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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: Alaska

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~ Sheet No. "C" 4581

LOCALITY

Kodiak Island, ~~Alaska.~~

~~Low Cape to Rodman.~~

Alitak Lagoon and Vicinity

to Low Cape

1930

CHIEF OF PARTY

F. H. Hardy, H.&.G.E.

U. S. GOVERNMENT PRINTING OFFICE: 1928

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DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "C"

Low Cape to Rodman

Str.SURVEYOR. 1930 F.H.Hardy, Com'd'g.

Scale 1:20,000

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Authority.

The work on this sheet was executed under Instructions dated April 1-st, 1930.

Limits.

This sheet joins topographic Sheet "B" 1939 on the north, and Sheet 4486 on the south.

Description of Coast.

Throughout the length of the sheet the shoreline consists of low mud and grassy bluffs backed by rolling grassland or tundra. These bluffs show evidence of considerable erosion. From triangulation station GUMP to the northern side of the entrance to Alitak Lagoon, the bluffs decrease in elevation. South of Alitak Lagoon, the bluffs are also lower and of a sandy nature, partly covered with grass.

The beach, along the entire length of the sheet, is mixed sand and gravel, with the exception of two short stretches of sand beach (from topographic signal Joe to signal Dog, and from triangulation station MEARS to topographic signal Dot.) In general, the sand and gravel extends offshore about 50 meters, where it becomes large rocks and boulders visible at very low tides.

The rolling tundra to the east averages about 100 to 200 feet in height, but south of Alitak Lagoon it decreases somewhat in elevation and is dotted with numerous small lakes and ponds.

Sukhoi [Alitak] Lagoon has its entrance about 6 miles south of Low Cape and is nearly mid-way between Low Cape and Cape Alitak. It has a narrow entrance between two sand and gravel bars with a depth of about one fathom. This entrance widens into a small bay (Sukhoi Bay) which mostly bares at low water but through which there is a clearly defined channel at low tide. There is a depth of one fathom in this channel at low water. The entrance again becomes narrow before the lagoon proper is reached, and is not navigable except for very small boats, and with considerable local knowledge.

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The large lagoon was not surveyed, and is shown as sketched on the topographic sheet.

Landmarks.

Low Cape - The extreme cape is marked by a prominent pointed earth bluff, light in color and about 90 ft high. The bluff is very steep on the offshore side, and there is evidence of considerable erosion.

Control.

Control was established by locating triangulation stations of third order accuracy on an average of two miles along the beach.

Survey Methods.

The sheet was entirely surveyed by traverse, with the exception of the small bay at the entrance to Alitak Lagoon. This was done by means of plane-table cuts to prominent objects along the beach and rod readings along the beach from wherever a three point fix could be obtained.

Summary of Traverse.

		Distance	Closing error.
△ Low Cape	to △ May	2.2	6.0
△ May	to △ Lit	1.4	20.0
△ Lit	to △ Gump	2.1	0.0
△ Gump	to △ Mears	1.8	0.0
△ Maars	to △ Rodman	2.0	0.0

The traverse May - Lit was run and did not close by 20.0 meters. This was rerun and checked the original run both in azimuth and distance. It was decided that the rods were being under-read and as a record had been kept of the distance between setups, a correction was applied to each distance along the azimuths previously obtained. It was found that this made the traverse check exactly in both azimuth and distance.

An error of about 10 meters was found in the traverse Gump - Mears. The portion from △ Gump to signal Rum was rerun and the discrepancy was accounted for.

Omission.

No form lines were drawn on the sheet. The land is of almost uniform elevation, and there are no conspicuous hills in the area.

No magnetic meridian is shown on the sheet. The declinatoire with the alidade used was so badly in need of repair, that it could not be used nor repaired in the field. No other declinatoire was available, as all other alidades were in use. Compass declinometer observations were made at Low Cape in 1930, and at Cape Alitak in 1929.

Union with Adjacent Work.

A union was made at both ends of the sheet without appreciable error.

Geographic Names.

The large lagoon shown mid-way between Low Cape and Cape Alitak was arbitrarily called Alitak Lagoon by the Survey party. Part of Sukhoi Bay (Jebakof); takes same name. H.W.M.

List of Plane-Table Positions.

Topographic signal Pole is the only permenently marked or recoverable topographic signal on the sheet. It is marked by a standard hydrographic or topographic bronze disk cemented into the top of a large boulder. A white-washed pole was erected over it.

POLE :- Latitude 56° 57' - 1530 m. Longitude:- 154° 24' 402 m.

Respectfully submitted,

Clarence A. George by H.E.G.

Clarence A. George, Jr. H.&.G.E.

Approved.
Chief of Party

Form 537a

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 4581

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 Letter "C"

REGISTER NO. 4581

State Alaska.

General locality ~~Southwest Coast~~ Kodiak Island.

Locality Alitak Lagoon and Vicinity to Low Cape ~~to A Rodman~~

Scale 1:20,000 Date of survey August, 1930

Vessel Str. SURVEYOR

Chief of Party F.H.HARDY.

Surveyed by Clarence A.George.

Inked by Clarence A.George.

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

Contour Approximate contour Form line interval ____ feet

Instructions dated April 1-st, 1930

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928