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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 <i>Director</i>	
<div style="border: 1px solid black; width: 100px; height: 80px; margin: 10px auto;"></div>	
State: S. W. ALASKA	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. C-A-34810 4810
LOCALITY	
PRINCE WILLIAM SOUND	
CHENEGA ISLAND AND ICY BAY	
1933	
CHIEF OF PARTY	
A. M. SOBIERALSKI, H. & G. E.	

U. S. GOVERNMENT PRINTING OFFICE: 1913

4810

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET C-A-33

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

SEASON - 1933

AUTHORITY:

This survey was made under the Director's instructions dated April 15, 1933.

EXTENT:

The area covered by this sheet includes the southern part of Chenega Island, Icy Bay, west arm of Whale Bay and the Pleyades Islands.

CHARACTER OF COUNTRY :

In general, Chenega Island is mountainous and wooded to an elevation of about one thousand feet. Chenega is a small village with a population of about seventy natives. There is a Greek Church in the village as well as a Government maintained school.

The land on either side of Icy Bay is quite similar in appearance to Chenega Island as far as Nassau Fiord on the west side and Δ Thor on the east. At these points the character of the land changes abruptly. The mountains are higher and more rugged with ice and snow in the valleys. The slopes are bare, devoid of vegetation down to the shore, the whole presenting quite a formidable appearance. There is evidence that the glaciers once extended to the entrance of Nassau Fiord and as far as Δ Thor in Icy Bay proper. The evidence is very clear along the north shore of Nassau Fiord. The nearly vertical rock walls are worn exceedingly smooth so that at places it is difficult to secure footing. Many large well rounded boulders appear in the upper stretches.

The large glacier on the southern shore of Nassau Fiord, for which the name Thor Glacier has been submitted, and the glacier at the head of Icy Bay are quite active. The remaining glaciers shown on the sheet are dead. The discharge from the active glaciers form heavy ice packs at their base gradually thinning to the entrance of Icy Bay, and at times well into Dangerous Passage. The amount of ice in Icy Bay depends on the wind and current conditions.

The land around the west arm of Whale Bay is quite mountainous and rugged. As in Icy Bay the southeast coast is decidedly steeper than the opposite coast. The land flattens at the head of the bay with a pass extending to Port Bainbridge. This pass is about one half mile wide, and flat, rising only a few feet above high water. It appears to have been the bed of an ice field as it is strewn with large smooth boulders. There is an outstanding rock formation along the northern shore of the bay at signal Face. A smooth rock surface rises to an elevation of about 200 feet, while in the immediate vicinity there is no other rock outcrop.

JUNCTURE TO ADJACENT SHEETS:

The sheet joins Field Sheet #C-B-33 to the north. The juncture was made in the field and checked satisfactorily. The form lines on the southwest corner of the sheet were joined to sheet T-4308. A portion of the form lines on sheet T-4308 were obviously in error as they ran through Icy Bay. A part of the form lines were deleted and a satisfactory juncture made farther to the south. A tracing showing the form lines on both sheets and their juncture is forwarded to the Washington Office under separate cover to be filed with Sheet T-4308. The position of the Pleiades Islands as shown on the chart was found to be in error. The position of Sister Rock checked, but there was an accumulating shortening of distance towards the south on the chart. The position of the southern end of the islands was about 50 meters off in latitude. As this island is rigidly controlled by ΔPleiades, 1933, the new work was thought to be correct.

SURVEYING METHODS:

The shoreline around Chenega Island was surveyed by H. G. Conerly. Plane table traverses were run between triangulation stations on Chenega Island with small satisfactory closures. The form lines were drawn and the remaining shore line surveyed by H. F. Garber.

Icy Bay was controlled by three point fixes and resection as far as the triangulation extended. Plane table traverses were run beyond the triangulation as far as a small boat could proceed through the ice pack. The remainder of the shoreline in the head of Icy Bay and Nassau^{Field} was sketched, supplemented by plane table cuts to important features. This portion of the work is shown dotted on the sheet.

Resection was used for control in the west arm of Whale Bay to the extent of the triangulation. Plane table triangulation was extended to the head of the bay beyond that point.

Traverses were run on the Pleiades Islands, supplemented by plane table cuts from ΔVillage and, ΔPleiades and Δ Sister Rock on the islands.

Elevations to wooded islands are given to tops of trees.

- 60 ft. for ground elevation

RECOVERABLE STATIONS:

With the exception of signals Oak and Cross no other recoverable topographic stations are noted owing to the large number of marked triangulation stations.

LIST OF GEOGRAPHIC NAMES:

<u>Proposed Name</u>	<u>Significance</u>
* Dual Head.	Two peaks of equal elevation are prominent at the summit of the head-land.
* Chenega Pt.	S. E. point of Chenega Island.
* Verdant Island.	The island is heavily wooded with green appearance.
(Thor Glacier.) <i>Do named by Grant & Higgins, 1908</i>	The glacier is quite active, discharging with rumbling sounds. <i>and published in U.S. G.S. Bulletin 526, Plate I</i>
Chenega Glacier	<i>See also Alaskan Glacier Studies, Jan & Martin 1914, page 376</i>
(Odin Glacier.)	In keeping with Thor Glacier.
Tiger Glacier. <i>See note above</i>	
(Dormant Glacier).	Inactive Glacier.
Princeton Glacier. <i>See note above</i>	
Tigertail Glacier, West side Nassau Fiord.	(U.S. G.S. Bull. 526, Pl I) <i>Notes by Harlow Bacon, Cartographer</i>
Miles of shore-line:	76 statute miles.
Area in square statute miles:	52.

STATISTICS:

Respectfully submitted,

Harry F. Garber
Harry F. Garber,
Jr. H. & G. E.

Approved & forwarded:

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

* Carded and sent to the Division of Geographic Names, Interior Dept. for approval. The above Division has taken over the functions of the U.S. Geographic Board which was abolished by Executive Order of April 17, 1934.
H. Bacon.

REVIEW OF TOPOGRAPHIC SURVEY NO. C-A-33 (Field No.)

Title (Par. 56) Chenega Island & Icy Bay, Alaska

Chief of Party: A.M.S Surveyed by: H.F.G. & Inked by: H.F.G.
H.G.C.

Ship: SURVEYOR Instructions dated: 4-15-33 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.)
Sections shown by dotted lines were sketched.
4. The amount of vertical control that the Manual specifies for contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)
6. ~~Omit.~~ *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. ~~Omit.~~ *Not applicable.*
11. Locations and elevations of summits are given. (Par. 19, 51.)
Elevations to wooded islets to tops of trees.
12. The tree line was shown on mountains. (Par. 16g.)
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. ~~Omit.~~ *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.)
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *No landmarks*
17. The magnetic meridian was shown and declination was checked. (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.
Junction with T-4308 covered by separate letter.
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.R.*
A.M. Sobieski
24. Remarks:

Reviewed in office by

Examined and approved:

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hyd. and Top.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4810

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 Letter C-A-33REGISTER NO. **4810**State S.W. ALASKAGeneral locality PRINCE WILLIAM SOUNDLocality CHENEGA ISLAND AND ICY BAYScale 1/20,000 Date of survey September-October, 19³³Vessel S.S. SURVEYORChief of Party A.M. SOBIERALSKI.Surveyed by H.F. GARBER and H.G. CONERLYInked by H.F. GARBERHeights in feet above M.H.H.W. to ground ~~to tops of trees~~Contour ~~Approximate contour~~ Form line interval 100 feetInstructions dated April 15, 1933, 19

Remarks: _____

U. S. GOVERNMENT PRINTING OFFICE: 1928

Applied to Chart 8523 - Oct 1934 - H.F. Garber
 " " " 8524 " " *H.F. Garber*
 " " " 8515 " " *H.F. Garber*
 " " " 8528 Dec. " *H.F. Garber*
 " " " 8551 Jan 1935 *H.F. Garber*
 " " " 8502 " " *H.F. Garber*

REVIEW OF TOPOGRAPHIC SURVEY No. 4810

Title (Par. 56) Chenega I. and Icy Bay, Prince William Sound.

Chief of Party A.M. Sobieralski Surveyed by ^{H.F. Garber}~~H.G. Conerly~~ Inked by H.F.G.

Ship SS. Surveyor Instructions dated April, 15, 1933 Surveyed in Sept.-Oct. 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 -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.)
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
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. The span, draw and clearance of bridges are shown. (Par. 16c.)
11. Locations and elevations of summits are given. (Par. 19, 51.)
12. The tree line was shown on mountains. (Par. 16g.)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

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. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of IMs and DPs, 68.)
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.)
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)
18. The geographic datum of the sheet is _____ and the reference station is correctly noted. (Par. 34.)
19. Junctions with contemporary surveys are adequate.
20. ✓ Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)
The geographic names shown in pencil have been submitted to the (Geographic Board for) approval. Division of Geographic Names, Dept. of the Interior H.B.
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

24. Remarks:

Reviewed in office by

Examined and approved:

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hyd. and Top.

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY T-4810 (1933)
Chenega Island and Icy Bay, Prince William Sound, S. W. Alaska
Surveyed: September - October 1933
Instructions dated: April 15, 1933 (SURVEYOR)
Plane Table Survey - Cloth Mounted

Chief of Party - A. M. Sobieralski
■ Surveyed by - H. F. Garber and H. G. Conerly
Inked by - H. F. Garber

1. Condition of Records.

The records conform to the requirements of the Topographic Manual in every respect.

2. Compliance with Instructions for the Project.

The survey complies with the instructions.

3. Junction with Contemporary Surveys.

Satisfactory junctions was made with T-4808 (1933). In making a junction with form lines of T-4308 (1927) the field party found it necessary to revise some form lines which were located on the prior survey. The necessary notations were made on T-4308 (1927).

4. Comparison with Prior Surveys.

a. T-2970 (1909)

The Pleiades Islands are resurveyed on the present survey. At the southern end of these islands the present location of shoreline is about 50 m. north of the former position.

5. Field Drafting.

The field inking is satisfactory.

6. Additional Field Work Recommended.

No additional field work is required.

7. Superseding Old Surveys.

Within the area called Pleiades Islands, the present survey supersedes T-2970 (1909) for charting purposes.

8. Reviewed by - A. F. Jankowski, October 1934.

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

L. O. Robert
Chief, Section of Field Work.

Fred. L. Peacock
Chief, Division of Charts

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