

## 3021

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Department of Commerce and Cahor COAST AND GEODETIC SURVEY Littmann) State: Alaska DESCRIPTIVE REPORT. Sheet No. 3074 LOCALITY: Controller Bay-Canack Island to Tiledriver Pt.

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## 3031

Department of Commerce and Labor Coast and Geodetic Survey O. H. Tittmann, Superintendent

Hydrographic Survey of
East of Kanak Island
Controller Bay, Alaska
by Paul C. Whitney,
H. C. Denson, Chief of Party,
Steamer Patterson
Aug. 26 to Sept. 24, 1909.

Scale  $\frac{1}{10000}$ .

Field Sheet E.

Verification of Joys, Ohuch 3021 The description report makes no reference to the magnifude and un portance of The present or prooperation Traffic to be accommodated by The channels on this sheet-Without such imformation it is manifestly not easily passible 2- pass upon The sufficiency of the Durvey auchorage behind Point Hey should Larz been concrea -Low water mark more fewersely developed -A few Channel lines would harz in proved The results - especially at middle-from a crossings -June From showed harz been effected with previous work of Piledriver Point.

1-8-10

Department of Commerce and Labor Coast and Geodetic Survey O. H. Tittmann, Superintendent

Descriptive Report to accompany

Hydrographic Sheet of East of Kanak Island

Controller Bay, Alaska, Season 1909

Paul C. Whitney, Assistant
Hydrographer

H. C. Denson, Assistant Chief of Party

U.S. C.& G.S. Str. Patterson

Field Sheet "E"

This sheet includes the area in Controller Bay, east of Kanak Island. The survey starts at the northern limit of the 1903 survey and continues northward to the mouth of the Bering River on the east to join on the soundings made in 1903, and Point Hey on the west where the work joins on work of 1903.

The signals used depend upon triangulation executed this season based upon stations of 1903 except signal Mac and signal Der which were located by topography. The shore line is from the topography executed this season.

The entire area consists of extensive flats excepting a small channel leading from Okalee Channel to Bering River, and the channel entering north of Kanak Island and joining the channel from the southward. A regular development was run in these channels and extending onto the flats as the stage of the tide would permit. The flats to the eastward of the channel were developed by running a single line, to show the absence of any chan-To the northward of the developed area there nel or deep water. are extensive mud flats , dry at low water, with winding channels and sloughs carrying one to three feet at low water. There is a channel carrying four to six feet up Bering River at least as far as Atna, located on the East side of Bering River, near the large island.

The best natural range for the north and south channel is signal Der in range with a spur on the front range of mountains north of the Bay. The range for making the turn to run to Pile

Driver Point is to bring the house on the point in range with Mount Cambpell and steer for Pile Driver Point.

The tide runs out with an ebb tide down Bering River to a point midway from Pile Driver Point to North Point of Kanak Island where it splits, part running out through the entrance south of Point Hey and the other south and out into Okalee Channel. The current at the place where it divides runs out about a half hour after low tide. The current varies in velocity from 1.0 knot to 3.0 knots.

Some swell makes in between Point Hey and Kanak Island at high water but it is not felt south of this entrance. No swell was observed making around the southern point of the island.

The bottom over the entire area is hard sand or soft mud, with good holding bottom. Anchorages may be had anywhere the depth is suitable. There is no rocky bottom within this area.

The deepest Anchorage is Afathoms east of South point of Kanak Island. distant, It mile, in mid-channel.



STATISTICS.

Hydrographic Sheet (E).

Date 1909.	Yolume	Miles	Positions	Sound- ings.	Day	Vessel.
Aug.26	I	13	116	619	1'	Alpha
Aug.27	I	$15\frac{1}{4}$	134	685	m*	*
Sept.2	I	7	53	310	n'	#
Sept.6	VII-D	10	78	632	p,	*
Sept.14	11	18 <sup>1</sup>	124	791	s ,	*
Sept.16	II	4	· 56	292	t ª	<b>W</b>
Sept.17	11	10	52	298	u*	•
Sept.20	III	$15\frac{1}{4}$	99	600	A 3	•
Sept.21	111	8	<b>3</b> 6	<b>21</b> 5	w ª	*
Sept.24	IV	$1\frac{1}{2}$	14	1 23 <	1	Reynard
Total		$108\frac{1}{4}$	762	4565		