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Treasury Department,
U. S. COAST AND GEODETIC SURVEY.

H. S. Pritchett

Superintendent

State: *Alaska*

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DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2502*

LOCALITY:

Prince William Sound

Head of Cordova Bay

1900

CHIEF OF PARTY:

Homer P. Ritter.

2502

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Jan. 11, 1904

FILE
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Descriptive Report
to accompany
Hydrographic Sheet No. 2502

Homer J. Ritter
Assistant

Title:

Treasury Department
U.S. Coast and Geodetic Survey
Henry J. Pritchett, Superintendent.
Hydrography
Head of Cordova Bay
Prince William Sound
Alaska

Party of Homer P. Ritter, Assistant
July 7, 9, 10, 11, - Oct. 8, 1900.
Scale $\frac{1}{20000}$

Observers:

Homer P. Ritter, Asst.
H. C. Denson, Aid. - Dr. H. M. W. Edmonds
H. Bernhardt - Recorder
Chas. Eklund - Leadsman - Chas. Fick - Coxswain
John Labranz - Tide Observer

Plotted by H. P. Ritter, Assist.
Verified by J. J. Watkins

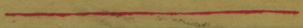
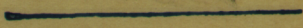
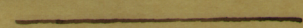
Statistics

Date	Letter	Number of				Vessel
		Vol	Angles	Soundings	Geog. Miles	
July 7	L	2	56	233	9.9	Gasoline Launch
" 9	m	2	58	198	11.6	" "
" 10	n	2	52	98	11.0	" "
" 11	o	2	51	201	10.8	" "
Oct. 8	Z	4	64	64	1.2	" "
Total	5	2	281	794	44.5	18 □ Miles

Note: The soundings are expressed in feet and show the depth at the plane of reference (Harmonic Tide Plane for this region) This plane is 8.4 feet below Mean Sea Level - 3.5 feet below Mean Low Water - 13.2 feet below Mean High Water.

The plane of reference reads 1.2 feet on Camp April Tide Staff and 5.7 feet on the Orca Tide Staff.
Mean rise and fall of tides - 9.7 feet

For description of Tide Staffs - B.M.s. - reduction of soundings etc. see Tide and Sounding records, Prince William Sound - 1900.

The 12 foot curve is shown thus 
 " 18 " " " " " 
 " 24 " " " " " 

Dotted shore line and soundings in blue (reduced to plane) from Survey made in 1897 by Lieut. Commander J. F. Moser, U.S.N., commanding U.S.F.C. Str. Albatross.

Hydrographic Sheet No. 2502. joins Hyd. Sheet No. 2328 and embraces the upper end of Cordova Bay from Talmo Pt. to the head of the bay.

The survey was executed principally to show and develop the channelway extending from the vicinity of Talmo Pt. along the western side of the bay towards the head as far as and around the northern extremity of North Island; thence to the eastern side of the bay into Cordova Inlet.

The distance from Talmo Pt. to the head of the bay is about $5\frac{1}{2}$ nautical miles.

The width of Cordova Bay at its head is from a mile (naut.) to $1\frac{1}{4}$ miles; from here to the northern end of North Island, distant 4 miles, the general trend of the bay is southwesterly (true).

at North Island, where the bay is a little over 2 miles wide it separates into two forks, one

passing between the mainland and the northern shore of Hawkins Island and extending from Salmo Pt. towards the westward empties into the main body of Prince William Sound. The other fork known as Orca Inlet, takes a more southerly direction and after passing between the mainland and the eastern shore of Hawkins Island and farther on between the eastern end of Hinchinbrook Island and the sand and mud reefs at the western extremity of the Copper River Delta country, empties into the ocean direct.

The head of Cordova Bay is flanked on both sides by high mountains, with steep and precipitous sides coming down to the waters edge, forming a comparatively narrow valley which extends some distance inland beyond the head of the bay and terminates in several glaciers; the remnants of a receding glacier which once filled the entire valley.

Several large and swift flowing streams having their origin in the glaciers at the head of the valley empty into Cordova Bay at the upper end. The debris brought down by these streams has formed extensive mud and gravel flats which here fill the bay from side to side and extend out for nearly a mile where they generally terminate abruptly and have a steep seaward slope.

The mountain slopes on both sides of the bay are densely wooded with hemlock spruce and alder. Numerous mountain streams often consisting of a succession of waterfalls empty into the bay.

The eastern and western shore in general is rocky; the beach consisting of fragments of rocks from a foot to many yards in diameter, covered below the mean high water line with kelp. These rocks have broken off and rolled down the mountain sides. Here and there a small

Shingle beach is found.

Wherever a stream enters the bay a delta, composed of rocky debris brought down from the mountain, is found close to shore; the size and fall of the stream determining the extent of the rock pile.

These general features of the shoreline are shown on the sheet.

In the bay to the northeast, east and southeast of Talmo Pt., at the junction of Cordova Bay proper and Orca Inlet, there is an area of about 2 sq. miles in extent in which are found two islands (north^{ew} Observation Ids.), numerous rocks and extensive shoals. North Island forms the northwestern and Observation Id. the southwestern extent of this area.

North Island. lies northeast from Talmo Pt. the southern end of the island being one mile distant from the Point.

The island is a little over $\frac{3}{8}$ of a mile long and 250 yards wide.

The island is low and densely wooded, (spruce ^{and} hemlock); has a rocky shore, deep water close to the western side and shallow on the eastern side where it joins the northern limit of a shoal extending to the eastward two thirds of the way across to the eastern side of the bay. A little less than $\frac{3}{8}$ of a mile north of East of the northern end of the island is a small isolated rock which shows only at low water.

Observation Island.

The northern end of this island is $1\frac{1}{2}$ miles southeast of Jalmo Pt., the island is about $\frac{3}{4}$ of a mile long and $\frac{1}{2}$ a mile wide. The island is comparatively low, densely wooded and has a rocky shore. About $\frac{1}{2}$ way between the northern end of the island and the southern end of North Island is a rocky ledge known as North Rock. This ledge is covered only at extreme high water. A few hundred yards

north of the northern end of Observation Isld. is a rocky ledge known as South Rock; this ledge does not show at ordinary high water.

Steamers coming up Cordova Bay, and bound for the canneries at either Orca or Odiak, when they arrive at Salmo Pt. have the choice of 3 channels for getting into Orca Inlet; One around the northern end of North Island; one between North Isd. and the northern end of Observation Island and the other between Salmo Pt. and the western side and around the southern end of Observation Isld.

The first one is longer in distance but has greater depth of water than the other two and allows large ships to proceed at any stage of the tide; this channel since pointed out and developed by the Survey is becoming extensively used by strangers and vessels of large draft not wanting to wait

for high water stages; they using the Coast and G. Survey published chart for a guide.

The other two channels require local knowledge and consideration of the tides.

The channel between North and Observation Island is the one generally used by the mail steamers who generally time their runs so as to pass here at high stages of the tide.

This channel and the one around the southern end of Observation Island is described in U.S. C. & G. Survey Bulletin No. 38. In this description "Salmo Point" is called "Hawkins Island Pt."

The name "Salmo Pt." is the one most generally used locally and by mariners.

Homer P. Ritter

Asst. C. & G. Survey.