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U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director

State SW ALASKA

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~

Sheet No. M G - ³³
4809

LOCALITY

PRINCE WILLIAM SOUND

Seal Island, Smith and Little Smith
Islands.

19 ³³

CHIEF OF PARTY

A. M. SOBIERALSKI, H. & G. E.

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC FIELD SHEET NUMBER M. G.-33

U. S. C. & G. S. S. SURVEYOR - - - A. M. SOBIERALSKI, COMMANDING.

INSTRUCTIONS DATED: APRIL 15, 1933

General Description of Seal Island:

Seal Island which is practically circular in shape is heavily wooded with pine, spruce and hemlock trees and has a height of 350 feet. Rocky bluffs rise abruptly from the shoreline to a height of 50 feet around the entire island except for a small portion of the shoreline around the western side of the island.

Topographic signal FLASH on the northwest point of the island marks the position of Seal Island Light.

The chart shows a note "Breakers reported" close to the northwest shore of Seal Island. The rock bares 8 feet at M L L W, about 100 yards off the western point of the island was seen to break when awash, and as it is not shown on the present charts, probably explains the report.

Survey Methods:

The survey of Seal Island was done by C. J. Beyma, Aid.

Triangulation stations Seal 1905, Maupin 1905 and Pup 1933 were used for topographic control in running a traverse around the island. The traverse checked flat in distance and azimuth. While occupying station Seal with the plane table, cuts were taken to signals on Smith and Little Smith Islands.

General Description of Smith and Little Smith Islands

Smith Island which is approximately 3 miles long and a half a mile wide at the center is heavily wooded with pine, spruce and hemlock trees. The easterly end of the island rises abruptly from the shoreline to the summit and gradually declines to a low valley in the center of the island. There is a knoll to the west of the valley which rises rather sharply and tapers off gradually to the southwest end of the island.

There are three small bare islets close to the east end of the island, the most easterly one is Arch Rock 30 feet high which was

General Description of Smith and Little Smith Islands: - Continued.

located by triangulation in 1905. The second islet is 20 feet high and upon it a United States Land Monument is located. The third islet which is 40 feet high marks the position of Smith Island Light. There is a rock which bares 6 feet at M L L W about 80 meters southeast of Arch Rock, 1905.

Little Smith Island which lies $\frac{3}{8}$ of a mile off the southwest end of Smith Island is heavily wooded, has steep rocky bluffs and rises to a height of 330 feet at the north end. The eastern and northern shores are fringed with ledges, while at the south end a number of rocks, and heavy kelp are found terminating in the rocky islet on which triangulation station Jack is located.

Triangulation station Jack 1905, is on the most southerly rock from Little Smith Island, while topographic signal Jack lies 25 meters north of it. Both rocks bare 6 feet at high water.

Survey Methods:

Before starting a traverse, triangulation stations Seal, Flower, Parrot and Naked were occupied with the plane table and cuts taken to the various white wash signals. There were no marked triangulation stations on the shore of Smith Island, but the stations Jack, Bird Rock, Corner, Arch Rock and North Rock were fairly definite points and together with the cuts from other stations furnished ample control.

Smith and Little Smith Islands were surveyed by Lt. (j.g.) V. M. Gibbens who ran a traverse between triangulation station Smith Island North Rock 1905 and Arch Rock, 1905. Lt. (j.g.) CM. G. Ricketts carried on the traverse from triangulation station Smith Island North Rock, 1905, around to topographic signal Ky and also ran a traverse around Little Smith Island. Lt. (j.g.) H. F. Garber completed the traverse around the southeast end of Smith Island.

All traverses closed within the allowable error.

Respectfully submitted,

Chester J. Beyma
Chester J. Beyma, Aid.

Approved & forwarded,

A. M. Sobieralski
A. M. SOBIERALSKI, H. & G. E.
Commanding Str. SURVEYOR

Statistics:

Shoreline: 11.0 statute miles.

Area in square statute miles 2.0

REVIEW OF TOPOGRAPHIC SURVEY NO. M-G-33

Title (Par. 56) Seal Island, Smith and Little Smith Islands.

Chief of Party: A. M. Sobieralski. Surveyed by: V.M.G., M.G.R. Inked by: C.J.B.
H.F.G., C.J.B.

Ship: SURVEYOR. Instructions dated: April 15, 1933 Surveyed in: 1933

1. The Survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.)
2. The character and scope of the survey satisfy the instructions.
3. The control and closures of traverses were adequate. (Par. 12, 29.)
4. The amount of vertical control that the Manual specifies for - ~~een-
teurs-formlines-~~ was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
5. The delineation of -~~een-
teurs-formlines-~~ is satisfactory. (Par. 49, 50.)
6. Not applicable.
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) Not applicable.
8. The representation of low water lines, reefs, coral reefs, and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)
10. Not applicable.
11. Locations and elevations of summits are given. (Par. 19, 51.)
12. The tree line was shown on mountains. (Par. 16g) Not applicable.
13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)
14. Not applicable.
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.)

*One card attached - numerous tri-
angulation stations.*

REVIEW OF TOPOGRAPHIC SURVEY NO. M-G-33

16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)
17. The magnetic meridian was not determined by the topographer. (Par. 17, 52.)
18. The geographic datum of the sheet is Valdez and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate. Not applicable.
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)
22. No additional surveying is recommended.
23. The Chief of Party inspected and approved the sheet and the descriptive report after review by R. C. Rowse.
24. Remarks.

A. M. Sobieralski

Reviewed in office by

Examined and approved:

C. H. Green

Chief, Section of Field Records

Chief, Section of Field Work

K. T. Adams

Asst Chief, Division of Charts

Chief, Division of Hyd. & Topo.

DIVISION OF CHARTS, FILE NO. _____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4809

LANDMARKS FOR CHARTS

U. S. C. & G. S. S. SURVEYOR

Seattle, Washington March 5, 1934

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

A. M. SOBIERSKI, H. & G. E. Chief of Party.

[illegible]

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4809

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. M G - 33

REGISTER NO. 4809

State S. W. ALASKA

General locality PRINCE WILLIAM SOUND

Locality SEAL ISLAND, SMITH AND LITTLE SMITH ISLANDS

Scale 1:20,000 Date of survey JUNE - OCTOBER, 19 33

Vessel U. S. C. & G. S. S. SURVEYOR

Chief of party A. M. SOBIERALSKI

Surveyed by V. M. Gibbens, M. G. Ricketts, H. F. Garber, C. J. Beyma.

Inked by CHESTER J. BEYMA

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

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

Instructions dated APRIL 15, 19 33

Remarks: _____

Applied to CHN 8575. Nov. 1934 - J. S. Gumble
" " " 8577 Dec " J. S. Gumble

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4809 (1933).

Seal, Smith and Little Smith Islands, Prince Wm. Sound, Alaska.

Surveyed June-October, 1933

Instructions Dated: April 15, 1932(SURVEYOR)

Plane Table Survey - Cloth Mounted.

Chief of Party - A. M. Sobieralski,

Surveyed by - V. M. Gibbens, M. G. Ricketts, C. J. Beyma, H. F. Garber.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

- a. The magnetic meridian is not labeled with the time or place of observation.
- b. Scaled one-half meter distances were not laid off for distortion checking.

2. Compliance with Instructions for the Project.

The survey complies with instructions in every respect.

3. Junction with Contemporary Surveys.

The areas included in this survey are separate, detached islands and do not join any topographic surveys.

4. Comparison with Prior Surveys.

There is no previous topographic survey of this area.

- a. H-2741 (1905) is the only prior work done in this area. It is a hydrographic survey on scale of 1:40,000. Some of the triangulation was executed at the time and a few hydrographic signals were located by sextant cuts on these islands. But the hydrography was not very thorough and nothing was located which in any way conflicts with the present survey.

5. Field Drafting.

The field inking of this survey is satisfactory.

6. Additional Work Recommended.

The survey is complete and no additional work is necessary.

7. Superseding old Surveys.

This is an original survey.

8. Reviewed by A. F. Jankowski, November 1934.

Examined and approved:

C. K. Green, *C. K. Green.*
Chief, Section of Field Records.

L. O. Polbut.
Chief, Division of Charts.

J. B. Borden
Chief, Section of Field Work.

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