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C. & G. SURVEY,
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Acc. No

Diag. Chart No. 8551-2

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent

State: *Alaska*

DESCRIPTIVE REPORT

Hydrographic Sheet No. *3408*

LOCALITY:

Perry Island Passage,

Prince William Sound.

1902
Original

CHIEF OF PARTY:

Gilbert T. Fode

3408

7 figs. 3403408

Title.

GILBERT T. RUDE, LIBRARY AND ARCHIVES JAN 29 1913 Acc. No.

Perry Island Passage, Prince William Sound, Alaska.

Gilbert T. Rude, Chief of Party.

Gilbert T. Rude and O. W. Swainson, Hydrographers.

Steamer Taku, Season 1912.

July 27th to August 23, 1912.

Scale 1-20 000

Reducers entered in sounding records by Gilbert T. Rude.

Soundings reduced " " " "

Soundings plotted " " " "

Sailing lines " " " "

Projection by " " " "

Unit of soundings, fathoms ~~and feet.~~

Datum plane, 5.6 feet on plain staff of 1912.

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C. & G. SURVEY,
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JAN 29 1913
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DESCRIPTIVE REPORT,

to accompany Hydrographic Sheet, Number *** 13

Perry Island Passage, Prince William Sound,
Alaska.

Steamer TAKU,

Season 1912.

Gilbert T. Rude,))
) (Hydrographers.
O. W. Swainson,)

Gilbert T. Rude, Chief of Party.

Signals:

Signals used on this sheet were located by triangulation and plane table executed by the party on the Taku during this season. Signal "Last" is the only one located by sextant angles. The angles are recorded on page 32, volume 2 and page 13, volume 3, of the sounding records.

A list of all plane table positions was submitted with the Descriptive Report of Topographic Sheet No. 3278.

Tide Gauge:

An automatic tide gauge was established in Culross Bay with three bench marks and a plain staff in connection. At this station a continuous record was obtained from July 19th to August 25th. Owing to the lack of sufficient seamen for the work no tide observer was detailed for observations while the sounding party was engaged on hydrography. Readings at fifteen minute intervals were scaled from the marigrams and recorded in an ordinary tide record

A reading of 5.6 feet on the plain staff was used as the datum plane.

Names:

The names of points, islands, rocks, passages, bays, etc. are shown on topographic sheet No. 3278.

Prominent objects:

The peak on Perry Island on which triangulation station Perry is located is very prominent from the eastern entrance to Perry Island Passage or from Knight Island Passage or in the direction of the Naked Island Group. It is 1620 feet high, the summit small, bare and dome shaped. It is the highest peak on Perry Island. P.I.

The peak, 2019 feet high, on the southeast point of Esther Island is prominent, the summit bare rock. M.P.

The twin peaks on the southwest point of Esther Island, 1821 and 1822 feet high, are very prominent and easily identified. The two peaks are sharp and the summits bare rock. M.P.

The rocks about one mile south of the Dutch Group of islands are prominent from the eastern entrance to Perry Island Passage. They are bare and rise about five feet above high tide.

Egg Rocks are prominent and easily identified. They are bare except for a few patches of grass which does not show at any great distance. Numerous seagulls use these rocks as a roosting and nesting place. M.P.

Esther Rock (Topographic Station "Ped") about one mile 287° true from Point Esther, the southwest point of Esther Island, is very prominent, rising about fifteen feet above tides. It is bare except

for a few tufts of grass.

Islands:

Lone Island has a maximum elevation of five hundred and fifty feet and is heavily wooded to that height. It is steep to on its east side but shoal water extends about one mile northward from its north end.

The Dutch Group are wooded, the elevation of the southermost island is approximately fifty feet, the middle one one hundred and fifty feet and the northermost one one hundred feet. W. F.

Fool Island is wooded and about fifty feet high.

The islands on the west side at the entrance to West Twin Bay are wooded and prominent.

Perry, Culross and Esther Islands are mountainous, wooded on the lower elevations and bare rock on the summits of the peaks.

Shoals:

A shoal extends about one mile north, true, from the north end of Lone Island. This is shown on Hydrographic Sheet No. 3383.

Shoal water extends south from the Dutch Group, terminating in two prominent rocks, mentioned above, about one mile south of the Group. This foul area is inclosed in a broken line on the smooth hydrographic sheet.

Irregular bottom extends northward from the small islands on the west side at the entrance to West Twin Bay. A course along the west shore of this bay would pass over irregular bottom.

A rock bare at low water lies about one quarter mile south

of Fool Island.

Bays:

East Twin Bay (Name supplied by party) indents the north shore of Perry Island. The bottom appears regular for about half way up the bay where the bottom becomes more irregular. The bay is unimportant and no attempt was made at close development beyond a few lines when running to and from work.

Signal "Eat" is a prominent rock rising about 20 feet above tides.

Small boats entering this bay should hold a midchannel course till past the rock, bare at low water, off Signal "Do", then favor the east shore, keeping it about 140 meters distant. Large craft should not go up the bay more than half way to its head. Anchorage may be had for small craft at the head of the bay near its west side in eleven fathoms, mud bottom. The area of mud bottom is small. Its approximate location is shown by the penciled anchor on this sheet.

West Twin Bay (Name supplied by party) indents the northwest shore of Perry Island. The entrance is deep, ranging from fifty to ninety fathoms. This bay furnishes no anchorage, not in the entrance owing to the depth of water, nor further up the bay on account of the rocky, irregular bottom. The extreme head of the bay is very foul, the foul area shown on this sheet by a broken line. Signal "Nest" is a prominent rock about twenty-five feet above high water.

Vessels running into this bay should favor the east shore till the point on which signal "Cub" is located is abeam, then haul

over to the west side, leaving the prominent rock, Signal "Nest", to port.

There are no houses or settlements in either of the above mentioned bays.

Culross Bay, indenting the north shore of Culross Island, is clear with about eighty-five fathoms in its entrance, gradually shoaling to five fathoms at its head. It is a poor anchorage. In bad weather the prevailing winds, northeast, blow straight up the bay and considerable swell rolls up the bay from outside. A small area of mud bottom is shown near the head of the bay. This appears to be a thin layer on top of the rocky bottom. It is very soft and anchors do not hold very well in it.

No settlements or houses are located in Culross Bay. Three miners who live in a tent are working a prospect near the head of the bay on the east side.

Coastline:

The coastline with few exceptions is bold and steep, the hills rising abruptly from the water line to elevations ranging from fifteen hundred to twenty-five hundred feet. The lower elevations are wooded and the summits bare rock.

Sailing Lines:

The following lines are shown on the sheet, the sailing lines by black lines broken by short dashes, bearings by a broken line. The sailing line shown on this sheet at the eastern entrance to Ferry Island Passage has its origin at a position one mile 348°

true, (N. W. $\frac{1}{2}$ N., magnetic) from the northermost point of Storey Island. This was taken from a preliminary drawing of this work on Chart 8550, made in November 1912 for the Northwestern Fisheries Company.

The north side of the entrance to the passage should be favored by vessels on account of the foul area or irregular bottom extending about one mile north from the north end of Lone Island. This area is shown on Hydrographic Sheet No. 3383.

From a position about one mile 348° , true, (N. W. $\frac{1}{2}$ N. magnetic) from the northermost point of Storey Island (Naked Island Group) steer 260° , true, (S. W. $\frac{5}{8}$ W. magnetic) for the highest peak on Perry Island for twelve miles, till the prominent rocks one mile south of the Dutch Group are abeam and distant eight tenths of a mile. Then steer 293° , true (W. $\frac{3}{8}$ S. magnetic) for the southwest tangent of Esther Island for four and one half miles till Point Perry is abeam and distant one quarter of a mile. Then steer 284° , true (W. S. W. $\frac{3}{4}$ W. magnetic) to the entrance to Port Wells.

The only known hidden danger along these lines is the rock, bare at low water, one quarter mile south of Fool Island, but the sailing lines as laid down favor the Perry Island shore thus giving this rock over a half mile berth. Point Perry is steep to. The rocks one mile south of the Dutch Group are conspicuous, rising about five feet above tides as stated above. Esther rock is prominent, rising about fifteen feet above high water. The Peak on Perry Island on which Signal Perry is located, is prominent and easily identified. It is the highest peak on the Island.

Robert E. Tomlin, Lieut. Comdr. U.S.N.

Method of Survey:-

An improved Cosmos Sounding Machine was used, in connection with a Bassnett Pressure Tube, on this work. The pressure tubes were used in soundings up to fifty fathoms, beyond that depth the ordinary registering sheave was used and the steamer was stopped and backed for each sounding and a position determined by sextant angles. Occasionally the steamer was stopped and backed until all headway was off at a sounding less than fifty fathoms in order to check up the sounding tube, a reading being taken of both the registering sheave and the tube. It was found that the tubes checked very closely with the registering sheave and considerable time and labor were saved by their use.

Respectfully submitted,

Gilbert J. Rude.

Assistant, C. & G. Survey.

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Statistics for Hydrographic Sheet No. 3408

Date 1912	Letter	Vol.	Positions	Soundings	Miles, Stat.	Vessel.
July 27	a	1	89	121	24.1	Taku
" 29	b	1	115	162	23.2	"
" 30	c	1	108	139	33.4	"
" 31	d	1	29	28	14.5	"
Aug 1	e	1	66	68	24.0	"
" 2	f	2	157	157	50.5	"
" 3	g	2	54	54	12.3	"
" 11	h	2	158	158	33.9	"
" 13	i	3	83	83	28.5	"
" 21	k	3	31	46	8.8	"
" 22	l	3	9	25	2.5	"
" 23	m	3	11	17	1.7	"
Total			910	1058	257.4	

3403

C. W. G. SURVEY
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Statistics for Hydrographic Sheet No. _____

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" 23	m	3	11	17	1.7	"
Total			910	1058	257.4	

VEC
Feb. 15, 1913.

HYDROGRAPHIC SHEET 3408.

Port Wells Entrance, Prince William Sound, Alaska, by
Assistant G. T. Rude in 1912.

TIDES.

	Culross Bay ft.
Mean lower low water, or plane of reference on staff	5.6
Lowest tide observed " "	2.4
Highest " " " "	20.1
Mean range of tide	9.7

Coast and Geodetic Survey
FEB 17 1913
TIDAL DIVISION

Department of Commerce and Labor

Hyd. 3408

The positions on this sheet were plotted by the field party and accepted as correct, although checked in numerous instances where errors were thought possible.

The work of this sheet was further supplemented by soundings taken from Hyd. 3383, which overlaps Hyd. 3408.

The soundings were plotted in the field, but as no reduction for tides has been made, this part of the work could not be utilized.

In general, the entire work has been systematically arranged, and executed very well.

J. B. Shklem

Verified, J. D. Torrey
5/22/13.

Plotted in fathoms. Tide reductions
made up to 50 fathoms.

J. D. T.

519-13