

4804

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: S. E. Alaska.

DESCRIPTIVE REPORT

Topographic

Hydrographic

Sheet No. "C" 4804

LOCALITY

Dixon Entrance

~~Lincoln Channel, Tongass Passage,~~

~~and Nakat Harbor, S. E. Alaska~~

Sitklan Island to Nakat Harbor.

1933.

CHIEF OF PARTY

Jack Senior

Applied to Compilation drawing for new Chart 8141 (1936).  
James W. McQuire.

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "C"

LINCOLN CHANNEL, TONGASS PASSAGE, AND NAKAT HARBOR,

S. E. ALASKA.

- o -

JACK SENIOR, CHIEF OF PARTY

SEASON OF 1933.

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "C"

LINCOLN CHANNEL, TONGASS PASSAGE, AND NAKAT HARBOR,

S. E. ALASKA.

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instructions for Project No. HT-137, dated March 16, 1933.

PURPOSE:

The purpose of the topographic survey was to locate and show the nature of the shoreline, islands, rocks, and reefs within the limits of the sheet. Also, to furnish control for the hydrography done in this vicinity.

LIMITS:

This sheet extends from Latitude  $54^{\circ}43.0'$  North to Latitude  $54^{\circ}49.7'$  North and from Longitude  $130^{\circ}37.6'$  West to Longitude  $130^{\circ}43.7'$  West. Exception: This sheet does not include any part of Willard Inlet. The insert of the northern arm of Nakat Harbor extends from Latitude  $54^{\circ}49.7'$  North to Latitude  $54^{\circ}51.3'$  North and from Longitude  $130^{\circ}41.7'$  West to Longitude  $130^{\circ}43.1'$  West. Junctions are made with Topographic Sheet "B", 1933, at triangulation station "Surprise Light Beacon" (1933), Latitude  $54^{\circ}49.2'$  North, Longitude  $130^{\circ}43.7'$  West; at triangulation station "Dark" (1933), Latitude  $54^{\circ}45.9'$  North, Longitude  $130^{\circ}43.0'$  West; at triangulation station "Kannag" (1933), Latitude  $54^{\circ}45.7'$  North, Longitude  $130^{\circ}43.4'$  West; and at triangulation station "Kana" (1933), Latitude  $54^{\circ}44.5'$  North, Longitude  $130^{\circ}43.1'$  West.

CONTROL:

The topography was controlled by the second and third order schemes of triangulation executed by Jack Senior, Commanding Str. EXPLORER, in 1933.

All triangulation is based on the North American Datum.

cf T. 4799.  
192.

1927?

SURVEY METHODS:

The usual plane table survey methods were used. A combination traverse and resection method was used in locating topographic

signals, shoreline, and other topographic details. When possible, signals were verified by cuts from triangulation stations.

All rocks and reefs were located by rod readings.

All closures were within the limit as allowed by the required Standard of Accuracy.

FORM LINES:

On this sheet form lines are shown only on the smaller islands. The form lines on the larger islands and on the mainland are shown on Contour Sheet "F", 1933, scale: 1-40,000. Elevations shown on this sheet were determined by the usual plane table methods.

COMPARISON WITH PREVIOUS SURVEYS:

Sheet No. 3392, C. G. Quillian, 1912, scale: 1-10,000.

Several differences in shoreline and depths of bights are noted between this sheet and sheet No. 3392. The largest differences are in the high water bight northeast of triangulation station "Quill", 1933; at the head of the northern arm of Nakat Harbor; in the chain of islands at the entrance to Nakat Harbor; and at the head of the southwest arm to Nakat Harbor. All differences were carefully checked and verified.

Sheet No. 1618b, 1885, scale: 1-10,000.

There is considerable difference in the shoreline immediately East of triangulation station "Dark", 1933, as shown on the two sheets. The shoreline on this sheet is well controlled by triangulation, the discrepancy was noted and verified.

GENERAL DESCRIPTION:

Nakat Harbor: Nakat Harbor is 3-3/4 miles long in a North and South direction and has three arms; a northern arm, a southeastern arm, and a south western arm. The arms have an average width of 1/4 mile and are approximately equal in length. A chain of wooded islands running in a North and South direction form the West side of the harbor at its center. The highest and largest of the islands is 160 feet in height. The shores of the harbor are heavily wooded, and are steep in the southeastern arm. The east side of the harbor is surmounted by a range of peaks varying in height from 1000 feet to 1739 feet. A low valley extends to the northeast from the northern arm and another to the south from the southeast arm. The points forming the northwest and southwest sides of the harbor are heavily wooded

and average 200 feet in height. At half tide the southwest arm connects with the small irregular bay off the northeast side of Nakat Bay, through a narrow channel 60 meters in length. This junction is in Latitude  $54^{\circ}47.8'$  North and Longitude  $13^{\circ}43.6'$  West. Observation Island, a small rocky and grass covered island 6 feet in height, lies in the center of the harbor. The ruins of an abandoned cannery lie on the eastern shore of the harbor southeast of Observation Island. Anchorage is available in either of the southern arms. The best channel for entering Nakat Harbor is South of the chain of wooded islands.

**Tongass Passage:** Tongass Passage is a deep, narrow passage with steep heavily wooded shores, bounded on the north by the mainland, on the east by Wales Island, and on the south and west by Sitklan Island. A low valley extends from the bight, which is  $3/4$  mile north of Point Mansfield, to the southeastern arm of Nakat Harbor. A wooded knoll 1470 feet in height is immediately east of this valley and one 980 feet in height is just westward of it. Sitklan Island is heavily wooded and is high on the northern and southern sides but is low through the center. A narrow lagoon extends  $3/4$  mile northeast from the center of the southwest side of Sitklan Island. The eastern and southern shores of the island are spotted with white rocky cliffs 10 to 30 feet in height. The highest rocky cliff is on the south side of the island in Latitude  $54^{\circ}43.8'$  North, Longitude  $130^{\circ}40.3'$  West and is 144 feet high. This cliff is fairly prominent from the southward.

**Lincoln Channel:** Lincoln Channel is the narrow passage between Kanagunut and Sitklan Islands. Its width is 70 meters on the northern end and widens to 300 meters on the southern end. Port Tongass Village is located on the northeastern side of the channel. The village consists of a few wooden shacks and a small float and at present is inhabited by two families. Kanagunut Island is low and heavily wooded, 3 miles long in a northwest-southeast direction and  $1/2$  mile in width. Its southwest side is fringed by rocky ledges extending 100 to 300 meters offshore.

Two miles northeast of Point Mansfield, in Latitude  $54^{\circ}47.2'$  North and Longitude  $130^{\circ}38.1'$  West, is a group of wooded islands, the largest 130 feet in height. A reef baring 9 feet at M.L.L.W., and marked by kelp is in the center of this group of islands; elsewhere the islands are clear, except close inshore.

DISTORTION:

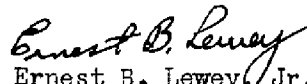
The sheet was frequently tested, but no appreciable distortion was noted at any time.

MAGNETIC OBSERVATIONS:


Magnetic observations were made at triangulation stations "Obs, 1933"; "Dark, 1933"; "Fil, 1933", and "Hit, 1933", with the declinometer.

Observations were made at triangulation stations "Obs, 1933", and "Reef, 1933", with the declinometer.

Respectfully submitted,

  
Ernest B. Lewey Jr. H. & G. Engr.,  
U.S.C. & G.S.S. EXPLORER.

APPROVED AND FORWARDED:

  
Jack Senior,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER.

LIST OF STATISTICS

Number of statute miles of shoreline:	58.4
Number of elevations determined:	48
Number of permanently marked stations located by planetable	1

PERMANENTLY MARKED STATION LOCATED BY PLANE TABLE

<u>NAME</u>	<u>D.M.</u>	<u>D.P.</u>	<u>DESCRIPTION</u>
Dur	54°51' + 435.5 m.	130°42' + 1022.0 m.	Standard bronze disk established in 1912 and stamped "1912".



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4804

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"

REGISTER NO. 4804

State S. E. Alaska

General locality Dixon Entrance Alaska

Locality Sitklan Island to Nakat Harbor, and Nakat Island.

Scale 1:10,000 Date of survey June & July, 1933.

Vessel U.S.C. & G.S.S. EXPLORER

Chief of Party Jack Senior

Surveyed by Ernest B. Lewey

Inked by Ernest B. Lewey

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

~~Contour--Approximate-contour~~ Form line interval 100 feet

Instructions dated March 16,, 19 33.

Remarks: Sixty feet was used as height of trees.

Applied to drawing of Chart No 8102. S.B.M., Sept, 1934.  
" " " (compilation) of new Chart 8053 S.B.M. Oct 1934

Applied to new compilation, plan of Nabat Harbor  
Chart No. 8120 G.H.S. Oct. 30, 1934

## REVIEW OF TOPOGRAPHIC SURVEY No. 4804

Title (Par. 56) *Sitklan Island to Nakat Harbor, Alaska*Chief of Party *Jack Senior* Surveyed by *E.B. Lemey* Inked by *E.B. Lemey*Ship *Explorer* Instructions dated *Mar. 16-1933* Surveyed in *June-July, 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.) *See T4801*
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) *See T4801*
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.) *None Submitted*
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.) *See T4801*
12. The tree line was shown on mountains. (Par. 16g.) *See T4801*

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 DMs and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *None Submitted*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *North American 1927 (Adj)* 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.) ✓
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 *Chas. R. Bush Jr. May 9 1936*

Examined and approved:

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

*L. O. Robert*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. W. Hilde*  
Chief, Division of Hyd. and Top.