

6657

U.S. COAST & GEODETIC SURVEY  
BUREAU OF HYDROGRAPHY

MAY 3 1939

Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Topographic }  
~~Hydrographic~~ } Sheet No. T-6657

State Alutian Islands  
~~Alaska~~

LOCALITY

~~SOUTHWEST ALASKA~~  
South Side of Unimak Island  
~~UNIMAK ISLAND, SOUTH SHORE~~  
Unimak Bight

1938

CHIEF OF PARTY

Ray L. Schoppe

U. S. GOVERNMENT PRINTING OFFICE: 1934

2566

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. "E" 1938

REGISTER NO. T-6657 T6657

State ALASKA Aleutian Islands

General locality South Side of Unimak Island

Locality SOUTHWEST ALASKA  
Unimak Bight  
UNIMAK ISLAND--SOUTH SHORE

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 contour Form line interval 100 feet

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

Remarks: \_\_\_\_\_

Project HT-208

1

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "E" 1938

REGISTER NO. T-6657

SOUTH COAST UNIMAK ISLAND

SOUTHWEST ALASKA

Ray L. Schoppe

CHIEF of PARTY

SEASON of 1938



SHEET "E" 1938

REGISTER NO. T-6657

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  $54^{\circ} 30'$  and  $54^{\circ} 32'$ , and Longitudes  $163^{\circ} 58'$  and  $164^{\circ} 22'$ . The sheet includes the shoreline from Topographic Signal HUT at the extreme easterly edge of the Sheet and westerly to Triangulation Station SAND, 1937, with all off-lying rocks and reefs between the designated limits.

This Sheet joins Sheet "A" 1937, in the west, where a satisfactory junction was made at Triangulation Station SAND, 1937. It also joins Sheet T-6656 where the junction was made at Topographic Signal HUT.

CONTROL:

The work on this sheet is controlled by Triangulation Stations RUKA, 1936; RED HILL, 1936; MAK, 1936; SAND, 1937; NET, 1937; and LUTKE, 1936, all of which were established or recovered by a party from the Ship DISCOVERER in 1936 & 1937, and rebuilt in 1938. The Triangulation is based on the Unalaska Datum, field computations unadjusted.

SURVEY METHODS:

This work was done by a party living ashore at Cape Rukavitsie. The entire shore line was rodded in by traverse in accordance with methods described and authorized in Special Publication No. 144. The signals were rodded in and in many cases proved by resection and intersection.

The off-lying rocks in the immediate vicinity of Cape Rukavitsie were located by intersection. Three point fixes were used whenever possible throughout the survey.

FORM LINES:

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

Weather conditions were such however, that some elevations were of necessity omitted. The work of the season was held up considerably by low hanging fog which made form line procedure very nearly impossible.

GENERAL DESCRIPTION:

The most prominent part of the coast line covered by this Sheet is in the immediate vicinity of Triangulation Station RUKA, 1936, at Cape Rukavitsie. The shore line here presents a bold rocky appearance on an otherwise featureless sand beach. The Cape rises in height to 307 feet, with detached lava masses in heights as high as 138 feet close ashore. The appearance of this locality from seaward is distinguishable by three low hills, namely: Ruka itself, grass-covered on top, but made up of bare grey-black lava to seaward. The second hill is small, approximately the same height as Ruka--295 feet, and 0.4 miles to the eastward, completely grass-covered. The third hill is a sharp pointed hill known as Triangulation Station RED HILL, 1936, East-Northeast 1.5 miles from Ruka. This hill is red in color and very sharp pointed at the top.

The shore line from Ruka westward is featureless as far as the navigator is concerned, and is made up of sand dunes varying in height from low mounds to 80 feet high. These dunes are sand covered from the



beach line to the top. The tops of the dunes are covered with a rank growth of coarse high grass.

There are rivers at intervals that run full and swift most of the time. At the point of entrance to the sea, there are sand spits built up which are sometimes washed away and the **course** of the river along the beach may deviate considerably from the present Topography. However, from observation over the period of time of this survey, it was noted that even though a very serious change resulted from one of the many severe storms in this area, it was not a great while later that the river would again follow the old bed.

Triangulation Station MAK, 1936, is on a steep hill, with a cliff-like appearance near the top, reaching a height of 1191 feet, and is 1/4 mile east-southeast of a slightly higher hill. This pair of hills is 1 mile east and 3 miles north of the river lying 4 miles north by east of Lutke. This river is discernable from seaward due to a lagoon 1-1/2 miles in length, to the eastward of the river.

This work was done by a party in one camp for the entire season. Due to the fact that landings from small boats could very rarely be made on account of heavy seas, horses were used for transportation. This mode of transportation is not the best in the world, due to long hours in an uncomfortable saddle, and inclement weather, but it seems a proper solution for this location. If this method were to be carried on in the future, I would strongly advise having six horses instead of four. It would then be easier to move camp without too much loss of time.

The rivers shown on this sheet caused a great deal of extra toil and discomfort. Some of the streams were very swift, and with muddy water, too swift to ford on foot, and very treacherous for a horse. Such a river is the one that enters at Topographic Signal HUT *on the East.*



DISTORTION:

The projection for this survey was checked at the beginning and end of the field work, and no distortion was noted.

MAGNETIC OBSERVATIONS:

Compass Declinometer No. 12 was used at Triangulation Station RUKA. The declinoire was used at Topographic Signals T0, SIS, and Triangulation Station RUKA, 1936.

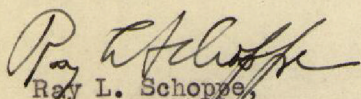
The declinoire No. 101 used in the above mentioned observations was standardized at the Green Lake Magnetic Station in Seattle, Washington before beginning field work, and was found to have no correction.

This declinoire was not checked in the Fall, as observations at the Green Lake Magnetic Station indicated local attraction at that Station. This declinoire 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: RUKA, 1936:  $14^{\circ} 28.5'$  East. (See first par., above).

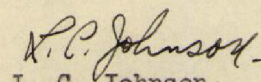
GEOGRAPHIC NAMES:

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

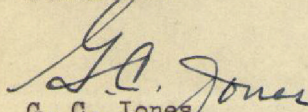
APPROVED:

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

Respectfully submitted,

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

FORWARDED:

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

STATISTICS

to accompany

TOPOGRAPHIC SHEET REGISTER NO. T-6657

Number of Statute Miles of Shore Line- - - - -	17.5
Number of Square Statute Miles of Area Surveyed- - - - -	44
Points inland for Form Lines - - - - -	64
Number of Statute Miles of Rivers- - - - -	7.0



## Remarks.

## Decisions

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# GEOGRAPHIC NAMES

Survey No. T-6657

GEOGRAPHIC NAMES		Survey No. T-6657		On Chart No.		On previous survey No.		On U. S. quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List	
Name on Survey		A	B	C	D	E	F	G	H	K									
<u>Pacific Ocean</u>																			1
<u>Unimak Bight</u>																			2
<u>Unimak Island</u>																			3
<u>Cape Rukavitsie</u>																			4
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# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT

~~PHOTOGRAPHIC~~

~~NO COPY~~

No. T -6657

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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✓ *WBR*

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6657 (1938) FIELD NO. E-1938

Unimak Bight, South Side of Unimak Island, Aleutian Islands  
Surveyed in June - September 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-6656 (1938) is satisfactory. The 100 foot form line shown here on both surveys does not join. The field sheet to the north, which has not been received to date, will probably show these form lines connected.
- b. The junction of shoreline details with T-6605 (1937) on the west is satisfactory.
- c. The junction on the north will be considered when that work is received from the field.

2. Comparison with Prior Surveys.

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

This small scale hydrographic sheet contains topography which covers the entire area of the present survey. The shoreline details are generally in fairly good agreement with the present survey. Excessive differences, however, are noted in inland details. The delineation of two large hills on the western part of the present survey, for example, bears little relation to that shown on the 1901 survey. The present survey also shows numerous additional inland details such as streams and lakes. The differences 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 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 Apr. 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 Surveys.

a. The Descriptive Report is comprehensive and satisfactorily covers all matters 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.

Examined and approved:

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

  
K. T. Adams  
Chief, Division of Charts.

  
Fred. L. Peacock  
Chief, Section of Field Work.

  
G. H. Hude  
Chief, Division of H. & T.