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Form 304	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
State: <u>S. E. Alaska</u>	
11-5613	
DESCRIPTIVE REPORT.	
Topographic Sheet No. <u>B</u>	4048
LOCALITY:	
<u>Icy Strait</u>	
<u>Port Frederick, Neka Bay</u>	
<u>to Head of Port</u>	
19123.	
CHIEF OF PARTY:	
<u>J. H. Hawley</u>	

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET B.

Limits:

This sheet extends from north latitude  $57^{\circ}-56'$  to  $58-03'$  and from west longitude  $135^{\circ}-36'$  to  $135-50'$ . The sheet includes Port Frederick from the south end of sheet A to the head.

General Description of Shore:

From  $\Delta$  Neck on the western shore of Port Frederick, where sheets A and B join, the shore line changes abruptly in direction, and runs in a general easterly direction, forming the north shore of Neka Bay. For about four miles it is composed principally of gravel beach. At this point extensive tide flats begin, covering from two to three square miles and including about fifteen miles of shore line. The south shore of Neka Bay, from the edge of the flats to the point opposite Neka I., consists of alternate cliffs and beaches. Between Neka I. and Chimney Rk. two long, narrow bights, known as North Bight and South Bight, make in for about two miles in a general westerly direction. A reef extends from the main land almost to Chimney Rk., leaving a channel only about 100 m. wide at low water. From Chimney Rk. south and west to  $\odot$  Pint the shore is composed alternately of cliffs, boulder beaches, and sand beaches, with tide flats in a bight just north of  $\odot$  Pint. West of  $\odot$  Pint a good-sized bight makes in; on the north shore of this bight are flats, while the south shore is fairly steep-to. There is an island opposite the south extremity of this bight which is very nearly connected at low water with the main land. From here to within about one mile of the head of Port Frederick the shore consists of sand and boulder beaches; the last mile of Port Frederick consists of a long, narrow tide flat. At the head is a canoe portage to Tenakee Inlet, and at extreme high water the distance between Port Frederick and Tenakee Inlet is only about 150'.

Progressing eastward along the southern shore, from the tide flats at the head to ☉ Lost, the shore is composed of sand and boulder beaches, with a prominent bight about 1/2 mile west of ☉ Lost, in which two large streams are located. Between ☉ Lost and ☉ Hand Salt Lake Bay makes off to the southward, narrowing down at one point to a passage 100 m. wide, and then widening out and forming a good-sized landlocked bay. With the exception of a large tide flat in the southeast corner of the main body of the bay the shore line from ☉ Lost to ☉ Hand is composed chiefly of boulder beaches. From ☉ Hand to ☉ Bet, where this sheet connects with sheet A, the shore consists of cliffs and boulder beaches.

#### Outlying Dangers and Islands:

Neka I., a small, wooded island, lying just south of the entrance to Neka Bay.

Chimney Rock (on which is located Δ Chim), a small, wooded island of chimney-like appearance, very nearly joined with the main land at low water.

Bell I., a small, wooded island, lying one mile S.W. from ☉ Pint. At low water it is very nearly joined to the main land.

Two dangerous rocks, baring at 1/4 tide, and about 100 m. apart, lying just a little in-shore of mid-channel between Midway I. and the west shore of Port Frederick. These rocks are called Midway Rks.

#### Inshore Dangers:

A sunken rock, 60 m. off shore and 200 m. north of ☉ Val. *marked on map*

A sunken rock, 60 m. off shore at ☉ Jane.

A <sup>reef</sup> extending from the shore opposite Chimney Rk. to within about 100 m. of Chimney Rk. Small vessels running close to the beach should hold well off shore between Edge and this reef as there are a number of dangerous sunken boulders lying in shore.

A reef awash at  $3/4$  tide, 100 m. S.(mag.) of Bell I.

Two rocks, baring at  $1/2$  tide, one 100 m. and one 300m. east of  $\odot$

$\odot$  For.

A reef, awash at H.W., 170 m. N.(mag.) from  $\odot$  Bat.

A reef, awash at H.W., 100 m. S.(true) from  $\odot$  Sand.

#### Harbors;

Anchorage for vessels of any size may be had all over Neka Bay in from 5 to 15 fms. of water.

Anchorage for good-sized vessels may be had in the southwest corner of the main body of Salt Lake Bay in from 10 to 20 fms. of water. The swinging room here is not very great and care should be taken not to anchor too close to the flats. The inner harbor at Salt Lake Bay affords a fine anchorage for small craft, but the entrance at low tide is dangerous even for vessels of only 3 or 4 ft. draft, as the passage is narrow and shallow in places, and there is an extremely strong current. At higher stages of the tide small boats can enter easily.

A good anchorage for small boats may be found off  $\odot$  Trey in North Bight in from 4 to 8 fms. of water.

Another good anchorage for small boats in 5 fms. of water can be had at the entrance of the small bight which makes to the south just before the tide flats at the head of Port Frederick are reached.

#### Survey Methods:

Secondary triangulation was carried into Port Frederick only as far as stations Der and Rick, and from there plane table triangulation was carried to the head and also into Neka Bay. The shore line was run by traversing between stations. Due to the closing of the season no form lines were obtained on this sheet. Neka Bay, including the tide flats, and North Bight were originally surveyed on another sheet and transferred to this sheet; all other work was done on this sheet.

Points of Control:

Triangulation stations Back, Neck, Bay, Chim, Gull, Rick, Der(A.M. Weber, 1923).

Plane table stations (marked) An, Bet, Bad, For, Pint, Rock, Lit.

The other plane table stations shown on the sheet were not marked.

Names Assigned by Field Officers:

North Bight  
South Bight  
Midway I.  
Midway Rks.  
Salt Lake Bay  
The Narrows  
Bell I.

Approved by

Comdg. Str. Explorer

Submitted by

*A. M. Weber*

Jr. H. and G.E.

To be inspected by Capt. J.H.Hawley at the office.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

4048

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. (B) 4048

State . S.E. Alaska . . . . .

General locality . Icy Strait . . . . .

Locality . Port Frederick, Neka Bay to Head of Port  
~~Neka Bay to head~~ . . . . .

Chief of party . J.H. Hawley . . . . .

Surveyed by . A.M. Weber . . . . .

Date of survey . August, September 1923. . . . .

Scale . 1/20000 . . . . .

Heights in feet above . H.W. . . . .

Contour interval . -- . . feet.

Inked by . A.M. Weber . . . . . Lettered by . H.E. MacEwen . . . . .

Records accompanying sheet (check those forwarded): Photographs,

✓ Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . .

Remarks: North Bight was surveyed by J.H. Hawley, The tide flats in  
Neka Bay by W.T. Combs, Neka Bay and South Bight by D.E. Whelan,  
and the rest of the sheet by A.M. Weber.