U.S. COAST & GEODETIC SURVEY
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AUG 26 1942

ACC. NO. 

State ALASKA

LOCALITY
Sitka Sound, Northeast Part.
Middle Island and Vicinity.

19841

CHIEF OF PARTY
Earl G. Reaton

U.S. GOVERNMENT PRINTING OFFICE
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. 6829

State ALASKA

General locality Sitka Sound, Northeastern Part

Locality Middle Island and vicinity

Scale 1:10000 Date of survey July-Sept., 1941

Vessel WESTDAHL

Chief of party E. C. Heath

Surveyed by J. C. Bose

Inked by J. C. Bose

Heights in feet above Mean to ground to tops of trees

Form line interval 100 feet

Instructions dated June 10, 1941

Remarks: 
DESSCRIPTIVE REPORT
to
accompany
TOPOGRAPHIC SHEET NO. 6829

Project HT-247

Motor Vessel WESTDAHL

E. O. Heaton, Comdg.

1941

INSTRUCTIONS: The survey was made in accordance with Instructions from the Director dated June 10, 1941.

LIMITS: The area covered by this survey lies in the northeastern part of Sitka Sound. It extends from Cascade Creek northwards to within a short distance of Harbor Point and westward as far as Bieli Rock. It includes the Kasiana Islands, Middle Island, Crow Island, and Gagari Island.

LANDMARKS: There are no objects in the area covered by the survey which may be classed as good landmarks.

DESCRIPTIONS OF AREA: The shore line of Baranof Island, from Cascade Creek northward is low. The points are rocky. Trees extend to the high water line and the land back from the shore is heavily timbered with narrow leafed trees. The land slopes rather uniformly toward the summits and ridges. An improved public road from Sitka runs along the shore as far as Halibut Point. At the time of the survey, the road was being extended to a mountain ridge as a military road. Many cottages and summer homes have been and are being built along the shore as far as Halibut Point. The Park Service maintains a picnic ground at Halibut Point. Between triangulation station HALIBUT and signal NIX the shore line is partly cliff.

The strip between high and low water is mostly made up of boulders with some rocky ledge at the points.

The various islands shown on the sheet are thickly wooded with spruce and hemlock, as well as a few deciduous trees. The shore line is low and rocky in most exposed areas, though attaining cliff-like height in some places. At the heads of the longest inlets and coves, the shore is low for the most part. The islands are all uninhabited, although a homestead exists near signal GAB which seems to have been abandoned recently.

CONTROL: Control consisted of several third order triangulation stations established in previous years. Two new triangulation stations were established to strengthen the control, namely WES 1941 and GAGARI 1941. An offlying rock (AP) was also located but this rock had already been located by planetable cuts by the time the triangulation observations had been made.

The third order triangulation control was supplemented by graphic triangulation. On account of the widely scattered islands, it was usually possible to check the location of the planetable by means of a three point fix. The only region where a traverse had to be run was in the northern half of Crow Island. An error of eight meters between SUB and NIL and between SUB and ALE was adjusted by proportional distribution.
SURVEY METHODS: The standard planitable method was used. In most places it was possible to use three point fixes on account of the adequacy of control.

Rocks awash were located by cuts or rod readings wherever possible. The height above mean lower low water was determined by noting the time and computing the height from predicted tides or by estimation, where the feature was distant.

The low water line along the shore was rodded in whenever the stage of the tide was low enough to permit doing so. However, it was not practicable to locate every bit of the low water line and for that reason the hydrographic survey must supply some of that information.

Elevations were taken to tree tops in nearly all cases. An estimate of the height of the trees was made to obtain an approximate value for the ground elevations and the form lines were sketched in relation to the estimated ground elevations. The red number followed by the letters "TT" indicates the observed elevation to the tree top, while the number below this, in parentheses, gives the estimated ground elevation. Where the observed elevation is the ground elevation, it is indicated by one number without the letters "TT" and without parentheses.

Elevations of offlying rocks above mean high water are shown by black slanting figures in parentheses.

COMPARISON WITH PREVIOUS SURVEYS: This survey includes most of the area shown on topographic survey No. 21149 (1895), and the southern part of T-2304, (1897), both on a scale of 1:20000. As far as the main features are concerned, the old surveys and the present one are in fairly good agreement. It is noted that T-2149 gives the elevation of Bieli Rock as 75 ft. The new survey resulted in values of 67, 68, and 69 feet for a mean of 68.

At the southern limits of this survey, junction is made with topographic surveys 6631 (1938), scale 1:5000, and 6635 (1938), scale 1:10000. These junctions were made without discrepancy. Also T-4634(1938).

Attention is called to an inaccuracy in showing three rocks on Chart No. 8261. In Lat. 57° 04'N, Long. 135° 28' are shown three rocks awash lying in a north-east to south-west direction. Actually, only the middle rock is a rock awash (signal WAS on topographic sheet 6629). The outer rock is a high water rock, 5 feet high. It is shown on the survey as "Offlying Rock, 1941" and was given the hydrographic name "AP". The innermost rock does not show above water at any stage of tide.

GEOGRAPHIC NAMES: The names shown on the topographic sheet are the same as those shown on Chart No. 8261. They seem to be well established and should be retained.

It might be desirable to assign a name to the group of small islands due south of Middle Island, one of which triangulation station CLOSE is located. "Moore Group" is suggested, after Lieut. Comdr. W. I. Moore, who made the survey of 1893.
DECLINITIORE OBSERVATIONS: Declinatoire observations were made at 7 triangulation stations. The declinatoire used is not identified by any number. It was standardized before the season with declinometer No. 19. The standardization gave a mean value for the correction of +33'. Results of declinatoire observations are as follows:

<table>
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<th>Scaled</th>
<th>Correction</th>
<th>Magnetic Variation</th>
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</thead>
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<tr>
<td>CROW 1897</td>
<td>29° 38'</td>
<td>+0° 33'</td>
<td>30° 11'</td>
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<tr>
<td>OLD 1897</td>
<td>29° 48'</td>
<td>+0° 33'</td>
<td>30° 21'</td>
</tr>
<tr>
<td>CLOSE 1897</td>
<td>30° 00'</td>
<td>+0° 33'</td>
<td>30° 33'</td>
</tr>
<tr>
<td>LOPE 1938</td>
<td>30° 07'</td>
<td>+0° 33'</td>
<td>30° 40'</td>
</tr>
<tr>
<td>CASCADE 1938</td>
<td>29° 32'</td>
<td>+0° 33'</td>
<td>30° 05'</td>
</tr>
<tr>
<td>GAGARI 1941</td>
<td>29° 28'</td>
<td>+0° 33'</td>
<td>30° 01'</td>
</tr>
<tr>
<td>GRAY 1897</td>
<td>33° 55'</td>
<td>+0° 33'</td>
<td>34° 28'</td>
</tr>
</tbody>
</table>

It will be noted that the value at GRAY differs considerably from the other six. It is possible that the observation may be faulty but it is believed that local attraction exists.

STATISTICS:

Statute miles of shore line -- -- -- -- -- -- -- -- -- -- -- 27.0

Area, square statute miles -- -- -- -- -- -- -- -- -- -- -- 10.0

Respectfully submitted,

J. C. Rose,
Lieut., C.&G.S.
Topographer

Approved and forwarded:

Earl O. Heaton,
Lieut., C. & G.S.
Chief of Party
Looking south toward Middle Island from Lat. 57° 08.7',
Long. 135° 28.1'.

Looking northwest toward Middle Island from a point 0.4
mile west of signal CHIM. Kasiana Island extreme left.
Looking Northwest from 1/4 mile west of signal POD toward Kasiana Islands. Middle Island in right distance.

Looking south at Kasiana Islands from 1/4 mile west of △ HALIBUT.
MEMORANDUM
IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOGRAPHER

No. T T6829

received August 26, 1942
registered September 24, 1942
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
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<td>Border Rocks</td>
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<td>Moore Islands</td>
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Names underlined in red approved by [Signature] on 11/3/42.
DIVISION OF CHARTS
SURVEYS BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

S. E. Alaska; Sitka Sound; N. E. Part; Middle Island and Vicinity
Surveyed July - September 1941; Scale 1:10,000
Instructions dated June 10, 1941

Plane Table Survey
Aluminum Mounted

Chief of Party - E. O. Heaton
Surveyed by - J. C. Bose
Inked by - J. C. Bose
Reviewed by - G. F. Jordan
Inspected by - H. R. Edmonston, January 15, 1943

1. Junctions with Contemporary Surveys

A satisfactory junction is made on the north with T-6628b (1941).

Satisfactory junctions are also made with recent surveys T-6635 (1938) on the south, T-6631 (1938) and T-6637 (1938) on the southeast. The latter survey makes only a form line junction.

2. Comparison with Prior Surveys

T-2149 (1893), T-2290 (1897) and T-2304 (1897) are the prior topographic surveys in this area. Certain disagreements involving these surveys have been disposed of in the review of H-6666 (1941). Otherwise, the general agreement with the present survey is satisfactory.

Some variance is found in the form lines shown on T-2290 (1897), but the disagreements are of minor importance and the present survey should supersede the prior survey.

3. Comparison with chart 8281 (latest print of 11-16-42)

a. Topography

The topography originates with the surveys given in paragraph (2).
b. **Aids to Navigation**

The fixed light at Old Sitka Rocks, at Lat. 57°06.9'; Long. 135°24.6' is charted 30 meters west of its correct position on the present survey.

c. **Magnetic Meridian**

Seven magnetic observations were made of which six are within 1° of the charted value. The 4°43' discrepancy in the seventh value is commented on in the D. R.

4. **Compliance with Instructions**

Satisfactory.

5. **Condition of Survey**

The detail on the survey and the inking are very good. Sunken rocks should have been shown with a cross, not as an "X".

The D. R. covers all matters of importance.

6. **Superseded Surveys**

- T-2149 (1893) in part
- T-2290 (1897) " "
- T-2304 (1897) " "

**Examined and approved:**

[Signatures]

Chief, Surveys Branch  
Chief, Division of Charts

Chief, Section of Hydrography  
Chief, Division of Coastal Surveys