T-2553
T-2554

Diag. Cht. No. 8860-1

H-2556
H-2557

U. S. COAST AND GEODETIC SURVEY.

O. H. Tittmann, Superintendent.

State: Alaska

DESCRIPTIVE REPORT.

Topographic 2553-54
Hydrographic Sheet No. 2556-57

LOCALITY:

Saumak Islands to Unimak Pass

1901

CHIEF OF PARTY:

E. Eberstadt

2556

Diag. Cht. No. 8860-1

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: Alaska

DESCRIPTIVE REPORT.

Hyd^c Sheet No 2556

LOCALITY:

Samiak Islands to
Uninak Pass
See Hydro 2556
Topo 2553

1901

CHIEF OF PARTY:

F. Westdahl

2557

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

O. H. Tittmann

Superintendent.

State Alaska

DESCRIPTIVE REPORT.

Hydc *Sheet No.* 2557

LOCALITY:

Sannak Islands to
Unimak Pass
See Hydc 2556
Topc 2553

190 /

CHIEF OF PARTY:

T. Westdahl

Top = 2553 + 2554
Hyd = 2556 + 2557

FEB. 18. 1902. 03562

Descriptive Report

to accompany combined topographic and hydrographic sheet entitled

Treasury Department
U. S. Coast and Geodetic Survey
O. H. Tittmann, Superintendent

Coast of Alaska

From Sannak Islands to Unimak Pass

Surveyed in June, July, August, and September, 1901

by the party in

Steamer "McArthur"

Ferdinand Westdahl, Assistant, Commanding

Scale 1/40.000

The greater part of the topographical work on this sheet, the Katak Peninsula and the Sannak Islands, has been transferred and reduced from the original field sheets on scale of 1/40.000 which have been forwarded to the Office, followed later by the descriptive reports of the same to which I beg to refer. This transfer and reduction are not rigidly accurate. They were made from the original, much distorted field sheets from day to day as the work progressed for the purpose of preparing this sheet to be used in the search for the outlying rocks and for cruising among the islands. As the field work was much retarded by unfavorable weather

Same size

Shishaldin Isanotski Round Top

View from West side of Otter Cove

conditions, it gave me time to reduce the contours also which at first I had no intention of doing. These contours were, however, subsequently changed upon the original field sheets in many places as opportunities to sketch them more correctly were obtained by looking at the land from the ship in its cruises along the shores. In the case of the Alaska Peninsula it should also be borne in mind that snow covered the country in many instances half way down the slopes of the hills when the topography of it was begun, and when this finally melted a different appearance was given to the mountains which necessitated a readjustment of the sketched contours. As these had already been inked in the reduction on this sheet I did not attempt to correct them and beg to call attention to this as one of the reasons why this reduction is only approximate.

Owing to conditions fully set forth in my semi-annual report of Dec. 31, 1901, it became impracticable to land plane-table parties along the coast of Unimak Island from Otter Cove to Scotch Cap Cape, and in addition the season was too far advanced for the ship to remain much longer in this region. The only original work on this sheet, the sketch of coast mentioned above and Egg Island, Amagat Island, Unga and Midway Islets on the eastern border of the field, is consequently only the results of a reconnaissance with the ship, based upon positions of the same determined

by sextant angles. The objects observed upon were principally mountain peaks, hills, and outlying rocks determined in the triangulation, supplemented by some natural objects near the coast cut in specially for that purpose during the progress of the reconnaissance. In the stretch from Otter Cove westward to about ten miles beyond Cape Lazaroff a whaleboat in charge of the 1st Watch Officer, who had previous experience in such work, was sent along shore to sketch in the shoreline, while the ship ran along further out to cut in objects previously agreed upon, determine heights of hills and bluffs by vertical angles, and note the approximate directions of ridges and depressions for the purpose of sketching the contours. This was continued on parts of two days until it became too rough for the boat party on account of the almost constant violent wind squalls, sometimes accompanied by rain, blowing from the direction of the high, snow-covered mountains on Unimak Island. From this point the reconnaissance was continued with the ship alone and because of the necessity for steaming along as close as possible to the shore my personal attention had to be given to the safety of the ship; and the immediate charge of cutting in the shoreline and sketching contours approximately was turned over to Assistant Faris. I have in my semi-annual report of Dec. 31, 1901, described the manner

in which this reconnaissance was made, and also called attention to the fact that from abreast Promontory △ to the western limit, Scotch Cap Cape, the shoreline here given is only a rough approximation because there were no signals known to us to observe upon for position of the ship. Fortunately Captain Gilbert had, at my request, covered this doubtful portion with a plane-table survey, so that a fairly good chart of the southern shore of Unimak Island may be compiled from these data combined.

I beg to call attention to the contouring in the original work on this sheet, that it is purely sketch work to the westward of Cape Lazareff, only here and there some point on the slope of the mountain, or some prominent hill having been determined by vertical measures. This is true begin also of the region to the northward of Cape Lazareff, ~~no one of the party having been on shore here. That this region~~ consists of isolated, mountainous elevations knit together by low, level land composed of sand largely ~~could be seen from the ship.~~ The northern slopes, however, were ~~have not been~~ seen from the ship and the supposition that this low land extends back of the mountains forming Cape Lazareff is inferred from ~~what was seen by the observer~~ what officers who ~~Assistant Davis saw from Cone △, Pin △, Broad △,~~ occupied several triangulation stations ~~Akatan △ and Amagat △ in occupying those stations bearing~~ on the coast. ~~the triangulation.~~ These low lands, like those of the Akutok Peninsula, are probably covered with lakes as many small

streams issue through their sandy margins into the sea.

Cape Lazaroff, or the rocky mass so named on the chart, consists of three high points which for convenience might be designated as East, Middle, and West Cape Lazaroff. The East cape is the highest and broadest towards the sea, the Middle next in height but not projecting so prominently; and the West cape the lowest and sharpest. The East cape has a few rocks close under its extreme point, one of which is about thirty feet high and shows prominently from the anchorage in Otter Cove. There are also some scattered low rocks close under and all along its seaward face. The Middle cape is clear of rocks, except a high pinnacle so close under its Southeast face as to form a part of the rocky cliff except from certain directions. The West cape, or Cape Lazaroff proper, has a reef projecting one and one-tenth miles Southeastward from its extreme point, consisting of two high rocks about one hundred and fifty feet above the sea, and one about seventy feet midway between them, all showing as pinnacles from the Southeastward but broad from other directions, and a multitude of low rocks quite close together. This reef forms a fairly good protection in westerly winds for an anchorage to the Eastward between the outer high rock and a small bunch of rocks lying one and three-tenths miles northward from it and about three-tenths of a mile from the Eastern face of the cape. Anchor in ten fathoms over sandy bottom four-tenths of a mile South-

-Southeast from the latter bunch of rocks. In the slight coves off the sand beaches between the rocky projections of Capr Lazaroff anchorages may also be had with protection in Northerly and westerly winds but not from Swell which seems to be almost constant in this region. A vessel can approach the Sandy shore and anchor in suitable depths over coarse Sand bottom. Even under the faces of the headlands is it feasible to anchor, if not too close to the visible rocks. The bottom seems to consist of soft, coarse Sand, except when near the rocks where it is mixed with pebbles and small pieces of broken rock. I anchored with the "McArthur" in several places for the purpose of obtaining cuts and angles of elevation, and for the night in the above mentioned anchorage to the Eastward of the Capr Lazaroff reef.

The Sandy shore is continued to the westward of Capr Lazaroff with somewhat higher dunes upon it immediately back from the beach. Six-tenths of a mile from this beach and one and a half miles westward from the capr lies a small rocky island about one hundred and thirty feet above the sea and having a smooth grassy top. At three and a half miles westward from Capr Lazaroff the low shore, forming the sea frontage of the broad valley or flat back of the rocky masses which constitute the capr, ceases and a high spur from Usanotsky Mountain reaches almost to the sea, there being but a narrow fringe of sandbeach ~~of sand~~

A

Same size

Beginning of Pinnacles Ridge

Shishaldin from anchorage just west of Pinnacles

6275

~~beach~~ in front of this two and a half miles wide sea face of the mountainous projection. This sand beach is of comparatively recent formation. The cliffs of the face of this spur show evidences of wave action and are in shape and color similar to the cliffs of Capr Lazarff. From aloft on the ship it could be seen that this is true also for many miles of the east side of this spur bordering on the low land.

At a point eight miles westward from Capr Lazarff the sandy beach is broken by the toe of a lava flow, probably from Shishaldin Volcano, about one mile wide on its sea face, about twenty to thirty feet in height, and consisting of black, very jagged and forbidding looking rocks. Immediately back from the sea face the lava is covered with sand and thin vegetation. The sand beach is again broken through at six and three-quarters miles from this lava flow by a low ridge, about two and a half miles long in a southwest and northeast direction, and rising into three conical hills of which the northeasternmost is the highest, the middle the lowest, and the southwesternmost the only one whose base is washed by the sea and formed into several columnar rocks of which only the outermost is entirely surrounded by water at low tide. This is the projection named "Pinnacles" on the present published chart.

From the "Pinnacles" there is an unbroken sweep of low sand beach backed by low, sandy bluffs and dunes for

thirteen miles, first southwestward then curving gradually until its final direction for two miles before it ends is South. This forms the northwestern shore of Unimak Bay. Back from this beach from one and a half to three miles in the most receding part of this bight are hills rising from seven hundred to fourteen hundred feet, and further back seemingly still higher ones, all comparatively solitary, from a plain one hundred to two hundred feet above the sea and sloping gradually upwards to the ridge projecting westward from Shishaldin Mountain. To the westward of these hills, between them and the mountainous mass forming the Southwestern end of Unimak Island, is a broad valley drained by a river which empties into Unimak Bay at a point of the sand beach distant one and a half miles from its Southwestern end. Looking into this valley, at an estimated distance of three to four miles from the beach, is seen a lava flow apparently from the Southwest towards the Northeast, reaching more than half way across the valley with the river making a great bend around the foot of it. Examined through a telescope it seems to consist of a jumble of sharp-cornered rocks, like gigantic pieces of broken glass of a dull gray color sloping very gradually towards the Northeast.

The sand beach ends against a table land about three hundred and fifty feet high projecting in an East-Southeast direction from the mountain mass behind it, and forming

at its extremity a small semicircular cove not quite half a mile across and open towards the north. We noticed two small houses in this cove, apparently close under the foot of the bluff, and also a small sloop hauled out of the water beyond the reach of the surf near them. There are some rocks close under the extremity of the point.* This is undoubtedly Promontory Cove proper, and not as it is given on the present published chart to the southward of this point where there is also a ~~bight~~ in front of a recession of the high table land but which seems to have a number of rocks in front of it.* Applegate has anchorages marked on either side of this point, I believe, and I have been informed vessels have anchored in both places. The cove to the northward of the point is much more protected and I have learned from a shipmaster well known to me that he has anchored there and had protection from southerly wind but not from the swell which rolls around the point. The bottom is sandy and the shoaling towards the beach very gradual. At the southern end of the broader bight to the southward of the point there is a higher table land, five hundred and forty feet above the sea, and with an ocean face over one mile in length in an approximate northwest and southeast direction. I believe this is the "Promontory" of the present published chart. We saw in passing it a tall, white spar erected on the top of the bluff which I had not noticed when I passed along this coast, a mile further off however, on

Progromnoi Faris

No Name Westdahl

Flat Peak

Same size

Same size

Faris Westdahl

View of Progromnoi, No Name, and Flat Peak, from

Unimak Pass

6274

July 26. Captain Gilbert of the "Pathfinder" extended his plane-table survey to this point and this may have been the mark of his ending point, of which I had no knowledge when this reconnaissance was made. For a description of the coast hence to Scotch Cap Cape I beg to refer to his report as he had better opportunities to study it. I may relate here that when he saw this reconnaissance in Dutch Harbor he remarked that we had given the same name to "Arch Point", which is a rocky projection with a sand beach on either side of it, some rocks close in around it, and a well defined arch, Gothic in form, through the extremity of the point. For a vessel approaching close to this shore in such foggy weather as when the lower rim of the land only can be seen this is, next to Scotch Cap, the best distinguishing feature of Cape Khituk.

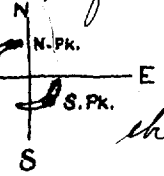
Mountains on Unimak Island. Shishaldin Volcano is the highest mountain on the island, and it vies with Mount St. Helens in Washington in being in outline the most regular cone I know of on the Pacific coast of the United States. It is an active volcano and the discharges from its crater come in puffs like steam at first and rising probably one hundred feet and more above its summit, then turn darker in color and stream off horizontally with the direction of the wind. In calm weather the continuous discharges are seen to rise in a column more than one thousand feet above it and gradually spread out in a dark cloud. When the wind blows hard over the summit the smoke is beaten down and follows

Face to "
westerly
See Rep Top Sheet 2553-54
Hyd " 2556-57

View from near Pankof Δ

6274

the slope on the lee side of the peak. The snowy mantle of the mountain becomes dark after brief days of calm weather: then clouds envelop it, snow falls, and the mountain again emerges clad in pure white. The snow line reached, on September 21st, down to an estimated height of twenty-eight hundred feet above the sea. At about three thousand feet below the summit the regular cone begins to spread out, and at four thousand feet there is a projecting spur to the westward. Glacier carved canyons begin at about four thousand feet or more below the summit, and from them issue, at a much lower level, streams which spread out into broad and shallow water courses, apparently dry at this season of the year, over the very gentle slopes to the sea. These lower slopes seem to be covered with ashes and scoriæ, and when the wind blows clouds of dust are driven along them. The ridge connecting Shishaldin with its neighbor to the eastward is probably not more than two thousand feet above the sea.

Isanotski Peaks. Eight and a half nautical miles East-northeast from the summit of Shishaldin are the double peaks of Isanotski Mountain. When these peaks are closely studied in their varying aspects, from broad to slender, from Ikatan Bay and around to the westward of them in Unimak Bay they are seen to be the remains of the rim of a crater disposed something like this: 

The points determined in the triangulation are the very highest pinnacles on the two remnants of the rim. If this theory is right the

View of Phogromnfi, bearing W. by S. (mag.) dist. 14 miles

View from top of South Point of West Anchor Cove

mountain may at some time have rivalled Shishaldin in height. Its sides are extremely rugged and apparently somewhat concave near the summit; as if the mountain had been hollow and the accumulation of ice and snow upon it had crushed its sides inward. In broaching this theory to Mr. Applegate he informed me that an old native, recently dead, claimed to have seen this mountain crumble. I can scarcely believe that such a catastrophe, if it has taken place at all, happened at so recent a date without attracting the attention of some of the Russian traders living among the natives. The fact that the mountain is still so rugged, that the chasms created by the supposed caving in are not yet filled by the annual accumulations of snow as on both of its neighbors, would seem to favor a comparatively recent date.

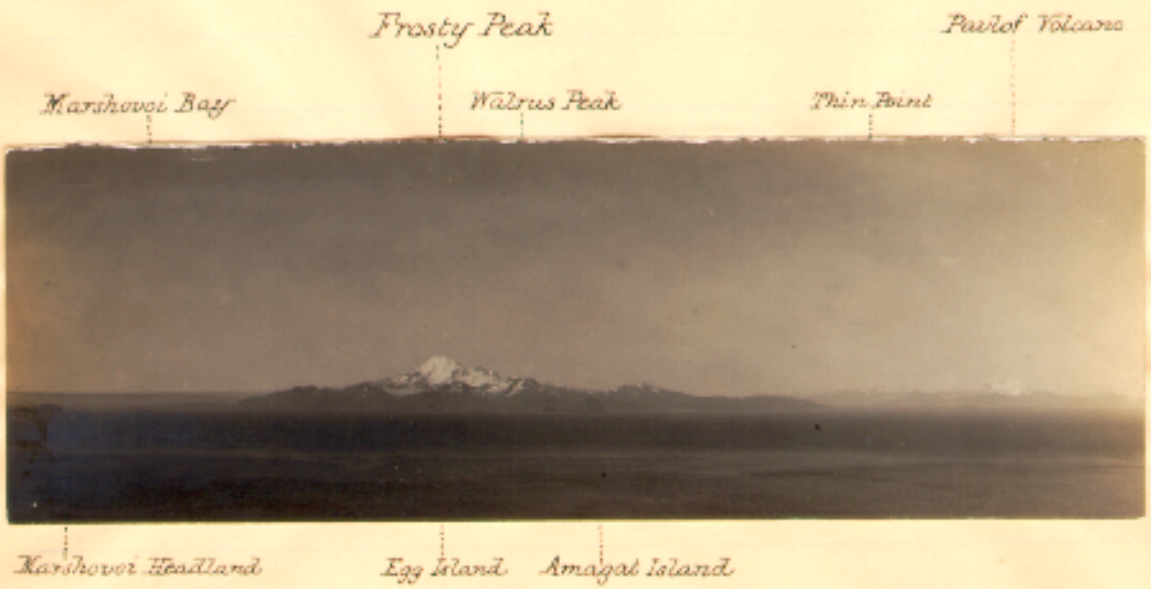
Round Top, five miles northeastward from Isanotski, a mountain is probably also an extinct volcano. It is apparently the highest of a group of peaks on the southeast end of Unimak Island and has a rounded, broad summit of snow and ice through which only here and there is seen a projecting dark mass of rock even in midsummer.

Progromni Volcano is the highest peak in the mass of mountains forming the western end of Unimak Island. It does not seem to rise from the main ridge, however, but from the eastern slope of it. A short distance to

the eastward of it is seen a much lower peak, almost its exact counterpart in appearance but much smaller in dimensions. Progonnoi is a regular cone in outline, but its sides seem more angular and rugged than Shishaldin and its rocky ribs and projections more numerous and bare. We saw no smoke issuing from it at any time this season, but we have not seen much of the mountain except while making this reconnaissance. I have a faint recollection of having seen smoke issuing from it in August, 1866.

Ko Kamo* and Westdahl* Flat Peak are two snow covered peaks apparently rising from the main ridge of this part of the island to the southward of Progonnoi. The former appellation is caused by its being mistaken for Progonnoi in the triangulation by Assistant Faris, who called the latter mountain "Black Cone". When he saw both at comparatively close quarters for the first time during this reconnaissance the mistake was rectified. Black Cone would, however, not fit as a descriptive appellation to the other peak and therefore it was left as "Ko Kamo". I respectfully suggest that the Superintendent name both of these, if there are no names given to them on existing charts. "Flat Peak", for instance, while in a measure descriptive, was adopted simply as an identification in the triangulation record. The same is true of Round Top.

There are also some mountains determined in the



View from near Pankof △

triangulation near the northeastern limit of the sheet of which I know nothing beyond what the sketches already sent, and the photographs herewith show. The most important of these is Frosty Peak, so called on the present published chart. It is a noble looking mountain and deserves a name more in conformity with its grandeur. I respectfully suggest that the Superintendent name this also. Walrus Peak is the southernmost of four sharp pinnacles of almost equal height rising from a narrow ridge on the peninsula to the northward of Amagat Island.

Egg Island is composed of a narrow ridge of basaltic rock, three hundred feet high, with a grassy top and a shingle beach around it. The highest point of this small island was determined in the triangulation and its dimensions defined by observed tangents from the ship. There is a fairly good anchorage to the southward of this island and a spit running eastward from it to the mainland, in northerly gales blowing out of Marshoo Bay. This spit is said to be uncovered at the lowest tides but I did not see it at such times. It can always be seen, however, on account of its reddish color from the seaweed growing upon it. I anchored in seven fathoms over sandy bottom and found it a fairly comfortable berth during a strong gale from the northward. The wind was felt but the water was smooth under this island and spit, while beyond it there was quite a

rough sea running.

Amagat Island rises to a peak ten hundred and thirty feet above the sea at its southeast end, and to six hundred feet for half its length to the northwest. From the west side of its northwest point a short reef composed of several pinnacle rocks and some low rocks extends about one-quarter of a mile to the westward, and from the east side a very short shingle spit. The sides of the island are so steep that climbing it is difficult, but the top and even the sides are covered with grass except at the steepest parts where no soil will rest. On account of the almost inaccessible character of the highest peak, and also because fog from Marshovo Bay generally hangs around it longer than on the lower northern end the triangulation station was located on the latter. The peak was also determined, however, and the dimensions of the island obtained approximately by cuts from the ship. There is said to be a clear passage for vessels between this island and the mainland, and an anchorage under the northeast side of the island.

Umga Islet is composed of basaltic rock and it rises to a height of two hundred and fifty feet above the sea at the southeast end but falls away in a comparatively gentle slope towards the northwest end. There is a boat landing at the latter end in smooth weather in a little bight formed by an opening between two dykes of rock. The islet is covered

with grass above the reach of the waves. About one hundred feet above the present high water mark are plain markings of a former wave-worn shoreline on the two sides of the island seen from the ship, the northwest and southwest sides. There are depths of forty fathoms close to on these sides, but to the eastward and southward foul bottom is said to exist. Pavlof reports having seen breakers on a reef running several hundred yards from it in the direction of Fox Island, but nothing could be seen of it even when occupying the station on the summit.

Midway Rock is a small islet composed of basaltic rock which rises to a height of sixty-seven feet above the sea at its highest point where the triangulation station is located. About one-third of its area in the middle is covered with grass and the rest consists of bare, black ledges. Close under its northeast side lies a rock separated from the main mass by a narrow boat passage. About one-quarter of a mile to the northwestward lies a small rock awash at high water, and at about half that distance to the northeast a long, flat reef awash at half tide. There are depths of forty fathoms close to the islet on the southwest and southeast sides.

Hydrography. All the soundings shown on this sheet are given in fathoms. They have not been reduced for tide. While cruising to the southward of Sannak Islands

in search of the Leonard, and other rocks reported in that vicinity, tides were observed in Peterson Bay; but the soundings obtained are all so deep that I did not deem it worth while to apply any correction for tide. Nor could a reliable plane of reference be deduced from the short series of observations at Peterson Bay without referring them to the self-registering gauge at Dutch Harbor to the readings on which I have had no access. While the search was made for the Alrek Rock, on September 29, and for the Hennig Rock on September 30, I had no tide-gauge in position and my party all on board ready for the return passage. The least water found on Alrek Rock is nine fathoms, which may reduce to eight and a half. This is also true of the Crowley Rock, found on September 16th, at which time I had the party on board, moving from Caton Harbor to take up work near Cape Lazareff, and put into Achirk Harbor to fill water in passing. When the reconnaissance was made from Otter Cove along the shore of Unimak Island to Scotch Cap Cape there were no tides observed anywhere by this party, but I knew the gauge at Dutch Harbor was kept in operation and that the Office would be able to adjust the soundings when all the records are in.

Tides have been observed by this party during the season as follows: near the Astronomical Station in Ikatan Bay from July 18 to 31, under very adverse conditions and

mostly day tides only: in Dora Harbor from July 28 to 30 while sounding the bay: at East Anchor Cove on August 3 and 5 while sounding: in Achenk Harbor from August 9 to 15: in Northeast Harbor on August 23, while sounding: and in Peterson Bay from August 27 to September 10.

Currents were observed on three nights, while the ship was anchored with a kedge and line in thirty-four, fifty, and forty-seven fathoms respectively, southwestward of Samnak Islands and engaged in the search for the reported outlying rocks while daylight lasted.

Wherever the ship has anchored within the limits of this sheet an anchor is marked, and alongside of it the depth in fathoms recorded in the ships log, excepting in the anchorages which have been sounded out. These are as follows: Dora Harbor, East Anchor Cove, Achenk Harbor, Northeast Harbor, and Peterson Bay. The hydrographic work executed in these places is plotted on a separate sheet.

Names. The names applied to islands, capes, mountains, etc. in the region represented on this sheet seem to be of threefold origin, Aboriginal, Russian, and American. I have been guided by Chart No. 8800, so far as it goes, and by information received from Paul N. Pavlof, the pilot employed on the ship during the season, who, though born in Alaska, claims to have spent several years in

Views of the West side of Isanotski Pass

St. Petersburg at a polytechnic School. I know nothing of the Russian language personally and in the following notes about Russian names quote information obtained from Pavlof, who has spent many years in this region in the service of the Russian American Company, the Alaska Commercial Company, and as an independent trader.

Unimak is of native origin and is pronounced both by natives and Russians as if spelled Ooi-nee'-mak.

Shishaldin is probably a Russian name and is pronounced as spelled with accent on second syllable.

Isanotski, pronounced Ee-sah'-ot-ski, may be a Russian name, possibly the genetive form of Isanof. The same name is given to the mountain and the strait. In Bancrofts History of Alaska, in the account of Baranofs expedition of 1791, the latter is called Isannakh Strait, which sounds like a native name and may be the original of the later appellation.

Morzovoi, Marshovo, and Morzhovoi, the two first from Chart No. 8800, and the last from Bulletin No. 40, are different spellings of the same Russian word which means "Walrus" and is pronounced Mor-sho'-vĭ. The village on the east side of Isanotski Pass, called Morzovoi on chart 8800, is known to the natives and others living there as Protassof.

Sankik Island is the native name, not Sankin as

View of Cape Pankof, from Acherk Hill △

given on Chart 8800.

Ikatok, I am informed, is the name applied to the whole peninsula and not alone to the point upon which Ikatan △ is located, although this is called Ikatok Point in Bulletin No. 40. I did not notice this until after I had referred to this point in the records and descriptive reports as Ikatan Point. Both names are supposed to be of native origin.

Ikatok Peak, the highest on the peninsula, was named by the party.

East and West Anchor Cove are names given on Chart 8800 and explain themselves.

Otter Cove may be a translation of the Russian name, like Deer, Fox, Egg, and Bird Islands.

Cape Pankof is a Russian name, probably from Pankof, who was interpreter for Rezanof in 1805.

Dora Harbor is the only name heard of for this anchorage. Bulletin No. 40 has "Lords Harbor, locally known as Dora Harbor." I have never heard the former name, and understand the latter name to be derived from A. C. Co's steamer "Dora", one of the first to enter the harbor. Dora Peak, the next highest on the peninsula, was named by the party.

Cape Lazaroff is a Russian name. In Bancrofts History a Captain Lozaref is mentioned as commanding an expedition in 1813-14.

Cape Khituk is a native word and means "Seal"

Sannak Islands. This is an aboriginal word, but I did not learn its meaning. It was called "Halibut" Island by Cook in 1778.

The names given to the various islands of the Sannak group on this sheet were obtained by Messrs. Fair and Leland from the natives and white men living here and are those by which they are now known.

Achcrk or Company Harbor. No one living on the island has ever heard the name Achcrk applied to this harbor. It is universally called Company Harbor. On Applegate's sketch-map and in Bulletin No. 40 it is designated as Achcrk Harbor. I endeavored to find some explanation for the word, and Pavlof told me it resembled a Russian word Achák, meaning "fire-place". In the descriptive report of Sannak Islands I have stated, upon the authority of Pavlof, that the name probably originated from the fact that this harbor is the only place in the islands where the natives or Russians were formerly permitted to live. I have since obtained from Captain Kibaum, of the Alaska Commercial Company, a much simpler, and probably the true explanation, and Tebenkof's Atlas confirms it. The Russian word "Otcherk" means "Sketch," and on Tebenkof's Atlas is printed as title for this harbor "Otcherk gavanni na NW storoni ostro Sannakh." (Sketch of harbor on NW. side of Sannakh.) Captain Kibaum

informs me the "a" and "o" sounds are often interchangable in Russian.

Murphys Crack, Pavlof Harbor, Johnsons Bay, Finneys Island, Caton Island and Harbor, Peterson Bay and Island, are all named for traders and white men who lived in these places in recent years. Lida, Wanda, Saranna, Imikla, Umla, and Telmitz Islands are native or Russian names. Long, Trinity and Sisters Islands are probably translations of native or Russian names suggested by the shape or appearance of the objects. The natives generally understand and speak the Russian language. Chernabura is the Russian for "brown." Although the names do not appear on this sheet I may mention as interesting facts, according to Pavlof, that Kalcakta Bay and Cape, Unalaska Island, is a native corruption of the Russian word "Kalrktor" which means Customs Officer or Collector in fact; and that Bogoslof Island, literally translated, is the Russian for "By the will (or power) of God", alluding doubtless to the recent volcanic origin of that island.

The names of the reported outlying rocks I have given on this sheet as Leonard Rock and Henning Rocks. After consulting the records of the Alaska Commercial Company I find that Chart No. 8800 is right as to "Hennig" but that "Leonard" is the correct spelling instead of "Lenard" as on the chart. Hennig and Leonard were both masters of vessels in the service of this company. "Rock" is simply an abbre-

viation

of Alexander or Alexis and is generally spelled as above.

I do not deem it necessary to write a descriptive report for the accompanying hydrographic sheet of harbors and anchorages within the limits of this sheet as these places have been described in preceding reports for this season to which I beg to refer

Respectfully submitted
Ferdinand Westdahl
Assistant

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 25-ab

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

April 12, 1927.

To: The Chief,
Division of Charts.

From: The Chief,
Division of Tides and Currents.

Subject: Hydrographic Sheet 2557.

The plane of reference used for the reduction of soundings for East Anchor Cove, Unimak Island, Alaska, corresponds approximately to the plane of mean lower low water.

G Rude

Chief, Division of Tides and Currents.

2557 4