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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. S. Pittman
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *3716*

LOCALITY:

Unsu Island

1914

CHIEF OF PARTY:

J. B. Miller

11-4845

3716

DEPARTMENT OF COMMERCE

Coast and Geodetic Survey

O.H. Tittmann, Supt.

ALASKA

SHUMAGIN ISLANDS

Original Hydrographic Sheet No. ~~11~~ 3716.

SOUTH COAST UNGA ISLAND

Surveyed in August and September, 1914

by the party on the C. & G.S.S. PATTERSON

J.B. Miller, Assist., C. & G.S., Chief of Party

G.C. Mattison, Aid, in charge of sounding boat.

Scale 1:20,000

Soundings in fathoms at mean low low water

Tide gauge at Pirate Cove

Area 83 sq. stat. miles.

Positions plotted by P.H.

Soundings " " J.S.

Verified, Dec 1915
E. B. Land

DEPARTMENT OF COMMERCE

COAST & GEODETIC SURVEY,
O.H. Tittmann, Supt.

ALASKA: SHUMAGIN ISLANDS.

A Descriptive Report on Hydrographic Sheet No. ~~14~~. 3716.

SOUTH COAST OF UNGA ISLAND: Scale, 1: 20,000.

1. REPORT: LIMITS.

I have the honor to report as follows upon hydrographic sheet No. 14, surveyed by the party on the steamer PATTERSON in 1914. The sheet shows the south coast of UNGA ISLAND, between the meridians of CAPE UNGA and ACHEREDIN POINT; it comprises the inshore hydrography of this coast; and a detailed development off-shore to a line 2 miles seaward from SEALION ROCKS, and 2 miles seaward from ACHEREDIN POINT. On its eastern side it joins sheet 1 of 1913. The sounding party was in charge of G.E. MATTISON, Aid, C. & G. Survey.

2. METHODS: INTERVALS.

Whenever machine soundings were taken from the sounding launch, the COSMOS machine was used, with a registering sheave for measuring the wire out; there is no correction to the register. Whenever soundings were taken under way with the BASSNETT pressure tube, the readings of the tube were recorded in the "soundings" column of the sounding book, and the amount of wire run out was recorded in the "remarks" column in the usual manner. The readings of the BASSNETT tube are subject to a correction which was determined by a vertical cast each tenth sounding. These corrections have been applied and verified in reducing the soundings. In plotting soundings taken under way with the BASSNETT tube, an offset must be laid off backward along the line to determine the point where the lead reached the bottom. These offsets are given by a table submitted with the hydrographic sheets done by this vessel in 1913 in the HAWAIIAN ISLANDS. But this table includes a distance of 39 meters, which is the distance from the ship's bridge to the stern; this distance does not apply in the case of the schooner HUNTER, because angles were taken from the stern; therefore 39 meters must be subtracted from the tabular values.

2.

These offsets have been plotted on the sheet submitted. Sounding lines were run at intervals of 1/8 mile inshore; and offshore in depths of more than 25 fms., they were run at intervals of 1/3 to 1/4 mile.

3. SEA-BOTTOM: DANGERS.

The bottom slopes from shore to 40 and 60 fathoms. The 30 fathom curve follows the shore 1 to 2 miles distant from it. SEA-LION ROCKS are a group 2/10 mile in extent and 130 feet high; they are 3-1/10 miles 175° (S24E mag.) from CAPE UNGA. Between them and CAPE UNGA there is 25 to 30 fathoms all the way. There is a breaking rock 4/10 mile 75° (N56E mag.) from SEA-LION ROCKS, and another breaking rock 1/10 mile 227° (S28W mag.) from them; a vessel may pass 1/2 mile off them, in 26 to 32 fms. There are no other dangers more than 1/2 mile from shore. There are several banks of 22 to 28 fms. offshore, but they are only a few fathoms shoaler than the surrounding waters; and were all carefully examined.

4. DESCRIPTION OF THE COAST.

CAPE UNGA is a bare gray headland, 855 feet high; there are cliffs all round, and ledges at the foot of the cliffs. A vessel may pass 1/2 mile off in 25 fms. Westward from here to ACHEREDIN BAY the coast is irregular: within 1/2 mile of shore there are many rocks: the shore itself is a succession of cliffs and precipices. Generally a heavy surf beats upon it, but one or two boat landings may be found in the small coves. ACHEREDIN BAY is a large bight opening southward: it is 3 miles across and 2 miles deep. Its shore is a sand and pebble beach, behind which is a lake 7 feet above high water. A vessel may approach to 6/10 mile off the sand beach, in 8 fms. From ACHEREDIN BAY to ACHEREDIN POINT the coast may be approached to 6/10 mile in 11 to 30 fms.: there are cliffs all the way and rocks near the shore, one of which is an islet 2/10 mile in extent: beware of the vicinity of this islet and the bay south of it for there are many rocks there. ACHEREDIN POINT is a black mountain 1400 feet high, with an exceedingly rough surface and profile. At the end of the point is a separate hill 500 feet high.

5. COURSES.

A vessel should avoid approaching the south coast of UNGA ISLAND, except in fine weather. There is no shelter nor protection: and often a southeast storm comes on suddenly, making it a bad lee shore. It is a bad landfall when approaching from seaward in bad weather; and the currents cannot be foreseen. A vessel rounding CAPE UNGA should pass midway between it and SEA-LION ROCKS, in 28 fms.

6. CURRENTS: MAGNETIC VARIATION.

Currents do not depend upon the tide in this locality. The current at times flows with the wind; especially a northeast wind with a low barometer: while at times an easterly current may be found, when the JAPAN stream swings northward. The magnetic variation was 19°45' east in 1914.

Respectfully submitted,

To the Supt., C. & G. Survey,
Washington, D. C.
Seattle, Feb 17, 1915

James B. Miller,
Assistant, C. & G. Survey,
Chief of Party

DATE 1914	BOAT	LETTER	VOL.	HOURS	POSITIONS	SDGS.	MILES (stat)
Aug. 5	Hunter	a	1	1.1	10	14	3.9
" 11	"	b	1	0.7	5	6	2.0
" 13	"	c	1	6.8	37	95	23.0
" 14	"	d	1	5.5	29	70	19.2
" 18	"	e	1	7.8	42	96	26.8
" 19	"	f	1	2.0	11	27	7.0
" 20	"	g	1	4.0	12	31	8.3
" 31	"	h	1	4.0	31	69	20.7
Sept 1	"	i	1	1.2	8	20	5.5
" 9	"	k	1	1.8	14	33	8.7
" 12	"	l	2	5.5	42	90	24.3
" 15	"	m	2	7.0	55	133	34.6
" 16	"	n	2	1.6	17	50	8.9
" 17	"	o	2	5.5	36	84	23.4
" 22	"	p	2	6.0	45	94	22.5
" 23	"	q	2	6.5	76	494	27.7
" 24	"	r	3	7.0	86	421	30.0
" 25	"	s	3	5.7	73	227	25.6
" 26	"	t	3	6.0	56	109	24.1
" 28	"	u	3	6.0	56	81	26.2

91.7 741 2244 372.4

Sq. statute miles: 83.0

VEC
Apr. 21, 1915
L. P. S.

HYDROGRAPHIC SHEET 3716.

Shumagin Islands, South Coast of Unga Island,
by Asst. J. B. Miller in 1914.

TIDES.

	Pirate Cove ft.
Mean lower low water, or plane of reference on staff	2.8
Lowest tide observed " "	1.6
Highest " " " "	11.7
Mean range of tide	5.4

REPORT ON HYDROGRAPHIC SHEET NO. 3716 ✓
(South coast of Unga Island, Shumagin Islands, Alaska)
Dec. 1915.

This sheet was protracted and plotted in the field. The protracting was verified by a careful comparison with the boat sheet, and by ~~testing~~ the protracting of critical positions. No errors were found.

The following changes were made in the plotting:- pos. 5h, changed sdg. 32 to 31, Lat. $55^{\circ} 06'$ Long. $160^{\circ} 34'$; supplied omitted sdg. beyond pos. 29l, Lat. $05'$ Long. $35'$; changed sdg. 34 to 37, pos. ^m, Lat. $04'$ Long. $39'$; altered sfactions to conform with Instructions; changed 39 to 34 and 34 to 35 between pos. 25 and 26p, Lat. $05'$ Long. $42'$; changed 27 to 49 between pos. 6 and 7u, Lat. $07'$ Long. $41'$

There are several instances of poor crossings due probably to the method of plotting tube soundings a varying distance behind position, according to a table entered with slant wire out and tube depths as arguments (see my report on sheet 3706) 29 fms. plots almost on 36 fms. Lat. $07'$ Long. $45'$; 20 fms. plots up close to 32 fms. Lat. $05'$ Long. $31'$.

In my opinion the developement along the shore is unsatisfactory. Instead of the line of soundings which was run close in, following its contour, a zigzag line should have been run, where it was not thought advisable to run parallel lines normal to the coast. The method pursued gave little knowledge concerning the in-shore depth curves. The developement of the great bay at North end of sheet indicates particularly that lines should have been run normal to the coast, out to ten or 15 fms.

Colin R. Land

Applied to 8704 Reconstruction F.M.A. Mar. 6, 1943

Applied to chart 16553 Jan. 1978 Martof