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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State *Alaska*

DESCRIPTIVE REPORT.

Hyd. Sheet No. *3315*

LOCALITY:

*North Shore of Melville Id.,
to Store Id.*

Prince William Sound

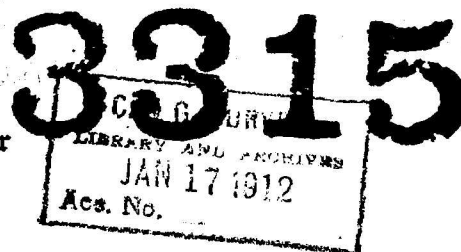
190

CHIEF OF PARTY:

J. P. Rude

3315

Department of Commerce and Labor
COAST AND GEODETIC SURVEY
Washington



3315
Smooth Hydrographic Sheet No. "B", Peak and Storey Islands and North
end of Naked Island, Prince William Sound, Alaska.

Steamer Taku, Season 1911.

Gilbert T. Rude, Assistant, Chief of Party.

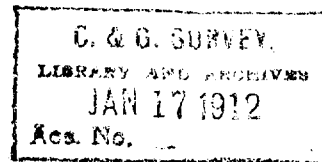
Hydrographers: Gilbert T. Rude, Assistant; O. W. Swainson, Aid,
and C. D. Clark, Aid.

Projection by C. D. Clark.

Scale 1 : 20, 000

Positions plotted by Gilbert T. Rude, Assistant; O. W. Swainson, Aid and
C. D. Clark, Aid.

3315



DESCRIPTIVE REPORT .

to accompany
Hydrographic Sheet ³³¹⁵~~3315~~, Naked, Peak,
and Storey Islands, Prince William Sound,
Alaska.

Steamer Taku, Season 1911.

Gilbert T. Rude, Assistant, Chief of Party.

Hydrographers: Gilbert T. Rude, Assistant;

O. W. Swainson, Aid, and C. D. Clark, Aid.

This sheet covers the waters adjacent to Storey, Peak and northern part of Naked Island, Prince William Sound, Alaska. The hydrography was done in the early part of the season of 1911, under the direction of Gilbert T. Rude, Assistant, on the Steamer Taku.

The signals for the survey were located with the plane table which in turn were controlled by three triangulation stations on the western shore of Storey and Naked Islands.

All the hydrography was done with the steamer Taku. An improved Cosmos sounding machine with a separate registering sheave was used for soundings over fifteen fathoms. At each sounding the steamer was stopped and the engines backed until most of the headway was taken off. As soon as the sounding was obtained and the wire nearly wound in, the steamer proceeded on course to the next place where a sounding was desired.

When a shoal sounding was obtained, the ship was run slowly until the extent and approximate shape of the shoal was determined by dropping other

soundings around it. If less than ten fathoms was obtained the shoal was further developed and the least depth obtained by running lines over it, sounding with the hand lead. The exact time of taking each sounding was entered in the sounding record.

In some instances the shoal was more thoroughly developed from a small boat. The boat was let drift over the shoal and the bottom constantly felt with the hand lead, following it to the summit of the rock or shoal.

There is a shoal making off from End Point with a least depth of five fathoms, one mile N. W. $\frac{1}{2}$ W. of the point. This shoal was developed with the hand lead and also by drifting over it in a small boat and feeling with the hand lead. (four or 24 ft) R.T.

Vessels should avoid this foul area off End Point on account of the possibility of there being a detached pinnacle which might be missed in the closest survey when not using the wire drag.

The western entrance to, and Liljegren Passage itself, has a very uneven bottom. A sudden change of 15 to 25 fathoms within a few hundred meters is frequent. The bottom is mostly rocky.

Nothing dangerous to navigation was found on any of these spots, but the sailing lines submitted with this report were laid out so as to clear these areas as much as possible for the reason previously stated.

A mud shoal extends from Wide Point two thirds the way across Liljegren Passage.

Three small shoals, least water nine fathoms, lie about one half mile west of Peak Island. Each was carefully developed.

A patch of foul ground extends from Anchorage Island about one third the way across the channel, terminating in a rock which bares at extreme low water. Small bunches of kelp are scattered over the area.

A reef haring at low water makes off from the S. W. end of Anchorage Island. There is very little kelp on it.

The area northeast of Anchorage Island and along Storey Island is foul. There is no kelp to indicate the danger.

There is a rocky shoal of three ^(11 ft) fathoms between Peak and Signal Islands, one third the way from the former. Vessels should keep well over to the small island (Signal Island).

In the small bight of Peak Island forming the entrance to the little inlet running up to Mr. McPherson's house there is a bunch of rocks thirty meters off the north side.

Small craft find good anchorage from all winds in Liljegren Anchorage between Anchorage Island and Storey Island. The eastern entrance is foul and small boats on the Sound enter from the westward between Anchorage Island and the small island in the entrance, keeping the small island close aboard, as a reef extends from Anchorage Island toward the small Island, which is steep to.

A line of sounding was run out from the anchorage showing the course followed by small craft and giving the depth that may be carried in.

The Steamer Salmo (About 25 tons), belonging to the Northwestern Fisheries Company at Orca, Alaska, when bound to Chehega Island for fish, anchors in 7 to 8 fathoms about two hundred meters west by south, magnetic, from signal "Hid" in McPherson Passage. This anchorage is sheltered from all winds.

Sailing Directions:

Entering Liljegren Passage from eastward head S. ^o 65 W. (True) with Beak Point and Weak Point on range. This will leave Elk Head Point about three tenths of a mile to port. When eastern end of Anchorage Island is a

abeam, head N. 88° W. (True), the best water after passing Beak Point being nearer the Storey Island shore. When Row and End Points come on range steer S. 51° W. (True) to go to the southward and N. 49° W. to the northward.

Entering McPherson Passage from eastward: Enter Passage midway between between Peak and Naked Islands; head S. 69° W. (true) until the fox house on the beach of Peak Island shows in mid channel, then steer for it with a mid channel course, N. 29° W. (True). Change course N. 80° W. (True) when can head down mid channel for south side of Signal Island. When west end of Peak Island comes on range with east end of Storey Island, change course N. 30° W. (True) untill a good two thirds way across Liljegren Passage, then change course N. 88° W. (True) till Row Point and End Point are on range, then to go to the southward steer S. 51° W. (true), to northward N. 48° W. (True).

Entering Liljegren Passage from westward: Keep well over toward Storey Island and head just inside of Elk Head Point, Course S. 88° E. (True). When middle of small bight on north side of Peak Island is abeam change course N. 64° E. (True).

To enter McPherson Passage from westward: After entering Liljegren Passage with a course of S. 88° E. (True) as above, change course to S. 30° E. (True) when the center of Wide Point is abeam. After Signal Island has been passed hold mid channel course S. 78° E. (True), leaving south side of Signal Island astern. When Red Point is abeam change course S. 29° E. (True). When one half mile past the narrowest part of the channel change course N. 69° E. (True) and hold this out the eastern entrance of the Passage, passing out midchannel.

Respectfully submitted,

Gilbert J. Rude

Statistics for Sheet "B".

33

U. S. SURVEY;
LIBRARY AND ARCHIVES
JAN 17 1952

Naked, Peak and Storey Islands, Alaska.

Date	Letter	Vol.	Positions	Soundings	Miles, Stat.	Vessel
June 26	a	1	76	76	14.5	Taku
June 27	b	1	39	39	7.6	"
June 28	c	1	111	111	22.5	"
June 30	d	1	89	89	14.6	"
July 6	e	1	53	77	5.9	"
July 7	f	2	169	169	23.4	"
July 8	g	2	112	112	13.8	"
July 11	h	2	116	116	19.6	"
July 12	i	3	57	57	15.1	"
July 13	k	3	136	154	16.0	"
July 14	l	3	24	24	3.7	"
July 15	m	3	90	90	18.5	"
July 18	n	3	84	84	11.8	"
July 18	n	4	59	59	8.2	"
July 19	o	4	178	225	24.1	"
July 20	p	4	140	211	10.2	"
July 21	q	450	36	36	5.4	"
July 21	q	5	135	226	15.4	"
July 22	r	5	163	245	26.3	"
July 24	s	5	91	91	29.5	"
July 25	t	6	42	42	9.7	"
July 28	u	6	143	195	15.8	"
Total			2137	2528	331.6	(Carried forward)

Statistics for Sheet "B" (Continued)

C. & G. SURVEY
 LIBRARY AND ARCHIVES
 JAN 17 1912
 Acc. No.

Date	Letter	Vol	Positions	Soundings	Miles, Stat.	Vessel
Brought forward			2137	2528	331.6	
Aug 1	v	6	151	252	12.3	Taku
Aug 2	w	6	9	9	1.7	"
Aug 8	x	6	51	51	9.1	"
Aug 8	x	7	18	18	3.7	"
Aug 10	y	7	105	175	17.1	"
Aug 11	z	7	30	30	8.9	"
Aug 12	aa	7	73	73	37.0	"
Aug 14	b b	7	1 47	147	34.7	"
Aug 15	cc	8	142	163	22.1	"
Aug 18	dd	8	<u>4</u>	<u>5</u>	<u>.5</u>	"
Total			2 867	3 451	478.7	

Soundings plotted in feet

Records of changes made to any verifier
since the application of sheet to chart.

Verification Notes.

Hyd Sheet # 3315

Sounding on 2c changed
from 272 ft to 275 ft.

Sounding on 90 g changed
from 207 ft to 209 ft.

Sounding on 120 g changed
from 92 ft to 192 ft.

This is in shoal just south of
P Ee

Positions 35° + 36° changed
and soundings placed in new
positions, this changes 300 ft
Curve slightly -

Location Lat $60^{\circ} 44-45$

Longt $147^{\circ} 21-23$

Position of all signals
Checked from Top. sheets.

J. D. Torrey 5/20/22

MDH
February 9, 1912.

HYDROGRAPHIC SHEET 3315.

Peak and Storey Islands and North End of Naked
Island, Prince William Sound, Alaska,
by Asst. G. T. Rude in 1911.

TIDES.

	Storey Island.
Mean lower low water, or plane of reference on staff,	ft. 7.1
Lowest tide observed, " "	3.7
Highest " " " "	21.8
Mean range of tides	9.3

Coast and Geodetic Survey
FEB 9 1912
TIDAL MEASUREMENTS.

Hyd Sheet No 3315

This sheet is a finished hydrographic survey of the area covered. The ground is thoroughly covered and shoal indications carefully examined and developed.

The crossings are as good as can be expected in this locality of pinnacle rocks and uneven, rocky bottom. Practically all the shoals and dangers, which could be located, without the use of the drag, have been found and surveyed. As a whole the work is excellent and the records well kept.

After the sheet was completely finished, soundings and curves plotted and inked, signal "Steep" was discovered to be in error. This made it necessary, after correcting the position of signal "Steep", to replot all lines depending on this signal for control, to replot the soundings on these lines and to take out and re-draw the curves to conform to the corrected hydrography.

Not enough position numbers were shown, the average being only about every twentieth one. This not only makes it hard to follow the course of a line, but causes any error to affect the entire line until the next position number is reached. For example, pos 104 g was omitted, but as no position numbers were given, the next one, pos 105 g, was supposed to be it. Therefore every position and sounding following it was in error, from pos 104 g to pos 135 g, the mistake only being discovered

by the poor crossings.

At least every fifth position number should be shown.

The 47 ft sounding at pos 6 p, south of Anchorage Id. and north east from signal "Neat", should have been further examined, as it is directly in the channel.

This sheet was very carelessly protracted. A large percentage of the positions were not correct, including some with the most critical soundings on them ^{and one entire line from 46085cc to 460130cc}. A great many of these were reprotracted and corrected, but as it would be out of the question to reprotract every position, a good many may be still in error. For this reason the sheet should be verified with special attention to erroneous positions, and the location of signals should also be checked with the Topographic sheet ^(signal "Kush") as one was found to be in error on this sheet and also one _{on} the sheet next to this. (Hyd 3321)

On the whole the work is excellent and the records satisfactory, but the sheet has been carelessly handled.

R. L. Johnston

May 29th, 1912.

Verified by
J. D. Torrey