3826

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

1!—5613

State: S. E. Alaska

DESCRIPTIVE REPORT.

Topo Sheet No. 3826

LOCALITY:

Dixon Entrance

Cape Chacon to

Nichols Bay

19 20

CHIEF OF PARTY:

T. J. Maher

3826

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 3826

State . S. E. Alaska . . . . . .

General locality ~~Prince of Wales Id.~~ Dixon Entrance . . . . . .

Locality . Cape Chacon to Nichols Bay (Reconnaissance)

Chief of party . T. J. Maher . . . . . .

Surveyed by . T. J. Maher & Geo. L. Bean . . . . . .

Date of survey . July - August, 1920 . . . . . .

Scale . 1:20000 . . . . . .

Heights in feet above . --- . . . . . .

Contour interval --- . . feet.

Inked by T. J. M. . . . Lettered by . . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . . .

Remarks: Supplemental sheet for location of hydrographic signals only. Topographic survey made in 1908.

DEPARTMENT OF COMMERCE

U. S. Coast and Geodetic Survey

Col. E. Lester Jones, Director

-- U.S.S. WENONAH --

Descriptive Report

To Accompany Supplemental Topographic Sheet

Of The Vicinity Of

CAPE CHACON, DIXON ENTRANCE

S. E. ALASKA.

T. J. Maher,
Chief of Party.

STEAMER WENONAH - 1920

DESCRIPTIVE REPORT

To Accompany Supplemental Topographic Sheet

Of The Vicinity Of

CAPE CHACON, DIXON ENTRANCE

S. E. ALASKA.

(1) The original plane table survey was made in 1908. The topography was controlled by a few small figures at the head of Nichols Bay. The rest was a traverse which ends at or not far from triangulation stations. A photostat of the topography and a list of the plane table positions were furnished to the party of 1920. No stations were recovered. However, some of the plane table positions were on detached rocks of so small an area, that for the requirements of a 1:20,000 sheet, the stations might be considered as found.

The principal work of the season was a wire drag survey of the area in the vicinity of the Cape. For the control of this signals had to be located. A plane table triangulation was started, using as an initial point the rock east from the entrance to Nichols Bay on which hydrographic signal Rok is located, and on which △ Kor was afterwards established. It was possible to orient on △ Nichols, but that had not been rebuilt as it was of no use for hydrographic work. There is a very prominent dead tree on the second cone of Cape Chacon. This was located in times past by triangulation, though some doubt exists as to whether this is signal Dead or whether signal Dead was about 8 feet in an easterly direction from it. The description mentions an underground mark as having been placed 8 feet from the tree. Confusion again exists in that a tripod signal was found about 1-1/2 meters from the tree. This uncertainty would not affect the topography, but for triangulation it was a matter of considerable importance. △ Nichols did not agree with the description. I undertook this work personally, and after a few set-ups found that either my rodding or the original survey was in error. After establishing and locating points (which relative to each other were correct), sufficient to keep the hydrographic work going, signal Nichols was rebuilt. If I were to rerun the shoreline from the stations at the head of Nichols Bay, the possibility of an error in my rod readings

would exist, and nothing decisive would be arrived at. There would exist a discrepancy between two hydrographic sheets, both with the same control. It was decided to cut in a few points, using a theodolite. There were three points to start from - Nichols, Surf and Dead. Surf saw Nichols, but not △ Dead. Nichols to Surf did not furnish a base from which to start. Surf to Dead would if they were intervisible, but they were not. All that was required was something to give more accurate results than could be obtained with the plane table. The non-intervisible line Surf to Dead was used as a base. Nunez Rocks were occupied. The signal on Nunez Rocks was washed away four times and the station mark was washed out three times. Landings were difficult. However, sufficient points were established to control the topography.

On the topographic sheet submitted with this report the shore line from signal Jef to △ Surf is correct both in location and delineation. There are discrepancies in the shore line in the bight on the south side of Nunez Island, as shown on this sheet with that shown on the photostat. It was possible for me to make landings in that section and to rod in the shore line. I also had the control, which was necessary, but lacking when the original survey was made. To the east of Surf, a small bight was also found. The bay to the westward of the bight into which the Miller Cut-off enters is also somewhat different. The section referred to as shown on this sheet is correct for charting purposes.

The shoreline from the eastern point, on the north shore of the entrance to Nichols Bay is an error in location due to the error in location of the initial position. The shore line was not entirely rerun; some sections were; these are shown in full lines, the delineation of which is correct. Nothing was found on the original sheet covering this section which would indicate that the delineation in the photostat was in any way incorrect so this may be combined, correcting for errors in location with my sheet in the final adjustment. An adjustment was made aboard, the adjusted shore line being shown in green.

Note. W.R.B. 2/25/43

My instructions stated that the hydrography of the large bays was not to be undertaken, but that of the smaller indentations along the shore line was to be completed. However, there was bad weather during which the party could not work outside. The hydrographic survey of Nichols Bay, the only anchorage in that vicinity, had not been made. During rainy weather it was taken up. The large sheet became so wet that it was impracticable to work on it without obliterating other work. A small sheet was therefore used, which made it necessary to have the work in two sections. From a drafting room standpoint, a bad practice; from a field standpoint, the only

practicable thing to do. On the detached sheet, a plane table triangulation was carried from the entrance up the north channel, into the bights and anchorages, to the old stations at the head of the bay. The shore line between rod readings was sketched in as I went along, not with the intention of rerunning the shore line, but for the use of hydrographic party. The shore line of the channel was not run in. The work had been done and I saw no necessity for doing it over. The plane table triangulation was all checked by rod readings which were noted on the sheet, but it was always so wet that many became obliterated. Those that could be distinguished, when inking the sheet, are shown in red ink. The shore line of the little peninsula or neck in the centre of the bay and that of the small bight to the southward is shown a little different from that in the photostat.

The location of points in the south channel was started from the entrance. As the work progressed distances were found to differ from those shown in the photostat. A scheme of triangulation was then carried up the channel. The points located are shown on the progress sketch of the triangulation. Numerous other points, not shown on the sketch, were cut in, but the positions were not computed. This may be done if the office so desires. Some hill tops, which may be of service for hydrography, south of Nunez Rocks, were cut in. I carried the topography about 1/2 mile north from Cape Chacon and found nothing which would require my personal attention. The sheet was then turned over to Mr. Bean. By plane table triangulation signals along the coast to the northward were located.

Nearly all the stations established were marked. Sections of brass tubing were imbedded in cement. In some instances regulation disks were used. A supply of disks was taken aboard at San Francisco, but these were mislaid. The after hold, the only storage place in the ship, had not been subdivided; the disks were stored there somewhere, but could not be found. Leveling, triangulation and reference disks were used but the bolts were placed upwards, the faces being cemented to the rocks, so that the inscription thereon would not be misleading.

The southern end of the Cape is determined as an intersection station. A white wash was placed at the water line. Its position has not been computed. The location of the light was determined by triangulation as were Pat, Hi Reef, Dog, Tri and Rok. The positions of Rok and Tri were not computed. For adjustments, the geographic positions should be used.

The work done in Nichols Bay has been transferred from the sub-sheet to the main sheet. This was done by means of tracing vellum. The tracing was also placed on the photostat, and from a preliminary examination I am lead to believe that the original sheet is incorrect in azimuth, near the entrance. As the shore line at this place makes almost a right angle turn, errors in azimuth would be carried forward as an error in distance.

Having to divide my attention between two ships which are undergoing repairs, and many officers being on leave, there wasn't any time nor opportunity, to give the adjustment of this section of the shore line the attention required. The section which is in error is enclosed in a red lined quadrilateral. An adjustment, not as accurately made as is desirable, is shown in green. It is probably as accurate as any which could be made in the office by those unfamiliar with the work.

Attention is called to the fact that there are two rocks, awash at half tide, on the east side of the first bight or anchorage. These were not visible when the plane table triangulation was in progress, but one morning, when showing, I took a sound of angles with a theodolite from each. The angles are entered in the triangulation records, but the names of the signals were omitted. These may be used to check the determinations of the hydrographic party. Attention is called to rocks awash at the entrance to the S. W. Channel. These should have been located by the hydrographic party under Mr. Peacock. The rocks were not visible while the plane table work was in progress.

Hydrographic sheets - the position computations and topographic sheets were turned over to the officers who had charge of the launch work. Attention was called to the errors and the method of adjustment. The adjustments made by them had not been checked by me.

Anchorages - The Wenonah anchored in the bight to the eastward of the peninsular or arm in the center of the bay, in 14 fathoms. The anchorage was close to the shore. A stern kedge was used and a second anchor was always ready for letting go. The place is well protected - a small sea some times made up the channel. The only severe winds experienced were those which came up the channel. Although it blew severely at times, no willawahs were ever experienced, though I do not know what the conditions might be at other seasons. In making Coast pilot notes I would not say that this bight be recommended as an anchorage other than to state that an anchorage may be found in 14 fathoms, about 300 meters off shore, mud bottom.

The North channel furnishes the most direct route into Nichols Bay. There is a passageway through the South channel, but without local knowledge a person attempting it would be courting trouble, for which there is no excuse. Fishing boats use it, and they also use as anchorages, the bights between the channel islands.

Two officers saw bottom after passing through Bert Miller cutoff outward bound. This was about 400 meters from the Cutoff, in the center of the bight. The spot was not found by the hydrographic party. This place should be navigated only by shallow draft vessels.

Cape Chacon is easily recognized from northeast and southwest quadrants. Three hills, the outer, appears as a perfect cone; the second slightly higher has a similar appearance, but is slightly rounded. The third has a flat top. For off shore hydrographic purposes the outer cone is the more serviceable, often being seen from sections in the northeast quadrant, where the second cone was difficult to distinguish. Apparently its summit had never been located definitely, so triangulation cuts were taken to a dead tree on the summit. The position has not been computed. The entrance to Nichols Bay is restricted: a prominent shoulder on a ridge at the head of the bay just open of the north point of the entrance was used as a range for the ship. This shoulder is double, and as the wrong shoulder might be used, entering directions in detail are not given. The best instructions are to get the channel open , then favor the north shore closely and proceed with caution until the narrowest part is reached. Accompanying the report of the season's work are several photographs of Cape Chacon and of the entrance of Nichols Bay.

A list of plane table positions accompanies the sheets. An asterisk before any names indicate that a description on the standard form has been submitted.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 9-MEM

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS

REPORT ON TOPOGRAPHIC SHEET No. 3826.

Surveyed in 1920.

Chief of Party: T. J. Maher.

Surveyed by T. J. Maher and G. L. Bean.

Inked by T. J. Maher.

1. That portion of this sheet which can be used for cartographic purposes conforms to the requirements of the General Instructions, except that the magnetic meridian is not shown.

2. The plan and extent of the survey satisfies the specific instructions.

3. As a result of a consultation with the Chief, Section of Field Work it was decided that the only portion of this sheet that could be used for chart correction is the shoreline between C. Chacon and △ Surf that is shown with full line. Also the rocks at the entrance to Nichols Bay.

4. No further surveying is required within the limits of the sheet as the previous survey (topo. sheet 2876) is adequate.

5. The character and scope of the surveying and field drafting are satisfactory.

6. Reviewed by E. P. Ellis, September, 1921.

Plane Table Positions

Cape Chacon Sheet

1920

T. 3826

Object	Latitude		D.M.	Longitude		D.P.	Height	Remarks
Nut	54	41	1311	132	07	175		Center rocky islet
Luv	54	41	1010	132	07	260	5 ft.	Whitewashed rocky point
Dom	54	41	730	132	07	121	30 ft. approx.	Highest part large rock. From distance appears dome shaped
Tuk	54	41	952	132	06	1009	5 ft.	Whitewashed point
Kim	54	41	1019	132	06	856	5 ft.	Whitewash on point
Nap	54	41	1138	132	06	698	8 ft.	Whitewash. 5/8" tube in cement
Mil	54	41	1086	132	06	644	8 ft.	5/8" tube in cement
Bert	54	41	893	132	06	711		Whitewash
Way	54	42	181	132	07	357	4 ft.	5/8" brass tube set in cement
Jim	54	42	82	132	07	348	4 ft.	Standard disc set in cement. Lug up
Shu	54	41	1824	132	07	338	4 ft.	5/8" brass tube set in cement
Kiss	54	41	1774	132	07	280	4 ft.	5/8" brass tube set in cement
Lum	54	41	1790	132	07	181	3 ft.	5/8" brass tube set in cement
Sit	54	42	173	132	07	14	2 ft.	White wash
Kid	54	42	92	132	06	1050	3 ft.	5/8" tube in cement on rocky point
Mar	54	42	28	132	06	1019		Center of small rock off shore

D.M., D.P. inaccurate. See remarks on original report? [illegible]

Object	Latitude		D.M.	Longitude		D.P.	Height	Remarks
Fun	54	41	1644	132	07	24		Blazed tree on grassy pyramid shaped rocky point. Blazed tree on south side of slope. Scrubby spruce tree on west side.
New	54	41	694	132	09	126	6 ft.	Whitewashed point
Dub	54	41	667	132	09	147	2 ft.	Center of rock. Easily found for P.T. use.
Nob	54	41	653	132	08	763	10 ft.	Whitewash on point Not marked
Hil	54	41	895	132	08	496	700 ft. approx.	White rock on hill-side. Prominent
Hem	54	41	626	132	08	137	60 ft. approx.	Banner around small spruce tree
Tag	54	41	764	132	07	924		Whitewash
Gat	54	41	770	132	07	940		Banner on top of bluff. Marked by tube in cement
Tof	54	41	1037	132	07	959		Whitewashed rock near water's edge
Hot	54	41	1294	132	07	658	8 ft.	Marked by 5/8" brass tube set in cement. On rocky point
Aid	54	41	1651	132	07	505		Whitewashed rock
Why	54	41	1829	132	07	493		Whitewashed rock
Gin	54	42	102	132	07	432		Whitewashed rock
Lar	54	41	653	132	06	808	5 ft.	Whitewash
Up	54	41	366	132	06	1049	6 ft.	Whitewash
Mut	54	41	18	132	06	814	60 ft.	5/8" tube set in cement
Tar	54	41	69	132	06	805		Marked by 4 x 4 stub. (see des. of triangulation stations.)
Algo	54	40	1843	132	06	775	8 ft.	5/8" tube in cement on flat shelving rock

Dm. DP. inaccurate. See remarks — [illegible]

Object	Latitude		D.M.	Longitude		D.P.	Height	Remarks
Edge	54	40	1847	132	06	825	10 ft.	Pyramid shaped rock at water's edge
Ren	54	41	492	132	06	471	4 ft.	Whitewash
In	54	41	719	132	06	451	20 ft.	5/8" tube set in cement on top of cliff
Mag	54	41	664	132	06	391		5/8" tube set in cement
Mid	54	41	352	132	06	251		5/8" tube set in cement
Con	54	41	383	132	05	1049		5/8" tube set in cement
Fal	54	41	157	132	05	921	14 ft.	5/8" tube set in cement. Top of rocky islet
Jef	54	40	1834	132	05	670	60 ft.	Whitewashed spot on rocky cliff
Liz	54	42	1282	132	06	862		5/8" tube set in cement on northern side of base of rocky cliff
Beg	54	43	286	132	08	330		On rocky point west of valley. Marked by 5/8" tube set in cement
Bit	54	43	204	132	08	38		5/8" brass tube set in cement
Non	54	43	313	132	07	1028		5/8" brass tube in cement on rocky beach. Beneath blaze on N.W. side of overhanging tree
Nat	54	43	399	132	07	989	3 ft.	On rocky ledge 3 ft. above H.W. 5/8" tube set in cement
Blu	54	43	407	132	07	789	3 ft.	On rocky point 3 ft. above H.W. Marked by 5/8" tube set in cement

D.M. & D.P. incorrect - see remarks - original report. [illegible]

Object	Latitude		D.M.	Longitude		D.P.	Height	Remarks
Rae	54	43	414	132	07	592		On rocky point on small H.W. islet. 5/8" tube set in cement
[illegible]ay	54	43	360	132	07	80		5/8" tube set in cement
Dol	54	43	15	132	07	341		Marked by 5/8" brass tube set in cement. Ref. mark, blaze on overhanging tree
Zoe	54	43	1717	132	09	527		At water's edge. Marked by 5/8" tube set in cement
Ana	54	43	1738	132	08	323		Whitewash
Sam	54	43	1491	132	08	825	15 ft.	5/8" tube set in cement on highest part of rocky point, N.E. from tree line on small rocky islet
Les	54	43	1625	132	07	1005	3 ft.	On rocky ledge 3 ft. above H.W. Bolt set in cement
Hans	54	43	1069	132	08	625		5/8" brass tube set in cement
Maud	54	43	1085	132	07	574		On pyramid shaped rock. 5/8" tube set in cement
[illegible]uk	54	43	582	132	08	612		5/8" brass tube set in cement
Mate	54	43	496	132	08	447		5/8" brass tube set in cement on rocky point, west of grassy spit. Blazed scrub spruce on top of 6 ft. ledge
Noz	54	44	888	132	09	901		Whitewash
Key	54	44	831	132	09	671		Whitewash

In DR monument - see remarks - original report. [illegible]

Object	Latitude		D.M.	Longitude		D.P.	Height	Remarks
Fat	54	44	609	132	09	21		On highest part of rocky ledge which looks like boulder. 5/8" brass tube set in cement, close to the 1908 station which is below the H.W. line in a south-westerly direction, and which is marked by 2 holes drilled in rock
Pig	54	44	454	132	09	569		Whitewash
Pit	54	44	267	132	09	416		Whitewash
Nab	54	44	48	132	08	586		5/8" brass tube set in cement. On rocky ledge SSE from old mine shaft
Pub	54	41	1784	132	06	1026		5/8" tube in cement

D.M. – D.P. inaccurate. [illegible]