3722

Diag. Cht. No. 8859

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. ..... *Office No.* H-3722

LOCALITY

State ALASKA

General locality ALASKA PENINSULA

Locality KUPREANOF POINT TO SEAL CAPE

19~~4~~/ 14

CHIEF OF PARTY

J. B. Miller

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DATE APRIL 5, 1915

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DEPARTMENT OF COMMERCE

Coast & Geodetic Survey,
O.H.Tittmann, Supt.

ALASKA: ALASKA PENINSULA.

Original hydrographic Sheet No. ~~102~~ 3722

KUPREANOF POINT TO SEAL CAPE

Surveyed in June, July, Aug., and October, 1914,

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

J.B.Miller, Assist.,C.& G.S.,Chief of Party
and in charge of sounding vessel.

A.M.Sobieralski, Assistant, C.& G. Survey,
in charge of sounding vessel.

Scale, 1:100,000.

Soundings in fathoms at mean low low water

Tide gauges at Catons Cove and Pirate Cove.

Area 202-1/2 sq.stat. miles.

Positions plotted by L.P.R. and R.L.J.

Soundings plotted & inked " " R.L.J.

Verified by

DEPARTMENT OF COMMERCE

Coast & Geodetic Survey,

O.H.Tittmann, Supt.

ALASKA: ALASKA PENINSULA

A Descriptive Report on Hydrographic Sheet No. ~~102~~. 3722.

KUPREANOF POINT TO SEAL CAPE. Scale, 1:100,000

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1. REPORT: LIMITS.

I have the honor to report as follows upon hydrographic sheet No.102, surveyed by the party on the steamer PATTERSON in 1914. This sheet shows lines of soundings at critical places and on certain selected courses on vessel tracks along this portion of the ALASKA PENINSULA: it shows also a careful and accurate topegraphic reconnaissance of IVANOF and STEPOVAK BAYS. On its eastern side it joins sheet No.103 of 1914, and from its western side the sounding lines are continued westward to UNIMAK PASS, on sheets 3579 and No.102 of 1913. The sounding and reconnaissance of the shore was done by the party on the ship, in charge of the chief of party, and also in charge of A.M.SOBIERALSKI, Assistant, C.& G.Survey.

2. METHODS: INTERVALS.

The soundings were taken almost entirely with machine and wire, and BASSNETT pressure tubes. A registering sheave was used to measure the wire run out, and when vertical casts were taken, this shows the correct sounding. When soundings were taken under way, the reading of the BASSNETT tube was recorded in the "soundings" column of the sounding book, and the wire run out was recorded in the "remarks" column, in the usual manner. The tube soundings which were taken under way are subject to a correction which was determined each tenth sounding by a vertical cast: the stray-line was 4 fathoms long, and the correction accounts for this among other things. These corrections have been applied and verified in reducing the soundings. It is necessary to offset backward along the line to determine the point where the lead reached bottom, when soundings were taken under way. These offsets have been applied in plotting the soundings: they were given by a table submitted with the hydrographic sheets surveyed by this vessel in the HAWAIIAN ISLANDS in 1913. The soundings were spaced 1/3 mile to 1/6 mile apart along the lines.

The reconnaissance of the shoreline depends upon numerous sextant angles taken during the sounding and recorded in the sounding books: and upon many cuts observed for this purpose by the triangulation party. Every important point and feature is well located by several angles; and convexities and concavities in the outline of the shore are located by points determined upon them, and by tangents both of points and bights. It is believed that the important features would show little change on this scale, in a detailed survey.

3. SEA-BOTTOM: DANGERS.

There are no depths greater than 100 fms. upon the sheet. The bottom may be characterized as flat and gently sloping. The contours of the bottom are therefore somewhat irregular and involved in places where banks are found slightly shoaler than the surrounding waters. No foul ground was discovered, although there are places where one must give the shore a reasonably wide berth. The sea-bottom does not copy the larger features of the land: KUPREANOF POINT approaches the deeper water, but there are no submarine formations corresponding to IVANOF BAY or STEPOVAK BAY. The land seems to stand upon a much broader and more extensive flat submerged mass, having little relation or connection with it. The material of the sea-bottom is black volcanic sand in less than 60 fathoms, and mud in the deeper water: there are probably,,also flat ledges of rock: submerged pinnacles are not a characteristic feature, except close to the shore in some places. The principal dangers to navigation are as follows. Eastward of the island in IVANOF BAY there are two dangerous rocks which uncover at low spring tides; one is about 3/10 mile off the island and the other is about 2/10 mile off the neighboring shore, in the middle of a bight; a careful mid-stream course was found safe, keeping LEADER ISLAND in sight, and well open: if it is seen too near the east shore, one may strike the rock which lies on the eastern side. There is a tide flat in the northwestern part of IVANOF BAY , theedge of which continues northwestward from the end of the gravel spit on the western side of the bay, and curves northward to meet the northern shore of the bay at the west end of the bluffs: one must beware of this flat when anchoring in the vicinity. LEADER ISLAND is 125 feet high, and has a sort of turtle-back profile: its eastern side may be approached very closely. FOX CAPE ends in low broken islets and pinnacles, but the soundings do not indicate any dangers off it. No dangers were seen round KUPREANOF POINT, nor as far westward as BOULDER BAY. The eastern shore of STEPOVAK BAY was not closely reconnoitered. GULL ROCK is some distance offshore, in the northern end of STEPOVAK BAY: it was not closely reconnoitered. RAMSEY BAY is reported to be extremely foul and dangerous in its northwestern and western parts: a vessel should not go farther westward along

the shore than LOUIE'S CORNER, which is the eastern side of the valley. DENT POINT is foul within 4/10 mile of shore on its eastern and southern sides; there are rocks both above and below water. GRUB GULCH is foul in its eastern part; there are three islets and several submerged rocks: there may be a passage into it close to the red mountain on the western side. This red mountain forms a sharp point, and there was surmised to be an extensive reef running 1-1/2 miles south from this point: a sounding of 15 fms. between deeper ones, was obtained abreast of the point at this distance. ORZENOY BAY has a dangerous entrance: There are reefs which partly dry at low water, extending 4/10 mile eastward and southeastward from ELEPHANT POINT: and there is a reef almost in the middle of ORZENOY BAY slightly nearer the north shore, abreast of the peak on WATERFALL POINT. There is a rock marked E.D. on the charts northward of KARPA ISLAND: this rock has not yet been verified or located. SCOTLAND ROCK is well authenticated, and lies somewhere off the northeast point of KOROVIN ISLAND: it bares at lowest tides: the sheet shows soundings which were made in searching for it, but which failed to discover it: possibly it may be farther westward and nearer KOROVIN ISLAND than was supposed.

4. COAST-LINE.

ALEXANDER POINT lies on the western side of the channel as one passes PAUL ISLAND: it is the extremity of a range of hills and is about 1500 feet high. PAUL ISLAND is a crescent-shaped range of hills, reaching an elevation of 1566 feet in the northern portion of the island. JACOB ISLAND is shaped like a leg-of-mutton, and is 1660 feet high near the northern end: from the summit a sharp ridge extends southward to NOON POINT, meeting the sea in an overhanging precipice. IVANOF BAY lies between ALEXANDER POINT and KUPREANOF PENINSULA: it is 1-1/2 to 1-1/10 miles wide and 7 miles long. There is an island in the middle of it 7/10 miles long, 2/10 miles wide and 350 feet high. Westward of the island the channel appears to be clear, but eastward of it there is a low-tide rock 3/10 mile off the island and another rock 2/10 mile off the east shore: between the rocks a careful mid-channel course leads through deep water. Westward of the north end of IVANOF BAY is a large lagoon, and a GRANVILLE PORTAGE leads across flat land to STEPOVAK BAY. The portage is an important one because it is easy, and because it avoids the danger of rounding KUPREANOF POINT. IVANOF BAY is a safe harbor in bad weather, and one may anchor anywhere above the island, avoiding the mud flats in the northwestern part near the lagoon. KUPREANOF POINT is a cluster of confused ridges and pinnacled peaks 1600 feet high: its southern face extends in an east and west line for 4-8/10 miles. The ridge of the peninsula presents a series of peaks all the way between it and GRANVILLE PORTAGE.

On the western side is BOULDER BAY:which offers good anchorage , and FOX BAY, which is said to be an excellent harbor for light craft. Farther northward is ISLAND BAY, and northward of this is a low flat islet near the coast. The shores all round KUPREANOF PENINSULA appear to be reasonably clear at a short distance from shore; the reef which appears on chart 8802 off KUPREANOF POINT consists of a few broken rocks in the surf at the foot of the cliffs. STEPOVAK BAY is enclosed on the east by KUPREANOF PENINSULA, which has been described above. Several widely spaced lines of soundings were run in the bay, which would indicate that the east central part of the bay is safe; and that the western part and the northwest shore from BALES LANDING to CAPE SWEDANIA is more broken and may develop dangerous shoals. GULL ROCK lies 6/10 mile off the northern shore of the bay, and is a bare ledge about 40 feet high. From GULL ROCK to GRANVILLE PORTAGE there is flat alluvial land, through which flows BIG RIVER, discharging drainage from this part of the snow fields and glaciers of the VENIAMINOF range. Westward and southwestward from GULL ROCK the coast is backed by a high snowy range of peaks and spires cut by narrow glacier-filled ravines. A spur of this range forms CAPE SWEDANIA, and the main range is cut by the portage leading from PORTAGE BAY to PORT MOLLER and BERING SEA. RAMSEY BAY is 3-1/2 miles west of GULL ROCK, and is reported to be filled with low-tide rocks, upon which one cannery ship has been lost. BALES LANDING is close to RAMSEY BAY, toward GULL ROCK, and 2-6/10 miles westward of GULL ROCK. There is anchorage off the house which stands here, on the eastern side of the valley: the locality is called LOUIES CORNER. The house is occupied by the owner of a sulphur mine in the valley. Two small glaciers end about four miles up the valley from the beach, with ice-falls down the cliffs upon the flat land. The coast is foul from RAMSEY BAY around the point as far as GRUB GULCH: there are several low-tide rocks and some kelp. A vessel should keep one mile off the beach. The point westward of GRUB GULCH is a sharp red mountain about 2000 feet high; the soundings indicate a reef 1-1/2 miles long extending on the line of the ridge from the end of this point. There are two low grassy islets and some rocks in the entrance of GRUB GULCH: but there may be a channel leading in westward of these. CLARK BAY is a large open bight backed by two valleys: the southern part is called LITTLE NORWAY. ORZINSKI BAY is marked by WATERFALL POINT on the northeast side and ELEPHANT POINT on the southwest side; it is two miles long and one mile wide. The waterfall on WATERFALL POINT is on the extremity of the point, in a most unnatural position, and shows on the tangent in profile: the peak back of it is 1895 feet high. ELEPHANT POINT is a sharp

ridge 655 high, with inclined strata breaking off in sheer cliffs on the southwest face: off the end of the point are reefs 4/10 mile long eastward and southeastward, partly dry at low water. A vessel should keep more than 1 mile off it. There is a reef almost in the middle of ORZINSKI BAY, slightly nearer the north shore, abreast of the peak on WATERFALL POINT. There is a cod-fish station in the southwestern corner of the bay, called ORZENOY, standing on the shore of the stream which drains the lagoon up the valley. The warehouse may be used as a leading mark for entering: steer for it bearing 296° (N64°W mag.), in range with a notch in the mountains behind it, and a rocky peak appearing through the notch on this bearing: beware of the reef off ELEPHANT POINT and favor WATERFALL POINT if in doubt. When abreast of the peak on WATERFALL POINT, beware of the reef on that side, and favor the other shore if in doubt; when past this reef, steer 332° (N48°W mag.) for the righthand or northern part of the gravel beach at the head of the bay and anchor in deep water off the low rock cliffs adjoining the beach at its northeastern end, at the opposite corner from the fish station. AMERICAN BAY or MOBILE BAY is a narrow fiord between steep rocky mountain walls. The wind squalls are extremely severe in bad weather. The entrance is a hole-in-the-wall, 1/2 mile wide, between two gravel spits. Parts of the inner bay are almost land locked; there is a small rocky shelf projecting under water for a short distance at the head of the bay. It is necessary to anchor near the middle of the inner bay, otherwise there is no swinging room. Between AMERICAN BAY and GUILLEMOT ISLAND are WINDBOUND BAY, CHICHAGOF BAY (commonly called CHICAGO BAY), KOLNOI BAY, and SAN DIEGO BAY. These were not thoroughly reconnoitred. GUILLEMOT ISLAND is locally called SAN DIEGO ISLAND. It is crescent shaped, about 400 feet high, fairly level on top, and surrounded by almost impassable cliffs. Between it and the mainland there is a chain of oddly shaped rocks, islets, and reefs. There appears to be a partly protected anchorage in the southern bight of the island, inside the crescent. From here to CAPE SWEDANIA the shore has a narrow fringing line of rocks, but appears safe at a reasonable distance. LUMBER BAY or ROUGH BEACH as it is called locally, lies on the eastern face of CAPE SWEDANIA and consists of a shallow bight at the entrance of a valley: the beach is a dyke of cobbles thrown up by the sea, and capped by a great windrow of driftwood: an eddy of the westward-flowing current brings the driftwood here. CAPE SWEDANIA is the seaward end of a ridge 1200 feet high: there are rugged cliffs at the extremity and on the southwestern side a gravel spit at the foot of the cliffs. The profile and end slope of CAPE SWEDANIA are striking and unusual: resembling in magnified outline the end of an artificial earthwork or bunker.

5. COURSES.

From ALEXANDER POINT proceed on course 205° (S5°W mag.) 15-7/10 miles passing 7/10 mile eastward of LEADER ISLAND, 1-1/10 miles eastward of FOX CAPE, and 1 mole off KUPREANOF POINT. Round KUPREANOF POINT at a distance of 1 mile and from a position with it bearing 357° (N22°W mag.) 1 mile distant, steer 267° (S68°W mag.) 15-1/2 miles, to KARPA ISLAND abeam, distant 1 mile: then steer 247° (S48°W mag.) 17-7/10 miles to CAPE SWEDANIA bearing 0° (N19°W mag.) distant 3 miles. Soundings were made upon these courses, and they appear safe. A rock (E.D.) has been charted northward of KARPA ISLAND, and there is undoubtedly broken bottom northward of KOROVIN ISLAND, although of greater depth than pinnacles are generally found in. Therefore most vessels steer 237°(S38W mag.) 22-8/10 miles from KUPREANOF POINT abeam to the middle of GORMAN STRAIT, then round CAPE DEVINE, and with it bearing 333° (N46°W mag.) 1-4/10 miles distant, steer 280° (S81°W mag.) 6-4/10 miles to KOROVIN STRAIT: then with HIGH ISLAND abeam, 9/10 miles distant, steer 291°(N88°W mag.) 7-9/10 miles, to the same position off CAPE SWEDANIA. A portion of this track has already been surveyed and it is for that reason safer: but GORMAN STRAIT is a poor mark in bad weather: there are very dangerous rocks on both sides of it and variable currents across the course from KUPREANOF POINT: therefore some navigators might be led to choose the shorter and easier route, hence directions are given for it. From CAPE SWEDANIA steer 270° (S71°W mag.) 6-9/10 miles, to UNGA STRAIT, with the low sandy point on UNGA ISLAND abeam 9/10 mil distant: passing 9/10 mile off GULL ISLAND.

6. CONNECTIONS

This sheet joins sheet No.103 on its eastern side. It also joins several of the larger scale sheets of the SHUMAGIN ISLANDS, - Nos.16, and 7 of 1914, and Nos.2, and 3 of 1913. The connection with sheet 16 is to be observed especially , because it comprises a development of the waters northward of ANDRONICA ISLAND and eastward of KOROVIN ISLAND, at the northeast entrance to GORMAN STRAIT, which supplements sheet 16 to a large extent. The topography of KARPA ISLAND, ORZENOY BAY, KOROVIN ISLAND, ANDRONICA ISLAND, POPOF ISLAND, almost all of UNGA ISLAND, and NAGAI ISLAND from CAPE WEDGE to EAGLE HARBOR is all shown on large scale topographic sheets of 1913 and 1914. Elsewhere, the shoreline is located by reconnaissance, as described in the latter part of par.2 above, and is shown in blue on the sheet. It may be used with confidence, however.

7. CURRENTS: MAGNETIC VARIATION.

Current observations were made in the usual way and have been submitted; at KARPA ISLAND, at DENT POINT, in

STEPOVAK BAY, and at HENDERSON ISLAND, west end of KOROVIN ISLAND. The currents are characteristic of this coast: the tidal currents are weak, they flood toward the land and ebb seaward. A non-tidal current from east and northeast toward southwest and west precedes and accompanies northeast storms: this current is modified by the land in each locality, and behaves in a manner which may be inferred by observing the direction of the shore on the chart. In STEPOVAK BAY the current strikes CAPE SWEDANIA and forms an eddy, which runs backward, northeastward and then eastward, along the northwest and north shores of the bay. The current and eddy is estimated at 1/2 to 3/4 knot at times. The magnetic variation was 20° east near KUPREANOF POINT in 1914, and was 19° east near UNGA STRAIT in 1913.

Respectfully submitted,

James B. Miller,

Assistant, C.& G. Survey,

Chief of Party.

To the Superintendent, C.& G.Survey,

Washington, D. C.

Seattle, March 9, 1915.

SHEET NO.102 - ~~SEAL CAPE TO CAPE KUPREANOF~~ Kupreanof Point to Seal Cape, S. W. ALASKA.

DATE 1914	BOAT	LETTER	VOL.	HOURS	POSITIONS	SDGS.	MILES (stat)
June 25	PATTERSON	A	1	4.8	22	83	32.0
" 29	"	B	1	0.9	5	17	4.6
July 1	"	C	1	6.5	35	122	36.9
" 3	"	D	1	4.0	17	62	23.1
" 8	"	E	1	2.2	15	48	12.4
" 9	"	F	1	2.0	9	31	12.1
" 13	"	G	1	7.7	42	163	47.1
" 16	"	H	1	6.1	39	182	40.8
Aug. 10	"	I	1	2.0	10	53	11.3
" 11	"	J	2	6.8	35	156	43.2
" 13	"	K	2	1.6	9	49	9.2
" 19	"	L	2	4.5	35	134	32.0
" 20	"	M	2	4.2	24	100	26.8
" 24	"	N	2	4.9	27	108	34.5
" 26	"	O	2	5.1	22	127	25.3
Oct. 8	"	P	2	4.3	10	50	34.5
" 10	"	Q	2&3	7.3	51	166	43.0
" 15	"	R	3	9.7	90	321	57.5
" 16	"	S	3	7.3	56	189	41.0
" 17	"	T	3	6.2	35	126	40.5
				98.1	588	2287	607.8

Sq. Statute Miles: 202.6

Data added to H.3722 Alaska Peninsula March 1943

2.M.C.

NAME	ELEV.	DESCRIPTION	DESCRIBED	POSITION	ESTABLISHED
△ Chiachi	1676	highest peak	Alaska No. 26	70061	JBM. 1914
△ Jacob	1668	highest point	"	"	"
△ Paul	1560	" "	"	"	"
△ Short	2585	highest of 3 reddish peaks	"	"	"
△ Alex	1500	peak	n.d.	"	"
△ Sid	450	peak	n.d.	"	"
△ Leader Isle 350 in Coast Pilot	125 418	highest point	Alaska No. 26 Desc Rpt H3722 p.3	"	"
△ Vil	2490	peak	n.d.	"	"
△ Cyprus	2471	peak	Alaska No. 26	"	"
△ Ivanof	1543	highest point on low bare ridge	"	"	"
△ Mut	2200	peak	n.d.	"	"
△ Sit	1800	"	"	"	"
△ Tri	1700	"	"	"	"
△ Bul	900	"	"	"	"
△ Pan	900	"	"	"	"
△ Foot	1593	highest point	Alaska No. 26	"	"
△ Hag	1100	peak	n.d.	"	"
△ Gull Rock	40	——	n.d.	"	"
△ Gas	45	——	"	"	"
△ Red Hill	2000	——	"	"	"
△ Peak, American Bay	1630	——	"	"	"
△ Mt. Stepo	3850	——	"	"	"
△ Mun	1200	summit	"	"	"
△ Fourth	1964	peak	Alaska No. 26	"	"
△ Hill (Waterfall Pt.)	1895	——	"	"	"
△ Guillemot	400	highest point	Alaska No. 26	"	"
△ Jude	149	on highest part	"	"	JBM. 1913
△ Leo	131	10 meters N.W. of highest part	"	"	JBM. 1914
△ Kennays	100	highest point of group	"	"	"
△ Wosnesenski	1200 (approx.)	highest point	Alaska No. 27	"	JBM 1913
△ SPIT	75	highest point of knoll	" No. 26	"	" 1914
△ ISLET, Gut Gulch	15	bare rock	70061	"	" "
△ ROCK, " "	5	——	——	"	" "
△ MES	90	waterfall	70061	"	" "

8-1590 3

VEC
May 5,1915

HYDROGRAPHIC SHEET 3722.

L. & A.

Shumagin Islands, Alaska, by Assistant

J. B. Miller in 1914.

TIDES.

	Sanborn Harbor ft.	Pirates Cove ft.
Mean lower low water, or plane of reference on staff	2.7	2.8
Lowest tide observed " "	0.6	1.6
Highest " " " "	12.0	11.7
Mean range of tide	5.2	5.4

GA Hyd Sheet No 3722

This work, reconnaissance, covers a large area and a number of other sheets, on a scale of 1/20,000, fall within its limits. This work was enlarged and combined with these sheets and the curves, drawn from the combined work, were reduced and are inked on this sheet. The curves depending solely on this work were left in pencil, as the work is hardly close enough to determine them accurately and further work will probably be done.

R. L. Johnston

Ver by FEB

H. 3722.

Reconnaissance sheet, Ivanof Bay to Shumagin Islands. A copy of this sheet or the accompanying boat sheet, should accompany instructions for additional work along the Alaska Peninsula.

Applied to chart 8859 Dec. 1942 J.M.A.
" " " 8704 Mar. 6, 1943 J.M.A.
Applied to chart 16556 4-14-75 B.W. Hamilton
(superceeded by larger scale surveys)
Applied to chart 16553 Jan 1978 Martof