

8302

Diag. Cht. Nos. 8802-3, 8860-3, & 9302.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PF-4156 Office No. H-8302

LOCALITY

State Alaska

General locality North Side Alaska Penin-
sula

Locality Anak Island

194/56

CHIEF OF PARTY

John Bowie

LIBRARY & ARCHIVES

DATE January 30, 1957

B-1870-1 (1)

8302

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-8302

Field No. PF-4156

State Alaska

General locality North Side Alaska Peninsula

Locality ^{Vicinity of} Amak Island

Scale 1:40,000 Date of survey 7 July - 8 August 1956

Instructions dated 20 December 1954; 21 October 1955

Vessel Ship PATHFINDER

Chief of party John Bowie

Surveyed by Ship's Officers

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

Fathograms scaled by Ship's Personnel

Fathograms checked by Ship's Officers

Protracted by H. H. Druebert

Soundings penciled by H. H. Druebert

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

REMARKS: _____

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DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-8302(PF-4156)
NORTH SIDE ALASKA PENINSULA, ALASKA

Scale 1:40,000

Date: July, August 1956

USC&GSS PATHFINDER

John Bowie, Commanding

A. PROJECT:

This survey is a part of Project 13750. Original Instructions were dated 20 December 1954; Supplemental Instructions, 21 October 1955. Both instructions were issued by the Director.

B. SURVEY LIMITS AND DATES:

This survey is in the vicinity of Amak Island, lying north of the Alaska Peninsula. It joins prior surveys H-6791 scale 1:80,000 date 1940-41 on the west, H-6973 scale 1:100,000 date 1943 on the southwest, and contemporary surveys H-8297 (PF2256) on the south, H-8304 (PF-10156) on the north, and H-8301 (PF-2856) on the southeast. The east limit is in the area of very old surveys of unknown quality, presumably by Russian explorers, and scattered soundings from tracklines of the U. S. Coast Guard and this Bureau.

Hydrography was conducted from 7 July through 8 August 1956.

C. VESSEL AND EQUIPMENT:

The survey was done by the Ship PATHFINDER. Soundings were taken with graphic recorder No. 130-S (808 type). Bottom samples were taken by wire and snapper with the ship sounding machine.

D. TIDE 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.

Current stations occupied were No. 4 at Lat. $55^{\circ} 20'16''$ N, Long. $163^{\circ} 01'12''$ W and No. 5 at Lat. $55^{\circ} 30'11''$ N, Long. $163^{\circ} 09'19''$ W.

Does not reflect the settlement & squat corr.

E. SMOOTH SHEET:

The smooth sheet was hand-constructed by Ship's personnel. Shoreline and topographic details are not shown because the sheet is not at the scale of the available shoreline sheets, and inshore areas are covered by launches on 1:20,000 sheets. *Shoreline applied by verifier from T-11471 (1952)*

Shoran arcs were drawn by beam compass from dog ears attached temporarily for that purpose.

F. CONTROL STATIONS:

No control stations are on the sheet; hydrography was by shoran. (See E)

G. SHORELINE AND TOPOGRAPHY:

No shoreline or topographic details are shown on the sheet. (See E) *See P. 2 above*

H. SOUNDINGS:

Soundings were obtained with graphic recorder No. 130-S (808 type). All soundings were in fathoms on the "A" scale.

Draft readings were taken inboard, amidships on each day of hydrography. The mean draft for each day was applied to the fathometer initial setting of 2.0 fathoms to determine the initial corrections. Draft readings while underway and at rest were sufficiently close to eliminate settlement and squat corrections. *Fathometer Calibrated at 800 fms/sec.*

A separate Fathometer Report has been submitted for this project.

Special Report 1956 No 151. PATHFINDER. (FATHOMETER)

I. CONTROL OF HYDROGRAPHY:

The hydrography was controlled by shoran, using two shoran stations, MOF, and NAP. MOF was located by a short traverse from triangulation station MOFFET 1952. NAP was centered over triangulation station GLAZENAP 1952. The geographic positions are:

Shoran MOF Lat. 55° 27' 19.358" 598.7 (1257.0)m.
Long. 162° 34' 43.073" 757.1 (297.5)m.

Shoran NAP Lat. 55° 14' 26.596" 822.5 (1033.0)m.
Long. 162° 59' 45.507" 804.1 (256.1)m.

outside of the limits of sheet. used dog ears G.P. pp 29A Vol. IV.

Ref. Sta. on Smooth Sheet is AMAK ISLAND Lat. 55° 25' 05.359" 165.7 m. G.P. Vol. 4 pp 296 Long. 163° 08' 40.543" 713.2 m.

No unusual or substandard methods were used. Shoran calibrations were taken periodically and recorded in the sounding volumes. The corrections obtained were applied to the observed shoran distances to determine the final, plotted positions.

A separate Shoran Calibration Report has been submitted for this project. *Special Report 1956 No 152 PATHFINDER. (SHORAN)*

J. ADEQUACY OF SURVEY:

The survey is complete and adequate for charting purposes. Junctions are satisfactory with contemporary sheets H-8304 (PF-10156), H-8300(1956), H-8303 [1956], H-8297 (PF-2256), and H-8301 (PF-2856), and with prior surveys H-6791 scale 1:80,000 date 1940-41, and H-6973 scale 1:100,000 date 1943. Depth curves can be drawn adequately. No holidays exist.

K. CROSSLINES:

There are 98.4 miles of crosslines, constituting about 14 percent of the total hydrography. Crossings are in good agreement.

L. COMPARISON WITH PRIOR SURVEYS:

Prior surveys were by the U. S. Coast Guard, this Bureau, and probably Russian explorers. The soundings throughout the area are thinly scattered and in many cases of unknown quality. Soundings of this survey should supercede prior soundings.

M. COMPARISON WITH CHARTS:

Charts No. 8802 scale 1:1,000,000 date 52-12/29, No. 8860 scale 1:300,000 date 53-7/20 and No. 9302 scale 1:500,000 date 52-12/8 show practically no soundings in the area surveyed. Soundings of this survey should be accepted. (See B and L)

N. DANGERS AND SHOALS:

There are no dangers or shoals within the area surveyed.

Development of a shoal indication at Lat. $55^{\circ} 24' 6''$, Long. $163^{\circ} 13' 8''$ was made by launch on Sheet H-8297 (PF-2256).

O. COAST PILOT INFORMATION:

Coast Pilot Information has been submitted as a separate report for this project. The ship anchored frequently in 16 fms. at Lat. $55^{\circ} 19'$, Long. $163^{\circ} 05'$ in good holding bottom.

Q. LANDMARKS FOR CHARTS:

No landmarks for charts exist within the limits of the survey.

R. GEOGRAPHIC NAMES:

A separate report has been submitted on Geographic Names.

S. SILTED AREAS:

No silted areas were detected, but the general bottom characteristic is fine black sand. Bottom samples were taken at frequent intervals.

Z. TABULATION OF APPLICABLE DATA:

Tidal Data
Current Data
Fathometer Report

Coast Pilot Report
Geographic Names Report
Shoran Report

Respectfully submitted,

William E. Randall

William E. Randall
LCDR, C&GS

Approved and forwarded:

John Bowie

John Bowie
CAPT, C&GS
Comdg. Ship PATHFINDER

TABLE NO. 1
 STATISTICS FOR HYDROGRAPHIC SURVEY
 H-8302 (PF-4156)

Vol.	DAY	DATE	POS	STAT. MI.	WIRE SDG.
I	A	7 July	14	9.1	0
	B	9 July	140	110.9	0
II	C	12 July	87	73.2	0
	D	13 July	35	29.2	1
	E	22 July	32	22.2	0
III	E	22 July	89	62.8	0
	F	23 July	54	53.0	3
	G	24 July	34	31.0	0
IV	G	24 July	36	29.3	3
	H	25 July	115	79.2	14
	J	28 July	33	21.8	1
V	J	28 July	24	13.8	0
	K	29 July	4	0.0	4
	L	2 August	94	70.4	0
	M	8 August	62	44.5	0
VI	M	8 August	64	<u>46.3</u>	0
				696.7	

TIDE NOTE
FOR HYDROGRAPHIC SURVEY
H-8302 (PF-4156)

The station furnishing tides for this survey was on the southeast side of Amak Island at:

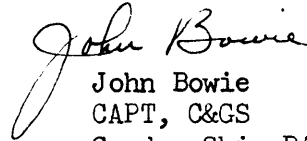
Lat. 55° - 24!81 N.
Long. 163° - 06!90 W.

MLLW on the staff = 2.5 feet.

APPROVAL SHEET

HYDROGRAPHIC SURVEY H-8302 (PF-4156)

This survey was done under my close supervision. I consider this survey complete and adequate for charting. No additional work is recommended within the area covered.



John Bowie
CAPT, C&GS
Comdg. Ship PATHFINDER

GEOGRAPHIC NAMES

Survey No. H-8303

Name on Survey											
	A	B	C	D	E	F	G	H	K		
Alaska		} for title								BGN	1
Alaska Peninsula										R	2
Bering Sea										BGN	3
Amak Island			(tide station)								4
											5
											6
											7
											8
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											27

Names approved
2-19-57. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8302.....

Records accompanying survey:

Boat sheets *.1*[✓]...; sounding vols. *.6*[✓]...; wire drag vols.;
 bomb vols.; graphic recorder rolls *4*... Envelopes *4*[✓]...
 special reports, etc. *1*... Smooth sheet and *1*... Descriptive report.
2... Special Reports with Shore and Fathometer Corrections, see
 Descriptive Report H-8297.

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

Number of positions on sheet		.927..
Number of positions checked		.250..
Number of positions revised		...1...
Number of soundings revised (refers to depth only)		...35...
Number of soundings erroneously spaced		...0...
Number of signals erroneously plotted or transferred		...0...
Topographic details	Time	...4 Hrs.
Junctions	Time	...16 Hrs.
Verification of soundings from graphic record	Time	...8 Hrs.

Verification by *E. J. Pace*..... Total time *64 Hrs.* Date *7-2-58*

Reviewed by *[Signature]*..... Time *19 Hrs.* Date *11 Sept. 1958*

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

21 February 1957

Plane of reference approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 8302

Locality Alaska Peninsula, North Side

Chief of Party: John 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)

3.2 ft. on tide staff at Grant Point

11.6 ft. below B. M. 1 (1943)

Height of mean high water above plane of reference is:

Amak I. 6.9 ft.
Grant Point.. 4.7 ft.

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-8302

FIELD NO. PF 4156

Alaska - North Side Alaska Peninsula
Vicinity of Amak Island

Surveyed: July-August 1956

Scale 1:40,000

Project No. 13750

Soundings:

Control:

808 Depth Recorder

Shoran

Chief of Party - John Bowie

Surveyed by - John Bowie, W. C. Russell, A. L. Wardwell,
B. L. Gabrielsen, J. C. Sainsbury

Protracted by - H. H. Druebert

Soundings plotted by - H. H. Druebert

Verified and inked by E. F. Pace

Reviewed by - L. S. Straw

Date 11 September 1958

Inspected by R. H. Carstens

1. Shoreline and Control

The shoreline originates with the unreviewed advance manuscript of T-11471 (1952-56). The Shoran control stations are beyond the limits of the present survey, the geographic positions being given in the Descriptive Report.

2. Sounding Line Crossings

Depths at sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves can be adequately delineated. The bottom is smooth and slopes radially at about 7 feet per mile west, northwest, and north of Amak Island, and merges with the gradual slope of the Alaska Peninsula to the southward. The most prevalent bottom characteristic throughout the area is fine black sand.

4. Junctions with Contemporary Surveys

The junctions with contemporary surveys H-8300 (1956) and H-8301 (1956) on the southeast, H-8303 (1956) on the south

and H-8304 (1956) on the north are adequate. The junction with the inshore survey H-8297 (1956) around Amak Island will be considered in the review of that survey. In accordance with the Project Instructions junctions were made with prior surveys H-6791 (1940-41) and H-6973 (1943) on the west and southwest. 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 1940-43 surveys on which the soundings are in true depths. For cartographic purposes a butt junction was made with H-6973 (1943).

5. Comparison with Prior Surveys

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

6. Comparison with Chart 8860 (latest print date 3/24/58)
8802 (latest print date 7/9/56)

A. Hydrography

The hydrography on chart 8860 originates with the present survey prior to verification and review. No important discrepancies are noted between the smooth sheet and the charted soundings.

Depths on chart 8802 originate with tracklines by this Bureau and the U. S. Coast Guard and with unidentified but presumably Russian sources. Depths from the unidentified sources differ with present depths by 7 to 9 fathoms. Other charted depths are in good agreement with present depths. The present survey is adequate to supersede the charted soundings within the common area.

B. Aids to Navigation

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

7. Condition of Survey

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

8. Compliance with Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

The survey is considered basic, and no additional field work is recommended.

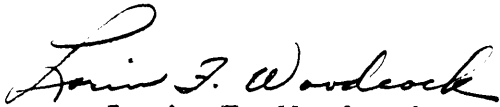
Examined and approved:



Max G. Ricketts
Chief, Nautical Chart Branch



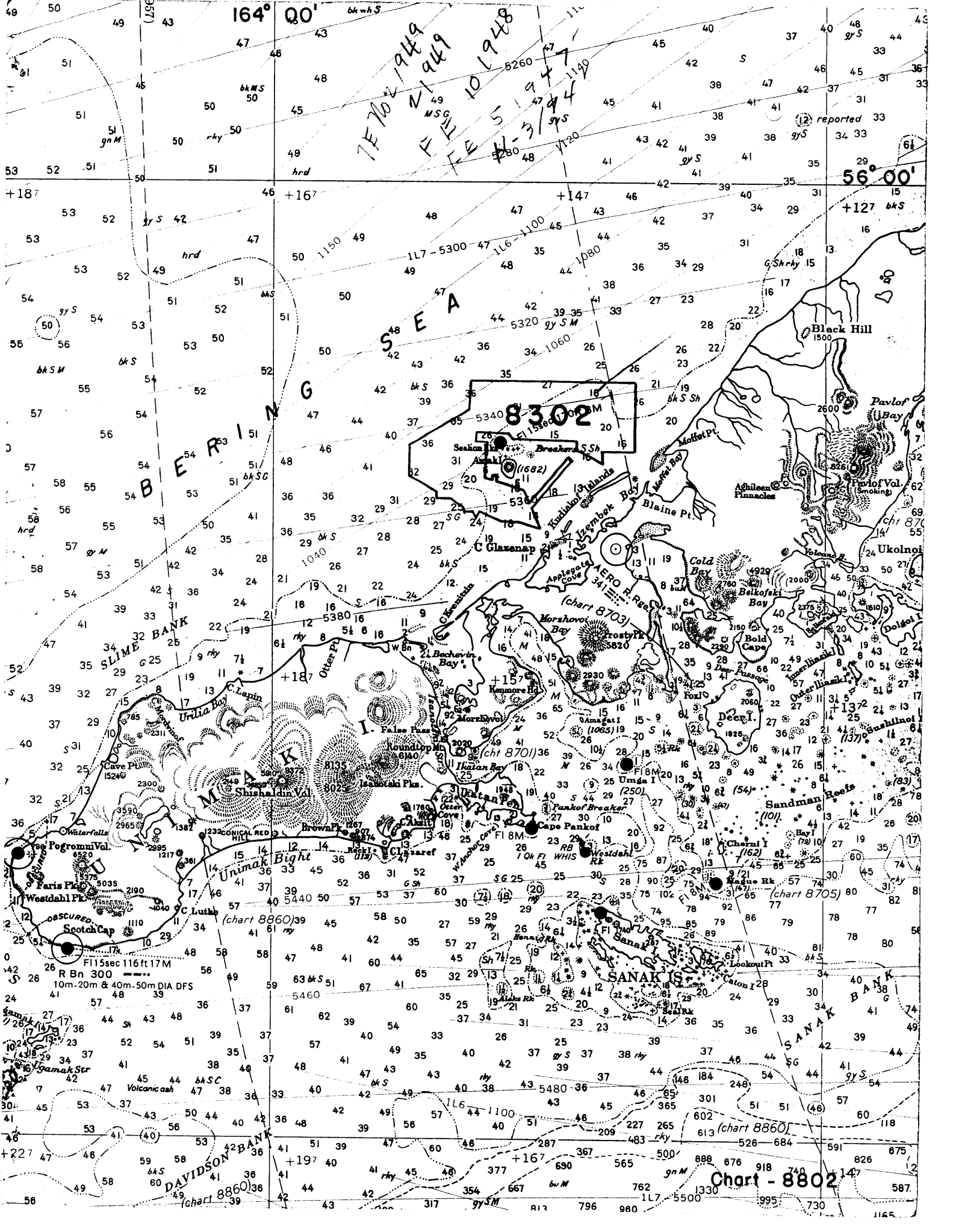
Ernest B. Lewey
Chief, Division of Charts



Lorin F. Woodcock
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division of Coastal Surveys



7E 702 1949
F 11 949
F 11 10 1948
4-3/94

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Chart - 8802

