U. S. COAST & GEODETIC SURVE LIDRARY AND ARCHIVES

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Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

# **DESCRIPTIVE REPORT**

Topographie \ Mydrographic	07 and 10-	eags
Hydrographic	sneet No.	



State S.E. ALASKA
LOCALITY
<del>5</del>
SITKA SOUND
WESTERLY APPROACHES TO SITKA
<b>193</b> 8
OHIEF OF PARTY

U, S. GOVERNMENT PRINTING OFFICE

applied to drawing of chart 8244 - 7/25/39 - John

Applied to Chart 8255 "/0/39 Class R Buch &

" " 8281 Feb. 26, 1940 X R

" " Reconstr." 1958 Jack Allen Q.

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# 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
REGISTER NO. 6635 T6635
StateS.E. ALASKA
General localitySITKA SOUND
Locality WESTERLY APPROACHES TO SITKA
Scale 1:10,000 Date of survey JULY , 1938
Vessel U. S. C. & G. S. S. EXPLORER
Chief of partyG. C. JONES
Surveyed by H. C. APPLECUIST
Inked by H. C. APPLEQUIST
Heights in feet above MHW to ground textepsxefxtree
Contour X Approximate X Contour X Form line interval .50 feet
Instructions datedMARCH_7 and MAY_5,, 19.38
Remarks: PROJECT_HT220

GPO

#### DESCRIPTIVE REPORT

#### TO ACCOMPANY TOPOGRAPHIC SHEET FIELD LETTER "E"

OFFICE REGISTER 1.0. 6635

SITKA SOUND

S. E. ALASKA

1938

#### AUTHORITY:

Authority for this survey is contained in the Director's Instructions, dated March 7, 1938, Supplemental Instructions dated may 5, 1938. Project HT220.

#### SCALE:

The scale of this survey is 1:10,000.

#### LIMITS:

This survey covers the islands in the northwest section of Chart 'o. 8244. It includes the area between latitude 57° 02.3' and Latitude 57° 04.5', and between longitude 135° 22.3' and longitude 135° 26.3', with the exception of Smith Island and Fattery Island.

#### GENERAL DESCRIPTION OF AREA:

This area consists of several groups of islands, islets and rocks. Lost of these islands are wooded and all are comparatively low. These low islands blend into each other and the groups often appear as one island.

The shoreline is in general rocky with the exception of a few small gravel beaches. The rocky bluffs shown on the sheet are for the greater part very low, a matter of from five to ten feet in most places. There are a great number of off-lying rocks and rocks awash.

#### CONTROL:

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Control for this survey was furnished by triangulation executed in 1938, The N. A. 1927 Datum was used and the stations were plotted, using the field computations.

#### SURVEY METHODS:

Standard Coast and Geodetic Survey plane table methods were used with no deviation from standard practice. No traverses were run. Setup positions were determined by three point fixes and by cuts and resection. All off-lying detail was rodded in or located by three or more cuts.

#### ELEVATIONS AND COLTOURS:

The H. I. was determined at each setup by reference to the water level. A tide curve, from the predicted tides, was constructed each day and this was used to determine the height of tide at any time. The heights of rocks and rocks awash, when possible, was determined by a rod reading to the highesp part of the rock and a vertical angle to this point. On those rocks cut in, the step method was used.

Elevations of islands are given for the ground and on the wooded islands, both for the ground and the tops of trees. here the ground could not be seen, the heights of the trees were estimated and then subtracted from the computed heights of the trees. In each case where this was done, the ground elevation is noted as estimated.

Only a few islands were sufficiently high to show a contour. The contour interval is 50 feet.

#### LOJ JATER LINE:

The low water line was rodded in by the topographer. None was transferred from the hydrographic sheet. No low water line was rodded at any tide over one foot above ...L.L. ... It was found necessary to return after the completion of the rest of the sheet in order to complete the survey of the low water line.

# COMPARISON TITH PREVIOUS SURVEYS:

The old survey appears very sketchy and the deline-

ation of the shoreline is so poor that only a few points agree. The positions of rocks, etc., are fairly good after making a correction for change in datum. Several discrepancies in off-lying features were found and they are given below.

In Latitude 57° 03.35', Longitude 135° 26.75' the old survey shows a rock awash. There are actually two rocks, and they bare only at a one-foot minus tide.

Bare Rock, in Latitude 57° 03.04', Longitude 135° 26.29', is shown on the old survey as a rocky ledge. It is a high water rock baring 3 feet above M.H.W. However, at high tide, even a small swell washes over it.

The three rocks awash, shown on the old survey in Non-existent. Latitude 57° 03.73'; Longitude 135° 25.80, do not exist. See statement This area was visited at a 2 foot minus tide and no sign of below. these rocks could be found.

The three following rocks awash do not exist. They were searched for by the topographer at a minus tide and also by the hydrographer at the time of the hydrographic survey and could not be found.

Latitude 57° 03.16; Longitude 135° 24.34'
Latitude 57° 03.03; Longitude 135° 24.22'
Latitude 57° 02.98; Longitude 135° 24.55'
Latitude 57° 03.16; Longitude 135° 24.34'
Latitude 57° 03.03; Longitude 135° 24.32'
Latitude 57° 03.03; Longitude 135° 24.55'

The two sunken rocks shown by the old survey in Latitude 57° 03.7', Longitude 135° 24.8 are really one rock awash, baring one feet at M.L.L.W.

The rock awash shown on the old survey in Latitude 57° 03.47. Longitude 135° 24.68 does not exist. The wire drag passed over this area set at an effective depth of 48 feet.

Surf Rock, in Latitude 57° 01.9; Longitude 135° 22.5° actually bares two feet above M.H.W. It washes over at high tide when there is any swell.

#### COMPARISON WITH HYDROGRAPHIC SHEET:

This sheet was compared with the hydrographic sheets and no discrepancies were found.

> Rock non-existent Discussed in par. 5b(2), review H-6355 (1938).

#### TOPOGRAPHIC SIGNALS:

All the topographic stations are whitewashes on rock. Small off-lying rocks that were used have their shapes shown as well as the elevation of the rock, shown in parenthesis under the name of the station.

No topographic stations were permanently marked as there are sufficient triangulation stations to satisfy the requirements.

# CHANGE OF COASTLINE:

There is no evidence to indicate any change in the shoreline.

#### DECLINATOIRE OBSERVATIONS:

Five magnetic meridians are shown on the sheet but their reliability is questionable. It was discovered that the plane table boards were put together with steel screws after it was too late to replace them. These steel screws undoubtedly affected the declinatoire and even though the meridians do not appear erratic on this sheet, they probably meridians are not very reliable. The error of the declinatoire is not shown on the sheet, as the standardization was done under the same conditions.

# GEOGRAPHIC NAMES:

The following geographic names are shown in pencil on the sheet, were taken from Chart No. 8244, are used locally, and should be retained.

Parker Group Apple Islets Neva Island Usher Rock Black Rock Bare Rock Sentinel Rock Signal Island Nicholson Rocks Makhnati Island

Sasedni Island Kirushkin Island Mogilnoi Island Gold Island Virublennoi Island Surf Rock Sitka Sound Western Channel Whiting Harbor

Mr. Bolshannon, Deputy Customs Collector of Sitka, verified the local usage of these names.

The group of islands in the northwest section of the sheet are unnamed and there is no local name for them.

No new names are suggested.

#### JUNCTIONS:

There is no shoreline junction, as all the islands are complete on this sheet. However, to the eastward, the following topographic stations are common to this sheet and to Sheet Office Register No. 6631.

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The positions of these stations are in agreement.

#### STATISTICS:

Shoreline in statute miles - 6.1 Area in square statute miles - 2.0

mespectfully submitted,

H.C. Applequist, Aid, C. & G. Survey.

APPROVED AND FOR /ARDED:

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Remarks.

Decisions

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GEOGRAPHIC NAMES Survey No. <b>T-6635</b>	/5	140° 00° 00° 00° 00° 00° 00° 00° 00° 00°	de d	S Model	of Rock Store	Or local way	Cuide	Mod Merell	A SINGE	, \$
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# MEMORANDUM IMMEDIATE ATTENTION

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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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#### Section of Field Records

# REVIEW OF TOPOGRAPHIC SURVEY NO. 6635 (1938) FIELD NO. E

Westerly Approaches to Sitka, Sitka Sound, S.E. Alaska Surveyed in July, 1938, Scale 1:10,000 Instructions dated March 7 and May 5, 1938 (EXPLORER)

# Plane Table Survey.

Aluminum Mounted.

Chief of Party - G. C. Jones Surveyed by - H. C. Applequist Inked by - H. C. Applequist

# 1. Junctions with Contemporary Surveys.

The present survey covers several groups of small islands and overlaps adjoining surveys only in control. T-6631 and T-6632 cover the areas to the east and southeast.

#### 2. Comparison with Prior Surveys.

# a. H-1439 (1879), 1:15,000 (contains topography)

This survey covers most of the area common to the present survey but is much inferior to the latter as regards survey methods and detail. The present survey supersedes the old survey in the common area.

# b. T-2149 (1893), 1:20,000; T-2150 (1893), 1:10,000.

The old surveys are fairly well controlled but their detail is considerably generalized as if obtained mostly by cuts rather than rod readings. The present survey is of a much higher degree of accuracy and supersedes them in the common area.

# 3. Comparison with Chart 8244 (New Print of June 11, 1937) Chart 8255 (New Print of May 24, 1939) Chart 8281 (New Print of June 2, 1939)

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs.

#### 4. Condition of Survey.

- a. The descriptive report and field drafting are satisfactory.
- b. Sunken rocks covered 1 foot at MLW on the present survey have been transferred to the contemporary hydrographic sheets as rocks awash at MLW and should be so charted. Similarly, where the amounts on the present survey by which individual rocks awash bare differ from those on the hydrographic surveys the latter are accepted as most nearly correct.

- Compliance with Instructions for the Project. 5. Satisfactory.
- Additional Field Work Recommended. 6. None.
- 7. Reviewed by - J. A. McCormick, September 13, 1939.
- Inspected by H. R. Edmonston. 8.

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

Chief, Division of Charts.

Chief, Division of H. & T.