

6423

~~CONFIDENTIAL~~~~CONFIDENTIAL~~

6423

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: S. W. ALASKA

DESCRIPTIVE REPORT

Topographic } Sheet No. "A"
~~Hydrographic~~ } 1473

LOCALITY

MAKUSHIN BAY

UNALASKA ISLAND

19.35

CHIEF OF PARTY

H. B. Campbell

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 8 1936

Acc. No.

Applied to drawing of chart No 8802

S.B. Maize June 1937

Applied to Chart 9023 Nov. 18 - 1938

Chas. R. Bush Jr.

Applied to Confidential Chart 9022 Nov. 17, 1938

W. E. MacEwen

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. A

REGISTER NO. **6423**

State S. W. Alaska

General locality Unalaska Island¹⁴

Locality Makushin Bay¹¹

Scale 1:20,000 Date of survey June & July, 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 ~~xxxxxxxxxxxx~~

~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~, Form line interval 100 feet

Instructions dated April 13, 1934.

Remarks: _____

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"
MAKUSHIN BAY
UNALASKA ISLAND, S. W. ALASKA

- 0 -

SEASON OF 1935
H. B. Campbell, Commanding Officer
U.S.C. & G.S.S. DISCOVERER

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET "A"
MAKUSHIN BAY
UNALASKA ISLAND, S. W. ALASKA

INSTRUCTIONS:

The work done on this sheet was done in accordance with the Director's Instructions for Project HT - 177, dated April 13, 1934.

LIMITS:

The area included on this sheet lies between Latitudes $53^{\circ} 41.5'$ North and $53^{\circ} 47.0'$ North, and between Longitudes $166^{\circ} 54.0'$ West and $167^{\circ} 04.0'$ West.

A junction is made with Topographic Sheet "D", 1934, at triangulation station "Fair, 1934", in Latitude $53^{\circ} 43.16'$ North, Longitude $166^{\circ} 55.76'$ West.

A junction is made with Topographic Sheet "B", 1935, at topographic station "Yah" in Latitude $53^{\circ} 45.33'$ North and Longitude $166^{\circ} 53.84'$ West.

A junction is made with Topographic Sheet "J", 1935, at triangulation station "Mak, 1935", in Latitude $53^{\circ} 46.98'$ North, and Longitude $167^{\circ} 03.96'$ West.

CONTROL:

The topography was controlled by the second order and third order schemes of triangulation executed by the DISCOVERER in 1934 and 1935.

All triangulation is based on the Dutch Harbor Datum.

SURVEY METHODS:

Standard planetable survey methods were used. 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. When possible, signals were verified by cuts from triangulation stations.

All traverses closed satisfactorily.

FORM LINES:

All elevations, except the heights of the smaller offshore rocks, were determined by standard planetable methods. The heights of the smaller and lower offshore rocks were estimated by comparing their heights with the telemeter rod.

COMPARISON WITH PREVIOUS SURVEYS:

There are no previous detailed surveys of this area.

GENERAL DESCRIPTION:

This sheet covers the entrance and western part of Makushin Bay. At the entrance, the bay is $2\frac{1}{2}$ miles wide; just inside the entrance it widens to $3\frac{1}{2}$ miles, and then narrows again to 2 miles in width. This portion of the bay runs east and west and is approximately 6 miles long. The entrance is marked on the north side by a large rock, or islet, 104 feet in height, which lies $\frac{1}{2}$ mile south-west of Makushin Point.

With few exceptions, the shores are steep and rocky and are fringed with boulders and reefs. Nowhere, however, are there dangers more than 1/4 mile offshore.

Makushin Point, on the north side of the entrance to Makushin Bay, rises to 762 feet in height and is grass covered. Its shores are defined by rocky bluffs varying in height from 144 feet to 557 feet. The point is made quite prominent by a number of small grass covered knolls scattered over its top. Just north of Makushin Point lies a low valley which extends from Makushin Village in a north-westerly direction to Volcano Bay. A very prominent low and wide valley comes into Makushin Bay one mile north-east of the Village. Its direction is approximately northerly and is bounded on each side with steep bumpy ridges.

The southern shore of Makushin Bay is unusually steep, rising rapidly from the water's edge to a height of approximately 1500 feet. There is only one valley on the south side of the bay, a narrow and deep valley extending in a southerly direction from topographic station "Pete", Latitude 53° 43.0' North and Longitude 166° 57.4' West. This valley is noticeable only from the center of the bay. There are high and prominent rocky cliffs on each side of the mouth of this valley.

The valleys and slopes to a height of approximately 750 feet are grass covered. The higher land is bare.

The only sand beaches on the sheet are at Makushin Village and at the mouth of the valley one mile north-east of the Village.

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 "Isle, 1935"; "Fool, 1934"; "Rain, 1934"; "Mist, 1934"; and "Star, 1935", with the declinitoire.

Respectfully submitted,

Ernest B. Levey

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

Approved and forwarded,

H.B. Campbell
for J.M. Smock

~~Jack Senior,~~
Commanding Officer,
U.S.C. & G.S.S. DISCOVERER.

STATISTICS

TO ACCOMPANY TOPOGRAPHIC SHEET "A"

Number of statute miles of shoreline	24.0
Number of square statute mile of area surveyed	26.0
Number of elevations determined.....	128

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Seattle, Washington,

March 16 19 36.

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,
per J.H. Smook,
Jack Senior, Comdg. DISCOVERER
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.

Remarks

Decisions

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3	marked as " <u>Makushin</u> " on chat 8802	<u>Makushin</u>
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GEOGRAPHIC NAMES

Survey No. 6423

GEOGRAPHIC NAMES		Survey No. 6423									
Name on Survey	<div>On Chart No. 8802</div> <div>On previous survey No.</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div> <div>KUSCP</div>										
	A	B	C	D	E	F	G	H			
<u>Unalaska Island</u> ✓	*						✓		✓	1	
<u>Makushin Bay</u> ✓	*						✓		✓	2	
<u>Makushin Village</u> ✓	*									3	
<u>Makushin Point</u> ✓	*									4	
<u>Cape Starichkof</u> ✓	*								✓	5	
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Names underlined in red approved

on 4/29/36

PCR/H

M 236

Names underlined in red approved
 on 4/28/36
 J. R. H.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H
 PHOTOSTAT OF } No. T 6423

{ 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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RETURN TO

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C. K. Green April 16 '36

REVIEW OF TOPOGRAPHIC SURVEY No. 6423 (1935) Field No. A

Title (Par. 56) Makushin Bay, 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 June + July, 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. ✓
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.) 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.)
From Long. 167° 01.7' to Long. 167° 04.1' verified, May 7, 1936 H.W.M.
(See Note A on back)
From Long. 167° 04.7' to East limits of survey. Verified, Aug. 10, 1936 E.R.
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 are in this area. (See D.R., page 3, last par.) ✓

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, Continued.

A. The source of the topography shown on the chart could not be ascertained but was ~~first~~ charted on the 1st Edition of Chart 8890 (1893), which chart was ~~subsequently~~ superseded by the present chart in 1909. It is noted that this information differs considerably in geographic position with that on the present survey, being approximately $4\frac{1}{2}$ minutes eastward in ~~long.~~ and $1\frac{1}{2}$ minutes southward in latitude of that shown on the present survey. Allowing for this difference, the topography is in fair agreement with the present survey. However, the ~~charted~~ group of bare rocks extending southward from Makushin Point and the charted ~~shore~~ rock extending just north-westward of Cape Starichkof, while agreeing with the present survey in agreement, nevertheless differ considerably as to distance off shore. In view of the uncertain origin and accuracy of the charted information and the more accurate delineations on the present survey, the present survey should completely supersede this information for charting purposes.

Harold W. Murray

B. The only outstanding feature that needs consideration in this review is the charted bare rock between Makushin Pt. and the $\frac{9}{40}$ fm. sounding. Its charted location falls about $\frac{1}{2}$ mile offshore where no rock was located by either the present hydro and topo. surveys. The origin of the rock cannot be traced and probably was taken from an old Russian Chart. In view of the ~~unknown~~ ^(of the rock) ~~uncertain~~ origin, ~~and~~ ^{inaccuracy} ~~accuracy~~ of the charted material in general, mentioned in par. A. above, the rock should be deleted from the chart.

S. Peregari

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.) ✓
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 declinator is} and declination was checked. (Par. 17, 52.) ✓
18. ✓ The geographic datum of the sheet is Dutch Harbor Datum and the reference station is correctly noted. (Par. 34.) (from Field Computations) ✓
19. ✓ Junctions with contemporary surveys are adequate. See Note on back ✓
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 7, 1936
R. J. Christman May 23, 1936
 Examined and approved: Superintendent G. A. Z. Shaleng

C. F. Green
 Chief, Section of Field Records

L. O. Colbath
 Chief, Division of Charts

Fred. L. Peacock
 Chief, Section of Field Work

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

Paragraph 19, continued.

at the junction with T-6228(1934), an overlapping area of about 1/2 square mile is common to the two surveys, and of which T-6228(1934) is the more detailed. The high water line and a general position of the adjacent topography appears to be added in on the present survey but does not entirely agree with the delineation on T-6228(1934).

The main portion of the contours on the present survey appears to have been transferred from T-6228(1934).

* In addition, the elevation of Δ Rise(1934) is shown on the present survey as 330 feet and 427 feet on T-6228(1934). The coordination of these matters has been referred to the field party.

Letter to field written June 12, 1936

* 330 foot elevation of Rise accepted as correct. See letter from Mr. Lewey attached to this report.

A.L.S. (8-14-36).

POST-OFFICE ADDRESS: P. O. Box 530, Long Beach, Calif.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

U.S.C. & G.S.S. PIONEER,
July 3, 1936.

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D. C.

From: The Commanding Officer,
U.S.C. & G.S.S. PIONEER.

Subject: Topographic surveys T-6228 (1934) (surveyed by P. L.
Bernstein), and T 6423 (1935) (surveyed by E. B.
Lewey).

Reference: 80-DRM.

The photostats forwarded with your letter referred to above have been forwarded to Lieutenant Lewey with a request that he inform you as to the correct elevation of Triangulation Station RISE.

In this connection I wish to state that in 1934 it was planned to end the topography of Anderson Bay at Station SPIT. At the very last of the season and under very unfavorable conditions as to weather and time available, I required Mr. Bernstein to extend the survey to station FAIR so as to permit the location of the reef lying off that station. This reef was not discovered until late in the season. Mr. Bernstein did not have a good opportunity to do a complete job of this shore line from FAIR to SPIT. I realize that this should have been taken up in the descriptive report and that it was my fault that it was not so handled.

During the season of 1935 Mr. Lewey had time and weather suitable for this work and I consider that his should be ^{the} more accurate and detailed survey and that preference should be given to it for charting purposes. (See par. 3 of letter from Mr. Lewey attached and note office disposition). A.L.S (8-14-36).

H. B. Campbell
H. B. Campbell,
Chief of Party,
Commanding SHIP PIONEER.

CKG
KTA

80-DRM

June 12, 1936.

To: Lieutenant Commander H. B. Campbell,
U. S. Coast and Geodetic Survey,
Ship PIONEER,
Box 530,
Long Beach, California.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Topographic surveys T 6228 (1934) (surveyed by P. L. Bernstein), and T 6423 (1935) (surveyed by E. B. Lewey)

There are inclosed photostats of sections of your subject topographic sheets, Makushin Bay, Alaska. There is approximately a 1 1/2 mile overlap at the junction of these sheets in the vicinity of triangulation station "Fair". The topographer of the 1935 survey apparently had available a tracing of the 1934 work in this area, since the form lines of the two surveys are practically identical. There are several differences in other detail, however. The offlying rocks in the immediate vicinity of triangulation station Fair seem to be in greater detail on the later survey. The elevation of triangulation station "Rise" is shown as 427 feet on the 1934 work and as 380 feet on the 1935 work.

These differences should be adjusted in the field before the sheets are forwarded to this office. Please call this matter to the attention of Lieutenant (j.g.) E. B. Lewey, the topographer of T 6423, with a view to advising this office as to the correct elevation of triangulation station Fair. Lieutenant Lewey is now attached to the Ship DISCOVERER, 601 Federal Office Building, Seattle, Washington.
(Signed) J. H. HAWLEY

Inclosures.

Acting Director.

POST-OFFICE ADDRESS: 601 Federal Office Bldg., Seattle, Washington.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

EBL:dd

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Ship DISCOVERER

False Pass, Alaska
July 26, 1936

To: The Director,
U. S. Coast & Geodetic Survey,
Washington, D. C.

From: Ernest B. Lewey, Jr. H. & G. E.,
601 Federal Office Bldg.,
Seattle, Washington.

Through: Commanding Officer,
Ship DISCOVERER.

Subject: Topographic Surveys T-6228 (1934), and T-6423 (1935).

In reply to a letter from the Acting Director, dated June 12, 1936, concerning the above topographic surveys, it is my belief that the details and elevations shown on T-6423 are correct.

The 1935 survey was made in good weather and executed to the best of my ability. I am sure of the location and elevation of the reefs and rocks off Station FAIR (1934-35) as shown on T-6423, since I was at FAIR at dead low water and carefully rodged in those details. As to the elevation of RISE (1934), I am reasonably sure that the 330 ft. elevation is correct. Cuts were obtained on RISE from SPIT (1934), FAIR (1934), and from directly across the bay and all the cuts agreed satisfactorily.

With the exception of the reefs and rocks off FAIR (mentioned above) and the topographic signals, no detailed survey of the shoreline was made between SPIT and FAIR in 1935. The topographic signals in the stretch of shoreline, as used during the 1935 season, were located by cuts from across the bay. I do not know if the signals were rebuilt on exactly the same spots as they were originally built in 1934; I was not with the party that rebuilt these signals.

I did have a tracing of the connection with the 1934 survey, but do not remember seeing an elevation of RISE. I do not believe it was on the tracing. The details of the shoreline between SPIT and FAIR, as shown on T-6423, were obtained from the tracing of the previous year's survey.

Forwarded, approved:

Jack Senior,
Jack Senior, Lt. Comdr., C. & G. S.,
Commanding, Ship DISCOVERER.

Ernest B. Lewey,
Ernest B. Lewey,
Jr. H. & G. Eng.,
Ship DISCOVERER.

* To eastward of Fair, T-6228 (1934) is accepted for details along shore and is so indicated on the sheet. A.L.S. (B-14-36).

E. of 330
feet accept-
ed. E. and
contours
on T-6228
changed to
conform.
A.L.S.
(B-14-36)