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

## DESCRIPTIVE REPORT

Topographic | Sheet No. FL-38

MAR 21 1940

Southwest Alaska State .....

LOCALITY

Unimak Island

Ikatan Peninsula and Cape Panko

1939

CHIEF OF PART

0)

7 M 8701-..... 8860

# 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. FL-38

REGISTER NO.

StateSouthwest Alaska
General locality Unimak Island
Locality Ikatan Peninsula and Cape Pankof
Scale 1:20,000 Date of survey September , 19 39
Vessel DISCOVERER
Chief of party G. C. Jones
Surveyed by L. S. Hubbard
Inked by L. S. Hubbard
Heights in feet above M.H.W. to ground aboutous xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Condense Approximate contens Form line interval 100 feet
Instructions dated April 20 , 1938
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 (+36)

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 peninsula, 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' 260 meters. Station Sank is located in Lat. 54° 48' 1061 meters, Long. 163° 16' 382 meters.

For control on the east coast of the peninsula, signals were erected at triangulation stations NAT 1923, KNOL 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° 43° and 54° 45° and between Longitudes 163° 14° and 163° 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 Pankof 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. Grassy, upward-curving slopes ascend to several grass-topped nubs 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 nibs 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.

Seweral 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., U.S.C.& G. Survey.

Examined and approved:

J. M. Smook, H. & G. E., J. S. C. & G. Survey, Officer in Charge,

Seattle Processing Office.

Form 567 Rev. March 1935

TO BE CHARTED STRIKE OUT ONE

DEPARTMENT OF COMMERCE U. S. COAST AND GEOTATIC SURVEY

Seattle, Washington LANDMARKS FOR CHARTS

March 14

be charted on (deleted from) the charts indicated.

The positions given have been checked after listing.

NAME AND DESCRIPTION  O I D.M.NETERS O I D.P.NETERS  GAGE TOWN LOCATION  O I D.M.NETERS O I D.P.NETERS  GAGE TOWN LOCATION  O I D.M.NETERS O I D.P.NETERS  GAGE TOWN LOCATION  FASTER TOWN LOCATION  F	のがはないで、ためのもだけらのの こだこうべいう	,		POSITION					ļ	THAN	
DESCRIPTION   O   D. P. MITTERS   DATUM COALION   DATUM COAL		LAT	ITUDE	LONG	ITUDÈ		METHOD	DATE		ORECE	CHARTS AFFECTED
Signal MAP).  [Signal MAP).  [Signal MAP].  [Signal Map and The law and Anniele	NAME AND DESCRIPTION	•	D. M. METERS	۰	D. P. METERS	DATUM	LOCATION	LOCATION		12110	
Signal KP).  Sextant  South Title The South Street  South Title The South Street  South Title The South Street  South Street  South Street  South Street  South Street  South Street  South South Street  South Stre	woos woold needs Silvery	BA-43	(1101)	169.02		Unalado Thad t		1	×	<del> </del> -	8701
1 6701 shows an off- 150 ft. high. The however, is low and however, is low and anchored anchored.  The 150 ft. pinnsele small boat. cape itself. It is high.  All the high.	150 ft. high (Stone) Wabi.		3	25			DISCOVER	- L.	1	-	5
LEO ft. high. The however, is low and The 150 ft. pinnsche cape itself. It is higher cliffs by a hok 48 ft. high. clearly 10 to 15	Note: Obart 8701 shows an off	<del></del>					Sextent				
however, is low and The 150 ft. pinnacie cape itself. It is ligher cliffs by a lock 48 ft. high. clearly 10 to 15	Total rook as 150 Pt. htgh. The					-	Guts fr	E	+	十	
The 150 ft. pinnedle cape itself. It is higher cliffs by a nok 48 ft. high. clearly 10 to 15	offlying rock, however, is low and						andhore				
cape itself. It is higher cliffs by a locative to 15 clearly 10 to 15	faconspictors. The 150 ft. pinned	610					small be	at.	-	-	
olearly 10 to 15	is part of the cape itself. It is	- 0					. ^				
olesrly 10 to 15											
01 cs. 15 10 to 15	notch in the rock 48 ft. high.			-	•		<b></b>				
	Pinnacle shows clearly 10 to 15									<del> </del>	
	miles offshore.				,				-		
		,									•
					~				4	-	
					-						
									7	$\dagger$	
			<del></del>	,							
									1	$\dagger$	
					€ المشابعة						
									-	$\dagger$	
					•		-				
	77444									+	
		-		E.						$\neg$	
		,						•			

Form 567 Rev, March 1935

DEPARTMENT OF COMMERCE
U. S. COAST TO GEODETIC SURVEY

LANDMARKS FOR CHARTS

STRIKE DUT ONE

TO BE CHARTED Y

Karoh 14

Seattle: Washington

198

¥

Q.

I recommend that the following objects which have (TROCKER) been inspected from seaward to determine their value as landmarks, be charted on (deleted from) the charts indicated.

CHARTS AFFECTED Chief of Party. \ Ì 6701 1 E t t . ŧ OFFSHORE CHART INSHORE CHART M M M × × M × HARBOR CHART DATE OF LOCATION 1939 Septe t ŧ ŧ 2 ¢ Unsa 1. prs co vienen Jones METHOD OF LOCATION Unalaska Fir-1938 Popo Sh. \$ C r \$ £ Ė o**£** Inbbard င် Objects located by combination ċ cute. DATUM ¢ t \* # 2 t ι. per to sextant (469) D. P. METERS (328) (283) 790 (3) (31) (328) 605 745 1068 900% 1059 8 844 LONGITUDE theodelite and 163-06 163-07 163-06 163-07 163-14 163-07 163-06 Huston POSITION 0 D. M. METERS (1734)(208) (463) 1392 (113)(572)(09) (1143)1203 1796 1147 1742 712 121 LATITUDE The positions given have been checked after listing. \*NOTE 54-43 54-44 54-4 54-44 24-52 64-46 64-44 ٥ 0 ret MOUND, black rock, 600 ft. . htgh 945 ft. high 810 ft. high MOUND, black rock, 650 ft. nich MOUND, black rock, 530 ft. high \*BUTTE, south tit, 595 ft. high. पश्चा (Chart 8701 erroneouely shows be charted this hill as 720 ft. high]. Southwest Alaska NAME AND DESCRIPTION \*BUTUE, north tit, 696 ft. mound of black rock. mound of black rock. black rock, black rook, Charle The above MOUND. GENERAL KOUND, 200

<u>d</u>

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be sidered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given. 69678 considered for the charts of the area and not by individual field survey sheets.

U. S. GOVERNMENT PRINTING OFFICE

## DATA FOR LOCATION OF HYDROGRAPHIC SIGNAL "NAP".

## (Pinnacle Rock 150 feet high)

Fix -	A Sankin Id 1901	79 <sup>0</sup>	041
	Alkatok Pk 1901 APankof <sub>2</sub> - 1936	58 <sup>0</sup>	44'
Cut -	∆Ikatok Peak ⊙NAP	68 <sup>0</sup>	44*
		70 <sup>0</sup>	
Fix -	∆Knol - 1923 △Cov - 1923	70	28
	△Bank - 1923	6 <b>7</b> °	58 <b>*</b>
Cut -	∆Pankof <sub>2</sub> - 1936 ⊙Na	p 11°	36*
Fix -	∆ Knol - 1923	112°	23'
	<u>A Bank-</u> 1923 <u>A Ledge-</u> 1923	15 <sup>0</sup>	171
Cut -	APankof <sub>2</sub> -1936 ⊙Nap	<b>4</b> <sup>0</sup>	251
Fix -	△Cov - 1923	102 <sup>0</sup>	281
	∆ Bank - 1923 ∆ Ledge - 1923	17.0	431
Cut -	△Cov - 1923○Nap	109°	55†

○ Nap -- Latitude 57° 41 · 754 (1101) meters

Longitude 163° 02 · 843 (232) meters

- Remarks

Decisions

	TCHIai No	
1		545 630
2		
3		, t
4	Not a geographic name	
5		ν
6		
7		N
8		4
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
_19_		
_20		
21		
22		
23		
25		
26		
27 M 234		
111 237		ı

	Survey No <b>T</b> 4953	B _/_	Chor. O	or to or	S Mod of	or itorior	Or loca Mot	2. Carde o	Mag Mc Mail	N.S. J.S.	·//
	Name on Survey	A,	B,	, C,	<u> </u>	E	F	G	`/н	<u></u>	_
	Ikatan Peninsula			-						-	1
	Ikatan W Nade						_				2
	Ikatan Bay								-		3
	Spily Dakk										4
	Ikatan Point					ļ				ļ	5
_	East Anchorage Cove					<u></u>				ļ	6
	Cape Pankof		ļ	<u> </u>					1		7
	IKAtor Peak	्री <sub>य</sub>									8
·	Dora Peak			<u> </u>	-	1					9
.  -					-					<del> </del>	10
_	·							<u> </u>		<u>.</u>	11
	·			ļ					-		12
-		<u></u>		<u> </u>			****	, , ).	W3.		13
-	<u> </u>			<u> </u>	ļ <u>.</u>	- e- N	<u> </u>	3/2/6	<u>.</u>		14
-	· · · · · · · · · · · · · · · · · · ·			-	100		ECX				15
				<u> </u>	1				<u> </u>		16
.  -					<u> </u>				<u> </u>		17
-				<u> </u>		<u> </u>					18
-											19
,			-					2			20
			-						<del>                                     </del>	<u> </u>	21
_					<u> </u>					ļ	22
	<u>,</u>										23
		<u> </u>			<u> </u>					1	24
											25
-				<u> </u>				<del> </del>		-	26

# MEMORANDUM IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF		received March 21, 1940 registered pril 6, 1940 verified reviewed
PHOTOSIAI OF	NO. 1 T. 3. 3. 3. 3. 3.	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	lr	nitial	Attention called to
20			
22			
24			
25	V	181	Pages 5-8
26			
30			
40			
62			
63			
82			
83_			
88			
90			

RETURN TO
82 T. B. Read



#### DIVISION OF CHARTS

#### SURVEYS BRANCH

#### REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. 4953 Field No. FL38

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

## Plane Table Survey

Whatman's Paper

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. $\underline{T-4147}$ (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:

Sobert Wilner Chief, Surveys Branch

6

Carl O. Heaton

Chief, Section of Hydrography

Chief, Division of Charts

Chief, Division of Coastal Surveys