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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hyd. Sheet No. *2058^a*

LOCALITY:

*Stephen Passage -
Ent. to Tritz Cove*

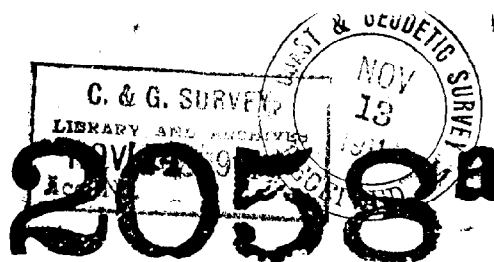
1901

CHIEF OF PARTY:

C. G. Gillian

DESCRIPTIVE REPORT
for
HYDROGRAPHIC SHEET

FRITZ COVE



This sheet contains the plotted work done to locate a rock reported to have 3 feet of water on it and as being a danger to vessels entering Fritz Cove, Stephens Passage, Alaska.

The area reported in the Notice to Mariners was examined both by running sounding lines across it at right angles to each other and approximately 150 meters apart, and by means of an improvised wire drag. The least depth found on the reported area was 11 fathoms.

? A rocky shoal of limited extent with a least depth of 6 feet above M.L.L.W. (plane of reference for Bench Mark in Fritz Cove) was found about one quarter mile southward of the reported shoal and in a position to be of more danger to vessels entering Fritz Cove. The shoal consists of a ridge about 100 feet long and 50 feet wide extending in a direction towards the South tangent of Spuhn Island, bearing 106 degrees true. There are depths of 6 to 10 fathoms surrounding it deepening rapidly to 30 fathoms.

Owing to the difficulties of handling the drag with one whale boat as guiding launch and another as end launch, and of varying the drag depth expeditiously the area of the shoal was not swept over to a less depth than 6 feet above the plane of reference, but was carefully felt over with the lead.

The shoal extends 100 feet in a 286 degree true direction from the following position, where a buoy consisting of several pieces of 3 in. by 3 in. scantling was anchored to a grate bar.

MDH

Apr. 1, 1912.

HYDROGRAPHIC SHEET NO. 2058a.

Fritz Cove, Stephens Passage, Alaska,
by Asst. C. G. Quillian, in 1911.

T I D E S .

	Fritz Cove ft.
Mean Lower Low Water, or plane of reference on staff,	8.0
Lowest tide observed,	6.0
Highest tide observed,	25.6
Mean range of tide,	13.4

Coast and Geodetic Survey

APR 1 1912

TIDAL INVERSION

Hyd Sheet No 2058^e

Apr 30 1912

The last water found over this shoal was
1 fath. The spot was very carefully developed

H. L. Simmons

Right (South) tangent Spuhn Island	
North tangent Douglass Island in range. (Bearing 106 degrees true)	0 - 00
Right tangent Coghlan Island	77 - 30
Left (South) tangent Portland Island (Bearing 277 degrees true)	156 - 40
Center Georges rock	224 - 00
Right (West) tangent Outer Point	252 - 40
Right (West) tangent Shaman Island bearing 176 degrees true.	

Signal "Cling" was discovered as described and rebuilt.

The exact position of "Oat" was not recovered but it is estimated that a point within one or two meters of the original signal was found since remnants of boards and nails, and heaps of rock presumably piled against the legs of the old signal were noticed. The signal used was named "Oat₂" Signals "Hock" and "Find" were also recovered only approximately and were named "Hock₂" and "Find₂" respectively. Near "Hock₂" a cross mark was found in the rock. One line of the mark appeared to be artificial but it could not be determined whether the other mark was only a natural crevasse or an artificial cut. The fact that the marks were about six inches long also raised some doubts in the minds of the redcovering party as to its being the location of the old signal. The angle at this mark from "Oat₂" to "Hock₂" was found to be 130 degrees. The other signals were new ones built by the McArthur's party.

Sextant angles to locate the signals were taken at "Cling" "Find₂", "Hock₂", "He", and Georges rock. The positions of "Oat" and "Oat₂" were assumed to be identical.

The wire used in the drag consisted of 300 feet of # 14 iron wire intended for signal bracing. The weights at the ends were made up of sounding leads and aggregated 40 lbs. at each end and were supported directly from the boats. The drag was towed without the use of a towing bridle. A 9 lb. lead was placed near the middle of the drag and supported by means of a buoy made of several pieces of 3 in. by 3 in. by 2 feet scantling. Four other buoys consisting of two pieces of the same scantling were spaced at approximately equal distances and supported the wire by uprights of codline. The depth at which the drag was effective was tested by means of a lead line held from a small boat.

The major portion of the area was dragged to a depth of between 20 and 28 feet. On the smooth sheet, the area dragged to a depth of under ten feet is plotted in yellow, under twenty feet in blue and over twenty in red.

Respectfully Submitted
C. G. Quillian
Assistant to Survey
Chief Party

Statistics.

Mo.	Date	Letter	Vol.	Miles Sndg	Miles Drag Line	No. Angles	Sndgs
Oct.	22	a	1	4.1		110	75
"	23	b	1	6.6		160	142
"	24	c	1		3.5	110	3
"	24	d	2		3.5	125	1
Totals				10.7	3.5	505	221

Applied to Reconstruction of Chart #225 2-10-40 by Chas R Bushy