

3833

C. & G. SURVEY
L. & A.
AUG 8 - 1921
Acc. No.

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Alaska*

11-5013

DESCRIPTIVE REPORT.

Topo Sheet No. **3833**

LOCALITY:

West Coast of Dall Island
Cape Augustine to
Muirs Passage

1920

CHIEF OF PARTY:

E. H. Daghart

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DESCRIPTIVE REPORT

of

TOPOGRAPHIC SHEET No. 1

WEST COAST OF DALL ISLAND, ALASKA.

CAPE AUGUSTINE TO TRIANGULATION STATION "LAST".

STEAMER LYDONIA

Seattle, Wash.

January, 1921.

E.H. PAGENHART, CHIEF OF PARTY.

Surveyed by Francis L. Gallen
Sr H + G Engineer

DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEET No. 1.

This sheet includes the shoreline, contours and other topographic features of that section of the West Coast of Dall Island between Δ Cape, Latitude $54^{\circ}57'$ and Δ Last, Latitude $55^{\circ}10'$, joining an earlier survey to Cape Augustine and overlapping a previous one to Juel Point.

COAST LINE The coast line is rocky and irregular and is cut up by numerous narrow, deep bights and gulleys which extend back from the shore for some distance. It is impossible to walk along this shore for any great distance, except at the inner end of bays or harbors where a sand beach can usually be found.

GENERAL DESCRIPTION With the exception of a few mountain peaks and rocky points, the island is heavily wooded and there are practically no distinctive features about the coast line itself that would serve as aids for off shore navigating.

The peaks on the neck of land separating Sea Otter Harbor and Sakie Bay serve as an excellent landfall and stand out prominently in all directions. They consist of the following: Cone Peak, Bear Mountain, Thunder Mountain and Squaw Mountain. (See Commanding Officer's report for off shore description of these mountains).

CONTROL With the exception of the survey of Sea Otter Harbor and Manhattan Arm, triangulation stations were used as a control and the distance between each station was traversed and checked.

The survey of Sea Otter Harbor and Manhattan Arm was accomplished first and, as the accuracy of the triangulation in that locality was in doubt at the time, signals were erected in both places and the survey made on a separate sheet (sheet #2) by triangulation topography. Signal "Bite", in Manhattan Arm, was used as a starting point and the remaining stations were located by intersections and rod readings obtained between same to check these locations. Triangulation stations Isle and Juel were located on the sheet by this method (distance between same too great to obtain a rod reading). Δ Isle was then occupied and cuts were taken to Triangulation Stations Last, Lookout and Reef, and check cuts obtained to signals previously located on the sheet. Triangulation Isle was again occupied, using sheet #1, and cuts taken to as many of the new signals in Sea Otter Harbor and Manhattan, as could be seen from this station. These independent cuts were used to transfer the survey of Sea Otter Harbor and Manhattan from sheet #2 to #1 and also as a check on that work.

When the survey had been carried to Juel Point, it was found that the previous work in this locality was in error and it was deemed advisable to run a traverse line up to Triangulation Last, in order to locate the error. Detailed topography was carried into the next bay (called Foul Bay on hydrographic sheet) for about fourteen hundred meters and cuts were taken on a temporary hydrographic signal ("Big")

and a small prominent islet lying just off the point on which this signal was located. Three sets of cuts were taken and a good intersection obtained on each. Signal "Big" was there occupied and the distance between these two points, located by intersection, was checked by a rod reading. From here the traverse line was continued up to Triangulation Last. It was found that that section of the topographic sheet between latitudes 55 07' and 55 10' had contracted 30 meters and adjustments were made to rectify this condition by moving 55° 08'-09'-10', ten, twenty and thirty meters respectively further North.

The traverse between Triangulation Stations Juel and Last was then found to be ten meters in error (too long) and the necessary adjustment was made to close the line. The remainder of the shoreline in the bay was obtained by reoccupying a station on the South side of this bay and traversing same. Before the latter had been run, temporary signals were built in the bay, for the use of the hydrographic party, and cuts to the same had previously been obtained from signal ("Big"). Check rod readings on these cuts were taken when the latter traverse line was run and a final check on all of this work was made by obtaining a position on the point just SE of Triangulation Last and cutting to all signals that could be seen from this position. The results of this last step proved conclusively that the shore line from Triangulation Juel to Triangulation Last as shown on sheet #1 is correct.

As previously stated, the remainder of the work, from Triangulation Lookout to Triangulation Cape, (where a good junction was obtained with an earlier survey made to this point) was traversed between triangulation stations and these distances were verified by this method.

OUTLYING DANGERS AND ISLANDS. All outlying rocks and dangers appearing on the sheet were accurately located either by rod readings or intersections, the latter method only being used when it was impossible to obtain rod readings. In foul areas, (between Triangulation Kelp and the wooded island near the entrance to Fisherman's Cove for example) the outermost rocks were located and the others filled in, in their approximate positions.

REFUGE Sea Otter Harbor is an excellent harbor of refuge for boats of all drafts and has two good anchorages for ships of large drafts and several for smaller vessels and boats (see hydrographic sheet for location of same and sailing directions for entering).

Sakie Bay, Fisherman's, Camp and Welcome Coves have good anchorages and shelters for light draft boats but care should be taken in entering them, to avoid dangers as shown on the topographic sheet. (A more detailed statement on these anchorages is given in the hydrographic report for this section).

In extreme cases of damage small boats can be beached for repairs at the following places: Sea Otter Harbor, Sand beach on North shore North of Camp Island, sand beach on same shore North of Channel Island. Sakie Bay, beach in SE end of bay. Fisherman's Cove - Sandy

beach at the inner end of the cove, near a large fresh water stream. Camp Cove - Sand beach at the Eastern end of the cove, between two fresh water streams.

WATERING PLACES Manhattan Creek, in Manhattan Arm of Sea Otter Harbor, is the best water place in this locality but, as can be seen by the topography sheet, all harbors of refuge have at least one good stream from which fresh water can be obtained, the size of them depending upon the season which they are visited. Water can only be obtained from them by using small boats as there are bars at the mouth of all streams and therefore it is impossible to take water directly on board even the lightest draft boats.

LANDING PLACES Landing on the open coast, except in time of good weather can only be accomplished with a well manned boat. It is advisable to land as near as possible to the objective, as the coast line, for the most part, is extremely rough and sections of it were found where it was practically impossible to walk along.

CONTOURS All elevations shown on the sheet are for the actual heights of the hills and peaks, a reduction having been made for the heights of trees on all wooded areas.

At the junction with the survey of Cape Augustine, the contours on this sheet join those of the previous work up to an elevation of one thousand feet but from there on some differences were found, as will be noted by comparing the two sheets. A record of the previous work was on hand at the time but it was found impossible to check some of the elevations as shown on this sheet.

The contours at the Northern junction of the work will join those located to this point after the necessary adjustments have been made in the latter work.

<u>NEW NAMES GIVEN</u>	<u>NAME USED PREVIOUS TO THIS SURVEY</u>
Manhattan Arm (<i>Manhattan mine wharf</i>)	Formerly part of Sea Otter Harbor.
" Creek } <i>O.K. 1904.</i>	No name
" Lake }	"
Entrance Rock	Entrance Island
Gate Island	Gate Rock
Nellag Island	Goose Island
Francis Point	No name
Clear Point	" Bold Pt. (T. 3704a).
Way Point	" Gate Pt. do.
Camp Island	"
Low Rock	"
Cape Lookout <i>(A. Sec. 22. Sub. 642 7662 1904.)</i>	Point about 1600 meters to southward originally given this name.
Table Rock	No name
Sakie Bay	Name originally given to Fisherman's Cove.
Middle Island	No name
Fisherman's Bay	Sakie Bay

NEW NAMES GIVEN

Devil Island
Camp Cove
Welcome Cove
Bear Mountain
Thunder Mountain
Squaw Mountain

Local names

NAME USED PREVIOUS TO THIS SURVEY

No name
"
Augustine Bay
No name
"
"

Respectfully Submitted

Francis L. Hallen.

Jr. H. & G. Engineer.

Forwarded:

*Asst. Pagenbark,
Chief of Party.*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 8, 1924.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3833

West Coast of Dall Island

Surveyed in 1920

Instructions dated March 18, 1920

Chief of Party, E. H. Pagenhart.

Surveyed by F. L. Gallen

Inked by W. J. Chovan.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the survey conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions.
4. The junction with previous surveying to the southward is satisfactory.

Between Juel Pt. and Δ Last the previous survey T. 3458 was erroneous due to defective control. The incomplete survey of Sea Otter Harbor on T. 3704 was also in doubt due to defective triangulation. T. 3833 should be accepted as the authority for the control in the locality just mentioned. There are many differences in the representation of shoreline, rocks and islets on the three sheets. Some of these differences are due to the different stages of the tide at the times when the surveys were made. Some of the differences are undoubtedly due to errors in the representation of details. In charting the locality T. 3833 should be considered as the authority for the control, but T. 3458 and T. 3704 should be freely used for details.

5. Such inaccuracies as exist in this survey affect minor details only, and no further surveying in the locality is required.
6. The character of the surveying is fair and its scope and the field drafting are excellent.
7. Reviewed by E. P. Ellis, August, 1924.

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. **3833**

State *Alaska*
General locality *West Coast Dall Island*
Locality *Cape Augustine to Mearns Passage*
Chief of party *E. H. Pagenhaert*
Surveyed by *F. L. Gallun*
Date of survey *June to October 1920*
Scale *1:20000*
Heights in feet above *mean sea level* *checked 7/5/24*
Contour interval feet.
Inked by *W. J. Chovan* Lettered by *W. J. C.*
Records accompanying sheet (check those forwarded): Photographs,
Descriptive report, Horizontal angle books, Field computations,
Data from other sources affecting sheet

Remarks: