FORM 501
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Leo S. Colbert
Director

State: ALASKA

DESCRIPTIVE REPORT
Topographic { Sheet No. D 1939
Hydrographic

LOCALITY
NORTH SHORE
OF
UNIMAK ISLAND.

1639

CHIEF OF PARTY
E. W. EICKELBERG
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.......D.m.1939. T6683

REGISTER NO.

State..................ALASKA

General locality.....NORTH SHORE, UNIMAK ISLAND

Locality. Lat. 54° 43'. 2", Long. 164° 34'. 8". to Lat. 54° 54'. 3", Long. 164° 31'. 1"

Scale......1:20,000 Date of survey......JULY-AUGUST......1939

Vessel................G.U.I.D.E.

Chief of party........E.W. EICKELBERG

Surveyed by..........C.F. CHENWORTH AND C.A. SCHOENE

Inked by.............C.F. CHENWORTH

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

Contour- Approximate contour. Form line interval.....100..feet

Instructions dated........MARCH 8......1939...

Remarks:

.................................................................
DEScriptive REPORT  
To accompany  
TOPOGRAPHIC SHEET D T-6683  
1939  
PROJECT E.T.231  
SHIP GUIDE.

INSTRUCTIONS: Instructions for this survey were contained in a letter from The Director dated March 8, 1939, No. 22-AB, 1995 GU I.

GENERAL DESCRIPTION OF THE COAST: From off shore the coast appears low and flat near the southern end of the sheet but changes abruptly at the mouth of SNAKE RIVER to high cliffs and bluffs. These bluffs turn back and extend inland adjacent to the low ground in a direction nearly normal to that of the shore line. They increase in height as they progress further inland, and form such a contrast to the low land immediately south of this, that they are easily the most prominent feature surveyed during the entire season with the exception of the very high peaks which are further inland.

The area behind the cliffs and bluffs along the shore line rises steadily over an apparently smooth and grassy slope to a range of sharp peaks in the background.

Near the northern limit of the sheet NIPPER COVE can be seen from seaward, and the mouth of NIPPER CREEK at the most sheltered portion of the cove is especially noticeable because the bluffs turn inland along the course of the creek at this point. This is the only break in the cliffs and bluffs along the beach for several miles in both directions.

Just north of Nipper Creek, a grassy ridge is to be seen extending from the peaks in the background to the beach with decreasing elevations.

DESCRIPTION OF THE COUNTRY: Reference is made to the Descriptive Report accompanying Topographic Sheet A, under the heading "Description of the Country", Paragraphs Nos. 2, 3, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18 and 19. These paragraphs apply also to this report.

South of the mouth of Snake River the beach is sandy. The sand is black and very coarse, and does not compact easily. For this reason, walking on the beach is very laborious and tiresome. North of the mouth of the river, the beach is rocky. There are stretches of rocky beach where boulders of all sizes and shapes are piled upon one another and it is possible to walk along the tops of these, but it is impossible
to walk for more than a few hundred meters without encountering high rock cliffs rising nearly vertical from the water and it is impossible to walk around or to climb over these.

SEA LION ROCK lying about a mile north of the mouth of Snake River is a rather smooth brownish-gray rock. At all times during the season, Sea-lions were found upon it in large numbers. When the wind is in the right direction, their roaring can be heard for several miles off shore.

The cliffs and bluffs decrease gradually in elevation from the south toward the north. They are mostly rocky near the southern end and combination of grass, earth and rock elsewhere. For about a mile in a southwesterly direction from the mouth of Nipper Creek, they are of earth and grass and can be scaled. In other places they cannot be climbed.

The portion of the bluff extending inland from near the mouth of Snake River is steep but mostly grass and can be climbed. There is even a fairly good trail which makes its way up the side of the bluff in a northerly direction from the vicinity of Topographic Station CAM. This trail was used by the party in getting its pack horses up and down the bluff.

Triangulation Station CAIRN is located on a pile of very large boulders atop a smooth grassy knoll. This pile of rock was readily seen from off shore fairly close in and was used by the Ship GUIDE for a signal at a considerable distance, but it blends in with the higher ground inland and would not be of much value to a navigator not well acquainted with it. For this reason it was not recommended for charting purposes.

As can be seen from the form lines, quite a large valley extends from the mouth of Nipper Creek to the peaks in the background. On the southern portion of the sheet, ridges of grass covered dunes are to be found just behind the sand beach. The limits of these dunes are roughly shown by dotted lines. These dunes were probably ordinary sand dunes at one time but have since developed a growth of vegetation until now they are covered with the same covering of thick grass which is to be found elsewhere in this region close to the beach.

Inland from the grass covered dunes are flat grassy plains and marsh area as shown. The inland limits of the marsh are not known but from appearances they extend back to the higher ground. The marsh area contains a number of ponds of various sizes.

The party camped at the mouth of Snake River under the high bluffs. The water from the river was usually good for drinking purposes, but at times of high tide or of heavy surf, it became brackish. Fortunately, there was a supply of clear and cold spring water at the camp which was very good both in quality and accessibility. The river is very crooked, particularly inland through the marshland beyond where it has been located. It can be waded in hip boots in most places at low water, and during calm weather a dory can be taken in and out at the entrance. The entrance is very shifting and changes with each storm.
Nipper Creek flows into the sea over a rocky stream beach. It is a very small stream and is very crooked. Its water, however, is very clear and cold, and excellent for drinking purposes. It is quite swift flowing but can be crossed at several places near its mouth.

LAND MARKS: There are no landmarks recommended for charting purposes within the limits of this sheet.

CONTROL AND SURVEYING METHODS: This survey was based upon a scheme of second order triangulation.

Traverse was run along the beach from Station SPIRICA to Station DELTA, and from DELTA to Topographic Station TIP. TIP having been located from the top of the bluff by intersecting cuts. The errors of traverse closure were well within the allowable limit and were adjusted proportionally.

Three point fixes were utilized on top of the bluff for form lining and for cutting in signals on the beach to be used in controlling the beach traverses.

Because of the nature of the country it was impossible to find many places along the top of the bluff where both signals for three point locations and the shoreline could be seen. In such cases the location was made further up the hill and the setups placed at the top of the bluff where they could command a view of shoreline with its already established topographic signals.

The section of shoreline from Topographic Station BRIGHT to the northern limit of the sheet was surveyed by C. E. Schoene, Aid, C. & G. Survey, and a special page concerning the surveying methods used on this section is included in the report over his signature.

LOCATION OF OFFLYING FEATURES: All offlying features were located by planetable intersections or rod readings from shore or offlying rock setups.

LIST OF PLANETABLE POSITIONS: Positions and descriptions of the following planetable stations have been furnished on Form No. 524:

- Topographic Station BEL
- Topographic Station SEAL (Marked "Rec. in green on smooth sheet.

DECLINATOIRE OBSERVATIONS: All declinatoire observations were made with Declinatoire No. 247 which was checked at the Magnetic Station in Seattle, Washington at the beginning of the season. Shortly after the completion of this sheet, this declinatoire was returned to the ship by the officer who was using it on the continuation of the topographic work, with the statement that it was not working properly and he had been unable to obtain a meridian with it. It had appeared to be rather sluggish all season but seemed to be in proper working order, and it is believed that it was in good shape during the work on Sheets Nos. A, B, C and D, and went bad shortly after the completion of work on this sheet.
It is possible that the continual jolting to which it was subjected while being packed on a horse might have been responsible.

Respectfully submitted,

C. F. Chenworth,
Aid, C. & G. Survey.

Approved and forwarded:

E. W. Eickelberg,
Chief of Party, C. & G. Survey,
Commanding Ship GUIDE.
CONTROL AND SURVEYING METHODS
FOR N.W. SECTION OF SHORELINE:

Between Topographic Stations BRIGHT and TIP a traverse was run completing the traverse from Triangulation Station DELTA. Points along the high-water line were rodded in. From Station TIP to the end of the sheet, points along the high-water line were out in by vertical angles from points of known elevation along the bluff. The topographic signals and all offlying rocks were located by intersection outs or by rod readings, or by a combination of both methods. The vertical angle method was used for locating the high-water line because the weather was unsuitable for boat landings along the beach, and the major portion of the beach is inaccessible from the bluffs above. It is believed that the vertical angle method is sufficiently precise for locating the shoreline.

Respectfully submitted,

C. A. Schoene

C. A. Schoene,
Aid, C. & G. Survey.

Approved and forwarded:

E. W. Eickelberg,
Chief of Party, C. & G. Survey,
Commanding Ship GUIDE.
LIST OF NEW NAMES
to accompany
TOPOGRAPHIC SHEET NO. D T-4483
1939.

The following new names were assigned by the field party.

<table>
<thead>
<tr>
<th>NAME</th>
<th>DERIVATION</th>
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<tr>
<td>SNAKE RIVER</td>
<td>This river is very crooked.</td>
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<tr>
<td>RAGGED POINT</td>
<td>This point is quite rough with many rocks laying just outside of the shoreline.</td>
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<tr>
<td>NIPPER CREEK</td>
<td>Named for one of the horses on the party which was killed during the season.</td>
</tr>
<tr>
<td>NIPPER COVE</td>
<td>The same name as the river which empties into it.</td>
</tr>
<tr>
<td>SEA LION ROCK</td>
<td>Sea lions congregate upon this rock by the hundreds.</td>
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</table>
STATISTICS

to accompany

TOPOGRAPHIC SHEET D T-6483
1939

7.1 Statute miles of shoreline

2.5 Statute miles of rivers and creeks

32.0 Square miles

63 Elevations determined

3 Magnetic Meridians
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<td>Name on Survey</td>
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<td>Nipper Cove</td>
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<td>Nipper Creek</td>
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<td>Point Okeeffe Pt.</td>
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<td>Sealion Rock</td>
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<td>Snake River</td>
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<td>Winding Creek</td>
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<td>Bering Sea</td>
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<td>Unimak I.</td>
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<td>Tugamak Range</td>
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Names underlined in red approved by L. Heck on 5/20/40
MEMORANDUM
IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT { No. T T6683 }
PHOTOSTAT OF

received April 18, 1940
registered April 22, 1940
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

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RETURN TO

| 82 | T. B. Reed |

[Signature]
DIVISION OF CHARTS
Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6683 (1939) FIELD NO. D

Alaska, North Shore, Unimak Island
Surveyed in July - August 1939, Scale 1:20,000
Instructions dated March 8, 1939 (GUIDE)

Plane Table Survey Aluminum Mounted

Chief of Party - E. W. Eickelberg.
Surveyed by - C. F. Chenworth and C. A. Schoene.
Inked by - C. F. Chenworth.
Reviewed by - Harold W. Murray.
Inspected by - H. R. Edmonston.

1. Junction with Contemporary Surveys.
   a. The junction on the south with T-6682 (1939) is satisfactory.
   b. No other contemporary surveys adjoining the present survey are registered at this time.

2. Comparison with Prior Surveys.

Prior surveys have not been made by this Bureau in this area.

3. Comparison with Chart 8880 (New Print dated July 13, 1939).
   a. Topography.

   Topography shown on the chart consists entirely of a dashed shoreline of reconnaissance value which originates with miscellaneous sources and no comparison is justified. The present survey supersedes this reconnaissance information.

   b. Magnetic Meridian.

   The declinatoire was checked at the beginning of the season's work but the descriptive report, page 3, states that the instrument appeared to be rather sluggish all season but seemed to be in proper working order.

   The magnetic meridian determined at triangulation stations CAIRN and VINOF agrees within 1/2 and 1 degree respectively with the average charted value of 16-1/4 degrees. The determination at station DELTA differs 4-1/2 degrees with
the average charted value. This larger difference has been referred to the Division of T. M. & S.

   a. The inking of the shoreline and other details is very good.
   b. The descriptive report is clear, comprehensive and satisfactorily covers all items of importance.

5. Compliance with Instructions for the Project.
   The plan, character and extent of the survey satisfies the instructions for the project.

6. Additional Field Work Recommended.
   This survey is satisfactory and no additional field work is required.

Examined and approved:

T. B. Reed, Chief, Section of Field Records.  J. S. Borden, Chief, Division of Charts.

Raymond Raymond, Chief, Section of Field Work.  E. Hulse, Chief, Division of H. & T.