

6506

U. S. COAST & GEODETIC SURVEY
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Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~

Sheet No. C

State Alaska

LOCALITY

South side of Unimak Id.

Otter Cove

1936

CHIEF OF PARTY

Jack Senior

U. S. GOVERNMENT PRINTING OFFICE

Applied to drawing of Chart No. 8860, before review. S.B. Maize April 1937

Applied to drawing of Chart No. 8802, before review. S.B. Maize June 1937

Applied to drawing 8701 J.M. Albert Mar. 1939

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. C

REGISTER NO.

T6506

State Alaska

General locality South side of Unimak Island

Locality Otter Cove

Scale 1:20,000 Date of survey July & August, 19 36

Vessel DISCOVERER

Chief of Party Jack Senior

Surveyed by Earle A. Deily, H. & G. Engr.

Inked by Earle A. Deily

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

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

Instructions dated March 30, 19 36

Remarks: (For delineation of Bird Island, see adjoining

topographic sheet to eastward). T-6504

Triangulation on G.P.O. Unalaska Datum (1961)

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET C'36

Otter Cove

South Side Unimak Island, Alaska

a. AUTHORITY:

The authority for the topographic work embraced by this sheet is contained in the Instructions of the Director, Project HT-208, dated March 30, 1936, to the Commanding Officer, Str. DISCOVERER.

b. LIMITS:

The area contained in this sheet extends between latitudes $54^{\circ} 39' N$ and $54^{\circ} 46' N$, and between longitudes $163^{\circ} 17' W$ and $163^{\circ} 27' W$, and embraces Otter Cove and the area adjacent thereto.

c. GENERAL DESCRIPTION OF THE COAST:

The shoreline of Otter Cove is characterized most particularly by the high, bare, rocky cliffs on the eastern shore and on the western shore between latitude $54^{\circ} 42.6' N$ and Cape Aksit to the southward. Cape Aksit is a bold, rocky point. Behind these cliffs the grass covered land rises, in some places sharply, to prominent peaks. There are numerous offlying rocks and the area is generally foul offshore from the cliffs.

Bird Island, at the southeastern end of the cove, is delineated on topographic sheet A'36, adjoining to the eastward, and is described in the descriptive report accompanying that sheet.

The comparatively low land lying between the north shore of Otter Cove and Ikatan Bay is separated from the wide river valley extending westward from the vicinity of triangulation station Trib-1936 by a mountainous ridge,

sloping gently to the eastward and ending in a prominent rocky cliff and a sharp point at the northwest corner of Otter Cove.

The sand beach at the north end of Otter Cove is backed by a ridge of grass-covered sand dunes. Between these and the river immediately to the northward which flows eastward into Ikatan Bay are a series of low, parallel ridges as adequately shown on topographic sheet T-2554. The only apparent difference noted was at the western end of these ridges and the present work should govern as shown. The base line, measured in 1901, lies on the most northerly and highest of these ridges.

A sand beach, also backed by grass-covered sand dunes, extends from latitude $54^{\circ} 44.3'$ N south-southwestward to latitude $54^{\circ} 42.7'$ N. This beach is broken by two shallow river entrances. The smaller stream flows from the ridge to the northward in a south-southeast direction and then turns sharply left and parallels the beach to empty in the vicinity of topographic station Gras. The larger stream has its source on the slopes of Isanotski Peaks and flows in a general easterly direction through a gently sloping valley to empty immediately to the southeastward of triangulation station Trib-1936. This river carries a great amount of silt and forms an area of sand flats and changing channels immediately behind where it breaks through the ridge of sand dunes which parallel the shore.

d. LANDMARKS:

A list of landmarks for charts is attached to this report. Coast Pilot notes covering this area have been submitted.

e. CONTROL AND SURVEY METHODS:

The topography was entirely controlled by a scheme of triangulation, executed in 1936, which extends southward from the line Otter Cove West Base 1901---Otter Cove East Base 1901 and then turns eastward along the

south side of Ikatan Peninsula. These stations were so placed that no traverses were necessary; all intermediate planetable set-ups were checked in position by resection. The usual planetable survey methods were used.

f. LOCATION OF OFF-LYING FEATURES:

Off-lying features adjacent to the shore were almost invariably located by direct rod readings. Where inaccessible to rodmen, they were located by intersection. In general, a rodman was rowed from feature to feature and so giving a definite location of all prominent off-lying rocks, those bare at high water, or rocks awash at high water, or the rocks awash at low water which are particularly isolated or defining the danger limits of a rock-strewn area. It is therefore to be considered that only those symbols which fill in the characteristics of an area are merely sketched in relative position; all others definitely located. In this connection it will be noted that only the more prominent rocks are indicated in any particularly foul area.

The two rocks in latitude $54^{\circ} 43.4'$ N, longitude $163^{\circ} 20.1'$ W, bearing the legend "Rocks bare about 1 foot M.L.L.W." constitute the principal off-lying danger in Otter Cove. These rocks were located by intersection from triangulation stations or set-ups ashore where resections were taken. They coincide with the rock shown on topographic sheet T-2554.

g. INKING:

The outer, or seaward, edge of the heavy high water line is the position of the high water line.

The low water line is defined by a dotted line. This should only be interpreted as the topographic symbol for sand where a sand beach is indicated by the characteristic symbol for sand, or the word sand. In general, where the shore is backed by a cliff the beach is boulder-strewn or covered

with extremely coarse gravel. To avoid confusion and the obliteration of pertinent detail the symbol for gravel is omitted in such areas. Only such off-lying features as have a low water area of an appreciable extent are surrounded by the characteristic dotted line.

In the sand beach areas the inner edge of the sand beach is defined by a dotted line which is co-incident in places with the outer edge of the sand dunes. That topographic feature (sand dunes) is indicated by the usual symbol. These sand dunes are grass-covered as are the other low ridges, which are indicated in extent by dotted lines.

All land areas, aside from those bearing the rocky cliff or outcrop symbol, or those covered by the symbol for sand, are grass-covered. The word "grass" is not placed on the sheet and this paragraph is in lieu and explanatory thereof.

The upper and lower limits of the cliff are defined by a dashed line. As the lower limit is not always co-incident with the high water line, small blank areas will be noted. The topographic symbol to be supplied in such places should be that indicative of a small-boulder strewn beach.

h. FORM LINES:

The form line interval is 100 feet. This is supplemented in places by a 50-foot form line which is shown dotted and labeled as to elevation above mean high water.

The form lined area adjacent to meridian $163^{\circ} 17' W$ at the eastern side of the sheet lies at the overlap with topographic sheet D'36. The apparent lack of controlling elevations is due to the fact that the greater number of these were located on sheet D'36 by this topographer. The intervening ridge to the westward made it impossible to locate them on this (C'36) sheet with sufficient control. The resulting elevations on the two sheets, with

the projection lines, were carefully transferred to a sheet of tracing paper and the form lines sketched thereon on a trip through the area. The resulting ^{or} lines were then transferred to the two topographic sheets, the junction being on meridian $163^{\circ} 17' W$. This form-lining was further checked by offshore observations. ✓

The form lines in the area northward of the ridge extending west-south-westward from triangulation station Broad 1901-36 were compared with those on an enlarged photostat of sheet T-2554. No satisfactory junction could be made as the form lines are apparently greatly out of position on the old work. A generalized sketch of the connecting topography is sketched in pencil. It is recommended that no attempt be made by the cartographer to connect the old (1901) work with the new and that only the 1936 work be used on new editions of the chart until additional field work is done on the north side of Ikatan Peninsula. 83

General configuration of form lines is similar on two surveys. In absence of more detailed information, 1901 form lines may be adjusted to present survey with sufficient accuracy for charting. ✓

The form lines in the area immediately to the westward of triangulation station Cove₂ 1936 are controlled only by the few elevations shown. The lines are therefore shown dotted as they were sketched from a launch offshore. Unfortunately, there were few salient features which could be located and on which vertical angles could be taken. Weather conditions were such that it was impossible to land at the latter part of the season in order to run traverses in this area. ✓

There is a definite ridge extending between triangulation stations "Peak West of Otter Cove 1936" to "Aksit 1936". Form lines to the westward of this ridge should be drawn on the topographic sheet adjoining to the westward. ✓

i. CONNECTIONS WITH PRECEDING AND ADJOINING WORK:

Connection with preceding work, (sheet T-2554), particularly in form-lining, has been discussed in the preceding section. ✓

Connection with sheet A'36 was made at topographic station "Las" and on

T-6504

the topographic stations on Bird Island. ✓

Connection with sheet D'36 is discussed under section "h" of this report.
T-6507

When the topography on the adjoining sheet to the westward of Cape Aksit is done, care should be exercised not to neglect the rocks lying off-shore ✓
in latitude $54^{\circ} 39.5'$, longitude $163^{\circ} 26' W$. These rocks were not located on this sheet. The cut to them is indicated in pencil.

j. MAGNETIC DECLINATION:

The magnetic declination was measured at triangulation station Ott 1936 on August 6, 1936 at 11:40 a.m., 150th meridian time. Declinatoire No. 162 was used and the declination found to be $15^{\circ} 22.5'$.
Scales $15^{\circ} 40'$ ✓

k. STATISTICS:

Statute miles of shore line 15.0
Statute miles of rivers 2.1 ✓
Area, square statute miles 14.0

Respectfully submitted,

Earle A. Deily
Earle A. Deily,
H. & G. Engineer.

Approved & forwarded
Ray E. Schoppa
Chief of Party.

Remarks

Decisions

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GEOGRAPHIC NAMES

Survey No. T-6506

GEOGRAPHIC NAMES										
Survey No. T-6506										
Name on Survey	On Chart No. 8701									
	On previous survey No. T-2554									
	On U. S. quadrangle Maps									
	From local information									
	US C P									
	On local Maps									
	US Geog. Soc. Guide of Map									
	Map of Alaska									
	Rand McNally Atlas									
	U. S. Light List									
	Baker Dict. of Alaska									
	A	B	C	D	E	F	G	H	K	
Otter Cove	✓	✓			✓	✓				1
Cape Aksit	✓				✓	✓			✓	2
Bird I.	✓	✓			✓					3
Unimak I	✓	✓			✓	✓				4
Ikatan Pen.	✓	✓			✓	✓			✓	5
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Names underlined in red approved

by GTE on 2/14/37

M 234

Names underlined in red approved

by HYE on 2/19/37

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOGRAPH OF~~

~~XXXXXX~~
~~XXXXXX~~
No. T -6506

{ received Feb. 9, 1937
registered Feb. 10, 1937
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

82	C. K. Green
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Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6506 (1936) FIELD NO. C

Otter Cove, Unimak Island, Alaska
Surveyed in July - August, 1936, Scale 1:20,000
Instructions dated March 30, 1936 (DISCOVERER).

Plane Table Survey.

Aluminum Mounted.

Chief of Party - Jack Senior.
Surveyed and inked by - E. A. Deily.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Topographic Manual except as follows:

- a. There is no evidence that the declinoaire was checked at a station of known declination during the season's work. (Par. 17).
- b. Junction notes were inked on the survey by the field party. It is preferable that these notes be left in pencil as they are revised in the office to include the register numbers of the adjoining surveys instead of the field numbers.
- c. Definitely located rocks were not encircled by dotted lines in all cases (par. 39). The two rocks awash in lat. $54^{\circ} 43.4'$, long. $163^{\circ} 20.1'$ were encircled in the office as the descriptive report, page 3, states that definite locations were obtained.

The Descriptive Report is exceptionally complete and satisfactorily covers all items of importance. It is desirable, however, that an alphabetical list of all plane table stations on the survey and of all triangulation stations outside the high water line be included in the descriptive report with a brief description of each station and a statement as to which plane table positions are recoverable.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Junctions with Contemporary Surveys.

- a. The junction with shoreline and associated detail on T-6504 (1936) on the east is satisfactory. Form lines within the area of T-6504 (1936) were determined on T-6507 (1936) and make a satisfactory junction with those on the present survey.

- b. There are no contemporary surveys on the west.

4. Comparison with Prior Surveys.

a. H-2556 (1901), 1:140,000.

This combined hydrographic and topographic survey contains original topography which covers the western portion of the present survey. Topography shown as covering the eastern portion originates with T-2554 (1901) and is discussed in the following paragraph. The shoreline is displaced from 400 to 600 meters to the north in relation to the present survey. The survey methods employed on the prior survey were much less accurate than those used on the present survey, shoreline and detail being sketched from offshore sextant fixes and cuts taken from boats. The form line configuration on the two surveys is in fair agreement but the delineation on the present survey is much the better because of the large number of elevations obtained. A single elevation of 1630 feet is shown on the prior survey. An elevation of 1760 feet was determined for the same peak on the present survey. The prior survey contains no information which needs to be retained and should be superseded by the present survey in future charting.

b. T-2554 (1901), 1:40,000.

This survey covers the eastern portion of the present survey. Differences of 100 to 200 meters in shoreline in some places on the two surveys are probably due to wider spacing of actually located points on the prior survey and the consequent greater use of sketching. The general configuration of form lines on the two surveys is similar, the present survey having the better delineation, however, because of the greater number of elevations determined. The present survey, because of its greater detail, larger scale and better control, should supersede the above survey for charting purposes.

5. Comparison with Chart 8701 (New Print dated April 12, 1937).

a. Topography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information which needs consideration in this review.

b. Aids to Navigation.

There are no fixed or floating navigational aids within the area of the present survey.

c. Magnetic Meridian.

The declination determined with the declinoire on the present survey differed from the charted value by $1^{\circ} 25'$.

6. Field Drafting.

The field drafting is in general very good. It is preferable, however, that a mechanical lettering set be used wherever possible.

7. Additional Field Work Recommended.

The survey is complete except in the vicinity of Cape Akait where offshore rocks falling within the limits of the present survey in lat. $54^{\circ} 39.5'$, long. $163^{\circ} 26.0'$ were not located by the field party (see Descriptive report, page 6). These rocks should be located at the earliest opportunity if such location has not been accomplished during the 1937 field season. Should 1:40,000 or larger scale charts be contemplated for this area, additional form lines should be run to the north of the present survey. (See descriptive report, page 5).

8. Superseding Old Surveys.

In so far as the topography actually included in the present survey is concerned, it supersedes the following surveys for charting purposes:

H-2556 (1901) in part (topography only).
T-2554 (1901) in part.

9. Reviewed by - J. A. McCormick, Dec. 7, 1937.

Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams

K. T. Adams,
Asst. Chief, Division of Charts.

L. O. Folger

Chief, Division of Charts.

Fred. L. Peacock

Chief, Section of Field Work.

G. H. Hude

Chief, Division of H. & T.