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ORIGINAL

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

R.S. Patton

U. S. COAST & GEODETIC SURVEY  
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MAR 2 1931

State: S.W. Alaska

Acc. No.

DESCRIPTIVE REPORT

Topographic  
Hydrographic

Sheet No. "A" 4573

LOCALITY

South Coast - Kenai Peninsula

Two Arm Bay to McArthur Pass.

1930

CHIEF OF PARTY

F.B.T. Siems - H. & G. Engr.

## DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "A"  
Str. DISCOVERER - 1930.

### AUTHORITY:

This survey was made in accordance with the Director's instructions, dated March 21, 1930.

### LOCALITY:

This sheet extends from Two Arm Bay to Chance Cove, Kenai Peninsula, Southwest Alaska. It joins sheet No. T-4387 on the north, and sheet No. T-4335 on the south.

### GENERAL DESCRIPTION OF COAST:

The coast along the entire length of this survey is bold, with the exception of the heads of bays. The peaks, which are of too near the same elevations to be easily distinguished, decrease from approximately 3000 feet at the north, to approximately 1500 feet at the south. The headland at the north end of the sheet rises abruptly from the south side of Two Arm Bay, and appears darker than the more distant peaks back of the bay. McArthur Pass and Wildcat Pass appear as breaks in the line of peaks, making good points of identification for the vicinity of Ragged Island.

From a distance of five or six miles offshore the different characteristics of the cliffs can be seen. About midway between Two Arm Bay and Thunder Bay corrugated strata marks show on two patches of light gray cliff. Just east of Black Mountain a gravel and boulder slide reaches an elevation of approximately 500 feet. At the northerly entrance of Black Bay a wooded hill, 660 feet high, shows a reddish brown tinted cliff to an elevation of about 400 feet at the base on its seaward side. Midway between Black Bay and Steep Cove is a grassy and wooded ravine extending inland, with an elevation of about 60 feet at the shoreline. The cliff between this ravine and Black Bay is light gray in color. A small patch of cliff back of Triangulation Station STEEP is also light gray in color.

### LANDMARKS:

The features described in the second paragraph of "General Description of Coast" are all good landmarks, but are too large to

be given as geographic positions.

The 2060 foot peak, 1-1/2 miles westerly from Black Mountain shows a light gray granite cliff down from its summit about 500 feet.

About 5 meters northerly of Black Mountain "2", is a boulder approximately 20 feet high and 20 feet in diameter. The position of Black Mountain "2" is sufficiently accurate for charting. The boulder is visible about five miles offshore.

#### CHARACTER OF CONTROL:

Sixteen triangulation stations, of which four were from previous surveys, were used for the control on this sheet. Triangulation Stations "Hoof", "Paw", "Steep", and "Dark" were recomputed from the 1928 angles, using the main scheme values between Black Mountain "2", and Seal Rocks Light as a base. These computations gave more accurate values than the 1928 positions. The 1930 supplementary schemes for this vicinity were developed from these new values.

Most of the topographic signals within the bays were located by plane table triangulation, supplemented by traverses. Short traverses were run between triangulation stations on the open coast. In all cases the traverses were short and closed well.

#### AUXILIARY SURVEY METHODS:

Between Two Arm Bay and Black Bay it was necessary to get offshore sextant cuts to be used with plane table cuts in locating contour features on the open coast. These were obtained from the motor vessel WESTDAHL.

In Steep Cove, the survey was run during heavy rain by turning off sextant angles, reading stadia distances, and recording the results. These were plotted on the sheet, using tangent offsets for accurate azimuths, and later checked by a plane table traverse in fair weather. The results of this method were accurate, but required additional time for plotting.

#### JUNCTIONS WITH PREVIOUS SURVEYS:

A tracing accompanies this sheet showing the junctions with the 1927 survey at the south and the 1928 survey at the north.

Triangulation Station "Cloud" at the north, was recomputed and the new value was 11 meters west and 3 meters south of that used in 1928. This difference shows up in the junction of shore and form lines in this vicinity. The position of a rock on which is found Signal "Mac", is slightly west of the 1928 position, even after giving consideration to the difference between old and new positions by triangulation. The 1930 position had stronger control and is correct. The traverse was closed on Triangulation Station "End".

The poor junction of contours in the immediate vicinity of the lake at the head of Thunder Bay is due to the difficulty in getting good control back of the first line of hills. The lake was sketched from a point on the hillside, 500 meters south of the lake. A ridge north of the lake could not be located from Thunder Bay without considerable time being lost in climbing hills. The 1928 form lines leading up to this ridge appear to be too far south.

The form lines between Steep Cove and Chance Cove are correct as shown in red on the tracing. The shoreline and two rocks at the junction of this sheet and sheet No. T-4335 checked well. Signals "Roe" and "Box" were located by plane table cuts from Triangulation Station PAW and STEEP.

<sup>McCarthy</sup>  
~~Chance~~ Lagoon was found to extend farther southeast, as shown on the tracing.

A small lake was found just north of Chance Lagoon, and is shown on the tracing.

NEW NAMES:

STEEP COVE is the name suggested by this party for the small bay east of Chance Cove, and west of Steep Point. The bay has had, to our knowledge, no previous name.

HALLIBUT COVE was the name adopted by this party for the small bight at the northerly entrance of Thunder Bay. It had no other previous name.

} not  
recommended  
KTR

STATISTICS:

Statute Miles of Shoreline: ----- 31  
Square Statute Miles of Area: ----- 17

Respectfully submitted,

*Francis B. Quinn*

Francis B. Quinn,  
Jr. H. & G. Engr. C. & G.S.

Approved and Forwarded,

*F.B.T. Siems*

F.B.T. Siems,  
Chief of Party.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4573

TOPOGRAPHIC TITLE SHEET

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. A

REGISTER NO. 4573

State Alaska

General locality Kenai Peninsula

Locality Two Arm Bay to McArthur Pass

Scale 20,000 Date of survey July, 19230

Vessel Discoverer

Chief of Party F. B. T. Siems

Surveyed by F. B. Quinn

Inked by F. B. Q.

Heights in feet above M. H. W. to ground ~~to tops of trees~~

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

Instructions dated Mar. 21, 19230

Remarks: See tracing showing junction of this

survey with those of 1927-1928