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S.H.A.
2559
1901

Diag. Ch't No. 8202-1

U. S. COAST AND GEODETIC SURVEY.

O. H. Tittmann, Superintendent.

State: *Alaska*

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DESCRIPTIVE REPORT.

Hydrographic Sheet No. 2559

LOCALITY:

*Port Althorpe and South
Inian Pts.*

1901

CHIEF OF PARTY

J. H. Pratt

2559

MAR. - 2. 1902. 01623

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Treasury Department
U.S. Coast and Geodetic Survey
O.H. Pittman, Superintendent.

Descriptive Report

of.

Hydrographic Sheet

of.

Port Althorp

and.

South Inian Pass

Alaska.

1901

Scale 2000

By the party of

J. F. Pratt, Assistant

U.S.S. Pasterson

Shore line from Plane Table Survey by J. F. Pratt, Assistant

Geographical positions from Triangulation by J. F. Pratt & R. B. Drexler, Assistant

Hydrography by W. G. Appleton^{2nd} & W. J. Fisher, W.O.'s

observers

W. G. Appleton, W.O.; W. J. Fisher, W.O.; J. H. Thompson Asst. Surg.; A. L. Guinn D.O.

Recorders

J. H. Thompson, Asst. Surg.

A. L. Guinn Ch. W.

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1901	Letter	Vol.	Pos	Sdg	Miles	Boat
July 20	Blue a	I	89	278	10.8	"Reynard."
21	b		88	240	16.9	"
Aug 1	c		59	133	11.5	"
2	d		87	181	17.0	"
3	e		35	99	6.0	"
Sept 16	n	<u>III</u>	39	185	6.5	"
17	o		34	128	13.5	"
21	p		49	232	12.0	"
23	q		36	163	6.8	"
24	r		35	131	9.6	"
25	s		14	38	3.75	"
26	t		12	36	20.5	"
27	u		8	25	.5	"
28	v		9	37	1.5	"
Oct: 6	w	✓	48	175	11.0	"
7	x		39	127	12.1	"
8	y		28	141	7.0	"
Total			709	2329	148.40	16

Port Althorp.

Port Althorp is about $6\frac{1}{2}$ miles long and 2 miles wide, near the entrance, narrowing to about $\frac{2}{5}$ of a mile at the head, the longer axis lying SE x S (true). It opens into Cross Sound on the North and North West by three passes, the middle one being that usually used by vessels, the easterly pass is clear and bold while the westerly one though apparently clear shows an irregular bottom.

The channel through any of these passes shows a depth of more than 30 fathoms.

To the Eastward of Three Hill Id. are two groups of bare rocks between the western group and the Island is a shoal showing 100 fathoms and the entire bottom in this vicinity is very irregular.

The bottom generally is irregular, the slope from the low water line being very steep and rocky with the exception of a few places where there are sloping gravel beaches.

The bottom between Gaff Rock and George Id. is foul, showing several breakers in rough weather and deep at slack water while on the Westward of Gaff Rock there are some sunken rocks which make it unsafe to approach closer than $\frac{1}{2}$ of a mile.

Just inside the Eastern entrance in the East shore is a small cove well protected that may be used by small vessels seeking shelter, there is also fresh water to be had there.

About five miles from Point Lavinia in the East shore is another cove from which a narrow gulf extends about a mile inland in an easterly direction, the cove itself is too deep and the gulf too narrow and shallow to be of any service for anchorage. 2 1/4 miles from Point Lucas is an abandoned valley on a gently sloping track to the head of which is a beach showing 12 to 15 fathoms where anchorage can be had.

The head of Port Althrop is well protected having a gentle sloping beach and affords good anchorage in about 16 to 19 fathoms, there is little or no drift ice.

South Indian Pass is about 3/5 of a mile wide at the narrowest part - the West end - and is 2 3/4 miles long showing from 30 to about 70 fathoms of water in mid-channel. There is a road extends about 100 yards off Point Lavinia in a N.W. 1/4 direction which breaks at low water with a heavy swell. Two Roads on the North side and South Road on the South side are both well clear of the track of vessels. There is a moderate amount of ice drifts through this pass at certain times.

The currents are strong and cause rather dangerous tide rips and whirls especially near the west end.

Current observations were made as shown by the accompanying current sheet, and it is fair to suppose that at times the velocity reaches at least a knot more per hour than that observed (about 5 knots). All the roads mentioned except the one

off Point Lavinia are marked by deep which shows at least water
 The small passages between the Inian Islands were partially
 developed but showed nothing of advantage of navigation
 The sounding was done in the Steam launch "Rayward" with
 a sounding machine except in a few places such as the head
 of Port Althorp where in the shallow water a lead line
 was used. The chief difficulties experienced being the incessant
 rain, and strong currents and tide rips in South Inian Pass
 where work could only be done at slack water

This report was compiled by Mr R. J. Christian, Draftsman and
 revised and corrected by Mr W. G. Appleton 1st W. O. U.S. Patterson

Respectfully submitted.
 H. F. Flynn, Asst. Comd'r.
 In Chg. Port-Office.

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REPORT
on
HYDROGRAPHIC SHEET NO. 2559,

Cross Sound,
Port Althorp and South Inian Pass,
Alaska,
Assistant Pratt,
1901.

"Water levels" from Funter Bay gave a plane about one fathom too low. The record of more than a lunation at Granite Cove (on working ground) being disregarded.

All soundings were erased from the sheet, corrected for tide and replotted.

Junction lines of sheets poorly selected; overlap not reconciled; shoreline, low water mark and other features from topographic sheets transferred in a very careless manner. Limits of topographic sheets seem to have been adopted in laying out hydrographic sheets, in order to avoid enlargements or reductions. Current observations did not give stage of tide.

Some rational rule for fractions should be adopted and followed consistently. Position numbers and letters too large and obstruct sounding lines. Sounding figures too large, poorly formed and ink brown, not black.

More soundings should be plotted.

Except error in plane and crudeness of smooth sheet, the work is good.

J. T. W. (Signed)