

4566

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
R. S. Patton, Director	
State: <u>Alaska</u>	
DESCRIPTIVE REPORT	
Topographic <del>Hydrographic</del>	Sheet No. <u>4566</u> Field # <u>C</u>
LOCALITY	
<u>Behm Canal, S. E. Alaska</u>	
<u>Back I. to Naha Bay</u>	
<u>1930</u>	
CHIEF OF PARTY	
<u>E. W. Eichelberg</u>	

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4566

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. "C"

REGISTER NO. 4566

State ALASKA

General locality BEHM CANAL, S. E. ALASKA

Locality BACK I. TO NAHA BAY

Scale 1:10,000 Date of survey April - May, 1930

Vessel EXPLORER

Chief of Party E. W. RICKELBERG

Surveyed by J. C. PARTINGTON

Inked by J. C. PARTINGTON

Heights in feet above H.W. to ground ~~XXXXXXXXXXXX~~

~~Contour, Approximate contour, Form line interval~~ No Contours. feet

Instructions dated March 7, 1930

Remarks:

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET "C"  
NAHA BAY, BEHM CANAL, S. E. ALASKA

INSTRUCTIONS:

Director's instructions dated  
March 7th, 1930.

LOCALITY and EXTENT:

This sheet includes the east shore of Behm Canal, S. E. Alaska, from the south end of Grant Island, Latitude  $55^{\circ} 32'$ , Longitude  $131^{\circ} 43'$ , to about one mile west of the town of Loring, Latitude  $55^{\circ} 36'$ , Longitude  $131^{\circ} 40'$ .

GENERAL DESCRIPTION:

7  
The shoreline of Back Island is rocky, and the low water line extends from 20 to 230 meters off-shore. The island is low, and is covered with a heavy growth of spruce and cedar trees. The shoreline of Grant Island is rocky, with deep water close to it. The island is heavily wooded, and is 435 feet high at its highest point. Off the south end of Grant Island, is a small island with rocky shores and deep water close to it. The shoreline on the east side of Clover Passage is mostly rocky, with a few short stretches of gravel-beach.

The shoreline of Moser Bay is rocky, with some gravel beach and rocky ledges. At the head of Moser Bay, is a flat, which bares at low water. This flat is composed of sand and gravel.

Long Arm is a narrow body of water, extending about 1-1/4 miles northeast from its junction with Moser Bay. The shoreline of Long Arm is rocky, with deep water close to shore. At the mouth of Long Arm is a reef, which bares 11 feet at mean lower low water.

Moser Bay is separated from Behm Canal by three islands; namely, Stack Island, Moser Island, and Cedar Island. These islands are heavily wooded, and their shores are rocky and fringed with rocky ledges and gravel and boulder beaches. Cache Island, at the entrance to Naha Bay, is a small, round, tree-covered island.

From Cod Point to the town of Loring, and from Loring to triangulation station LOR 1930, the shore is rocky, with trees growing down to the water's edge. Donnelly Point is a low heavily-wooded point, about midway between the town of Loring and Cedar Island.

The usual route for boats bound from Hump Island to Loring is to steer a mid-channel course between the south end of Grant Island and the small island south-east. The latter is named Joe Island in the Coast Pilot. From Joe Island a mid-channel course is steered through Clover Passage passing between Stack Island and the point east. From Stack Island a course is shaped for Cod Point until the south one of the two small islands which lie south-east of Cedar Island is abeam. A mid-channel course is steered between this island and the peninsula on which Cod Point is located until the north tangent of Cedar Island is abeam. Then the course is shaped about 1/4 mile off Donnelly Point to the town at Loring.

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(Kitnu)

SURVEY METHODS:

The nine triangulation stations shown furnished control for this survey.

The survey was accomplished by the usual plane-table methods. A traverse was run from triangulation station LOR to triangulation station CAN with a closing error of 2 meters, which was adjusted. Topographic stations DAY, VAL, CAT, HOT, TOM, BAN and SU were located by plane-table cuts as the above traverse proceeded from LOR to CAN. A combination of traverse and plane-table triangulation was carried from triangulation station CAN to topographic station MEX and closed on triangulation station DON with an error of 2 meters which was adjusted.

The survey of Roosevelt Lagoon was accomplished by a combination of traverse and plane-table triangulation beginning at topographic station MEX and running a traverse to topographic station SIL. From SIL the stations were located by plane-table cuts and checked by rod readings as the traverse proceeded around the lagoon.

A traverse was run around Cache Island beginning at triangulation station CACHE and closing on the same with no appreciable error so that no adjustment was necessary.

A combination of traverse and plane-table triangulation was carried from triangulation station DON to topographic stations SO and POT. From these two stations the survey was carried up Long Arm by the same methods, the traverse position of topographic station MAY checking the plane-table cuts with an error of 5 meters which was adjusted.

A traverse was run from topographic station SO around the west shore of Cedar Island checking on triangulation station CEDAR with an error of 3 meters which was adjusted.

From topographic stations SO and POT a combination of traverse and plane-table triangulation was run along the shores of Moser Bay to topographic station MY. A traverse was then run from triangulation station GRANT to topographic station MY closing with an error of 6 meters which was adjusted.

Stations on Moser and Stack Islands were cut in from set-ups along the two above mentioned traverses. These cut served to control the surveys of Moser and Stack Islands.

From triangulation station GRANT, a traverse and plane-table triangulation was run along the north and east shores of Grant Island and along the east side of Clover Passage to triangulation station CLOVER, with a closing error of 14 meters. This error was considered too large and the traverse was re-run from CLOVER back to topographic stations LUX and GOB and the error was found. After the final running, the closing error was 2 meters which was adjusted.

From triangulation station CLOVER a traverse was run along the west shore of Grant Island to triangulation station GRANT with a closing error of 2 meters which was adjusted. The topography of the island between CLOVER and the south end of Grant Island was done from this traverse.

The topography of Back Island was done from a traverse beginning at triangulation station BACK and running around the island and closing on the same triangulation station. This traverse closed with an error of one meter and no adjustment was necessary.

Back Island and Roosevelt Lagoon were surveyed by Lieutenant P. C. Doran and the remainder of the sheet was surveyed by Lieutenant (j.g.) J. C. Partington.

No contours or form lines were located on this sheet since the area was covered on topographic sheet "B", scale 1:20,000. Elevations shown are ground elevations. The heights determined were to the tops of trees but elevations shown have the heights of trees subtracted. Heights of trees vary from 40 to 80 feet.

#### JUNCTION OF SHEETS:

Topographic Sheet "C" joins Topographic Sheet "B" on the south end at triangulation station CLOVER, and the same sheets join again on the north end at Triangulation station LOR.

DISCREPANCIES:

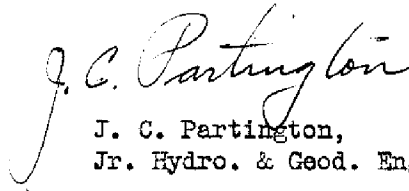
The survey was found to conform very well with chart #8124 except for the islands shown at the head of Moser Bay. These islands are shown on chart #8124 and also mentioned in the Coast Pilot. However, they were not found in making this survey and it is thought that part of the flat shown on the topographic sheet was mistaken for a high water island. The survey of the high water line was made at high water and the flat covers completely at that stage of the tide. For this reason it is recommended that the two islands shown on chart #8124 be changed to conform with topographic sheet "C".

NAMES:

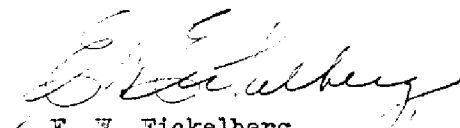
Names on the topographic sheet conform with the names on chart #8124 except for Back Island. On chart #8124 this island is called Black Island, but on chart #8102 it is called Back Island. The name Back Island was used on the topographic sheet.

The island lying about 500 meters south-east of the south end of Grant Island has no name on chart #8124. In the Coast Pilot this island is referred to as Joe Island.

Respectfully submitted,

  
J. C. Partington,  
Jr. Hydro. & Geod. Engineer.

Approved and Forwarded,

  
E. W. Eickelberg,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER.

PLANE - TABLE POSITIONS

TO ACCOMPANY TOPOGRAPHIC SHEET "C"

OBJECT and DESCRIPTION	LAT.	D.M.	LONG.	D.P.	REMARKS
GO - south radio mast on dock.	55°36'	165 (1690)	131°37'	911 (140)	
SUB - south gable of cannery bldg.	55°36'	7 (1849)	131°37'	876 (175)	
DAL - tree on small islet.	55°35'	1561 (295)	131°37'	501 (550)	
TOM - center of rock.	55°35'	1083 (773)	131°37'	808 (243)	
HOUSE - east gable of small house.	55°33'	1480 (376)	131°39'	132 (920)	
AXEL - large boulder.	55°32'	855 (1001)	131°45'	170 (882)	

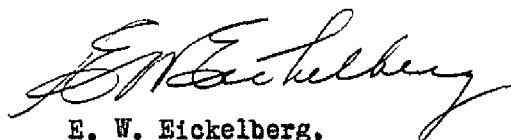
STATISTICS TO ACCOMPANY TOPOGRAPHIC SHEET "C".

Number of miles of high water line located	= 44.6
Number of miles of low water line located	= 42.0
Number of elevations determined	= 14
Number of permanently marked topographic stations	= 6



APPROVAL SHEET, TOPOGRAPHIC SHEET "C".

This sheet has been examined by me and is  
approved.

A handwritten signature in cursive script, reading "E. W. Eickelberg".

E. W. Eickelberg,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER.