

5261

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
....., Director

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 41 5261
Hydrographic }

LOCALITY

Off Afognak Island

Point Banks to Marmot Id.

1932

CHIEF OF PARTY

H. B. Campbell

5261

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 5261

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 41

REGISTER NO. 5261

State ~~Saxx~~ Alaska

General locality ~~Xxxx~~ Afognak Island

Locality Point Banks to ~~XXXXXXXXXXXX~~ Sealion Rks.

Scale 1/40,000 Date of survey May - October, 1932

Vessel Ship DISCOVERER

Chief of Party H. B. Campbell

Surveyed by H. B. Campbell, W. M. Scaife, R. J. Sipe

Protracted by G. A. Nelson

Soundings penciled by H. F. Garber

Soundings in fathoms ~~xxxx~~

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by H. W. Murray

Verified by H. W. M.

Instructions dated April 21, 19 32

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC FIELD SHEET #41

U.S.C. & G.S.S. DISCOVERER

H. B. Campbell, Comdg.

Scale 1/40,000

Season 1932.

AUTHORITY

This survey was made under the Director's Instructions ✓
dated April 21, 1932.

LIMITS

This sheet forms a juncture between the inshore and off-
shore hydrography between Point Banks and Sealion Rocks. It
joins the 1931 season's work on the north field sheet #161 on
the east, field sheet #23 and #42 on the south and field sheets
#21 and #22 on the west.

SURVEY METHODS.

The greater portion of the work was done with the Str. ✓
DISCOVERER, using the fathometer and visual fixes. A small part
was done with the M.V. WESTDAHL, using the fathometer and wire
sounding machine. The development around Sealion Rocks was
executed by a launch.

FATHOMETER CORRECTIONS - (M.V. WESTDAHL)

HYDROGRAPHIC SHEET No.41

In obtaining fathometer corrections for this sheet all comparisons were listed and by inspection corrections were selected which seemed to be the average during the time the soundings were taken, allowance being made for uneven bottom. Corrections for salinity and temperature were not made as the corrections would be negligible in these depths. A mean correction cannot be taken for a whole day as the zero of the fathometer shifts during the days work.

FATHOMETER CORRECTIONS - (M.V. WESTDAHL)

HYDROGRAPHIC SHEET No.41

August 12, 1932

Pos.	V. C.	Fath.	Corr.	:
1 A	33.7	35.0	- 1.3	
12 A	29.1	29.0	+ 0.1	
36 A	43.0	43.0	0.0	
41 A	16.0	15.5	+ 0.5	

Corrections to Fath. Soundings

Positions	1-5	Sub.-	1.0	Fath.
"	5-9	"	- 0.5	"
"	9-40	---	0.0	"
"	40-41	Add	0.5	"

August 25, 1932

Pos.	V. C.	Fath.	Corr.
1 C	18.0	18.0	0.0
4 C	17.0	16.5	+ 0.5
15 C	23.8	24.0	- 0.2
20 C	38.0	37.5	+ 0.5
46 C	32.0	32.0	0.0
77 C	16.7	16.0	+ 0.7
87 C	Line ends.		

Corrections to Fath. Soundings

Positions	1-54	---	0.0	Fath.
"	54-87	Add	0.5	"

August 15, 1932

Pos.	V. C.	Fath.	Corr.	:
1 B	22.6	22.0	+ 0.6	
19 B	41.3	42.0	- 0.7	
25 B	34.5	35.0	- 0.5	

Corrections to Fath. Soundings

Positions	1-8	Add	0.5	Fath.
"	8-13	"	0.0	"
"	13-25	Sub.	0.5	"

August 29, 1932

Pos.	V. C.	Fath.	Corr.
1 D	22.8	22.5	+ 0.3
72 D	18.3	18.0	+ 0.3

Corrections to Fath. Soundings

Positions	1-72	----	0.0	Fath.
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CHARACTER OF BOTTOM

The bottom out to the fifty fathom curve is very broken, with numerous shoals, the shoalest of which are nine and ten fathoms. Outside of the offshore fifty fathom curve the bottom falls off quite rapidly to a smooth even bottom from eighty to one hundred and fifteen fathoms. ✓

DISCREPANCIES

At Lat. $58^{\circ}-34.2'$, Long. $151^{\circ}-56.2'$ there is a 90 fathom sounding crossing between an 82 and 83 on a comparatively even bottom. Lat. $58^{\circ}-24.5'$, Long. $151^{\circ}-47.5'$, between 101-102 "D" day there is a 22 fathom sounding between a 36 and 43 that appears to be shoal. Lat. $58^{\circ}-23.5'$, Long. $151^{\circ}-51.0'$, between 268-270 "G" day there are two thirteen fathom soundings among 30 to 35 fathom soundings. "Probable stray" was recorded in the sounding record and they were not plotted on the smooth sheet. The remaining crossings checked exceedingly close considering the broken nature of the bottom. ✓

FATHOMETER CORRECTIONS

See attached sheets for DISCOVERER and WESTDAHL fathometer corrections.

HYDROGRAPHIC FIELD SHEET #41

STATISTICS

Vessel	Date	Day	Pos. No.	Fath. Sdgs.	Wire Sdgs.	Sta.Miles Sounding
DISCOVERER	5/20/32	A	100	371	1	55.4
"	6/3/32	B	52	206	-	38.5
"	6/4/32	C	264	999	5	210.8
"	6/6/32	D	133	473	5	96.6
"	6/7/32	E	120	391	-	92.4
"	6/8/32	F	167	602	-	90.3
"	6/15/32	G	298	989	7	200.3
"	6/16/32	H	288	1153	3	180.5
"	6/24/32	J	258	950	-	163.5
"	6/25/32	K	189	708	-	113.8
"	6/27/32	L	334	1151	7	209.1
"	7/7/32	M	121	297	5	56.0
"	7/8/32	N	112	346	-	47.1
"	8/2/32	P	92	289	-	30.7
"	9/29/32	Q	66	313	-	32.0
"	10/1/32	R	159	508	1	80.4
"	10/10/32	S	105	509	-	47.2
WESTDAHL	8/12/32	A	41	103	14	9.6
"	8/15/32	B	25	99	3	6.3
"	8/25/32	C	87	258	27	19.6
"	9/27/32	D	72	231	2	16.0
P. M. S.	7/27/32	a	52	---	138	7.5
Total			3135	10946	218	1803.6

Area in square statute miles -----296

Number of volumes----- 10

LIST OF SIGNALS

HYDROGRAPHIC FIELD SHEET #41

<u>Hydrographic Name</u>	<u>Location</u>	<u>Hydrographic Name</u>	<u>Location</u>
Bald	Bald, 1932	Mist	Mist, 1932
Banks	Banks, 1907-31	Nel	Nel, 1932
Bit	Evsky, 1932	Otter	Otter, 1907-31
Brick	Brick, 1932	Poslie	Poslie, 1931
Cape	Cape, 1907-32	Rock	Rock, 1931
Dos	Dosto, 1932	Rocky	Rocky, 1932
Drip	Drip, 1931	Shu	Shu, 1932
Hut	Dome, 1932	Skat	Skat, 1931
Hermo	Hermo, 1932	Split	Split, 1932
Island	Island, 1932	Tol	Tolstoi, 1932
Lit	Lit, 1932	Tonk	Tonki, 1907-31
Lion	Sea Lion, 1932	Torf	Torf, 1932
Mar	Marmot, 1907-32	Ulm	Ulm, 1932
		You	You, 1932
Bad	Topo. Sheet A	Run	Topo. Sheet B
Arm	" " B	Top	" " B
Jef	" " B	Von	" " C
Pup	" " B	Hill	" " C
Par	" " B		

*Approved & forwarded
#15 Campbell.*

*Respectfully submitted,
Harry F. Garber*

May 24, 1933.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 5261

Locality Point Banks to Sealion Rocks, North of Afognak Island,
Southwest Alaska.

Chief of Party: H. B. Campbell in 1932

Plane of reference is mean lower low water, reading

8.7 ft. on tide staff at Marmot I.

5.9 ft. below B. M. 1

10.8 ft. on tide staff at Tonki Bay

19.8 ft. below B.M. 1

5.2 ft. on tide staff N.E. Coast Shuyak I.

11.1 ft. below B.M. 1

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks. Height of mean higher high water above plane of reference is 9.8 ft. at Marmot I.; 10.8 ft. at Tonki Bay and 11.9 ft at N. E. Coast Shuyak.

Paul Schurman

Acting Chief, Division of Tides and Currents.

Sections of Field Records

July 18, 1933

Report on H-5261

Pt. Banks to Sealion Rocks, Afognak I., Alaska.

Surveyed in 1932

Chief of Party - H. B. Campbell

Surveyed by H. B. C., W. M. Scaife & R. J. Lips

Adjusted by J. A. Nelson

Sounding plotted by H. F. Garber

Verified & Inked Harold W. Murray

1. The plan, character and extent of development conforms to the general & specific instructions
2. The Records conform to the general requirements
3. Sounding line crossings afford excellent agreement considering the irregularity of the bottom.
4. The 10, 20, 50 & 100 fm. curves may be satisfactorily drawn within the limits of this survey.
5. The field plotting and protracting was satisfactory except as follows:
 - a. The degree & minute symbol was to be added to the lat. & long. figures.
 - b. Long. values were added so as to be read vertically rather than horizontally.

6. The area covered by this sheet is extremely irregular in nature. Numerous shoals of depths of 20 fms. exist. Also many pockets of 50 fms. in depth or less may be found. Plotting of soundings on terms in their actual positions was somewhat tricky in irregular areas.

7. Remarks:

a. Lat. $58^{\circ} 29.4$, long $152^{\circ} 9.5$. A 48 fms. sounding falls within a group of soundings of 17 fms. or less. The fact that 2-48 fms. soundings were obtained may or may not disprove the probability of strays.

Probably error in recording 50 for 15.

b. Lat. $58^{\circ} 23.5$, long $151^{\circ} 50.6$. Line 268-270 G. Two strays of 13 fms in depth have been plotted in pencil. The tendency of the bottom to slope upwards can be readily seen from the several 27's & 25 fms. However, a half mile to the north, a solitary shoal indication of 22 fms. in depth was obtained within 150 m. of the 50 fms. curve.

Rejected as shallow strays.

c. Vol #9, page 14 possesses a note regarding the reliability of the fathometer (Westdahl) in depths of 50 fms. or more. Consistent with this depth and note a 49 fms (reduced) sounding, (p. 16 B, Vol. #9) questioned in the Records was not plotted. Lat. $58^{\circ} 22.3$, long $152^{\circ} 4.2$.

d. Line 60 to 67 C, inclusive, beginning at lat. $58^{\circ} 25.1$, long $152^{\circ} 0.8$ and running to the northeast is somewhat

erratic with respect to periods of time and agreement with adjacent lines.

e Position 64F and accompanying soundings rejected by the Field Party in lat. $58^{\circ}32.7$, long $152^{\circ}9.8$ were retained and plotted.

8. Positions 17+18A, Vol #1 are doubtful in position and have not been verified pending completion of H-5260. When the rocks have been verified on that sheet, the cuts may be used to reconcile these positions. Lat $58^{\circ}29.6$, long. $152^{\circ}11'$

Likewise position 28F, lat. $58^{\circ}38.4$, long $152^{\circ}16.5$ may be readily adjusted when the overlap with H-5194 has been effected.

9. Overlap. The overlap on the southeast with H-5258 is satisfactory.

The overlap or junction with H-5194 will be made when the photostat is available (scale 120,000)

The junctions with H-5260, 5265, 5255 + 5259 will be made when those sheets have been verified.

10. Respectfully submitted - Harold W. Murray

Note: Pos. 22-23D has been plotted again in red on H-5259, the overlapping sheet, where the overlap will show to better advantage and eliminate the necessity of a "dog-ear." Aug. 28, 1933 - H.W.M.

SECTION OF FIELD RECORDS
Review of Hydrographic Sheet No. 5261
Point Banks to Sealion Rocks, Afognak Island, Alaska.
Surveyed May - October, 1932.
Instructions dated April 21, 1932.

Chief of Party - H. B. Campbell.
Surveyed by - H. B. Campbell, W. M. Scaife, R. J. Sipe.
Protracted by - G. A. Nelson.
Soundings penciled by - H. F. Garber.
Verified and inked by - H. W. Murray.

1. The records generally conform to the requirements of the Hydrographic Manual.
2. The plan and extent of development conform to the regulations and satisfy the specific instructions relative to the general survey lines. These are numerous shoalings that warrant further investigation.
3. Soundings in the deeper areas (over 50 fathoms) are in good agreement at crossing of lines. In less than 50 fathoms the agreement is fair considering the very lumpy nature of the bottom. No dangers to navigation were found within the area covered by the sheet but there are a number of places with depth less than 20 fathoms that should have been further developed. A 21 in approximate lat. $58^{\circ} 28'.2$ long. $152^{\circ} 12'.8$ should be investigated. The boatsheet had a note in blue pencil "Breakers reported" about 1 mile southeast of this position but no shoal was found in that vicinity. A shoaling with a least found depth of 12 fathoms is located about 1 mile north of the charted breakers. The position of the 12 agrees closely with the corrected report in Com. N.M. 1511 of 1926. A number of soundings deserving further investigation are listed in par. 8 of this report.
4. Depths curves can be drawn satisfactorily considering the nature of the bottom and the scale of the sheet (1-40,000).
5. Junction with the 1931 survey (H. 5190, H. 5193, H. 5194) is satisfactory. There is a considerable overlap, this sheet being a further development of the bank extending eastward of Point Banks. Junctions with contemporary sheets H. 5258 and H. 5260 are satisfactory, subject to a further investigation of two of the shoals listed below.

Sheets H. 5259 and H. 5265 have not yet been verified.

6. Comparisons. A single line of soundings on H. 2918 (1907) is in very good agreement with this survey.

Chart 8555 shows a danger line with the note "breakers reported" midway between Sea Otter Island and Tolstoi Point. The survey found 12 fathoms about 1 mile north of this place and there is an undeveloped area with a 21 about $1 \frac{1}{4}$ mile northwestward of the reported breakers (Com. N.M. 1466 x 1511 of 1926).

7. Field drafting. - Longitude figures were placed along the meridians instead of at right angles to them as is the usual way. Protracting was good except

H. 5261.

in several lines where the plotting according to recorded positions produced impossible conditions. In most such cases a wrong signal had been recorded and the error was not discovered in protracting.

8. Recommendations:- This is the basic survey of the area represented by this sheet and is satisfactory for charting purposes.

Further investigation of the following soundings is desirable:

20, 17 and 19	in approximate lat.	58° 35'.0	long.	152° 13'.0
19	"	"	"	32'.4
17	"	"	"	33'.6
19	"	"	"	31'.7
21	"	"	"	29'.5
21	"	"	"	28'.2
22	"	"	"	24'.3
				151° 49'.3

A 14 in lat. 58° 22'1 long. 151° 58' was questioned in the record but a further development of this vicinity is recommended in connection with surveys on H. 5255.

9. Reviewed by R. J. Christman, Aug. 19, 1933.

Memorandum by A. L. Shalowitz.

1. Additional Work.

In addition to the desirable investigations listed above, a number of other spots require further investigation. All have been indicated on a bromide of the smooth sheet, the total number of spots to be investigated being 18. It is recommended that when work is again resumed in this locality the bromide and boat sheet be returned to the field party to complete the additional work indicated. This has been approved by the Chief, Section of Field Records.

2. Note to Compiler.

The breakers mentioned in par. 3 of this review should not be removed from the chart until the area in the vicinity of the 12 fm. bank is further examined.

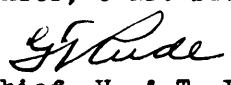
Sheet inspected by A. L. Shalowitz.


L. O. Colbert,
Chief, Field Records Section.


H. Borden,
Chief, Field Work Section.

Examined and approved:


Chief, Chart Division.


Chief, H. & T. Division.

