



3419

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 14 1913  
Acc. No. ....

Diag. Cht. No. 8152-1

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY.

Superintendent.

State: *S. E. Alaska*

DESCRIPTIVE REPORT.

*Hyd.* Sheet No. *3419.*

LOCALITY:

*Sukhran Strait*

191

CHIEF OF PARTY:

*R. B. Meridson*

11-4040

3419

3419

- C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 14 1913  
Acc. No. ....

The work on this sheet is contained in two volumes of sound-  
ing records. The plane of reference used for reduction of sound-  
ings is that of Sukkwan.

Scale 1:5000

The signals used on this sheet were located by the plane table  
party and transferred direct to the hydrographic sheet from the topo-  
graphic sheet.

Launch 117.

Vol.1. 1a to 59 d. Blue. 35.5 miles sounding lines.

Launch 117, Dinghy, and Ship.

Vol.2. 1e to 46 f. Blue  
1a to 34a. Yellow.  
1A to 22A Brown. 19.6 miles sounding lines.

*R.B.D.*

\*\*\*\*\*

Hydrographic Sheet No.5.  
*South Pass of*  
Sukkwan Narrows Strait

from

Tlevak Strait to Hydaberg, Alaska.

Scale 1:5000

By the party on the Str. GERNEY.

R.B.Derickson,  
Commanding.

October  
1912.

H. 3419.

The hydrography is open and should be supplemented by additional work. The weather during the progress of the work did not permit of complete development and the close of the season prevented the filling in of undeveloped areas.

Sheet examined in Div. of Hyd'y & Top'y.

To accompany hydrographic sheet No. 5, Sukkwan Narrows  
and vicinity, S.E. Alaska.

This sheet taken in Sukkwan Narrows and approaches to Hydaberg, and that part of Sukkwan Straits extending S. from the Narrows and as far as Lone Spruce Rock, at the S.W. entrance to the Straits..

Only that part of the channel was sounded which is commonly used by Coasters and Fishing vessels of any size and which is described in the Alaska Coast Pilot, Part 1, page 95. The work in Launch No. 117 was done with a Cosmos sounding machine and piano wire mostly, except in and around the Narrows where the hand lead was used. One line thru the Narrows was run by the ship, using hand lead. The work was done between October 7th and 12th, under abominable weather conditions.

Currents During Spring tides attain a velocity of probably as much as 3 knots and are more especially noticable in the Narrows proper and off the new village of Hydaburg and also in the narrow part between  $\Delta$  Nut and  $\odot$  New.

The Indian village of Sukkwan on the east side of the Narrows has been almost completely abandoned altho the shacks still remain, and the totem poles are very prominent coming from either direction. The Indians now live in the new village of Hydaburg which lies over  $\frac{1}{2}$  mile N.x E. of the Narrows on the opposite shore of the Strait. This village has a considerable number of houses and a sawmill. A wharf is contemplated. A float moored in  $3\frac{1}{2}$  fathoms lies about 75 yards W.S.W. of the Sawmill, alongside of which small craft may tie up. An extensive kelp patch, portions of which bare at L.W. springs lies about 100 yards W.S.W. of the Float. To the S.S.E. of the

Sawmill an extensive Sand and Gravel Flat extends off shore for about  $\frac{1}{4}$  of a mile..

Three fathoms may be carried thru the Narrows at L.W. spring and care must be exercised to keep in mid-channel and to avoid the rocks which lie about  $\frac{2}{10}$  of a mile N.N.E. of the Narrows.

Good anchorage for small vessels may be found in Tide Gauge Bay,  $\frac{4}{10}$  of a mile E. of  $\Delta$  Nut in 9 fathoms, out of the currents and protected from all winds.

Lone Spruce Rock is very prominent and consists of two rocks close together of about the same height, probably 10 feet above high water on the N.E. most of which is a small spruce tree, the other rock being bare.

The following natural objects were used as signals and determined by the Topographer, viz:

"Fang" A small wooded Islet lying  $\frac{1}{2}$  mile N.W. of  $\odot$  Horse, the trees on which were so distributed as to height as to show a small notch in the center V shaped. This notch was used as the signal and is practically the center of the Island.

"Grip" A rock lying about 75 yards S.W. x W. of a small Island  $\frac{4}{10}$  mile S.E. x S. of  $\odot$  Round. This rock is grass covered on top and covers at extreme high water only. Center used.

"Kris" A small rocky point  $\frac{1}{4}$  mile S.E. of  $\odot$  Ney with a small and well defined clump of trees growing on it. Center of clump used.

"Fear" A rock 800 yards S. x W. of  $\odot$  Dark, about 3 ft. above H.W. and about 20 feet long, lying close to the L.W. line about  $\frac{4}{10}$  mile N. of Tide Gauge. Center used.

Bearings are magnetic and approx. Distances are approximate.

Approved  
*R. B. Alveston*  
 Asst., Comdg.

Respectfully submitted,  
*Thos. Jamieson*  
 Mate, C. & G. Survey,  
 Hydrographer.

3419

## PLANE TABLE POSITIONS.

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 14 1913  
Acc. No. ....

Station	Lat.	D.M.	Longt	D.P.	Above H.W.	Description.
New	55°09'	1777.5 78.0	132°52'	635.8 426.4	2 ft.	White flag supported by small pile of boulders.
Horse	55 10	1001.5 854.0	132 52	83.2 979.0	0	White flag supported by small pile of boulders
Dark	55 10	1012.4 843.1	132 51	592.7 469.5	6 "	" " " " "
Fang	55 10	1744.6 110.9	132 52	423.4 638.8	20 "	Trunk of prominent tree on small island
Scrag	55 11	342.6 1512.9	132 51	202.4 859.8	10 "	Small flag with staff fastened in rock crevice
Grip	55 11	319.9 1535.6	132 51	367.6 674.8	15 "	Small flag with staff sunk in graes cov.rock
Round	55 11	945.6 909.9	132 51	450.1 612.1	0	White flag supported by small pile of boulders.
Ged	55 11	1473.8 381.7	132 51	100.9 961.3	2 "	" " " " "
Kris	55 11	938.5 917.0	132 50	486.2 576.0	10	Lone rock along shore line
Ney	55 11	1292.1 563.4	132 50	653.1 409.1	6 "	White flag supported by small pile of boulders.
Wan	55 11	1826.6 28.9	132 50	635.4 426.8	-2 "	" " " " "
Wart	55 12	10.6 1844.9	132 50	291.4 770.8	0	Small tripod with flag.
Wide	55 12	365.0 1490.5	132 50	501.1 561.1	5 "	White flag supported by small pile of boulders.
Tide Gauge	55 09	1585.8 269.7	132 52	284.6 777.6	7 "	Gauge built on end of trestle
Suk	55 11	1816.7 38.8	132 50	473.2 591.0	-2 "	White flag supported by small pile of boulders
Tin	55 12	1437.7 417.8	132 50	484.5 577.7	5 "	Banner set up on small detached rock.
Bert	55 12	117.8 1737.7	132 49	389.9 672.3	5 "	White flag supported by small pile of boulders

Station	Lat.	D.M.	Long.	D.P.	Above H.W.	Description.
Saw	55°12'	688.2 1167.3	132°49'	773.3 288.9	20 ft.	SE cor. of saw mill- flag nailed to piling.
Hawk	55 12	1433.7 421.8	132 49	833.9 228.3	5 "	White flag supported by small pile of boulders
Can	55 11	981.0 874.5	132 49	827.9 234.3	10 "	Banner supported by pile of boulders.

# 3419

Sailing Directions of Sukkwan Straits,

S.E. Alaska.

C. & G. SURVEY,  
LIBRARY AND ARCHIVES

MAR 14 1913

Acc. No. ....

Approaching the anchorage off Hydaburg from Sukkwan Strait on a N.W. x W.  $\frac{1}{4}$  W. course having slightly favored the point on the port hand opposite the East end of the village in order to clear the low water flat which dries nearly one fifth of a mile out from the village.

The present business end of the village is at the Saw-mill, and the nearest anchorage is in mid channel with the saw-mill bearing N.  $\frac{3}{4}$  E. eleven fathoms of water. At this position there is clear swinging room with 170 meter radius. The Narrows bearing south are well open from this anchorage.

The nearest dangers are the rock 250 meters NxE of the old village on Sukkwan Point. The ledge which extends 120 meters N.E. from signal Wide, and the south edge of the flat extending out from the village.

Southeast winds draw through this part of Sukkwan Straits with considerable force and the flood spring tide has an estimated velocity of three knots with swirls.

If bound to the westward, head for mid-channel through the Narrows on a S.W. course. There is never very much current in these Narrows. So reported by natives and "West Coast" Pilots.

Although not taking the deepest channel, the customary track of vessels is to head on a S. x W.  $\frac{1}{4}$  W. course from the eastern end of a big island. This island is low covered with timber and the east shore steep to with abrupt boulder bank, approach the east ~~shores~~ end of this



island within eighty yards, passing to the westward of the two fathom kelp bank.

When a little past the point where signal Round is located, come around with a gentle starboard helm to S.x E. $\frac{1}{4}$  E. holding this course until reaching mid-channel opposite the next point of land on the starboard hand then round gently to S.x W. $\frac{1}{4}$  W. heading tangent to the N.W. point of the island N.W. of a small bay. (This bay affords good anchorage in 8 fathoms, mud bottom). Watch for the lone spruce tree rock (sometimes called by pilots Christmas Id.) When the lone Spruce Rock opens up bearing S.W.x S. $\frac{3}{4}$  S. continue the S.x W. $\frac{1}{4}$  W. course till the Spruce tree, which is very prominent, bears midway between the point and the island N.W. of the anchorage, then head for it on a S.W.  $\frac{1}{2}$  S. course.

Pass mid-channel N.W. of Lone Spruce Rock and head out in to Tlevak Straits in a S.W. $\frac{1}{2}$  S. course.

Note:

The course after leaving the Narrows will be changed after the kelp patches have been buoyed.

The flood tide enters from Tlevak Strait.

The strongest current is encountered off the point  $\frac{1}{2}$  mile NNE of Lone Spruce Rock. The flood tide striking a vessel on Starboard bow will put a vessel on the point of the island on the south side of channel if great care is not exercised.

A vessel coming from the eastward with flood tide must exercise great care not to be set on the point of rocks just north of the Narrows. The strength of current is practically lost when abreast of these

rocks and in the Narrows.

At the mean of Lower Low Waters 16 feet draft can be safely carried through this channel from Tlevalk Strait to Hydagerg.

Respectfully submitted,

*R. B. Erickson*

Asst., Comdg.

VEC  
Mar. 24, 1913.

HYDROGRAPHIC SHEET 3419.

*CCDW*  
*AB*  
*3/24/13*

Sukkwan Strait, Alaska, by Assistant R. B. Derickson  
in 1912.

TIDES.

	Sukkwan Strait ft.
Mean lower low water, or plane of reference on staff	9.5
Lowest tide observed " "	6.1
Highest " " " "	25.0
Mean range of tide	10.9

Coast and Geodetic Survey

MAR 24 1913

TIDAL DIVISION

Hyd Sheet No 3419

The ground on this sheet is very well covered and most of the work is fairly good; several lines however disagreed very badly and were adjusted where it was possible to do so.

The line from 52c to 53c, does not agree with the description in the record and looks as if the entire line was too far south.

The 37 ft sounding on the line from pos 32a to pos 33a, (west of  $\odot$  Wide), looks questionable.

At pos 9d, (depth given as 34 ft) the left object was changed in order to shift it to a more reasonable position and improve the crossings.

Most of the bottoms are recorded as gravel and the remainder as rocky, but it is very probable that the greater part of this area is rocky bottom.

At times it was difficult to identify the sounding<sup>taken</sup> on the pos. because the pos. number was not entered opposite to the sounding and a uniform system<sup>of recording</sup> not all ways followed.

The soundings between positions are not any too reliable, because the positions are generally taken too far apart for the accurate spacing of intermediate soundings by time.

R. L. Johnston

verified, 6/26/13. J. D. Torrey.