

6656

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. T-6656
~~Hydrographic~~

Aleutian Islands

State ~~ALASKA~~

LOCALITY

~~SOUTHWEST ALASKA~~

South Side of Unimak Island

~~UNIMAK ISLAND, SOUTH SHORE~~

Brown Peak to Conical Red Hill

1938

CHIEF OF PARTY

Ray L. Schoppe

U. S. GOVERNMENT PRINTING OFFICE: 1934

6656

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. "F" 1938

REGISTER NO. T-6656 T6656

State ~~ALASKA~~ Aleutian Islands

General locality ~~SOUTHWEST ALASKA~~ South Side Unimak Island

Locality ~~UNIMAK ISLAND--South Shore~~ Brown Peak to Conical Red Hill

Scale 1: 40,000 Date of survey June - September, 1938

Vessel DISCOVERER

Chief of party Ray L. Schoppe

Surveyed by L. C. Johnson

Inked by L. C. Johnson

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

~~Contours, approximate contours~~ Form line interval 100 feet

Instructions dated March 30, 1936; Supp. Instr., 19
of March 30, 1937

Remarks:

Project HT-208

DESCRIPTIVE REPORT

to accompany

^{T-6656}
TOPOGRAPHIC SHEET "F" 1938

REGISTER No. T-6656

SOUTH COAST UNIMAK ISLAND

SOUTHWEST ALASKA

Ray L. Schoppe

CHIEF of PARTY, SEASON 1938

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. HT-208, dated March 30, 1936, and Supplemental Instructions dated March 30, 1937.

LIMITS:

The area covered by this sheet lies between Latitudes $54^{\circ} 36'$ and $54^{\circ} 46'$, and Longitudes $163^{\circ} 38'$ and $163^{\circ} 59'$. The sheet includes the shore line from Topographic Signal HUT at the western end, and a tie-in and satisfactory junction with Sheet T-6655 at Topographic Signal FIZ. There were no off-lying rocks or reefs noted with these limits.

This sheet joins Sheet T-6657 at Topographic Signal HUT, where a satisfactory junction was made and the survey continued to the eastward to a junction of a like nature with Signal FIZ, located the previous year.

CONTROL:

The work on this sheet is controlled by Triangulation Stations NORTH & SOUTH PINNACLES of Cape Lazaref, 1936; LAZAREF, 1936; DAVIS, 1936; SKI, 1936; RUKA, 1936; and RED HILL, 1936. All of these stations were established or recovered by a party from the Ship DISCOVERER in 1936, and 1937. The Triangulation is based on the Unalaska Datum, field computation unadjusted.

SURVEY METHODS:

This work was done by a party in camp at Cape Rukavitsie. The entire shore line was rodded in by traverse along the beach and controlled by three point fixes whenever possible, all this in accordance with methods described and authorized in Special Publication No. 144. The signals were rodded in as the work progressed, proving each location

by resection and intersection.

FORM LINES:

Elevations for form lines were determined where possible to do so, by two or more cuts and vertical angles. The vertical angles were in close agreement throughout, and the mean values were used for the accepted elevation of each point. The procedure as outlined in Special Publication No. 144 was followed throughout.

Due to a low-lying fog, prevalent throughout the season, it was impossible to secure more points. In many instances the peaks could be seen from the ship off-shore, while the Topo Party would be absolutely cut off in vision.

A form line sheet was prepared for use aboard the vessel and all the points shown on this sheet have been transferred thereto and the form lines drawn in. This form line sheet is to be retained for further checking in the field.

GENERAL DESCRIPTION:

From Topographic Signal HUT, and working to the eastward, the shore line presents a line of sand dunes bare-faced to seaward, but grass covered from the top and to shoreward. These dunes range in height from low mounds to forty feet high. North of Topo Signal MOR, the party rodded in a small crater with a small lake at the bottom. This lake is fed from springs and run off and has a swift flowing stream to the sea. The shore line dunes are broken at various places such as at Topo Signals SAL, and close to RUN, VAR, and CRE. These indents are run-off paths for the rainy weather during storm season, but are usually dry during other times. The stream beds are made up of lava ^{flow} float with a boulder here and there. From Signal KA to Signal GAT, the bare-faced dunes predominate, though low in height.

At Signal GAT the sand gives way to a cliff-like formation

with some little sand and boulders at the ocean edge. Triangulation Station SKI is on the highest point of this cliff, being 42 feet in height. The cliff-like structure breaks off at Signal HIN and becomes very low at the river's entrance. Directly behind the sand spit is a lagoon or pond which joins the river. The river follows through an area of tundra with seeping water a foot and a half in depth. Just north and east of Signal HES we again have the dune line as shown by a dashed line and this type of shore continues to the edge of the sheet at Signal FIZ.

The most prominent portion of the shore line on this sheet is to be found in the vicinity of Triangulation Station DAVIS and the two hills to the westward. DAVIS presents a bold rugged outlook though not always visible at any distance off the beach. Just below DAVIS there is a small lake that appears to be the drainage from the tundra area in the immediate vicinity.

The area north of Triangulation Station SKI is marked by sharp lava outcrops. This area is interspersed with scrub alder with grass and moss, shown on the sheet by a dashed line.

The river in the vicinity of Topo Signal KA was easily crossed a horse. The stream is clear, and has a gravel bottom. The river at SAL was also easily forded, but the large one to the eastward of Triangulation Station SKI was very difficult due to the muddy water therein, and the mud patches throughout, and too deep and swift to be forded on foot.

This sheet was executed by a party camped at Cape Rukavitsie throughout the season, using horses for transportation. It was thought to be unwise to spend the time necessary for movement of the camp with the horses. With only four horses available, a number of days might have been wasted in moving to a spot closer to the daily work.

DISTORTION:

The projection for this survey was checked at the beginning and

end of the field work and no distortion was noted.

MAGNETIC OBSERVATIONS:

Observations were made at Triangulation Station SKI with compass declinometer and also with the declinatoire. The declinatoire was also used at the following Topographic Signals: LAG, TY, HES, RUN, KA, and also at RUKA, 1936.

Each observation of the declinatoire was made with declinatoire No. 101; this declinatoire was standardized at the Green Lake Magnetic Station in Seattle, Washington before beginning field work and was found to have no correction. This declinatoire was not checked in the Fall, as observations at Green Lake indicated local attraction at that Station. The declinatoire in question was returned to the Office on November 4, 1938, which was prior to the establishment of the new Magnetic Station at Lincoln Park. The values for Magnetic Declination are as follows: Δ RUKA, 1936: $14^{\circ} 28.5'$; ASKI, 1936: $17^{\circ} 49.1'$. (See first par., above).

GEOGRAPHIC NAMES:

All names used on this survey are from Chart No. 8860; no information could be found regarding local names.

Respectfully submitted,

L. C. Johnson
L. C. Johnson,
Jr. H. & G. Engineer,
Ship DISCOVERER.

APPROVED:

Ray L. Schoppe
Ray L. Schoppe,
H. & G. Engineer,
Chief of Party.

FORWARDED:

G. C. Jones
G. C. Jones,
H. & G. Engineer,
Commanding DISCOVERER.

STATISTICS

to accompany

TOPOGRAPHIC SHEET REGISTER NO. T-6656

Number of Statute Miles of Shoreline- - - - -	-14.2
Number of Square Statute Miles of Area Surveyed - - - - -	-24.0
Points in Land for Form Lines - - - - -	46
Number of Statute Miles of Rivers - - - - -	-11.5

T-6656

Remarks.

Decisions

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GEOGRAPHIC NAMES

Survey No. **T-6656**

Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.
<u>Brown Peak</u>									1
<u>Conical Red Mill</u>									2
<u>Unimak Island</u>									3
<u>Pacific Ocean</u>									4
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Names underlined in red approved

by L. C. Heck on 6/29/35

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } ~~Noted~~
~~PHOTOGRAPH~~ } No. T-6656

received **May 3, 1939**
 registered **June 17, 1939**
 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.

ROUTE		Initial	Attention called to
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RETURN TO

82	T. B. Reed
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✓ *TBR*

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6656 (1938) FIELD NO. F-1938

Brown Peak to Conical Red Hill, South Side Unimak Island,
Aleutian Islands

Surveyed in June-Sept. 1938, Scale 1:40,000

Instructions dated March 30, 1936 and March 30, 1937 (DISCOVERER)

Plane Table Survey

Aluminum Mounted

Chief of Party - Ray L. Schoppe

Surveyed by - L. C. Johnson

Inked by - L. C. Johnson

1. Junctions with Contemporary Surveys.

- a. The junction on the east with T-6655 (1937) is satisfactory. In lat. $54^{\circ}38'$, long. $163^{\circ}38'$, T-6655 does not show the continuation of the actual tundra limits delineated on the present survey although it is covered by a general note.
- b. The junction on the west with T-6657 (1938) is satisfactory. Although the 100 foot form lines shown here on both surveys do not join, they will probably be connected on T-4943 (advance office number) when that sheet is completed by the field party. (See D. R., page 2; Form Lines, par. 3).
- c. The junction on the north will be considered when that work is received from the field.

2. Comparison with Prior Surveys.

a. T-2554 (1901), 1:40,000.

Within the area of the present survey, T-2554 (1901) contains triangulation stations but no topography. No further consideration is necessary.

b. H-2556 (1901), 1:140,000.

This small scale hydrographic sheet contains topography which covers the entire area of the present survey. A comparison shows many differences some of which are excessive. These are attributed to the small scale and reconnaissance character of the old survey, particularly since the principal details were cut in by sextant angles from a whaleboat. The general shoreline features, for example, are borne out by the present survey except that differences of as much as 200 meters are noted in position. In the vicinity of Brown Peak on the east, the old survey shows only two peaks whereas the present survey shows a third peak in between the other two peaks. The elevations of common points located on the present

survey vary 25 to 33 feet less. On the west, the old survey shows no evidence of the crater formation shown here on the present survey. The present survey with its larger scale development should, within the area covered, supersede the topography on H-2556 (1901).

3. Comparison with Chart 8701 (New Print dated April 12, 1937)

The chart contains no additional details that need consideration in this review.

Magnetic observations made at triangulation station RUKA on both T-6656 and T-6657 of 1938 indicate a magnetic attraction of about $2^{\circ}11'$ when compared with the interpolated value of $16^{\circ}34'$ on Chart 8860. This matter has been called to the attention of the Division of Magnetism.

4. Condition of Survey.

- a. The Descriptive Report is comprehensive and satisfactorily covers all items of importance.
- b. The field drafting is very good.

5. Compliance with Instructions for the Project.

Satisfactory.

6. Additional Field Work Recommended.

None.

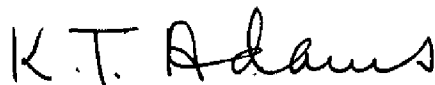
7. Reviewed by Harold W. Murray, October 2, 1939.

8. Inspected by H. R. Edmonston.

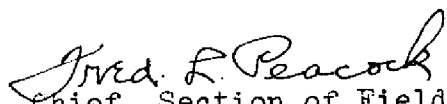
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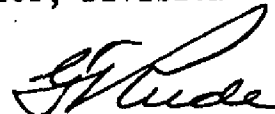
T. B. Reed,
Chief, Section of Field Records.



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.