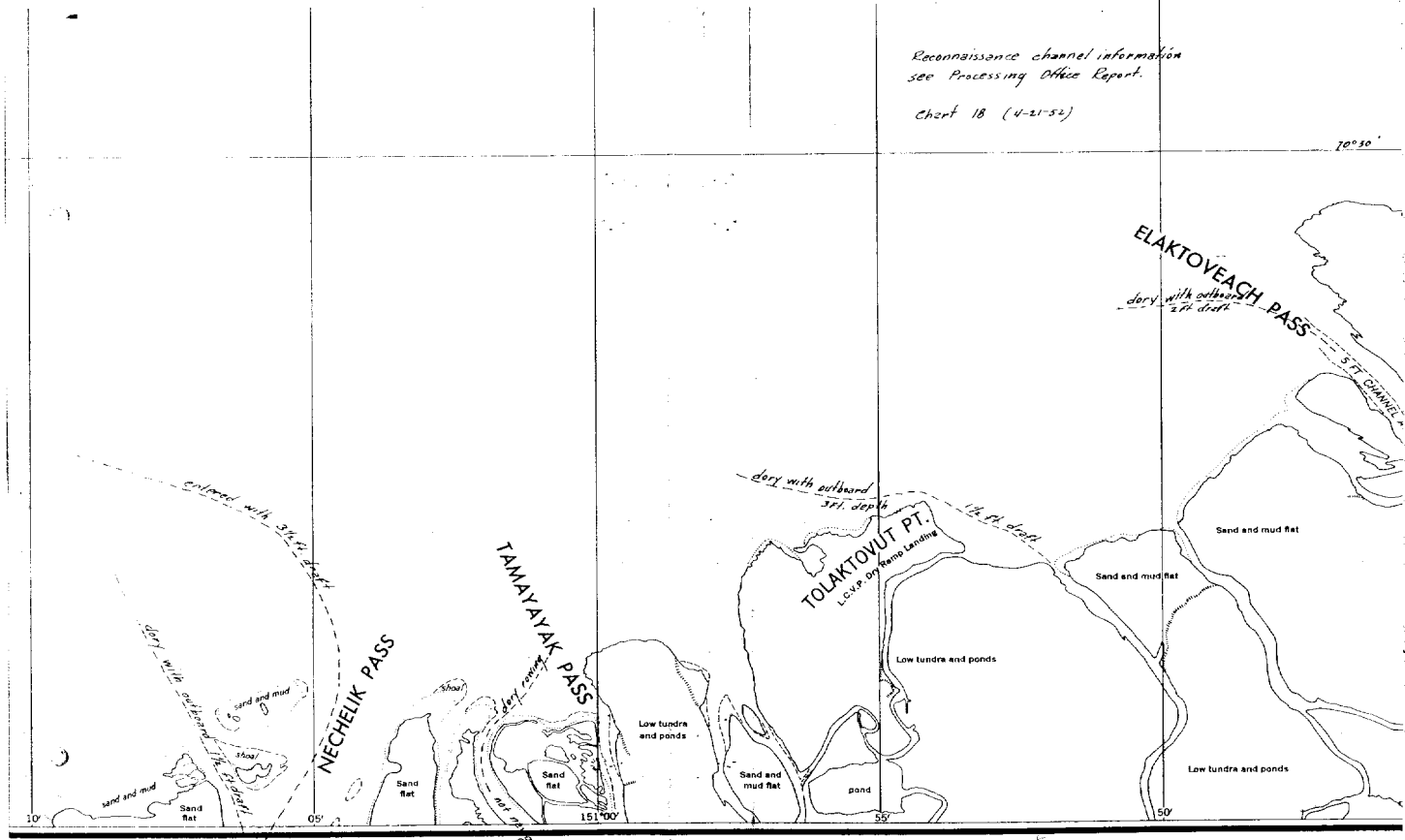
① All information noted on the field inspection photographs, concerning channels and depths, is shown on the topo manuscripts. Most of the information given in this report, does not appear on the field photographs.

R.E.E. 6-28-54

Reconnaissance channel information
see Processing Office Report.

Chart 18 (4-21-52)

70°30'



Arctic Coast chart 18 (4-24-52)

Reconnaissance channel information
see Processing Office Report

--- entered with dory 4-ft channel

3
4
4

70°30'

3

sand and mud

sand and mud

sand and mud

channel depth 12 ft. inside
best channel

KUPIGRUAK PASS

low tundra and ponds

High tundra

High tundra

High tundra

High tundra

High tundra

sand and mud

sand and mud

ANACHLIK I
High tundra
Anachlik Lake

COLVILLE RIVER

sand an

150°30'

25'

20'

839

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

23 March 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
27 volumes of sounding records for

HYDROGRAPHIC SHEET 8058

Locality North Arctic Coast, Alaska

Chief of Party: M. G. Ricketts in 1953
Plane of reference is mean lower low water, reading
1.7 ft. on tide staff at Saktuina Point
11.2 ft. below B. M. 4 (1952)
2.4 ft. on tide staff at Pitt Point
19.2 ft. below B.M. CAMP (1951)
0.5 ft. on tide staff at Oliktok Point
8.7 ft. below B. M. 1 (1951)

Height of mean high water above plane of reference is as follows:
Saktuina Point = 0.7 ft.
Pitt Point = 0.4 ft.
Oliktok Point = 0.7 ft.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. H-8058

Name on Survey												
	A	B	C	D	E	F	G	H	K			
Alaska											1	
Arctic Coast											2	
Beaufort Sea									B.G.N.		3	
Harrison Bay			See note re B.G.N. decision on other name list. Applies to wide area from Thetis I to Cape Halkett							"		4
											5	
											6	
Atigaru Point											7	
Colville River Delta									B.G.N.		8	
Thetis Island											9	
Tolatorut Point											10	
Elaktoreach Channel											11	
Kupigruak Channel											12	
Nechelikt Channel			(not Colville R, West branch)									13
											14	
											15	
					Names approved 3-31-54. L. HECK							16
											17	
											18	
											19	
											20	
											21	
											22	
											23	
											24	
											25	
											26	
											27	

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8058.....

Records accompanying survey:

Boat sheets ⁴...; sounding vols. ²⁷...; wire drag vols.;
 bomb vols.; graphic recorder rolls ³⁰ Env;
 special reports, etc. 1. Smooth Sheet; 1. Descriptive Report;

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

	Prelim. verification	Final verification
Number of positions on sheet	4505	...
Number of positions checked	10	506
Number of positions revised	2	...
Number of soundings revised (refers to depth only)	110	...
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details	Time 8hr.	...
Junctions	Time 16hr.	...
Verification of soundings from graphic record	Time 30hr.	8hr
Preliminary verification by-- R.E. Elkins	88 hrs.	6-14-54
Verification by... Paul E. Harrison	Total time 67	Date 9-25-56
Reviewed by... R.E. Elkins	Time 8hr.	Date 6-14-54
Review Addendum A.B.H. Millan	68	5-26-65

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8058

FIELD NO. ARW-4153

Alaska, Arctic Coast, Atigaru Point to Thetis Island

Project No. CS-320

Surveyed - July - Aug. 1953

Scale 1:40,000

Soundings:

Control:

808 Fathometer

Shoran
Sextant fixes on shore
signals

Chief of Party - Max G. Ricketts

Surveyed by - H. R. Lippold, J. B. Watkins, R.E. Williams, L.L. Runge

Protracted by - R. E. Williams

Soundings plotted by - C. E. Pedersen

Preliminary verification by - R. E. Elkins

Verified and inked by - *P.E. Harrison & J.S. McMillan*

Reviewed by - R. E. Elkins 6/14/54

Inspected by - R. H. Carstens

1. Shoreline and Control

The origin of the signals is given in the Descriptive Report. The shoreline is from reviewed photogrammetric manuscripts T-9773, T-9778, T-9779, T-9780 (1947-51) and T-9772, T-9777 (1947-52).

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated, except for the low-water curve. In accordance with Project Instructions, curves in shoal flat areas were not completely developed.

The bottom is smooth except for minor irregularities north-east of Atigaru Point.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7915, H-7917, H-7918 (1951) on the east, with H-7991 (1952) on the west, and with H-8059 (1953) on the north.

5. Comparison with Prior Surveys

There are no prior surveys in the area by this Bureau.

6. Comparison with Arctic Coast Chart 18 (drawing 2, 3-29-54)
Arctic Coast Chart 19 (drawing 2, 3-29-54)

A. Hydrography

The charted hydrography is from the present survey before preliminary verification. Minor changes amounting to no more than two feet were made to some inked soundings on the smooth sheet.

B. Aids to Navigation

There are no aids charted within the area of the present survey.

7. Condition of Survey

- a. The sounding records are complete and the Descriptive Report covers the important items of this survey except that no summary of corrections applied to the soundings is included.
- b. The preliminary verification indicated that the smooth plotting was well done.
- c. The preliminary verification of this sheet was confined to crossing discrepancies, critical soundings and depth curve delineation. Soundings in the irregular bottom area northeast of Antigaru Point as well as several lines covering the general area, were verified and inked. Completion of the verification and inking is deferred until some future date, at which time junctional soundings will be transferred and the depth curves will be inked.

8. Compliance with the Project Instructions

This survey adequately complies with the Project Instructions. As mentioned in the Descriptive Report, the line spacing in some areas does not strictly conform to the Project Instructions, however, as no important shoals are revealed by the adjacent hydrography, the development is considered adequate.

9. Additional Field Work

This is a good basic survey and no additional field work is required.

Examined and approved:



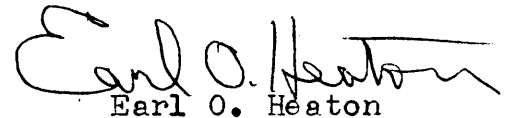
H. R. Edmonston
Chief, Nautical Chart Branch



E. R. McCarthy
Acting Chief, Division of Charts



G. R. Fish
Chief, Hydrography Branch



Earl O. Heaton
Chief, Division of Coastal Surveys

Addendum Review
H-8058 (1958)

Verification and inking by-----P. E. Harrison
J. S. McMillan
Review Addendum-----J. S. McMillan 5/26/65
Inspected by-----R. H. Carstens

The verification of this survey has been completed. The soundings and depth curves have been completely inked.

Junctions with Contemporary Surveys

All junctional soundings have been completely inked. Adequate junctions were effected between adjoining contemporary surveys listed in the review of June 14, 1954 and the present survey.

Comparison with Chart 9470 (latest print date 4/16/56)
Chart 9469 (latest print date 4/16/56)

The charted hydrography originates with the present survey, after preliminary verification and review. Charted depths are in agreement with present survey depths.

Condition of Survey

- a. Completion of verification and inking reveals that the smooth plotting was well done.
- b. The Descriptive Report is complete and comprehensive.

Approved :

Lorne G. Taylor
Chief, Nautical Chart Division

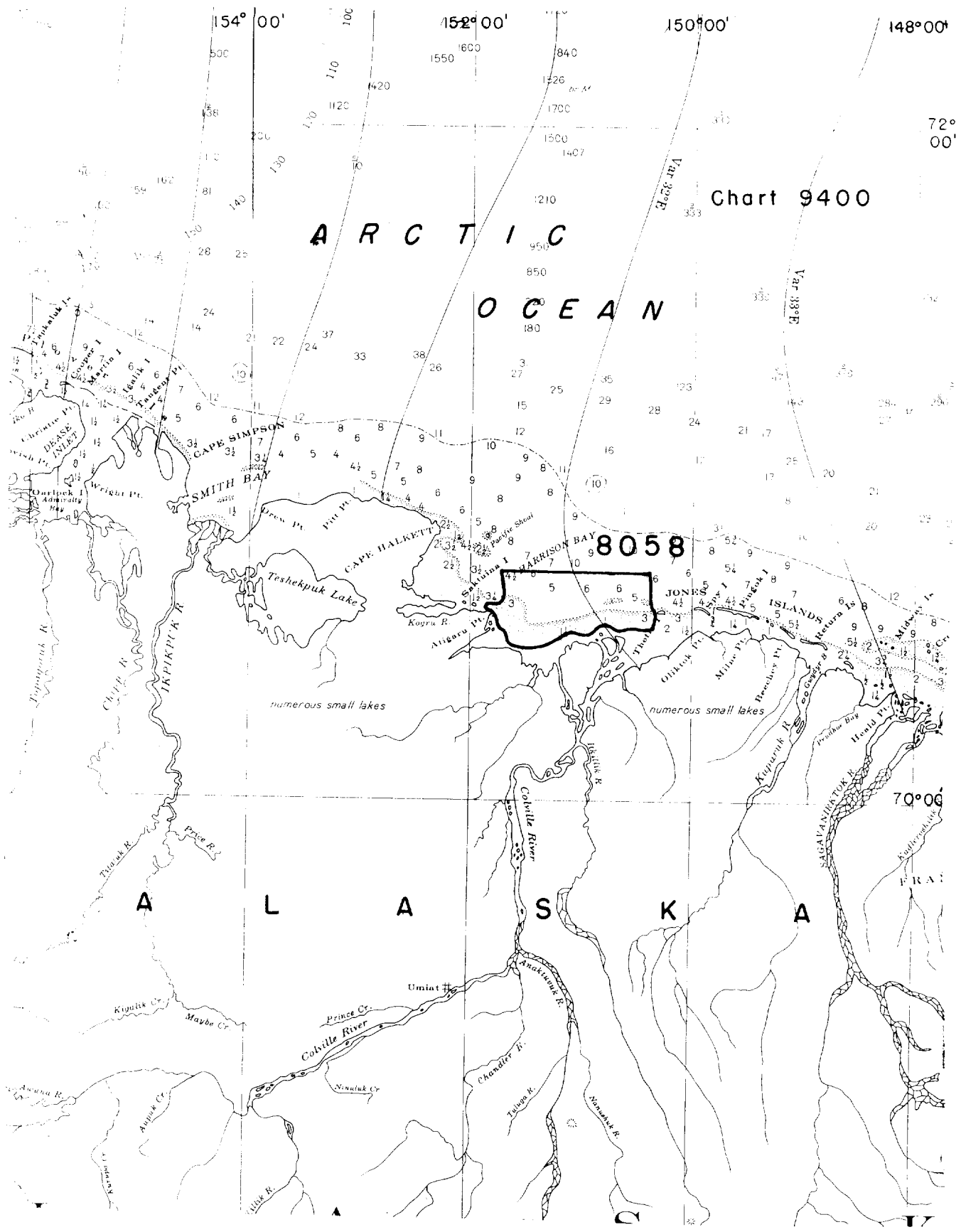


Chart 9400

ARCTIC
OCEAN

ALASKA

8058

