

8303

Diag. Cht. Nos. 8802-3 and 8860-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PE-1256 Office No. H-8303

LOCALITY

State Alaska

General locality North Side Alaska Penin-
sula

Locality North of Bechevin Bay

19456

CHIEF OF PARTY

John Bowie

LIBRARY & ARCHIVES

DATE November 27, 1956

8303

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-8303

Field No. PF-4256

State ALASKA

General locality North side Alaska Peninsula and Unimak Island

Locality North of Bechevin Bay

Scale 1:40,000 Date of survey 22 Aug. - 2 Sept. 1956

Instructions dated 20 December 1954, 21 October 1955

Vessel USC&GSS PATHFINDER

Chief of party John Bowie

Surveyed by Personnel, Ship PATHFINDER

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

Fathograms scaled by R. D. Buxton

Fathograms checked by B. L. Gabrielson

Protracted by Personnel, Ship PATHFINDER

Soundings penciled by K. W. Jeffers

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW AND ARE BASED ON A VELOCITY OF SOUND OF 800 FMS PER SEC.

REMARKS: _____

Handwritten initials

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H-8303 (PF-4256)
NORTH SIDE OF ALASKA PENINSULA AND
UNIMAK ISLAND, ALASKA

SCALE: 1:40,000

22 Aug. - 2 Sept. 1956

USC&GSS PATHFINDER

JOHN BOWIE, COMDG.

A. PROJECT:

This survey was accomplished under Instructions - Project 13750, dated 20 December 1954, and Supplemental Instructions - Project 13750, dated 21 October 1955, both issued by the Director.

B. SURVEY LIMITS AND DATES:

This sheet covers an area offshore and is contained within the limits as follows: On the east by latitude $55^{\circ} 17'$, Longitude $163^{\circ} 02'$; on the southwest by latitude $55^{\circ} 05'$, longitude $163^{\circ} 41'$; on the northwest by latitude $55^{\circ} 13'$, longitude $163^{\circ} 48'$; and in the center of the sheet on the north side by latitude $55^{\circ} 19'$, longitude $163^{\circ} 24'$.

Junction was made on the north and northwest side with sheet No. H-6973 (1:100,000) 1943, on the southwest with Sheet No. H-6790 (1:40,000) 1940-41, on the west with Sheet No. 8298 (PF-2456) on the northeast with sheet No. H-8302 (PF-4156), on the southeast with sheets No. H-8300 (PF-2756), and No. H-8299 (PF-2556).

Field work was started on 22 August 1956 and completed on 2 September 1956.

C. VESSEL AND EQUIPMENT:

All hydrography was done on Ship PATHFINDER. Soundings were taken with an 808 recording fathometer No. 130S. Bottom samples were taken by wire and snapper with ship sounding machine. These are shown by blue circles on the overlay sheet.

D. TIDES AND CURRENT STATIONS:

The tide station used for the entire sheet was established at the southeast side of Amak Island, as prescribed in the Project Instructions. No time or range corrections were applied.

Not on
sheet

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

E. SMOOTH SHEET:

The smooth sheet was plotted by personnel of the Ship PATH-FINDER. An acetate boat sheet overlay was used. The shoran positions, corrected for shoran calibration, were pricked through the boat sheet onto the smooth sheet while the hydrographic survey was in progress.

F. CONTROL STATIONS:

The control used on this survey for shoran stations and shoran calibration is as follows:

Ref. Sta. $\left\{ \begin{array}{l} \text{Lat. } 55^{\circ} 14' 26.596'' \\ \text{Long. } 162^{\circ} 59' 45.901'' \end{array} \right. \begin{array}{l} 832.5 (1033.0) m \\ 804.1 (256.1) m \end{array}$

GLAZENAP 1952, PRONE 1952, NORMA 1952, established by Norman E. Sylar, Chief of Party.

WIND 1924, established by R. R. Lukens, Chief of Party.

OLE is a hydrographic station established by sextant cuts and recorded in the sounding volumes for this sheet. This station was necessary in order to obtain shoran calibrations for the Ship PATHFINDER. *Special Report Shoran Corrections No. 152.*

G. SHORELINE AND TOPOGRAPHY:

The area of the sheet is off shore from the north side of the Alaska Peninsula and Unimak Island, and therefore no shoreline or topography is required.

H. SOUNDINGS:

Soundings were taken with an 808 type recording fathometer No. 130S, operated on the fathom scale.

The fathometer initial was set at 2.0 fathoms on the fathogram throughout the survey. Midship draft, near the transceiver, were taken periodically when the ship was underway. There were no phase comparisons as all soundings were under 50 fathoms.

The initial correction, combined with the draft reading, have been applied in the sounding volumes.

A separate Fathometer Report has been submitted for this project. *Special Report - Fathometer corrections No. 151*

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled from two shoran stations NAP and WIN. NAP was centered over triangulation station GLAZENAP 1952, and WIN was centered over triangulation station WIND 1924.

The geographic positions are as follows:

Shoran NAP - Lat. $55^{\circ} 14' 26.596''$ - 822.5 m. (1033.0 m.)
Long. $162^{\circ} 59' 45.507''$ - 804.1 m. (256.1 m.)
Shoran WIN - Lat. $55^{\circ} 00' 34.947''$ - 1080.7 m. (774.7 m.)
Long. $163^{\circ} 30' 37.088''$ - 659.1 m. (407.3 m.)

On several occasions it was necessary to plot on time, course, and one arc (NAP) at the northeast corner of the sheet due to the signal from WIN being blocked out by land masses. No unusual or substandard methods were used.

Shoran calibrations were taken periodically and their corrections recorded in the sounding volumes and applied during the progress of the survey. A separate Shoran Calibration Report has been submitted for this project.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for charting purposes. Junctions with contemporary sheets Nos. H-8302 (PF-4156), H-8300 (PF-2756), H-8299 (PF-2556) and H-8298 (PF-4156) are satisfactory. Depth curves can be adequately drawn at junctions and no holidays exist. Junctions with prior surveys of Sheet No. H-6973 (1:100,000) 1943 and Sheet No. H-6790 (1:40,000) 1940-41, are in excellent agreement, with the exception of a few crossings, where the prior surveys are about one fathom deeper. *See Review*

K. CROSSLINES:

There are 46 miles of crosslines or approximately 10% of total hydrography. All crossings are satisfactory.

L. COMPARISON WITH PRIOR SURVEYS:

With the exception of a few track lines by the U. S. Coast Guard, Coast Survey, and Russians, presumably, (the soundings of which are shown on Charts Nos. 8802 and 8860). No prior formal survey exists in this area.

M. COMPARISON WITH CHARTS:

This survey was compared with the latest editions of Charts Nos. 8802 and 8860. The charted soundings are scattered, and as stated in the Preliminary Review, dated January 1955 of this area, some are of doubtful origin (See paragraph L, above). There is no consistency or direct relation from which a datum difference between the charts and the smooth sheet could be obtained.

N. DANGERS AND SHOALS:

There are no dangers or shoals in this area and no investigations required from the Preliminary Review dated January 1955.

O. COAST PILOT INFORMATION:

A Coast Pilot Report is being submitted for this project.

P. AIDS TO NAVIGATION:

No aids to navigation exist within the limits of this survey.

R. GEOGRAPHIC NAMES:

The area surveyed includes the east portion of the name SLIME BANK as positioned on Chart No. 8860. Since the area is, in general, flat and gentle sloping, and no bank indicated, it is recommended that the name SLIME BANK be positioned on Chart No. 8860 to the west of this survey. No other geographic names appear on the charts within this area and none are recommended. See Geographic Names Sheet & Note by Mr. Heck dated 9-12-58.

*Mr. Heck
consulted.
name
retained
as is.*

S. SILTED AREAS:

No significant silted areas were noted but the general bottom characteristic is fine black sand.

*LAM
11/21/59*

Z. TABULATION OF APPLICABLE DATA:

1. Tidal Data
2. Fathometer Report
3. Shoran Calibration Report
4. Coast Pilot Report

Respectfully submitted,

William C. Russell

William C. Russell
CDR, C&GS

APPROVED AND FORWARDED:

John Bowie

John Bowie
Captain, C&GS
Comdg. Ship PATHFINDER

TABLE NO. 1
 STATISTICS FOR HYDROGRAPHIC SURVEY
 H-8303, PF-4256

<u>VOL.</u>	<u>DAY</u>	<u>DATE</u>	<u>VESSEL</u>	<u>POS.</u>	<u>STAT. MI.</u>	<u>WIRE SDG.</u>
1	A	22 August	PATHFINDER	70	44.0	8
1	B	23 August	PATHFINDER	31	27.6	
1	C	28 August	PATHFINDER	31	28.6	
2	D	29 August	PATHFINDER	116	95.8	
2 & 3	E	30 August	PATHFINDER	64	53.2	
3 & 4	F	1 Sept.	PATHFINDER	174	168.8	
4	G	2 Sept.	PATHFINDER	<u>106</u>	<u>87.6</u>	<u>9</u>
TOTALS				592	505.6	17

AREA - 189.2 square nautical miles - 252.3 square statute miles.

TIDE NOTE FOR HYDROGRAPHIC SURVEY

H-8303, Field No. PF-4256

Location of the tide station for this survey is on the southeast side of Amak Island in:

Latitude: 55° 24.81'

Longitude: 163° 06.90'

MLLW on staff: 2.5 feet

GEOGRAPHIC NAMES

Survey No. H-8303

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
Alaska		} for title							1
Bachelor Bay		}						BGN.	2
Alaska Peninsula								"	3
Bering Sea								"	4
Unimak Island								"	5
Slime Bank (son 8660)						Names approved 12-10-56			6
							L. Heck		7
									8
Amak Island			(tide station)						9
									10
									11
									12
									13
									14
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									16
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									27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8303...

Records accompanying survey:

Boat sheets; sounding vols. .4...; wire drag vols.;
 bomb vols.; graphic recorder rolls 1-Envelope
 special reports, etc. .2-Descriptive report, 1-Combination.....
 Smooth Sheet and Boat Sheet, 1-Smooth Boat Sheet Overlay,
 1-Cahier (29 ea., Shoran Plotting Abstract). 2-Special Reports.
 with Shoran and Fathometer Correction, see Descriptive Report
 H-8297.

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

Number of positions on sheet		592..
Number of positions checked		95..
Number of positions revised		10..
Number of soundings revised (refers to depth only)		32..
Number of soundings erroneously spaced		3..
Number of signals erroneously plotted or transferred		0..
Topographic details	Time	NONE
Junctions	Time	16 HRS.
Verification of soundings from graphic record	Time	10 HRS

Verification by *E. J. Pace* Total time 52.. Date 7-29-58

Reviewed by *[Signature]* Time 32 Date 9-26-58

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

2 January 1957

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 8303

Locality North Side of Alaska Peninsula

Chief of Party: J. Bowie in 1956

Plane of reference is mean lower low water, reading
2.5 ft. on tide staff at Amak Island
16.4 ft. below B.M. 2 (1941)

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

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8303

FIELD NO. PF-4256

Alaska - North Side of Alaska Peninsula
North of Bechevin Bay

Surveyed: August-September 1956

Scale 1:40,000

Project No. 13750

Soundings:

Control:

808 Depth Recorder

Shoran

Chief of Party - John Bowie

Surveyed by - W. E. Randall, W. C. Russell

Protracted by - W. C. Russell, J. O. Boyer, Geo. W. Thompson

Soundings plotted by - K. W. Jeffers

Verified and inked by - E. F. Pace

Reviewed by - L. S. Straw

Date 19 Sept. 1958

Inspected by - R. H. Carstens

1. Shoreline and Control

There are no land areas within the limits of this offshore survey. The origin of the control is given in the Descriptive Report.

2. Sounding Line Crossings

The crosslines are adequate, and the depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The present survey shows a continuation of the slope of the Alaska Peninsula to the west and northwest on a gradient of 7 to 8 feet per mile. The bottom is smooth and featureless except for the shallow, narrow depression 4 miles long in lat. $55^{\circ} 08.7'$, long. $163^{\circ} 34.0'$ as delineated by the 20-fathom curve.

4. Junctions with Contemporary Surveys

The junctions with contemporary surveys H-8298 (1956) on the west; H-8299 (1956) and H-8300 (1956) on the southeast;

and H-8302 (1956) on the northeast are adequate. In accordance with the Project Instructions junctions were made with prior surveys H-6790 (1940-41) and H-6973 (1943). Generally in depths over 20 fathoms the present survey is from 1/2 to 1 fathom shoaler in the overlapping areas. The differences in depths in part are due to the fact that no velocity corrections were applied to the present (1956) survey whereas they were applied to the 1940 to 1943 surveys on which the soundings are in true depths. For cartographic purposes, in the areas of disagreement, butt junctions were made with the prior surveys. The junctions with contemporary surveys H-8374 (1957) and H-8375 (1957) on the south will be considered in the reviews of those surveys.

5. Comparison with Prior Surveys

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

6. Comparison with Chart 8860 (latest print 3/24/58), Chart 8701 (Drawing No. 4 dated April 24, 1958)

A. Hydrography

The hydrography on chart 8860 and Drawing No. 4 of chart 8701 originates entirely with the present survey applied before verification and review; no important discrepancies are noted between the smooth sheet and the charted soundings.

Soundings from 2 fathoms to 3 fathoms deeper than the present depths were previously charted in this area. They originated with unidentified sources, probably Russian, as indicated in the Preliminary Review of chart 8802.

B. Aids to Navigation

No aids to navigation are charted in this area. No dangers to navigation are revealed by the present survey.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was well done.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions.

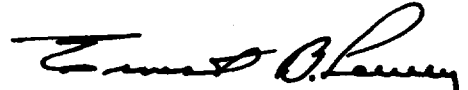
9. Additional Field Work

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

Examined and approved:



Max G. Ricketts
Chief, Nautical Chart Branch



Ernest B. Lewey
Chief, Division of Charts



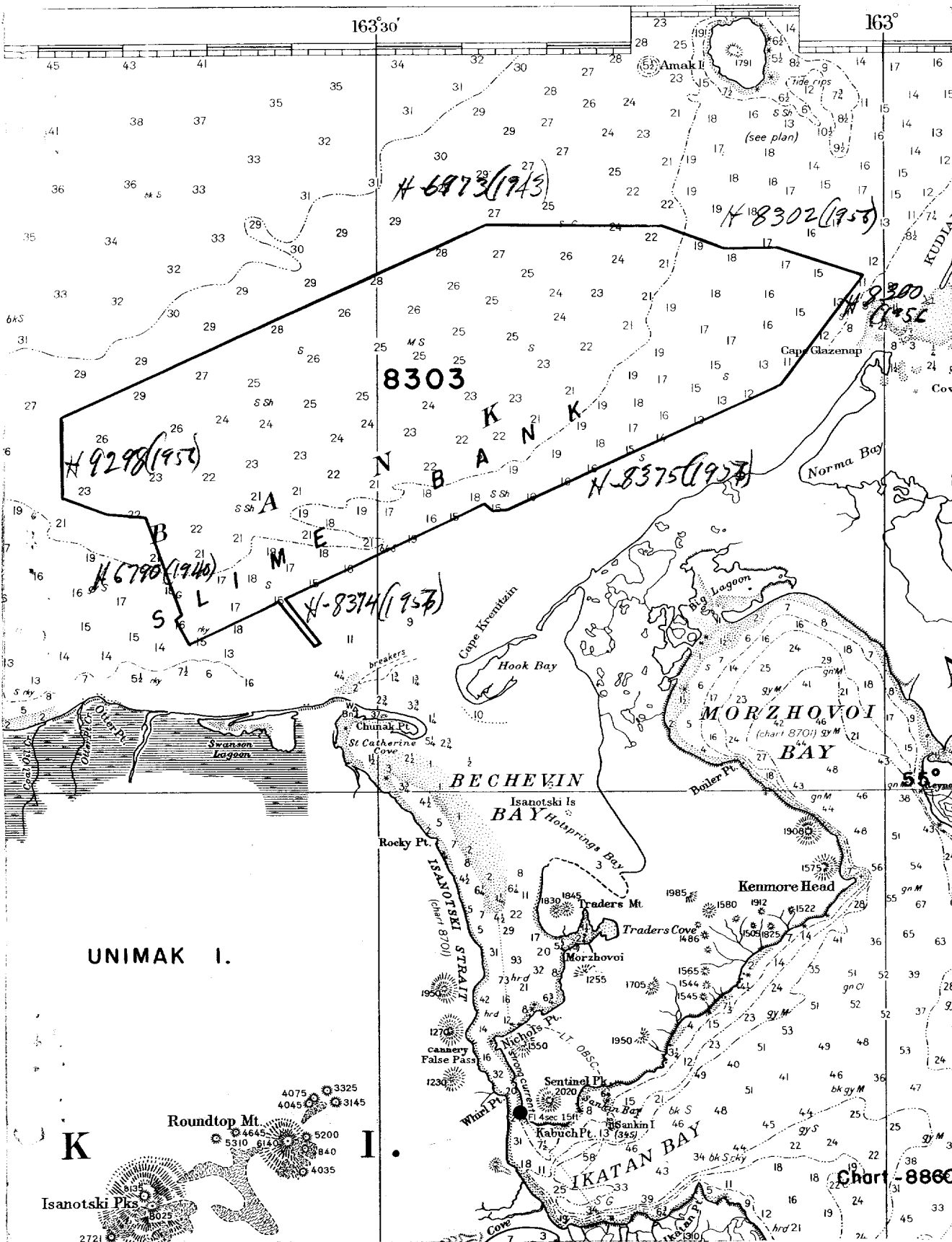
Lorin F. Woodcock
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division of Coastal Surveys

163°30'

163°



6973 (1943)

8302 (1957)

8300 (1957)

8303

9298 (1957)

6790 (1946)

8374 (1957)

8375 (1957)

UNIMAK I.

K

I.

Chart 8860

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8303

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11/22/57	8860	S.G. McGinn	Before After Verification and Review
4/3/58	8701	J.P. McGinn	Before After Verification and Review
1/12/59	8860	Helmer	Before After Verification and Review
4-15-59	8802	R.K. de Lander	Before After Verification and Review <i>There chrt 8860</i>
3-3-61	9302	F.M. Albert	Before After Verification and Review " " <i>8802 Aug #16</i>
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.