

6651

U. S. COAST & GEODETIC SURVEY  
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MAY 3 1939

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
L. O. Colbert, *Director*

State: S.W. ALASKA

DESCRIPTIVE REPORT

*Topographic*  
~~*Hydrographic*~~

Sheet No. T-6651

LOCALITY

~~SOUTHWEST ALASKA~~

SANAK ISLAND

TO UNIMAK COVE

NORTHEAST POINT ~~and vicinity~~

1938

CHIEF OF PARTY

Ray L. Schoppe

Applied to chart 8860 Z.M.A. 8/30/39 ✓

" " " 8861 March 1940. J.V.S.

" " " 8805 June 1942 H.T. Stegman

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. "J" 1938

REGISTER NO. T-6651 T6651

State S.W. ALASKA

General locality ~~SOUTHWEST ALASKA~~ SANAK ISLAND

Locality ~~SANAK ISLAND, NORTHEAST POINT and VICINITY~~ TO UNIMAK COVE

Scale 1: 10,000 Date of survey Aug. - Sept., 1938

Vessel DISCOVERER

Chief of party Ray L. Schoppe

Surveyed by Ira T. Sanders and V. M. Gibbens

Inked by Ira T. Sanders

Heights in feet above M.H.W. to ground ~~horizontal distance~~

~~Contours~~ ~~Approximate contours~~ Form line interval 100 feet

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

Remarks:

Project H.T. 208

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "J" 1938

REGISTER NO. T-6651

NORTHEAST POINT and VICINITY

SANAK ISLANDS

SOUTHWEST ALASKA

RAY L. SCHOPPE

Chief of Party, Season of 1938

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "J" 1938

REGISTER NO. T-6651

NORTHEAST POINT and VICINITY

SANAK ISLANDS

SOUTHWEST ALASKA

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. H. T. 208, dated March 30, 1936, and Supplemental Instructions dated March 30, 1937. ✓

LIMITS:

The area covered by this sheet lies between Latitudes  $54^{\circ} 26.0'$  and  $54^{\circ} 27.8'$  and Longitudes  $162^{\circ} 34.5'$  and  $162^{\circ} 40.1'$  West. The sheet includes the shoreline of Northeast Harbor, Johnson Bay and Unimak Cove, with all offlying rocks and reefs between the limits given above. Inshore the limits extend to a satisfactory junction with Sheet Register No. T-6650. ✓

This sheet joins Sheet Register No. T-6652 at Topographic Signal TED at Latitude  $54^{\circ} 27.78'$  North, and Longitude  $162^{\circ} 40.11'$  West. It also joins Sheet Register No. T-6508 (1937) at Topographic Signal ACE in Latitude  $54^{\circ} 25.99'$  North, and Longitude  $162^{\circ} 34.58'$  West. ✓

CONTROL:

The work on this sheet is controlled by Triangulation Stations PAV, 1936, MIDDLE 1901-36 and N. E. POINT 1901-36, all of which were established or recovered by a party from the Ship DISCOVERER in 1936. The triangulation is based on the Unalaska Datum, field computations unadjusted. ✓

SURVEY METHODS:

This work was done by a party operating from the Launch HELIANTHUS.

A combination of plane table survey methods described and authorized in Special Publication No. 144 (Topographic Manual) was used. Between Triangulation Stations PAV and N. E. POINT, including Unimak Cove and Johnson Bay a scheme of graphic triangulation was used. The shoreline, and in-shore detail, were rodded in from the graphically located points or from intermediate set ups as needed. All signals and offlying rocks were located by intersections, which in most cases were checked by rod readings.

From Triangulation Station N. E. POINT to Signal ACE a combination traverse and resection method was used. The shoreline, signals, and miscellaneous detail were all rodded and checked where possible, either by intersection or resection. This sheet joined Sheet Register No. T-6508 1937 (Scale 1: 20,000) with a discrepancy of 4.0 meters in azimuth. As this error is well within the allowable limits for the distance involved, no adjustment was made.

NOTE: The work on this sheet accomplished by V. M. Gibbens began at Signal PAN and ended at Signal ACE.

FORM LINES:

The form line junction with Sheet Register No. T-6650 (1937) is shown along the solid pencil line as indicated. Survey No. T-6650 was done on a scale of 1: 20,000, and the work on it covered the larger portion of the inland area of this sheet, a junction as shown was decided upon to avoid making the transfer to the larger scale.

Elevations for form lines were determined as follows: Where possible to do so, two or more cuts, with vertical angles resulting in elevations in close agreement, were taken to required points. The mean of the values retained was used as the elevation of the point. Where

intersections to required points were impracticable the distance was determined by stadia and the vertical angle measured with reversals of both the level and the telescope. However, no elevations of over 100 feet were determined by the latter method.

The heights of smaller and offshore rocks were determined as follows: Before beginning field work the telemeter rod was graduated on the backside in feet. The rodman was required to hold the rod on the high water mark and the elevation read in feet from the alidade telescope.

Rocks which appear on this sheet with the legend "Awash at HW" are bare 5 to 6 feet at MLLW. As the mean range of tide in this vicinity is 6 feet approximately, they are covered at extreme high tides.

COMPARISON WITH PREVIOUS SURVEYS:

The plane table survey Register No. 2553, and a Hydrographic survey of Northeast Harbor, Register No. 2557, made in 1901, are the only previous surveys in this area. For the area covered by this sheet the main features agree very well with the 1901 surveys.

Survey Register No. 2553 was compiled on a scale of 1: 40,000 and the detail shown limited accordingly. As this sheet shows much more detail, it is thought to be unnecessary to enumerate all the differences. However, two of the most noticeable differences are as follows:

- (1) Survey No. 2553 shows the reefs near the head of Johnson Bay as being bare at all stages of the tide, while this survey definitely established that the western-most bares 4 feet and the eastern-most bares 5 feet at MLLW, the latter being shown as "Awash at HW".
- (2) The detached rock and the submerged reef on the east near the middle of Unimak Cove are not shown on Survey No. 2553.

GENERAL DESCRIPTION:

This sheet covers that part of Sanak Island which includes Northeast

Harbor, Johnson Bay and Unimak Cove. With the exception of short stretches of beach at the heads of these indentations, the shoreline is steep, rocky bluffs showing in many places. Except where rocky bluffs are indicated all slopes are grass covered to the storm high water line. The bluff, the western end of which is marked by Signal "GO" has a distinct black color, and rises almost vertically to a height of 113 feet. On approaching this vicinity from any direction northward of an east-west line through it, this bluff is the most prominent feature. The next most prominent bluff lies between Signals "JO" and "HCN" and is about 100 feet high. It is not quite so dark in color nor so steep as the first mentioned.

The most prominent inland feature is the long high ridge on which Triangulation Station "MIDDLE" is situated. Some small bare rocky patches appear at the summit of this ridge. MIDDLE marks the highest point on this part of the island, although several of the lower ridges in this vicinity present a similar appearance. Back of the shore line luxuriant grass flourishes. There are no trees, but scattered clumps of shrub willows and alder are encountered occasionally.

The largest lake on this sheet lies NW of Eagle Rock and lies at an elevation of approximately 40 feet.

Generally speaking, the shore line is fringed with rocky ledges, detached rocks and reefs. Kelp fringes the shoreline except at the heads of the indentations.

At the present time only one family lives in this area. Their house is at the head of Northeast Harbor, indicated by Signal "AM". Fresh water is available here for small boats.

The fish saltery on the east side at the head of Johnson Bay has been abandoned, and all that remains is one steel piling and a tumble-down shack.

PROMINENT OBJECTS AS AIDS TO NAVIGATION:

The most prominent offshore feature on this sheet is EAGLE ROCK. This rock has 3 elevations. The center one and most prominent is marked by Signal BALL, and has an elevation of 58 feet, the sides being almost vertical. The top is almost flat, with a thick growth of grass. The western portion of the elevated part of Eagle Rock is approximately as high as the central part, but rises vertically on the south side to a sharp ridge, then slopes sharply to the northward. The steep north slope is grass covered.

Two other prominent rocks in Northeast Harbor are marked by Signals BAT and ALL. Neither of these nor Eagle Rock are of much value as aids to navigation as they blend in with the bluffs from a distance of a mile or more off shore.

A distinctive cone shaped pinnacle 31 feet above MHW is marked by Signal MAN. From any distance off shore it blends into the steep bluffs south of it.

The small island just inside the Northwest entrance point of Unimak Cove marked by Signal LOY, has an elevation of 25 feet rising vertically from the signal, and terminating in a small flat grassy top; the center of which is indicated by a dot.

None of the objects mentioned is important enough to warrant charting as Landmarks.

DISTORTION:

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

MAGNETIC OBSERVATIONS:

Magnetics were observed at Triangulation Stations PAV and N.E.POINT with declinatoires which were standardized at the Green Lake Magnetic Station

in Seattle, before beginning field work. The values for magnetic dec- <sup>17°12'</sup>  
lination are as follows: At PAV, 17° 00' East; at N.E. POINT 16° 55' East. <sub>charted.</sub>

GEOGRAPHIC NAMES:

All names used on this survey are from Charts Nos. 8841 and 8860, and are locally accepted names. So far as could be ascertained from residents none of the unnamed features have local names.

Respectfully submitted,

*Ira T. Sanders*  
Ira T. Sanders,  
Jr. H. & G. Engineer,  
Ship DISCOVERER

APPROVED:

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

FORWARDED:

*G. S. Jones*  
G. S. Jones,  
H. & G. Engineer,  
Commanding DISCOVERER.

STATISTICS

to accompany

TOPOGRAPHIC SHEET REGISTER NO. T-6651 (1938)

Number of Statute miles of shoreline- - - - -14

Number of Square Statute miles of Area Surveyed- - - - - 7

Number of elevations determined:

(a) Offshore points above MHW- - - - - 56

(b) Points inland for form lines- - - - -52

MAGNETIC NOTE

The magnetic declination at the Green Lake Magnetic Station, Seattle, Washington, was observed with the Declinatoire used on this sheet, on April 8, 1938. The index error was found to be zero.

This error was not checked in the Fall, as observations at Green Lake in October by Lieutenant Pfau indicated local attraction at that station. The Declinatoire used on this sheet is part of the equipment for alidade No. 187. This alidade was returned to the Washington Office on November 4, 1938, which was prior to the establishment of the new Magnetic Station at Lincoln Park.

Remarks.

Decisions

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# GEOGRAPHIC NAMES

Survey No. **T-6651**

Name on Survey	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	
	A,		B,		C,		D		E		F		G		H	K
<u>Unimak Cove</u>																1
<u>Johnson Bay</u>																2
<u>Northeast Point</u>																3
<u>Northeast Harbor</u>																4
<u>Eagle Rock</u>																5
<u>Sanak Island</u>																6
<u>Pacific Ocean</u>																7
Names underlined in red approved																8
by L. Heck on 7/5/39																9
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# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT } ~~Moore~~  
~~PHOTOGRAPH~~ } No. T-6651

{ 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. 6651 (1938) FIELD NO. J

Northeast Point to Unimak Cove, Sanak Island, Southwest Alaska  
Surveyed in August - September, 1938, Scale 1:10,000  
Instructions dated March 30, 1936; March 30, 1937 (DISCOVERER)

#### Plane Table Survey

Aluminum Mounted

Chief of Party, R. L. Schoppe  
Surveyed by - I. T. Sanders and V. M. Gibbens  
Inked by - I. T. Sanders

#### 1. Junctions with Contemporary Surveys

Junctions with T-6508 (1936) on the east, T-6652 (1938) on the west and with form line survey T-6650 (1938) on the south are satisfactory.

#### 2. Comparison with Prior Surveys

T-2553 (1901), 1:40,000

This survey covers the entire area of the present work. Shoreline and inland features are in fairly good agreement with the present survey but, being on a much smaller scale, are less detailed and should be superseded by the present survey in future charting of the common area.

#### 3. Comparison with Chart 8841 (New Print dated Jan. 5, 1938) Chart 8860 (New Print dated Mar. 27, 1939)

Within the area of the present survey the charts are based principally on surveys discussed in the foregoing paragraphs. Some of the detail on the 1:10,000 scale sub-plan of Northeast Harbor (chart 8841) is apparently from H-2557 (1901) although the descriptive report of that survey does not state that it contains original topography. The present survey is quite adequate to supersede topographic detail on H-2557 in future charting of the common area.

#### 4. Condition of Survey

- (a) The descriptive report satisfactorily covers all items of importance.
- (b) The field drafting is very good.

5. Compliance with Instructions for the Project

Satisfactory.

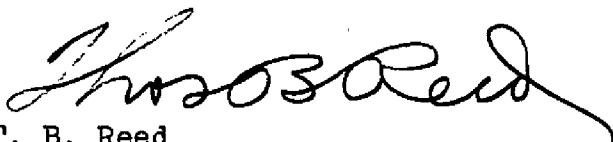
6. Additional Field Work Recommended

None.

7. Reviewed by - J. A. McCormick, June 21, 1939

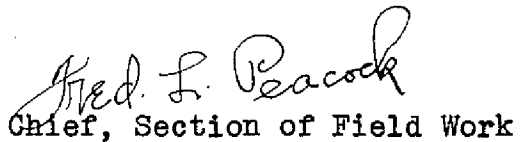
Inspected by - H. R. Edmonston

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. Wade  
Chief, Division of H. & T.