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U. S. C. & G. S. Stmr. "Patterson"

S. E. Alaska

Season of 1896

Descriptive Report

Topographic Sheets #2247, #2248, #2249.

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Draughtsman

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Description Report of Topographic Sheets, Season of 1896.

The topographic work of the season of 1896, begins at the entrance of Deep Bay, on the western shore of Peril Strait, and on the eastern shore near the narrow peninsula known as I de's Neck which forms the head of Schudge Cove. From these points it was continued to the southward and includes all the shoreline in the area covered by the main and secondary triangulation. The shoreline is covered by three sheets, the northern one including Fish Bay and the southern end of Peril Strait; - the middle one covering Salisbury Sound; - and the southern, Keua and Alga Straits, with Trusty Sound and the northern arm of Nakuwaina Strait or Passage. These sheets are all on 1/20,000 scale. The southern one is a duplicate, but the other two are original field sheets.

The bad weather during the exceptionally short season prevented the completion of the corresponding contour work which was begun on a scale of 1/40,000. This will have to be finished in some subsequent season, for which the uncompleted sheet must be retained on board as it is of the utmost importance in putting in the remaining contours. On this sheet the contour work of Fish Bay was practically finished, and nearly all of the southern shore of Salisbury Sound. Contouring was also put in, in the vicinity of the northern entrance

point of Salisbury Sound, including Klokasheff Island and extending two or three miles in the direction of Peril Strait. This leaves a small strip of country to filled in, to connect with the work on the photo-topographic sheet, scale $1/20000$, of Sergius Narrows and Vicinity, Season of 1895.

Peril Strait and Fish Bay, scale $1/20000$.

Peril Strait, after passing Point Luloia, narrows to a width of about one third of a mile between Range Point and the low point which forms the north eastern entrance point to Bradshaw Cove. Beyond these points it expands, forming Rodman Cove, on the eastern shore, between Range Point and the Channel Islets; and on the western shore, Bradshaw Cove whose south western point is abreast the Channel Islets.

Neither of these coves affords an anchorage, the water being deep and the bottom either hard or rocky, while both are more or less affected by tide swirls at the strong Spring Tides.

At the Channel Islets the total width of the channel is about 450 yards, but the navigable portion of it is restricted to 350 yards by a sunken rock 200 yards off the western shore, and nearly on range between the outer rock off the Channel Islets, and the northern point of Salmonberry Cove. This rock, named Broad Rock, is also on range

with the outer rock of the Channel Islets and the small rocky islet lying close to Range Point. It has 12 feet over it at low water, and at low slack shows kelp which is drawn under as soon as the current begins to run.

Beyond this point the channel widens gradually to a width of half a mile at its junction with the waters of Salisbury Sound at Point Kekul. From Point Kekul bearing S.S.W. $\frac{1}{2}$ S and distant 500 yards is a sunken rock 175 yards off shore, named by us Kekul Rock. This rock has 17 feet over it at low water, and shows kelp at slack tide, which disappears as soon as the current begins to run. From Round Island the rock bears E.S. $E\frac{3}{4}$ E distant $\frac{5}{8}$ mile.

Fish Bay, on the eastern shore of Phil Strait, has its entrance between Fish Point on the north and Range Point on the south, and extends in a general ^{easterly} direction for 5 miles with an average width of about one mile. Its shores are generally low with sand or gravel beaches showing at low water. At its head is quite an extensive flat, with a fair sized stream running through half a mile of grassy meadow after leaving the timber. Two small streams, about three-quarters of a mile apart, with sand flats of rather small extent enter the bay near the middle of the southern shore.

One of these streams leads in a small lake about 500 feet above sealevel near Haley Anchorage, and from the dark color of the water it is very probable that the other stream has a similar source.

On the southern shore of Fish Bay, the hills are rounded, with a light growth of timber which disappears in grassy flats near the summits. Their heights range from 600 to 1200 feet in a distance of from one to one and one-half miles from the beach, except in the vicinity of Range Point, where the slopes are more abrupt, and are considerably broken by cliffs and deep gulches.

On the northern shore the hills are steeper and more heavily wooded. Near the head is the beginning of a short range of mountains which extends in a general E. S. E. direction, and is visible from Fish Bay, Krastof Sound, and the southern entrance of Olga Straits. Nakwasina Strait at its elbow juts into the spurs making out from this range on its western slope. The elevations of these peaks have not been obtained but they will be in the neighborhood of 2000 feet.

Fish Bay with one exception is entirely free from dangers to navigation. Haley Rock, carrying 3 feet at low water, well marked by kelp, and with an additional

Kelp patch lying outside of it, is 400 yards from the southern shore and $\frac{7}{8}$ of a mile, S W $\frac{1}{2}$ W, from Range Point. From the rock, the western end of Rapids Island is just open of the shoreline north of Fish Point. Point Subia bears W x N, distant $\frac{7}{8}$ miles, and Schulze Head bears ENE $\frac{3}{8}$ E, distant $\frac{7}{8}$ of a mile. One and five eighths miles inside of Range Point on the southern shore is Haley Anchorage a shallow bight, terminating at its eastern end in a high water island known as Haley Point. An Indian shack, showing more or less signs of recent use is on the anchorage side of the island. Sand flats varying in extent from 100 to 200 yards make into the bight which affords an anchorage in 15 fathoms soft bottom.

On the northern shore, nearly opposite Haley Anchorage and about $\frac{3}{4}$ mile from Fish Point is Schulze Cove, the entrance to it being on the western side between Piper Island, low and wooded on the east and Schulze Head on the west. This cove affords a good anchorage in 12 fathoms sandy bottom, and is made frequent use of by vessels waiting for slack water in Sergius Narrows. From this anchorage the noise of the tide in Sergius Narrows is heard quite plainly, as the land between the head of the cove and the narrows is low

and not much over two hundred yards in width. The passage between Piper Island, and the eastern shore of the cove should not be attempted except by small vessels.

The tidal station for Fish Bay was located at Haley Anchorage.

Salisbury Sound, Scale 1/20000.

Salisbury Sound from the Baranof Island shore to its junction with the Pacific Ocean between Klakacheff Point, the south-west point of Klakacheff Island is about six and one-half miles in length in a W.S.W direction. About two miles from the Baranof Island shore its width is constricted to a mile by the Goloi and Krugloi Islands on the north, and Simittin Island on the south. Beyond this point it expands to width of a little over four miles at its entrance. Pail Straits enter between Round Island and Pt. Kekul at its north-eastern angle, and Neva Strait at its south eastern angle.

The northern shore from Round Island to Point Leo, a distance of five miles is very much broken, numerous rocky islands and ledges making off shore in the neighborhood of a quarter of a mile. Round Island is a small wooded island, dome shaped, lying close in to the northern shore. It is visible for a considerable distance

down Neva Strait. Golvi and Krugloi Islands, are groups of rocky islets, the former bare, and the latter in some cases sparsely covered with timber. Numerous rocky ledges lie between and extend from these islands, which lie further south than the others on the northern shore, and are prominent for that reason.

The country in the vicinity of Point Leo, is very steep and rugged, being composed of an isolated group of bare rocky mountains about 2800 feet in elevation and showing unmistakable evidence of their volcanic origin.

Klokacheff Island, distant one mile from Point Leo, is of a triangular shape, the apex being the north-western and Klokacheff Point its southwestern point. Its southern shore is circular, with abrupt rocky cliffs rising to a height of 1200 feet. It is evidently the northern half of an old crater, whose southern walls have been broken away. These cliffs, in clear weather are seen very distinctly from St. John Baptist Bay in Neva Strait a distance of 13 miles. At the southeast point of Klokacheff Island are several low rocky islets, with a reef extending to the S.E. for about one quarter of a mile. From this point, the northern and eastern shore of the island is comparatively clear until near the north west point, where it become very much broken, numerous

rocky islets, some of which are broken, fringing the shore and connected by rocky ledges and reefs at low water.

Six hundred yards off shore, in a W.N.W. direction from the point are two bare rocks, about 25 feet in height, close together and connected at low water. Between these rocks and the island is a partially submerged reef on which the sea always breaks. Extending to the westward for nearly half a mile from these rocks is a sunken, rocky, reef showing more or less kelp, and always showing breakers.

The western shore is generally foul with reefs of about 300 yards extent. Two small islands, wooded and steep, lie about one-quarter of a mile, north of Klokasheff Point, and close inshore. A small reef extends off shore from Klokasheff Point for a hundred yards in the direction of the point.

The northern and western slopes of the island are well wooded to the summit.

Olya Rock, one and one-quarter miles W.S. from Klokasheff Point, bares only at lowest spring tides and except at a high spring tide during very calm weather always shows a breaker. It is apparently a reef about 150 yards in length by 100 yards in width.

Fortuna Strait lies between Klokasheff and Chichagoff Islands and is about two miles in length, curving to the westward

Les Anchorage lies in the strait on the north shore and consists of a small open bight about one-half mile in width at its entrance by nearly the same distance in depth. A sunken rock with 3 feet at low water lies 400 yards off its western entrance point in a S.S.E. direction, and ^{care} must be taken to give it a good berth in entering or leaving the harbor. While affording fair shelter from northerly winds Les Anchorage is open to the southward, and there is nearly always a swell rolling in which in combination with rather deep water and poor holding ground make it an indifferent harbor. A small stream enters at its head, the outlet of a lake lying at the low valley at the head of the harbor. A small lagoon, drained by a small stream is on the eastern shore separated from the sea by a narrow strip of beach.

The coast beyond Les Anchorage, continuing to the northward is apparently foul, with numerous small islands and rocky ledges extending to seaward. This condition exists apparently beyond the limits of the present sheet. A small group of islands connected at low water to the northern shore, lie immediately to the westward and about one-quarter of a mile from Les Anchorage.

Cape Georgiana, the southern entrance point of Salisbury Sound, consists of four low bare rocky islets, connected at

low water to the main shore of Kruzof Island, which is very bold, with several rocky cliffs near the cape.

Point Kruzof, distant one mile N.N.E from Cape Georgiana is lower and less rugged with a small rocky high water islet close to the point. Between the point and Cape Georgiana are several rocky islets and ledges extending out for half a mile with numerous kelp patches between.

One half mile west from Cape Georgiana is Sea Rock, an irregular ledge over which the sea breaks in very moderate weather. Five-eighths of mile west from Sea Rock is a sunken rock, which generally shows a breaker, and has been called Monekoi Breaker.

One and one quarter miles N.E.E from Point Kruzof is Kalimina Point, the western entrance point of Kalimina Bay which extends to the southward for nearly two miles. For the first mile the average width is about 350 yards but at the entrance to the head or basin is constricted to 150 yards by two rocks covered at high water projecting from a low point on the eastern shore. The basin at the head affords an anchorage in $3\frac{1}{2}$ fathoms, with a diameter of about 500 yards, and complete shelter from the outside swell. It is subject however to severe squalls and williwaws, in south-east or south-west

weather due to the high mountains and deep cuts or gulches on its south-west shore. On its western shore a stream with a small flat makes into the basin coming from a lake in a low valley extending in the direction of Cape Georgiana.

From Point Kalinina, E.N.E. one-half mile, is a Kelp patch covering a ledge that has $3\frac{1}{2}$ fathoms over it at low water. In heavy swells this shows a breaker.

Sinitin Island, which is really the eastern entrance point of Kalinina Bay is low and wooded, with extensive rocky reefs. A low rocky island and reef lie near its south-west point. The narrow channel between Sinitin and Kruszof Islands is filled with Kelp and except for small boats and canoes is of little use.

There is also a rock, covered at about half-tide in the extension of the eastern shore of Kalinina Bay about 250 yards off shore, but out of the regular channel. It is well marked by Kelp.

From Sinitin Island to Neva Strait, considerable confusion exists between the names on the chart, and the descriptions in the Coast Pilot, while the actual topography differs from both. This has evidently arisen from insufficient information. The point described as

Hayward Point and the point of Ninistin Cove, called by us Scraggy Point have been considerably mixed.

Ninistin Cove is about one mile in depth by the same width at the entrance. About one-quarter of a mile from Scraggy Point W.S.W., is a ledge baring at low water well marked by Kelp. Several ledges and rocky islets are at the head of the cove, which is wide open with hard and irregular bottom, and affords little or no shelter.

From Scraggy Point the shore trends in a general easterly direction to Suskoi Inlet, the eastern point of which is locally known as Hayward Point.

Suskoi Inlet separates Partof-chikof Island from Kruzof Island and at high water connects by a canoe passage with an arm of Krestof Sound. Suskoi Inlet is named Hayward Strait on Coast Survey Chart No 80.50 although Commander Coghlan U. S. N. in his report has particularly described the latter as connecting Krestof and Sitka Sounds. This inlet is about 4 miles long with an average width of about 500 yards. A small bare rocky islet lies in the entrance close to the western shore. This inlet is clear until near the head where are several ledges bare at low water. Between Scraggy and Kruzof Islands are several rocky ledges most of which are visible at half-tide

This passage is full of kelp and should be avoided as the channel to the northward and eastward of Seraggy Island is clear.

Seraggy Island needs no additional description to what is already furnished by the Coast Pilot.

Beyond the dangers noted, Salisbury Sound is clear. The bottom however is extremely irregular and soundings are of little or no value. The depths run from 20 to 100 fathoms in mid channel, a patch carrying the former depth lying almost halfway between Olga Rock and Monks' Breaker, in the entrance. None of these patches have shown breakers although noticed particularly in exceptionally heavy swells, during a very severe westerly gale.

In entering from sea, after passing Olga Rock and Monks' Breaker, a midchannel course heading mid-way between Goloi and Nineteen Islands, and continuing to the northward and eastward of Seraggy Island, clears all dangers.

Neva and Olga Straits, and Vicinity, Scale 1/20000.

From Hayward Point, Neva Strait extends in a general south-easterly direction for seven miles, terminating at the junction of Forest Sound, Olga Strait, and Akwakina

Passage. Its width varies from a mile at its northern end to less than a quarter of a mile at its southern end.

With the exception of Hilmer Cove, a small bight suitable for mooring only, its western shore offers nothing of note until aboast Whitestone Point, where extensive reefs contract the navigable part of the channel to less than a hundred feet. This section known as Whitestone Narrows will be referred to later.

Two-thirds of a mile east from Hayward Point, in midchannel are the Kane Islands, consisting of two principal islands, low and wooded, with several small rocks and reefs close aboard. The channel is to the eastward of the islands.

A small open bight, dry at low water, lies east of the Kane Islands on the eastern shore. A sunken rock, with three feet of water at low tide, well marked by kelp lies 400 yards from its northern point. An Indian shack is on the southern shore near the southern point of the bight.

Two miles below the Kane Islands is the entrance to St. John Baptist Bay, which extends in an easterly direction for two miles, terminating in the usual flats at its head. Entrance Island, small, low, and wooded lies 150 yards west from Pt. Zeal, its southern entrance point.

The Bay is about one-half mile in width at its entrance but narrows to half that width a mile inside. The south shore from Point Zeal to where the bay narrows forms a rather shallow bight, which is full of kelp and ledges, with two rocky inlets about 200 yards off shore.

The Bay is open to north-westerly winds which have a clear sweep through Salisbury Sound to the anchorage; and in southerly winds is subject to severe squalls and williwaws caused by the comparatively high land on the northern shore.

From Point Zeal to Neva Point the navigable part of the channel is much constricted, the shoals generally extending from the eastern shore. ^{There is a shoal just below on the opposite side marked by kelp.} One and one half miles below Point Zeal is a shoal in mid-channel marked by a 2nd Class Nun Buoy, painted red, on the western edge of the shoal. Several ledges and flats show at low water on the eastern shore above and below the buoy. Both shores are well marked by kelp.

Two thirds of a mile below the buoy is a spindle on a bare rock always uncovered near the western shore. A sand flat, nearly bare at low water, lies inside and shallow bight to the southward of the spindle.

One and a half miles below the red buoy

a sand flat makes out from the eastern shore marked at its western extremity by a red spar buoy^{No. 2}. This is the beginning of Whitestone Narrows, the total length of the channel being about one half mile, but between the buoys is barely 100 feet in width, with a depth at low water of eighteen feet. Midway between the red spar buoy off the sand flat and Whitestone Point is a sunken rock and kelp patch marked by a black can buoy. The channel now in use is marked by three spar buoys, a red, No. 2, to the westward of the black can, with a sunken ledge between them; and two black, Nos 1 and 3 on each side of the red, on the western side of the channel. Midway between buoys No 1 and 3 is a sunken rock, almost on line with them, and just inside, within a few yards of buoy No 1, is another. No deviation is possible from the course indicated by these buoys.

A bare rock always visible lies nearly in midchannel 200 yards below Whitestone Point. From this rock S.E. $\times$ E $\frac{3}{4}$ E distant 150 yards is a sunken ledge with nine feet over it at low water. From the shore abreast this rock a shoal makes out for 150 yards the outer edge of which bears E $\times$ N from the rocky islet distant 200 yards

I'm going to the southward after passing black

span buoy No 1, care must be taken to avoid these two dangers. A red span buoy, placed off the tail of this ledge would simplify the navigation of this channel.

Off Neva Point a reef extends for a considerable distance, marked by a spindle at its extreme point.

The currents in Whitestone Narrows at Spring Tides do not exceed three knots and are of but little importance. Their duration depends largely upon the prevailing winds and weather on the outside coast.

From Neva Point the main channel bends sharply to the eastward for three-quarters of a mile, and then resumes its general south-easterly direction through Olga Strait. This latter is deserving of no particular notice. Its northern entrance is between Olga and Halleck Points and its southern between Easton and Kongloi Points. The channel separates Krustof and Halleck Islands and is about four miles in length with an average width of a quarter of a mile. Below Creek Point, $\frac{1}{4}$ mile the depth shoals to 18 feet clear across [?] channel, showing more or less kelp at low water slack. This bar is evidently formed by the deposition of silt from the meeting of the tides in this vicinity and presents no dangers that have been observed.

To the westward of Krestof Island is a comparatively large open body of water, about five miles in length by two miles in width. An arm at its northwest angle a mile and a half in length connects at high water with the head of Sukoi Inlet. At its southern end it connects with Sitka Sound by what is called in the Pilot, Hayward Strait. This body of water has been named Krestof Sound, as no name had been given to it in the Pilot, although reference to it has been made in several places.

Its southern part is filled by ~~a~~ numerous islands which have been grouped under the name of the Magoun Islands. These are generally low, and covered with a good growth of timber. They enclose a small body of water, suitable as an anchorage for small craft; the main entrance to which is from the northward.

On the eastern side of these islands, a narrow channel, with a large island in its northern entrance. From this channel, about a mile from its southern entrance point, an inlet, with a very narrow entrance, extends to the eastward for about a mile and a half into Krestof Island. A smaller lagoon, connected by rapids to the channel lies immediately to the northward of the entrance

the dividing strip of land being very narrow and in some places devoid of trees.

One half mile below this inlet a rock visible at half tide and well marked by kelp, lies nearly in midchannel, the channel being to the eastward of the rock.

On the western side of Magoun Islands a similar narrow channel exists which has a broad open bight with extensive flats at its elbow. This is called Port Krestof in the Pilot but is locally known as Crab Bay.

This channel beyond Port Krestof unites with the eastern channel and forms a connection with Sitka Sound about a mile in length.

In the northern entrance to Krestof Sound are a group of prominent islands, named by us the Sound Islands, with a small rock lying 250 yards N.W. x W $\frac{5}{8}$ W from the northern and smallest one of group. The channel for entering is to the northward and westward of this group.

Several islands, with bare rocky islets and ledges close aboard lie one-half mile S from the southern point of Portof-chikof Island. Three quarters of a mile S from the Sound Islands is a wooded island connected at low water with a smaller wooded island lying 100 yards off its western point. Three-quarters of a mile S E x S from these two islands

is a bare rock, one third of a mile off shore with a small wooded island between it and the Krestof Island shore.

About a mile from this rock is prominent double island, the two parts being connected by a narrow neck of land. To the southward of this island are ~~are~~ several detached islands before reaching the Magoun Islands.

On the western shore of the Sound are several islands, low and generally wooded, forming a group lying close to the shore.

The shores of Krestof Sound are generally low and wooded with sand or gravel beaches of small extent. But little change can be made, except as regards distances and directions, to the description furnished by the Pilot.

Nakuasina Passage begins at the north end of Olga Strait, at Hallock Point, the north west point of Hallock Island, and extends around the island to the eastward and southward, and joins Olga Strait between Dog Point on Baranof Island and Point Kuglovi, the south east point of Hallock Island.

From Hallock Point it extends in an east-north-east direction for two miles with an average width of one-half mile, this part being an open sheet of water, broken

by only one small low island, named by us Bart Island. From this point it runs in a south-easterly direction for three miles to Allen Point.

The channel is constricted in many places to a hundred yards or less by immense flats and meadows formed by the silt from the mountain streams emptying on its eastern shore and the meeting of the tides at these points, so that the current does not carry it out.

At high water these flats are covered but at low they are bare. The channel is narrow, shoal, and winding over these flats, and is suitable only for small vessels.

All bearings are magnetic

Very respectfully

A. K. Moore

Lieut. Comdr. U.S.N.

Chief of Party.

By

Mr. A. L. Ford.

Boatman.