

ACKNOWLEDGED  
DEC 18 1922  
L. & A. SEC

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

State: *S. E. Alaska*

11-5613

DESCRIPTIVE REPORT.

*Tope* Sheet No. *3982*

LOCALITY:

*Lynn Canal*

*Sullivan Island*

*1922*

CHIEF OF PARTY:

*J. H. Hawley*

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DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET NO. 1.

LIMITS:

This sheet extends from north latitude  $58^{\circ} 55'$  to  $59^{\circ} 03'$  and from west longitude  $135^{\circ} 03'$  to  $135^{\circ} 29'$ . On the eastern shore of Lynn Canal the topography at the southern limit connects with the work of Mr Weber (1921). The two sheets connect at  $\Delta$  MET. The northern limit extends about a mile north of  $\Delta$  SLIDE connecting with sheet no. 2 of this seasons work. On the western shore the shore line connects at  $\odot$  VIA at it's southern limit runs to and includes the glacial spit west of the northern point of Sullivan I. This sheet also includes the two southermost Chilkat Islands, Elared rock and Sullivan Island.

GENERAL DESCRIPTION OF SHORE:

The eastern shore of Lynn Canal with the exception of the sandy bight just south of  $\Delta$  BOLD, is all very steep cliffs. The slopes are ~~the~~ thickly covered with trees to about 2000 feet. Many places land slides have cleared wide paths in the trees.

The western shore is alternate rocky beaches and glacial fans. The glacial fans are roughly semicircular in shape, have broad sandy beaches with a wide strip of grass between the high water mark and the trees. The trees on these fans are a mixture of spruce and alder. The mountain slopes are sparsely covered with trees.

Sullivan Island:

Sullivan island is a long hilly island, lying close to the western shore of the canal. It is about 6 miles long and 1 mile wide at the widest part. The shore is alternate cliffs and boulder beaches. From  $\Delta$  LIV to  $\Delta$  ISLAND and from  $\Delta$  WEB to  $\Delta$  SER rocky reefs show at low tide.

The island is thickly covered with trees. The island is stocked with foxes.

Chilkat Islands, (two southern islands)

Two low wooded islands lying about midway between Sullivan island and the east shore of Lynn Canal. The shore line is very rocky and the points make off quite a distance.

Eldred Rock

A small <sup>rocky</sup> grass covered island. Lying about in midchannel, it is marked by a light house.

LANDMARKS:

Described on separate sheet.

ANCHORAGES:

A small bight about a mile north of AVAN, affords good protection in a north wind for small gas boats. In entering from the north care must be taken to avoid the reef that makes off the north point, it extends about 1/5 or a mile.

In the second Chilkat Island, on the north side of the island. A small bight suitable for small craft, affords protection in a south east storm. A gap in the trees allows the wind quite a sweep but there is good holding bottom. Many boats tie up at a dophin driven near the head of the bight. There is quite a dangerous rock near the entrance but it is charted.

SURVEY METHODS:

The following points of control were established by triangulation MET., LOW, BOLD, SLIDE, ELD., SED, TREE, LIV, VAN, ISLAND;



SHORE AT A LIV SULLIVAN I.



SHORE AT SULLIVAN RK.



SULLIVAN I NEAR OHE



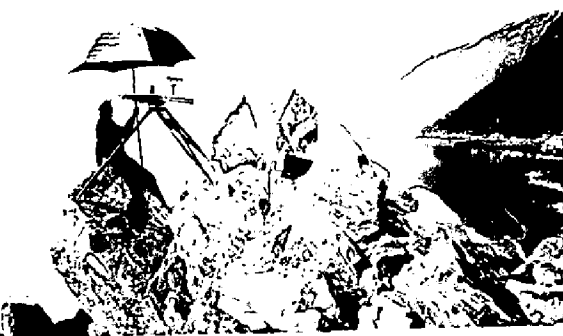
SET UP AT A BOLD.



NORTH END OF SULLIVAN I. & GLACIA FANS WEST OF IT.



SOUTH END OF SULLIVAN I.



LYNN CANAL  $\frac{1}{2}$  MILE N. A SLIDE



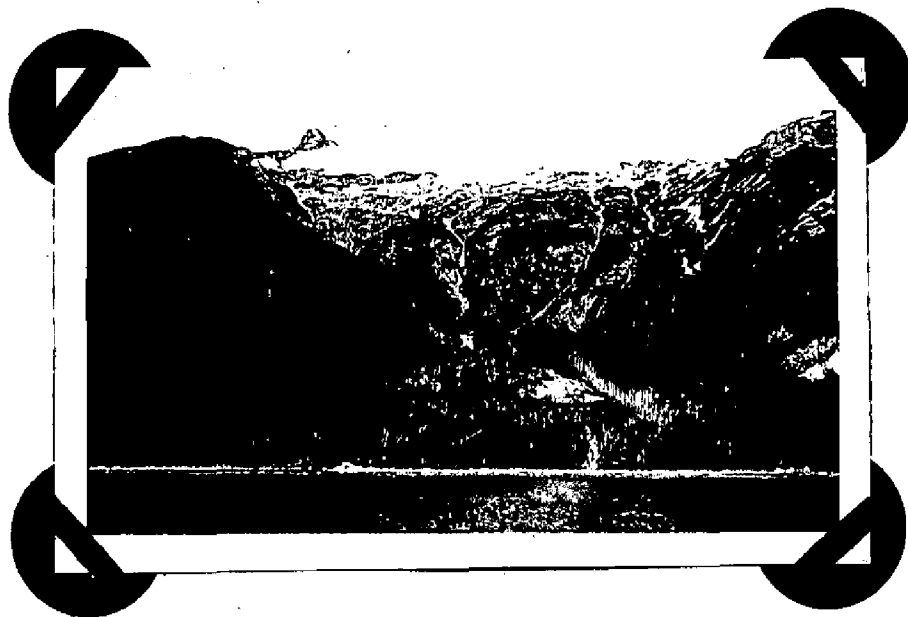
MOTOR GOAT USED BY TOPOGRAPHIC PARTY.

# LANDMARKS

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Objects & Description	Latitude D.M.	Longitude D.P.	Height	Remarks
Large outcropping - white rock	590 01' 1390M	135° 11'	798 M 390 Ft	Probably Quartz.

Edred RK. (Light) described in Light List.



QUARTZ,WEB,( MR Ratti 1921).SER,LACE (Mr Weber 1922).The plane  
table triangulation that I started on sheet,Register No 3853,I  
carried on to this sheet,tying it in at it's northern limit with  
signals SER and LACE.The following stations were located,Scan ,die  
nav,via,he lie,an,thus.

The shore line was surveyed by traversing between stations  
Due to the number of triangulation stations on both sides of  
the canal I was able to check my position by three point fixes  
and re sections,making no appreciable error between stations.

Submitted by

*Bonifacio H. Rizz*  
Jr.H&G.E.

Approved by

H. & G.E.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON      October 31, 1924.

SECTION OF FIELD RECORDS

Report on Topographic Sheet No. 3982

Lynn Canal, Alaska

Surveyed in 1922

Instructions dated February 13, 1922.

Chief of Party, J. H. Hawley.

Surveyed and inked by B. H. Rigg.

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 except that there are only two-thirds of the specified number of determined elevations.
3. The plan and extent of the survey satisfy the specific instructions.
4. The junctions with the adjoining surveys are satisfactory.
5. Eldred Rock Light and a large white rock are listed in the descriptive report as landmarks, but neither was shown or named on the sheet.
6. No further surveying is required within the limits of the sheet.
7. The character and scope of the surveying and field drafting are good.
8. Reviewed by E. P. Ellis, October, 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. 5982

State S.E. Alaska

General locality Lynn Canal

Locality Sullivan Island

Chief of party J.H. Hawley

Surveyed by B.H. Rigg

Date of survey April, May, June 1922

Scale 1/20,000

Heights in feet above mean sea level

Contour interval . . . . feet.

Inked by B.H. Rigg . . . Lettered by B.H. Rigg . . . . .

Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Remarks: