

4652

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, *Director*

U. S. COAST & GEODETIC SURVEY  
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MAR 23 1932

State: Alaska

Acc. No. \_\_\_\_\_

DESCRIPTIVE REPORT

*Topographic* | Sheet No. 4652  
*Hydrographic* | Field # E

LOCALITY

Behm Canal

Gandle I., to Skirt Pt.

1931

CHIEF OF PARTY

E. W. Eichelberg, F. L. Peacock

GOVERNMENT PRINTING OFFICE

4652

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET "E"  
BEHM CANAL - S. E. ALASKA.

SEASON 1931.

E. W. Eickelberg  
&  
Fred. L. Peacock

CHIEF OF PARTY

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET "E"  
BEHM CANAL - S. E. ALASKA.

AUTHORITY:

Authority for the survey was the Director's Instructions for Project No. 56 to the Commanding Officer, Ship EXPLORER, dated March 7th, 1930.

LIMITS:

The shore line extends, along the East side of Behm Canal from triangulation station "JEW 2", Latitude  $55^{\circ}36.7'$ , Longitude  $130^{\circ}53.1'$ , Southward to topographic station "HUN", Latitude  $55^{\circ}23.7'$ , Longitude  $130^{\circ}52.8'$  and on the West side from triangulation station "MALE 2", Latitude  $55^{\circ}37.5'$  southward to topographic station "SAL", Latitude  $55^{\circ}27.1'$ , Longitude  $130^{\circ}58.2'$ .

A junction with topographic sheet "D", is made at triangulation station "MALE 2", and "JEW 2". Another junction is made with topographic sheet "F", at triangulation stations "DISH", Latitude  $55^{\circ}33.3'$ , Longitude  $130^{\circ}49.0'$  and "ELSE", Latitude  $55^{\circ}32.9'$ , Longitude  $130^{\circ}48.5'$ . The junction with topographic sheet "G" is at topographic stations "SAL" and "HUN".

CONTROL:

The control for this survey was furnished by triangulation established by Lieutenant J. M. Smook, in 1929, supplementary third order triangulation was established by the party during the season.

METHODS:

The shore line was surveyed by the usual planetable stadia methods, and no unusual difficulty was encountered. Traverse lines were run between triangulation stations. Trouble was encountered along the traverse line between triangulation stations "POP", Latitude  $55^{\circ}29.8'$ , Longitude  $130^{\circ}52.8'$  and "LOUISE". A new rod was used on this traverse as the rods used previously were being repainted. When the traverse error did not come within the limits prescribed by the Topographic Manual, the traverse was re-run with the same result. The rod was then tested and a new F.+ C. constant determined. When this constant was applied to the rod-readings, the traverse checked within three meters. All the remaining traverses were run within the limits

approved in the Topographic Manual, and were adjusted as described therein.

The topographic station "SAL" was located by intersection cuts from triangulation stations and traverse points. The location was then checked by a random stadia traverse from triangulation station "BAY".

Off-shore rocks were located by intersection cuts from triangulation stations. Hydrographic stations on the off-shore islands were located by directional cuts from triangulation stations and the shore line was then located from these hydrographic stations by stadia rod readings.

Standard practice was followed throughout the entire sheet.

#### GENERAL DESCRIPTION:

The greater part of the shore-line is steep and rocky. The entire country is covered with a heavy growth of evergreen timber. Cliffs and rock outcrops show on the slopes.

All the islands on this sheet are heavily wooded.

Where low water is not shown the distance between high and low water is negligible. At the head of bays and bights there are small gravel and sand flats as shown on sheet.

#### INSERTS:

The inserts were surveyed by Lieutenant Roger C. Rowse on a 1:10,000 scale. The reason for using a larger scale is as follows: Manzanita Bay, because of the possibilities in the future that this section may be developed to utilize the natural water-power. The passage between Manzanita Island and the mainland because a larger scale was more desirable for the hydrographer in plotting his positions due to the narrowness of the passage.

Both inserts have been reduced to a 1:10,000 scale, and are shown by a black broken line in their respective positions on the sheet.

#### LANDMARKS:

New Eddyston Rock is a shaft 235 feet high rising from a sand and gravel shoal. This shoal was rodded in at a two foot minus tide. (M.L.L.W.)

DISTORTION:

It is thought that the small amount of distortion in the sheet is due to the fact that most of the surveying was done under favorable weather conditions and also due to seasoning the sheet by having it laid out on the bridge of the ship. It was protected by the awning but subject to variation in the outside atmosphere. It was seasoned in this manner for two months before the projection was made.

MAGNETIC OBSERVATIONS:

Magnetic observations were made at triangulation stations "SAG", "LOUISE", "BEE 2", "JEW 2", "PALL" and "BIB".

Respectfully submitted,

*Kenneth S. Ulm*

Kenneth S. Ulm,  
Aid, C. & G. Survey.

APPROVED:

*F. H. Hardy*

F. H. Hardy,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER.

# LIST OF TOPOGRAPHIC STATIONS.

Station	Latitude	D.M.	Longitude	D.P.
	° '		° '	
TUT	55 28	1811	130 53	351
TAT	55 27	636	130 53	647
AGE	55 25	633	130 53	1008
SAL	55 24	278	130 58	201
HUN	55 23	1255	130 52	867

The above stations are marked by standard  
bronze discs.

STATISTICS.

Number of statute miles of shore line	74.2
Number of statute miles of low water line	11.9
Number of permanently marked stations determined by plane table	5

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4652

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. "2"

REGISTER NO. 4652

State ~~S. F.~~ Alaska

General locality Behm Canal

Locality ~~Moranita Bay~~ to Candle Island to Skirt Pt.

Scale 1:10,000  
1:20,000 Date of survey June, July, & Aug., 1931.

Vessel U.S.C. & G.S. Ship EXPLORER

Chief of Party E. W. Dickelberg & Fred. L. Peacock

Surveyed by Roger C. Rowse and Kenneth S. Ulm

Inked by Roger C. Rowse and Kenneth S. Ulm

Heights in feet above " " " " " to ground to tops of trees

Contour, Approximate contour, Form line interval " " " feet

Instructions dated March 7th, 1930.

Remarks: