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~~CONFIDENTIAL~~

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6431

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Form 504  
Ed. June, 1928  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

APR 8 1936

State: S.W. ALASKA

Acc. No.

DESCRIPTIVE REPORT

Topographic } Sheet No. "J"  
~~Hydrographic~~ } 6431

LOCALITY

~~GLACIER BAY, CAPE KOVRIZKA~~

~~and VELOANO BAY~~

N.W. COAST UNALASKA ISLAND

1935

CHIEF OF PARTY

H. B. Campbell

Applied to drawing of Chart 8802

S. B. Maize June 21, 1937

Applied to Chart Comp. 9024 Oct. 4, 1938

H. Magdson

Applied to Chart 9023 Nov 10 1938

Chas R. Bush Jr.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. J

REGISTER NO. **T6431**

State S. W. ALASKA

General locality N. W. COAST UNALASKA ISLAND

Locality N. W. Coast  
~~GLACIER BAY, CAPE KOVALZUKA, and VOLCANO BAY~~

Scale 1:20,000 Date of survey JULY & AUGUST, 1935

Vessel U.S.C. & G.S.S. DISCOVERER (WESTDAHL)

Chief of party H. B. CAMPBELL

Surveyed by E. B. LEWEY

Inked by E. B. LEWEY

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

~~Contours, approximate contours~~, Form line interval 100 feet

Instructions dated APRIL 13, 1934.

Remarks: \_\_\_\_\_

...

DESCRIPTIVE REPORT  
TO ACCOMPANY TOPOGRAPHIC SHEET "J"  
GLACIER BAY, CAPE KOVRIZHKA, and VOLCANO BAY  
N. W. COAST UNALASKA ISLAND, S. W. ALASKA

- 0 -

H. B. CAMPBELL, CHIEF OF PARTY

SEASON OF 1935

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET "J"

GLACIER BAY, CAPE KOVRIZHKA, and VOLCANO BAY

N. W. COAST UNALASKA ISLAND, S. W. ALASKA

INSTRUCTIONS:

The work done on this sheet was authorized by the Director's Instruction for Project HT - 177, dated April 13, 1934.

LIMITS:

The area included on this sheet lies between Latitudes 53° 47.0' North and 53° 55.8' North and between Longitudes ~~166° 00.0'~~ <sup>166° 59.0'</sup> West and 167° 09.6' West.

A junction is made with topographic sheet "A", 1935, at triangulation station "Mak, 1935", in Latitude 53° 46.98' North and Longitude 167° 03.96' West.

CONTROL:

The topography was controlled by the second and third order schemes of triangulation executed by the party during the season.

All triangulation is based on the <sup>Unalaska</sup> ~~Dutch Harbor~~ Datum.

NOTE: Triangulation stations "Shin, 1935", and "Edge, 1935", were located by planetable only. No triangulation was available for the control of the northern portion of the sheet. A traverse was run from triangulation station "Kor, 1935" to topographic station "Rid" at the northern limit of the sheet. One cut was obtained to "Edge, 1935", from "Vol, 1935", with a theodolite. The traverse was adjusted slightly so that the topographic location of "Edge" agreed with the cut from "Vol". No check on the distance was obtained.

*Should not be shown  
on A. Sta. - CIA  
Changed to topo signals  
Apr 1935*

SURVEY METHODS:

Standard planetable survey methods were used. Between triangulation station "Mak, 1935", and "Kor, 1935", a combination traverse and resection method was used in locating topographic signals, shoreline, and other topographic details. Rocks and reefs were located by rod readings. From triangulation station "Kor, 1935", to the northern limit of the sheet all details and most of the topographic signals were located by traverse. Cuts were obtained to all signals within sight of "Kor".

FORM LINES:

All elevations for the control of form lines and the heights of the higher offshore rocks were determined by standard planetable methods. The heights of the smaller and lower offshore rocks were measured with the telemeter rod.

COMPARISON WITH PREVIOUS SURVEYS:

There are no previous detailed surveys of this area.

GENERAL DESCRIPTION:

In general, the shores within the limits of this sheet are abrupt. In the vicinity of triangulation station "Mak, 1935", Latitude  $53^{\circ} 46.98'$  North and Longitude  $167^{\circ} 03.96'$  West, and in the vicinity of triangulation station "Riz, 1935", Latitude  $53^{\circ} 49.50'$  North and Longitude  $167^{\circ} 06.52'$  West, the cliffs bordering the shoreline are steep and rocky. Just west of "Riz" the cliff is the highest, 1212 feet, and most prominent. Elsewhere, the bluffs are grass covered and not as conspicuous.

A low valley extends from the east side of Volcano Bay in a south-easterly direction to Makushin Village. Another low, but larger and more prominent, valley extends inshore from Glacier Bay. Four miles inshore from the shoreline, this valley divides into two arms, one heading in an easterly direction and the other in a southerly direction. A glacier is in the eastern arm and can be seen from Glacier Bay.

Triangulation station "Vol, 1935" in Latitude  $53^{\circ} 50.37'$  North and Longitude  $167^{\circ} 07.58'$  West, is on a prominent knoll 2452 feet high on Cape Kovrizhka. The knoll is conspicuous from either the north or south and its offshore side is steep and ragged.

Triangulation station "Jag, 1935", in Latitude  $53^{\circ} 52.37'$  North and Longitude  $167^{\circ} 00.44'$  West is the highest point of a sharp jagged peak 5242 feet high. This jagged peak is prominent from offshore but is usually covered with clouds and can seldom be seen. "Jag" and the large rounded mountain 5786 feet in height  $1\frac{1}{2}$  miles to the north-east are parts of the Makushin Volcano Range.

The valleys and slopes up to a height of approximately 900 feet are grass covered. The higher ground is bare.

Generally, the shoreline is fringed with rocky ledges. The beaches in Glacier Bay and the eastern side of Volcano Bay are fine sand. The beach on the north side of Volcano Bay is made up of large boulders.

DISTORTION:

The sheet was tested in the field, but no distortion was noted. A 24" x 31" aluminum mounted sheet was used.

MAGNETIC OBSERVATIONS:

Observations were made at triangulation stations "Kor, 1935"; "Riz, 1935"; and "Cus, 1935" with the declinatoire.

NEW NAMES:

Well Established Local Names:

GLACIER BAY, the wide open bay just north-east of Cape Kovrizhka in Latitude  $53^{\circ} 52.5'$  North and Longitude  $167^{\circ} 07.5'$  West.

NIGGER HEAD, the prominent rocky hill 233 feet high sticking offshore from Cape Kovrizhka in Latitude  $53^{\circ} 50.37'$  North and Longitude  $167^{\circ} 09.44'$  West. Triangulation station "Kor, 1935" is located on this hill. Nigger Head is connected with the mainland by a low narrow neck and is the most distinguishing mark within the limits of the sheet.

Respectfully submitted,

*Ernest B. Lewey*  
Ernest B. Lewey,  
Jr. H. & G. Engineer,  
U.S.C. & G.S.S. DISCOVERER.

Approved and forwarded,  
*H.B. Campbell*  
*J.S. Johnson*  
~~Jack Senior,~~  
Commanding Officer,  
U.S.C. & G.S.S. DISCOVERER.

STATISTICS

TO ACCOMPANY TOPOGRAPHIC SHEET "J"

Number of Statute Miles of Shoreline .....	26.4
Number of square Statute Miles of Area Surveyed.....	44.0
Number of elevations determined.....	88



Remarks

Decisions

1		
2		
3	<i>no glacier; no bog.</i>	
4	<i>there are three features with this name in the Alutian Ids.</i>	
5		
6		<i>see landmarks for chart H-54104</i>
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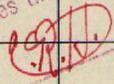
GEOGRAPHIC NAMES

Survey No. 6431

On Chart No. 8802  
 On previous survey No.  
 On U. S. quadrangle Maps  
 From local information  
 On local Maps  
 P. O. Guide or Map  
 Rand McNally Atlas  
 U. S. Light List  
 C.P.  
 8860

Name on Survey

	A	B	C	D	E	F	G	H	K	
<u>Bering Sea</u> ✓	*						✓	✓	✓	1
<u>Unalaska Island</u> ✓	*						✓	✓	✓	2
<del>Glacier Bay</del> ?										3
<del>Nigger Head</del> ?										4
<u>Volcano Bay</u> ✓	*							✓		5
<u>Cape Kovrizhka</u> ✓	*							✓		6
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Names underlined in red approved  
 by  on 4/29/36

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY }  
 DESCRIPTIVE REPORT } No. H  
 PHOTOSTAT OF } No. T 6431

{ received April 9, 1936  
 { registered April 14, 1936  
 { 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.

ROUTE		Initial	Attention called to
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83			
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90			

RETURN TO

82	
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*W. L. Green April 18 - '36*

REVIEW OF TOPOGRAPHIC SURVEY No. 6431 (1935) Field No. JTitle (Par. 56) N.W. Coast, Unalaska Island, S.W. Alaska ✓Chief of Party H.B. Campbell Surveyed by E.B. Lewey Inked by E.B. LeweyShip DISCOVERER Instructions dated Apr. 13, 1934 Surveyed in July-Aug., 1935

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 ~~except that only a few recoverable stations were established, the instructions calling for such stations approximately 1 mile apart.~~ ✓
3. ✓ The control and closures of traverses were adequate. (Par. 12, 29.)  
(Continued on reverse side) ✓
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.) None submitted ✓
7. ✓ High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) except that the lake in lat. 53° 48', long. 167° 04' was not completely delineated. ✓
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.)  
See note on back ✓
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.) No trees. ✓

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.

## Paragraph 9

The source of the charted topography could not be ascertained but was first charted on the 1st Edition of Chart 8800 (1893) which was subsequently superseded by the present chart in 1909. This information differs considerably in geographic position with that of the present survey, being approximately 5 minutes eastward in longitude and 1 minute southward in latitude of that shown on the present survey. Allowing for this difference, the charted information is in fair agreement with the present survey, but should be ~~completely~~ superseded by the more accurate delineation on the present survey for charting purposes.

### Paragraph 3 (Continued).

At the time this survey was made no triangulation was available north of Station "Kor - 1935" in lat. 53 - 50.4, long. 167 - 09.4. A traverse was run from "Kor - 1935" to the north end of the sheet, a distance of about 6 miles, without a check on the distance (see descriptive report, page 1). Topographic station "Edge" in lat. 53 - 55.5, long. 167 - 04.5, near the northern extremity of the traverse, was recovered in 1936 and cut in by triangulation. The two determinations differing by 40 meters, an adjustment of the traverse was made in the office and the projection corrected in color to take up the amount of the discrepancy.

April 25, 1938.

J.A. McCormick.

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 aere-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.)
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 <sup>but there is no evidence that the declination</sup> and declination was checked. (Par. 17, 52.)
18. ✓ The geographic datum of the sheet is ~~Dutch Harbor Datum~~ <sup>Unalaska Datum</sup> and the reference station is correctly noted. (Par. 34. ~~from the~~ <sup>from the</sup> Field Computations.)
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 *Harold W. Murray* May 6, 1936  
*R. J. Christman* May 23, 1936

Examined and approved:

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

*Irvin R. Peacock*  
 Chief, Section of Field Work

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

*Glude*  
 Chief, Division of Hyd. and Top.