# 3933

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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. Office No.H=3933

LOCALITY

State ALASKA

General locality SOUTHEAST ALASKA

Locality WEST COAST OF DALL ISLAND

194/16

CHIEF OF PARTY

F. H. Hardy

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DATE MARCH 3, 1917

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Coast and Geodetic Survey,

E. Lester Jones, Superintendent,

A Descriptive Report To Accompany Hydrographic Sheet No. (4) 3933

West Coast of Dall Island,

West Coast of Prince of Wales Island,

S. E. Alaska.

September 1916

By Party on Steamer "ECPLORER"

F. H. Hardy, Assistant, Chief of Party.

## Limits:-

This sheet includes the inshore hydrography of the West Coast of Dall Island from Port Bazan to Cape Augustine between tatitudes  $54^{\circ}-48^{\circ}$  and  $54^{\circ}-57^{\circ}$  North and between longitude  $132^{\circ}-59^{\circ}$  and  $133^{\circ}-11^{\circ}$  West, including the hydrography of Waterfall Bay, done on a scale of 1/20,000. The off shore limit of the hydrography is a straight line drawn from one nautical mile off  $\Delta$  Cape to pass one nautical mile off  $\Delta$  Bazan. The work is continued on this sheet to the southern entrance to Port Bazan. The lines are three hundred meters apart between the bays and two hundred meters apart off the entrances to the bays Waterfall Bay is sounded out by a system of one hundred meters lines.

General Description: -

The coast is very rough, the mountains being steep usually down to the beach, which is in nearly all cases bare rock.

The points are lower with irregular hills.

The most prominent land mark is the twin peak at the head of Waterfall Bay which is described in the topographic descriptive report. The slide at the north side of Gold Harbor is very prominent and is also taken up in the topographic report.

Gold Harbor is not only easily identified by the above mentioned slide but also by the rocks which make off the South side, inside the bay near the entrance, and on the outer and higher of which

Gooseneck Harbor is easily identified by the black rock just south of the entrance 65 feet high. In thick weather small boats might mistake the bay just south of Gooseneck for the entrance to Gooseneck but this can be avoided by picking up the rock islands in the entrance to this bay.

The entrance to Port Bazan is distinguished by the sharp pointed rock on which  $\Delta$  Bazan is located and which is described in the topographic descriptive report of Port Bazan.

The entrance to Waterfall Bay is very distinctive having a bold bare point at its south entrance on which  $\delta$  High is located and having the wooded island in the center of the entrance from which the bare rocks, on which  $\Delta$  Water is located, run to seaward, which rocks are black and not easily confused with others. On the north side of the North entrance is located the small low rock about 200 meters off shore which seems further to identify the bay when one is at the entrance.

Cape Augustine is a bold point rising sharply from the water with off-lying bare black rocks, which after reaching a height of 500 feet slopes up gradually to the east-ward.

#### Currents and Tides: -

The tide floods to the north along this coast. At the entrance to the bays, close in there are of course, local currents.

A crate, with practically no wind surface was thrown over board about seven miles S. W. (mag.) from the entrance to Waterfall Bay. In twenty-four hours of practically calm weather it drifted to the entrance to Waterfall Bay.

## Inshore Dangers: -

The most important dangers on this sheet are those in the entrance to Port Bazan and Waterfall Bay. That in the entrance to Port Bazan is located 800 meters West (Mag.) from A Bazan. On this shoal a least depth of five fathoms was found but the shoal covers a considerable area and although it was thoroughly sounded out and less water was felt for, there is very likely to be shoaler water here. The spot should be wire dragged.

The shoal in the entrance to Waterfall Bay lies 800 to 900 meters north and north by west (mag.) from A Water, making off the rock on the north side of the channel on which O Cot is located and extend-

ing out into mid-channel. This shoal has a considerable area of ten and twelve fathoms water and was quite well sounded out but nothing less than ten fathoms was found. Judging from the formation in this locality, it is very likely place for a pinacle rock. Owing toweather conditions it was not sounded as thoroughly as it would have been if circumstances had been different and but very little feeling was done. It should be wire dragged before this entrance is recommended for large vessels.

The shoal lying about 800 meters V. x. S. (mag.) from  $\Delta$  Water covers a large area and should also be dragged.

Other indications off shore on this sheet were not developed; on account of the lack of time and the weather and launch trouble, there was no opportunity to do so. These may be found on the boat sheet which should be furnished the party continuing the work. For about three quarters of a mile off the beach the bottom is very lumpy and there are several twenty to thirty fathom spots which should be developed.

The thirty-four fathoms spot 2400 meters south (mag.) from A Water should be developed.

Close inshore, breakers are numerous but they are all very close to the beach and are indicated by kelp which is heavy in this locality. The out-side coast line of this sheet might be said to be clear, if nothing further is found when development is done.

#### Anchorages: -

For description of anchorage in Port Bazan see descriptive report of that sheet.

## Waterfall Bay: \_

The only other harbor for large vessels on this sheet is later-fall Bay, which was sounded out with launch 117. The south entrance to this bay was not sounded for the same feason as was given for not developing all indications. This entrance appears to be clear and was used by COSLOS but no soundings were taken. The North entrance should be dragged, as should the shoal West of A Water before it is recommended for large vessels. Sailing directions for entering will be found in the seasons report. On low water springs, with a heavy ground swell the COSLOS was run out-side and both entrances to Waterfall Bay watched for breakers, but nothing was found.

Anchorage may be had in the center of the head of the bay as shown on the boat sheet in 27 fathoms of water, sticky bottom. Heavy Westerly weather draws through the bay and strikes this anchorage with considerable force but it is protected from the sea. It is reported that in heavy 5. E. weather willywahs are severe here, coming from the twin peaks.

1800 meters N. E. (mag.) from A Water is a small shoal area marked by a small kelp patch on which a least depth of 8 fathoms and three feet was found by feeling with a hand lead.

The area around O Rock should be avoided as it is foul.

In the narrows near the head of the bay between  $\mathcal{O}$  Sig and  $\mathcal{O}$  Fol the twenty fathoms curve makes well off shore, but was undeveloped. The mountain on the north side at this place is a sheer cliff and this shoal spot might have been caused by a slide and should be dragged.

For small boats there are two anchorages commonly used in Waterfall Bay. The first is on the North side just Mast of the islands behind which the first prominent Waterfall comes into the bay. It is just off O Day. Anchor in nine to ten fathoms or less. If one wishes to get closer to the islands with a small launch he can anchor in five. The bottom is rocky with some mud at about ten fathoms. This anchorage is protected from the sea and some winds but we never had occasion to use it in S. E. weather. Between these islands is a small float, shown on the topographic sheet, which small launches might be secured to. On one of the smaller islands is a small temporary wharf which can be gotten to at high water with a launch. Could not find out the purpose of this float and wharf. The place may have been used as a head quarters by some fishermen or they may have been built by the owners of the marble claim in this bay.

The other small boat anchorage is at the extreme head of the bay in the center of the small bight on which • Shak and • Ho are located. Anchorage may be had here for a fifty foot launch with plenty of swinging room in five fathoms muddy bottom. Westerly winds draw through here but the willywahs from the twin peaks, which are reported in S. E. weather are said to blow over this bight.

Water in Waterfall Bay can best be obtained at the first and prominent waterfall on the north side. A small launch can be run close enough to the falls to use a hose or spout. The large waterfall at the head of the bay is not as convenient on account of the suction near the fall and the shoal water there.

## Gold Harbor: -

This bay is open to the S. 7. and when the swell is from that direction it makes into the bay. No anchorage suitable for ships was found. A few soundings were taken by the COSMOS which showed the depth to be about thirty fathoms in the inner half of the bay. Off the island on which  $\hat{\mathcal{O}}$  Sou is located 36 fathoms was found and off  $\hat{\mathcal{O}}$  Rut 21 fathoms. The bottom is generally rocky. An attempt was made to find an anchorage on the north side about three quarters of the way in where a little shelter might be obtained from the points. The water is deep and bottom rocky however.

Anchorage for a launch in good weather may be had at the head of the bay where the anchor is shown on the boat sheet. It lies just off the small sand beach which is prominent from the water. Anchor in about seven fathoms, muddy bottom. It is said that some little shelter can be obtained by a small boat if anchored in the kelp just east of the island on which © Sou is located. This was not investigated.

In entering Gold Harbor, the rocks on which  $\odot$  Rut is located should be left about 150 meters on the starboard hand and a straight course should be steered to clear the island on which  $\odot$  Sou is located. After this a mid-channel course looks best. The North side after  $\odot$  Sou is passed appears to be better than the South side. At the entrance, the North side is very foul, there being a number of rocks which were located on the topographic sheet and a heavy kelp bed which extends along the North shore for about three quarters of a mile inside the entrance and reaches about a quarter of a mile off shore.

No good place to take water was found here. There is a good stream on the south side, half way in, in the bight behind @ Tuk, but it is hard to get at.

#### Gooseneck Harbor: -

There is excellent shelter here for boats up to about one hundred feet, with a good anchorage, but vessels much larger than that would have to be moored as there is hardly swinging room.

Just within the entrance there are two dangers, the rock off the North side has a breaker off from it but is very close, and on the South side is the breaker 150 meters W. S. W. from the island is seen on entering. This breaker is awash at low water springs and is and is marked by a heavy kelp bed. It breaks at about half tide with an ordinary swell. Boats entering should approach from the West and passing mid-way between this breaker and the rock should favor the North shore. The breaker about three quarters of a mile inside the entrance in the middle of the bay usually shows and is marked by kelp. Follow the North shore all the way in. When the islands by O Den are reached a mid-channel course is followed leaving the small kelp patch between O Den and O Dou on the port hand. The best anchorage is in the posttion of the anchor off O Hut, on boat sheet. Anchor here in 8 to 10 fathoms, muddy bottom. There is a small hut on the heach about 70 meters West (mag.) from O Hut.

The salmon saltery in Gooseneck was built and operated this this season and is shown on the topographic Sheet. The channel to the saltery is narrow and should be used with caution. The course is shown on the boat sheet. The dock at the saltery nearly bares at low water.

The bay North of  $\bullet$  Bok and  $\bullet$  Hut was not entered with the launch. The West entrance by  $\bullet$  Hut is very foul and the East entrance is also foul but some small boats do go through this pass to anchor inside. There are several low water rocks in the East pass just inside of  $\bullet$  Bok.

The kelp patch between  $\odot$  Den and  $\odot$  Dou is approximately located on the boat sheet. A sounding of ten fathoms was taken just South of it. The depth inside in the clear water about the anchorage is about ten fathoms with muddy bottom. Very few soundings were taken.

There is a pipe line at the saltery dock and at about half tide, water may be taken there by launches.

The large bay just South of Gooseneck Harhor was entered only with the skiff. It is, in general, very foul but it looks as though a launch could find a protected anchorage inside if necessary. The only passage that appeared at all good is shown in pencil on the boat sheet. It is on the South side, keeping in mid-channel and leaving the rock in the center on the starboard hand, then mid channel. This is only mentioned as a possible anchorage for no soundings were taken and the place looks very foul with numerous rocks and kelp patches.

The small bay just North of. Gold Harbor is foul with numerous kelp patches and rocks. It was not entered with a launch.

## Notes on Anchorage by Cape Lookout: -

The bay just North of Cape Lookout and between that Cape and Juel Point was entered by the COSMOS and two anchorages were located for launches. The few soundings taken would indicate that the water is very deep inside but lumpy at least off the entrance. A tracing of the bay, taken from chart 8150 is attached and the position of the anchorages shown. Beside the stream by the Southern anchorage is a well built camp. Off this camp anchor in about seven fathoms, muddy bottom. Keep out of the kelp because it grows on a shoal at this point. The point just West of this anchorage should be well cleared. This anchorage is protected at least in ordinary weather and is allright for launches.

The other anchorage is shown in the North arm and is in 9 tp 10 fathoms of water, muddy bottom, just off a Shingle beach. No sea could reach this place but S. E. wind might hit it. The approximate course run by the COSMOS is shown by dotted line.

There are two or more copper claims on the mountain above the lake.

Respectfully Submitted,

Assistant, C. & J. Survey,

Approved and Forwarded.

Assistant, C. & G. Survey, Commanding Stmr. "EXPLORER"

To tonday

7 Fms. M

5 bitch from charl 110. 8150 showing anchorages for launches, used by Cosmos. 1916



# HYDROGRAPHIC SHEET 3933.

West coast of Dall Island, Southeast Alaska, by party of Assistant F. H. Hardy in 1916.

## TIDES.

	Craig, Alaska. Feet.
Mean lower low water, or plane of reference on staff	8.3
Mean range of tide	7.9