

7851

Diag. Cht. No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ARN-2149 Office No. H-7851

LOCALITY

State ALASKA

General locality ARCTIC COAST OF ALASKA

Locality MAGUIRE ISLANDS TO FLAXMAN

ISLAND

19~~4~~50

CHIEF OF PARTY
R. A. Earle

LIBRARY & ARCHIVES

DATE Mar. 13, 1951

B-1870-1 (1)

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

MAR 13 1951

Form 537
(Ed. June 1946)

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-7851

Field No. ARN-2149

State ALASKA

General locality ARCTIC NORTH COAST

Locality MAGUIRE ISLANDS TO FLAXMAN ISLAND

Scale 1:20,000 Date of survey 31 Aug. 1949 to 13 Sept. 1950

Instructions dated Supplemental 15 ^{Feb.} March 1949, 8 March 1950

Vessel ARCTIC NORTH PARTY

Chief of party R. A. EARLE

Surveyed by J. T. JARMAN, D. A. JONES, R. M. SYLAR, C. A. J. PAUW, E. W. RICHARDS,
H. D. NYGREN, D. E. FISHER

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

Fathograms scaled by Assorted North Party personnel.

Fathograms checked by Assorted North Party personnel.

Protracted by C. A. J. PAUW

Soundings penciled by B. SMITH

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

REMARKS: Horizontal Datum - Flaxman Island Astro., 1912 (Leffingwell)

Note: Overlay from AAF Preliminary
Base Map, Beachy Point (63 B)

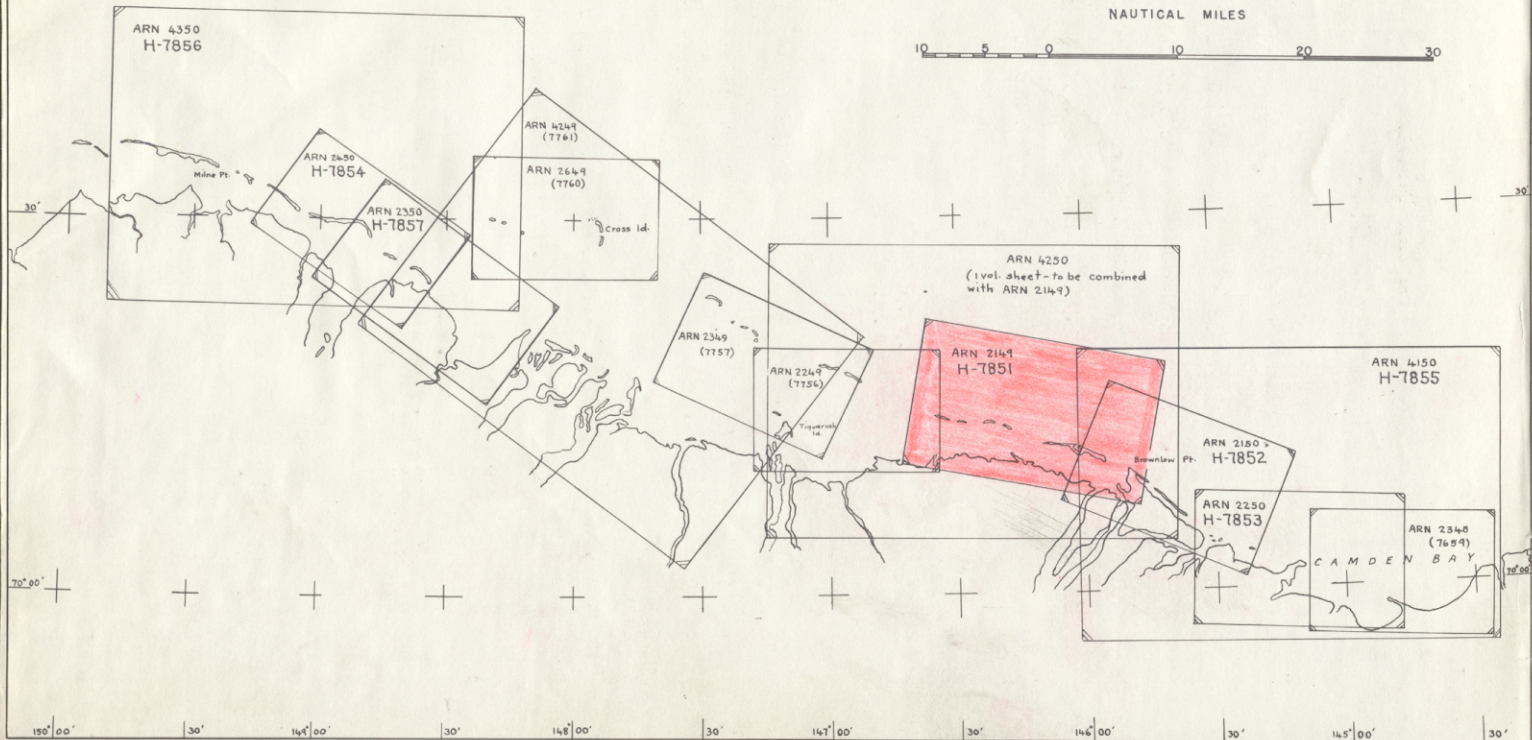
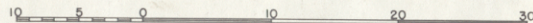
ARCTIC FIELD PARTY
NORTH UNIT
SHEET LAYOUT 1950 SEASON

J.T. JARMAN, OINC

R.A. EARLE, CHIEF OF PARTY

SCALE 1:1,000,000

NAUTICAL MILES



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H7851
FIELD NO. ARN 2149
MAGUIRE ISLANDS TO FLAXMAN ISLAND
PROJECT GS-320
1950
SCALE: 1:20,000

CHIEF OF PARTY - - - - - R. A. EARLE
 IN CHARGE, NORTH UNIT - - - - - D. A. JONES
 J. T. JARMAN
 IN CHARGE, FIELD WORK - - - - - R. M. SYLAR
 C.A.J. PAUW
 H. D. NYGREN

A: PROJECT This sheet is a part of Project GS-320, Basic Surveys, Arctic Coast of Alaska. It was accomplished under authority contained in Supplemental Instructions dated 4 February 1948, 15 February 1949 and 8 March 1950.

B: SURVEY LIMITS AND DATES This survey covers the area along the north Arctic Coast of Alaska from the Maguire Islands to Flaxman Island. The work makes a junction on the west with ARN-2249 (H-7756) (1949-50) and on the east with ARN-2150 (H-7852). Work was extended as far offshore as time permitted. (1950) and H-7855 (1950)

The offshore areas of this sheet were surveyed on a 1:40,000 scale boat sheet, ARN-4250. Since the latter sheet consisted of only 1 sounding volume, a smooth sheet projection was designed to cover both areas on a scale of 1:20,000.

The survey began on 31 August 1949, and was completed on 13 September 1950. One days work was executed in 1949; the remainder of the work was accomplished in 1950.

C: VESSELS AND EQUIPMENT The survey was made with the following listed rearming launches:

1949	Launch No. 11	Fathometer	126s
1950	Launch No. 11	Fathometer	125s
	Launch No. 13	Fathometer	119s
	Launch No. 14	Fathometer	126s
	Launch No. 15	Fathometer	125s

Fathometers were 808j type portable graphic recorders equipped with fresh water reeds and utilizing outboard fish installations set at a depth of 2 feet.

Launch No. 11 based at Tigvariak Island in 1949. In 1950 all launches operated from a camp on Flaxman Island.

D: TIDE AND CURRENT STATIONS The 1949 work was reduced from tidal data obtained at the Tigvariak gage. The 1950 tide gage which was installed near the camp on Flaxman Island furnished data for the 1950 reducers.

No current stations were observed within the limits of this survey.

E: SMOOTH SHEET The smooth sheet projection was made by hand at the Seattle Processing Office. Control, including shoran circles, was plotted at the same office from field computations of geographic positions.

Positions were protracted by Arctic Field Party personnel and soundings were pencilled by personnel of the Seattle Processing Office.

F: CONTROL STATIONS Control was furnished by the 1949 triangulation of H. A. Paton computed on the Flaxman Island 1912 datum.

Hydrographic stations are principally triangulation stations, although the launch parties established several additional signals. The location data for the latter are indexed in Vol. 1.

G: SHORELINE AND TOPOGRAPHY The smooth/sheet/shoreline⁽¹⁹⁴⁹⁾ was transferred from copies of nine lens compilations T-9351, T-9352 and T-9353, furnished by the Portland Photogrammetric Office. Changes in the barrier islands were sketched on the boat sheets by the hydrographers. These changes have been transferred to the smooth sheet and are indicated by broken red lines.

The low-water line was not defined by the hydrography because of the very low range of tide. *Sections of the low-water line were sketched by the hydrographers, and are shown on the smooth sheet by broken yellow lines.*

H: SOUNDINGS All sounding was accomplished with portable graphic recorders of the 808j type. Fresh water reeds were used which gave a calibrated velocity of 788.2 fm/sec. Time was controlled on the fathogram and all sounding was done on the foot scale. The initial was held at two feet. See: "Special Report, Fathometer Corrections, Arctic North Party, 1950". *See Descriptive Report H-7857.*

I: CONTROL OF HYDROGRAPHY All inshore hydrography was controlled by visual fixes. Launches 14 and 15 utilized shoran control for the off-shore work; shore stations being in operation during September on Flaxman and Challenge Islands. Shoran Corrections were computed as described and tabulated in "Special Report, Shoran Operations, Arctic North Party, 1950".

J: ADEQUACY OF SURVEY This survey is complete and adequate. Satisfactory junctions are made with adjoining surveys.

K: CROSSLINES Adequate crosslines were run and satisfactory crossings were obtained.

L: COMPARISON WITH PRIOR SURVEYS There are no previous surveys in this area.

M: COMPARISON WITH CHART The only existing chart of the area, USC&GS No. 9400, is on too small a scale for comparison.

N: DANGERS AND SHOALS There are no dangers or shoals north of the barrier islands.

The area south of the barrier islands is in general very shoal. A six foot shoal lies at Latitude 70° 12.3N. and Longitude 146° 25.6W., however the soundings in the general area are only a few feet deeper.

An extensive bar lies one mile SE of North Star Island in Mary Sachs Entrance. This bar terminates at its eastern extremity in an exposed gravel islet.

The barrier islands being low sandy bars are subject to constant change by wave action and ice gouging. In general, a shoal makes out from both ends of the individual islands and any channels between them are narrow, shallow and subject to change. The islands themselves should be considered dangers because of their shifting nature and low elevation.

A shoal of major importance to small craft extends one mile SW of Flaxman Island into Mary Sachs entrance. This shoal terminates at the six foot curve in Latitude 70° 11.7N; Longitude 146° 14.1W.
14.8

O: COAST PILOT INFORMATION See: "Coast Pilot Report, Arctic North Party, 1949 & 1950".

Launches working within the limits of this survey found shelter in lees formed by the barrier islands or behind the spits making out from the mainland.

The channels between the barrier islands, except for that in Mary Sachs Entrance, are not recommended as permanent passages. The islands themselves are subject to extensive seasonal changes which may obstruct the narrow charted channels between them.

P: AIDS TO NAVIGATION Several aids to navigation, consisting of 35 ft. duraluminum towers with distinctive day marks, were established by the Navy in 1950 as follows:

<u>HYDROGRAPHIC NAME</u>	<u>CHARTED NAME</u>	<u>LOCATION</u>			
Age (on Flaxman Island)	Daybeacon (Circular)	70° 10'	1162.2 meters	N-	
		145 56	365.7	"	W-
Ive (on Duchess Island)	Daybeacon (Square)	70 14	53.0	"	N-
		146 23	602.6	"	W-
Jar (on Challenge Island)	Daybeacon (Diamond)	70 14	730.8	"	N-
		146 37	426.7	"	N-

Positions were determined by traverse Aug 12 1950. See Chart Letter 985 (1950)

Q: LANDMARKS FOR CHARTS The following landmarks have been recommended:

<u>HYDROGRAPHIC NAME</u>	<u>CHARTED NAME</u>	<u>LOCATION</u>
WARE (on H-7852 (1950) (on Brownlow Point, L. 885 (1950))	Building, Warehouse most prominent of group of 3 buildings	70° 09' 1363.7 met. N. 145° 50' 187.0 met. W. <i>3rd order triangulation 1950</i>
EST (Δ WEST NATIVE POLE, 1950) (on Duchess Island)	Pole, 20 ft. Log bored in upright pos., easterly of two.	70 14 49.5 met. N. 146 23 625.5 met. W. <i>(about 25m. west of Day Beacon, 1ve)</i>
OLE (Δ EAST NATIVE POLE, 1950) (on Duchess Island)	Pole, 20 ft. log braced in upright position, easterly of two.	70 14 78.8 met. N. 146 23 432.1 met. W.

R: GEOGRAPHIC NAMES See: "Special Report, Geographic Names, Arctic North Party, 1948 and 1949". *on file 254*

S: TABULATION OF APPLICABLE DATA

The following data has been submitted to the Washington Office:

1. List of Geographic Positions, 1949
2. Tidal Data, 1949 and 1950
3. Velocity Corrections, 1949 and 1950 *filed in ^{with} Descriptive Report H-7857*
4. Coast Pilot Note, 1949 and 1950
5. Geographic Names Report, 1948 & 1949
6. Shoran Report, 1950
7. Aids to Navigation, 1950
8. Landmarks for Charts, 1950

T: ATTACHMENTS

The following data are appended:

1. List of Signals
2. Statistics
3. Tidal Note
4. Abstract of Velocity Correction
5. Geographic Names List
6. Approval Sheet

W: REMARKS

See Approval sheet and Review.

The offshore line spacing within the areas controlled by shoran are excessive in a few instances. Due to ice conditions and the proximity of the season's close, there were only three days available to the shoran launches to complete the sheet. The water surface was extremely rough during this period which effected the path of the sounding launch. Due to the regular bottom, no additional work is recommended.

Respectfully submitted,

Harley D. Nygren
HARLEY D. NYGREN
Ensign, USC&G Survey

Approved & Forwarded:

RA Earle
R. A. EARLE
Comdr., USC&G Survey
Chief of Party

SIGNAL LISTSURVEY_H-7851 - ARN = 2149

<u>NAME</u>	<u>SOURCE OF LOCATION</u>
Age	Day Beacon, Aid to Navigation
Arm	Vol. I.
Boy	Vol. I.
BROWNLOW	2nd Order Triangulation
Dead	Vol. I.
DUKE	3rd Order Triangulation
EAST NATIVE POLE	3rd Order Triangulation
FLAXMAN	2nd Order Triangulation
Gab (Igg)	Topographic G.P. 1950
GORDON	2nd Order Triangulation
HOPSON	2nd Order Triangulation
Igg (Gab)	Topographic G.P. 1950
Ive	Day Beacon, Aid to Navigation
Jar	Day Beacon, Aid to Navigation
LEFFINGWELL	2nd Order Triangulation, 1949
LILY	3rd Order Triangulation, 1949
MARSAC	2nd Order Triangulation, 1949
NORA	3rd Order Triangulation, 1949
NYGREN	2nd Order Triangulation, 1949
Pie	Topographic G.P. 1950
PIERRE	2nd Order Triangulation
POLARIS	2nd Order Triangulation
Rack	Vol. I.
RUDA	3rd Order Triangulation
SAVAK	2nd Order Triangulation
THIN	3rd Order Triangulation
TUNDRA	2nd Order Triangulation
VILLAGE	2nd Order Triangulation
WEST NATIVE POLE	3rd Order Triangulation
CHALLENGE	

SHORAN STATIONS

<u>Station Name</u>	<u>Locality</u>	<u>N. Latitude</u>	<u>W. Longitude</u>
Cal	Challenge Is.	70° 14' 23.340"	146° 37' 33.235
Man	Flaxman Is.	70 11' 12.331"	146 02' 42.155"

Stations were located by traverse from 2nd Order Triangulation
Stations.

H-7851

FIELD NO. ARN-2149

STATISTICS

<u>Date</u>	<u>Launch</u>	<u>Day Letter</u>	<u>Vol.</u>	<u>Position</u>	<u>Stat.Mile Sdg.Lines</u>
8/31/49	11	a (blue)	1	74	21.3
7/14/50	14	a (green)	2	64	17.7
7/15/50	14	b (green)	2	89	26.9
7/25	14	c (green)	3	36	7.0
7/26	14	d (green)	3	132	30.3
7/27	14	e (green)	3	54	16.1
7/17	13	a (red)	5	14	3.7
7/23	13	b (red)	5	125	37.1
8/1	14	f (green)	4	119	33.1
8/2	14	g (green)	4	110	28.3
8/10	13	c (red)	5	110	4.9
			6	13	39.4
8/11	13	d "	6	146	46.3
8/15	13	e "	6	119	28.1
8/17	13	f "	7	4	1.0
			7	57	12.3
8/18	13	g "	7	80	19.6
8/19	13	h "	7	87	16.9
8/27	11	b (purple)	11	44	11.8
8/30	11	c "	11	36	9.7
8/31	11	d "	11	88	17.2
9/1	11	e "	11	124	32.9
9/1	13	j (red)	7	40	11.9
9/2	13	k "	8	163	0.7
9/4	13	l "	8	112	44.6
			9	51	28.4
9/5	13	m	9	102	17.1
9/7	13	n	9	72	27.0
9/11	13	p	9	47	23.5
			10	33	9.7
9/10	15	a (blue)	12	74	9.9
9/11	15	b (blue)	12	141	28.1
9/13	14	h (green)	13	85	41.9
9/10	14	aa "	14	61	26.0
9/11	14	bb "	14	91	29.1
9/12	14	cc "	14	46	40.8
9/13	14	dd "	14	35	20.2

Total

2650

723.4

Area Sq.Stat.Miles 113.3

SURVEY H-7851

FIELD NO. ARN-2149

TIDAL NOTE

1949 Station Location

Tigvariak Island

Lat: 70° 13.1 N ✓ (on H-7756 (1949-50))
Long: 147 10.3 W

Plane of reference: Mean lower low water
Tigvariak Tide Staff

2.5 ft. on

1950 Station Location

Flaxman Island

Lat: 70 11.1 N
Long: 146 03.0 W (not shown on
smooth sheets)

Plane of reference: Mean lower low water, 2.2 ft on
Flaxman Tide Staff

VELOCITY CORRECTIONS
Sheet ARN-2149 (page 2)

Launch No. 14
Fath. No. 126
Velocity Curve No. 4
9/10 thru 9/13

<u>Depth</u> <u>cable Feet</u>	<u>Appli-</u> <u>Feet</u>	<u>Velocity</u> <u>Corr. Ft.</u>	<u>"B" & "C" Scale</u> <u>Corr. Feet</u>		<u>Bar-Check</u> <u>Corr. Feet</u>	<u>Combined</u> <u>Corr. Feet</u>	<u>Combined "B" &</u> <u>"C" Scale Corr.</u>	
			<u>B</u>	<u>C</u>			<u>B</u>	<u>C</u>
0 to 24		0.0			-0.1	-0.1		
24 to 102		+0.2	-0.7	-1.4	-0.1	+0.1	-0.6	-2.0

Launch No. 11
Fath. No. 125
Velocity Curve No. 3
8/27

<u>Depth</u> <u>cable Feet</u>	<u>Appli-</u> <u>Feet</u>	<u>Velocity</u> <u>Corr. Ft.</u>	<u>BAR-Check</u> <u>Corr. Feet</u>	<u>Combined</u> <u>Corr. Feet</u>
0 to 11		0.0	-0.6	-0.6
11 to 35		+0.2	-0.6	-0.4
35 to 52		+0.4	-0.6	-0.2

"B" & "C" Scale Correction same as "A" Scale (0.0)

Launch No. 11
Fath. No. 119
Velocity Curve No. 3
8/30 and 8/31

<u>Depth</u> <u>cable Feet</u>	<u>Appli-</u> <u>Feet</u>	<u>Velocity</u> <u>Corr. Ft.</u>	<u>Bar-Check</u> <u>Corr. Feet</u>	<u>Combined</u> <u>Corr. Feet</u>
0 to 11		0.0	-0.1	-0.1
11 to 35		+0.2	-0.1	+0.1
35 to 52		+0.4	-0.1	+0.3

"B" & "C" Scale Correction same as "A" Scale (0.0)

Launch No. 11
Fath. No. 119,
Velocity Curve No. 4; 9/1/50

<u>Depth</u> <u>cable Feet</u>	<u>Appli-</u> <u>Feet</u>	<u>Velocity</u> <u>Corr. Ft.</u>	<u>Bar-Check</u> <u>Corr. Feet</u>	<u>Combined</u> <u>Corr. Ft.</u>
0 to 24		0.0	-0.1	-0.1
24 to 102		+0.2	-0.1	+0.1

"B" & "C" scale Correction same as "A" scale (0.0)

VELOCITY CORRECTIONS
 Sheet ARN 2149 (page 3)

Launch No. 15
 Fath. No. 125
 9/10 thru 9/11
 Velocity Curve No. 4

<u>Depth Appli- cable Feet</u>	<u>Velocity</u>		<u>Bar-Check</u>	<u>Combined</u>	
	<u>Corr. Feet</u>	"B" Scale	<u>Corr. Feet</u>	<u>A</u>	<u>B</u>
0 to 24	0.0		-0.2	-0.2	
24 to 102	* 0.2	-1.0	-0.2	0.0	-1.0



SURVEY H-7851

FIELD NO. ARN-2149

GEOGRAPHIC NAME LIST

ALASKA

ALASKA ISLAND

BEAUFORT SEA

BROWNLOW POINT

CHALLENGE ENTRANCE

CHALLENGE ISLAND

DUCHESS ISLAND

FLAXMAN ISLAND

NORTH STAR ISLAND

POINT GORDON

POINT HOPSON

POINT SWEENEY

POINT THOMSON

APPROVAL SHEET

H-7851

During the 1950 season, field records received periodic inspections, and the field work was supervised personally by the undersigned officer. As officer in charge of processing records, I have inspected the smooth sheet and field records of this survey, and they are approved for transmission to the Washington Office.

The survey is considered adequate and no additional work is recommended.



J. T. JARMAN
Lt. Comdr. USC&G Survey
In Charge, Arctic North Party

It was not possible for the Chief of Party to make frequent inspections of widely separated hydrographic units, consequently such inspections were assigned to the officer in charge of field work in each base camp.

The sheet and records have been examined and approved. The survey is considered adequate for the area.



R. A. Earle
Commander, USC&G Survey
OinC, Arctic Field Party

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

26 April 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 14
volumes of sounding records for

HYDROGRAPHIC SHEET 7851

Locality North Arctic Coast, Alaska

Chief of Party: R. A. Earle in 1949-50
Plane of reference is mean lower low water, reading
2.2 ft. on tide staff at Flaxman Island
6.4 ft. below B. M. 1 (1950)

2.5 ft. on tide staff (1949) at Tigvariak Island
3.3 ft. on tide staff (1950) at Tigvariak Island
5.7 ft. below B. M. 1 (1949)

Height of mean high water above plane of reference is 0.70 foot.

Condition of records satisfactory except as noted below:

E. C. McKay
Section

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

GEOGRAPHIC NAMES

Survey No. H-7851

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>												3
<u>Brownlow Point</u>												4
<u>Flaxman Island</u>												5
<u>Point Thompson</u>												6
<u>North Star Island</u>												7
<u>Duchess Island</u>												8
<u>Alaska Island</u>												9
<u>Challenge Island</u>												10
<u>Point Sweeney</u>												11
<u>Point Hopson</u>												12
<u>Point Gordon</u>												13
<u>Challenge Entrance</u>												14
<u>Mary Sachs Entrance</u>												15
<u>Maguire Islands</u> (North Star, Duchess, Alaska, Challenge)												16
												17
												18
												19
												20
<u>Tigvarian Island</u> (location of one tide gauge)												21
												22
												23
												24
												25
												26
												27

Names underlined in red are approved.
4-19-51. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7851

Records accompanying survey:

Boat sheets ..3..; sounding vols. .14..; wire drag vols.;
 bomb vols.; graphic recorder rolls ..14..;
 special reports, etc. .1 Smooth Sheet; Descriptive Report;

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

Number of positions on sheet	2650.
Number of positions checked	...30.
Number of positions revised	...4.
Number of soundings revised (refers to depth only)	...420.
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details	Time ...10 hrs.
Junctions	Time ...15 hrs.
Verification of soundings from graphic record	Time ...30 hrs.

Verification by *J.F. Gallen (volumes 1 to 13)*
S. Rose (volume 14) Total time 284 hrs. Date Sept. 26, 1951

Reviewed by *R. E. Ekins* Time 48 Date 2-4-52

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7851

FIELD NO. ARN-2149

Alaska, Arctic Coast, Maguire Islands to Flaxman Island

Project No. CS-320

Surveyed in August 1949 to September 1950

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Sextant fixes on shore signals
Shoran

Chief of Party - R. A. Earle

Surveyed by - J.T. Jarman, D.A. Jones, R.M. Sylar, C.A.J.

Pauw, E.W. Richards, H.D. Nygren, D.E. Fisher

Protracted by - C.A.J. Pauw

Soundings plotted by - B. Smith

Verified and inked by - J.F. Gallen and S. Rose

Reviewed by - R.E. Elkins, 4 February 1952

Inspected by - R. H. Carstens

1. Shoreline and Control

The source of the shoreline and control for this survey is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crosslines are in good agreement.

3. Depth Curves and Bottom Configuration

The exact trend and extent of all inshore irregularities gouged by ice can not be fully depicted by the depth curves; however, the general configuration as delineated is adequate for charting. It was impracticable to define the low-water curve by the regular system of sounding lines because of the low range of tide (0.7 ft.).

Shoals connect the barrier islands except at the entrances where sand bars extend southwest of the ends of the terminating islands. The bottom inshore of the islands is generally unbroken except for sand bars extending southwestward at the entrances. The bottom north of the islands is irre-

gular to 30-ft. depths. The unevenness is caused by gouging of grounded ice. The deeper offshore bottom is smooth with no pronounced features.

4. Junctions with Contemporary Surveys

The junctions with H-7756 (1949-50) on the west and with H-7855 (1950) and H-7852 (1950) on the east are adequate. The area to the north is unsurveyed except for track line soundings shown on chart 9403 (latest print date 5-8-50) which are apparently about four miles too far northward.

5. Comparison with Prior Surveys

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

6. Comparison with Arctic Coast Chart 10 (latest print date 5-17-51)

A. Hydrography

The charted hydrography originates with the present survey prior to verification. Minor corrections to soundings amounting to 1 ft. have been made on the smooth sheet during verification and review.

The depths shown on chart 9403 (latest print date 5-8-50) are from exploratory surveys and are superseded by the present survey.

B. Aids to Navigation

The three charted day beacons shown on Arctic Coast Chart 10 originate with the present survey.

7. Condition of Survey

- a. The sounding records are complete; the Descriptive Report covers all matters of importance.
- b. The smooth sheet plotting was adequate.
- c. Sounding line spacings at lat. $70^{\circ} 14'$, long. $146^{\circ} 05'$ are in excess of the limits specified in the Project Instructions; however, the spacing is considered adequate in this area of smooth bottom.

8. Compliance with Project Instructions

This survey adequately complies with the Project Instructions except as noted in paragraph 7c.


9. Additional Field Work

This is an adequate basic survey and no additional field work is recommended.

Examined and approved:



H. R. Edmonston
Chief, Nautical Chart Branch



H. Arnold Kero
Chief, Division of Charts



L. S. Hubbard
Chief, Section of Hydrography



W. M. Scaife
Chief, Division of Coastal Surveys

cont

Applied to Arctic Chart # 10 before Verification
and review. Leo S. Straw 10 April, 1957

J.M.C