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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Topographic Sheet No. *2876*

LOCALITY:

*Cape Chacon and
Nichols Bay*

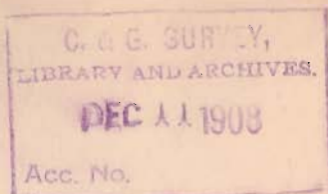
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CHIEF OF PARTY:

A. F. Derickson

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Department of Commerce and Labor
Coast and Geodetic Survey
O. H. Tittmann, Superintendent

Discriptive Report

to

accompany

Plane Table Sheet

Cape Chacon and Nichols Bay

Alaska

by

Paul C. Whitney

Assistant, C. & G. Survey

R. B. Derickson

Assistant, C. & G. Survey

Chief of Party

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Discriptive Report

to

accompany

Plane Table Sheet

Cape Chacon and Nichols Bay

Alaska

This survey covers the shore-line of Prince of Wales Island from a point abreast of Stone Rock, around Cape Chacon, to a point south of Δ Nichols, including Nichols Bay and all topographic features in this area. The survey is controlled by triangulation stations Nichols, Surf, A, B, C, D, Dead and Stone Rock. The geographic positions were plotted on a projection of a scale 1/20000, constructed by Assistant C.G. Quillian, September 1907. The accompanying list of plane-table positions include those points located by a plane-table triangulation carried down Nichols Bay from the quadrilateral A, B, C, and D. None of these points determined by the plane table are accurately recoverable excepting \odot 21, which is marked and \odot 17 and the rock N. E. of the landslide which are the highest points on these features. These positions are represented by black circles on the sheet. The shoreline in Clarence Strait was determined by a set-up at Stone Rock and sighting on the rock N. E. of the landslide and carrying the table to this point and resecting on Δ Dead. A traverse was then carried down to the Cape, using the triangulations stations as orientation signals. The mountain tops were located by

intersections and the sides contoured with 100 foot contours by sketching. In places where doubt existed as to the location of the same they were entered as broken lines.

The shoreline in Clarence Strait is uniformly rocky, with none or little beach at high water, excepting in the bight S. W. of the Landslide, where there is a beach of rounded moderate, white boulders.

Stone Rock is 15 feet high and the two uncovering rocks nearby are visible at 3/4 tide. The kelp patch S S E of the landslide is that noted in the Alaska Coast Pilot, Page 65.

Cape Chacon From the eastward or westward this cape appears as three wooded hills, the two southern ones^{*} being almost perfect cones and this is a distinctive feature in sighting the cape. Northward the land rises to a plateau 800 feet high and a prominent peak rises out of it to an elevation of 1800 feet. A ledge, bare at low water is 280 meters S S E from the cape. Small boats in rounding the cape use the passage between it and the land, avoiding tide rips. The tidal currents have considerable velocity off the cape, with heavy tide rips. The shoreline of the cape is rocky. Westward to the entrance of Nichols Bay the shoreline is rocky and several reefs and high water rocky islets are present. Kelp extends well out from shore.

Bean Island is wooded and reaches an elevation of 400 to 500 feet.

Point Nunez is a narrow neck reaching S E from Bean Island and shows from the S W as cliffs 250 feet high.

This lake was sketched from views obtained from Δ Nichols, with tangents to both ends. The lake was visited by parties from the ship by a trail leading up the stream. The contours from the lake to Δ Nichols were sketched by eye.

A small island , 75 feet high, with steep rocky cliffs, and wooded, lies close to the eastward of this neck and is separated from Bean Island by a small boat passage. Eastward of Bean Island it is very foul, with a large kelp patch and rocky ledge and an isolated kelp patch to the northward. The extremities of these patches were determined by rod readings. No dangers to navigation are known to exist outside the general outline of the kelp.

Nichols Bay is 3 3/4 miles long, S E to N W and affords a secure anchorage. Its entrance is contracted by three islands and a rocky ledge, the latter being 760 meters from the eastern entrance. Here there is a width of 120 meters at low water, with the right hand side steep to. Two anchorages are recommended, the second and third bights on the southwest shore, the first bight may serve as a temporary anchorage only. This bight ^{has} rocks at its eastern entrance that uncover on 3/4 tide. The "GEDNEY" anchored in 11 fathoms, where the symbol is, but this would be too narrow for a larger vessel. There are a few Indian houses on the islands at the entrance and there is an abandoned saltery in the third bight. On the small peninsula near the head of the Bay, a Mr. C. W. Feikart has a house, in which he lives while prospecting in various localities about the bay. Both sides of the bay are typical Alaskan scenery, being moderately high ridges with summits. A large fresh water lake is 3/4 mile N W of the head of the bay and has its overflow into the bay by a stream entering at its head. This lake and stream are sometimes used by the Indians as a

portage to Hessa Inlet. The islands in the entrance to Nichols Bay are densely wooded and have a varied elevation of 10 to 40 feet.

Bean Island is separated from Prince of Wales Island by a small channel with room enough for small boats to go through at high water. A tidal current of great velocity sets in on a falling tide and out on the flood. This channel is sometimes used by gasoline boats bound west from Cape Chacon, avoiding heavy tide rips off Point Nunez. There are two uncovering rocks at the east entrance, which were marked with beacons by the "GEDNEY". There is another uncovering rock at the west entrance, as shown. This rock covers at $3/4$ tide.

Nunez Rocks lie $1\ 1/4$ miles south of Point Nunez. The visible rocks at low water cover an area of about 200 meters square and are covered at high water. They break heavily in southerly weather.

Westward of Nichols Bay the shoreline of Prince of Wales Island is very rocky and forbidding, excepting in the bight west of Bean Island. Δ Surf is located on a high high water rock islet and is known by the Indians as "Hootskawie", -brown bear - from its resemblance to one. The tide rips are heavy off here and overfalls are present, making it dangerous for small boats to round. From this Point to south of Cape Chacon the waters are considered the most dangerous for tide rips in S. E. Alaska.

The shoreline to the westward was sketched for one mile to an intersection of two cuts S W of Δ Nichols. This shoreline is of the same general character and steep to.

Two cuts were obtained to a hill, devoid of vegetation^e

and shows prominently from the water south of Point Nunez. This hill is probably the one noted in the Alaska Coast Pilot, page 52, under paragraph "Point Marsh".

Cuts were taken by theodolite from Δ Nichols to Point Marsh and rock awash in range. These cuts were intersected by plane table cuts from Δ Surf.

In general the country adjacent to the shoreline, is covered with spruce and hemlock to an elevation of 1000 feet; above this there are stunted pines and bushes.

Nichols Bay is an important anchorage for vessels employed by different canneries plying in the vicinity of Cape Chacon. It was used by H.M.S. "EGERIA" and the U.S.S. "GEDNEY" while at work in this locality. During the fishing season there is a large run of salmon entering the Bay on their way to the spawning ground in the fresh water lake at the head, previously noted.

Considerable discrepancy was found to exist between this survey and the published Coast Survey Chart. The shoreline from the head of Nichols Bay to Cape Chacon being in error some two miles, and the coastline of Bean Island entirely erroneous.

Respectfully submitted,

Paul C. Whitney

Assistant, C. & G. Survey,

Topographer.

Approved:-

R. B. Benson

Assistant, C. & G. Survey, Chief of Party.

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Plane Table Positions

to

accompany

Topographic Sheet

Cape Chacon and Nichols Bay

Alaska.

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Object	Latitude	D.M.	Longitude	D.P.	Height	Remarks
○ One	54 44	954	132 09	961	H.W.	Pole signal
○ Two	54 44	650	132 09	834	2 ft.	Whitewash
○ Three	54 44	822	132 09	653	3 ft.	Pole signal
○ Four	54 44	360	132 09	496	H.W.	Pole signal
House	54 44	670	132 09	69	5 ft.	N.W. Corner
○ Five	54 43	1489	132 08	828	5 ft.	Pole sig. H.W. Id.
○ Six	54 43	1027	132 08	627	2 ft.	Whitewash
○ Seven	54 43	494	132 08	422	3 ft.	Pole signal
○ Eight	54 43	1090	132 07	594	H.W.	Pole signal
○ Nine	54 43	341	132 07	514	2 ft.	Pole signal
○ Nine <u>A</u> .	54 42	1700	132 07	463	H.W.	Pole signal
○ Ten	54 42	1650	132 06	664	H.W.	Pole signal
○ Eleven	54 42	1081	132 07	116	2 ft.	Pole sig. H.W. Is.
○ Twelve	54 42	1121	132 06	209	H.W.	Pole signal
○ Thirteen	54 42	724	132 06	332	2 ft.	Pole signal
○ Fourteen	54 42	420	132 05	978	4 ft.	Pole sig. Rky. Il.
○ Fifteen	54 41	1382	132 05	953	15 ft.	Pole sig. Rky. Pt.
○ Sixteen	54 41	1572	132 06	596	6 ft.	Pole signal.

Object	Latitude	D.M.	Longitude	D.P.	Height	Remarks
○ Seventeen	54 41	1451	132 04	367	5 ft.	Pole sig. Rky. It.
○ Eighteen	54 41	652	132 05	466	7 ft.	Pole sig. Top Rky Reef.
○ Nineteen	54 41	181	132 05	197	60 ft.	Pole signal
○ Twenty	54 41	79	132 05	299	75 ft.	Pole signal
○ Twenty one	54 41	80	132 05	679	250ft.	Tripod signal
○ Twenty two	54 41	53	132 06	771	50ft.	Pole signal
○ Top of Rocky Islet N.E. of Landslide Clarence Straits	54 43	1456	131 59	872	10 ft.	Pole

Supplement to descriptive report
Office of Topo 2876

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C. & G. SURVEY,
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FEB 2 - 1909
January 27, 1909.
Acc No.

Was the "Egeria"
been asked for
results of 1908
survey?
Have written to
Bainbridge
1/27/09

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

Sir:-

The following information is given to supplement my Descriptive Report to accompany Topographic Sheet Cape Chacon and Nichols Bay, Alaska, surveyed in 1908, R. B. Derickson, Chief of Party.

Chacon Breakers After a close search extending over a period of several days in the reported locality of these breakers, H. M. S. "EGERIA" failed to find any evidence of the existence of them. This information is from conversation with the Egeria's officers.

Breaker north of North Island After a close search extending over a period of several days in the reported locality of this breaker, H.M.S. "EGERIA" failed to find any existence of this breaker. This information is also from the Egeria's officers.

Nunez Rocks The highest peak of this group of rocks covers at high water only, when the sea breaks over it violently. At low water the group is well exposed to an extent of about 200 meters square. The north side is steep, but foul ground extends at least 1/2 mile to the southward. The channel between the rocks and Bean Island is used by all vessels plying in the vicinity, excepting in thick or foggy weather when it is

better to lay a course well outside to clear all dangers.

Off Point Nunez and Cape Chacon there are heavy tide rips dangerous to small vessels, and the tidal currents have considerable velocity.

McCullough Rock. While occupying the triangulation station Tower I had excellent chances extending over some twenty days to search for breakers over this rock, and to discover whether there is another rock to the southward as shown on chart 8100. During the entire time I saw breakers only in one locality, and by my theodolite pointings this nearly coincides with the rock to the southward, which I believe is the plotted position of McCullough Rock as reported by H. M. S. Egeria. I hardly believe in the existence of a rock where the present McCullough Rock is plotted. Heavy westerly weather should have given evidence of its existence especially with the southerly rock breaking.

P. D. in channel between Dundas and Zayas Islands. This rocky ledge is about 10 feet high at low water and covers at high water. I have theodolite pointings on it from Tower. Also pointings on an uncovering rock defining the left tangent to the reef off the northwest corner of Zayas Island.

During the season of 1908 the Egeria was engaged in surveying the waters adjacent the Dundas and Zayas islands and as far west as West Devil Rock. During 1907 the Egeria surveyed North Island, Rose

Spit, and most of the intervening land and water. The commanding officer and other officers were always very glad to give Captain Derickson any advance information of these surveys, and during the last season tracings were made aboard the Gedney of their surveys of North Island, Virago Sound and Rose Spit.

Very respectfully,

Paul Whitney

Assistant, C. & G. S.