

6431

~~CONFIDENTIAL~~

1202-2

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
~~Hydrographic~~

Sheet No.

"J"

6431

LOCALITY

~~GLACIER BAY, CAPE KOVRIZKA~~~~and VELOANO BAY~~

N.W. COAST UNALASKA ISLAND

1935

CHIEF OF PARTY

H. B. Campbell

U. S. GOVERNMENT PRINTING OFFICE: 1929

6431

~~CONFIDENTIAL~~

Applied to drawing of Chart 8802

S.B. Maize June 21, 1937

Applied to Chart Comp. 9024 Oct. 4, 1938 H. Magdwen

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. I

REGISTER NO. **T6431**

State S. W. ALASKA

General locality N. W. COAST UNALASKA ISLAND

Locality N. W. Coast
~~GLACIER BAY, CAPE KOVALZHEKA, 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° 59.0' 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 ^{Unalaska} ~~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
as a sta. - C.K.A.
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. Outs 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° 52.5' North and Longitude 167° 07.5' West.

NIGGER HEAD, the prominent rocky hill 233 feet high sticking offshore from Cape Kovrizhka in Latitude 53° 50.37' North and Longitude 167° 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. J. M. Mook
~~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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Seattle, Washington,

March 14, 1936

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.

H. B. Campbell

ps Jubbink
Senior Co

Jack Senior, Comdg. DISCOVERER

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED		
	LATITUDE		D. M. METERS	LONGITUDE				DATUM	
	°	'		°	'				D. P. METERS
<u>WATERFALL</u>	53	55	362 ✓ 392.0	167	05	48 ✓ 18.0	Dutch Harbor	Plane-table	8802, 9024, 9302
(Δ KOR, 1935) * <u>NIGGER HEAD</u>	53	50	670.6 ✓	167	09	472.7 ✓ 6	"	Triangulation	" 9024, 9023
(160 ft. high, @ ZEB) <u>PINNACLE ROCK</u>	53	47	713.0 ✓	167	05	246.0 ✓	"	Plane-table	" 9023
<u>"WATERFALL" and "PINNACLE ROCK" scaled from Topographic Sheet "J", 1935.</u>									
			</						

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, flagstaves and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1930

Remarks

Decisions

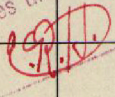
1		
2		
3	no glacier; no bay.	
4	there are three features with this name. in the Alaskan Ids.	
5		
6	see landmarks for chart H-54104	
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

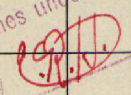
Survey No. 6431

GEOGRAPHIC NAMES		Survey No. 6431									
Name on Survey	8802										
	A	B	C	D	E	F	G	H	K		
<u>Bering Sea</u> ✓	*						✓	✓	✓	1	
<u>Unalaska Island</u> ✓	*						✓	✓	✓	2	
Glacier Bay ?										3	
Nigger Head ?										4	
<u>Volcano Bay</u> ✓	*							✓		5	
<u>Cape Kovrizhka</u> ✓	*							✓		6	
										7	
										8	
										9	
										10	
										11	
										12	
										13	
										14	
										15	
										16	
										17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	

Names underlined in red approved

by  on 4/29/36

M 234

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
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	
----	--

W. H. Gibson April 18 - '36

REVIEW OF TOPOGRAPHIC SURVEY No. 6431 (1935) Field No. JTitle (Par. 56) N.W. Coast, Unalaska Island, S.W. AlaskaChief 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 DP's, 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 ^{but there is no evidence that the declination} and declination was checked. (Par. 17, 52.)
18. ✓ The geographic datum of the sheet is ^{Unalaska Datum} ~~Dutch Harbor Datum~~ and the reference station is correctly noted. (Par. 34. ~~from the~~ 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:

B. H. Green
 Chief, Section of Field Records

Irvin R. Peacock
 Chief, Section of Field Work

L. O. Colbat
 Chief, Division of Charts

G. H. Hude
 Chief, Division of Hyd. and Top.