4011
4012

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

~~Territory of~~ Alaska.
~~State~~:

11—5613

DESCRIPTIVE REPORT.

Topographic Sheet No. 4011 & 4012

LOCALITY:

~~EL CAPITAN PASSAGE,~~

W. Coast, Prince of Wales I.
~~S. E. Alaska.~~

El Capitan Passage, Middle Part

1928.
~~1929~~

CHIEF OF PARTY:

H. B. CAMPBELL

4011 • 4012

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEETS,
#4011 & 4012,EL CAPITAN PASSAGE?S.E.ALASKA.

1.- These sheets cover that part of El Capitan Pass in Latitude 56-09and Longitude 133-19,to Latitude 56-00,the southern limit of the southerly sheet also taking in Devilfish Bay,which is about three miles wide in an East and West direction.

2.-The shore-line is generally rocky with steep-to sides.The pass is about a third of a mile wide at the western edge of the northern sheet,widening gradually to more than a half mile at the south end of the same sheet,and then attaining an average width of a mile on sheet #4011,where it reaches the maximum width of the entire pass toward the southerly limit.

3.-Except for the two large wooded islands,north of Aneskett Pt.,in mid-stream on sheet ~~#4011~~,islets and rocks lie close to shore and are not a hindrance to easy navigation of the pass.Low-water line,except where indicated,invariably does not extend more than ten meters from the high-water mark.The land backing the shore-line presents a very rugged appearance of heavily wooded crests and troughs as far as visible.Only the highest peaks are bare of trees at the tops. The tree-line is practically coincident with the high-water line,except at the head of some few bights,and then departs from the water-line for only a short distance.The mid-stream islands north of Aneskett Pt. are left to the north and mid-channel courses steered throughout the pass,keeping clear of the coast for unlocated and isolated rocks that characterize this body of water. 4012

4.-Anchorages used during the survey season and falling on these sheets are:- (1).-At the head of Devilfish Bay ,-first reach; (2).-the next large cove to south of Devilfish Bay and on the same shore; (3).-Sarheen Cove,-Camp Taylor.These afford ample protection from Southerly winds drawing thru the channel.Two other anchorages were used during the season and are indicated on the sheets.At Sarheen Cove entrance to Camp Taylor,ther is shown a rock,whose position is doubtful and was drawn from memory.It is but a few feet below low-water,probably baring at extreme low-water.

5.-On account of the steepness of the slopes,fresh water can be found in varying quantities,discharging along the shore.Only the larger streams of sufficient flow to be taken aboard by coming up to the beach,have been shown. Other smaller streams are scattered profusely along the shore,and are too numerous to be shown.

6.-Devilfish Bay is an indentation between steep sloping watersheds that feed it fresh water in large volumes.Anchorage is had in the reach east of the narrow neck partially closed by a bare rock,surrounded by kelp .

6.-(cont.)Passage can be effected thru the kelp,by leaving the rock to the south and shaping a mid-channel course therefrom.Strong currents are found to exist thru this narrow contracted opening,but no difficulty is encountered ordinarily.The western extension of the bay is of no apparent value,unless it be used by trappers and hunters for game and fowl in season.However,it has an entrancing scenic value,its beauty being unsurpassed in this locality.

7.- The topographic sheets have not always been used in the field on account of the incessant rains experienced during the progress of the work.Two celluloid sheets were used to supplement the original;one,a flat sheet and the other,a thin roll. By actual results in the field,the heavy flat type was superior to the roll type in point of convenience and accuracy.Transfer of the work to the smooth sheet was made soon after its execution in the field,so as to eliminate any undue discrepancies.By comparison of the flat celluloid with the original topographic sheet,it was found,even now,after passing thru the varying elements of weather from Alaska to Porto Rico,where the inking of the sheets was performed, that the flat celluloid remained practically unchanged.A celluloid roll was employed entirely in surveying Devilfish Bay.Topographic and Hydrographic control was taken up the bay from△Bay and△Devil.Combination of Plane-Table Traverse and Triangulation was used in determining this shore-line.The original topographic sheets were well seasoned before taking up the work and as a result show very small amounts of distortion from 0.05% to 0.1% on #4011 and practically none on #4012.The flat celluloid sheet was employed in linking up sheet #4011 with its adjoining and southerly sheet on the west shore from△Cap,at which time unfavorable weather prevailed indefinitely.

8.-The triangulation control was very adequate and applicable for the scale of the survey.only in the vicinity of△Grass was there any need felt for more control,so as to not occasion any delay in the combined operations,and,that was remedied by establishing an additional station, △Point at the N.W.end of sheet #4012.Two of the three in the triangle,- El capitan-Grass-Point,-only were occupied.In this case a partial check was effected on the location of△Point by traverse of another party from the eastward on the adjacent sheet,and a tie-in made.After this east and west reach was completed,the survey resolved itself into a simple,straightforward scheme of Plane-Table Triangulation,resections and intersections, as far as sheet #4012 was concerned.Stadia shots were taken from one shore frequently to the other where the channel narrowed;but on sheet #4011 more sufficient control was to be depended upon and a three point position of strength could be located almost anywhere.

9.-Signals were more abundant than apparently necessary,but they proved of advantage in enabling rapid survey.Location of these signals by means of three intersections or more and utilizing hazy or foggy days in occupying these locations for filling in the detail or continuing the shore-line,and extra time spent in constructing signals proved time well-spent in proceeding without delay in the topography account of weather.

10.-El Capitan Pass,at the time of the year these sheets were in progress,seemed to be a favorable haunt for fogs and mists.The highest hill-tops were only occasionaly visible so that their location is not of very much importance.In clear weather,the location of the peaks were not essential and in cloudy,misty or foggy,the more prevailing weather, the location of the form-lines were of little avail.Points of land are very prominent and conspicuous and are material aids to navigation thru this waterway.

11.-In the vicinity of Devilfish Bay is the most rugged formation.The hills are sharper and steeper,more plentiful here and extend back from the shore in motley array.Contouring does not purport to be complete in this locality,as very many hills were well off the limits of the sheet. To the south,the land falls off in elevation very rapidly to but a few hundred feet at the tops of the trees.Elevations were few toward the southerly part of the sheet(#4011) owing to the flatness of the land,and the regularity of the tree-tops.Furthermore,time was not available for the completion of the form-lines on sheet #4011,altho it is deemed of insufficient importance to warrant further delineation of the contour of this locality.Extending well to the eastward of the southerly of the two sheets,is a long indefinite tree-covered ridge,apparently paralleling the pass and attaining an elevation of approximately 1500 ft.Elevations and contouring refer to visible surface above H.W.and not the ground elevation,which in almost all cases would refer to tops of trees.

13.-It is the intention of the topographer to make this report as brief as possible,as it is believed that all the essential details appear indicated on the sheet in visible form,thereby necessitating little,if any,reference to this report.

ADDRESS THE DIRECTOR
U.S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 4-DRM

DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

WASHINGTON

August 2, 1923.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4011

El Capitan Passage, Alaska

Surveyed in 1922

Instructions dated Feb. 25, 1922.

Chief of Party, H. B. Campbell.

Surveyed by M. Leff.

Inked by M. Leff.

1. The records conform to the requirements of the General Instructions.

2. The plan and character of the work fulfill the requirements of the General Instructions and satisfy the specific instructions, except that there are only one-fortieth (1/40) as many determined elevations as there should have been.

3. The field drafting prescribed by the General Instructions was completed by the field party, except that the projection was not verified.

4. The junctions with adjoining surveys are good.

5. The bestowal of names by the field party on some of the unnamed features would have been desirable.

6. No further surveying is required within the limits of the sheet, except as to the form lines. The control for the form lines on this sheet is so meager that the results are below the standard required for this region, and it is recommended that they be rejected.

7. The character of the surveying is good (except as to form lines) and the field drafting is good.

8. Reviewed by E. P. Ellis, July, 1923.

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AND REFER TO NO. 4-DRM

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

August 2, 1923.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 4012

El Capitan Passage, Alaska

Surveyed in 1922

Instructions dated Feb. 25, 1922

Chief of Party, H. B. Campbell.

Surveyed by M. Leff.

Inked by M. Leff.

1. The records conform to the requirements of the General Instructions.

2. The plan and character of the work fulfill the requirements of the General Instructions and satisfy the specific instructions, except that there are only one-fifth as many determined elevations as there should have been. Also the representation of rocks departs from standard practice in several cases -- rocks that cover by several feet of water at high tide (rocks awash) being shown with a shoreline.

3. The field drafting prescribed by the General Instructions was completed by the field party.

4. The junctions with adjoining surveys are good, except that there is conflict in representation of rocks and elevation of islet on the overlap with T. 4007, surveyed by L. C. Wilder in 1922.

5. The bestowal of names by the field party on some of the unnamed features would have been desirable.

6. No further surveying is required within the limits of the sheet.

7. The character of the surveying is fair and the field drafting is good.

8. Reviewed by E. P. Ellis, July, 1923.

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. 4011 & 4012

~~Territory~~ . . . ~~of~~ . Alaska . . . . . .

General locality . . W.Coast, Prince of Wales I. ~~S.E. Alaska~~ . . . . . .

Locality . . . . . El Capitan Passage, Middle Part . . . . . .

Chief of party . . . H.B. Campbell . . . . . .

Surveyed by . . . . M. Leff . . . . . .

Date of survey . . . *October . 1922 . . . . (November)* . .

Scale . . . . . 1: 10,000 . . . . . .

Heights in feet above . H.W. . . . . .

~~Form - Line~~ . 100 . feet.

Inked by . M. Leff . . . Lettered by . M. Leff . . . . . .

Records accompanying sheet (check those forwarded): Photographs, Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . 2 celluloid sheets . and one sketch book, charts 8200 and 8176.

Remarks:

* On two other Topo. Title Sheets previously submitted by same party, date of survey also included November thus: "Date of Survey October and November, 1922". The other title sheets were canceled to avoid duplication

GR