DESCRIPTIVE REPORT

Topographic Sheet No. FL-38

State Southwest Alaska
Locality Unimak Island
Ikatan Peninsula and Cape Pankot

1939
Chief of Party
G. C. Jones
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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.

THREE

Field No. FL-38

REGISTER NO.

State. Southwest Alaska

General locality. Unimak Island

Locality. Ikatash Peninsula and Cape-Parkof

Scale 1:20,000. Date of survey September 19, 1939

Vessel DISCOVERER

Chief of party G. C. Jones

Surveyed by L. S. Hubbard

Inked by L. S. Hubbard

Heights in feet above Mean High Water to ground

Approximate Form line interval 100 feet

Instructions dated April 20, 1939

Remarks: Resurvey of form lines.
INSTRUCTIONS

The date of instructions for this work is not known, but it was in the spring of 1938. A copy of Chart 8701, showing the outline of the area to be resurveyed and the Washington Office notations concerning the desired resurvey, was on hand in the field and in the Processing Office.

LIMITS

This survey covers the north side of Ikatan Peninsula and the east side of Cape Pankof. It makes a junction at the west end of Ikatan Peninsula with topographic sheet T-6506. It makes a junction on the south side of Ikatan Peninsula with sheet T-6707. It also makes a junction with sheet T-6507 on the west side of Cape Pankof.

PREVIOUS SURVEYS

This area was previously surveyed in 1901 (sheet T-2554) on a scale of 1:40,000. The shoreline was again surveyed in 1925 (sheet T-4147) on a scale of 1:20,000. No form lines, however, were determined in the 1925 survey.

Topographic surveys were made in 1936 of the south portion of Ikatan Peninsula and the west part of Cape Pankof. The form lines of the 1936 surveys made poor junctions with the 1901 form lines. For this reason it was necessary to resurvey the north part of Ikatan Peninsula and the east part of Cape Pankof.

SCOPE OF WORK

The 1925 survey of the shoreline is adequate, so none of the shoreline was resurveyed. The 1901 form lines were found to be sketchy. The form lines of this area are therefore completely resurveyed. They overlap the form lines on sheets T-6506 and T-6507.
enough to make a proper
junction with them.

The ponds and lakes shown in the 1901 survey are approximately
correct. They were not resurveyed, but are shown with dotted lines
on the 1939 sheet. The shapes of the lakes are slightly modified to
conform with the contours of the present survey.

CONTROL

Sufficient triangulation stations were recovered or identified
to control the resurvey. For control on the north part of the penin-
sula, triangulation stations OTTER COVE EAST BASE 1901, BROAD 1901,
DRAG 1936, DARK 1923, NAT 1923, and IKATOK PEAK 1901 were used. In
addition, three topographic stations, named Camp, Palisade, and Sank,
were used. Station Camp is located in Lat. 54° 45' 1371 meters, Long.
163° 20' 252' meters. Station Palisades is located in Lat. 54° 48'
1107 meters, Long. 163° 19' 280' meters. Station Sank is located in
Lat. 54° 48' 1061' meters, Long. 163° 16' 362' meters.

For control on the east coast of the peninsula, signals were
erected at triangulation stations NAT 1923, ENOL 1923, COVE 1923,
BANK 1923, and LEDGE 1923. Boat positions were obtained by three-
point fixes on three of these signals.

FIELD METHODS

Because adequate control was already established, no plane table
work was necessary. The work was based entirely upon measurements
of horizontal and vertical angles from known stations or stations
readily located by three point fixes.

Two general methods of field work were used. One method was to
measure angles with a theodolite set up on shore. The other method
was to measure angles with a sextant from a boat anchored offshore.
To determine form lines in the region between Ikatan Village and Ikatan Point, three stations were occupied with a seven-inch theodolite. One station, Camp, was on the west shore of Ikatan Bay. Another station, Palisades, was on the north shore of Ikatan Bay. A third station, Sank, was on the shore of Sankin Island. A system of graphic triangulation from these three stations furnished the principal points and elevations in this region. In order to secure more detail, a four-inch theodolite was carried up the ridge which lays between Latitudes $54^\circ 43'$ and $54^\circ 45'$ and between Longitudes $163^\circ 14'$ and $163^\circ 15'$. About six positions on the ridge were occupied. Distinctive objects on the slopes of the ridges situated to the east and to the west were cut in with this theodolite.

Form lines in the region between Ikatan Point and Cape Pankof were determined by sextant cuts from offshore anchorages. A small boat was anchored at a number of positions, one half to one mile from the shoreline. Horizontal angles and vertical angles were taken to all visible distinctive objects. Graphic triangulation again located points and elevations.

All points shown on the sheet were determined by at least three cuts. Four and five cuts were taken to many of them. All elevations are based on vertical angles from at least two different locations. The elevations of the points of observation were determined by depression angles to known points on the shoreline. The time of observation was recorded for later determination of the stage of tide.

**INSUFFICIENT DATA**

Three valleys have been shown in dotted lines. It was found impossible to properly view into these valleys from offshore anchorages. Weather conditions prevented landing and surveying in the vicinity of the valleys.
EQUIPMENT AND PERSONNEL

A cutter with an outboard motor furnished transportation for the survey party. A navigating sextant, seven-inch theodolite, and four-inch theodolite were used for observations in the field.

The topographic party consisted of one officer and two men. When occupying theodolite stations, one man acted as boat tender, the other as umbrella man and sketcher.

When taking sextant angles from the anchored boat, one man recorded the angles. The other man, who possessed a special talent for drawing, sketched in the landscape. All points cut in by sextant were then numbered on the sketches. This procedure materially speeded up the work at each anchorage.

OFFSHORE INSPECTION

After the field work on the sheet was completed and the party returned to the ship, several runs were made by the ship along this coast. On these runs the contours were checked with the appearance of the country. In places the contours were modified slightly to conform with the terrain.

GENERAL DESCRIPTION OF COUNTRY

CAPE PANKOF

Cape Pankof is a bold, rocky headland, with deeply gashed and eroded seaward slopes. The landward slopes are moderate and grass-covered. Pankof Peak, the highest point of the cape (1243 ft.), assumes a sugar-loaf appearance from many directions. The eastern headlands are grass-crowned. Several saw-tooth peaks project from the steep sloped promontory which terminates at the eastern tip of the cape.
Off the northeast end of Cape Pandolph and at the entrance to East Anchor Cove, extends a smaller headland. It is connected to the main part of the cape by a low, flat, grass-covered neck of land. Grass, upward-curving slopes ascend to several grass-topped mounds on the headland. The eastern, seaward slopes of the cape are bold and deeply eroded.

A barren, black pinnacle rock marks the eastern extremity of the headland. This pinnacle is about 150 feet high. A wedge of rock only 49 feet high separates the pinnacle from a higher peak on the jagged slope of the headland.

EAST ANCHOR COVE

Bluffs and grass-covered slopes appear on the south shore of East Anchor Cove. A fish trap is built each summer on the south side of the cove, but not necessarily in the same exact location.

A low, flat country, with scattered sand dunes and sparse clumps of grass, lays to the west of the cove.

Bluffs and palisades rise above the north shore of the cove. They increase in height and ruggedness as they stretch northward. Several waterfalls appear on the palisades in rainy weather. A pyramid-like peak, 1775 feet high, is located two miles to the northwest. A grass-covered ridge descends north from this peak to a saddle which separates the peak from a coast range of moderate-sized hills.

COASTAL RIDGE

Deeply gashed palisades of extreme ruggedness mark the south end of the coast ridge. A rocky reef extends eastward from the base of the boldest of these palisades. Black mounds of outcropping rock, and butte-like, stony masses are strewn along the top of the coastal hills. The palisades and cliffs decrease in size at the north end of these hills.
On the north end of the ridge, overlooking the low valley to the north, is a butte-like, black, rocky mound. Two rocky nubs top the mound.

VALLEYS

Two valleys lay between the coastal hills and Ikatan Point. The southern valley appears to be large, flat, and swampy. A broad cape with low cliffs along the shore separates the two valleys. A fish trap is usually maintained during the summer months off the north end of this cape.

IKATAN POINT

Ikatan Point is a steep-sided, smooth-topped headland, somewhat fist-like in appearance. A number of deeply eroded crevasses mark the east side of the headland. Two gullies scar the west side of the headland.

NORTH SHORE FROM IKATAN POINT TO IKATAN VILLAGE

Several dominating ridges running in a north and south direction are spaced between Ikatan Point and Ikatan Village. They are mostly grass-covered. Bluffs and palisades mark the shore end of the ridges. Low beaches rim the shore of the valleys between the ridges.

A dome-shaped cape is situated about midway between Ikatan Point and Ikatan Village. Two black stony mounds crest this cape.

Rugged palisades extend for about one mile east of Ikatan Village. Several waterfalls appear on the palisades in rainy weather.

A number of fish traps are placed during the summer months along the south shore of Ikatan Bay.

IKATAN VILLAGE

An abandoned cannery is the most conspicuous object in Ikatan. The cannery buildings are gradually being torn down. There are a few
houses and shacks in the village. These are occupied by fishermen, trappers, and their families.

Several waterfalls may be seen on the hillsides above Ikatan Village.

STATISTICS:

Square miles surveyed (statute) — — — — 23-1/3 sq.mi.

Number of elevations — — — — — — — — — — 301

Respectfully submitted,

L. S. Hubbard, H. & G. E.,

Examined and approved:

J. M. Smook, H. & G. E.,
U. S. C. & G. Survey,
Officer in Charge,
Seattle Processing Office.
I recommend that the following objects which have (initials) been inspected from seaward to determine their value as landmarks, be charted on (initials) the charts indicated.

The positions given have been checked after listing.

<table>
<thead>
<tr>
<th>NAME AND DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF LOCATION</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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</thead>
<tbody>
<tr>
<td>Pinnacle, sharp black rock, 150 ft. high, (Signal NAP). Note: Chart 8701 shows an off-lying rock as 150 ft. high. The off-lying rock, however, is low and inconspicuous. The 150 ft. pinnacle is part of the cape itself. It is separated from higher cliffs by a notch in the rock 48 ft. high. Pinnacle shows clearly 10 to 15 miles offshore.</td>
<td>Lat: 54°41' N Long: 165°02'</td>
<td>Unalaska</td>
<td>Topo Sh. Sept.</td>
<td>DISCOVERER 1939. Sextant cuts from anchored small boat.</td>
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This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  

LANDMARKS FOR CHARTS  

Seattle, Washington  
March 14, 1934  

I recommend that the following objects which have been inspected from seaward to determine their value as landmarks, be charted on the charts indicated. The positions given have been checked after listing.

G. C. Jones  
per L. S. Hubbard  
Chief of Party

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<thead>
<tr>
<th>GENERAL LOCALITY</th>
<th>Southwest Alaska</th>
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<tbody>
<tr>
<td>NAME AND DESCRIPTION</td>
<td>LATITUDE</td>
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<tr>
<td>MOUND, black rock, 945 ft. high</td>
<td>54-43</td>
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<td>MOUND, black rock, 610 ft. high</td>
<td>54-44</td>
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<td>MOUND, black rock, 830 ft. high</td>
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<tr>
<td>MOUND, black rock, 690 ft. high</td>
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<td>BUTTE, south tit, 595 ft. high</td>
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<td>BUTTE, north tit, 595 ft. high</td>
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*NOTE: Objects located by combination of theodolite and sextant cuts.

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
DATA FOR LOCATION OF HYDROGRAPHIC SIGNAL "NAP".

(Pinnacle Rock 150 feet high)

Fix - \( \triangle Sankin Id. \) - 1901 79° 04'
\( \triangle Ikatok Pk. \) - 1901
\( \triangle \text{Pankof} \) - 1936 58° 44'

Cut - \( \triangle Ikatok Pk. \) -- O NAP 68° 44'

Fix - \( \triangle \text{KnoL} \) - 1923 70° 28'
\( \triangle \text{Cov} \) - 1923
\( \triangle \text{Bank} \) - 1923 67° 58'

Cut - \( \triangle \text{Pankof} \) - 1936 -- O NAP 11° 36'

Fix - \( \triangle \text{KnoL} \) - 1923 112° 23'
\( \triangle \text{Bank} \) - 1923
\( \triangle \text{Ledge} \) - 1923 15° 17'

Cut - \( \triangle \text{Pankof} \) - 1936 -- O NAP 4° 25'

Fix - \( \triangle \text{Cov} \) - 1923 102° 28'
\( \triangle \text{Bank} \) - 1923
\( \triangle \text{Ledge} \) - 1923 17° 43'

Cut - \( \triangle \text{Cov} \) - 1923 -- O NAP 109° 55'

O NAP -- Latitude 57° 41' 754 (1101) meters
Longitude 163° 02' 843 (232) meters
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<td>Cape Pankof</td>
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<td>Ikatok Peak</td>
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<td>Dora Peak</td>
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Handwritten notes: Neck 3/4/43.
MEMORANDUM
IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT
PHOTOSTAT OF
No. T 495B
received March 21, 1940
registered April 5, 1940
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.

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RETURN TO

| 82 | T. B. Reed |

✓
DIVISION OF CHARTS
SURVEYS BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

Alaska; Unimak Island; Ikatan Peninsula
Surveyed September 1939; Scale 1:20,000
Instructions dated April 20, 1938

Plane Table Survey

Chief of Party - G. C. Jones
Surveyed by - L. S. Hubbard
Inked by - L. S. Hubbard
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, March 11, 1943

1. Purpose of Survey

The purpose of the survey was to determine form lines covering the area of Ikatan Peninsula not included on T-6506 and T-6507 of 1936. The shoreline from T-4147 (1925) was considered satisfactory for this area and has been transferred to the present survey.

2. Junctions with Contemporary Surveys

A satisfactory junction was made with the form lines from T-6506 (1936) on the west and T-6507 (1936) on the south. Within the overlapping area the form lines from these earlier surveys are mainly approximate and should be superseded by the form lines from the present survey.

3. Comparison with Prior Surveys

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

The general configuration shown by the form lines is about the same on the two surveys. There are two valleys in the vicinity of Lat. 54°44'; Long. 106°08' on the present survey where the earlier survey has only one. Differences in the elevation of certain peaks amount to as much as 100 feet in elevation in approximately 1700 feet. Because of the more numerous elevations and the more accurate
form lines the present survey is considered adequate to supersede the earlier survey with respect to these features within the common area.

b. **T-4147 (1925) 1:20,000**

No form lines were determined on this survey.

4. **Comparison with Chart 8701 (latest print date 2-9-43)**

The charted topography within the limits of the present survey originates with the present survey, which is correctly charted except for the following minor changes made in effecting junctions with contemporary surveys and the error in the elevation of a knoll:

a. 100 and 200-ft. form lines in Lat. 54°42.1'; Long. 163°05.9'
b. 1100-ft. form lines in Lat. 54°43.0'; Long. 163°08.2'
c. 100-, 200- and 300-ft. form lines in Lat. 54°44.8'; Long. 163°19.1'
d. Elevation 943, Lat. 54°45.0'; Long. 163°12.0' is incorrectly charted 949

5. **Condition of Survey**

Satisfactory.

6. **Superseded Surveys**

T-2554 (1901) in part

Examined and approved:

[Signatures]

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Chief, Surveys Branch  
Chief, Division of Charts  
Chief, Section of Hydrography  
Chief, Division of Coastal Surveys