

4385

Form 501

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: S.W. Alaska.

11-5613

DESCRIPTIVE REPORT.

Topographic Sheet No. "D" ⁴³⁸⁵ 4385

LOCALITY:

Cape Fairfield to Cape

Mansfield, Kenai Peninsula.

192 8

CHIEF OF PARTY:

R.R. Lukens.

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Topographic Sheet "D"

Note by Chief of Party:

CONTROL Control on this sheet is from the triangulation of 1928 expanded from the base in Day Harbor. It depends on the position of Cape Island 1905.

Due to a misunderstanding, the topography of Horsehead Bay was done on both this sheet and the Day Harbor sheet. The signals as located on this sheet were used on the hydrographic sheet.

FORM LINES The country back of the shore line is very precipitous and badly broken up and much of it is not visible from set ups on the beach. It was therefore very difficult to draw in the form lines. The work done by the plane table was supplemented by cuts and sketching from the ship at anchor at various places off the coast.

It is only in very smooth weather that a boat can land along this coast and then it is always dangerous. Orders were given the topographer to push work as rapidly ^{as feasible} when landings were possible, and for that reason the detail is not as complete as is desirable. Several boats were capsized on this work and the plane table party nearly got caught with a landside, but no casualties resulted.


R.R. Lukens.

DESCRIPTIVE REPORT

To accompany Topographic Sheet "D"

Cape Fairfield to Cape Mansfield, Kenia Peninsula, S. W. Alaska.

Directors instructions dated February 18, 1928.

General Description:

The south side of Cape Fairfield is steep and rocky and the cliffs are eroded and cut up by numerous gulches. There is little or no vegetation except at the top of the cliffs where the hills are thinly covered with pine trees.

From topographic signal Alto to topographic signal East the shoreline is mostly rocky and rises abruptly from the waters edge. ^{At} The heads of the two bights the shoreline is composed of small rocks and boulders. The hills and valleys back of this stretch of shoreline are covered with a moderate growth of pine trees.

At the head of Whidby Bay the shoreline is low and sandy and a long valley extends northward to a small hanging glacier. Back of the shoreline is a heavy growth of pine trees and a small glacial stream empties into the bay at the west end of the sand beach.

From topographic station Cold to topographic station Fun the shoreline is rocky and precipitous. From topographic station Fun to triangulation station Mansfield the shoreline is rocky and the cliffs are eroded and cut up by numerous small gulches. There are many rock slides in this vicinity.

The slopes on the west side of Whidby Bay are sparsely covered with pine trees which extend up to about the 2000 foot contour.

Rocks and Dangers:

Four rocks awash lie about 75 meters northwest of triangulation station Foot. A rock which bares 6 feet at mean lower low water lies about 180 meters 235° true from triangulation station Sap. Three rocks lie about 260 meters east of triangulation station 20' rock. Another rock awash lies about 125 meters north of 20' rock.

A rock which bares 10 feet at mean lower low water lies about 310 meters 338° true from topographic station Alto. A rock lies about 100 meters south of the same signal.

Three rocks awash lie about 85 meters eastsoutheast of topographic signal Nat. Three small islands and a rock awash lie about 300 meters 145° true from topographic signal Ral. Another island with a rock awash lies about 280 meters 335° true from signal Ral.

Three sunken rocks lie about 50 meters west of topographic signal Bat and a rock awash lies about 50 meters southwest of signal Po.

Two rocks awash lie about 230 meters northeast of signal Got and two rocks awash lie about 170 meters southeast of the same signal.

A rock which is covered at high water lies about 140 meters southeast of topographic signal Fun. Two sunken rocks are about 30 meters southeast of this rock.

Four rocks awash and one sunken rock lie about 200 meters southwest of signal Fil.

A rock ~~low~~^{awash} at ~~low~~^{high} water lies about 495 meters 125° true from triangulation station Mansfield. Another rock bare at low water lies about 230 meters 221° true from triangulation station Mansfield.

Landmarks:

The only landmark of importance on this sheet is the triangulation station Foot. This is a large rock 126 feet high lying about 80 meters off Cape Fairfield.

Survey Methods:

This survey was accomplished by the usual plane table methods and the triangulation stations shown furnished control for the work.

The shoreline between triangulation stations Foot and Sap was located by rod readings from these two stations. A traverse was run from triangulation station Sap to triangulation station Mansfield with a closing error of 60 meters which was adjusted. A heavy swell usually sets into Whidby Bay and landings are difficult except in very smooth weather. On this account rod readings of as much as 1200 meters were sometimes necessary in running the traverse and this probably accounts for the large closing error.

Elevations back of Cape Mansfield were obtained by plane table cuts and vertical angles taken as the traverse proceeded along the east shore of Whidby Bay. Back of Cape Fairfield the following peaks and elevations were transferred from hydrographic sheet #4731

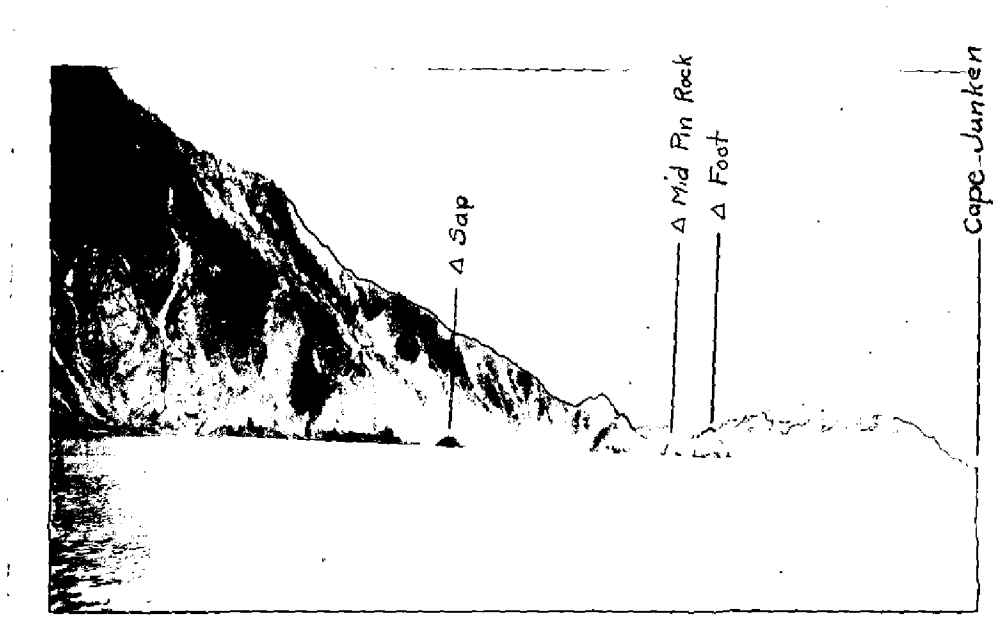
	Elevation
Field	1700 feet
Peak "F"	2030 "
Peak "K"	2894 "
Fair	3660 "

These elevations were determined by sextant.

The remainder of the elevations back of Cape Fairfield were determined by plane table cuts and vertical angles taken from the shoreline.

Form lines along the shore were sketched as the traverse proceeded along the coast and the form lines farther inland were sketched from the ship.

The magnetic meridian on this sheet was obtained by observations with a compass declinator at triangulation station Mansfield.



A view of Cape Fairfield taken from the ship at a point about W. by S.
true from triangulation station FOOT.

Statute miles of shoreline .

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Respectfully submitted,

Approved and forwarded,

R. P. Lukens
Chief of Party

J. E. Partington
Topographer

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO.
4385

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D.

REGISTER NO. **4385**

State Alaska

General locality Kenai Peninsula

Locality Cape Fairfield to Cape Mansfield ✓

Scale 1 : 20,000 Date of survey June, 1928

Vessel Str. SURVEYOR

Chief of Party R. R. Lukens

Surveyed by J. C. Partington

Inked by J. C. Partington

Heights in feet above High water to ground to tops of trees

~~Contour, Approximate contour~~, Form line interval 100 feet

Instructions dated February 18, 1928

Remarks: _____