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DESCRIPTIVE REPORT.

Topographic Sheet No. 2448

LOCALITY:

*Gubon Delta - Kawanak
and Kuipak Passes*

1899.

CHIEF OF PARTY:

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Yukon Delta, Alaska

Descriptive Report

Lower Kawanak Topographic Sheet.

This sheet covers that part of Kawanak and Skwipak Passes from the mouth of Gukyuk Slough to the sea-coast.

The banks of these passes vary from about 10 feet high, in the vicinity of Gukyuk Slough, to about one foot above ordinary high tide at the sea-coast.

At extreme high tides - in southerly weather - the coast at the mouth of the passes is covered with water in many places.

The banks of Kawanak Pass and Skwipak Pass are covered with a thick growth of willow and alder trees (15 to 25 feet high) to within about six (6) miles of the coast. There are no trees nearer than about $1\frac{1}{2}$ miles from the coast line.

There are no sand-bars in midstream.

in Kawanak Pass, and four fathoms of water can be carried except at the head of the large island $8\frac{1}{2}$ miles up from the coast. The two passes come together at the head of this island and then separate again, forming several islands and emptying into the sea a little more than a mile apart. At the head of the large island a shoal makes out, and down stream in Kawanak Pass, from its left bank. Vessels coming down stream should keep a straight course until nearly abreast the head of the island and then cross over to the head of the island and keep the right bank of the pass close aboard for a distance of about one-half mile then gradually cross to the left bank. The crossing at the head of the island carries 3 fathoms of water. At this point the Swickpak also carries a good depth of water, but a little further down there are shoals and the channel is difficult to find, while at its mouth there is but little depth of water.

anywhere. Strangers on reaching the head of the large island are likely to make the mistake of "keeping straight ahead" and going down the Kivikpak instead of turning to the left and going down the Kawanak which affords a deeper and unobstructed channel.

There is very shoal water in the waterways amongst the islands at the coast and between the mouths of the passes, and vessels should not attempt to navigate amongst these islands.

On Kawanak Pass, three miles up from the coast there are two Eskimo summer villages, "Agelkekakamiut" on the left bank and Nokogamiut on the right bank.

These are the only native settlements on this pass. In summer the natives inhabit these villages for the purpose of hunting and salmon-fishing. Fish do not appear to be as plentiful here as in the south (Kiviklowak) pass of the Delta. Ducks, geese and ptarmagin are also found here, which the natives constantly offer for sale, or will exchange for food or

and tobacco, and possibly liquor too, if such were offered them, but of this latter civilized commodity they seem to have little or no knowledge as they never call for it. Nations can be found in these villages who have a good knowledge of the waters of these passes and the various sloughs, but they seem to know but little of the channel over the bar at the mouth of Kawanak Pass. Nations were seen hunting the hair seal in this channel but they were not more than three miles off the coast and still within view of their land marks of driftwood on shore.

A few nations are also found on the Kwikpak down near the coast, in summer.

No steamboats or sailing craft have ever been known to have used either of the passes shown on this sheet.

Here, as elsewhere in the Yukon Delta, there is driftwood all along the banks of the passes, but the nations have not prepared it for steamer use, as is the case on the Apoon and Upper Kwikpak.

The survey of Kawanak Pass depends upon a scheme of triangulation, which was connected with that of the rest of the delta and hence with that along the coast from St. Michael. The topography was executed by means of the plane table, and sketch work based upon sextant angle locations. The lower part of Kwikpok Pass depends upon sextant and theodolite triangulation, the topography being filled in from sketch work based upon sextant angles, and also from running sketch work in a steam launch as noted in my descriptive report on the Upper Kawanak. Topographic Sheet, Yukon Delta, 1899.

Currents

The velocity of the current is never greater than 1.8 knots; and it is less than this on rising or at high tide. The current is even reversed (flows up the passes) at the mouth of the passes during flood tide, i.e. just before high tide is reached.

The Kawanak carries much more water than that part of the Kwikpok shown on this sheet

The range of tide at mouth of Sukyuk Slough is 1.10 feet and at mouth of Kawanak Pass 2.28 feet, and is three (3) hours earlier than at Sukyuk Slough.

From the coast, a depth of 3 fathoms of water can be carried up Kawanak Pass and thence up Kwikpak Pass to New Fort Hamilton, a distance of 35 miles, or about 8 miles below the head of the Delta.

The water in these passes is always fresh. This is also the case for several miles to seaward off the passes.

The weather, fog and ice conditions already described in the "Bering Sea Coast Pilot" are applicable here.

Mean Barometer & Temperatures, Yukon Delta, 1899

Month	Barometer			Temp. of Air			Temp. of Water		
	Mean	Max.	Min.	mean	Max.	Min.	Mean	Max.	Min.
1899	inches	inches	inches	F°	F°	F°	F°	F°	F°
July	29.84	30.33	29.42	--	--	--	--	--	--
August	29.67	30.39	29.27	51.6	57.2	47.7	56.8	59.9	54.0
September	29.45	30.24	29.11	42.0	56.8	32.5	49.1	54.2	40.1
Mean (3 Mo.)	29.62	30.32	29.27	46.8	57.0	40.1	53.0	57.0	47.0

R. L. Faris

(Apr. 12-1900)