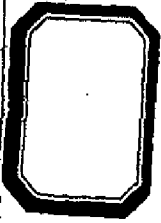


2746a  
2746 A

See H-3912  
See H-3939



2746a

See H-3912  
See H-3939

Form 504  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

State: \_\_\_\_\_  
11-5613

DESCRIPTIVE REPORT.

Sheet No. \_\_\_\_\_

LOCALITY: \_\_\_\_\_

\_\_\_\_\_

191

CHIEF OF PARTY: \_\_\_\_\_

Top. 2746a

Top. 3637

" 3638

" 3639

" 3640

" 3641

" 3656

" 3657

~~" 2746a~~

Top. 3911

" 3912

" 3939

" 3940

" 3941

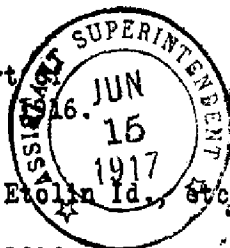
" 3942

" 3943

General Descriptive Report  
Work of Steamer PATTERSON,

Kashevarof Islands, West Coast of Etolin Id., etc.

orders dated February 4, 1916.



SURVEY  
JUN 15 1917

FIELD RECORDS

PHOTOGRAPHY, etc.

The work of the party was scattered over a considerable area. In this descriptive report I shall describe by localities as an addition to the various descriptive reports of each sheet.

KASHEVAROF ISLANDS AND PASSAGE

The re-survey completed this work from Coffman Cove and Point Colpoys. A junction was made with the work of E. F. Dickens in Lake Bay and junction with work of L. O. Colbert and J. A. Daniels at Point Colpoys and Zarembo Island.

From Coffman Cove to Lake Bay the coast is low and is densely wooded. The foot hills begin from 3 to 8 miles in the interior and rise rapidly to heights of two to three thousand feet. Numerous slues and lakes are reported between the coast and the mountains. A few corrections were made along the shore line which corrections should be made on chart 8160. For example, the high water passage from Coffman Cove westward is not continuous as shown on 8160. See Captain Daniels' sheet and modifications of Captain Dickens' sheet (corrections were made on photo copy and forwarded during the summer).

Top. 2746

" 3639  
" 3640  
" 3641

Hyd. 3912  
" 3940  
" 3943

LAKE BAY is a small bay about 1 mile deep by half a mile wide. A cannery operated by the F. C. Barnes Co. of Portland, Oregon is at head of bay. The bay is open to northerly breezes and sheltered from southerly and southeasterly gales. The cannery employees inform me that northerly breezes rarely strike home in this bay and that it is an excellent shelter at all times. The anchorage is contracted with numerous rocky ledges on the eastern side. In SE. gales a heavy swell runs by the buoy and at Keg Point, while only a mild swell reaches the anchorage.

A narrow passage extends from Lake Bay to Whale Passage and separates Stevenson Island from Prince of Wales Island. This passage is very contracted and numerous rocks obstruct it. It is almost bare at low water. A very strong tidal current runs through the passage and the rapids make it dangerous except at high water slack and local knowledge is required to navigate this passage.

A long series of brackish water lakes are accessible through this passage and hence the name Lake Bay. Considerable fishing is in progress in the lower lake.

The lower lake is connected with a middle lake by a rapids known as Dead Man's Riffles. Tradition tells of an Indian Canoe striking a rock in the riffle and all hands being drowned.

The middle lake connects with the upper lake through another dangerous rapid. The upper lake is reported deep. The water is almost fresh though the tide backs up and raises its level several feet. It is about 10 miles long by  $1\frac{1}{2}$  to 2 miles wide. A rough sketch is attached but no opportunity was afforded to control the sketch.

The lower lake was run in by Planetable survey and the Dead Man's Riffle located.

The passage from the lower lake into Whale Passage is also very contracted and dangerous rocks are in the rapids. Passage may be made at high water slack with local knowledge.

To run either rapid at half or low tide is very likely to result in injury to boats and probable loss of life.

STEVENSON ISLAND is densely wooded, is comparatively low with numerous rolling hills, elevation two to four hundred feet high.

WHALE PASSAGE separates Thorne Island from Stevenson Island and from Prince of Wales Island. It is about 10 miles long and  $\frac{1}{2}$  mile wide. The depths are about 10 fathoms. Numerous pinnacle rocks are in the passage and make it unsafe for navigation. Fishing boats with local knowledge use this passage during the summer.

A group of wooded islands contract the passage near its northern end. Reefs extend off the islands and almost block the passage.

THORNE ISLAND is about 5 miles long by 3 miles wide, it is densely wooded and low with rolling hills of three to four hundred feet high.

Northward from Whale Passage, Prince of Wales Island is low with a fringe of foot hills several miles inland. Numerous reefs extend off the shore particularly about the southern part of Exchange Island.

EXCHANGE COVE is a narrow indentation in the Prince of

## Descriptive Report (con't)

Wales shore. It is about 300 yards in width and about two miles in depth. Bottom is sticky and holds well. The tidal current rarely exceeds one knot. The head of the bay is shoal and flats extend for a couple of miles from the head. A low pass extends from Exchange Cove towards Whale Passage.

Between Fire Island and Salmon Cove the shoreline is broken with numerous inlets. These inlets are narrow and have dangerous rapids and lead to lagoons of considerable size. A salt water lagoon connects with Salmon Bay at high water and pulling boats may make the passage at extreme high tide.

SALMON BAY is a narrow bay about 150 yards wide and half a mile deep. Fishing boats find shelter here and a number camp here during the summer fishing season. The bay and anchorage is too contracted for use by moderate sized vessels.

ISLANDS.

ROOKERY ISLANDS are double and heavily timbered, are low, height to tree tops about 125 feet.

TIDE ISLANDS - small and double, heavily timbered, height to tree tops about 125 feet.

FIRE ISLAND - small; timbered, height to tree tops about 140 feet. Rocky ledges extend westward and southward from Fire Island. The southern ledge has a green knob about 10 feet above high water near its end.

ECHO ISLAND - wooded, about 140 feet high to tree tops. A number of small islands lie near it.

EXCHANGE ISLAND - wooded, about 200 feet to tree tops. Passage at south end is obstructed by reefs extending to eastward.

A Wooded Islet, about 140 feet to tree tops marks the eastern edge of these reefs.

MIDCHANNEL ISLAND (so called in this report) lies in the channel between West Island and Prince of Wales Island. It is low and partly wooded.

KASHEVAROF ISLANDS comprise the group lying on the east side of Kashevarof Passage and extend from BUSHY ISLAND to BLASHKE ISLAND.

BUSHY ISLAND is heavily wooded, reefs extend off its shores on all sides.

SHRUBBY ISLAND is densely wooded.

WEST ISLAND is wooded. The SW. shore is a steep

bluff about 100 feet high.

MIDDLE ISLANDS include a number of wooded islands with passages suitable for gas boats between them.

EAST & BLUFF ISLANDS are wooded.

BLASHKE ISLAND is in reality a group of islands and should properly be called Blashke Islands. The passages between the islands are deep but foul and shoal at the entrances. The most notable feature of the group is the rounded knob at the SW. corner of the group. This knob is wooded and some five or six hundred feet high. Each island of the group is wooded.

ROSE ISLAND is wooded.

BECK ISLAND is wooded.

BUSH ROCK or GUIDE ROCK is grass covered and is about 20 feet high.

ROSE ROCK is a bare rocky ledge.

BARNACLE ROCK is a bare rocky ledge, bare about 5 feet.

GULL ROCK is a bare rocky ledge about 4 feet high.

THE TRIPLETS are a wooded group with an ugly looking reef lying to eastward.

#### DANGERS

The dangers shown on chart 8162 are not detailed.

SEAL ROCK bares.

Numerous rocks and reefs bare northward of Rose Rock, and Rose Island and make this passage unsafe.

A number of indications of irregularity were found between West Island and Bush Rock but were not developed as the wire drag was to sweep this section. The drag party, (Wire Drag Party No. 3), found a number of reefs of depths between 25 and 30 feet, for which see drag sheet.

A ROCKY reef extends off Midchannel Island to northward.

A ROCK which bares at minus tides, lies between Fire and Echo Islands, and ANOTHER ROCK lies half a mile toward Echo Island.

A number of REEFS were found between Rookery Island and the Prince of Wales shore. (see the sheet)

#### CHANNELS

The Coast Pilot sailing directions to enter Lake Bay passing south of Beck Island, are good.

A safe passage is to be had midway between Beck Island and The Triplets if bound toward Exchange Cove. Likewise

## Descriptive Report (con't)

safe passage from Lake Bay toward Exchange Cove can be had by passing  $\frac{1}{4}$  mile on west side of Bush Rock. The course passes about a mile off the most eastern point of Thorne Island and a mile off of West Island. The clearest water lies east of Midchannel Island and courses should be laid on the sheet. The course leads immediately north of Exchange Island, then west of Fire Island, heads for Tide Islands until within one or two miles of Tide Islands, then on either side of Tide Islands, but, if on the east side, keeping at least a mile off Bushy Island.

OSSIPEE CHANNEL is contracted and there is a strong current. This channel is not recommended. The channel immediately south of Shrubby Island is comparatively open and clear except at the western end. It is not recommended as the channels by way of Lake Bay or by Snow Pass are not materially longer.

The channel through Kashevarof Passage was not dragged in the most suspicious parts; viz., the narrow section from Fire Island to West Island. The tidal currents are very strong, reaching velocities of 4 to 6 miles with numerous swirls and rips. The hydrographic development was quite close.

Gas boats from Lake Bay to Wrangell pass between Rose Island and Rose Rock and avoid rocks until a straight course can be made for Steamer Point. In SE. weather a very heavy sea is always encountered in vicinity of Rose Island and for several miles on either side. In such weather small boats can make a smoother though longer passage by passing west of Blashke Knob and East Island and then by way of Steamer Point.

The prevailing winds are SE. and in the winter cause a heavy sea in Clarence Strait. The sea enters the lower part of Kashevarof Passage and the entire open section south of West Islands becomes very rough for small boats.

ANCHORAGES

Lake Bay is a secure anchorage in southerly weather.

Exchange Cove is a snug though contracted anchorage.

Vessels of moderate size can find shelter in the lee of the cove on North side of Bushy Island, anchoring in 17 fathoms, sticky bottom (if in right place), and out of the strength of the current. There are two isolated rocks in the cove which prevent anchoring as close to shore as otherwise would be desirable.

## Descriptive Report (con't)

Tidal currents are strong in the passages between West Island and Prince of Wales Island, and strong between Fire Island and Prince of Wales Island. Stronger currents run between Fire and Echo Islands. Strong currents are met between Rookery Islands and Prince of Wales Island.

Strong currents are to be expected in Snow Passage and the maximum current is in the vicinity of the light.

SETTLEMENTS, ETC. Lake Bay is the only settlement. A salmon cannery is operated in the summer. Fresh water of a doubtful quality is piped to the wharf during the summer. There is a store at which limited quantities of supplies may be obtained. Likewise, a cannery and small store is at Burnett Inlet. Wrangell is the general supply station for the locality.

WEST COAST ETOLIN ISLAND

A detailed survey was made from Point Harrington to Point Stanhope. The sheet gives all information. Small vessels can avoid the swell of Clarence Strait by keeping inside Screen and Marsh Islands. There is a bay offering good shelter for small boats back of Screen Island.

Dep. 3638  
Hyd. 3911

ROCKY BAY

is very foul with many rocky ledges and pinnacle rocks. Local knowledge is required to reach any part of the bight.

Dep. 3638  
" 3657  
Hyd. 3941

MOSSMAN INLET

Mossman Inlet was not surveyed this season.

Dep. 3657

BURNETT INLET

Is the location of a cannery and cannery store, operated by Sanborn & Crane of South Bend, Oregon. The upper part was not sounded out. It is small and very deep and does not offer suitable anchorage. A fine watering stream is on the east side and some four miles from the mouth.

Dep. 3657  
Hyd. 3941

McHENRY INLET

is deep. There are numerous scattered rocks off the islands at the entrance. A safe channel is shown on the sheet and excellent anchorage in 25 fathoms, sticky bottom is found some four miles inside.

Dep. 3657  
Hyd. 3941

McHENRY ANCHORAGE

is small and contracted. The condition of the work did not permit a re-survey.

Sup. 3617

DEWEY ANCHORAGE

was not sounded. The shore line was re-surveyed without material changes. The anchorage is not desirable. Bottom is rocky and irregular. A current of about two knots runs through the passage between Onslow, Stone and Etolin Islands.

Sup. 3636

These passages are in considerable use by cannery tenders and were sounded out. The passages are safe with the use of the chart. Attention is called to the two dangerous rocks which bare at low water and lie mid-channel respectively between Onslow Island and Stone Islands and between Stone and Etolin Islands.

Hyd. 3942

ERNEST SOUND

Only triangulation was carried up Ernest Sound.

Santa Ana Inlet is the location of a cannery operated by the Northwestern Fisheries Co., Seattle, Washington. The inlet is contracted with scant swinging room, bottom is soft. The local reports were that gales do not strike home. However, the general topography and very steep hills back of the cannery would lead one to expect violent williwaws.

A cannery is located in the bight one mile south of Point Warde. This bight is very contracted and deep. There is no anchorage. It is claimed that no sea reaches the wharf. Excellent water may be had at both Point Warde and Santa Ana canneries.

Eastern Passage and Blake Channel were surveyed by the wire drag party of L. O. Colbert.

A safe channel was found and vessels may use this passage keeping mid-channel courses.

ZIMOVIA STRAIT

connects Stikine Strait and Ernest Sound.

It is in considerable use by cannery tenders between Wrangell and Ernest Sound and, being about ten miles shorter, is used in preference to the safer and clearer passage by way of Eastern Passage and Blake Channel.

Sup. 3637

Hyd. 3939



## Descriptive Report (con't)

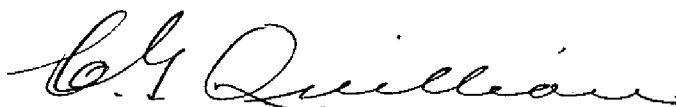
A triangulation was carried through Zimovia Strait to control the survey. However, the end of the season prevented a complete survey and the survey amounts to a reconnaissance of the narrow and dangerous part of the channel, which is in the vicinity of the deserted village or "Old Town". There are a number of pinnacle rocks, the bottom is uneven and kelp grows profusely in the late summer. Kelp grows over the channel and is not of assistance in avoiding rocks. Also the most dangerous rock which is about mid-channel and near the deserted village, is "baldheaded" or without growing kelp. The best course is to follow the Wrangell Island shore and the chart.

Anchorage may be had in Olive Bay or off Olive Bay in 10 to 15 fathoms, soft bottom. The SE. breezes do not strike very hard in Olive Cove while they blow strong through the channel and still stronger out of Anita Bay.

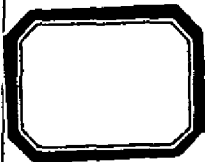
THOM'S PLACE or TOM'S PLACE is very contracted at entrance and many reefs are exposed at low water. It cannot be recommended until surveyed.

The cove on the south side of the strait near the Ernest Sound entrance affords a good and convenient anchorage in 15 to 17 fathoms, soft bottom, in the center of the bight and seems sheltered from all breezes.

Respectfully submitted,



Assistant C. & G. Survey,  
Commanding Str. PATTERSON.



2746<sup>A</sup>

C. & G. SURVEY  
L & A  
NO. 25 ME  
Acc. No.

Form 504 <b>DEPARTMENT OF COMMERCE</b> U. S. COAST AND GEODETIC SURVEY
State: _____
11-5613
<b>DESCRIPTIVE REPORT.</b>
Sheet No. _____
LOCALITY:
_____
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_____
191
CHIEF OF PARTY:
_____

POST-OFFICE ADDRESS: U. S. S. PATTERSON, Wrangell, Alaska.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

2746 A  
DEPARTMENT OF COMMERCE

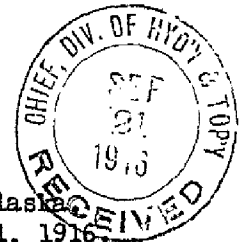
U. S. COAST AND GEODETIC SURVEY

Steamer PATTERSON



CHARTS (S) 2746

Top. 2746 a



McHenry Inlet, Alaska  
September 11, 1916.

To the Superintendent,  
Coast and Geodetic Survey,  
Washington, D. C.

Sir:

Enclosed please find tracing of corrections to Topographic Sheet No. 2746. The shore line in black is that run in this correction, the old survey connections in red and projection same as sheet 2746. The work was executed on photo copy of sheet 2746.

Charts 8162, 8160 and 8200 show a high water passage connecting Lake Bay with Coffman Cove. At various times a number of gas boat men have mentioned that no such passage existed.

I had the corrections shown run in at an opportune time and connect on the west side of Coffman Island with the plane table work of Assistant Daniels this year.

Coffman Cove extends a considerable distance, terminating in slues in a considerable meadow and is shown on Assistant Daniels' sheet.

Respectfully,

Assistant, C. & G. Survey,  
Commanding Str. PATTERSON.